ald her at least 1,000,000 spindles peratron she has only some 200,000 at Nova Notice and among the hardy shemen of our shores and Newfounds ad Carcleth fu tories have hitherto , a taxed to their numest capacity to . If 'v one own demand, and no means we have taken to push the sale of our lothe in the neighbouring provinces, near their superior lasting qualities and sub-kiv displace the imported to a phoddy cloths. The manufacture agricultural implements is one which to be largely prosecuted here the imported iron, of which they are lard made passes our province on its any to Ontario, pays freight both ways, wats commissions, etc., before it eaches the consumer here. In the ame way woodenware and carriage materal which from their bulky nature quet pay beavy rallway charges, are the whelly imported the course many these industries are beyond the means any one man, but by means of incorporated companies the amount required and be raised. We have men of as and business repacity as in any other ity and all that is needed is to chilst ome of the monoy lying idle in the sarings and other banks. In the keen empetition that may arise in later years, the olds will be in favour of the man with the nowest and most conomical machinery, chesp coal and labour The i tmer is obtainable by close investiga-1100, while the latter we already have berlottetown Examiner

Wr. Hugh Macdonald, late of the firm of nerdou, Mackay & Co, la making atrenuis thorts to establish a cotton print facory in Toronto. The Ontarlo Governwent has promised the old Asylum name house property for a site for the rest will, and he is now negotiating with the Dominion Government for the must must suitable lot for a cotton mill. leing a lot facing Strachan avenue, and " tear of the immigrant sheds, and inper to succeed The factory will give imployment to about 1,500 opera-

A company has been formed with a cupital of \$200,000 for the purpose of manufacturing grape augar and syrups among the sharcholders are Mesars. Strker, of Buffalo, Hon. T. M. Gibbs, 1 Oshawa, ex-Aid. McGee, Holt, Lees. and Blackstock of this city. A charter in carry on business has been applied or, and in two weeks the erection of a nine storey red brick refinery, to be ocated on the east corner of Esplanade and Princess street, will be commenced. Work on the factory will be continued at hight by the aid of a calcium light, in rier to have the building finished by the first of next January. The building the first of next January The building will be 132 feet long by 104 wide, and the foundation will be built of Credit latter stone. Tenders for the construction of the factory will be advertised for One hundred and fifty beumpd dollars of the capital stink has streads been subscribed. It will a quire 150 hands to perform the work with the "haery is in running order, and as it will erun day and night a double staff of mployees will be required .- Teronte

"NTARIO EXPERIMENTAL FARM

The advance report of Professiv Brown. Supernatendent of the Untario Experimen-al farm, for the present year has just teen made public. It is of considerable retended public. It is of considerable interest on account of the results which increased a number of experiments carried on in that institution for the introduced of testing the comparitive values of rancounterbods of feeding cattle with a view to the ultimate profit of the stock-ruser. The problems which it was desired. raiser. The problems which it was desired to solves were mainly the comparative value of (1) prepared and unprepared hay and roots in the fattening of cattle; (2) be cost and profit of two and three year ild steers; (3) does it pay to fatten cattle is steers; (3) does it pay to fatten cattle; for manure production only?; (4) the value of a manure heap; (5) the outsparative size reight and value of various grades of fat shearing wethers; (6) corn, at and pease in the fattening of cattle. He results of these experiments, which teem to have been conducted with every are and in a candid spirit of impartial valuers are summed up as follows:—

A steady, froaty winter is batter than

A steady, frosty winter is better than open one in feeding cattle. ... An average two or three year old steer will rat its own weight, of different materials, hiw weeks. 3. Two or three year old atte will add one-third of a pound more lared hay and roots then upon the same materials unprepared. 4. It is 30 per cent more profitable to pre-mature and dispose of fattening cattle at two years old them to keep them up to three years. 6. There is 20 loss in feeding a cattle beast well upon manure alone 26 Farm-yard manure from well ted cattle, three years old, is worth an average of \$330 per ton. 7 A three years old cattle beast, well fed, will give at Tast one ton of manues every month of minter. * No cattle beast whatever will winter. * No cattle least whatever will lay for the direct increase to its weight rum the coasumption of any kind or quantity of food 9 Un an average it costs wrive cents for every additional pound of first added to the weight of a two or three year old intening steer.

In this country the market value of lore cattle can be increased 36 per cent. Juring six months of finishing by good feeding. 11. In order to secure a safe profit no store cattle beast, well done to

can be sold at less than 4 cents per almits daily increase per beal, while the littled States, and while of wetbers, to though a shearings, the littled States, and while of wetbers, to though as shearings, the peace record one-ball yound more daily that may be the cause of this? It was sixth less bay than when receiving corn or trace, those on less meat will drink onethird more water than those upon corn or oata. Clover lessens the consumption of ground cora passes through the cattle beast undigreted. 16, Pra meal (rough ground) gives 21 per cent, greater returns in fattening cattle than either corn or oate

Several of these conclusions are of the during winter 1830-81 as a great deal of the success or non-success or animal fattening depends on regularity in this as in any other thing. We have in all our experience gathered the important fact that alternations of much frost and many thawings seriously affect the rate of progress, that mild winters are not so good as steady moderate frosty one." Conclusions 3, 4, 14, 15 and 16 are also particularly notaworthy. Too feeding of cattle on the unprepared food, the Professor points out, is unquestionably a great loss to the country, as "the Province of Ontario has been preparing during the past winter about 100,000 head of three-year old cattle for the British tarket, and asduring winter 1830-81 as a great deal of old cattle for the British market, and assuming, for the sake of applying this les-son, that they have all been of the same stamp and treated to rough or upprepared stamp and treated to rough or unprepared food, similar to our experiment during all months of stall-freding, the loss will have been 7,200,000 los. of beef, or 5 (00 head of cattle—value at least \$120,000." As to the comparative value of oats and peas for the purpose of fattening cattle, the

"Supposing all faith were placed in the chemical analysis of any kind of food, and it stood as an invariable fact that the fattentes animal made most progress in a given time upon that which contains the most fat and flesh-forming materials in the form of albuminoids and curbobydrates, it would result that corn, oats and pease made beef bist in the order given respectively. Curn possesses a larger per-centage of fatty and oily meterials, in comparison with outs and pease, pease being considerably less one outs, total also bas one-fourth more statch than either of the others, though lest engar; oats being four times bearier in suger than corn or pease. Corn is characterized for its albu-mizoids, and oats for its carboby drates. The water in each of the toods is practi-cally slike, and the only ren a kable difference not yet referred to la the possession by pease of fully one-half more of what are called firsh-furmers as against corn and

oats.
"The interesting and practical point therefore is, does experience, in must cases, agree with the chemical facts, espe-cially in regard to the fattening of cattle, and what, so far, has been the test of the Ontario Experimental Farm treatment? To-day (25th June) we closed an experiment spe laily arranged with these grains, having been very carefully carried out for 75 days. The animals were fair, but not extra samples of three-year old Bhorthorn and Herstord grade steers, one of each in each of the three batches. We had three animals in each of the classes all throughout, but owing to several causes it was considered best to coofine the experiment to the six that stood nearest each other in to the six that stood nearest each other in every respect, such as size, quality and apparent disposition. They were allowed to settle down' by receiving one week's food similar to their subsequent treatment respectively, all being tied up in a cool open abed away from other cattle. As the experiment began on the 12th of April.

of each division.

FOOD CONSUMED DURING 75 DAYS, BY GHE

ARIBAN						
For each of the three divisions.						
Turnice	3.325 lbe.					
MAD#0]d4	We :					
(iraia	667					
Bran	30 "					
hey	253					
Urean fodder	201					

"The cattle receiving oats are one-sixth less bay, and those on cora one-fith less than above given. Those on pease drank one-third more water than either of the others. When the bay was "cluvery" the animals would not take so much routs as when timothy abounded; the change from hay to green todders did not scoar. It was particularly noticeable that more corn came through the animals undigested than either onts or pease. Peeding was conducted, as regards time of day, etc., similar to that specified in chapter one. Food was weighed at every meat

RESULT IN INCREASED WEIGHT.

	Weight on Entry.	Weight at Floub.	Total In- creare.	Daily In- erease.
ern	114 116 120 120 120	164. 1511 1265 1257	154. 108 110 145 121	162

pound (live weight) 12 In the fattening of weibers, to flow has shearings, the Cotswold and Leiccher grades can be made up to 200 pounds, the third flown 180 pounds, and the Southdown (grades) 100 pounds each (live weight) 11 County biting woulsn'd flesh value, the Southdown grade gives the highest returns—down grade gives the highest returns—down grade gives the highest returns—the authority it must be sought for in the forthcoming autumn meeting to the properties of the food. I am not present the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the hold in London The incetting the forthcoming autumn meeting to the forthcoming autumn meeting peration she has only some 200,000 to peration she has been suggested as much as double that of the Consuid the humber camps of New Branswick to the hardy she men of our shores and Newfounds and the Southbown (grades) the South of the South of an as human skill was concerned, and consequently it must be sought for in the lumber camps of New Branswick lefterest as also slightly in advance of the Unford Down grade. Its present, but would again simply draw the she men of our shores and Newfounds at the present, but would again simply draw the she may be a served to bande the part of the subject at present, but would again simply draw the she was received. noted, and particularly to the much greater proportion of flesh-forming materials existing in pease, which means the making of more muscle and lean as against the lighter off and fatty matters

COST OF PRODUCTION.

"Without reference, meantime, to the crediting of any steme so as to make a pro-ter balados abest as exhibited in other parts of the report, it will suffice to note the actual cost of producing the several

waiket,	04	MG W.	verage, at	htesept.	
				Per	pound.
Uoru		••••	••••	•••••	1416
Pease	••••	•• •• • • •• •••		••••	Ha

"This is no less than 21 per cent in favour of pease, which is inquiralent to \$4.50 per head of increased profit during one winter's feeding, or \$4,500 in a stable of 1,000 head

Is there not reflection here for a very important untional question with us? Much of our agricultural talk of late has a about the inability of the province to grow corn and the restriction put upon its grow corn and the restriction put upon its importation from the States. But, after all, is corn the cheapest producer of beef—weight for weight and price for price with other cuates grains easily and cheaply cultivated in Ontario?"

The answer to this question, according to the results of the least at the Exerti-

to the results of the costs at the Experi-mental Farm, must be decidedly in the

INLAND REVENUE.

Unrevised statement of Inlan	d Revenues
for the fiscal year ended 30th Ju	ine. 1881
Source of Reveaus.	Amonnt
	\$3.241,442 04
	6 2 11 (10
Malt liquor	316.00 78
Tobacco	1.777.030 81
Petroleum inspection	
Manufactures in band	10.440 32
hairaras	6.008 03
beirares Uther receipts	. 13,180 10
Other receibts	,,,,,,,
Total Kraice Revenue.	\$3.4 0.993 67
Total Excise Revenue.	\$1,4 0,903 67
Canala	340 401 83
Canala	380 HOZ 353 79,849 20
Canala	3.90 nO2 ss 79,849 20 70,865 66
Canals Slides and booms Hydramino and other rents Minor public Works	3.90 nO2 ss 79,849 20 70,865 66
Canals Slides and booms Hydraulio and other rents Minor public Works Calling timber	3.90 MOZ 93 79,849 20 70,945 66 31 U18 15 36,340 89
Canals Slides and booms Hydraulio and other rents Minor public Works Calling timber Lacepetion of weights and men	. 389 HOZ 93 79,849 20 79,845 46 31 018 15 36,360 89 34,844 65
Canals Sides and booms Hirdrantic and other rents Minor public Works Calling timber Inspection of weights and mea	3.92 FO2 WS 79,849 20 79,845 66 31,945 66 31,945 89 34,844 85 22,210 80
Canals Slides and booms liydrawlicand other rents Minor public Works Calling timber Inspection of weights and mea surce Laspection of gas	3.90 FO2 WS 79,849 20 90,993 66 31 UIS 15 36,390 89 34,584 85 2,210 80
Canals Sides and booms Hirdrantic and other rents Minor public Works Calling timber Inspection of weights and mea	3.90 FO2 WS 79,849 20 90,993 66 31 UIS 15 36,390 89 34,584 85 2,210 80

PUBLIC WORKS IN CANADA

Total,.. \$6,151,182 77

The following is the programme of the approaching efficial visit of fir Hectur Langevin, Minister of Public Works, to different places in the Province of Ontario: Thorsday, August 18th, leave Ottawa, 1030 p.m. Friday, 19th, arrive Kingston, 447 a.m.; leave Kingston, 425 p.m.; arrive Toronto, 1, 15 p.m. Saturday, 20th, Toronto, Sunday, 21st, Toronto, Monday, 22nd, leave Toronto, 1 riage, (25 miles) to Kincardine. Thursday, 25th, leave Kincardine, carriage or boat, (25 miles) to Goderich. Friday, 26th, leave Goderich, 9 30 a.m.; arrive Saraia, 3 30 p.m.; leave darnia, 6 30 p.m. (via Port Huron); arrive Windsor, 9.30 p.m. Saturday, 27tu, leave Windsor, 6 45 a.m. (via Detroit); arrive Windsor, 6 45 a.m. Sunday, 28th, leave Amherstburg, 1.35 p.m. Sunday, 28th, leave Amherstburg, 8.30 a.m.; arrive St Thomas, 8 20 a.m. Munday, 29th, leave St. Thomas, 12 68 p.m.; arrive London, 1.40 p.m. Tuesday, 30th, leave London, 8 30 a.m.; arrive Stratford, 9 30 a.m. Wedneaday, 31st, leave Stratford, 2.30 p.m., arrive Berlin, 337 p.m. Thureday, September 1st, leave Berlin, 10 30 a.m.; arrive Toronto, 1.03 experiment began on the 12th of April, Munday, 29th, leave St. Thomas, 12 58 warm weather was soon experienced, so that during the latter part of the term the thermometer was often at 80 deg. and 85 deg. in the shade, this told heavily against the average daily increase per head in comparison with winter practice, but of course it told equally for coin, oats and pease All grain was roughly ground, being neither fine nor very rough; tursips pulped, and hay long.

'In discussing the results of this experiment, we will refer to the average animal of each division.

Munday, 29th, leave St. Thomas, 12 58 p.m., in pin, i

A supplementary statement of the annual report of the Minister of Marine and Fisheries for the year 1880 has just been issued, and contains some interesting information. The expenditure and receipts for the several Provinces during the year ending June 30th, 1880, were as fol-

ows		
	penditure	Receipts
-	S ets.	\$ et
Ostavia	17,304 04	6 4/5 9
Ostario Quebes	19,173 20	7,124 (
NOTE HOOLIS	17,503 71	1,000 7
New Brusswick	11,601 0	4.3.4 (
Prince Kdward Island	7.174 1/3	. ₩ C
British Columbia.	1,349 92	10 (
Manitoba	19 75	• • • •
Total	20,472 49	19,123
General disbursement	, 	\$5,715 (
Licenses of all kin	is traced v	rero 4,334
The staff of fishery o	Closes emp	lo red co z
sisted of 694 persons	. who we	e sulsie
he look masses on	0.5.00	
h = 1 The Allert All	LACTED DE	nt canal

by lock masters on Government canala, air. For fish calture, \$29,109 81 was ex-pended among the ten establishments now deruted to the artificial reproduction of The number of figh placed in the estab-

The number of this blacked in the estab-lishments were, salmon, 3,300,000; Cali-fornia salmon, 60,000; salmon trout. 8,50-000; speckled trout. 30,000; whitefish, 14,300,000; total, 21,520,600, or about 200 less than the number distributed in 1879

adjourned to vesterday, when the chair was occupied by Sir Henry Bessemer, and several important members were present. It was determined that the autumn meeting of the Institute should commence on Tuesday, the 11th of October, and besides the usual reading to desired construmation. The public, of papers it was suggested that a con- a before remarked, are now in the mood of papers it was suggested that a conversazione should be held-probably at the South Kensington Museum-on one part. evening, while the annual dinner of the Institute would occupy another Visita to the works of the London, lirighton and South Coast Railway at Brighton, to Dr Siemens telegraph works to Woolswich Arsenal, and to the Government amail arms factories at Enfield, were amongst the excursions which it was proposed to make, and it was hoped that arrangements might be organized to cnable the members to visit the Victoria Docks one afternoon, and see them ill up by the electric light afterwards. An executive committee was nominated to settle upon the programme, and a sub-scription list was opened, which was liberally responded to by those members present as a commencement.—Engineering, July 15.

ANIMAL VACCINATION.

London, 10th —Prof Pasteur's address before the International Medical Congress on Animal Vaccination created considerable seasation. He stated that France rance sensation is stated that France loss every year, by splenio fever, sheep to the value of 20,000,000 france He said that fifty sheep were placed at his disposal, of which twenty-five were racelesses. cinated. A fortnight afterward the filly sheep were inoculated with the most virusuccep were inoculated with the most virtilent authracold microbs. Twenty-five
vaccinated sheep resisted infection;
twenty-five puraccinated sied of splenic
fever Since that time the Professor's
spergies have been taxed to meet the demands of farmers for vaccine. In twenty-five days there were vaccinated in the departments surrounding Paris, more than 20,000 sheep, and a large number of cattle and horses. The Professor said — "If I were not present for time I could bring to your notice two other kinds of virus attended by similar means. These experiments will be made public by-and-

THE CASH SYSTEM IN OREAT BRITAIN.

When "The old order changeth, giving place to the new," wise men re-cognize the force of the change, and arrange their affairs accordingly. It is adhere to old fashions and customs, but not when they coase to pay. As soon as they result, commercially speaking, in a loss, they ought to be abandoned, fo. it is not well to be out of harmony with the spirit of the times. This is a fact which cannot be too thoroughly appreciated by the retail traders of this country Their vocation has lately undegone £195,775 . rest, £3,348,060-increase, a.m. (via Guelph); arrive _uthampton, a material change—one might almost way 4 10 p.m. Tuesday, 23rd, leave Southampton, carriage, (5 miles) to Port Bigin, business on precisely the old lines—Wednesday, 24th, leave Port Bigin, carriage, (25 miles) to Kincardine. Thursday, carriage or boat. a material change—one might almost way the manner of their foreithers, and who refuse to recognize the altered actuation, will sooner or later find an avenging Nemesis at their hoels, whose monitions will be of an extremely disagreeable character. Traders depend upon the public, and must, therefore, study public opinion, and be in harmony with it They may just as well run their heads against a brick wall as try to oppose public opinion, and the wise man is he who humours it, pampers it, and makes money out of it.

One fact has become clearly evident of public opinion has pronounced against long crodit, high prices, and big profits. Public opinion is, so to speak, yearning to pay case, and in this second controlled to the second controlled in this respect certainly it must have its desires gratified. We have been advocating for a long time past the adoption of the cash system to the utmost extent practicable, and we are gled to know that many of our readers in different parts of the country have adopted this system with advantageous results. The main idea is, of course, to show that the retail trader, if customers pay him cash, can supply goods on terms as favourable as, if not more favourable favourable as, if not more tavourable than, any large organization managed on co-operative or any other principles, and the extensive dissemination of such knowledge will de much good to the trading classes generally. The British public is so easily tickled, We are all familiar with Carlylo's elegant description of the population of these islands—"mostly fools"—and occasionally in "mostly fools"—and occasionally in dealings with our fellow creatures this description is worth remembrance. Let the British public pay each by all means give them every facility for doing so, and show them that they are remarkably wise in this aspiration. The man who pays each certainly ought not to pay so much as the man who does not pay cash, and perhaps nover pays at all, and this is a distinction which traders must make known to their customers.

The number of German emigrants who which the difference in receive for cash held that that was sufficient evidence of passed through Hamburg alone to and for credit is clearly set torth in adservice, and in the absence of Res Lord-America, from the 1st of January to the joining columns, and this plan, we besting gave immediate judgment against likes, has been almost invariably found him with coats.

"Core and oats, therefore gave a THE IRON AND STEEL INSTI- to work satisfactorily. When endowers ate able to calculate upon a specific saving of several shillings in their weekly grovers bill by paying ready money, they have a strong inducement to pay eash, and such inducement will generally be sufficient. We are confident that in the long run the system will be found to work well. Grocers have at present such extraordinary competition to meet that they annot make too vigorous afforts to utterly crush the ancient credit system, and raise in its place the simpler ideal of cash down! They are not likely to have a more favourable opportunity than the present for achieving this much to to juy cash. Our readers must do their part. They must distinctly establish cash prices, they must show their customers that those prices are unquestionably beneficial to them, and help them to save money This being done, the rest is easy. Traders will thus accomplish a very salutary reform, and their customers will owe them an immense debt of gratitude for having done so -London Grocer.

> Wm R. Dickerson, one of the oldest lawyers in Philadelphia, was respected and fairly successful before he went into the great Waittaker will forgery. Now he is broken down, penniess, and a convict.

The North German Gazette is publishing a series of articles levelled against the fallacies of Free Trade. It mys that wherever the principles of Free Trade have been applied they have ruined the agriculturists, degraded the workingmen to mere machines, and converted the country which accepted them into a tributary of Manchester.

A meeting of the shar-holders of the Consolidated Bank was held in Montreal, when a resolution was carried to accept the offer of Mr. George Simpson, broker, of \$260,000, or rather more than 13 per cent, for the balance of the assets. The meeting was a long and animated one, and strong opposition was raised on behalf of the poorer shareholders to the sale of the estate. Mr. Simpson will pay the amount in cash and accept the full liability now devolving upon the liquidators.

The filling up of the vacancy in the English Court of Appeal, caused by the death of the late Lord Justice James bas created an unlooked for difficulty. The Government proposed to appoint Sir George Jessel, a Lord Justice of Appeal, but the latter seems indisposed to the offer except on the condition of being raised to the poerage, and, as the Master of the Bolls in a Jew, it is feared that the House of Lords might decline to admit him into their midet. No Jew has ever set in the floure of Lords, and perhaps good, or at any rate pleasant, to it is no doubt true that strong objections would be made in that Hones sgainet the precedent which would this be cre-

The liant of England returns for the week ending Wednesday the 27th July, when compared with those of the preylous week, show the following results Notes issued, £40,966,150-decrease, £2,638. public deposits, £4,571,166dr. rease, £80,420; other deposite, £28,-320,418—decrosse, £148,493, seven day and other bills, £228,707—decrease, £30,143 , Government securities, £15,is now old fashioned and obsolete, who 885,333—no change, other securities, expect to make a future in trade after £20,105,573—electrose, £186,432; reserve of notes, £13,999,045—increase, £68,378, stock of bullion and coin, £26,-256,550- recrease, £340,130, active circulation, £26,967,105-decrosso, £264,-150, total reserve, £15,030,445-decrease, £75,086.

> The following statistics of New York canal business for the month of July, recently made public, when compared with those of July, 1880, show a startling

contrast -Amount of tolls collected in July. \$85,841 92 lically Amount of tolls collected in July. 105,341 28 Decrease \$19,900 St Decrease \$197,912 31 Number of boats cleared in July, 1911. . 1,010 Number of boats cleared in July, 1890. . 1,566

Decrease Number of boats cleared from the open-ing to August 1, 15x1 Number of boats cleared in 1880. 1100 2,145 Decrease

An action brought by bhanks & Son, ongineers, carrying on business at Leadenball street, to recover of the Right Hon. Lord Henry Lennox the price of a lawn mowing machine, was heard on Wedcesday by Mr. Communissioner Kerr in the City of London Court. The case came before the Court on a previous occasion, when the return to the summons was Not served.'s Mr. Scarlett now said that since that time he had made inquiries at the Carlton Club, and learned that His Lordship was out of town, but had sent for his letters and had received them since the leaving of the summons. His Lordship's secretary had subsequently written to say he know nothing of the account, but that it should be attended Many grocers now issue a price list in to on his retarn to town. His Honour