INDUSTRIAL WORLD

AND NATIONAL ECONOMIST.

DEVOTED TO HOME INDUSTRIES, SCIENCE, COMMERCE, FINANCE, INSURANCE, RAILROADS AND MINING.

III—No. 62. THURSDAY, SEPTEMBER 15, 1881. $3 PER ANNUM.

THE

Industrial World

AND NATIONAL ECONOMIST.

Pu[illegible]

EDERIC NICHOLLS, [illegible]
TORONTO

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[illegible] free, in advance, per year, [illegible]

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COAL AND FLOUR.

The weight of attack from the Free Trade side against the National Policy falls largely upon the coal and flour duties. Declared opponents of the policy think they score a point when they denounce it as being not national, but anti-national in its character because, as they allege, it sets the interests of the Provinces in opposition, each against the other. It aims to force Ontario to buy Nova Scotia coal when it is for her interest to buy from Pennsylvania instead, and similarly, it aims to force Nova Scotia to buy Ontario flour when American flour is to be had much cheaper and nearer at hand. Therefore, they argue, its effect must be to rend the East and West asunder, instead of drawing them together. Taking the case of Ontario first, we venture to assure these open opponents of the National Policy that they are very far astray in their reckonings indeed if they imagine that public opinion in that Province will hold the small duty on imported coal sufficient, were it felt as a burden at all, which we contend it is not, to outweigh the many great and important benefits of the National Policy. It is plain that this tax does not touch the farmers, to begin with, so we shall hear no grumbling from that quarter. But who then does it touch? The dwellers in cities and towns, of course, who use coal, and to make the matter clearer let us divide coal consumers broadly into three classes. First, we may take consumers of some means who use coal for domestic, shop, office or warehouse purposes. If the duty be really a tax paid wholly by the consumer, we may say that consumers of this class are able to pay it, and we may add further, that for the trifling outlay they find themselves repaid several times over through the larger custom and better payments of their neighbours. Next we may put down those manufacturers who use coal in their respective industries, and with them the story is a short one and soon told. The trifle extra which they pay for coal, if they do pay it, after all is but a drop in the bucket compared with the rush of orders, works running full time, and the large increase of productions and sales arising from the life-giving operations of the National Policy on home business. We think that this class of consumers may be set aside, very little grumbling against the coal duty is to be expected from them. And now we come to the "poor man"—he, over whose oppression by the coal-tax the antagonists of the National Policy are shedding their briny tears. Pictures are drawn of the poor man and his family suffering cold the winter through, because of the fifty cents per ton on hard coal. But let us put these pictures from imagination's reckless brush beside the clear outline of hard facts, and see how they will stand the test. Of those who can fairly be called "poor" men, very few use over four tons of coal in the season, or indeed as much as that, but let us say five tons, which will make this outrageous tax $2.50 per annum. Now, if the "poor man" aforesaid happens to get just two or three days work in the year more than he would have got, but for the National Policy, he is even as far as the coal duty is concerned. But he gets far more than that, aye, twenty times more. He gets it not only in the shape of better wages per day, but still further in the shape of steadier work—more days' work in the year. We firmly believe that working men generally know how to "put this and that together," and that labourers, mechanics, and factory hands in all departments of production, who live in the towns and use coal, will utterly refuse to join in the senseless cry against the policy which brings work for themselves and bread for their families.

But surely the Nova Scotians will rebel against the odious "bread-tax," so it is said. In answer to which, we make bold to deny that there is any bread-tax at all. Oh! but there must be, it is said, don't you see how our fellow-citizens down by the sea are compelled to buy flour all the way from Ontario, when they might buy it so much nearer hand, on the wharves of Portland, Boston, and New York? The huge false assumption which underlies this bit of sophistry has never yet been half as fully exposed as it deserves to be. If Maine, and Massachusetts, and Eastern New York had wheat of their own production to sell, then with some little show of reason might it be said that these ought to be the best markets for Nova Scotians to buy flour in. But the flour sold in the Atlantic cities named is made from wheat of far off growth—from wheat raised on the prairies of Illinois, Wisconsin, Minnesota Iowa, and Dakota—from two hundred to a thousand miles farther off than the wheat fields of Ontario. If flour from those far-off regions can be sold at the seaboard cheaper than Ontario flour, it is not because geography has decided in favour of the former, for the geographical facts are really in favour of the latter. If the thing be to be stated at all, it can only be so through artificial and not natural means—through railway rates favouring the United States at Canada's expense, for instance. Ontario is much nearer to the seaboard than the far-off Northwestern States, and if Ontario flour costs more delivered there than flour from Minnesota and Iowa it must be through anti-Canadian railway combinations, and from no other cause. But does it really cost more? We say that it does not, and that the alleged increase of price to the consumer is wholly imaginary. Free Traders are bound to admit this on their own reasoning. The prices of grain and flour on this side the Atlantic, they say, are fixed in the markets of Europe, where the surplus of this continent must be sold. But if European markets govern prices in Montreal and Halifax, they must equally govern prices in Boston and New York, both Canada and the United States being exporters of breadstuffs. Or are we to believe that the effect of the European demand and the Canadian N. P. together is to keep flour twenty-five or fifty cents a barrel dearer at Canadian seaports than flour of the same quality is at American seaports? If they take up this ground, then they give away entirely their case with the farmers, and acknowledge that the agricultural interest is a distinct gainer by the National Policy. And let it be remembered, here, that it is the fashion with Free Traders to represent the farmers as constituting the "bone and sinew" of the country—three fourths or, seven-eighths of the whole population—only an insignificant number of our people, as they contend, having any interest in manufactures. If they admit higher prices of produce because of the National Policy, they have no case, and are put out of court so far as the farmers are concerned. If, on the other hand they say that the farmers get no better prices because of the National Policy, but even worse prices, as the Toronto *Globe* actually maintains, then what becomes of the contention that the same National Policy raises the prices of breadstuffs to the Nova Scotians? We might ask, further, whether it is a part of their argument to affirm, and to hold it for a fact—that the United States is a cheaper country to live in than Canada? And again, whether, if this be the case, it is not the high American tariff—so much higher than ours—that has made the United States such a cheap country to live in? These are some of the difficulties which opponents of the National Policy have not been able to meet.

TRADE BETWEEN ENGLAND AND FRANCE UNDER THE TREATY

Now that the negotiations for the renewal of the commercial treaty between England and France have been broken off, and that there is every probability of the 8th of November, the date upon which the treaty will expire, passing without anything having been done to make new arrangements, leading journals are discussing the situation and comparisons are being made to show the advantages both countries have enjoyed under the treaty of 1860. The *Wool and Textile Fabrics*, a weekly journal published in London, contains the following statement in answer to the question "What has been the result to both countries?"

England Imported from France.		England Exported to France.
1860 £[illegible]	Home produce and Manufactures	£[illegible]
	Colonial	[illegible]
1[illegible]	Home produce and Manufactures	11,[illegible]
	Colonial	11,[illegible]
1[illegible]	Home produce	15,[illegible]
	Manufactures	12,[illegible]

Here are the principal articles of import —

Manufactures	Imports 1860.	Imports 1[illegible].
Silk manufactures	£1,[illegible]	£2,[illegible]
Woollen Manufactures	[illegible]	3,165,[illegible]
Artificial flowers	[illegible]	[illegible]
Gloves	[illegible]	1,[illegible]
Value before treaty	£2,[illegible]	
Value after treaty		£14,[illegible]

Wine and Spirits.

Brandy	Gallo[illegible]	[illegible]
Wine	[illegible]	[illegible]

So that whilst the agriculturists and wine growers of France have greatly benefited, the manufacturers of France are now sending to England nearly £1 [illegible] a month more of their goods than they did when there was no treaty. How does the case stand from the English standpoint? Here are the principal articles of export —

Manufactures	1860.	1[illegible].
Woollen manufactures	£ 2[illegible]	£ [illegible]
" yarns	[illegible]	[illegible]
Cotton	[illegible]	1,[illegible]
" yarns	[illegible]	[illegible]
Silk and thrown	[illegible]	[illegible]
Linen	[illegible]	[illegible]
Machinery	[illegible]	[illegible]
Apparel	[illegible]	[illegible]
Hardware	[illegible]	[illegible]
Value before treaty	£1,[illegible]	
Value after treaty		£[illegible]
Material for Manufacture.		
Raw wool	£ [illegible]	£[illegible]
" cotton	[illegible]	[illegible]
" silk	[illegible]	[illegible]
" hides	[illegible]	[illegible]
Coals	[illegible]	1,[illegible]

Commenting upon the present aspect of the case the journal named says —

"The present position of the French Commercial Treaty as it now stands is far from unsatisfactory. The French Government see that we will not be dictated to; they see us falling back on the first and cardinal principle of Free Trade, namely, to have no treaty at all. To make any commercial treaty with France or any other country is a mere concession to their protectionist notions. At no time has public opinion in England been more unanimous upon any subject. The country with one voice says —'Either a better treaty than that of 1860, or no treaty at all.' The French Government see this and are alarmed, and our Government, if they act resolutely, may obtain for us a bargain that may be valuable to both countries in a degree far surpassing that of 1860. We maintain now, as we maintained before, that commercial treaties when made must be regarded in the light of making a bargain, and we can only bargain satisfactorily with France when we tell her plainly that, if she does not care to trade with us upon terms such as will allow us to sell to her as well as to buy from her, we will not be late to increase our duties upon her wine and to impose a duty upon her silk. We admit the advantage of the Treaty of 1860 to both countries, and it was made for the very purpose of showing this; but, having shown it, we are now entitled to ask for a bargain of a better kind."

The *Wool and Textile Fabrics* is a Free Trade journal, as nearly every leading journal in the United Kingdom is, but it evidently believes that the principle is not applicable to all circumstances. The French Government has manifested a disposition to agree upon a new treaty between the two countries, but the representations of English Free Traders have failed to impress the members of the French Cabinet that the recent step taken by them in adopting a strongly protective tariff was a blunder which they will be only too glad to undo at the earliest possible moment. In reply to criticisms of the English Free Trade leaders, the position taken by the Government press of France has been firm, but respectful. While due deference is paid to the views of those who contend that although every nation in the world should erect what the political economists call artificial barriers to free commercial intercourse English policy is to adhere at all hazards to Free Trade, it is contended that France knows how to manage her own affairs without any dictation from England or lectures on the folly of her course from English statesmen. If France has blundered, so much the worse for France. If the policy inaugurated on the 8th of May last prove to be as disastrous as the English Free Traders predict, then it will be for the rulers of France to reverse that policy. Meantime, however, they are determined to legislate commercially in what they regard the interests of France. If they discover the existence of the possibility of England meeting "fire with fire," to use a celebrated expression of a deceased Canadian statesman, they may be induced to give England "better terms," but so long as they are convinced that the English policy will continue to be Free Trade, regardless of the injurious effects that the tariffs of foreign nations may have upon her export trade, France will not, so far as she is concerned, alter her policy to suit English exigencies. That England will abandon her Free Trade principles we do not believe, but that circumstances may arise to necessitate her taking action in self-defence is within the range of future possibilities, and not a few Englishmen who are firm believers in Free Trade—that is, Free Trade all round, not Protection for the rest of the world and Free Trade for England—are expressing the opinion that the time is rapidly approaching when such words will be forced upon the statesmen in whose hands power is placed. The helm of the ship of State

THE ANGLO-FRENCH COMMERCIAL TREATY QUESTION

The going into operation of the new French General Tariff on the 8th of May last created considerable excitement in commercial and manufacturing circles in England. It is strongly protective in character, and that fact was sufficient to cause consternation in the latter country. The treaty at present existing between England and France will terminate in November, and after that time each country will be at liberty to pursue its own course, as the negotiations for a new treaty have fallen through. In the House of Commons, on the 18th of August, Mr. Caine interrogated Sir Charles Dilke, Under Secretary of State for Foreign Affairs, on the subject. In reply, Sir Charles said that the French Government proposed some time ago to Her Majesty's Government that the commercial negotiations which had been begun in London should be resumed in Paris on the 22nd of last month. After considering certain new French proposals as to duties on iron, cotton, woollen yarns and goods, Her Majesty's Government considered that although still unsatisfactory they afforded a basis for further discussion, and they consented to the reassembling of the commission on the condition that the existing treaty should be prolonged for three months, to give time for the examination of the new proposals. After a long correspondence the French Government declined to accede to a prolongation of the treaty, and under the circumstances Her Majesty's Government did not think themselves justified in accepting the invitation to proceed to Paris. The announcement was received with cheers. In English papers just to hand we find numerous comments on the breaking down of the negotiations. The *Economist*, a leading financial journal, expresses the opinion that the announcement that the Government had found it impossible to renew their negotiations must cause regret but cannot excite surprise. If, it says, "the French Ministry are agreed that there should be no enhancement of rates it is difficult to see why they should refuse the extension of the existing treaty. If this is not the principle upon which they desired to act further negotiations are useless, because agreement is impossible. It must be our business to do all we can to open up new outlets for such of our products as may soon be shut out of the French markets. And, fortunately, we have ready to our hands an instrument which may be used for the purpose with considerable effect. The expiry of the French Treaty will leave us free to deal with our wine duties in whatever way may seem to us best. An agreement similar to that from which France appears desirous of withdrawing both Italy and Spain are now disposed to enter into. It may be possible, by a readjustment of our wine duties, to ensure a development of the commerce with those States which may fully compensate us for any loss of French custom." The *St. James' Gazette* considers Sir Charles Dilke's announcement a very grave one. "We must now therefore consider," says the *Gazette*, "the whole business of negotiation at an end, and English manufacturers must look forward to being remitted to the conditions of the French tariff which will come into force on the expiration of the old and in the absence of a new commercial treaty." And in the same issue it exclaims in reply to some of its contemporaries —

> The Treaty's dropped. "Rejoice ye wise!
> It frees our hands," the pedant cries.—
> Good pedant, take we heed
> Lest from closed mill, and furnace cold,
> And idle loom we soon behold
> Our "hands" set free indeed!

Of course public opinion, as expressed in the newspapers, is divided in regard to what should be done after the termination of the treaty in November. Some favour a policy of retaliation, which, under the circumstances, they would not consider inconsistent with the Free Trade principle, while others are very pronounced in their hostility to anything savouring of retaliation for the purpose of bringing the French Government to time, or Protection in the interests of the British manufacturer. Meantime the Fair Trade movement, which has already [illegible] will make progress over the [illegible] and it will have to be [illegible] proportions by February next [illegible] Parliament will probably [illegible]

EDITORIAL COMMENTS.

On Wednesday evening of last [illegible] Sir A. T. Galt was entertained at a [illegible] quet in Winnipeg. He explained [illegible] cause of his visit to Manitoba [illegible] follows —

"Situated in England, as I have [illegible] been for nearly two years, as the representative of Canada, I have been approached by many of all classes from the highest to the lowest, who were desirous of information in reference to the North-West of this country. I found myself obliged to attempt to convey correct impressions of a country of which I had no personal knowledge. At last the disadvantage became so evident that, having represented the matter to the Government and received their hearty concurrence, I have been permitted to visit the North-West on the occasion."

Sir Alexander then proceeded to [illegible] his hearers his impressions of [illegible] what he had seen.

In an article entitled "The Two [illegible] Protection and Prosperity, the Cincinnati *Journal of Commerce*, one of the leading industrial newspapers of the United States, thus refers to the case of Canada:

"If we turn to Canada, we see another flat contradiction of the theory that a non-protective tariff there previous to March 15th, 1879, industry was depressed, languishing, and despondent. The protective policy has been in operation scarcely two and a half years, yet the improvement is rapid, increasing, and entirely satisfactory. Never before did the Canadians enjoy so much of solid prosperity. Never before was there so much of hope and enterprise among the people. Never before was there so much confidence in the future. These are facts beyond dispute, and they give the lie direct to the Free Trade theorists. In all the view there is no sign of coming disaster to industry and business in Canada; every indication is of the contrary kind."

The Industrial League of the United States has determined to call a convention of representative men who are desirous of having the protective policy at present in operation continued and defended against the attacks of those opposed to it. The circular of the League contains the following statement —

"England's position has become such that an expansion of her foreign markets is indispensable to her welfare. To have such markets open to her merchandise her people are now engaged in maturing a scheme of retaliatory duties, which are to be bartered away in exchange for concessions. This method, however, is not applicable to the American market—the most opulent and the most desirable market in the world—and the plan of attack here is one of bribery, subsidized press, paid emissaries, local agents and all the means of Free Trade propagandism to the control of our elections and the revision of our tariff laws. England in her extremity will leave no stone unturned to accomplish the conquest of our market, and she must be resisted on principles of self-preservation. The time has come when American manufacturers, including every branch, from flax growers to ship builders, should assert the dignity of their position as developers of native resources, as the captains of industry, and as the creators of national wealth, strength, prosperity and safety. For many years they have been maligned as monopolists, traduced as bountied and privileged favorites of the Government, and stigmatized as the greedy enemies of the public welfare. All this contumely and denunciation has been borne in silence, but should be so no longer. Manufacturers should now assert their right to Protection, take bold of the threatened tariff agitation with both hands and demand the full and uninterrupted guarantee of the laws."

NEW TELEGRAPH COMPANY.

The next number of the *Canada Gazette* will announce the granting of a charter to the "Canada Mutual Telegraph Company," an organization which promises to enter the field as a vigorous rival to the recently amalgamated Montreal-Dominion companies. The capital of the new company is one million dollars, and from all that can be learned it is the intention to press forward the construction of the line as far as possible this fall, and complete the system—which will extend to every part of the Dominion—as soon as the frost is out of the ground next spring. It is understood the capital of the new enterprise is all subscribed and the first instalment paid in, and that arrangements have been made with the new Mutual Union Telegraph Company of New York for an interchange of business. The Mutual Union system is being extended pretty generally throughout the United States and will be in operation as a competitor of the amalgamated lines about the 15th of October. The permanent officers of the Canada Mutual Company have not yet been announced, but it is probable that Mr. Charles R. Hosmer, the present superintendent of the eastern section of the Dominion Telegraph Company will be the general manager or president. The provisional directors are General Geo. B. Williams, of Indiana; J. F. Olmsted, of Washington, D.C.; D. S. Holton and Mr. Morrow, of Peterboro', and T. T. Turnbull, of Montreal.

NATIONAL INDUSTRIES.

W H Hartland is of the Victor Oil Co. ... at Port Hawkesbury ... the crude operations ... still continue, while ... ing operations. He appears quite ... on its land to their ultimate success ... the fields in the ... are unsurpassed.

... North Sydney *Herald* has been ... ... of seams of coal taken ... ... discovered by the Rev ... McPherson at French Vale C B ... indications are most promising, it ... alleged that the newly discovered ... is some seven feet in thickness ... quality of the coal is what is called ... coke coal, which is the first of the ... found in Cape Breton.

... commencement of active operations ... at the Nova Scotia Glass Works ... delayed for a few days on account of ... workmen's tools not having arrived ... expected. Specimens of the glass ... at the works present a very fine ... appearance. The New Glasgow *Chronicle* is informed that the necessary machinery arrived by Wednesday's train ... that the factory is now in full ...

... first signs yet discovered for the ... existence of oil in paying quantities are ... Johnston's, East Lake Ainslie. ... operations are prosecuted under the ... management of Mr. J. S. Longhead, of ... American Company. The celebrated ... General Butler and the other two directors ... the company have paid the locality a visit, and expressed themselves as ... eminently satisfied with its present ... prospects.

There is every prospect of Windsor having its cotton factory in operation before the Halifax one, after all. The Halifax company completed its stock ... some months ago, and the committee have been ever since wrangling about the location of the works and ... have not yet decided on a situation, although it has been agreed to erect it within certain limits of the city, providing the owners of land are not unreasonable and demand fabulous prices. Should any other difficulty occur respecting the location we invite the company to come to Windsor, where plenty of good and desirable sites can be had at market prices. Water will cost nothing and the town will free them from taxes for ten or twenty years.—*Mail.*

It affords us the greatest pleasure to announce to the public that the Windsor Cotton Manufacturing Company is now an established fact. The alternations of hopes and fears which have filled the minds of the citizens of this town and the enterprising business men of this county, respecting the future prosperity of Windsor and the County of Hants generally, have now given place to the most assured feeling of confidence in a sound future of material progress of the town and County. For this is no sectional undertaking. The last strong blow which after a great deal of work and expenditure of time by the committee, has at last triumphantly launched the good ship "Cotton" upon the ocean of success, ... has been given by the enterprising solid, and practical business men of Hartland. Nor must we forget to mention the handsome aid given to this undertaking by that firm whose enterprise has so largely contributed to the general growth of Hantsport.—*Mail*

PROTECTION THE TRUE POLICY FOR ALL NATIONS.

... issue of the 4th inst the *Intercolonial* said editorially "A Protective tariff may be a good thing for one country and a very disastrous thing for another. We can subscribe to this doctrine. To what country would a Protective tariff be very disastrous? We presume that Great Britain is indicated ... if protection should be applied there ... it is here—if the comfort, welfare and ... station of the labourer should be made the highest considerations—we perceive ... benefit in the probable result ... the monarchical, aristocratical, and ... democratic institutions of the realm, with the laws of primogeniture and entail, by which land and wealth are concentrated in few hands, from generation to generation, prevent such an application of the Protective principle. If the statutes of inheritance and distribution should be radically changed, so as to transfer the ownership of the soil into the hands of the multitude, and the people should be made the source of all political power, a Protective tariff would be an inestimable blessing to Great Britain. No doubt her exports and imports would be contracted to a moderate volume, compared with what they are now, but, with a large enhancement of wages, ... consumption would be wonderfully augmented, and amount, additionally, to several times the value of all the products sent abroad in any recent year.

A prosperous and a contented nation would be the outcome of such a policy. The nobles, the landlords, and the merchant princes would cease to be the magnates they are; many dignitaries would have to descend from their lofty ... [illegible] ... the ... laws and the ... which they ... [illegible] ... would have to ... [illegible] ... the ... catalogue of ... [illegible] ... and the ... [illegible] ... would ... [illegible] ... to ... [illegible] ... But these ... [illegible] ... the streets to the country. ... the country would ... [illegible] ... ordinary ... [illegible] ... the ... [illegible] ... eastern ... [illegible] ... would ... [illegible] ... in the way of such a ... country such would ... [illegible] ...

PHILADELPHIA METAL TRADE

Prices Buoyant. Demand Off.

(From our own correspondent.)

Philadelphia September 6th. A condensed review of the eastern iron market is as follows. Trade then and consumption were never more ... Naturally there would be an increase in furnace output, but it is temporarily arrested by the fact that at present prices the margin is not very attractive, and an advance which would let a score or two in would let in one hundred thousand tons of foreign iron in six weeks. Cablegrams as late as Saturday show increasing firmness abroad. The proposal to replace the exhausted stocks here will not be acted upon immediately. It would seem that the tendency now is towards lower iron imports. Total pig imports at New York to Sept 1 were 91,190 tons as against 228,945 tons same time last year. There is just now a good deal of inquiry after Custom House iron. Stocks are less than 100,000 tons. The fact that these stocks cannot be replaced has led to an active demand. Old rails have been nearly cleaned up. Pig is very low. Scrap has been bought up freely, the holders are tired. Imports are light. Indications point to higher prices all along. Long headed Pittsburgers said so a month or six weeks ago, but few believed it. To-day's quotations are as follows. No 1 F $23. XX, $22 50 @ F $21 50 to $22 50. No. 2 Middlesborough $19 50. Scotch, $21 50 to $25. Bessemer, $24 to $25. The week was rather quiet, and a sort of retail jobbing was kept up. If makers had pig to sell and would promise deliveries they could sell all they could offer, but they have not any to sell and are willing to risk long contracts except at prices at date of delivery. Light brands can be had at $20 at furnace.

Buyers are in no way concerned. The market cannot vary much, nearly every one is provided for. The foreign market is closely watched. How prices can improve there with a 2,000,000 ton surplus is hard to understand. Fourth such surplus here would weaken prices materially. Heavy adjudications on the continent are believed to have imparted the stimulus in British markets. The powers that be are creating an artificial prosperity to offset emigration and latent nihilism among the masses, and hence English pig iron stores begin to slowly melt. However, Castle Garden will be as lively as ever, and the Hartmanns will require ceaseless watching. The crumbs now being thrown to the millions in the shape of work will only whet the appetite.

Since last letter the rolling mills have been quiet a few days, but are now trying to make full time, and 2 5, stores 2 7. The advance has not been agreed upon and as long as 2 6 can be quietly had without increase of cost manufacturers will be content with it. Orders are abundant, but very few were placed last week because of the fact that buyers cannot wait on 90 days deliveries. New England consumers are very short and are in our market through New York commission men. Nails have suddenly become scarce and quotations are $3 15. The stocks are low and mills far sold ahead.

Structural shapes are active at 2 7 for angles, 3 3-10 for beam and 3½ for tees. The capacity of the Eastern Pennsylvania mills was never so far over sold. Orders are waiting acceptance, and it is probable that in four or six weeks the needs of actual consumers will be provided for for the fall.

Plate and tank orders are also in excess, and it is difficult to place large orders. Cooler weather will be an important factor. Whole days have been lost, and the output reduced 40 per cent. for a week or so. After October 1st new orders will find room, but there is very little capacity to sell up to January 1st. Quotations are $3 25 for tank, $3½ refined, $4½ shell, $5@5½ for flange and $6@6½ fire box. None of the large establishments which consume the output of mills have been able to use up all their iron this past week.

Wrought pipes are active at 60 per cent. discount, tubes 40.

Sheet mills are sold up to January 1st, and are refusing to book orders after that date for new parties.

Steel rails are firmer, quoted at $38@40 for 1882 delivery. One hundred thousand tons will be placed in foreign mills for New Orleans delivery, light section, within thirty days. Quotations for foreign rails at Atlantic or Gulf ports, $62@64. Recent orders have gone abroad for Chicago and San Francisco delivery. Demand seems to be increasing. Iron rails are dull at $47 50, old rails have exhibited greater firmness and are selling slowly at $27 50@28. Scrap is firm for selected lots at $30@32, machinery $21; stove plate $17 50, car wheels $20. Coal is in active demand and manufacturers are putting in orders for winter's supply. Ore has not receded from its late advance, and contracts have been closed for large deliveries before January 1st to be ready for blockades.

THE NORTH-WEST

... Welsh ... last week ... [illegible] ... Chief Justice Hagarty, Chairman of the Canadian Pacific Railway Company, and Sir Alexander Galt, Canadian High Commissioner in England, was met on the Intercolonial train at Winnipeg. After explaining that his visit had been undertaken with the consent of the Government, with the object of obtaining a personal knowledge of the country to enable him to ... the North-West ... weight ... stranger, ... [illegible] ... at the same time it may ... that I should speak of the impressions conveyed to my mind by what I have seen. No doubt in many respects these are the same as the ones you yourselves have arrived at; yet, as I propose to be the medium for conveying these to the people of the Mother Country and other parts of the world it may be well to state them. When I arrived in Winnipeg from the south I was not particularly charmed with the Red River Valley. It struck me as monotonous, and I thought that, however fertile it might be there would have to be a considerable expenditure in drainage. When I reached Winnipeg I was at once surprised at the evidence of the progress which was being made, I may say daily, in this city. I was very different from the country I had passed through in the Red River Valley. I thought that surely the people were absolutely crazy, or else that there must be resources of which I had no conception lying to the westward. I thought that the enormous speculation in lands could not stand and could not be justified, yet the prices ran up in the most wonderful manner. It was my last idea that I should acquire any personal interest in the city of Winnipeg. (Laughter.) But perhaps I cannot give a better illustration of the effect of what I have seen than the fact that I was entirely wrong in my first impression of the Province, and that I fear I have become a little speculator myself. (Prolonged laughter.) I had the opportunity after I had remained a day or two in Winnipeg, of proceeding westward. I had not time to make an extended a visit as I had at first proposed. It was at first my intention to cross the plains to Fort Macleod, and to return by way of Fort Walsh, but the time did not permit me to visit further west than Fort Ellice, whence I returned by way of Brandon and the railway. Any conception that I had formed was far surpassed by the reality. From first to last I have travelled over probably 800 miles of country. With the trifling exceptions of some sand hills, while I saw an enormous proportion of extremely fertile land, I saw none which in other parts of the world with which I am acquainted would not be considered well worth cultivation. (Cheers.) I had been prepared for a degree of monotony, for the appearance of prairie, for the absence of timber and for a sameness of the journey day after day, which would be tedious and disheartening in some respects. But the reality was entirely different. I saw a beautiful country, equal to the most cultivated part of England, with grassy slopes covered here and there with plantations, but planted by the hand of man, but some directly from the hand of God. The beauty of the scenery in every respect far surpasses everything I had any conception of. The fertility of the soil surpassed my greatest expectations. (Cheers.) I was delighted, not only with the appearance of the country, but with the extreme satisfaction which I found everywhere prevailing. Wherever farms had been taken up, the new settlers exhibited a marked contentment, but until my return I did not meet with one single individual who had a complaint to make, either of the country or its climate. (Cheers.) Now I do not suppose that the people of Manitoba are better contented with their lot than other people, but on this occasion there was no complaint. Those to whom I proposed a return to their former homes laughed in my face at the suggestion to go back to Ontario to farm after having farmed in Manitoba. (Laughter and applause.) I have no reason to doubt that the country farther west is quite equal to what I saw. I received the same description of it from all those who had visited it, and I have no doubt that as far as the Rocky Mountains there are successions of those fertile plains which are now being opened to the civilization of man. Now there is one thing which must strike us in looking over the vastness of the North-West Territory—and that is its development. The appropriation of this country to the uses of man is the great question that we have to deal with. It has absorbed the attention of the Parliament of the Dominion; and my own personal duty is in connection with it. I have thought after seeing the country and the resources that are opening there, that one might be able to perform a great and useful duty hereafter. The development of the country has been approached by Parliament in two respects, the one being the mode of dealing with the lands, and the other that of opening these up by means of the railway system. I need not speak of the land system, except to say that it has been copied in great measure from the homestead and pre-emption policy of the United States, a policy which has succeeded there, and which, I have no doubt whatever, will succeed here. It is one which has in great measure forced itself upon us; because, if we expect the populations of the Mother Country and of Europe to come here, we must offer advantages equal to those offered by the United States. (Applause.) The other point is that of making the country available accessible by means of a railway system. As there is here no system of navigable waters, these plains are watered only by two or more rivers, which do not sufficiently answer the purpose mentioned. A railway system becomes a necessity. I believe that the Canadian Pacific Railway will become the backbone of a system reaching to all the extremities to which a railway may go. I do not propose on this occasion, and indeed it would be quite improper, to enter into a discussion of the policy which may be termed the Government policy of the Dominion of Canada; but I may say that this policy, so far as we can judge from its effects thus far, is calculated to promote rapidly the settlement of this country. I confess I do not share the apprehensions of some as to the large powers given to the gentlemen who constitute what is known as the Canadian Pacific Railway. I believe that these large powers were necessary to induce them to put their estates means into a work in which there was so much uncertainty, and I believe they are acting honestly and straightforwardly to carry on the work towards completion. (Cheers.) I do not think that any one will grudge them the advantages which may accrue to them in pushing on the work. As to the objection taken to one of the clauses, that it does not permit the construction of branch lines to the southeast, whatever other parties may say, I do not think that this objection will be urged by the city of Winnipeg. It is quite clear that by serving their own selfishness in this matter, they would be serving the selfishness of the city of Winnipeg, as the clause keeps the trade of Manitoba to this point before it can pass anywhere else. I have to congratulate you upon the energetic progress which has been made in the construction of this road, as it opens up large fertile districts to Winnipeg, so that the progress of this city cannot fail to be very great in the future. It does not seem to me that there can be any other city in British North American territory which will compete with Winnipeg as a business centre. There may be some point farther west where a great city will arise, and probably there will be several of them; but for a few years to come the great proportion of the business must centre here. As to be settlement of this country, all I can do in England is to circulate information. This has been done on a large scale in England, Germany, Norway, Sweden, and every other part where there are emigration fields. Still a great deal can be done by ourselves. It is necessary to have the co-operation of the inhabitants of those countries that may desire to have immigration. I can in London only deal with the question of the supply of labor generally. A man comes into my office and asks if there is employment as a carpenter or a bricklayer. I answer yes, no doubt. He asks where. I cannot venture to say where, because there is no one to put me in possession of the facts as to the particular portions of the country in which labour is wanted. If you desire to have labourers at any particular point, it is most important that you should take steps to advise the agent in London of the labour that you wish to have. I have mentioned this to Mr. Norquay and other leading gentlemen, and I believe it would be a simple thing for Winnipeg and other municipalities, from time to time, to furnish a statement of the kind of labour most in demand, that I might have specific data to use in recommending people to come here. This, I think, is particularly true with reference to the supply of labour during winter. At present I cannot undertake to recommend any one to come in winter, for want of this definite local information, for to many such applicants the failure to find immediate employment on their arrival here would be fraught with consequences the most serious to themselves and their families. (Hear, hear.) Hence I must ask all local associations established in this land to lend efficient help in this matter. They can do much towards helping to systematize the homestead policy of the Government, from which we may all hopefully look for the best results. (Cheers.) In this respect the people of Manitoba can, I am convinced, give most valuable assistance to their representative in London. I am quite sure that in this work I will have the full co-operation of the Department at Ottawa and of their officials here. (Cheers.) I may, in some respects be going farther than even your own appreciation of the North-West would lead you to do, but I am bound to say that, as I view it, at this moment, this question of the speedy settlement of the North-West has assumed the importance of a national character. (Loud cheers.) You all know the depressed condition of the agricultural and trading interests of Great Britain at the present moment. But you may not all be aware that the attempts to negotiate a commercial treaty with France have failed and the results of these combined effects is that the whole commercial system of England must be relieved. (Hear, hear.) In consequence of the present unfortunate condition of things, an agitation of a very pronounced character has sprung up respecting "fair trade," which, I think, will be found to resolve itself into this, That British industry in England and the Colonies shall be treated better and more favourably than foreign industries. (Loud cheers.) I am not advocating either "fair trade" or "free trade," you will observe, I am only giving you an idea of the present state of affairs in England. I am reminding you that the question is coming up, as to how England will deal with the trade relations of other countries; and this, let me say, is the opportunity of the Colonies. (Loud cheers.) Undoubtedly, the food question is the great difficulty in the way of an Imperial Zollverein. The whole British Empire is not at this moment in a position to feed the people of England, and here you can see the great importance which the rapid settlement of this country has on the future of the Empire. (Cheers.) If this great country is fairly developed—if in a few years you can bring millions of your fertile acres under cultivation—if you can send to the old land great quantities of your breadstuffs and produce, you will solve this question—you will enable the people of England to deal with their own people rather than with foreigners. (Loud cheers.) And after what I have myself seen in this country, a doubt no longer remains in my mind as to what the result will speedily be. (Renewed cheers.) The soil and the climate to enable this to be accomplished are here—you only need the tillers of the soil. (Hear, hear.) I can speak of those I have met scattered all through the country, from every part of the Dominion; and when I see the splendid result of their energies, what they have accomplished in a short time, and under many difficulties, in the development of the country—and when I see too, the marvellous energy thrown into building and business generally in this wonderful city, the feeling I have is irresistible that with such a country and such a people failure is impossible. (Loud and prolonged cheers.) Besides the material interests involved in this question there are, let me add, other important interests to be considered. Here there are millions of acres without inhabitants, while at the same time there are millions of your fellow countrymen across the sea who know not from day to day where their bread is to come from. And I hope your labours here as tillers of the soil, while conferring untold benefits on yourselves, give you also the opportunity of doing great good to your fellow-subjects who are not so well off. (Hear, hear.) For my own part I would desire, if it be permitted me, that my name should be associated in the smallest degree with such a great work as this, rather than to reap all the honour and fame which I might win as a successful politician. (Loud applause.) I feel that I ought not to talk you longer. (Cries of "go on.") I have really said all that comes into my heart to say, and I will only add that, whether in London or Canada, my best efforts will be given always to serve my country with all the ability which God has given me. Sir Alexander resumed his seat amidst loud and long continued cheering.

DOMINION STOCK.

(Hamilton Times.)

Sir Leonard Tilley has found a way of disposing of the surplus revenue which will not be required at present to implement Sir Hector Langevin's promises of new buildings. The Finance Minister decides to call in Dominion 5 per cent stock. Of late years the Dominion can borrow at 4 per cent., and if there are no other securities out bearing a higher rate of interest the redemption of the 5 per cent. stock is eminently proper. This stock, resulting from accumulations in the post-office savings banks, is principally held by Canadians. The investor could get cash for his stock at par at any time by giving three months' notice, and the investment was a favourite one even before the ordinary banks reduced the rate of interest on deposits. Some of the holders of the stock may find it difficult to secure so good an investment for their savings, but of course it would not be fair for the Finance Minister to pay them more than the current rate of interest to oblige them. The amount of stock to be called in is $6,000,000, and the surplus revenue in hand will have to be supplemented by the proceeds of a loan to provide for the redemption. The saving of interest to the Dominion will be considerable.

FAILURES IN THE DOMINION

The number of failures in the Dominion during the first eight months of the present year is reported by *Bradstreet's* as follows —

	No.	Assets.	Liabilities.
Quebec	60	$486,700	$1,314,910
Ontario	261	1,317,260	2,092,280
Provinces	76	1,256,050	1,560,907
Total	417	$3,060,410	$4,968,197

The actual assets, however, were only $2,711,320, or 54 per cent. of the liabilities. The number of failures in Canada in the first eight months of the past three years was as follows —

	No.	Assets.	Liabilities.	Per cent.
1879	1[illegible]	$3[illegible]	$4,[illegible]	[illegible]
1880	[illegible]	3,447,[illegible]	7,[illegible]	47
1881	417	2,711,321	4,968,197	54

These figures exhibit a most gratifying improvement in the condition of trade, showing a large and continuous decrease in the number of failures, and a considerable increase, as compared with last year, in the percentage of assets to liabilities of insolvent traders.

A shocking story comes from Bristol, England, to the effect that a vessel just arrived at that port from Constantinople is discharging her cargo of three hundred tons of human bones, said to be the remains of the defenders of Plevna, which will be converted into manure by a local firm. Such are the glories of war.

A San Francisco, Cal., paper, says that eight years ago an emigrant from an eastern state arrived in one of the bay counties with his family and a capital of $75. He had some knowledge of horticulture, and was a good practical gardener. A capitalist who was the owner of some comparatively useless land, contracted with this emigrant for planting and tending 40 acres of this land in Australian gums or eucalyptus. The breaking, fencing, planting and labour on the land cost the owner $3,600. At the end of the first year he had 32,000 thrifty trees, and the second year he set out the shaded ground in pasture, which retained its verdure nearly throughout the entire twelve months, showing a denser growth from year to year. At the beginning of the third year he utilized his pasture for dairy cows, and found it strong enough to support two cows to the acre. He estimated its value for this use at $4 per month per acre for eight months out of twelve, or $32 per year per acre. The total yearly profit from this source was $1,280. At the end of the eighth year he was offered in cash by the keeper of a wood yard 30 cents each for his trees, or $280 per acre, the purchasers to pay all the cost of cutting and removing the timber. The total value was $9,600, but in the meantime the owner of the land had had five years' use of the pasture, which, by his own close estimate, was worth to him $6,000. This makes the grand total of gross earnings in eight years $15,600. From this must be deducted $3,000 paid out for the nursery plants, fencing, and labour, and an expense of $600 for irrigation during the first two years, leaving a net income of $11,600, or $295.50 per acre for the eight years, or $36 per acre for one year.

SPIRIT OF THE COMMERCIAL AND INDUSTRIAL PRESS.

OUR IMPORTATION OF FOREIGN CAPITAL.

(The Shareholder.)

The legitimate employment of foreign capital in the development of Canadian resources is a thing to be desired. Almost all our wealth may be said to be as yet in the crude state in which nature has given it to us, and without money to transform it into a more convenient and useful form it might lie as it has for centuries to come. This being the case, it is plainly the duty of all statesmen and friends of Canada to advertise her to the outside world in her true light as one of the most promising fields of investment and great enterprises in the world. We have before frequently referred to the interest which French capitalists have been taking in Canada, and the return of the Hon. Mr. Chapleau and Mr Senecal from their trip to France brings us the information that that interest is increasing rather than diminishing. There are excellent grounds for believing that funds will be forthcoming for the purchase of the provincial railway, and should the Government fail to seize upon any fair opportunity for the disposal of that road for a just equivalent in cash, we think that they would not be consulting the best interests of their constituents. There can be no possible doubt but that the railway could be managed with greater advantage to the Province by a private company than when under Government supervision; while the proceeds of the sale would do much to clear up our financial difficulties. Mr. Senecal reports that Parisian capitalists are also prepared to furnish the money for the construction of the South Shore tunnel under the St. Lawrence at this city, and for the working of the new Electric Light Company. Our mineral resources are also receiving universal attention. Our iron deposits are to be examined into, and should the result be favourable, as we have no doubt it will, steps will be taken to work up a substantial production of Canadian iron. The phosphate deposits of the Ottawa, which, within the last year or two, have sprung into such importance, are also to be more vigorously developed, not only as a manure for exportation to Europe, but also for the manufacture of sulphuric acid and superphosphates, for which factories will be erected near the mines. This is not all mere talk, for delegates from France will visit Canada shortly to report on the prospects of the success of these undertakings, and we are perfectly convinced that it only requires an impartial examination into the resources of this country to convince European capitalists that Canada offers a field for monied enterprise as extensive as the United States, if not more so. The idea of introducing additional capital into reliable Canadian companies already formed, as foreshadowed in these plans, is a good one, and will do wonders to stimulate our own native enterprise. The Parisian capitalists are foremost in the present movement, but those of other European centres will not be backward in following their example. Englishmen are a little abashed by their early experience in Canadian railways, but they will not be long in realizing the advantages of having a hand in opening up our mining resources.

A CENTURY OF PROGRESS

(St. James' Gazette.)

The vast material progress which has been made by England in the century dating from the perfection of the steam engine has been accompanied by a moral progress which, if less palpable, is yet capable of being in some degree measured. On the one hand, the means of moral, intellectual, and religious instruction have been greatly increased, on the other hand, pauperism and crime have diminished—not only in proportion to the numbers of the population, but even in their actual prevalence.

In 1849, the first year for which we have complete returns, the mean number of paupers of all classes, including children, at one time in receipt of relief in England was 1,985,039. The estimated population for that year was 17,571,744. Thus, out of every 175 souls, 10 were paupers. In 1880 the population had risen (by the 1st of April, 1881) to 25,798,922 souls. The paupers in receipt of relief on the 1st of January were 803,126, being 10 paupers out of every 323 souls. The actual decrease had been 26 per cent., and the comparative decrease 50 per cent. With regard to the actual expenditure for the relief of the poor in 1849 it was £6,792,963, or at the rate of nearly £5 8s per pauper. The last annual report of the Local Government Board is silent as to the fact that in 1879 the expenditure for the same object had risen to £7,829,819, or £9 16s 6d per pauper. In spite of an increase of 47 per cent. in the population, the charge per head on the contributors for this portion of the poor rates alone has only sunk from 6s. 7½d. per head in 1849 to 6s. 2½d. per head in 1879. To some extent this difference in the allowance for each pauper may represent the change in the value of money; but that can hardly account for an advance from £5 4 to £9.75. It is by no means certain that the country has to be congratulated on this advance; but it certainly represents a very great increase in the efforts made, whether wisely or otherwise, for the relief of poverty.

With regard to convictions for crime the reduction in their number has been greater, both positively and relatively, than the reductions in the number of paupers. In 1851 27,900 persons were committed for trial in England and Wales, of whom 21,770 were convicted. In 1880 the committals had sunk to 14,750, and the convictions to 11,211—the diminution being nearly one-half. In the former year there was a criminal punished for every 811 of the population, in the latter, there was only one for every 2,308 souls. These numbers apply to England and Wales alone.

In close connection with the statistics of poverty and crime stand the figures which denote the diminution or the increase of the educational power of the church. In the year 1704 the number of livings in England and Wales was about 11,500; as to the condition of either churches or parsonages in which we are without any reliable information. Henry VIII, in the last years of his reign, put an end to 186 of the larger monasteries, 374 of the lesser sort, 110 religious hospitals, and 2,374 chantries and chapels. The occupants of these edifices, then pillaged and destroyed, discharged with more or less success the functions now performed by the masters of our 628 union workhouses. "All these religious houses, churches, colleges, and hospitals, being above 3,500, little and great," said Sir Henry Spelman, "did amount to an inestimable sum, especially if their rents be accounted as more improved in these days." It is after the suppression of the monasteries that we hear for the first time of the question of the State support of the poor, and of the subsequent levies of poor rates, steadily rising in amount from £6,000,000 in 1849 to £12,913,000 in 1880.

From the death of Henry, or at least from that of Mary, to the year 1815, the building of a church in England was so rare an occurrence, except in case of destruction by fire, that it was considered at the latter date that there was no lawful method of founding a new church belonging to the national rite without an Act of Parliament. But from the year 1818 to 1831 300 new churches were consecrated, being at the rate of 28 per annum. From the beginning of the century to the end of the year 1875, according to the report of a committee of convocation, 4,414 churches had been consecrated, of which 1,015 were rebuilt, and 3,399 entirely new. A later return to an order of the House of Lords states that 1,724 churches had been built, and 7,144 restored at an outlay of not less than £500 each, since 1840. The returns were by no means complete, but they gave a total of £25,548,703 expended on 8,871 churches. A sum exceeding £740,000 per annum has been contributed by members of the Church of England to the restoration and increase of their places of worship since the year 1840.

In 1831 the number of benefices in England, according to the report of the Ecclesiastical Commissioners, was 10,718, the aggregate income of which was £3 251,159. By 1880 the number of livings had increased, by the division of parishes and the foundation of fresh endowments, to 13,617, the income to £4 547,244. In 1831, 5,947 parsonages were returned as habitable, 1,738 benefices had glebe houses unfit for residence, and 2,878 had none at all. Between 1830 and 1880, according to the *Builder* (No 1,929), the sum of £3,228,959, or more than £64,000 per annum, had been expended by the clergy in providing new houses for themselves and their successors, the amount having been advanced to them for that purpose by Queen Anne's Bounty, to be repaid, with interest, in thirty annual instalments. Through the hands of the Ecclesiastical Commissioners the Governors of Queen Anne's Bounty, and the Charity Commissioners, the sum of £5,468,293 has been contributed to the permanent endowment of the church by private benefactors since 1830, making, together with the above named contribution of the clergy, an aggregate of £9,697,252. This is independent of the application of £18,616,000 to the benefit of the poorer livings at the expense of the richer, and of capitular endowments, by the Ecclesiastical Commissioners. It is exclusive of the endowments granted by the Governors of Queen Anne's Bounty and by the Charity Commissioners from funds provided by their Acts of Parliament. Thus the amount of more than 29 millions sterling, making, together with the before cited contributions to the building fund, a total of more than 34 millions sterling, has been added to the permanent endowment of the National Church within the last half century. No estimate exists as to the very large and constantly growing revenue derived from the weekly offertory, but in many parishes this almost equals the regular income of the incumbent. It is thus evident that the effective character of the church as an educator and as a reliever of the poor has undergone an increase within the century such as is not unworthy of the increase in the material wealth and comfort of the people.

Finally, we have to look at the increase of education. The number of children present at inspection of the primary schools of England and Wales in 1854 was 410,004, in 1880 it had risen to 3,268,147. The total expenditure for primary schools in Great Britain in 1851 was £164,312, in 1880 it was £2,978,857. If to these items, the accuracy of which is vouched by the returns of the Board of Trade, be added the enormous volume of free and unregistered contributions to religious and social charities, the total must be immense. For hospitals and dispensaries, for Sunday schools and ragged schools, for religious and charitable societies and missions of all kinds, for the support and maintenance of the places of worship, schools and ministers of Roman Catholics, Jews and minor sects—no returns are accessible. It is thus idle to attempt to estimate the money value of the annual contributions to these objects, but of the importance of the total there can be no doubt.

For the flow of this great volume of benevolence no religious or moral cause peculiar to the last century can be assigned. No discovery has been made in moral science. No new revelation has been announced in religion. The differences of sects and schools have by no means diminished. If some of the more ignorant and fanatical of the old sects have almost disappeared there has been no diminution in the vigour of ignorance and fanaticism, whether amidst the Puritan, the reactionary or the atheistic camps. The only explanation which it is possible to offer of this increase of charity and this decrease of crime during the past century is to be found in the general elevation of the people in material comfort. Nor is there any reason to suppose that the great increase of the population (had it occurred) would have led to this increase in wealth but for the steam engine. When men yoked the horse to his service, he commanded a mechanical power that is at least eightfold that of his own unaided strength, but which must be exercised under very nearly the same conditions as human toil. But when he learned to employ the mechanical power of heat, he not only reduced the cost of work by nineteen-twentieths as compared with that of horse power, but he rolled back the limits of speed and of augmentation of power to a distance as yet undefined. From that hour commenced the steady increase of the material comfort of civilized nations. With the increase in wealth and comfort has coincided a marked decrease in pauperism and in crime. We can understand how this should be, and we can understand how the future historian of England will point to Watt, Dalton and Stephenson as far greater benefactors of the human race than all the statesmen and politicians that ever lived.

PROTECTION GAINING GROUND IN ENGLAND

(New York Sun.)

The events of the past week make it plain that the reaction against Free Trade principles is acquiring great momentum in the industrial centres of Great Britain. The Conservative candidates, Mr. Lowther and Sir George Elliott, have been elected in North Durham and North Lancashire, and although the result is due in some measure to a transfer of the Irish vote, it is partly owing, also, to the commercial policy advocated by those gentlemen. Another sign of the times will be recognized in the current number of the *London Quarterly*, which comes out boldly in favour of reciprocity. This action on the part of the weightiest Tory organ, viewed in connection with the series of political incidents which began at Preston in May last with the election of Mr. Ecroyd on a "Fair Trade" platform, may be taken to prove that during the coming twelve month the battle of Free Trade will have to be fought over again.

The demand for reciprocal, equal, or retaliatory tariffs, under all which names the agitation for Free Trade has been described, has received a great impulse from the refusal of the French to renew the Cobden treaty, and the announcement of their intention to introduce a new scale of duties on English goods. It appears that the proposed increase ranges from 7 to 200 per cent., and on most cotton manufactures averages 150 per cent. This will be a grievous blow to British millowners, who have already lost so heavily through the imposition of a protective tariff in Germany. It appears that Manchester alone exported to the German empire in 1872 cotton yarn and cotton fabrics to the value of nearly $30,000,000, whereas last year the amount had sunk below $6,000,000. In 1872 Bradford sent to Germany woollen and worsted goods appraised at $13,300,000, while in 1880 its exports to that one country were not worth more than $5,000,000. Now, this grave falling off in the exports to Germany, as well as that which is threatened in the case of France, cannot easily be reconciled with the prophecies of Mr. Bright and other Free Traders, who have for years been assuring the British people that Protection was constantly growing weaker on the Continent. In these ill-founded assurances they were only echoing Mr. Cobden, who was thoroughly convinced that Free Trade would soon become universal if only England would set the pattern. "Adopt Free Trade," he said in 1846, "and there will not be a tariff in Europe that will not be changed in less than five years to conform to your example." In the same year Sir Robert Peel told his countrymen that, "Your example will ultimately prevail. I see symptoms of it already." Thirty-five years have now passed, and all the symptoms point to such an extension of protectionist principles upon the Continent as to threaten the complete extinction of the British export trade.

Mr. Cobden's predictions have been equally falsified in regard to the exchange of commodities between Great Britain and the United States. He took it for granted that if we bought largely from America the Americans would be obliged to take our manufactures from us in exchange. He contended that to suppose England could buy corn of other nation, while they refused to take our manufactures, was as much as to say that they would give her their corn for nothing. But, as it is pointed out in the *Cornhill Review*, there was another alternative which Mr Cobden overlooked namely that the exporting nation would ask to be paid for its corn in cash. It is certain that last year Great Britain bought of the United States commodities valued at $450,000,000, whereas its exports were not worth more than $415,000,000. A large part of the difference between these imports and exports had to be paid for out of the interest on the $10,000,000,000 which it is estimated British subjects have invested in American and other foreign lands. That Great Britain should be able thus to meet a debit proves indisputably that Great Britain is a rich nation, but not that it will continue so. We should guard also against the error of assuming that all the imports into the United Kingdom were in the shape of raw material. Even the *Economist*, whose adherence to Free Trade principles is well known, admits that last year foreign manufactured goods valued at $200,000,000 were introduced into England and sold in direct competition with her own fabrics. Other good authorities, including the chairman of the Bradford Chamber of Commerce, estimate the annual value of such imports at fully $350,000,000. These figures demonstrate that the products of countries which afford protection to home industries are beginning to vie with English wares, not only in foreign markets, but in England itself.

It is significant that the clamour for reciprocity is now heard from the very industrial districts in whose interest protection was originally abolished. Mr. Ecroyd was, as we have said, triumphantly elected at Preston, although the issue was distinctly drawn between him and the Free Trade League, and although he pledged himself to vote for a duty of ten per cent on all articles of foreign production, except the raw materials of manufactures. He contended that a duty on American wheat would not cause any appreciable advance in the price of bread, for ample supplies, he thought, could be procured from Canada, whose grain he would allow to enter duty free. It is a fact that even a small duty on wheat imported from foreign countries would add considerably to the British revenue, for even the old duty of a shilling a quarter, which Mr Lowe remitted, brought in about $5,000,000 a year, and the remission did not affect the price of bread at all. It is not pretended by Mr Ecroyd and the advocates of tariff reprisals that any duty likely to be imposed on American grain would enable the English farmer to grow wheat at a profit. But they propose to help the British agriculturist and manufacturer in another way, namely by remitting all the taxes which, in existing circumstances, are imposed upon them.

THE TRADE OF CANADA.

Until the full returns have been made public it will be impossible to accurately determine the progress in the trade of the Dominion during the past fiscal year, but from the monthly returns of imports and exports published in the *Canada Gazette*, which do not, however, include the figures for British Columbia, we can arrive at an approximate estimate of the extent of the trade of the country. The exports in 1880-81 were the largest in the history of the Dominion, reaching close on to one hundred million dollars in value, and the imports will exceed somewhat ninety millions of dollars, so that for the second year in succession we shall have an excess of exports over imports. In the previous fiscal year that excess of exports over imports for consumption amounted to $16,120,000, and in the year just closed the excess will be in the neighbourhood of $8 000,000. The whole volume of the trade of Canada in 1880-81 was some $190,000,000, against $151,800,000 in 1879, an increase of nearly fifty million dollars, or about 33 per cent. in the brief period of two years. This enormous recuperation of trade is a splendid evidence of the vitality which has been infused into the commerce of the country since the new fiscal policy came into operation, and while all must recognize the part which bountiful harvests and the renewed foreign demand for lumber have played in effecting this result, there can be no question that the co-operation of the National Policy has largely contributed to the great prosperity the people of Canada are now enjoying.—*Montreal Gazette*.

FREE TRADE INDICTED

The following are among the facts to which the attention of the British public has already been called by a thinker who looks on the present economic ideas as pernicious blunders:—

Under Protection the commerce of the whole world has increased 36 per cent. in ten years.

Under Protection the commerce of the United States has increased 64 per cent. in the same period.

Under Protection the commerce of Holland and Belgium, of France, of Germany, has increased respectively 57, 51, and 30 per cent.

Under Free Trade the commerce of England has increased 21 per cent. in ten years.

Under Protection America is accumulating annually £165,000,000 sterling.

Under Protection France is accumulating annually £120,000,000 sterling.

Under Free Trade England is accumulating annually £60,000,000 sterling.

Many experts maintain that since 1870 she was losing money instead of accumulating.

Protective America now exports more than she imports.

Protective France imports annually £6,000,000 more than she exports. The balance against her is £[illegible] per year.

Free Trade England imports annually £120,000,000 sterling more than she exports.

Wages have risen more rapidly in proportion in protective France, Belgium and America than in Free Trade England, and, what is of infinitely more importance, employment has been steady and continuous. The position of the operative under Protection in America is better in every respect than the position of his mate under Free Trade.

Operatives from all parts of the world flock to America, the land of Protection, not one ever comes to England, the land of Free Trade.

THE FLEET OF WHEAT SHIPS

Lloyd Tevis, in his recent article before the Bankers' Convention of Saratoga, estimates the amount of wheat available in California for export at the close of the present harvest, at 1,000,000 tons. The average cargo of wheat ships does not exceed 2,000 tons. This estimate is rather large, but if it is to be taken as approximately correct, it will require a fleet of 700 ships to carry away the surplus. Charters have been running from £3 to £4 per ton for wheat cargoes. Every ship which gets a cargo at either of those prices—and most of the charters approach the extreme figure—is a golden money. There is probably not another city in the world of no more population than San Francisco which is today furnishing as many profitable ship charters as this. The bulk of the grain will be taken away in foreign bottoms. To this cannot be helped. Money here is now abegging at 5 and 6 per cent., and a great deal has been loaned at less rates. A medium sized wooden ship will pay the cost of construction out of two grain charters to Europe at the present freight rates of freight. There is an abundance of the best material for shipbuilding. If fifty California built ships of 1,500 tons were now in the market for charter every one of them would probably be taken up. The 700 grain ships more or less, will come and go during the present year. They will represent the best commercial fleet in the world. The majority of them will be iron ships. All of them will be sailing vessels. No steamer has yet departed from this port bound to Europe by way of Cape Horn with a cargo of grain. This is the stronghold of sailing vessels. The steamship goes from England to China by way of the Suez Canal for a return cargo of tea. The Panama Canal is a remote fact, if ever at all, though not an impossibility. The wheat drift by rail to New Orleans and thence to Europe by steamer, is theoretical. One practical test will be worth a dozen theories. At present we have to do with the fact that a fleet of about 700 ships will be required to carry the surplus grain away from this State, and that not over one-third of the area suitable for wheat has ever been brought under cultivation.—*S. F. Bulletin, Aug.* 15.

SALE OF TIMBER LIMITS

Thursday afternoon, at the Grand Union Hotel, there were offered for sale by Mr. James Brewer, auctioneer, the following valuable timber limits situated on the Black River, in the Province of Quebec, which were part of the estate of the late Mr. Michael O'Meara of Pembroke:—License No 92, of 1875, comprising 50 square miles; license No. 91, of the same year, also comprising about 50 square miles; and license No. 90, of the same year, comprising about 8 square miles. The sale was made in order to wind up the affairs of the estate by order of the executors Messrs. W. O'Meara, W. Howe and J. Doran. Besides the limits above specified, there was also a farm of about 100 acres of good land on lot No. [illegible] and a considerable quantity of stock including about 50 tons of good hay. It had at first been intended to put the property up in lots to suit purchasers, but at the time of the sale it was determined to put up *en bloc*, the purchaser to take the stores on the farm at valuation. The terms of the payment were 10 per cent. cash, the balance in fifteen days, or 50 per cent. of the balance in fifteen days, and the remainder in 3 months, with interest, at 6 per cent. added. The attendance was large, as for a time the competition ran. The auctioneer announced that no bids under $500 would be taken. Mr. McCormick, of Pembroke, started them at $10,000, which bid was doubled by Mr. Alexander Fraser. Five hundred dollars was added to this; then came a bid of $22,000, and from that the figure rapidly ran up $1,000 at a time until $36,000 was reached. Here there was a short pause, and they were then slowly $500 at a time until knocked down to Mr. T.W. Murray, of Pembroke, at $38,000.—*Citizen*.

Go to bed at night and sleep. Leave your business where it was when you came away from it, till the next day. Don't bring it home with you.

TORONTO PRICES CURRENT.

GROCERIES

COFFEES		
[illegible] per lb	$0 27 @	22
[illegible]	14 @	21
[illegible]	28 @	31
[illegible] native	21 @	25
[illegible] plantation	28 @	32
FISH		
[illegible] scaled	28 @	32
[illegible] per 112 lbs	5 25 @	5 75
FRUIT		
[illegible] Layer, '80	2 40 @	2 50
London Layer	2 40 @	2 60
Sultanas, new	12½ @	13
Valentias, new	08 @	10
[illegible] new	07 @	08
old	00 @	00
[illegible]	00 @	00
[illegible]	00 @	00
MOLASSES		
[illegible] per gal	42 @	44
SYRUPS		
[illegible]	72 @	74
[illegible]	55 @	60
[illegible] Amber	60 @	65
RICE		
[illegible] 100 lb bags, 24 lb	04 @	04½
SPICES		
[illegible]	18 @	17
[illegible] whole, per lb	20 @	25
[illegible]	48 @	52
[illegible] ground	25 @	35
Jamaica, root	23 @	27
[illegible]	10 @	1 05
[illegible] black	13 @	15
white	17 @	10
SUGARS		
[illegible] Rice, per lb	08 @	
[illegible] Refined, low to extra bright	08 @	09½
[illegible] Granulated	10 @	10½
[illegible] Cut Loaf	11½ @	11½
TEAS		
[illegible] common to good	30 @	45
fine to choicest	47 @	47
[illegible] common to fine	42 @	45
[illegible] and Souchong	40 @	55
[illegible] good to fine	35 @	65
[illegible] Hyson, common to good	27 @	40
Medium to choice	45 @	50
Extra choice	55 @	62
Gunpowder, common to medium	40 @	47
Gunpowder medium to fine	42 @	45
fine to finest	50 @	55
[illegible]	55 @	65
[illegible]	33 @	40
TOBACCO, MANUFACTURED		
[illegible]	38 @	42
[illegible] Western Leaf, good to fine	38 @	45
[illegible] sorts, good to fine	46 @	62
choice	72 @	82
[illegible]	55 @	45

HARDWARE.

TIN		
[illegible] per lb. (four months)	21½ @	23½
[illegible]	26 @	28
COPPER		
[illegible]	17 @	19
[illegible]	21 @	31
[illegible] Sheet	05½ @	06
CUT NAILS		
[illegible] 60 dy. per keg of 100 lbs., [illegible] cut American pattern	2 65 @	00
[illegible] and 9 dy.	2 90 @	00
[illegible] and 7 dy.	3 15 @	00
[illegible] and 5 dy.	3 40 @	00
[illegible] dy.	4 15 @	00
[illegible] 3 dy. cold cut Canada pointed	3 15 @	00
[illegible] cold cut Canada pointed	3 65 @	00
HORSE NAILS		
(Discount, 40 to 45 per cent.)		
[illegible] Hammered	00 @	22
GALVANIZED IRON		
[illegible] No. 22	5½ @	6
[illegible] No. 24	5½ @	6
[illegible] No. 26	6 @	6½
[illegible] No. 28	6½ @	6½
IRON		
[illegible]—Carnbroe	20 00 @	21 00
[illegible] Summerlee	00 @	00
[illegible] Glengarnock No. 1	00 @	00
[illegible] Nova Scotia	23 00 @	23 00
Nova Scotia bar	2 40 @	00
[illegible] per 100 lbs	1 85 @	2 00
[illegible]—Corrigated	2 60 @	2 75
Band	2 60 @	2 75
[illegible] Plates	2 75 @	4 00
Canada Plate—Hatton	3 25 @	3 50
Pen	3 50 @	00
Swansea	3 55 @	00
Hatman	3 50 @	00
Boars Head	3 50 @	00
LEAD		
[illegible] per 100 lbs. (at four months)	5 @	6
[illegible]	4½ @	5
[illegible]	5½ @	6
[illegible]	6 @	6½
BABBITT METAL		
[illegible] 1		16
[illegible] 2		12
[illegible]		[illegible]
AXES		
[illegible] Pride	8 25 @	10 25
[illegible]	8 25 @	9 50
[illegible] Cutter	8 25 @	10 40
CORDAGE		
[illegible] and larger	0 13 @	0 13½
[illegible] inch	0 13 @	0 13½
IRON WIRE		
[illegible] per bundle four months	1 90 @	1 90
[illegible]	2 10 @	2 20
[illegible] 12	2 40 @	2 60
POWDER		
Blasting Can	3 60 @	3 75
[illegible] Sporting	4 50 @	5 10
[illegible] English	3 60 @	3 75
[illegible] Sporting, loose	4 90 @	5 10
WINDOW GLASS		
[illegible] and under	1 65 @	1 70
[illegible]	1 80 @	1 85
[illegible]	2 05 @	2 10
[illegible]	2 25 @	2 30
STEEL		
[illegible] Steel	0 13 @	13½
[illegible] Steel	0 8 @	6½
TIN PLATE		
[illegible] Coke (four months)	4 75 @	5 00
[illegible] Charcoal	5 75 @	6 00
[illegible]	7 75 @	8 00
[illegible] X	9 75 @	10 00
[illegible]	4 75 @	5 00

DRUGS.

[illegible] Cape	20 @	21
[illegible]	2 @	3
[illegible]	37 @	15
Camphor	38 @	40
Castor Oil	10½ @	12
Caustic Soda	2 75 @	3 30
Cream Tartar	35 @	37
[illegible] Salts	1½ @	2
Extract Logwood, bulk	10½ @	11
boxes	13½ @	15
Indigo, Madras	85 @	1 05
Madder	11 @	14
[illegible]	4 50 @	5 00
Oxalic Acid	12 @	14
Potass Iodide	3 00 @	3 25
Quinine	2 70 @	3 00
Soda Ash	02½ @	03
Soda Bicarb, per keg	3 25 @	3 50
Tartaric Acid	60 @	65
Morphine	2 50 @	2 75
Brimstone	02½ @	03

PETROLEUM.

Refined—Delivered in Toronto: [illegible] lear ked, per Imperial gallon	00 @	00
[illegible] 10 barrels	22 @	00
single barrels	23½ @	00

OILS

Cod Oil, Imperial gallon	00 @	[illegible]
Straits oil	[illegible] @	[illegible]
Lard, extra	[illegible] @	1 00
No. 1	[illegible] @	[illegible]
Linseed, raw	[illegible] @	[illegible]
boiled	[illegible] @	[illegible]
Olive	1 [illegible] @	1 [illegible]
Salad	1 [illegible] @	1 [illegible]
quart, per case	3 00 @	[illegible]
Seal	[illegible] @	[illegible]
Whale, refined	[illegible] @	[illegible]
Spirits Turpentine	[illegible] @	[illegible]

PAINTS ETC

White Lead, genuine, in oil, per 25 lbs	[illegible]	
No. 1	1 75	[illegible]
No. 2	1 50	[illegible]
No. 3	1 25	[illegible]
Dry	[illegible] @	[illegible]
Red Lead	[illegible] @	[illegible]
Venetian Red, English	1 [illegible] @	2 [illegible]
Yellow Ochre, French	2 00 @	2 [illegible]
Whiting	[illegible] @	[illegible]

WOOL

Fleece, per lb	21 @	00
Super pulled	[illegible] @	30
Extra pulled	[illegible] @	30
Combing pulled	20 @	21

HIDES AND SKINS

Steers, 60 to 90 lbs., per lb	[illegible] @	00
Cows	[illegible] @	00
Cured and inspected	[illegible] @	[illegible]
Calfskins, green	00 @	14
cured	00 @	[illegible]
Lambs'	00 @	[illegible]
Shearlings'	00 @	[illegible]
Tallow, rendered	6 @	6½
rough	[illegible] @	00

LEATHER

Spanish Sole, 1st quality, all weights, per lb., (4 months)	28 @	30
Spanish Sole, No 2	24 @	25
Slaughter, medium	28 @	31
light	30 @	28
Buffalo	21 @	25
Harness	32 @	35
Upper, No. 1, heavy	36 @	40
light and medium	41 @	45
Kip Skins, French	85 @	1 10
English	70 @	90
Domestic	50 @	60
Veals	70 @	75
Hemlock Calf (25 to 30 lbs.) to doz., per lb	65 @	70
36 to 40 lbs	85 @	90
French Calf	1 15 @	1 45
Splits, large, per lb	30 @	35
small	25 @	28
Enamelled Cow, per foot	16 @	18
Patent	17 @	20
Pebble Grain	16 @	18
Buff	16 @	18
Russetts, light	40 @	60
Gambier	5 @	6
Sumach	5 @	6
Degras	6 @	7

PRODUCE

FLOUR		
Superior Extra, per bbl, f.o.c.	6 10 @	6 05
Extra	5 75 @	5 80
Fancy	0 00 @	0 00
Strong Bakers	5 90 @	6 00
Spring wheat, extra	5 00 @	5 65
Superfine	00 @	00
Oatmeal	4 30 @	4 50
Cornmeal, small lots	3 30 @	3 40
GRAIN		
Fall Wheat, No 1, f.o.c	1 30 @	1 31
No. 2	1 30 @	1 33
No. 3	1 26 @	1 27
Spring Wheat, No. 1	1 32 @	1 33
No. 2	1 30 @	1 31
No. 3	1 23 @	1 28
Oats	42 @	43
Barley, No. 1	85 @	86
No. 2	78 @	79
No. 3 Extra	70 @	72
No. 3	60 @	65
Peas	80 @	81
Rye, new	65 @	00
Corn	75 @	00

PROVISIONS

Butter, choice dairy	20 @	00
Butter, shipping, per lb	10 @	00
Butter, crocks, city trade	20 @	00
pound rolls	20 @	00
Cheese	12½ @	00
Dried Apples	01½ @	01
Pork, mess	22 00 @	24 50
Bacon, long clear	11½ @	12
Cumberland cut	00 @	11½
Breakfast Smoked	13 @	13½
Hams smoked	13 @	13½
canvassed	14 @	14½
Lard	15 @	15½
Eggs	11 @	16
Hops new	15 @	22

SALT, ETC.

Liverpool, coarse, per bag	75 @	90
Canadian, per barrel	00 @	1 05
Stoved	1 00 @	1 00

BOOTS AND SHOES.

Men's Calf Boots	3 50 @	4 00
Kip Boots	2 25 @	3 50
Split Stogas	1 75 @	3 00
No. 1	2 50 @	3 00
Men's Congress and Balmorals	2 00 @	3 00
Boys' Kip Boots	1 65 @	1 95
No. 1 Stogas	1 55 @	2 00
Split	1 65 @	1 70
Gaiters and Balmorals	1 40 @	1 75
Womens' Balmorals and Gaiters, pegged	1 10 @	1 60
Womens' Balmorals and Gaiters M. S.	1 30 @	1 65
Womens' Batts	90 @	1 30
Goat Balmorals	1 70 @	2 75
Misses' Balmorals	75 @	1 00
Batts	75 @	1 10
Childs' Balmorals	75 @	1 00
Batts	55 @	75
Turned Cack, per doz.	3 50 @	6 00

LIQUORS.

Prices to Country or City Dealers.

IMPERIAL MEASURE		
Rye and malt	0 00 @	1 20
Brandy	3 01 @	4 50
Wine, Port	1 65 @	4 60
Sherry	1 00 @	4 00
Native	1 40 @	2 00
Rum, 30 o.p	0 00 @	4 25
Jamaica	2 00 @	3 25
Old Tom cases	3 80 @	7 00
Bitters, Bull, per case		0 00
Ginger Wine, No. 1		1 25
No. 2		1 00
Raspberry Syrup		1 00
Holland Gin, red		8 60
green		4 50
Irish Whiskey, in wood	2 50 @	4 00
Scotch	2 25 @	2 00
Brandy, qts	12 00 @	8 00
pts	10 00 @	11 00
½ pts	11 00 @	13 00
¼ pts	13 00 @	11 00
Claret	3 50 @	11 00
Guiness Porter, qts		2 55
pts		1 65
Champagne, qts	11 00 @	28 50
pts	13 00 @	28 50
Holland Gin	2 00 @	2 25

WEEKLY REVIEW.

TORONTO, Sept 14th, 1881

The past week has been an unusually busy one for this city, and the amount of business done has been simply immense. Our Industrial Exhibition is a most complete success, excepting it, the machinery department which may be considered a failure for want of exhibitors of either wood working or iron working machinery. The explanation of this very important omission is that the manufacturers of these classes of machinery are so busy endeavouring to catch up to their orders that it has been impossible for them to make any exhibit, their customers being in urgent need of the machinery. The display of tweeds and cotton and woollen goods is simply magnificent. A new company, the Hamilton Cotton Company, who are represented here by Winans & Co as sole agents, make a very fine exhibit of cotton warps, for which they receive a silver medal.

DRY GOODS.—Trade is very active. The city is full of buyers, who have taken advantage of the Exhibition to purchase their fall goods. Merchants are highly pleased at the amount of business doing and at the prospects ahead. Payments are reported as very satisfactory.

STOCKS.—The stock market has ruled very quiet during the past week, but prices have been generally well maintained. In bank stocks the fluctuations have been very slight. Imperial and Standard are each offered 1 lower, and have also suffered a decline of 1 in bid. The remainder of the list is very firm, with an upward tendency, for Hamilton 1 higher is bid than last week. There were no transactions reported to-day. Loan and Savings Companies.—These stocks generally are very firm, the only one on the list showing any tendency to fall back being Building and Loan, which is offered 1½ lower, and bid has declined ½; Canadian Savings is offered at 133 without bids, Farmers' Loan at 131, and Huron and Erie at 155½, the latter being a decline of 1½ since last week. Western Canada is 1 higher in bid; Union Loan 1 higher in bid, but held 3 higher, Manitoba 1 higher, several of the remainder of the list have advanced ½ in bid, the balance unchanged.

GROCERIES.—Business is very active consequent on the exhibition. Teas and sugars are very firm, the latter showing an upward tendency in prices. Granulated has advanced an ½ and the rest will be proportionately affected. Payments are reported very satisfactory.

HARDWARE.—There is great activity being displayed in this trade, and in order to keep up with their orders houses are obliged to work night and day.

DRUGS.—There is considerable activity being shown in drugs, and many articles are firmer or dearer in prices. The following show an upward tendency, viz., opium, castor oil, oil lemon, oil sassafras, oil winter green, cubebs and Canada balsam.

PAINTS AND OILS.—An active trade is doing. Linseed and lard oils are dearer and spirits turpentine and varnishes are much advanced.

WOOL.—The combing fleece market continues dull and spiritless, with few or no buyers. Holders of country lots purchased last summer at 25@26c have come to realize the dulness of the market, and the probable effect of the enormous surplus of these wools, and have been glad to dispose of their wool at 23@24c. Everything indicates that buyers' judgment was sound, as there is no prospect of better prices later on. Combing pulled of coarse sympathizes, and while it is held at 21@22c, its outside value to shippers is not over 20c f.o.b. The demand for fine medium and coarse wools for domestic consumption is active and values steady, and if anything a hardening tendency is noticeable. Super and extra are chiefly wanted, but as the home pull will now be getting longer the demand must be supplied from abroad, and those qualities cannot be imported at values current here.

HIDES AND SKINS.—Hides continue in light supply, with an excellent demand and prices are firm at quotations. For sheepskins there is a very active demand, all offering being readily taken at prices quoted. Rendered tallow is very scarce and wanted.

PRODUCE.—The flour and grain markets have been very active during the past week. The speculative demand was brisk as well as a strong demand to fill orders. Farmers seem inclined to sell wheat very freely, as deliveries are much larger than is usual at this season of the year. There have been large sales at prices ranging from $1 32 to $1.34 f.o.b. for both fall and spring, the former taken principally for export. Barley begins to move freely and all offered finds ready purchase at 85c for No. 1 and 78c to 80c for No. 2. Very few peas of the new crop have as yet been offered. Oats are in good demand at from 42c to 43c.

The United States consul at Sarnia has issued an earnest appeal to the people of Canada for aid for the sufferers by the recent disastrous forest fires in Michigan, hundreds of whom, he says, "who barely escaped with life, are rendered helpless and dependent cripples for the remainder of their days." Contributions of money, clothing, bedding and provisions are urgently needed, and may be sent to the Hon. E. C. Carlton, Mayor of Port Huron, Mich.

BRITISH PROSPERITY AND FISCAL LEGISLATION

(St. James' Gazette.)

The considerations which we have urged from time to time in our remarks upon the condition of British industry trade and production have been plain and obvious. We have not said a word to condemn or question the abstract theory of Free Trade, we have never argued for an exclusive system of reciprocity, and still less for universal retaliation upon Protectionist neighbours. Our contention is that these general terms, which are nowadays mostly used to save the trouble of thinking, have annulled neither the resources nor the duties of statesmanship, and that it is more than ever the province of our public men to do their utmost in preventing the markets of the whole world from being shut against our productions. And inasmuch as the assumption on the other side is that Free Trade is automatic and self propagating, and inasmuch as this assumption rests almost entirely on the authority of Cobden and Peel, we have striven to bring into clear light the fact that the expectations on which the existing fiscal system of this country was founded have been almost wholly disappointed.

It is an absurd way of dealing with this line of argument to suggest that, although Peel and Cobden have hitherto proved quite wrong in their previsions and calculations, they may yet prove to be in the right on some day before the crack of doom. Very probably they may. If the vision which the modern poet saw shall ever be realized, and if a "Parliament of Man" shall ever be found legislating for a "Federation of the World," it is possible that absolute Free Trade will be imposed by law on every State of that gigantic Federal Union. But the conversion of the nations which Cobden expected was to be extremely rapid, if not quite immediate. The day of the economical Pentecost had come. Peel, as we have pointed out, actually told the House of Commons that he could already discern signs of the extinction of the old blind faiths. And the reason why Cobden and his companions in agitation had this belief which Peel in his usual hurry of imitation borrowed from them was that it formed part of a great body of consistent belief. The constant opinions of Cobden were that wars were soon to cease, that the warlike spirit was kept alive in Europe chiefly by the influence of England, that nearly all other countries were wiser than his own country, which in all international matters had been uniformly in the wrong. Now these opinions are closely associated with zeal for unqualified Free Trade, and it is exactly because they have proved to be false that the area of Free Trade has been so steadily contracting. Before the poet's "Parliament of Man" undertook the functions assigned to it, the "battle flags were furled." This is just what they have not been in real life. They have been flaunting almost always ever since the Corn Laws were repealed, and at this moment they hang loosely on the staff. The fact is that what militates against the extension of Free Trade is nationality and every thing which goes with nationality. Communities which feel pride in themselves—in their powers, their characteristics, and their history—which is now common outside Great Britain, will not submit to depend on neighbours with whom they may have a difference any day even for luxuries, much less for food, which is life. And the concentration of interest in themselves which distinguishes modern societies has the effect of making foreign statesmen distrustful of Free Trade. For they have to do their best that national prosperity be apportioned among all classes, whereas the benefits of Free Trade are necessarily conferred at haphazard. Sometimes those who are already rich get richer by it, while some of the poor are more impoverished than ever, or one class suffers while another prospers. If we could say (which we cannot) that the British manufacturer is prospering, what are we to say of the British farmer? Trust to sound political economy, says the English theorist. But not so the foreign statesmen.

The practical question we have suggested is whether, if what was coming had been foreseen, the present fiscal system would have been introduced as it was—that is, without moderation and without limit. For the effect of this intemperate legislation was, as we have repeatedly shown, to deprive British statesmen of their principal weapons and tools. Nevertheless, on the only occasion on which Free Trade made a real advance, the feat was achieved not by the persuasiveness of sound doctrine, but by diplomatic bargain and sale. There is a sort of impression abroad that when Cobden negotiated the French Treaty he went and preached to the French people just as he had harangued the British mob. But France was then under a tyranny; and Cobden obtained a measure of Free Trade from the despot (who no doubt had a languid preference for it) by paying him a handsome consideration. The French market was in reality bought for us by an abandonment of a great part of the revenue from the wine duties. The actual fact, then, is that Free trade has by its own inherent recommendations simply made no progress whatever outside this country. A much larger part of the labour and capital of Great Britain than before—so large a part as to effect a complete transformation of industry—was turned into the production of cheap goods; and [illegible] countries were not sufficient to keep these goods out. But the barrier against them has always been progressively raised wherever it has not been artificially kept down by specific bargains with foreign States or, in other words, by arrangements wholly independent of abstract economical theory.

The truth is that, while statesmanship has done something since 1840 for our national prosperity, the mere application of strict economical theory has done infinitely less for it than its zealots allow or perhaps suppose. Ninety-nine hundredths of the enormous increase of our trade during the last half century are due to the application of steam machinery in a thousand ingenious ways—from the propelling of ships to the sharpening of pins. We pointed out the other day that this country has set to work a power equivalent to the force of seven and a half millions of horses. We consumed coal to the value of 200 millions sterling in 1854, in 1880 we consumed coal worth 500 millions. Beside such an instrument of the production of wealth the influence of all merely fiscal regulations fades into insignificance. We have been prospering through our coal just as Eastern and Southern France prosper through their sunshine. But then there is this difference between the situation of the countries we have named, and also between their ideas. We sell our stores of artificial heat to whoever will buy them, the Frenchmen of Gascony and Champagne cannot sell the natural warmth of their sun, and even if they could they would not. The result of making away with this part of our national capital has been to create the very competition which is so ruinous to us. Coal from British mines—and, we may add, machinery from British workshops—produce the very commodities which, independently of foreign tariffs, are entering into rivalry with our goods in all foreign markets. Only the other day a great part of the cotton manufactured in Normandy and French Flanders was made by the hand loom, now it is worked up by British machinery moved by British coal. British coal, in fact, is the aliment of almost every hostile industry in the world. Even the Indian mills, of which we have heard so much, feed their furnaces with imported English coal. Mr. Cross, who cannot be suspected of enmity to Free Trade, specified the other day an export duty on coal, together with an enhanced duty on wine, as at any rate a natural measure of retaliation on the countries which are making war on our manufactures. The ridiculous reply has been made that such a duty would encourage the production of coal in France. Blind faith in Free Trade has apparently gone so far that every country is supposed to be able to produce every article of use at pleasure. Everybody, however, who has the least notion of the French coal fields is aware that France can no more increase the quantity of her coal than she can sell her sunshine, there is, in fact, not a single country in Europe, except, perhaps, Belgium, which could manufacture profitably on a large scale without the help of coal from British mines.

RAILWAY MATTERS.

THE PACIFIC RAILWAY PROGRESS

(Toronto Mail, 12 Oct.)

Yesterday, Mr Duncan McIntyre of the Canadian Pacific Railway, Mr C Rose, of London, Eng son of Sir John Rose, Mr Chas. Cassels Mr Hugh McKay, and Hon Peter Mitchell arrived in town by special car from the West The members of the party have been on a tour of inspection of the Canadian Pacific Railway line, and have examined all the works in the west this side of the Rocky Mountains connected with the enterprise. The trip has been a rapid one but the gentlemen who took part in it have had an excellent opportunity of seeing the railway and the country. Mr. Rose visited the North-West for the first time In conversation with a *Mail* reporter last night, he said he had become a strong admirer of

CANADA'S WESTERN COUNTRY

An evidence of his good opinion of the country may be found in the fact that he has determined to take up immediately a 640 acre farm in the North-West The farm will be under the charge of an English agriculturist, who will bring out from England with him trained farm hands It is the intention of Mr Rose to make this farm a sort of model institution When asked as to his opinion of the land west of Winnipeg —and Mr. Rose has travelled about three hundred miles across the prairie— he said, "I think it is the finest country I have ever seen. I have often heard it spoken well of in England, and I came out expecting to find it rather below than above the laudatory descriptions which have been given of it; but I have been agreeably disappointed. I think the North-West is really a wonderful place, with wonderful capabilities As soon as the English farmers learn of its riches, and as soon as they understand that wheat farming is about the best thing they can go into, they will lose no time in coming out. The district that I saw is very much like England. It has a cultivated look—though it is still in its rude state—and on travelling across it it was difficult to imagine that it was anything but a series of well kept farms' Mr. Rose leaves for England on Saturday next. He will, before his departure, visit the very eastern end of the Canada Pacific, the line which, until recently, was known as the Canada Central. In company with Mr McIntyre, he will run up the line as far as it goes, and will proceed thence to Callender, the eastern end of the Lake Superior portion of the road. After viewing the Nipissing district, he will proceed to New York and embark for home. Mr. Rose has made a very fast trip across the country He arrived in Canada only a fortnight ago. He has been constantly travelling. For twelve nights, he says, he has never slept in a bed, and he does not expect to occupy one until he arrives in England, the nights being occupied in travelling. The *Mail* reporter who saw Mr. Rose found

MR. DUNCAN MCINTYRE

last night in the special car in which the party has travelled for the last two weeks. The car was lying in the Grand Trunk yard. In response to interrogation on the part of the scribe as to the route of the party and the result of the observations made, Mr McIntyre said "We went from here through to Winnipeg, and proceeded at once from that city along the line built by the Government to Rat Portage." It may here be remarked that the line from Winnipeg to Rat Portage is a portion of the branch from Fort William and Prince Arthurs Landing to Winnipeg, known as the Thunder Bay branch Two portions of this branch were put under contract by the late Government, the one extending from Thunder Bay to English river, the other from Keewatin west to Selkirk and Winnipeg. Upon the completion of these two portions of the line there *would have been a stretch of 185 miles* wanting between Keewatin and English river to make the road complete from Thunder Bay to Winnipeg The present Government undertook to perfect the branch and to build the missing link This link has been under construction for some time, and Mr McIntyre says regarding it "The bridges at Rat Portage across the river are finished, and they are commencing to lay the track upon Macdonald and Manning's section It looks now as if the line would admit of the running of trains along the entire Thunder Bay branch by the end of July next year, and as if that part of the road would be in complete running order for the emigration season of 1883 By that time we hope to have connection at Spanish river with Nepigon, in which event we will be able to carry passengers right through to the North-West on Canadian territory" After leaving Rat Portage, the party proceeded to Brandon, which is situated about 145 miles west of Winnipeg Regarding the line

ACROSS THE PRAIRIE

Mr. McIntyre said in reply to a series of questions "They are laying the track across the prairie at the rate of a mile and a half a day The road now touches within fourteen miles of Brandon, and the grading is completed and the road bed ready for the track up to Brandon, and for seven miles beyond that place The cars will run into Brandon in a fortnight When we were at Grand Valley, near Brandon, where the line crosses the Assiniboine, the piles for the temporary bridge across the river were being driven."

What is being done beyond Brandon" the reporter asked

"The road is under contract" Mr McIntyre said "for a hundred and fifty miles further The grading is going on under that contract, and a good deal of it is done

"What will be the result of your operations so far on the prairie

"Well, we expect there will be from Winnipeg west on the main line two hundred miles of track laid before winter sets in, and a hundred miles further west graded ready for tracklaying The tracklaying will be proceeded with as soon as the rails arrive in the spring Besides this the company will have this all graded and ready for receiving the ties and rails one hundred miles of the southwestern branch running from Winnipeg to the Pembina mountain district So that when the season closes the company will have a complete track for two hundred miles west of Winnipeg and the road-bed ready for two hundred miles more when spring opens The tracklaying next year will proceed at the rate of three miles a day, because gangs of men can be kept at work at each end of the graded section"

"What is the condition of the country through which you have passed"

"We drove thirty miles west of Brandon, and we drove along the south-west branch where the grading is being done and I must say the country is filling up well I found many settlers from this part of Canada there . they all seemed to be pleased with their changed circumstances. On the big plain west of Brandon the settlers are locating rapidly, and the crops there, as in other places, are really magnificent. The company's land office is open in Winnipeg now, and the lands that have been surveyed are open for settlement"

THE EASTERN SECTION

"What progress," asked the reporter, "is being made with the eastern section of the road?"

"We are proceeding with the eastern section as fast as we can, but no very marked progress can be made until the track of the Canada Pacific—until recently known as the Canada Central—has reached Callender."

"The contract specifies that you shall commence at Callender on the 1st of July and it has been stated that you have not commenced the construction of the line from that point?"

"The statement referred to is not a correct one," Mr. McIntyre said. We commenced grading and clearing at Callender before July 1st, and we have continued vigorously ever since as fast as the character of the country will permit"

"A reported interview with you in Winnipeg makes you state that the track is being laid from Mattawa to Callender, and that two thousand men are at work west of Callender"

"Ah, I did not say that What I did say was that we have all the men working on the railway west of Mattawa that can possibly be put on the work, and according to the last pay sheet I said there are about two thousand men and two hundred and fifty horses employed. Of course everybody knows that in railway construction a great deal of work in advance of the men who prepare the road bed has to be done. The road has to be surveyed and located, for instance We have five parties of surveyors out now, surveying between Callender and Nepigon. The force of men now engaged west of Mattawa and east of Callender will be continued, and the construction of the road from Callender west will be prosecuted with at least the same energy and vigour as was the building of the Canada Central. In the course of a few weeks the whole force now employed on the Canada Central extension east of Callender will be working upon the Canada Pacific west of Callender The work was commenced before the 1st July We intend to continue it, and there is no doubt that we will complete it within the time specified in the contract."

EASTERN CONNECTIONS

"I understand," the reporter remarked, "that you are connected with the Ontario and Quebec railway scheme"

"I am and I am in a position to say regarding that road that it will be carried through and finished within two years We intend to build from Toronto to Perth, and to use the line of the Canada Central from Perth to Ottawa. With this line and with the Credit Valley, its western connections, and with running arrangements with the Q M O & O Railway from Ottawa to Montreal and Quebec, we will have a second through route from Chicago and the west to Montreal and Quebec, running across Canadian territory I may also say that under the charter of the Atlantic and North-West Railway Company we intend to bridge the St. Lawrence at Montreal While the other line will give us a Canadian route to the seaboard, this line will give us connection with the entire American railway system south of the St Lawrence As regards the Sorel branch," Mr McIntyre said in reply to a query, "tenders have been called for the grading of sixty miles from Spanish river east We are pushing the road at all points. Rolling stock is being built for us in the various yards, and locomotives have been largely ordered. The car factories are as busy as they can be, and we are about to start car and locomotive works of our own at Montreal. As to the track laying, I can safely say that we expect to reach the Rockies in two years from now, or in about the fall of 1883."

The traffic returns of the Grand Western Railway of Canada for the week ending Sept 2nd last are as follows —

Passengers	[illegible]
Freight and Live Stock	[illegible]
Miscellaneous	[illegible]
Total	[illegible]
Corresponding week last year	[illegible]
Decrease	[illegible]

SCIENTIFIC AND PRACTICAL.

AN INTERESTING BOILER EXPERIMENT

Numerous instances are on record of strong boilers, well made in all respects and handled with good care, having suddenly exploded with terrific violence, just at the instant when the valve was opened to admit steam to the cylinder, or at the moment when cold water was injected into the boiler The usually received theory of this class of explosions is that by opening the valve or throwing in cold water, the pressure of steam on the surface of the water is suddenly reduced, whereupon the water, charged as it is with the tremendous energy of its heat, leaps from its place, divides, and strikes with the solidity and force of cannon balls against the interior walls of the boiler, tearing everything to pieces with resistless momentum. Water may in fact be easily heated to such a degree that a pound of the liquid will equal a pound of gunpowder in energy At sixty pounds pressure to the square inch every cubic foot of boiler water has the energy of a pound of gunpowder Given the proper conditions for discharging that energy against the boiler, and it will be rent as if it were exploded with a corresponding weight of cannon powder

Mr. Daniel T. Lawson, of Wellsville, Ohio, has recently produced a form of boiler designed to promote safety in the use of steam by preventing all danger from explosions or injurious strains arising from the causes mentioned. In an article describing his invention Mr Lawson's theory is fully set forth; it differs somewhat from that stated as ordinarily held. He claims that "when water is superheated it becomes as explosive as gunpowder, exploding by bursting into steam from a reduction of pressure." This explosive formation of steam produces a concussion on every inch of the boiler, much greater, Mr L thinks, than the regular steam pressure "There is abundant reason to believe," he says, "that it is this concussive action which causes the numerous and mysterious boiler explosions, and which cause is wholly independent of the amount of water in the boiler, in fact the greater the amount of water in the boiler the more terrific the explosion"

Mr Lawson has lately tried, at Pittsburg, Pa, a very interesting and important practical experiment, for the purpose of verifying his theory and demonstrating the advantage of his invention His first step was to prove that boilers were liable to and did explode in the manner he asserted; and this he has apparently proved by actually getting up an explosion, which took place at the time and hour he named, and in the way he said it would, namely, by simply opening the boiler valve and letting off some steam

This experiment has been heretofore tried by various engineers, some of them very learned, but Mr. Lawson is the only one, so far as is known, who has succeeded. He has certainly taught us a good lesson in the boiler explosion art, which will probably result in great benefit. A letter in the *Tribune* gives the following particulars —

"The experiments were made in June, at Munhall Farm, on the Monongahela river, nine miles above Pittsburgh, Pa, where the United States Government Commissioners made signal failures in their attempts to produce the same result a few years ago. The same foundations, furnaces, water supply, and bomb-proofs were used on this occasion The boiler was made of the very best iron, and showed a tensile strength of 624 lbs. to the square inch, according to the United States standard. It was six feet in length by thirty inches in diameter Before being taken to the ground it was tested by the boiler inspector and pronounced one of the best and most perfect steam boilers he had ever examined

"The cylinder of an old steamboat engine was connected with the boiler by means of a two-inch pipe, in which was fitted a quick-lifting valve The steam was permitted by means of this valve to enter the cylinder In the same manner as it enters the cylinder of any ordinary engine, with the exception that it was not cut off suddenly, as in a working engine Had it been Mr Lawson claims the explosion would have been still more certain When the pressure reached a certain point the furnace was fed with petroleum by means of a small pipe connected with a tank located at a safe distance

The majority of those who saw the boiler were of the opinion that it would safely stand 500 pounds pressure, and would not give way to less than 600 In order to save time no test was made until a pressure of 325 lbs to the square inch had been obtainable. The valve was then lifted quickly, and the steam rushed into the cylinder rapidly, but with no other effect than to produce a shock which was distinctly noticeable by those in the bomb proof.

"The final test was made at a pressure of 380 pounds, a little over half the capacity of the boiler. At this time the water was eight inches above the fire line, the boiler being at least three-fourths full No sooner was the cylinder filled by the rushing steam than a slight shock was felt, followed by a terrific report Vast volumes of steam developed everything, but there were no signs of any hot water, it all having thrust into steam when the pressure was removed

The report had scarcely died away before a shower of condensed steam began falling, accompanied by pieces of iron, bricks, steam pipe and other debris Nearly a section of the furnace or boiler was left The latter had not merely given way at a single point, but was literally torn into fragments. One of the largest pieces yet found was about a foot and a half long and a foot wide It had been blown fully half a mile from the bomb-proof The other one had not been found at last accounts The most of the pieces picked up were of irregular shape, with very ragged edges, showing the iron to have been of excellent quality

Mr Lawson has invented a boiler which he believes to be proof against explosions of this kind. It is constructed with a partition intervening between the flues and the top of the boiler, thus creating a steam compartment over the water, to be supplied with steam from the water through valves in the partition, which valves, to ensure safety, must be smaller in the aggregate than the port or valve through which the cylinder is fed from the steam compartment. By this means the pressure is kept approximately uniform upon the surface of the superheated water, thus preventing the dangerous effect which must follow the sudden reduction of pressure from its surface Mr Lawson's next step will be to show that his improved boiler cannot be exploded.

METHODS OF WATERPROOFING CLOTHS.

Without considering the process by which cloth is waterproofed by such substances as India rubber, oils, wax and varnishes, there are several processes in practical use by which cloth is rendered non-absorbent of water—and for all practical purposes waterproof—without materially affecting its colour and appearance, greatly increasing its weight, or rendering it entirely air proof. These processes depend mainly upon the reaction between two or more substances, in consequence of which a substance insoluble in water is deposited in the fibres of the cloth. The following are several of these processes —

LOWAY'S PROCESS.

Soap	2 ounces
Glue	4 "
Water	1 gallon

Soften the glue in soft water and dissolve it, together with the soap, in the water by aid of heat and agitation The cloth is filled with this solution by boiling it in the liquid for several hours, the time required depending upon the kind of fibre and thickness of the cloth. When properly saturated the excess of liquid is wrung out and the cloth exposed to the air until nearly dry; then digested for from five to twelve hours in the following solution —

Alum	12 ounces.
Salt	15 "
Water	1 gallon.

It is finally wrung out, rinsed in clean water, and dried at a temperature of about 80° Fahr.

Paut's process requires a small quantity of oil, but in other respects resembles the last. It is given as follows —

Sodium carbonate (commercial)	1 pound
Caustic lime	½ "
Water	2½ pints.

Boil together, let it stand to settle, then draw off the clear lye, and add to it—

Tallow	1 pound
Resin	½ "

previously melted together Boil and stir occasionally for half an hour, then introduce—

Glue (previously softened)	1 oz.
Linseed oil	3 "

and continue the boiling and stirring for another half hour. In waterproofing one-half ounce of this soap is mixed with a gallon of hot water, and in this the goods are soaked for about twenty-four hours, according to thickness and character The pieces are then allowed to drain until partly dried, then soaked for six hours or more in a solution prepared as follows —

Aluminum sulphate	1 pound
Lead acetate	½ "
Water	8 gallons

Shake together, allow to settle, and draw off the clear liquid—ring out after rinsing, and dry at a temperature of 80° Fahr.

Bienvaux uses instead of glue and oil as above, the gelatinous portion of seawrack grass with a small quantity of a drying oil and common resin soda soap.

In Reimann's process the cloth is passed slowly by machinery through a tank divided into three compartments, the first containing a warm solution of alum, the second a warm solution of lead acetate, and the third pure water, which is constantly renewed The cloth on passing from the latter is brushed and beaten to remove the salt adhering to the surface, and finally hot pressed and brushed. In this case lead sulphate is deposited in the fibres

In Townsend's process two solutions are used as follows —

British gum	[illegible]
Soap, white	[illegible]
Water	[illegible]

The solution is boiled [illegible] ules, and the cloth to be [illegible] of logwood liquor is added [illegible] solution consists of a [illegible] of alum in water, or —

Zinc sulphate	[illegible] pounds
Water	[illegible] gallons

Bullard's process is somewhat similar to Riemann's In this strong [illegible] solutions of sulphate of aluminum and lead acetate are used alternately —*Textile Manufacturer*

IMPROVED EFFICIENCY OF THE MARINE ENGINE

Perhaps the very large increase in steam shipping, and the change from sailing ships and paddle steamers to screw steamers, has been one of the greatest improvements of recent times, and it is none the less real or important from having been gradual, while the result to Great Britain has been most beneficial This change has been due in great measure to the introduction of very economical marine engines chiefly of the compound type, together with better boilers carrying a higher pressure Mr I. Lowthian Bell, F.R.S., read a elaborate paper before the Institution of Mechanical Engineers, Eng, on the 2nd inst, in which he remarked thus The marine boiler of to-day was in all its main features the same as it was 10 years ago The most noteworthy feature of to day in connection with the marine engine was the demand for largely increased power to meet the requirements of shipowners for large vessels and higher speeds He then treated of the questions of weight for and efficiency. To sum up, the whole progress has been made during the last nine years, in the following particulars 1. The power of the engines made at making showed a great increase Speeds, hitherto unattainable, were now seen to be possible in vessels of all the various classes 3 The consumption of fuel was reduced by 13 38 per cent on the average, and numbers of vessels were now working on much less coal than the average, while the quality of the coal was in nearly all cases inferior so that it was not unfair to take credit for 20 per cent. reduction 4 The working pressures of steam were much increased on the average, and were still increasing, many steamers were now being built for 120 pounds the square inch, while 90 pounds was the standard pressure now required As the increase of pressure meant increased efficiency, there did not appear any reason why the standard of 150 lbs. should not be sought as that of the future, combined with the adoption of the locomotive description of boiler and forced draught Higher speeds of revolution appeared to be desirable with a view to very great reductions in weight of machinery carried This implied careful balancing and adjustment of all working parts as well as of the steam to the work to be done. The more general introduction of steel in all its varieties was enabling the marine engineer to adopt means tending throughout to lighten working parts, and to increase velocities in a way he dared not attempt nine years ago.

Mr. Martell, of the Board of Trade London, said. He thought they were all agreed that steel was a much superior article to iron, and that a steel ship was infinitely better than an iron ship Questions as to the quality of steel, its uniformity, ductility and strength were settled; they had had sufficient experience to know that, for all practical purposes, steel was generally uniform in character, and that iron ships were not to be compared to steel ships. They got an infinitely better ship from steel, and he hoped the steel manufacturers would begin to try to bring down the price of steel so that steel ships could be built to carry measurement goods as well and as economically as dead weight He hoped to live to see the day when an iron ship would not be built.

Mr. John Rogerson (Weardale Iron Company) said he had obtained the details of a steel vessel engaged in the Bilbao trade. The length of the vessel was 216 feet, 30 feet beam, 17 feet 6 inches deep, and 16 feet 3 inches depth of hold, and it carried 1,300 tons of coal to Bilbao, and brought from Bilbao 2,000 tons of ore The builders price of the steamer was £17,000 in iron and £18,350 in steel, the difference being £1,350 The vessel was built in 1877 The steamer carried 80 tons of coal extra outwards to Bilbao, and brought 8 tons extra of iron ore back, and the extra amount received for freight over and above what would have been earned by a similar vessel built of iron was £365 per annum. The extra cost was for insurance, £148 10s., 2s a ton for loading and discharging extra cargo, £48 10s., 5 per cent. brokerage, £42, making £238 10s to be deducted from the £1,350 leaving £365 10s as profit on the extra cost of £1,350 He had got these figures from Messrs. Clapham that morning For in 1877 the firm had got another 2,000 ton steamer at a price of £16,000, which carried the same amount of cargo as the Weardale steel was supplied by him to Messrs. Mitchell & Co Looking at the matter in a commercial point of view, it was proved that steel ships would not cost much more than iron ships, and steel ships would carry more cargo and earn more freight. The main points which he intended to call attention to were

...s would draw less water in ... cargo, would earn more freight ... charge cost for repairs and renewals ... steel, would last longer If they ... the plates of iron ships and ... steel put into steel ships, they would ... difference so great that the ... engineers would discover the ... advantage of using steel instead of iron ... years ago he built 20 steamers ... on the River Tyne, and those ... were built of iron made from the ... hematite ore or sand The cost of the ... and renewals of those boats had ... so great during the 20 years that ... whole of them had at least been once ... [illegible] he was speaking of the shells ... not the machinery During those ... years himself and those connected ... him had been studying how to ... the repairs and renewals A new ... had commenced With steel there ... would ultimately be less wear than there ... was even in iron ships, and as permanent ... investment, steel ships would be better ... than iron ships.

Mr Withy (West Hartlepool) said ... short time ago a steel vessel built ... the Tyne, sat on a large stone, doubled ... her plates considerably, and broke ... me of the internal floor-plates. The ... underwriter gave it in the official report ... that if the vessel had been built of iron, ... she would have cracked her plates, and ... would have filled with water, and probably cost the club thousands of pounds ... He understood that the main question ... raised by Mr Price was whether, at ... days price, it was commercially beneficial to build vessels of steel instead of iron If Mr Price was offered either a ... steel vessel or an iron vessel at the same ... cost, Mr Price would say that the steel ... vessel would yield a greater net annual ... profit and therefore, he would take the ... steel vessel Mr Price suggested that, ... as an alternative, iron vessels should be ... increased in size, and the speaker showed ... the objections to that course being adopted He quite agreed it did not follow ... that, because large liners would pay if ... built of steel, all cargo carrying boats ... would pay also Last year, he built a ... steel boat, and it was not one of the ... most favourable types to show steel up ... well A large portion of the vessel was ... of light scantling, upon which they ... could not get the full reduction that ... Lloyds allowed The result was that ... the vessel carried 4 per cent. more dead-weight, and cost between £1,500 and ... £2,000 more than an iron vessel would ... at that time. He found that the amount ... of iron not replaced by steel was 15 per ... cent., and steel replaced iron to the extent of 85 per cent, and the weight of ... the steel was 14 per cent less than the ... weight of iron. The over-head saving ... by using steel and iron was 12 per cent. ... The vessel carried about 2,400 tons. He ... would assume she would carry for an ... average 300 tons of coal, leaving 2,100 ... tons for cargo Supposing the freight on ... 1,500 tons of that cargo was absorbed in ... paying all the working charges of the ... vessel, and that the profit-bearing portion of the cargo was only 600 tons. The ... increase of 94 tons which that vessel ... carried was a very much more important ... item than the 4 per cent. first named. ... Where the iron vessel could just run and ... make ends meet, the steel vessels would ... certainly have those 94 tons to get profit ... out of The steel vessel in question was ... built with no more stowage capacity, but ... when completed it was found she drew ... 9 inches less water. Another point of ... importance was that not a particle of ... steel, either in testing or work, was condemned in building this vessel; and it ... was the first experience of his firm in ... building a steel ship That was an item ... in favour of the cost of producing steel ... vessels. He believed, with Mr. John, ... that the insurance would come lighter ... in the end on steel vessels. He was responsible to the owners for recommending that the ships should be built of ... steel instead of iron; and he went into ... what he supposed would be the earnings ... account of such a vessel, to see whether ... the net earnings of a steel ship would ... pay, as against the increased percentage ... upon the value; and he would supply a ... few of the leading particulars for the ... transactions of the institution.

POSSIBILITIES OF CAST IRON.

There is a class of cast iron work that formerly was imported more extensively than now, which gave us minute articles of use, and even ornamental appendages to dress, so light in weight and so apparently fragile in form as to suggest fine hand labour. It was supposed that we had no material or means to reproduce such diminutive and fragile articles from cast iron But recent improvements, both in material and manipulation, prove that we can almost equal the delicacy of what is known as "Berlin iron" Fine charcoal iron possesses wonderful properties of fluidity when in a molten state, it finds its way into the smallest interstices of the mold, and comes out cooled, a definite reproduction of the impress of the pattern. So exact is this operation that lace lines, to be represented only by very fine fibre, come from the mold perfect in form and quite tenacious in texture Articles of cast iron, cast in a mold of sand, which require fifty or a hundred to balance a quarter-pound weight, are as readily produced here as articles weighing pounds It may be doubted if any metal is capable of producing more diminutive objects than iron. As instances of the possibilities of charcoal iron in castings, let any one examine the delicate shoe buckles and belt buckles, the shawl clasps, and ornamental hair pins, called steel, which bear a burnished surface rivaling that of silver He will find they are made of iron, very brittle, and showing a bright iron fracture. Quantities of these articles are made in England They are said to be cast in sand molds the same as masses of iron are cast and that come out as perfect as the heaviest castings In short the possibilities of cast iron range from the utmost capacity of adjoining cupolas, capable of melting thirty tons, to the hand ladle that, with ten pounds of metal pours out a thousand separate articles — *Metal Worker*.

SMELTING

A great triumph of mechanical skill destined, if all reports are true, to effect quite a revolution in the process of smelting, in which great economical advantages are obtained as regards time cost and quality, will shortly be introduced here. It is claimed for this new contrivance that it is not unlikely to entirely supersede the present method of smelting inasmuch as it utilizes crude petroleum as a substitute for, with results more valuable than the charcoal, coal or coke hitherto used An intense column of flame, varying from 90 to 100 feet long decomposes the petroleum into its original elements of hydrogen and carbon, which uniting with the oxygen of the air blast, forms an oxyhydrogen blowpipe flame of extraordinary power, managed and controlled with the utmost ease, the heat obtainable thereby ranging as high as four thousand degrees This wonderful smelting furnace is automatic and continuous in action, simply supply it with oil and ore and it performs its work effectively Add pig, or Manganese, and the ores are converted into steel at a single operation. Shovel iron ores into the upper end of a 10 feet cylinder with fluxes and pig iron runs out in a continuous stream, the rapidity of the process being something astonishing Recent experiments conclusively show that ten gallons of crude petroleum—costing but a few cents per gallon—will speedily reduce a ton of ore, the total cost of its conversion into a malleable iron being a shade less than two dollars and a half per ton of metal Steel produced by the Bessemer process is not equal in quality to that produced by the new furnace, whilst the furnace and plant cost about a fourth of the Bessemer It cannot be doubted that an invention of this importance, granting all that is claimed for it by reliable experts, is deserving of serious attention when we find that the value of iron and steel manufactures imported during 1880 summed up the grand total of $10,127,603, add railway bars and rails alone amounted to 1,339,603 cwts. the value being $2,152,633. Giving all due consideration to these important facts it is difficult to over estimate the advantages which so valuable a process may be realised in a country such as ours in the first instance by utilizing our own ores instead of exporting them to the United States, and then repurchasing them manufactured, also by rendering valuable deposits of iron now lying unproductive, and finally by creating in Canada a vast and profitable industry, giving work to thousands of willing hands, and retaining within ourselves the large sums every year sent abroad to pay for the iron required for our own use

STEAM ENGINE NOMENCLATURE

The steam engine has been often likened to a thing of intelligence, and it might also be said that it has a language With the proper instruments in hand and a knowledge of their use, this may be easily understood, and the engine, great or small, will tell you what it is doing

But to the masses this is not fully understood, and the result is that engines, as they are found in general use, do not get credit for what they do, and, if you will allow me, I will attempt to show to what extent this goes

One manufacturer builds a 10x10 engine and calls it a 20 horse power, another builds the same sized engine and calls it a 30 horse power In nine cases out of ten the latter will be censured for attempting to deceive his customers by overrating his engine

A careful test will probably prove *him* to be correct, but to many an indicator card has no meaning and furnishes no evidence of the power of the engine To this class there are other tests more convincing, to one of which I will allude.

The unmistakable value of a cubic foot of water falling a given number of feet accounts for the fact, perhaps, that the various makers of water wheels have harmonized so nearly as to the power of their respective wheels.

The millwright puts in his turbine or other kind of water wheel and demonstrates that with a given amount of water and given head he has 40 horse power This is applied to a circular saw mill, and when regularly run cuts from 8,000 to 10,000 feet of lumber per day

A neighbour concludes that he will go to the timber with steam power, in place of buying another waterfall and taking the timber to the power So he buys one of the first named 20 horse power engines and sets it to work, driving the same sized saw mill as the one driven by water, and to the astonishment of all, he is able to cut as much lumber as can be done on the water mill with its 40 horse power wheel

How is this accounted for? Simply by the fact that the man with his engine carries 110 pounds of steam and runs his engine at 150 revolutions per minute, and as a result he gets 40 horse power out of his 20 horse power engine

I am aware that it is not every style of engines that will work up to the ratio of the nominal power, but one that is properly constructed will do this and as all know who have had experience with new mill's such engines are always run to their maximum capacity

I have often thought that there would be the same property in giving a tabulated rating of power for a given sized engine working at various speeds and under varying pressure that there is for giving on a table to show the power of a given sized wheel under certain heads of water The one is as easily demonstrated as the other, and quite as important to the purchasers of either

My object in this is not to draw any distinguishing comparisons between the two but simply to give the steam engine credit for what it does — *Correspondence Iron World*.

HOOPING BY ELECTRICITY

A most interesting application of electricity to motive power is seen at the Paris electric exhibition in the ploughing machines of the late M Méner, exhibited by M Feltx, which do the work of about 18 horses In these are employed a pair of the large form of Gramme machines, which were first made for them, but which have since become the usual form for Gramme motors The ring armature has four poles opposite which are the poles of the fixed magnets, each fed by two arms, giving somewhat the appearance of a square with a I four sides prolonged each way, and enclosing a circle. All the eight arms are connected by an octagonal framework of a very solid form, forming part of the field magnets This is undoubtedly the most compact form of Gramme machine which has been made. This machine is at one end of the electrical locomotive, at the other end is the gear for directing the motion of the whole engine forward or backward in the field to be ploughed, or for stopping it and putting in action the machinery for winding up the large coil of wire rope, which coil is in the middle of the engine. The wheels are, of course, wide, like those of a traction engine, so as to be able to pass over ploughed land. One of these engines being stationed at each end of the field, with a triple-shared reversible plough between them, the electric contact is made, the Gramme machine turns round and winds up the wire, and so draws the ploughshare along. When the plough has reached the end of a furrow the engines advance a step by gearing the Gramme machines to the proper wheels, the plough is tilted so as to bring three other shares into action, and the engine at the other end of the field pulls it in the reverse way.

RAPID MODE OF DRIVING DRIFTS AND TUNNELS.

An interesting experiment is being made in the Arlberg tunnel with a new sort of perforator As is well known the perforators used in the Mont Cenis and St. Gothard tunnels consisted of a series of chisels (not diamond pointed as has sometimes been stated) driven with a pick hammer-like action by compressed air; the machines for the production of which were actuated by turbines at the two ends of the galleries This system is the one in use on the eastern or Austrian side of the Arlberg The chisels cover a space of seven square metres and make twenty to twenty-five holes at one time, each from one and a quarter to two metres deep These are then filled with dynamite and the mine exploded Every blast lengthens the drift by about one and a quarter metres The perforators move forward on wheels, and the air, compressed to a pressure of five atmospheres, is supplied through flexible tubes. On the west side drills are employed, of a diameter of seventy millimetres, to which, by means of a water pressure of from sixty to one hundred atmospheres, a rotary movement is communicated Six or eight of these drills are as effective as twenty to twenty-five of the atmospheric perforator, and the holes they make are so much wider that equal results are produced with lighter charges of dynamite. But the greatest difficulty in Alpine tunneling consists less in quarrying out a passage than in getting rid of rubbish After every blast, the outcome of it, in the shape of loose material, must be removed before boring operations can be resumed, and when an atmosphere, already close and impure, is still further fouled by the smoke of an explosion, the labor of removal becomes dangerous as well as difficult

TRANSMISSION OF POWER BY ELECTRICITY IN MINING

The first instance on record of the application of electricity for the transmission of power is reported from France. M Mathet has submitted the details to the Societe de l'Industrie Minerale The St Claude shaft at Blanzy was sunk to the depth of 850 meters (2,040 feet) for the purpose of searching for a faulted portion of the coal seams, and a heading was run from it across the strata When this heading had reached a length of 400 meters (1,312 feet) the ventilation became so poor that the temperature at the face rose to 95 Fahr., and the miners could only work for a few hours After some ineffectual attempts to improve the ventilation by simple means, it was decided to put in a fan 2.61 feet in diameter and run it by power transmitted by electricity An 8 to 10 horse power portable engine was put above ground, and with it a Gramme dynamo-electric machine was run at a speed of 1,200 revolutions per minute The electric current thus generated was conducted by a cable consisting of seven No 16 B.W.G. copper wires to a second Gramme machine coupled directly with the fan and placed in the heading 2,300 at the shaft Running at 700 to 800 it required 2½ horse power, the useful effect being at least 60 per cent The temperature at the face was only lowered five degrees, but the men could work in eight hour shifts The return current was conducted from the underground machine by an iron wire cable The cost of the whole plant is stated to have been only one-third of what a machine for delivering compressed air to the heading would have required

SPLENDID WORKS OF ROMAN ENGINEERS

Modern engineers are apt to boast that no work of the ancients can compare with their railways, it is not quite certain that this boast is strictly correct, the roads and bridges, and aqueducts of the Romans, will by many be considered as greater works than railways What modern engineer or architect, or both combined, has brought the branch of a river from a rocky gorge in the hills 40 miles off, where the water is generally clear and never fails, to supply London with, as the architects and engineers did to supply Rome? This water was conveyed in a stone pipe five feet high and two feet wide, by a gradual, gentle descent, sometimes on the top of a lofty bank by the side of the river Anio (from which the water was taken) when its course was sufficiently direct from east to west, but at the intervals the line of the river had to wind considerably to the north or south around the base of a hill, in those cases the engineers pierced their pipe through the foot of the hill, sometimes for two or three miles until it met the bed of the river again; then, when they had arrived at the foot of the hills on the level ground called the Campus Romanus, in which Rome stands, and through which the Tiber winds its course, they carry their stone pipe, called a specus (because it was at first subterrean), upon a magnificent arcade five miles long, varying in height according to the level of the ground, gradually emerging from a hill on a level at first, and then arising sometimes gradually, sometimes suddenly, to a height of 40 or 50 feet, where they had to cross the small streams that run across the country And this arcade was built either of stone or faced with stone almost throughout The specus of Claudius is carried on an arcade of cut stone: that of Nero, which is on the top of that of Claudius, is faced with the beautiful brick work of his time, the finest brick work that has ever been made The celebrated aqueduct bridge called the Point du Gard, in the south of France, is a Roman work of third and fourth century, with a carriage road by the side of it, as was usual in aqueduct bridges When the English engineer architects, have supplied London with water as abundantly as Rome was supplied in the second or third centuries, and can show as fine brick work as that of Nero, they may pretend to rival the engineer architects of ancient Rome but not before

All bells, says *Iron*, are cast with their notes sharp, and the flattening of the note is then accomplished by turning away more or less of the inner surface of the lip. To sharpen a bell's note there must be a slicing away from the lip, and this cannot be done to any extent

A Mr Conant, of Prairie du Chien Wis., has patented a compound to be used in the welding of steel or in the restoration of burnt steel, composed of sulphate or other salt of copper, resin and sal ammoniac. This is thrown upon the metal under treatment, thereby becoming incorporated with it.

It is considered bad practice to make the bottom of stuffing boxes or glands flat, as when the gland presses upon the packing, it has a tendency to flatten it, rather than close it tightly about the rod. *The bottoms of all stuffing boxes* and glands where fibrous packing is used should be of a conical shape in order to close the packing around the rod with the least possible pressure

A recent experiment in driving a fan blower, with no apparent slipping of belts, showed a loss of 8½ per cent between the engine and fan The number of belts or changes was three In other experiments with belts, not so carefully adjusted, the loss varied from 8 to 15 per cent., varying with the condition of the belts and pulleys, as well as with that of the atmosphere lubrication and other circumstances

A recent German patent employs two boilers one of which uses steam of a much higher pressure than the other High pressure steam is used in connection with the injector to carry a portion of the exhaust steam from the engine into the low pressure boiler To the above a contemporary says "It would seem to be a peculiar combination, and much like a man a lifting himself over a fence by taking hold of his boot straps"

The various hydrocarbons employed for lubricating purposes are sharply distinguished from animal and vegetable fixed oils by the fact that the former are practically unaltered by alkalies, while the latter are converted more or less readily into soaps From a chemist's point of view the process of "saponification" consists in the reaction of a fixed oil with the elements of water, resulting in the formation of a fatty acid and glycerine or some allied body

An endeavour has been made in Germany to replace the carbon in the Bunsen cell by cast iron *In this couple* says the *Electrician*, the iron plunged in concentrated azotic acid at first assumes a passive state after a certain time, however, the concentration of the liquid diminishes, and the iron dissolves with effervescence, and the cell has to be unmounted at once Dr Veltmann, however, has found a means of remedying this by adding silicium He thus obtains a metal which remains inactive, and the strength of the battery is not diminished The addition of silicium permits also of more azotic acid being used

The difficult task of removing the great iron tower erected for Centennial purposes in Philadelphia, known as Sawyer observatory, has just been successfully accomplished It was 100 ft in height, 8 ft in diameter at the base, and weighed 40 tons By means of a pair of shears, formed of two massive timbers 90 ft. long, fitted with a block and tackle, the tower was swung from the centre and lowered to the earth, where it will be separated into sections of 25 ft each for removal to Boston This, it will be recollected, was the manner in which Lieut Corringe took down the famous monolith, in Egypt, preparatory to its removal to New York.

Raoul Pictet, of Geneva, so well known for his discoveries relating to the liquefaction of gases, announces the discovery of a method of distilling alcohol by ice. Two kilograms of ice are needed for the production of a liter of alcohol; that is, for the distillation of 110 gallons of alcohol, a little less than a ton of ice will be required The cost of production will include only coal for working the steam engine which drives the air pump, and the sulphuric acid, the evaporation of which produces the ice M Pictet declares that this will notably diminish the expense of distillation, and suggests that the excise on alcohol should be proportionally increased.

The experiment of running a locomotive without brakes has just been successfully tried by the Delaware, Lackawanna & Western Railroad Co The locomotive is of ordinary pattern, but has an extra pipe leading from the boiler to the steam chest, by which power can be applied against the piston checking the engine and enabling the engine to reverse without "hauling over" The value of this device is extremely questionable The racking steam on the engine will be quite the same when steam from the boiler is admitted on the opposite side of the piston, by means of an independent steam pipe as when it is let in through the steam chest by throwing the valves over.

The *American Machinist* says: One of the most interesting things in the tool line, noticed by us in a recent visit to the Pennsylvania Railroad machine shops at Altoona, was the use of cast iron lathe tools We saw one tool which had been used to face off four cylinder heads without grinding The workmen do this work by the piece and are allowed to choose either steel or cast iron tools The whole secret of the success of cast iron tools lies in the use of proper iron, and in getting a good chill in casting The iron used in this case is the same as that used for car wheels, and takes a good chill. These tools are also used for planing hard cast iron, and are found to stand where the edge would be burned off a steel. They are also used for turning and planing wrought iron and steel

President Hammett, of the Feldmont factory, South Carolina, in a recent address said that the South, for the present, should confine itself to manufacture of the heavier cotton fabrics and to yarns. This was explained by the statement that the peculiar advantage at the south is the saving in the cost of cotton and in cheap labour, therefore, the greater the weight of cotton used in the goods that will pay a good profit, the greater the profit on the investment Mr Hammett also said that there are many manufacturers at the north now, with small mills, with machinery suited for making heavy goods, who could, with great advantage to themselves, move with their machinery to some good location in the South and make such goods as they are prepared to make cheaper and with larger profit to themselves.

It is of great importance that a belt should be of such a length that it will adhere to the drum so much as to prevent slipping, and that without the necessity of pulling on the belt so tight as to cramp the drums and wear the bearings Every belt, to run easy and well, should be so slack when running that the slack side should run with an undulating motion without any tension except on the leading side, and when belts will run so, without slipping on the drums or pulleys, they will wear for a great length of time, for, although a belt may be heavily loaded, yet if at every revolution it can have an opportunity for relief from its tension, it will prevent it from breaking by the stress upon it; but if it be kept strained to its greatest extent on both sides of the drum it will crack at the edges and soon become destroyed. Belts should not run tensely, as it will injure them, increase the wear of the bearing, and, if running a millstone, is apt to pull the spindle loose and out of train

MONTREAL PRICES CURRENT.

GROCERIES

TEAS

Congou, fine to finest			
" fine to good			
" common			
Gunpowder fine to extra			
" seconds			
" thirds			
Oolong, medium to good			
" fine to extra			
Japan, choicest			
" choice			
" finest			
" good medium			
" medium			
" common			
" dust			
Oolongs, choicest			
" fine			
" good			
Twankay, choice to finest			
" fine to good			
" common			
Twankay			
Young Hyson, fine to finest			
" seconds			
" thirds			
" fourths			

COFFEE

Cape			
Ceylon			
Java, old Government			
" Ordinary			
" Singapore			
Jamaica			
Laguayra			
Plantation Ceylon			
Rio			
Maracaibo			
Mocha			

SUGARS.

Barbadoes			
Cuba			
Cut Loaf			
Granulated			
Do. Diamond A			
Grocers' A			
Montreal yellow			
Portoflico			

SYRUP.

Amber			
Diamond Drips			
Imperial			
Lord Lorne (nominal)			
Pale Amber			
Royal Imperial			
Star Amber			
Standard			

MOLASSES.

Barbadoes (Imp. gallon)			
Cardenas			
Centrifugal			
Filtered, brls			
Filtered, pun			
Muscovado			
Porto Rico			
Sugar House, brls			
Sugar House, pun			
Trinidad			

FRUIT.

Almonds, hard shell			
" soft "			
" Jordan shelled			
" sweet "			
Brazil nuts			
Currants, new			
Dates, golden			
" black			
" finest			
Figs, Pleme layers			
" Malaga mats			
" " boxes			
Filberts			
French Prunes, boxes			
" " kegs			
Raisins, black crown			
" London layers			
" Loose Muscatel			
" Old Loose Muscatels			
" Layers			
" seedlers mats			
" old			
" Black basket			
" blue "			
Sardines, quarters			
" halves			
Sultanas			
Valencias			
Walnuts			
Walnuts, Grenoble, genuine			

SPICES.

African Ginger			
Allspice			
Cassia			
Cloves			
Jamaica Ginger, bleached			
" " unbleached			
Mace			
Mustard Seed, yellow			
" ground, 4lb jars			
" " 1lb "			
Nutmegs			
Pepper			
Do white			

RICE.

Rice			
"			
Patna			

SALT.

Coarse (to the ton)			
Eureka, bags			
" halves			
" quarters			
Factory Filled			

FISH.

Canned Fish—			
Lobster, 1lb cans			
Mackerel, "			
Salmon, "			
Dry Cod (Gaspe)			
Green Cod in barrels—			
No. 1			
No. 2			
Large do., draft, No. 1			
" " " 2			
Herring, Labrador			
" Canso, No. 1 split			
Lake Superior White Fish, half barrels			
" Salmon Trout half barrels			
Columbia River Salmon, bbls			
" " No. 1			
" " 2			
" " 3			
Scaled Herring			
Split Mackerel, No. 1			
" " " 2			
" " " 3			

LIQUORS.

Brandy, Hennessy's, per gal			
" " cases			
" Martell, per gal			
" " cases			
" Otard Dupuy & Co., per gal			
" Pinet's, per gal			
" Vine Growers' Co., per gal			
" Dulary & Co., per gal			
" Jules Robin's, per gal			
" Lavigne Gardra & Co., per gal			
" Renault's, per gal			
" J. Denis, H. Mounie & Co., per gal			
" Arbouin, Marett & Co., per gal			
" De Luze, Fils & Co., per gal			
Rum, Jamaica, Inspn, per gal			
Demerara			
Cuba			
Gin, De Kuyper's, red cases			
" " green "			
" " in wool			
" Blankenheym & Nolet, other brands			
" " green, other brands, per case			
" " red, other brands, per case			

Linseed Oil, Imperial			
Linseed Oil, American			
" " boiled			
Highwines, 2 O.P. Imperial gal in bond			
Rye Whiskey, 1 O.P. gal in bond			
" " in small lots duty paid			
Bass' Ale, quarts			
" pints			
Guinness' Stout, quarts			
" pints			

Champagnes

Pommery			
Perrier Jouet & Co			
Ayala & Co			
Moet & Chandon's Extra			
" " Superior			
" " No. 1			
Bollinger			
" No. 2			
Theo Roederer, Carte Blanche			
" " Gold Seal			
Jules Mumm's Dry Verzenay			
" " Extra Dry			
" " Private Stock			
De St. Marceaux & Cie, Carte Blanche			
De St. Marceaux & Cie, Carte d'Or			
Max Sautaine			
L. Delmonico			
L. Jeunay, quarts			

Sherries—

M. Misa			
Penartin's			

Ports—

Cockburn, Smithes & Co			
Geo. G. Sandeman, Sons & Co			
Port Wine, Graham's			
Pelee Island Wines			

Sparkling Sauterne—

Rousteaux's, quarts			
" pints			
Ackerman & Lawrence			

Clarets—

Barton & Guestier's			
Nathaniel Johnston & Sons, quarts			
Nathaniel Johnston & Sons, pints			

DRUGS AND CHEMICALS

Aloes, Cape			
Alum, per 100 lbs			
Arrowroot, per lb			
Borax, Soda, per 100 lbs			
Bichromate of Potash			
Bleaching Powder, per 100 lbs			
Blue Vitriol			
Borax, refined			
Camphor, American Refined			
" English Refined			
Castor Oil			
Caustic Soda, per 100 lbs			
Citric Acid			
Copperas, per 100 lbs			
Cream Tartar, Crystals			
" Ground			
Epsom Salts, per 100 lbs			
Gum Arabic			
" Tragacanth			
Indigo, Madras			
Iodide Potass			
Logwood, Extract			
Madder			
Opium			
Oxalic Acid			
Pipe Clay, per 100 lbs			
Quinine			
Sal Soda, per 100 lbs			
Saltpetre, per keg			
Soda Ash, per 100 lbs			
Sugar of Lead			
Sulphur, per 100 lbs			
Sulphur, Roll, per 100 lbs			
Tartaric Acid			
Whiting, per 100 lbs			

WINDOW GLASS

Window Glass, per 50 ft. or dimen 4th quality:			
1 to 5 lbd inches			
" 6 " "			
" 7 " "			

CORKS.

Lots to 5 m's, per gross			

LEADS & PAINTS.

Red Lead and Litharge			
White Lead ic			

SALT.

Half			
Butter			

OILS.

Cod, Gaspe, ₱ Imperial gal			
" Newfoundland, do			
Lard, Extra			
" No. 1			
Linseed, boiled, ₱ gal			
" raw			
Olive			
Palm, ₱ lb			
Paraffine—Canadian ₱ gal			
" American "			
Petroleum, refined, carloads			
" in small lots			
Seal, Pale, ordinary			
Seal, Straw			
Steam refined Seal			

NAVAL STORES.

Coal Tar			
Oakum—Navy			
Pine Pitch			
Pine Tar			
Resin—Strained			
" No. 2			
No. 1 & Pale			
Spirits Turpentine, Imp. gal			

CORDAGE.

Manilla rope			
Sisal			
Tarred rope			
Jute			
Cotton			
Sail, canvas duck			
" cotton			

CANDLES.

Belmont Sperm			
Mould, Montreal			
Paraffine, 12s & 6s			

IRON AND HARDWARE.

PIG IRON.

American			
Canadian Siemens			
Carnbroe			
Coltness			
Eglinton			
Gartsherrie			
Glengarnock, per ton			
Hematite			
Summerlee			

BAR.

Canadian Siemens			
Lowmoor and Bowling (under 25c lb)			
Scotch and Staffordshire, per 100 lbs			
Best Staffordshire, per 100 lb.			
Swedes and Norway			

CANADA PLATES.

Arrowhead Iequal			
Clifton			
Hatton			
Swansea and Penn., per box			

TIN PLATES.

Charcoal, I C, per box			
Charcoal, I X			
Charcoal, I D			
Coke, I C			
IX, 20c extra.			

TINNED SHEETS.

Charcoal (best) No. 26			
Coke "			

GALVANIZED SHEETS.

Morewood's Lion, No. 28			
Other brands, No. 28			
Hinge and Bands, per 100 lbs.			
Sheets, best brands			

WIRE.

Cast, per lb			
Sleigh Shoe			
Spring, per 100 lbs			
Best do, warranted			
Tire do			

Best Cast Steel, per lb			
Low priced Cast Steel			
Spring Steel			

ANVILS.

Anchor			
Anvils, Peter Wright's			
Vices, Clinton, 5 to 7 per cent discount			
Post No 2			
" No 3			

Cut Nails, per keg—

10d to 60d (Lon and Larger)			
8d and 9d (3 and 3½ inch)			
6d and 7d (2½ and 2 inch)			
4d and 5d (1½ and 1¾ inch)			
" " "			

Cut Nails, per 100 lbs—

10d to 60d " "			
4d to 6d " "			
Galvanized Wire, No. 6 to 9, per bdl of 100 lbs			
Horse Nails, 40 to 10 per cent discount			

No. 1 No. 2 No. 3 and No. 4

Unfinished			
Painted and Finished			
Horse Shoes, per 100 lbs			
Ingot Copper			
Ingot Tin			
Iron Wire, brt. or an'd—			
No. 6 to 9, per bdl of 100 lbs			
Pressed Nails, per 100 lbs			
Proved Coil Chain, ½ in			
Sheet Zinc			
Spikes, pressed, per 100 lbs			
Vices, "Peter Wright's"			

LEAD

Bar, per 100 lbs			
Pig, "			
Sheet, "			
Shot, Canadian, per bag lbs			

LEATHER

Buff			
Buffalo Sole, No. 1			
" " 2			
Calfskins			
Grained Upper			
Harness			
Hemlock Slaughter			
Hemlock Spanish Sole, No. 1			
" " No. 2			
Pebbled			
Rough Leather			
Sheepskin Linings			
Splits, large			
" small			
Waxed Upper, light and medium			
" " heavy			

BOOTS AND SHOES

Boys' Split Brogans			
" Buff and Pebbled Congress			
Men's Kip Boots			
" French Calf			
" Buff Congress			
" Split Brogans			
Misses' Buff and Pebbled Balmorals			
" Prunella Balmorals			
Women's Buff and Pebbled Balmorals			
" Prunella Boots			

RAW FURS.

Bear, cub			
Bear, large prime			
Bear, small			
Beaver, spring, do			
Beaver, Winter, clean pelt, per lb			
Cross Fox			
Fisher			
Lynx			
Martin			
Mink, Dark Prime			
Otter			
Raccoon			
Rats, Spring			
Red Fox			
Silver Fox			
Skunk, black			

WEEKLY REVIEW.

MONTREAL, Sept. 14th, 1881.

There have been unmistakable signs during the past week of the coming fall activity, and in some branches of the wholesale trade a heavy business has been done. In dry goods, for instance, there has been unwonted briskness, many of our leading houses having been taxed to their utmost in filling the pressing orders of country as well as city retail houses. Boot and shoe manufacturers have also experienced great difficulty in distributing their goods fast enough for the wants of their customers. An improved feeling is being steadily developed in the leather trade, and dealers look for a heavy fall business. In groceries there has been no stir in sugars, which have advanced ¼ since our last review, and some large dealings are expected in fruit as soon as the new crop arrives in any volume. There have not been wanting signs of a revival in the oil market, which has remained dull for so long a period, a better inquiry having set in for both cod and steam refined seal. Iron and hardware have also received their share of attention from consumers, and the market remains steady at last week's rates. A much better feeling has also been developed in wool, in sympathy with the marked improvement for all fine wools in the United States. A good business continues to be reported in hard coal and wood, and the fall trade generally is in a healthier condition than we have seen it for many years past. Remittances are reported very satisfactory in most departments.

DRY GOODS.—There has been a large distribution of fall goods during the past week and many houses have experienced great difficulty in filling their orders for cotton goods as manufacturers have not been able to turn out the goods fast enough for the pressing wants of the trade. The inquiry for all kinds of woollens, prints and ginghams, dress and fancy goods, has been liberal. A number of buyers are in the city, purchasing pretty freely, and the energies of our wholesale houses are taxed to the utmost. One of our houses reports the largest business during the week that it has ever done during the many years it has been in business. A report of the New York market of yesterday says: "The jobbing trade was fairly active today, and a large distribution of staple and department goods was made by most of the leading houses. At first hands the demand was somewhat irregular, but a fair amount of new business was reported by the cotton goods commission houses, and there was a steady inquiry for moderate sized parcels of prints, ginghams, dress goods, etc., by personal sale from and through the medium of orders. The tone of the general market is very steady and stocks are exceedingly well in hand, as a rule."

IRON AND HARDWARE.—In pig iron there is still a very fair market the wants of Western consumers being urgent. Prices have been well maintained, rates are steady, and the outlook is not at all assuring for buyers. We quote Gartsherrie, Coltness and Summerlee from $20 to 21, as to size of lot. In bar iron the best of sales amounting to about 500 tons of best English makers' brands at $1 85. Ingot copper and tin are unchanged at last week's prices. Canada plates are steady with sales at $4 to 4 10 in round lots, for Penn. Tin plates are in fair inquiry at $5 25 for charcoal and $4 40 for cokes. A report of the Philadelphia iron market just to hand says: "Very few Eastern Pennsylvania iron mills can touch an order for delivery before December. The card rate is nominally 2½c, but buyers pay more for small lots. On Saturday there was a rumour that several hundred tons finished English iron had been cabled for, as a trial lot. Five hundred tons blooms (hammered charcoal) brought $70.50 at works today. Eight hundred tons muck bars, in two lots, brought $41 and $41 50 respectively. Sales have been made as low as $40 50. Gray forge is scarce enough to advance to $21 for Lehigh or Schuylkill at furnace, but for the desire to not unduly agitate the market."

GROCERIES.—Orders from the country have been received during the past week embracing much larger lines than have been received for some time past. There has sprung up a better demand for sugar, and sales have been made during the week of granulated at 9¾c in round lots from refiners, and at 10¼c in jobbing lots from wholesale houses, being an advance of ¼c. Yellows are steady and ¼c higher. In raw sugars there has not been much stirring, although we hear of one or two large lots of Barbadoes being under negotiation. The new crop of fruit has not yet arrived in any volume, and will not do so probably until the beginning of next month. The few samples of raisins, however, that have come to hand have shown excellent quality. In tea there is still a sluggish market, except for fine Japans, which are rather scarce and in good demand at 40@45c, sales having been made at both figures during the past few days. There has been a little more doing in rice at $3 75 for fair parcels, choice lots having brought $3.90@3 95. The demand for tobacco is still brisk at the late advance, and manufacturers find some difficulty in filling orders for immediate shipment. Coffee is still dull and prices are unchanged. There has been a little more inquiry for molasses, two good sized lots of Barbadoes having been placed during the week at 45@46c per wine gallon. Syrups are still in good demand at the advance last quoted.

LIQUORS.—There have been further sales of brandies at full figures, and it is stated that an advance upon quotations has been realized. A fair sized lot of low grade white wine changed hands during the week, at within range of quotations. The general impression in the trade is that prices will rule high during the coming season for both spirits and wines.

SALT.—The sale is reported of a few carlots of coarse salt at 60c, and we quote 57½c to 62½c, as to size of lot.

FISH.—Dry cod is in some request at $3 90 to $4 00, but we do not hear of many transactions. Nova Scotia herrings continue to arrive and sales were reported of a few car lots at $4 75, and we quote $4 75 to $5 00 as to quantity. In other kinds there is very little doing.

DRUGS AND CHEMICALS.—Apart from the country order trade there is very little passing in this line of the wholesale business. A few round lots of bicarb are being offered at $3 90, although one holder refuses to accept less than $3 95. Sal soda is steady at 90c to 95c in large quantities, and caustic soda can be bought at $2 20 to $2 25. Jobbing lots, of course, commanding higher rates. In drugs there is little to note from our last report.

OILS.—A few lots of coal oil have changed hands since our last report at 40c to 42½c per wine gallon, and holders are firmer in their views owing to stronger advices from Newfoundland. Steam refined seal has also been selling in jobbing lots at 45c to 46c per gallon wine measure. Linseed is firm and prices are steadily appreciating, raw being now quoted at 75c to 76c, Imperial gallon and boiled at 77c to 78c. Spirits of turpentine is steady at about former quotations.

NAVAL STORES.—A good business has been done in naval stores during the week at the old basis of valuation. Resin, pitch and tar have been called for in fair quantities, but the market cannot be called brisk.

LEATHER.—A fair business is passing in Buffalo, slaughter and Spanish sole at about last week's rates. Upper sale is reported of 500 sides of slaughter sole at 27½c. Hemlock sole is steady at 24½c to 25c for No. 2 and 26c to 27c for No. 1. Splits are steady, stocks of which have been considerably reduced of late. Harness and measured leathers are meeting with a little more inquiry at steady values.

BOOTS AND SHOES.—One of our largest manufacturers informed us to-day that he had experienced the busiest time during the past week since he has been in the business, and that the country trade was more pressing for goods than at any time this season. Remittances he said were first rate, and the trade never had such fine opportunities for still further improving its position.

HIDES AND SKINS.—Quiet trade is reported for the past week. Stocks are light, having sold in moderate quantities to the trade at $10@10 50 for No. 1, $8@9 50 for No. 2 and $6@7 50 for No. 3. Lambskins are firm at 80c@$1, and calf steady at 12c per lb.

WOOL.—In sympathy with the better feeling in the United States there is more firmness displayed here, although no higher figures have been established yet. A cargo of Cape wool from Algoa Bay is shortly expected in port, consisting of 1,100 bales, and when it arrives the market will be fairly tested for that class of goods. Sales are reported for a few small lots of greasy Cape at 18@18½c. Australian greasy is steady at 24@30c as to quality. In domestic wool there is some business reported on the basis of 31@32c for No. 1 super, and 33@34c for A super. The latter is purely nominal.

COAL.—A good demand exists for hard coal at $6 for stove and $5 75 for egg and chestnut, delivered. In cargo lots Scotch steam is quiet at $4 60@4 75, Pictou at $4 50, and Cape Breton at $3 50@3 60.

GRAIN AND FLOUR.—There have been about 200,000 bushels of wheat sold in this market during the week, Canada red winter having brought $1 45@1 46, Canada white $1 40@1 44, and No. 2 white Michigan $1 42@1 44. Corn has been too high in the West to bring it here. Oats have changed hands in carlots at 38@38c per 32 lbs. Peas are quoted at 95@96c and rye at 90@92c. In flour there has been an advance during the week of fully 10c per bbl in superfine, $6 45 having been refused for a lot of that kind. Yesterday superfine was sold at $6 40 uninspected, and extra at $6 30. Spring extra is firm at $6@6 15. City bags have been in good demand, and have advanced 5c to 10c per 100 lbs. We quote the price of flour as follows: Flour—Superior extra, $6 60@6 65; extra superfine, $6 30@6 40; spring extra, $6 10; superfine, $5 90@6 05; strong bakers', $6 25@6 30; fine, $5 10@5 20; middlings, $4 70@4 90; pollards, $4 35@4 50; Ontario bags, $2 90@3 00; city bags (delivered) $3 00@3 50. Meal—Oatmeal, per bbl, $4 90@5 00; cornmeal, $3 40@3 45.

PORK.—Heavy mess pork has advanced fully $1 per bbl during the week, owing to the sharp rise in the West, and sales have been made in this market at $23 to $23 50 per bbl inspected. Lard is firm at 14½c to 14¾c in pails for Canada and at 15½c to 15¾c for Fairbanks in pails. Smoked meats are in light supply and values remain firm. The egg market is quiet but steady at 15½c to 16c per doz. In New York the market is steady. Canadian selling there at 21c to 21½c per dozen. Prices are as follows: Provisions — Mess pork, per bbl, $22 to $23 50; thin do, per bbl, $22; hams, city cured, per lb, 13c to 14c; hams canvassed, per lb, 14c to 15½c; lard, in pails per lb, 14½c to 15½c; bacon, per lb 12c to 13c; tallow, rendered per lb, 6c to 6½c; tallow, tough, per lb, 3½c to 4c; eggs, per doz, 15½c to 16c; ashes, pots, per bbl, $3 12½ to $3 15.

DAIRY PRODUCE.—The butter market is firm and prices have shown great strength, creamery having been sold at 25c per lb and quotations for fine and fancy stocks range from 24c to 25c. Eastern Townships have been sold at 21c to 22½c per lb. Morrisburgh at 20c to 21c, and Westerns at 18½c to 19½c. The cheese market remains firm at 12c to 12½c for August, and 12½c to 13c for balance of season. About 4,000 boxes of August have been sold in this market during the past few days. We quote as follows: Butter—wholesale prices—Creamery, fall made, per lb, 24c to 25c. Townships, good to choice, per lb, 21c to 22½c. Morrisburg and district per lb, 20c to 21½c. Western dairy, per lb, 18c to 19½. Cheese—Finest August, per lb, 12c to 12½c; fair to good qualities, 11c to 11¾. Skins, per lb, 5½c to 7c.

With the long winters of this Northern hemisphere it is full time that the heaps of tons of coal dust, amounting to millions of tons, cumbering the ground around the crushers at the coal mines in this and other States, were put to account as fuel. The Chinese for centuries have practised a method of giving cohesiveness to bituminous dust, by means of clay, but as applied to anthracite it is found that it will not long stand the effect of water or atmospheric action without crumbling. Various efforts have been made by manufacturing companies in this country to give pressed fuel a mercantile value but without success, the difficulty being in securing adhesion. The pressed fuel at the centennial burned admirably, but crumbled in a moist atmosphere. We learn from the *New York Tribune* that M. Loiseau, its inventor, has begun anew. His present process uses a little bituminous coal dust mixed with the anthracite, and is called coal tar patch. It is claimed that a perfect domestic fuel is produced by the new process and that the new machine now in operation at Port Richmond, Philadelphia, turns out thirteen tons an hour at a cost of manufacture so low that a profitable business can be made in transporting the dust from the mines and converting it into lumps. Should less this enterprise and the one at Pittsburgh are but the beginnings of an important industry which will in time make use of the millions of tons of coal dust now cumbering the ground around the "crushers" at the entrances to the mines and will thus open a new source of future supply.

LUMBER TRADE.

THE LUMBER TRADE

[illegible] Gillatt & Co.'s Wood Circular [illegible] Liverpool, dated [illegible], says:—

"During the past month there has been a [illegible] consumption, and prices generally [illegible] well maintained, with a slight [illegible] to some articles. The imports as a [illegible] have been on a moderate scale, but [illegible] stocks especially pitch pine, still [illegible] large for the present demand, [illegible] there is a better feeling in the [illegible] has been observed for several [illegible] modified by the bad weather [illegible] prospects to the agricultural [illegible] where there is little hope of any [illegible] before a very deficient harvest.

"Canada Woods.—Of square pine the [illegible] light, but the higher [illegible] have curtailed the consumption, which has amounted only to [illegible] against 755,000 feet during the [illegible] period last year; the sales have been [illegible]. Waney board pine has arrived [illegible] freely, and the stock has considerably increased; a parcel of second quality, [illegible] average, has been sold at 22d per foot. Of red pine a parcel of poor quality was offered sold at 15d per foot. For ash [illegible] sold at 15d per foot. For oak the demand is dull, prime wood only being [illegible] A parcel of elm, 46 feet average, [illegible] sold at 23d per foot. For oak [illegible] demand continues limited, and the arrivals are being held for better prices. The demand for waggon scantlings is good, and with the present moderate import, prices should improve. The consumption of birch continues limited, and the stock is about equal to that held at the same time last year. by auction, 161 logs from Oak Bay were sold at prices ranging from 13½d [illegible] per foot, and Dalhousie at 14d to [illegible] per foot. Black walnut has been sold at prices ranging from 4s 7d to 6s 2½d per foot. The import of N.B. and N.S. spruce deals has consisted of 11,828 standards against [illegible] standards during the corresponding period last year, but the [illegible] has also been on a [illegible] scale, namely, 12,603 standards; the present stock amounts to 15,605 standards. Prices during the month have been fully maintained, opening at £6 15s per standard for St. John, and afterwards [illegible] to £7 per standard; by auction a cargo, ex "New City" from St. John was sold at an average of £6 16s 3d per standard, Miramichi at £6 15s 8d per standard, and Oak Bay, N. B., at £6 14s 10d per standard, by private, St. John have been sold at £7 per standard, Musquash at [illegible] 3d, and Bay Verte at £6 12s 6d per standard. Of Quebec pine deals the stock remains heavy, consisting of 9,742 standards against 4,508 standards at the same time last year; there has, however, been a good consumption, and prices are without material change; 1st quality deal realized at auction £22 10s and £21 per standard. Quebec Merchantable pine staves have been sold at £37 10s per mille, and Puncheon at £23 per mille.

North of Europe Woods.—For fir timber the demand continues languid, and the stock is sufficient. Sales have been by retail only. The import of Norway flooring boards has been extremely light, and the consumption, although moderate, shows an increase over the same month last year, the present stock is not heavy. Prices have improved during the month, and sales have been made on a basis of £10 per standard for 1st white, but buyers now hold out for higher prices. Red deals several contract cargoes have arrived from Archangel, Onega, &c., and are now going well into consumption. For [illegible] timber the demand is dull. Masts and spars are inquired for. Fir staves have been sold at £7. 7s 6d per standard [illegible].

United States, etc. Woods.—The stock of pitch pine is heavy, consisting of 1,410,000 feet, against 576,000 feet at the same date last year, and 847,000 feet in 1879. There has been a fair consumption, and the tendency of prices is upwards, no doubt caused by the high price of Quebec pine. By auction, the cargo of hewn timber, ex ship *Father*, from Pensacola, averaged about 16½d per foot for 85 feet average, and 14½d per foot for 31 feet average sawn. A parcel of prepared pitch pine flooring boards was sold by auction at £8 10s per standard for 1¼ to 7; £7 5s per standard for 1¼ to 7, and £6 15s per standard for 1¼ and 5. Oak Staves—New Orleans and heavy pipe have been sold at from £70 to £85 per mille, hogshead at £51 per mille, and barrel at £37 per mille.

Prices.

FROM BRITISH AMERICA.

	£ s. d.	£ s. d.
Yellow Pine Timber,		
Quebec, per cubic foot	0 1 2	0 1 4
" Waney board	0 2 0	0 2 6
St. John's, 18 inches average	0 1 4	0 2 0
Miramichi ports	0 1 2	0 1 5
Red Pine Quebec	0 1 —	0 1 7
"	0 2 —	0 2 11
"	0 1 8	0 2 0
"	0 1 6	0 2 0
"	0 1 4	0 1 11
Birch, St. John	0 1 —	0 1 4
" Quebec	0 1 —	0 1 4
Nova Scotia	0 1 0	0 1 4
Spruce, Spruce	0 0 10	0 1 0
Deals, Quebec and Miramichi Pine—		
1st quality, per standard	14 0 0	20 10 0
2d quality, per standard	11 10 0	14 0 0
3d quality, per standard	8 5 0	10 0 0
Planks—		
Pine, St. John	9 17 6	12 0 0
Nova Scotia, etc	9 15 0	12 0 0
Staves—		
Quebec Merchantable Pipe, per M	25 0 0	30 0 0
Quebec Culls, per M	6 0 0	7 10 0
West India Merchantable Pipe, per M	20 0 0	24 0 0
West India Culls, per M	12 0 0	15 0 0
Oak, Ash, per running foot	0 0 2½	0 0 3½
Hoops, Hickory, per 1000	0 15 0	0 18 0
Lathwood, per fathom, 6 feet	8 0 0	11 0 0

FROM THE UNITED STATES.

Yellow pitch pine, per cubic foot	0 1 2	0 1 5
Spruce pitch pine, per cubic foot	0 1	0 1 7
Prepared pitch pine flooring, per Pet. std.	16 0 0	17 0 0
Oak logs	0 2 0	0 2 6
Teakwood, East India, per load	12 10 0	13 0 0
Greenheart	8 0 0	9 10 0

[illegible] per mille [illegible]
Hickory, per [illegible]
Staves [illegible]

Mahogany [illegible]
Cuba,—
St. Domingo
Cuba
Honduras
Mexican and Tabasco
Cedar, Havana, per foot
" Spanish
Pencil Cedar, per cubic foot
Walnut, per cubic foot
Italian, do
American, per cubic foot
Maple, bird's eye
Rosewood, per ton—
Rio de Janeiro
Bahia
Lignumvitæ—
City of Domingo
Hayti and Jamaica, etc

THE HISTORY OF CARRIAGE BUILDING

The second epoch of the history of carriages is fixed by Thrupp at the invasion of Belgium and Britain by the Romans. The ancient Britons had used a car for warlike purposes that was evidently new to the Romans. It was on higher wheels than their cars. It was open in front, and was ascended in the front, instead of, as in their cars at the back. the pole, instead of sloping up to the horses necks went straight out between the horses' ladies and was broad, so that the driver of the car could stand on it and it necessary drive from the end of the pole or leap out and stand before his horses. It was larger than a Roman car, and above all it possessed a seat, and was called "essedum" from this peculiarity. At times this car was furnished with scythes, which projected from the axletree ends. This was evidently the best and most convenient car that had been made at that time. Cicero, writing to a friend in Britain, remarks, "that there appeared to be very little worth bringing away except the chariots, of which he wished his friend to bring him one as a pattern. In one of their battles the Romans captured one of these cars, and 4000 essedarii or car drivers and warriors. This vehicle attracted great notice in Rome, and with another of a smaller size and with still higher wheels, called "cisium" became the cheap and most rapid method of travelling upon the public and military roads throughout Europe, wherever Rome had extended its conquests. They were used for carrying letters and dispatches. There was also the "rheda," a slow sort of vehicle drawn by six or eight mules. These conveyances could be hired by travellers and were generally used. As to their speed, Cicero records as a remarkable feat that a message was sent fifty-six miles in a "cisium" in ten hours. This vehicle is represented on an ancient monument as something like the modern gig in form.

Under the Roman empire the height of the carriage wheel increased. The Emperor Marcus Aurelius is represented in a car of triumph, the wheels of which were as high as the backs of the horses. These wheels were dug out of the ruins of Pompeii, very much like our modern wheels, 4 feet 8 inches high, with ten spokes, rather thicker at each end than in the middle. For many years the laws regulated the decorations upon private carriages. But this restriction was removed by the Emperor Alexander Severus, and evidence exists that for nearly 300 years under the imperial dynasties the art of coach building flourished, and such distinctions were familiar among the workmen in this trade as woodmen, wheelwrights, smiths, carvers, painters, chasers, *embroiderers* and trimmers.

In some of the old Roman carriages the body was suspended on long poles, in order to obviate the jolting of the car without springs are known. A plan of a four wheeled vehicle is on record that was used by the Romans for conveying casks of wine, which is identical with the drays used now in Vienna and Munich.

In Asia the art of the carriage maker is supposed to date back for 3,000 years, and as there is little change in Eastern fashions or methods it is supposed that the Indian carriages of the present day are almost identical with those of a very early date. For a thousand years we know that few changes have been made in the construction of Indian carriages. The commonest cart in Hindostan is called "hackney" by Europeans. It is on two wheels with a large axletree bed, and a long platform, frequently made of two bamboos, which join in front and from the pole to which two oxen are yoked. The whole length is united by smaller pieces of bamboo bent together. In France 200 years ago, there was a similar cart called "haquet," though in the latter construction the main beams terminated in front shafts, but neither carriages had axles or ends. Other Indian carriages have sides made by stakes driven into the side beams. The wheels are of solid wood, or even of stone. Wheels are also made by a plank with rounded ends and two felloes fitted on to complete the circle. They are also made like the modern wheels with six or eight spokes placed in pairs parallel to each other. Carriages for the rich are luxuriously ornamented and carved, with domed roofs. When the Hindoos wanted a four wheeled vehicle, they hooked one two wheeled carriage behind another, connecting them with a pesh kabz, and upon the hindermost they placed the body. Above the wheels of their vehicles they placed a piece of wood supported by two straight uprights from the end of the axletree outside the wheel to prevent one from falling out of the vehicle, and also the dress of the passengers from becoming entangled in the wheel. There is also what appears to be a protection for the people in crowded streets against the wheels in the shape of a long bar of wood carved in the shape called "cupids bow," and fastened to the axletree. Many of these cars have also a battering contrivance to the shape of an iron cuttlefish's head, attached to the lower sill of the front end of the pole, which serves as a prop while the cart is being loaded, and supports the end on the occasion of a fall of the axle, preventing the load from wedging it with the poor animals as they strive to move them selves.

The Heeca is a one horse native car resembling an Irish car. It consists of a tray for the body, fixed above the wheels on the shafts. It has a canopy roof, the driver sits on the front edge of the tray and the passenger cross legged behind him. The "Shamphony" is a singular vehicle which is used by women, but it is larger than the "Heeca," the wheels are outside the body and it is driven by two bullocks. the canopy roof is furnished with curtains that are drawn all round, and the driver sits on the pole in front of the body. The commonest carriage in Central Asia are called "Tongas" but the native word for vehicle is "Ghurry."

In Calcutta are several coach builders of repute, employing native workmen, chiefly Hindoos who insist upon sitting down at their work, but are clever and industrious. Wages vary from sixpence to two shillings a day.

A vehicle in use in Hungary not many years ago is believed to represent the Roman "rhedium." The body is in waggon shape, the tilt top has two leather flaps to pull over the door way, the panels are of wicker wood, such as was in common use for carriages both in Greece and Italy, as well as in many of the modern tribes of Northmen that poured out of Asia and Russia to invade Germany, Gaul and Italy.

The Turkish "Araba" is used for the conveyance of women. Its lattice work admits air without too much light. The wing guards over the wheels identify this as being derived from the same source as the carriages of Persia and Hindostan. In 1860 a carriage made largely of silver was built for one of the ladies of the Sultan's harem, and it is said to have cost about £15,000.

Thrupp remarks that "it is interesting to observe the character of the different people illustrated in their carriages. The Egyptians, with all their learning and skill, appear to have made no change during centuries of experience as at the beginning, so at the end, the kings stand by the side of the charioteers, or hold the reins themselves. The Persians and Hindoos introduced luxurious improvements, and in lofty vehicles elevated the nobles above the heads of the people, and secreted their women in curtained carriages. The Greeks introduced no new vehicles, but perfected so successfully the useful waggon that their model is still seen throughout Europe, without change of principle or structure. The Romans, on the other hand, in their career of conquest, gathered from every nation what was good, and, wherever possible, improved upon it—from Greece, the waggon, from Persia, the 'Harmamaxa' and elevated triumphal cars, and from Hungary, the 'Rheda.' They also according to Cicero, borrowed the improved chariot from the ancient Britons."
—*Western Carriage Journal*

CATCHING SALMON BY MACHINERY

The San Francisco (Cal.) *Bulletin* in a recent issue says: From an English gentleman who has travelled overland from British Columbia to this city we learn that a new device, which has been patented, is now in operation taking salmon on the Columbia river. This device, a machine, is known as "Williams, patent fishing wheel," and is located on the Oregon side of the Columbia river, about a mile and a half below the Cascades. This device consists of a jetty of rock built out from a point on the shore of the river, outside of which is a planked sluiceway, to which an undershot wheel with large tank buckets revolves. The sluiceway was built when the water was at its lowest stage, and the wheel is hung so that it can be raised or lowered according to the stage of water. The instinct of the salmon is to run up the river alongside of the bank instead of in mid-channel. By this fish can take advantage of the eddies below jutting points of land. On these projecting points of land the Indians have from time immemorial taken salmon in large quantities with dip nets. The jetty built out from the point above named makes a larger and longer slack water behind it, and the salmon rounding the point rush into the sluiceway to get up the river. In the sluiceway the wheel, which revolves in the current, is gauged so as to sweep within a foot of the bottom, and the salmon are scooped up into the tanks or buckets, which latter let out the water as they ascend. On the wheel descending, the fish are thrown out into a trough or gutter below, where they remain until they are taken away to be canned. The arrangement of the sluiceway wheel, etc. is a most successful one, the catch of adult salmon, which are the only ones canned, running from 1,500 to 4,000 per day. There is virtually no expense in taking the fish save attending to the pen. As the fishermen who catch salmon in the boats in the Lower Columbia river demand and receive from fifty to sixty cents per fish from the canneries one can readily see what a vast profit the use of the wheel includes to the canneries connected with it. In fact it the use of this wheel is seen on the Upper Columbia river, the canneries located near Astoria and all others who depend on boat fishing, will either have to give up business or run at a loss from a reduction of price of canned salmon, while their canals will get rich. There are almost 500 men employed in the boats and making nets for salmon on the Columbia river when the general use of this wheel will throw out of work and at the same time the permanent plant of the canneries, consisting of piers and buildings established at a cost of more that $2,000,000 will become worthless.

SELLING GOODS AT COST

Sir John Powell, in one of his most celebrated arguments said, "Let us consider the reason of the case for nothing is law that is not reason." So we say to our readers who persist in selling goods at cost or less let us consider the reason of the case for nothing will conduce to your good that has not reason—or more properly speaking—common sense as its basis. What is to be gained from doing business at a loss? You only gain a notoriety—but it will be dearly bought. It will bring custom to your store—undoubtedly—but what does custom amount to if it does not give you a profit? It is like pouring water into a broken pitcher the income tray be large, but the outgo is not one whit less. It pays to attract customers, say you, but when we have established a good trade, when we have distanced our competitors, then we will obtain prices that will more than make up for all the previous losses. When you have accomplished all this, when you have succeeded in doing what no man ever yet fully accomplished—then you may get the profit you so much desire. But it will not be in this world.

You may succeed in selling large bills of goods we doubt not you would. But when you begin to secure a profit then some other enterprising (?) dealer will enter the field, repeat your game—and your customers, so dearly bought, will leave the setting sun for the rising sun, and, like flies attracted by a light, will hover around your competitor's counters, without giving you so much as a parting good-bye. Of course they will. They are not all fools. If you have enable them to live on goods purchased at less than cost it is your loss and their gain. If we have now found a man who is willing to serve them at your old prices and the "selling at cost" dodge proves their blessing but your curse.

Is not this stating things as they are? We believe in enterprise—there is none too much of it. But deliver us from that reckless, fool hardy merchant who looks not beyond the horizon of today, who has no regard for the future, who neither regards the experience of the past nor realizes the possibilities of the future. But what does selling goods at cost consist of? A simple question and easily answered. It would seem, but selling goods at the prices they cost you is not always selling them at cost. They may have become shop worn, unpopular, unseasonable, damaged, or the like. Then it is not selling at cost to clear them out at what they cost you. It is best to have them out of the store. It would be a loss to allow them to encumber your shelves. Sell them at what they will bring, but get rid of them. Make "leaders" of them if you think best, but not if they are badly damaged. Let your customers know your reasons for selling them, and if they should not prove of the first quality your patrons will know the reason why. By selling at cost we mean purchasing sugar at 10 cents per lb and selling at the same price or even ¼c advance. This is suicidal. It neither enriches you nor injures your competitors.—*New England Grocer*

The prospects for the coming year are good, and none need want who can in any way work at all.

Lumbermen find it difficult to obtain what help they require, and wages are daily on the increase, owing to the great demand in the market for all kinds of labour.

THE METAL TRADE.

THE BRITISH MARKETS

(Per Special American Manufacturer)

Wolverhampton Saturday, August 13th 1881 — Your purchases from Sheffield are not affording us augmented satisfaction By this time you will probably have learnt that as compared with July last year Sheffield exports to the United States during last month were less in value by £15,000—last month's shipments from that town aggregating £95,503 against £110,866 in July, 1880 Less steel by £1,000 worth was amongst the goods sent out, the value of that taken on your side in July this year being £20,012, whereas in July a year ago you bought that which was estimated at £27,233 Remembering the relative prices at the respective dates, the difference judged by money is of course greater than would be indicated by weight

American purchase of Sheffield cutlery continue to represent a sum equal to that which relates to steel Taken in connection with steel, the returns of the cutlery point to the fact that whilst the progress which last year we believed would mark the business of this date has not appeared, still that recently the improved business in Sheffield cutlery shows no signs of abatement Cutlery to the value of £27,868 went last month to America—an increase upon the shipments in July last year of £450. From what I have already said you will rightly conclude that the decrease in the total exports during last month compared with a year ago has been mainly in goods other than steel and cutlery. Compared with the exports of June this year, there is a falling off in the total of more than £20,000, but it must be borne in mind that July and August are "the hot months," when the American trade usually falls away very considerably Here again also the leakage has been in exports other than steel and cutlery, for both these manufactures show an increase for July over the previous month—as to the first, of £1,500, and as to the second of £5 800.

Solid if slow progress is being made in the export trade of this country as a whole. Our Government returns for the month show an increase in the total exports in July this year over a year ago of £150 000. Such an increase, when the total of the month's trade is £20,429,889, is indeed only fractional, but as compared with July of the previous year it amounts to something substantial—nearly four millions, or 23 per cent.; and if instead of confining our attention to the month we look at the 7 months, the results are still more satisfactory. Upon the corresponding period of last year the increase already amounts to £1,834,049, or 1.4 per cent; and as compared with the first seven months of 1880 it is no less than £24,300,749, or say 24 per cent. An increase of about one-fourth in our export trade in two years cannot be honestly described as a very bad state of things, more especially when allowance is made for the fall in values which has taken place in the interval, and the constant inadequacy of the figures to represent the growth in the volume of our trade.

For the first time for a lengthened period, the statistics of our iron and steel exports this month show an appreciable increase—13 per cent. in quantity and 6 6 in value—over the corresponding totals for 1880. The decline for the seven months is still considerable, but the tide is evidently turning, and, in the absence of any disturbing influence, still more satisfactory results may be looked for under this head in ensuing months.

The improvement again apparent in our hardware exports this month appears to be referable mainly to our Australian colonies, France, Canada, the United States, and the Argentine Republic. On the other hand, we appear to be losing ground in Russia, Germany, Brazil and India. You are buying more railroad iron from this side. In no department of our exports do your increased purchases bulk more largely You took double the quantity last month that you took in July a twelvemonth ago. And it is well that you did, since that fact, notwithstanding the returns, show that our trade keeps but steady—the value being: July, current, £566,574, July, 1880. £549,249. The most conspicuous decline was with India and British North America The lower prices on the year are indicated in the general totals, which show an increase in quantity upon the month of 18 per cent but of only 3 2 in value. Upon the seven months the figures stand Increased quantity, 10 per cent. increased value, 1 8 per cent

Confirmation of my weekly reports showing the augmentation in the market value of hoops and sheets is forthcoming in the Government statistics, which show the total declared value upon the month to be in excess of that in July last year to the extent of 18 per cent., but in the seven months there is a falling off equal to 6 6 per cent., the £1,918,652 of the first seven months of last year having fallen to £1,810,090 this year; whereas the £262,247 of July last year rose to £309,395 in July this year.

No signs of weakness in hoops and sheets appear this week On the contrary the markets show greater strength Makers are guarded in all the districts There were offers on Change in Wolverhampton, on Wednesday, and in Birmingham on Thursday, to take at current rates the whole make of some hoop makers throughout the next year but in a rising market such offers have the effect of only giving a greater impetus to the advance Consequently in Wolverhampton the quotations for hoops were £6 10s to £6 15s. In Manchester on the same day the quotations were proportionately higher standing as they did at £6 10s to £6 12s. 6d Staffordshire hoops in Wolverhampton should be worth 5s more than Lancashire hoops in Manchester Cotton sheets were likewise higher in price at both places on Wednesday Merchant sheets distinct from galvanizing sheets, which are of better quality, were in Wolverhampton £7 5s, for singles, £8 5s for doubles, and £9 5s for trebles. In Manchester common singles were from £7 15s to £8 per ton Orders for export were sought to be placed in Wolverhampton by merchants doing business via London, Liverpool and Hull but makers were on their guard, and merchants could do but little at current rates Steel has contributed materially to bring about the increased tonnage of 13 per cent which, as I have shown, has occurred in our combined iron and steel exports during July last as compared with the corresponding period of a year ago Of steel unwrought, the increase in the month compared with July last year has been 12,808 tons in quantity and 66 per cent. in value, in the seven months there was an increase of 34,429 tons in quantity and nearly 20 per cent. in value The exact figures are July, 1881, £164,734; 1880, £99,616; for the seven months ended July last, £955,763, and for the corresponding period of 1880, £796,123 These increased values are likely to continue equally conspicuous, if not indeed more so, when the returns for the present month shall be published, for this week there has been a sudden advance in the value of Bessemer steel. The rise took place in Sheffield on Thursday, when common qualities were raised 5s per ton, and superior makes 8s per ton The advance is largely due to an improvement in the colonial demand, and this improved inquiry is by some believed to be consequent upon the American harvest being understood to be inferior, thus enabling Canadian and other produce to have the run of the home markets The Americans, it is believed, will not be able to send much weight of produce to this country this season, hence the Canadians and others are emboldened to forward freely, and order heavily of English goods. There is every expectation at present of a heavy fall trade Holders of stocks of Bessemer refuse to make any concessions to induce business, so that it may be confidently assumed that they regard business prospects as very good Billets are fetching £6 15s. cash at work, but common makes can be obtained at £6 10s. Marked brands run up to £9 2s. 6d. per ton, but the call for these latter are not very good. With extra admixtures of foreign irons, £10 is demanded. Spring makers are again on full time, and this is making the cast steel trade a shade busier. Common cast steel is offered at £10 per ton, but such steel has to compete with Bessemer for the custom of the manufacturers of edge tools, files and other goods. A capital demand continues to be experienced from the United States for best cast steel for tool purposes, ranging in value from £22 to £40 per ton, and from this point the price graduates to £62 per ton where extra qualities are offered for special tool purposes. A good business is being done in steel plates for circular saws, particularly with the American market, the consignments from some houses being unusually heavy Your production of pig iron having now mounted up to more than 50 per cent. of our own, is increasing the sense which British ironmasters entertain of the growing progress of your iron and steel industry The number of furnaces in blast in the United Kingdom during the first half of this year represents an increase of about 4 per cent. on the first half of 1880, as will be seen from the following figures which give the number blowing at the beginning of each of the first three quarters of the years:—

	1st Jan.	1st April.	1st July.	Average
1880	497	507	559	531
1881	500	570	556	572

It will be seen that the highest number in 1880 was registered at the beginning of April, and the highest number in this year at the beginning of January; since which last date the number has decreased by 4 per cent. The stocks of pig iron we have at present on hand would take an average consumption of 12½ weeks to clear out. The Scotch pig iron market has been quiet this week. The rise of freights to the United States interferes with the small business that was previously doing with your side As high as 6s 6d per ton is now asked by shipowners sending vessels from the Clyde to the United States, whereas not long ago between 4s 6d and 5s per ton was all that was asked The advance is due in much part to the considerable quantities of hematite pig and the steel blooms that are now leaving Scotland for America. Some small lots of pig are being purchased on Canadian account, but the continental demand continues below the average. Some holders of shipping iron are willing to accept 6d per ton less this week than last, but warrants close the week slightly stronger than they opened it, yesterday's price in Glasgow being 46s 4½d cash, and 46s 6d one month The Scotch manufactured iron trade is steady and a larger amount of business is being done. Angle bars are quoted at about £8 15s, plates £6 12s. 6d, common bars £6, and best bars, £6 10s Steel angles are selling at £6 per ton and steel plates at £7. The North of England finished iron masters having, as I advised you at the time, just recently secured a reduction in wages under the Board of Arbitration arrangement, the ironmasters in the Glasgow and surrounding Scotch districts have announced that in the ensuing quarter which commences with the first pay puddlers wages will be reduced 1 3d per ton, and millmen's wages 5 per cent Raw iron in Cleveland has been stagnant this week The demand has been limited, and merchants and brokers complain that they have not had so little to do for the past two years The exports are fairly maintained, and a more than average consumption for forge pigs is going on in the district iron works but so long as production keeps so heavy and reserve stocks so large no permanent improvement can be looked for Speculators offer to purchase forward to the end of the year at current prices, which are No 3, 46s 9d and No 4 forge, 45s 9d Sellers are, however, very chary of committing themselves to forward sales and even for early deliveries They demand 3d per ton above the prices just quoted Warrants are easy to buy and only little is going into store The exports of pigs for the week ending Thursday night were 2 700 tons less than in the previous week

The finished iron trade continues satisfactory, though, owing to heavy orders having been placed of late, the current demand from the shipbuilders and others is not quite so brisk as it was Plates are £6, angles £5 10s and bars £5 12s 6d.

Of all the reports recently issued by the North of England iron making concerns, perhaps none is more favourable than that of the Consett Iron Company, available this week. The profit of this company for the year ending 30th June last is £195,970 against £104,497 last year, which allows of the declaration of a dividend of 20 per cent But the directors tell the shareholders that this year's profits will not be so large The blast furnace reconstructions and additions which have been going on for the last thirteen years are now finished, and the seven new blast furnaces are capable of yielding more pig iron than the eighteen old ones could yield together This concern are the largest manufacturers of shipbuilding iron in the North of England, and has the reputation of being one of the most prosperous companies in the country. They have now decided to establish steel works for plate making upon the Siemens-Martin principle—the process which has hitherto been chiefly adopted for the manufacture of ship plates. Since only a few works have engaged in this manufacture the Consett Company stand an excellent chance.

Improved harvest prospects are favourably affecting the home demand for agricultural and other hardware, more especially in the North of England, and orders, not large, but frequent and urgent, testify to the scantiness of stocks. Tin and galvanized ware, fencing and agricultural implements, brass foundry and construction iron work, are in specially good request. In most of the staple branches there is full employment for skilled operatives, but there is no pressure outside one or two special industries, and prices remain at a very low level, as they needs must do while productive power continues so much in excess of demand as it is at present. The heavy branches are on the whole the best off for employment.

Notwithstanding the determination which certain of our leading agricultural machinery engineers have manifested during the past two or three years to invent combined reaping and binding machines which should equal, if not beat, the splendid machinery of this class, which for some seasons past agricultural engineers on your side have been sending us, America still leads. This has been demonstrated in a most unmistakable fashion this week at the annual trials close to Derby of the Royal Agricultura Society of England of this class of implement. Seven machines entered for trial, four of them being American and three of them English inventions. The American machines were those of Walter A. Wood, the McCormick Harvester Company, and Messrs. C Aultman & Co. The English machines were those of Messrs. J. and F Howard, of Bedford, Messrs Samuelson & Co., Banbury, and Mr H. J H King, of Stroud All used twine as the binding material, and they were tried upon barley, wheat and oats, much of the work being done after heavy rain Almost from the commencement of the trials McCormack's machine was the favourite, for it did its work in an easier and better manner than any of the others, binding the sheaves in most excellent style The judges awarded the first prize (a gold medal) to McCormick's machine, a second prize (a silver medal) to Messrs Samuelson, and the third prize (also a silver medal) to the Johnston Harvester Company. The trade of the Southern principality On home and colonial account business is improving somewhat, but the Transatlantic demand still disappoints expectations The total exports last week were 6,000 tons. The activity in the Bessemer steel trade continues, with prices averaging £6 5s. per ton for rails f o b, and all the establishments are well employed. The contract for the erection of the new steel works at Treigar has been secured by Messrs Davy Bros., of Sheffield, and it is hoped that by the spring of next year the works will be so far completed as to allow of the commencement of the manufacture of steel rails The unsatisfactory state of the tin plate trade is interfering rather seriously with the business of the ironmasters, since they are getting very careful as to whom they trust

THE LONDON MARKET

The following were the closing prices in the London metal market August 12th 1881 —

	£	s.	d.		£	s.	d.
IRON							
Bars, Welsh (in London)	5	17	6	@	6	0	0
Bars, Swedish (in London)	9	0	0	@	9	10	0
Bars, Staffordshire (in London)	6	15	0	@	0	0	0
Nail rods (in London)	0	0	0	@	0	10	0
Pig, G.M.B., f o b Clyde	2	5	6	@	0	0	0
Rails, Welsh (at works)	5	5	0	@	5	7	6
Rails, North of England (at works)	5	7	0	@	5	10	0
STEEL							
Bessemer rails (at works)	5	5	0	@	6	10	0
English spring	11	0	0	@	18	0	0
Swedish (in kegs)	15	0	0	@	0	0	0
Swedish (in faggots)	15	10	0	@	0	0	0
COPPER.							
Sheathing and sheets	72	0	0	@	73	0	0
Flat bottoms	74	0	0	@	75	0	0
Tough cake	64	0	0	@	65	0	0
Best selected	65	0	0	@	66	0	0
Burra or P C C	65	10	0	@	0	0	0
LEAD (per ton).							
English pig, W.B	15	5	0	@	0	0	0
English sheet	15	5	0	@	0	0	0
English red	10	10	0	@	0	0	0
English white	21	10	0	@	23	10	0
English patent shot	17	5	0	@	0	0	0
Spanish pig	14	5	0	@	14	7	0
TIN (per ton)							
English ingot	98	0	0	@	97	0	0
English bars (in barrels)	97	0	0	@	98	0	0
English refined	98	0	0	@	99	0	0
Banca	nom	92	0	@	0	0	0
Straits	91	10	0	@	91	15	0
TIN PLATES (per box)							
Charcoal, I.C., 1st quality	1	2	6	@	1	4	0
I. C. Coke	0	18	0	@	0	18	6
SPELTER (per ton)							
English (Swansea)	16	10	0	@	0	0	0

UNITED STATES MARKETS

Pittsburg.

Pig Iron—The market has undergone no appreciable change since our last report. It is still characterized by quietude and steady prices. The quietude is the result of a "deadlock," as it were, between consumers and makers, and the steadiness is due to the same cause. Consumers would, it is stated buy freely at prices makers accepted two or three weeks ago, but most of the latter want more money Time alone must decide which interest will prove the stronger Consumers bought pretty heavily in July and in the early part of August, for August, September and October delivery, but an agent expressed the opinion that when cooler weather comes, so that the mills can be run to their fullest capacity, as is the desire of mill owners, the purchases mentioned will soon be "licked up, and that prices must then advance. He says that consumers would jump at iron if makers' prices were a little lower, and that nothing but the smallness of some of the crops, the present hot weather, and the fear of English competition prevents, at the present time, a "boom," such such as that which commenced in 1879—for the lessons which that one taught have not yet been forgotten—but nevertheless a "boom" of some proportions Another agent said that $22 50 for neutral mill from native ore and $23@23.50 for such iron as is made by the Isabella and Lucy furnaces, of this city, was all that could be got at present—that consumers would not pay any more. We continue to quote neutral mill iron smelted from Pennsylvania and Virginia ores at $22.50 and the same from Lake Superior ore at $28@28 50. Bessemer at $27@27 50, No. 1 foundry at $25 and No. 2 at $23.50—all 4 months

Nails—The remarks of last week will apply this week The demand continues to be somewhat circumscribed, and prices are unchanged We quote same as last week $3 00, per keg for 10d. to 60d., 60 days, or 2 per cent off for cash, and an abatement of 10 cents per keg on carload lots.

Wrought Pipe—The demand for wrought pipe and tubes continues very large, and prices are unchanged but firm Discount on gas and steam pipe, 62½@65 per cent and on boiler tubes 40 per cent Oil well casing is still 75 cents, net, and tubing 22, net

Steel Rails—Prices are without change and demand undiminished For prompt delivery, $60 and upwards is quoted, while $60 is quoted for next years delivery

Railway Supplies—Prices remain as quoted last week Spikes 3c per pound, splice bars, 2.40c track bolts, 3½c.—all thirty days.

Steel—There is nothing new to report. The demand continues active and prices firm, with an upward tendency. The works will likely be pushed to their utmost during the remainder of the season Prices are very firm at the following quotations Best quality refined cast steel, 11 to 12 cents per pound, as to the quantity purchased; crucible machinery steel, about 7 cents, and Bessemer and open-hearth do at 5@5½ cents, Bessemer open-hearth spring 4@4½ cents, and do plow 4½@4¾ cents Open-hearth bloom steel, 4x6 inches, $65 per gross ton, 30 days.

Old Rails—Tees continue firm at $30 and double heads at $31 50. We did not learn of any transactions, but these figures are said to represent the market

Scrap Iron—There is a slight tendency toward better prices, in sympathy with pig iron Ordinary No 1 wrought may now be quoted at $27@28 per net ton and No 1 railway machinery at $29, cash. Hammered car axles may be quoted at $37@38 Cast iron scrap, $15@22, as to kind. Old car wheels have advanced with Bessemer pig iron, and may now be quoted at [illegible]

New York.

Pig Iron—American As [illegible] some additional firmness to sellers No 1 X foundry iron, and slightly higher prices asked for gray forge there has been no change whatever in the market during the past week No positive advance has been established in the class of iron thus far but an increased demand, mainly from consumers who need the stock for mixture with Scotch pig, has undoubtedly stiffened up No X American pig, while the comparatively high cost of old material has a tendency to draw the attention of consumers more to gray forge, and naturally, to give reason for sellers anticipating higher prices So far as regards the volume of business, the reports are not dissimilar to those made for some little time back Nothing in the way of particularly large transactions come to notice, at all events, but there are unmistakable evidences of a large movement of supplies into consumers hands, while nothing seems to be floating round in the way of cheap lots Makers are, to all accounts, accumulating very little stock. Dealers are carrying moderate supplies as well, while outside holders seem few in number and not particularly anxious to sell For good brands of No 1 X foundry $24 50@25 are becoming the general prices, $24 now seeming exceptionally low. No. 2 has been moved up to $22 50@23, though $— will yet buy some makes not in general favour. The best brands of gray forge it is represented, bring $22 without difficulty and $21 seems the very lowest prices for iron suitable for a higher class of work than sash weights

Scotch—There is a very good movement of most brands, the bulk of which is effected in a quiet way, leaving only a mere idea gained as to its volume until the goods arrive and pass, as they do for the most part, directly into consumers hands. The spot supply continues most rate, and, while special terms may be named on good steel lots to arrive there is nothing short of positive firmness on store lots. Glengarnock is somewhat higher, but aside from that no change is noted for the week The quoted prices are about $21 for Eglinton, $22.50 for Carnbroe, $22.50@2 for Glengarnock, $23@23 50 for Gartsherrie, and $23 50@24 for Coltness.

English—Bessemer is in good demand and very firm at $24@25 There are several consumers in a neighbouring city who are anxious buyers, and the manner in which they confuse the reporters there is very amusing to say the least of it. One report last week stated that the market was very active with sales of 40,000 tons at $25, but the prices showed a declining tendency though remarking in the same breath that $24.50 was offered and refused for 20,000 tons at New York. Middlesbrough pig is also firm, with $18 50@19 for No 3, and $17.50@18 for No. 4, the very lowest prices. There is a very good demand for the article, and no good reason to anticipate lower prices very soon. Philadelphia correspondents to the contrary notwithstanding.

Steel Rails—There is but little demand and but moderate quantities on sale for prompt delivery. The demand for next year's deliveries continues more or less active however, and so far as can be judged from what information sellers will give, prices hold very steady The sales reported reach about 18,000 tons American at from $35 at mill to $37 50 at tidewater

Iron Rails—Nothing new is to be reported. The demand seems very fair though mainly for moderate quantities while the sales making are effected at about former prices. About $17@19 at mill seems the general quotation on heavy section American, but $16 is named as a price not likely to be refused by some makers, while on the other hand as high as $20 is asked

Old Rails—There have been quite liberal transactions again, and the market continues very firm. It is stated that double heads are "cornered" by a clique who undertook a similar job some time ago with poor success, but as yet there is some reason to doubt the correctness of the statement. The reported sales embrace 3,000 tons tees at $27 50 spot, 1,000 tons do at $28.25 to arrive in Philadelphia; 4,000 tons double heads at $30 spot, and 1,000 do at $30 75 to arrive.

Scrap Iron—The market for wrought is very firm, with a good demand prevailing, and only comparatively moderate stocks are offered Prices for good lots range from $28 to $30, according to position Sales have been reported to the extent of 1,100 tons, mainly at $27 50@29 to arrive, and $28@28 50 from store

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Mr Albert Payne says "I have entered boilers, in which all kinds of water was used at all states of cooling, from the earliest moment when anyone could live in them, till the last part of the boiler day, and feel sure that a great deal of trouble is caused by blowing off I saw the interior of some tubular boilers, where limy water was used, a short time ago When I entered them the scales were just hardening, and could be scraped off Of course, this would become like porcelain if left to harden It is more an injury than it is any service to clean some boilers in the way it is done, as I am sure they are no cleaner than before the operation, and the expansion and contraction have done more damage than the scale would have done if left in.

BRITISH AND FRENCH WHEAT DEFICIENCIES

England imports of foreign breadstuffs to date are not likely to vary much from those of the past cereal year. Mr James Caird, a high authority on agricultural matters, writing to the London *Times* on August 16th, estimated that, according to prospects then existing, the British crop of wheat would reach 7,000,000 quarters, or 56,000,000 bushels. The annual requirements of the country he takes to be 24,000,000 to 26,000,000 quarters, or say 192,000,000 bushels which would leave 120,000,000 bushels to be imported. For the last cereal year the imports were about 130,000,000 bushels, so that the wants of England this year would, on this basis of estimate, appear to be 10,000,000 bushels below those of last, assuming stocks to remain unchanged. Since Mr Caird's estimate was made the weather has been very unfavourable, and the British deficiency has probably been materially increased. England, therefore, may be expected to require approximately the same quantity of foreign wheat as last year.

The result in France is not yet certainly ascertained. Unfavourable reports from the South have led to a reduction of estimates on this side of the Atlantic, which, from the present outlook, are not likely to be verified. The production in Southern France is very limited, and the reports from those sections which raise the bulk of the crop are very satisfactory, while the weight of the grain is generally conceded to exceed that of last year. Taking these facts into account, the Paris *Echo Agricole* estimates the yield at 115,000,000 hectolitres, or 326,400,000 bushels, which is about 36,000,000 bushels over an average crop. Moreover, it is supposed that a considerable quantity of last years crop remains in farmers' hands.

The foreign supplies needed by these two chief importing countries combined are therefore likely to fall considerably short of those required last year. Russia, if things remain as favourable as hitherto, should be in a position to send them 30,000,000 bushels more than in 1880-81, and the Pacific States will have about 35,000,000 bushels more for shipment than last year. These facts will indicate approximately the importance of the probable decrease in the exports of wheat from the Atlantic ports during the current crop year.—*N. Y. Commercial Bulletin.*

THE ADULTERATION QUESTION

The New England Retail Grocers' Association did well, at its last meeting, to appoint a committee, who, in conjunction with a committee from the Wholesale Grocers' Association, are authorised to present the matter of adulteration to the next session of the Massachusetts Legislature, and, if possible, secure the enactment of a stringent law to prevent this practice in the future. Grocers have for a long time considered with apprehension this growing evil, but there has seemed to be no remedy. Competition has been so bitter that prices have been placed at very low figures, and consumers, intent on buying where goods could be obtained the cheapest, have not considered the question of purity. But then the goods are generally labelled "strictly pure," and consumers believe it to be fact, not knowing that it would be an utter impossibility for manufacturers to sell pure goods at the prices they, the consumers, are willing to pay.

To indicate the alarming pass to which matters have come, the following, vouched for by President Lovell, is as good an illustration as is needed. A New York salesman, representing a New York spice manufacturer, entered a store in this city, not long since, and, unrolling his samples, asks the grocer to taste them and give judgment as to their quality. This the grocer did, pronouncing the spices perfectly pure. "Yes," said the salesman, "they taste all right, and look all right, but there is not a grain of pure spice in them!" What say our readers to this? Is it not time a reform was inaugurated? Another member said he had had "pure ground pepper" offered him at half the cost of the berries.

Is the retail grocer responsible for this evil? To a certain extent, perhaps he is, after all, the real underlying cause is the spirit of the times, the intensity of competition, the reckless, devil may care system of conducting business. We have drifted too far away from the old moorings of honesty and undeviating rectitude. Let grocers resolve to sell only pure goods. Buy only of dealers who will guarantee the purity of the same. "But," you say, "my competitor over across the way will continue to sell impure goods at low prices, and, if such is the case, how can I retain my custom? To be sure I ought to obtain much patronage because I sell only pure goods, but consumers will not so consider it. They will assert that my neighbour's goods are as pure as my own, they taste as well and look as well, and no amount of argument will convince them to the contrary." There is much truth in the above, indeed it is the truth. The way to obviate this difficulty is for *all* the grocers in a town to stand together and agree not to sell impure goods. This would accomplish the end desired and bring about a much needed reform.

So far as the above suggestion can be carried out, to that degree it is the best that can be offered. But the evil still remains that such combination cannot be brought about in every town and city. The next remedy is the Law. Let consumers use their influence in their respective States—Massachusetts, Maine, New Hampshire, Vermont, Rhode Island and Connecticut—to secure the enactment of stringent anti-adulteration laws. But let the laws be so drafted as not to work injury to innocent parties. We have much sympathy with the remarks of that member of the Association who declared that grocers could not afford to pay a high price for the analysation of their goods. The law should be so drafted as to place the expense of analysis at the minimum, and the guilty party should bear this expense, not the retail grocer, but the manufacturers who have palmed off on him impure goods. Just here, in closing, we would assert our belief that the manufacturers are willing to put up pure goods, in fact they would much prefer to. It is the demand for cheap goods that has compelled the manufacture of impure goods. The discussion of the matter should be conducted in a rational way, without reference to the sentimental namby-pambyism that is so often manifest when this subject is under consideration.—*New England Grocer.*

STATISTICS OF THE SALT INDUSTRY

The Washington correspondent of the Detroit *Post* and *Tribune* writes: In addition to the data given in my dispatch of a few days ago, in regard to the census statistics of the salt industry, the following are equally interesting. During the census year 1880 there were in the United States 204 salt manufactories, employing a capital aggregating $8,225,740, and operating 539 wells. The greatest number of hands employed at any time during the year was 5,065, of whom 3,920 were males above 16 years of age, 15 females above 15 years and 140 children. The total amount paid in wages during the year was $1,256,113. The materials used in the manufacture of salt by the "boiling process" were 453,846 tons of coal, valued at $495,920; 540,438 cords of wood, valued at $421,681, and other materials, valued at $1,086,946, making the total value of all materials $2,005,576. The total value of all materials used in the manufacture by "solar evaporation" was $63,848. The aggregate product was 29,800,298 bushels of salt; value $3,817,636. Of the first quality there were manufactured 3,792,073 barrels, and of the second quality 40,098 barrels.

The State of Michigan had the largest number of establishments (86), and, with the exception of New York, whose capital invested in the manufacture of salt was $2,280,081, Michigan had the largest amount of capital in the salt industry, namely, $2,147,709. Michigan led all other states in the number of hands employed, which at one period of the year reached 1,886, the average number employed being 1,216. The total amount paid in wages during the year was $340,902. There were 203 wells in the state, the average depth of which was 881 feet.

The machinery used in the manufacture of salt by the boiling process was 104 blocks and 174 kettles, the aggregate capacity being 21,352 gallons, 54 pans, capacity 2,11,257 gallons, 247 settlers, capacity 6,16,240 gallons, 301 graniers, capacity 8323,901.

There were used 324,653 cords of wood, valued $377,039. For other materials $622,296 were expended. The total value of the materials used in the boiling process was $1,007,233.

The machinery used in the production by solar process was 3,750 vats whose area was 807,300 square feet. The total value of all materials was $2,500. Michigan produced 12,425,882 bushels of salt, value $2,211,913 of the first quality, 2,459,005 barrels, second quality 30,172 barrels. In 1860 Michigan had $100,000 capital employed and New York had $2,313,590. In 1870 Michigan had $1,717,500 and New York had $1,586,211. In 1880 Michigan $2,174,209 and New York had $2,280,081.

HOW SLATE PENCILS ARE MADE.

In making slate pencils, broken slate is put in a mortar run by steam, and pounded into particles. Then it goes into a mill and runs into a "bolting machine," such as is used in flour & mills, where it is "bolted," the fine, almost impalpable, flour that results being taken to a mixing tub, where a small quantity of steatit flour similarly manufactured is added, together with other materials, the whole being made into a stiff dough.

This dough is kneaded thoroughly by passing it several times between iron rollers. Thence it is conveyed to a table where it is made into "charges" or short cylinders, four or five inches thick, and containing eight or twelve lbs each. Four of these are placed in a strong iron chamber or "retort," with a changeable nozzle so as to regulate the size of the pencil, and subjected to tremendous hydraulic pressure, under which the composition is pushed through the nozzle in the shape of a long cord, and passes over a sloping table slit at right angles with the cords to give passage to a knife which cuts them into lengths. They are then laid on boards to dry, and after a few hours are removed to sheets of corrugated zinc, the corrugation serving to prevent the pencils from warping during the process of baking, to which they are next subjected in a kiln, into which superheated steam is introduced.

POSTAL TIME TABLE.

POST OFFICE, OTTAWA.

ARRIVAL AND DEPARTURE OF MAILS

Mails	Close	Delivered
Eastern — Montreal, Quebec, etc	1 00 p.m.	9 00 a.m.
Maritime Provinces	1 00 "	9 00 "
Western — Kingston, Toronto	10 00 a.m.	9 00 "
Perth, Prescott, Brockville	10 00 "	9 00 "
Western U.S.	10 00 "	9 00 "
N.Y. thro' mails	10 00 "	9 00 "
Kemptville, etc	10 00 "	9 00 "
Manotick	10 00 "	9 00 "
N'th Gower, Kars, Metcalfe, Russell, etc	10 00 "	9 00 "
Pembroke, Renfrew	9 30 "	9 00 "
Ashton, Stittsville, Huntley	9 30 "	2 00
Perth, Smith's Falls, etc	9 30 "	2 00
Sand Point, Arnprior	9 30 "	2 00
Bristol, Clarendon, Bell's Corners, Richmond	9 30 "	2 00
Hull	3 00 p.m. / 10 00 a.m.	10 30 p.m. / 9 00 a.m.
Aylmer, Eardley, etc	10 00 "	9 00 "
North Shore and Montreal	8 00 "	8 00 "
Gatineau Route	8 00 "	8 00 "
New Edinburgh		7 30
Billings' Bridge	30	10 30 a.m.
British, via N.Y., M.f		2 10
British, ots Halifax, Thursday		8 00
British, supplementary		12 00 noon
		1 30

Registered matter must be posted half an hour previously.

Office hours from 9 a.m. to 8 p.m. For Savings' Bank and Money Order business, 9 a.m. to 4 p.m.

O. P. BAKER, Postmaster.

to pipes, the temperature being regulated according to the requirements of the article exposed to its influence.

From the kiln, the articles go on to the finishing and packing room, where the ends are thrust for a second under rapidly revolving emery wheels, and withdrawn neatly and smoothly pointed. They are then packed in paste board boxes, containing 100 each, or 10,000 pencils in a shipping box. Nearly all the work is done by boys, and the cost, therefore, is light.

ORIGIN OF FRIEZE

Frieze is supposed by etymologists to be derived from its being a napped cloth (Welsh *frio*, nap of cloth. Old E. and Fr. *frise*, Fr. *friser*, to curl). In this sense Guicciardini, in his "Description of the Netherlands" first published in 1560, says that the inhabitants of the country were famous for cloth d *frizes*, napped cloth. At the same time the invention of the stuff is ascribed to the Netherlanders by the same historian, and it is quite possible that the name may come from the material having originally been of Friesland manufacture. Later the name was applied to a linen, for in 1641 we find "Linen of Freeze" mentioned, and in 1671, under the head of Linen, "Freez-Cloth." It appears to have been very early a distinctive Irish product. In 1370 (50 Edw. III., c. 8) it was enacted, "That no subsidy nor aulnage duty should be paid on cloths called frise, which be made in England or Ireland of Irish wool, because these cloths did not contain the length or the breadth ordained by the statute," and similar exemptions were granted by Acts of the second and twenty-fifth years of the same reign. In 1399 frieze of Coventry is mentioned. In 1502 "a yard of freeze" is charged 6d, and in November, 1530, there is an entry in the Privy Purse Expenses of Henry VIII. of a payment to John Scot of 20s 4d for "ij cots of frieze, and for ij doubeletts of flustyan, and for making and lyning of the same for Henry Elys, the fawconer."

From the well known lines written on the marriage of Charles Brandon (Duke of Suffolk) with the Queen Dowager of France, sister of Henry VIII.—

"*To Mary.*
Cloth of gold, do not despise
To match thy self to cloth of frize.

To Charles
Cloth of frize, be not too bold,
Though thou art match to cloth of gold."

We might presume that frieze rarely formed the dress of persons of rank, but Jamieson, in race, quotes from an inventory of 1539 "Ane goone of freis claith of gold." In the following century frieze was more generally adopted. Fuller speaks of it as a coarse kind of cloth manufactured in Wales, "than which none warmer to be worn in winter, and the finest sort thereof very fashionable and gentle. Prince Henry had a frieze suite out of it, etc. He adds, "It will daily grow more into use, especially since the gentry of the land, being much impoverished, abate much of their gallantry." (Fuller *Worthies*.)

An Act of 1531 also makes mention of frieze as a Welsh manufacture, and specifies the counties which were particularly noted for its making. "And that all Welshe Frices whiche after the feast aforesaide shalbe made and wrought within the shires of Cardigan, Carmerden and Pembroke, or anye of them, or elsewhere of like makinge, reddye to be coulde for a whole peece, shall conteyne in lengthe at the water thirtie-sixe yards at the most, yarde and yarde of the rule, and in bredithe three-quarters of a yarde, and being so fullie wrought shalle waye ev'ye hole pece fourtye-eight pounde at the lest, and everie halfe pece of Welshe Frices belonge full wrought, as aforesaide shall conteyne in length, bredith, and weight after the same rate."

In 1618 Lord William Howard paid 15s. for four and a half yards of "indico fryce," and that frieze was made in finer qualities than we usually associate with the material must surely be evident from men's night gowns having been made from it. Proof of this we find in the will of Ralph Cleasby, 1562, wherein is bequeathed "one night gowne of freez, furred with whyte lambe," the garment being valued at 16d.

"Lastly came Winter clothed all in frize."
Spenser *Faerie Queene.*

"But, indeed, my invention comes from my pate as bird-lime does from frieze: it plucks out brains and all.—*Othello.*

—*Worchowman and Draper.*

POSTAL TIME-TABLES.

POST OFFICE, MONTREAL.

Montreal, July 5, 1880.

Delivery A.M.	Delivery P.M.	Mails	Closing A.M.	Closing P.M.
8.45		ONTARIO & WESTERN PROVINCES.		
8.45		Ottawa by railway	9 15	8 00
8.40		*Province of Ontario, Manitoba & British Columbia	8 15	8 00
		Ottawa River Route up to Carillon	6 00	
		QUEBEC & EASTERN PROVINCES.		
	5 0	Quebec, Three Rivers, Berthier and Sorel, by Q.M.O. & O. Ry		1 30
		Quebec by Steamer.		6 00
8 00		†Quebec by G.T.R.		8 00
8 00		†Eastern Townships, Three Rivers, Arthabaska and Riviere du Loup Ry		8 00
5 00		Occidental Ry. Main Line to Ottawa	7 00	
	12 30	Do. St. Jerome and St Lin Branches		4 45
9 30		St. Remi & Hemmingford Ry		2 00
11 30		St. Hyacinthe, Sherbrooke, etc	6 00	2 30
8 00	12 45			& 8
		Acton & Sorel Ry		8 00
8 00		St. Johns, Staubridge and St. Armand Station	6 00	
10 00		St. Johns, Vermont Junction & Shefford Rys		2 15
		South Eastern Ry		6 15
10 00		†New Brunswick, Nova Scotia and P.E.I.		8 00
8 00		Newfoundland forwarded daily on Halifax, whence despatch by Packet leaving 6th and 28th July.		
		LOCAL MAILS.		
		Beauharnois Route.	6 00	
11 30		Boucherville, Contrecœur, Varennes and Verchères		1 45
		Cote St. Paul	6 00	
10 00		Tanneries West	6 00	2 00
11 30	5 30	Cote St. Antoine and Notre Dame de Grace		12 45
	6 30	St. Cunegonde	6 00	
11 30		Huntingdon	6 00	2 00
11 00		Lachine	6 00	2 00
10 00	5 30	Longueuil	6 00	1 45
10 30		St. Lambert		2 30
10 00		Lepraikie	6 00	2 30
10 00		Pont Viau, Sault-au-Recollet		3 30
8 00		Terrebonne and St. Vincent		1 00
8 30	2 30			
	4 0	Point St. Charles	8 00	1 15
	1 30	St. Laurent, St. Martin and St. Eustache	7 00	[& 5
10 00		North Shore and Route to Beaude l'Isle		3 30
9 00	5 30	Hochelaga	8 00	2 30
				& 6]
		UNITED STATES.		
8.45				
9 0		Boston and New England States, except Maine	6 00	5 40
8.40				
10 30		New York and Southern States	6 00	[5 40
8 00	12 30	Island Pond, Portland and Maine		2 15a
8.45				2 30
8 40		*Western and Pacific States	8 15	[& 8
		GREAT BRITAIN, ETC.		
		By Canadian Line (Friday)		8 00
		By Canadian Line (Supplementary—Saturday)	6 00	
		By Canadian Line, Germany (Friday)		7 30
		By Cunard (Monday)		5 25
		Supplementary, see P.O. weekly notice		2 15
		By Packet from New York for England (Wednesday)		2 15
		By Hamburg American Packet for Germany (Wednesday)		2 15
		WEST INDIES.		
		Letters, etc., prepared in New York are forwarded daily on New York, nuevce mails are despatched		
		For Havana and West Indies, via Havana, every Thursday p.m.		2 15

*Postal Car Bags open till 8.45 a.m. and 9.15 p.m.

†Postal Car Bags open till 9.00 p.m.

The Street Boxes are visited at 9.15 a.m., 12.30, 5.30 and 7.30 p.m.

Registered Letters should be posted 15 minutes before the hour of closing ordinary Mails, and 30 minutes before closing of English Mails.

A New York man is said to have discovered a process for the manufacture of sulphate of quinine from coal tar. The trade in the article is a heavy one, and if the new process should prove to be as successful as it is anticipated by the inventor it will cause a revolution in the trade.

RAILWAY TIME-TABLES.

Canada Central Railway.

CHANGE OF TIME

On and after MONDAY, 21st JUNE *trains will run as follows:—*

LEAVE OTTAWA.

*Western Express Train, making close connection with main Trunk Railway for Toronto and all points West, arriving in Toronto at 11.15 a.m.	11.30 a.m.
Pembroke Express Train, connecting at Carleton Junction with trains for Perth, Smith's Falls and Brockville	4.30 p.m.

ARRIVE IN OTTAWA.

*Express Train from the West, leaving Toronto at 7.35 a.m.	6.45 p.m.
Express Train from Brockville, Perth, Pembroke, and all intermediate stations	1.40 p.m.

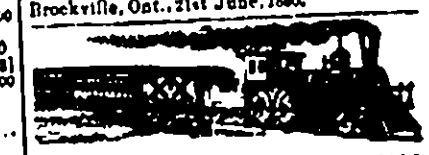
Trains run on Montreal time.

*These trains make only *four stops* between Ottawa and *Brockville Junction.*

Connection made at Brockville with the Lake and Rail River R.R. for New York, Albany and all points South.

T. A. McKINNON, Superintendent. ARCHER BAKER, General Manager.

Brockville, Ont., 21st June, 1880.



ST. LAWRENCE & OTTAWA RAILWAY.

On and after THURSDAY, 10th JUNE, 1880, *trains will run as follows.—*

LEAVE OTTAWA.

For the East, West, South and South-East	11.15 a.m.
For the East	2.00 p.m.
For both East and West	10.30 p.m.

ARRIVING IN OTTAWA.

From both East and West	6.00 a.m.
From the East, South and South-East	4.00 p.m.
From the West	6.20 p.m.

Going West take the 11 a.m. train. Ample time for dinner at Prescott Junction.

Sure Connections with Grand Trunk Trains to and from both East and West, and with those of the Rome, Watertown & Ogdensburg and Lake Champlain and Utica & Black River Railways at Ogdensburg, to and from New York, Boston, and all points South and East.

A Steamboat Express Train will leave Ottawa on Tuesdays, Thursdays, Saturdays and Sundays, at 8 a.m., connecting with the different lines of steamers on the St Lawrence, for both East and West.

A Sofa Car will be run on the Night Trains between Ottawa and Prescott Junction.

Trains are run on Ottawa time.

WALTER SHANLY
General Manager, Ottawa.

Ottawa, July 26, 1880.

Q. M. O. & O. RAILWAY.

CHANGE OF TIME.

COMMENCING on Wednesday, June 23rd, 1880, trains will run as follows:—

	Mixed.	Mail.	Express.
Leave Hochelaga for Hull	1.00 a.m.	8.30 a.m.	6.15 p.m.
Arrive at Hull	10.30 a.m.	12.40 p.m.	7.25 p.m.
Leave Hull for Hochelaga	1.00 a.m.	8.20 a.m.	5.05 p.m.
Arrive at Hochelaga	10.20 a.m.	12.30 p.m. Night Passenger	9.15 p.m.
Leave Hochelaga for Quebec	6.00 p.m.	10.00 p.m.	3.00 p.m.
Arrive at Quebec	8.00 p.m.	6.30 a.m.	9.20 p.m.
Leave Quebec for Hochelaga	5.30 p.m.	9.30 p.m.	10.10 a.m.
Arrive at Hochelaga	8.00 a.m.	6.30 a.m.	6.40 p.m.
Leave Hochelaga for St. Jerome	5.30 p.m.		
Arrive at St. Jerome	7.15 p.m.	Mixed.	
Leave St. Jerome for Hochelaga		8.45 a.m.	
Arrive at Hochelaga		9.00 a.m.	

[Local trains between Hull and Aylmer.]

Trains leave Mile End Station seven minutes later.

Magnificent Palace cars on all passenger trains and Sleeping cars on night trains.

Trains to and from Ottawa connect with trains to and from Quebec.

Sunday trains leave Montreal and Quebec at 4 p.m.

All trains run by Montreal time.

GENERAL OFFICE, 11 Place d'Armes Square.
TICKET OFFICES, 11 Place d'Armes and 202 St. James St., Montreal, and opposite the St. Louis Hotel, Quebec.

L. A. SENECAL,
General Superintendent.

INTERCOLONIAL RAILWAY.

SUMMER ARRANGEMENTS, commencing 14th June, 1880:—

Through Express Passenger Trains run daily (except Sunday) as follows:—

Leave Point Levis	7.00 a.m.
" Riviere du Loup	1.05 p.m.
Arrive Trois Pistoles	3.05 p.m.
" Bic	5.11 p.m.
" Campbellton	7.45 p.m.
" Dalhousie	8.45 p.m.
" Bathurst	10.15 p.m.
" Newcastle	12.10 a.m.
" Moncton	2.10 a.m.
" St. John	6.05 p.m.
" Halifax	10.45 p.m.

This train connects at Moncton with Express Train leaving Moncton for Quebec at 10 p.m.

The trains to Halifax and St. John run through to their destination on Sunday.

The Palace car leaving Montreal on Monday, Wednesday and Friday, runs through to Halifax, and that leaving on Tuesday, Thursday and Saturday, to St. John.

The trains leaving Halifax at 6 p.m. and St. John at 10.25 p.m., and which reach Montreal at 6.30 a.m. by connection at Chaudiere Curve with the Grand Trunk train at 5.30 p.m., remain at Campbellton over Sunday.

For information in regard to passenger fares, tickets, rates of freight, train arrangements, etc., apply to

CAPT. MacQUAID,
Sparks St., Ottawa.

D. POTTINGER,
Chief Superintendent.

DOMINION TRADE REGISTER

INDUSTRIAL DIRECTORY

AGRICULTURAL IMPLEMENTS

A. S. WHITING MANUFACTURING CO., Cedar Dale, Ont.—Manufacturers of threshing machines, etc.

WELLAND VALE MANUFACTURING CO., Port Dalhousie, St. Catharines, Ont.—Canada Manufacturers of rakes, and other farm implements.

ANILINE DYES

EMIL THOLFFEL & CO., Montreal.—Agents for Badische Anilin & Soda Fabrik, Ludwigshafen.

BRASS WORKS

H. N. ABBEY & CO., Montreal.—Brass finishers and metal workers.

BRIDGE BUILDERS

CANADA BRIDGE CO., Limited.—Builders of Iron and Steel Railway and Highway Bridges.

CAPS AND FURS

JOHNSTON, Toronto, Ont.—Manufacturers of fur goods.

CARPETS

PETLEY & CO., Golden Griffin, 13 Lower and 15 King Street East, Toronto.—Wholesale carpet dealers.

COTTON BROKERS

M. WRIGHT, Dundas, Ont.—Sole agent in Canada for Tolley & McGuire, cotton factors, Nashville, Tenn.

COTTON MILLS

DUNDAS COTTON MILLS CO., Dundas, Ont.—Grey drills, sheetings, denims, tickings, yarns, etc.

HAMILTON COTTON MILLS CO., Hamilton.—Denims, tickings and yarns.

JOHN MACKAY, Dundas, Ont.—Manufacturer of every description of cotton warps and yarns.

EDGE TOOLS

R. T. WILSON, Dundas, Ont.—Manufacturer of axes, picks mattocks, grubhoes and railway contractors' supplies.

ENGINES AND BOILERS.

O. C. MORRISON, Hamilton.—Engines, boilers, steam hammers, etc.

THOS. WILSON, Dundas, Ont.—Manufacturer of stationary and portable steam engines, boilers and machinery of every description—cotton mill calenders, hosiery steam presses and propeller wheels, all sizes.

ENGINEERS AND MACHINISTS.

JOHN FENSOM, Toronto.—Engineer, Machinist, etc., Manufacturer of hydraulic, steam and hand power passenger and goods elevators.

ENGRAVERS, ETC.

JOHN FLEMING & SON, Colborne St. Toronto, Ont.—Electrotypers, engravers on wood, designers, etc.

FILES.

THOS. GRAHAM, Toronto.—Manufacturer and recutter of files and rasps.

FREDERICK BAUSCH, Cote St. Paul, Montreal.—Manufacturer of every description of hand made files and rasps.

FILE & SPRING CO., Cote St. Paul, Montreal.—All kinds of files and springs. Files recut. Sole manufacturers of Shaulding's patent concaved spring.

G. OUTRAM & SON, Dominion File Works, Montreal.—Manufacturers of every description of files and rasps.

FURNITURE

OSHAWA CABINET CO., Oshawa, Ont.—Furniture Manufacturers. Toronto branch, 67 Yonge St.; Montreal branch, 647 and 649 Notre Dame St.

AMERICAN BRACKET CO., Hamilton, Ont.—Manufacturers of all kinds of fancy furniture, brackets, etc.

TEES & CO., 11 St. Bonaventure St., Montreal.—Manufacturers of office desks and revolving bookcases.

JAMES WRIGHT & CO., 11 to 17 Hermine st., Montreal.—Church, bank, house, store and office fittings, art furniture and inlaid floors, etc.

GLASSWARE.

HAMILTON GLASS CO., Hamilton.—Manufacturers of flint and green glassware.

GLOVE MANUFACTURERS

W. H. STOREY & SON, Acton, Ont.—Manufacturers of fine gloves and mitts in every variety and style.

HAMMERS.

HENRY H. WARREN, Cote St. Paul, Montreal.—Manufacturers of every description of hammers, sledges, hatchets, contractors' tools, etc.

HUBS, SPOKES AND RIM GOODS

P. W. HORE & SON, Hamilton, Ont.—Manufacturers of hubs, spokes, rims, shafts, poles, sleigh and cutter stuff, etc.

INKS.

F. F. DALLEY & CO., Hamilton, Ont.—Manufacturers of inks, blacking, harness oils, perfumery, etc.

IRON WORKS.

CANADA SCREW CO., Dundas.—Manufacturers of iron and brass screws, bolts and rivets.

COWAN & CO., Galt.—Manufacturers of every description of wood working machinery.

DOMINION BOLT CO., 139 Front St. East, Toronto.—Manufacturers of every description of bolts, hot pressed nuts, railway spikes, bridge, boiler and iron rivets.

H. R. IVES & CO., Montreal.—Hardware manufacturers and founders of iron railing and ornamental iron work a specialty.

HAMILTON BRIDGE & TOOL CO., Hamilton.—Iron railway and highway bridges and iron working machinery.

McKECHNIE & BERTRAM, Dundas.—Machine tools and wood working machinery.

THE OSHAWA MALLEABLE IRON CO., Oshawa, Ont.—Manufacturers of malleable iron; also patent screw wrenches.

OLMSTED & SON, Hamilton, Ont.—Manufacturers of fountains, fencer, crestings, vases and statuary, warden skeins, etc.

KNIFE WORKS.

THE WHITMAN & BARNES MANUFACTURING CO., St. Catharines, Ont.—Manufacturers of mowing and reaping machine knives, sections, guard plates, cutting apparatus complete, spring keys and cutters, etc.

KNITTING MILLS.

S. LENNARD & SONS, Dundas.—Manufacturers of plain and fancy hosiery.

LASTS, DIES, ETC.

CHAS. CHILDS, Montreal.—Manufacturer of boot and shoe lasts, dies for cutting sole leather, upper leather, envelopes, boxes, cuffs, and paper collars.

LEATHER BELTING

DOMINION BELT AND HOSE CO., Toronto.—Oak tanned belting, lace leather, etc.

ROBIN & SADLER, Montreal.—Manufacturers of every description of leather belting.

ORGANS AND PIANOS.

WM. BELL & CO., Guelph, Ont.—Manufacturers to the trade.

BOLTON & SMITH, 167 Mountain St., Montreal.—Tuning and repairing attended to.

DANIEL BELL & CO., Toronto.—Manufacturers of the "Excelsior" organ.

DOMINION ORGAN AND PIANO CO., Bowmanville, Ont.—Manufacturers of Piano and Cabinet Organs. See advertisement in another column.

S. R. WARREN & SON, Toronto.—Manufacturers of church organs.

ORGANS AND PIANOS—

WM. MORRIS & SON, [illegible]

HEINTZMAN & CO., [illegible]

WOODS POWELL & CO., [illegible]

PAPER MANUFACTURERS

CANADA PAPER CO. (Limited), 76 & 78 St. Paul St., Montreal.—Manufacturers and importers of all kinds of paper. Mills at Windsor, Sherbrooke and Portneuf.

DOMINION PAPER CO., St. Peter st., Montreal.—Manufacturers of manilla, book and news paper, straw paper and other coloured papers.

JOHN FISHER & SONS, Hamilton.—Manufacturers of printing and wrapping paper.

LINCOLN PAPER MILLS CO., Merritton, Ont.—Manufacturers of every variety of paper, paper bags and flour sacks.

WM. BARBER & BROS., Georgetown.—Manufacturers of book and fine papers.

SAW MANUFACTURERS

R. H. SMITH & CO., St. Catharines.—Manufacturers of all kinds of saws, plastering trowels, straw knives, etc. Sole manufacturers for the Dominion of Canada of the celebrated "Simond's saw."

SHURLY & DIETRICH, Galt, Ont.—Manufacturers of circular and cross cut saws, plastering trowels, etc.

SEWING MACHINES, ETC

W. WILKIE, Guelph, Ont.—Manufacturers of sewing machines, apple parers, egg beaters, sad irons, skates and hardware novelties.

SCALES.

CANADA SCALE WORKS, Jas. G. White & Co., Toronto.—Manufacturers of all kinds of standard scales. Factory, 162 Adelaide St. East.

C. WILSON & SON, 45 Esplanade Street, East, Toronto.—Manufacturers of the Improved Wilson Scales. Designers to the Government. Received 3 first prizes, medal and Governor General's grand diploma.

HOWE SCALE CO., 63 Yonge Street, Toronto.—Those in want of scales will find a larger and better assorted stock with us than at any other House in Ontario.

SPICES, ETC.

R. D. VAN DE CARR & SON, Toronto.—Manufacturers and importers of coffees, spices, cream tartar, mustard, etc.

STEREOTYPERS, ENGRAVERS, ETC.

F. DIVER & CO., Toronto.—Electrotypers and stereotypers. Designers and engravers on wood.

STOVES.

WM. CLENDINNENG, Montreal.—Stoves, ranges, furnaces, railway and machinery castings.

TELEPHONES.

HOLT TELEPHONE CO., Toronto.—Telephones sold outright $35 to $70 per pair, wire 3c. to 5c. per rod; works two miles.

TRIERS.

BUTTER & CHEESE TRIERS.—Robert Donaldson, Montreal, manufacturer of pump augers, butter, cheese, flour and sugar triers.

WIRE WORKS.

D. GREENING & CO., Hamilton, Ont.—Manufacturers of wire ropes, cloth and general wire workers.

MAJOR & GIBB, 646 Craig St., Montreal.—Manufacturers and importers of wire cloth and wire goods and dealers in railway and mill supplies.

TIMOTHY GREENING & SONS, Dundas, Ont.—Manufacturers of the strongest description of steel wire cloth, mill kiln doors, and general wire weavers.

WOODEN GOODS.

C. T. BRANDON & CO., Toronto.—Have special facilities and machinery for the manufacture of all kinds of wooden articles. Correspondence solicited.

J. R. McLAREN, Jr., 63 College St., Montreal.—Manufacturer of Sharpe's patent safety oil cabinets; also, refrigerators, children's carts, waggons, sleighs, and general woodenware.

WOOLLEN MANUFACTURERS.

J. ROUTH & CO., Cobourg.—Woollen Manufacturers.

JOHN WARDLAW, Galt, Ont.—Manufacturer of Scotch fingering, wheeling and knitting yarns.

WOOLS AND COTTON WARPS.

WINANS & CO., Toronto.—Dealers in wools and cotton warps.

PETROLEUM.

THE BRITISH MARKET.

ARTHUR BROWN & CO.'S PETROLEUM REPORT

London, August 29th 1881.

Refined Petroleum Oil.—Since our last report business has been rather more lively, and a good quantity of spot oil has gone to the trade. Sellers of forward oil have been hard to find except at an advance, and altogether the market looks more steady. Prime and Standard White Pennsylvanian sold at 6 11-16d. to 6¾d. per gallon on the spot, and 6 13-16d. to 7d. up to February, a shade less being accepted for the nearer months.

To-day's market closes firm, spot and to Dec. Jan. Feb. 7¼d.

Naptha.—Sellers are rather easier but the quotable price is still 10½d. crude and 11d. Deodorized.

Coal Oil.—Nothing doing

Turpentine.—Business has been active and a substantial advance established. The week opened at about 30s. and closed on Saturday very firm and 32s paid. The stock at wharves is 8,873 and deliveries for the past week 1,350 barrels. There are about 2000 barrels in the river but we believe a large proportions will be delivered overside. To-day's market closes firm, spot 32s., Sept Dec. 32s. 6d. to 34s

PETROLEUM OIL.

Prices of N. W. Petroleum. ...	1881. N. York.. 7½c. London.. 7½d.		1880. N. York.. 9½c. London 8½d.	
	Refined.	Crude.	Refined.	Crude.
Stock this day.....	96,619 bbl. 2,702 cs.		107,[illegible]bbl. 1,364 cs. — bbls	.
Loaded last week...	1,605 bbl.	..		..
Delivered last week	7,317 bbl. — cs.	..	5,[illegible]13 bbls — cs.	.

Above represents stocks at the undermentioned London Petroleum Wharves, exclusive of Foreign Bonded Wharf.

CANADIAN MARKETS.

(Petrolia Advertiser.)

The market for crude has been very quiet during the week only a few sales having been made. However producers show no disposition to sell at present, but being on the increase. The producers show no inclination to dispose of their products save at their own figures. The present prices may be given at from $1 95 to $2 00 (f. o. b.) with a tendency to rise as the fall demand comes in.

Very few sales of Refined have been reported during the week. Prices however show an upward tendency and 19c cents may be given as the quoted price.

The market here for crude oil by the carload, is from $1 95 to $2 00 per barrel f. o. b.

The price obtainable for the crude oil at wagon receipts issued by the different Pipe Line Companies, at Petrolia Ont. and includes the pipage charges of from 3c. to 5c per barrel according to the distance of the producers well from the shipping tanks at the railway, is $1 90 in tank.

The price of American crude oil in the various producing districts of Oil City, Parker, Titusville and Bradford by the latest quotation is 85c to 87½c per barrel in tanks at the wells for United Pipe Line crude oil certificates—to this price has to be added the pipage charges of 20c per barrel for pumping on board the cars. When a producer has his own pipe line he obtains from 10c to 20c per barrel more for his oil than the price at the wells, but he does not get the advantage of a certificate in case he wishes to hold his oil for a rise and get money advanced on it.

REFINED OIL MARKET.

Petrolea, (Ont.)	$0 19; @ 0	per gall. cash.
London	0 [illegible] @ 0	" "
Toronto	0 21 @ 0	" "
Ottawa	0 [illegible] @ 0	" "
Montreal, (P. Q.)	0 [illegible] @ 0	" "
Quebec	0 [illegible] @ 0	" "
Halifax and St. Johns	0 23; @ 0 24	" "

The above are wholesale prices per Imperial gallon at which refined oil is sold by the car load: the price per single barrel is generally from 1c to 2c above these figures.

The latest refined oil quotations in New York market are as follows:—

Cargo lots for export, 110° burning test by the Saybold tester, 7½c per wine gallon.

Refined oil for the New York City trade, in lots of 50 to 100 barrels, 100° flash test by the Tagliabue pyrometer, 9c. per wine gallon.

Refined oil of 150° burning test, Primo White, 9½c to 10c per wine gallon, water white 11c to 14c per wine gallon, according to brand. This is the kind of American oil usually purchased for the Canadian market, and is coming into general use in the United States.

Cases of refined oil for export, 110° burning test, cargo lots, 11½c to 12½c, according to brand.

PETROLEUM PRODUCTS

Lubricating	$2 00 @ $10 00	per bbl.
Tar	0 00 @ 1 00	"
Benzine	0 12½ @ 0 15	per gall.
Olein—26° 30° grav...	0 22 @ 0 25	"
Paraffine Candles	0 18 @ 0 20	per lb.
" Wax	0 05 @ 0 10	"

DEATHS FROM INDUSTRIAL PURSUITS.

Some startling facts respecting the amount of sickness and death which result directly from the circumstances under which industrial pursuits are carried on have lately been discovered in England, where they have been brought to the attention of the authorities as a subject worthy of investigation with the view of amelioration. One statistician who compiled tables on this subject in 1877, giving the records of deaths and injuries by steam boilers, in mines, on railways and in factories, estimated the mortality in England from these causes, during the four years preceding 1877, at a total of 107,000 men, women and children, and he estimated on the basis of these facts, that 500,000 workmen will lose their lives during the ten years from 1877 to 1886, from the following causes, namely, 300,000 in mines, 70,000 on railways and 130,000 in factories.

Another writer on the same subject, criticising these figures, thinks they are altogether too small, and that the accidents reported comprise only a small part of those that actually take place. He is of opinion that not less than 100,000 persons are annually killed in England from causes directly resulting from the industrial occupations in which they are engaged.

These statements, which are doubtless based on reasonably accurate data, are sufficiently appalling to arouse from its traditional *sang froid* even so inert and conservative a body as the British House of Lords. Taking even the lowest estimate of mortality from industrial accidents as the safest basis for estimating the number of yearly deaths from such causes the world over, and it will be found that the "horrors" of war, with its reckless sacrifice of human lives, become far less horrible when a comparison of the number of victims is instituted.

LABOUR IN ENGLAND AND GERMANY.

Those who have followed the course of competition between this country and the continent in a manufacturing sense have always attributed much of the success of the German, French, Belgian and Austrian firms to the many advantages they enjoy in respect to labour. Their men not only work much longer hours weekly, but are paid a lower rate per hour or per day. In many of the trades of Germany the men work ten days without any cessation, and the machinery is always going except when repairs are needed. In France seventy or eighty hours weekly are made by the majority of the artisans. Comparing these with the fifty-four or fifty-six hours of the British workman there need be no surprise whatever at the lower prices and vigorous competition of our continental rivals. Our reports of the exhibitions now open in different parts of Germany show that in that country pretty nearly all classes of iron, steel, hardware, metals and machinery are being made on a large scale, and prove that whenever protection is abandoned we shall have little or no chance of regaining the markets, in addition to having to face a competition even more vigorous and universal than at present. Mr. Bernard Samuelson, M.P., has contributed a paper to the *Fortnightly Review* on the subject of technical education in Saxony, in the course of which he institutes comparisons as to the cost of labour at Chemnitz and in England, and in which he shows that our payments under this head are about 40 per cent. higher than those of Saxon manufacturers, to say nothing of longer hours. At a locomotive shop in Chemnitz the average weekly wages of the labourers and mechanics are 16s 4d as against 28s in Lancashire and Yorkshire. This constitutes an almost startling difference. We have no wish to see the wages of the English artisan brought down to the level above mentioned, but the facts as they stand deserve careful attention, inasmuch as the continuance of this disproportion can only have the result of still further diminishing our export trade.—*Ironmonger.*

Oakum is represented as a good and cheap material for filling wheels used in transmitting power by wire rope.

Three hundred Russian nobles have organized themselves into an anti-Nihilist league, to be known as the "Sacred Legion." The large funds at their control, their great influence at court, and the completeness of the system of secret organization they are about to establish will make the league much superior to the ordinary secret service for unravelling and meeting Nihilist plots.

The scheme for the construction of a graving dock at Halifax has received the final consent and support of the Imperial Government, with the stipulation that the dimensions of the dock shall be somewhat greater than was at first intended. The question of site remains in abeyance for the present, until it shall be known whether the Imperial authorities will be willing to let the company have a portion of their extensive property at Halifax for the purpose.

THE MONEY MARKET.

TORONTO STOCK REPORT

BANKS	Capital paid-up.	Rest.	Dividend last 6 Months	Closing Prices June 15. Sellers.	Buyers.
British North America	£50				
Canadian Bank of Commerce	$50				
Dominion Bank	50				
Du Peuple	50				
Eastern Townships	50				
Exchange Bank	100				
Federal Bank	100				
Hamilton	100				
Hochelaga					
Imperial Bank	100				
Jacques Cartier	25				
Maritime	100				
Merchants' Bank of Canada	100				
Molson's Bank	50				
Montreal					
National	100				
Ontario Bank	100				
Quebec Bank	100				
Standard					
Toronto	100				
Union Bank	100				
Ville Marie					
Canada Cotton Company	100				
Dominion Telegraph Co	50				
Montreal Telegraph Co	40				
Montreal City Gas Company	40				
Montreal City Pass'ger R. Co	50				
Montreal Loan & Mortgage Co	100				
Richelieu & Ont. Nav. Co.	100				
Intercolonial Coal Company	100				
Quebec Fire Association Co	100				
Silver Plate Company	100				
Royal Canadian Ins. Co.	50				
Graphic Printing Co's bonds					
Dominion Type. Stock					
Montreal Har. 6 p.c. bonds					
Montreal 5 p.c. Stock					
Do. 7 p.c. do.					
Do. Corporation Bonds					
Do. Waterworks do.					
Montreal Building Assn.	50				
Canada Shipping Company					
Dundas Cotton Company					
Montreal Cotton Company					
Canada Paper Company					
Canada Central Bonds					
Bell Telephone Company					
Champlain & St. L. R. Bonds					
Graphic Stock					

LOAN AND SAVINGS COMPANIES

	Capital paid-up.	Rest.	Dividend last 6 Months	Closing Prices June 15. Sellers.	Buyers.
Anglo-Canadian Mortgage Co					
Building and Loan Association					
Canada Landed Credit Co					
Canada Permanent L. & S. Co					
Canadian Savings and Loan Co					
Dominion Savings & Investment Soc					
Farmers' Loan and Savings Co					
Freehold Loan and Savings Co					
Hamilton Provident & Loan Soc					
Huron & Erie Savings & Loan Soc					
Imperial Savings & Investment Co					
London & Can'n L. & Agency Co					
London Loan Company					
Manitoba & N.W. L. & Inv. Co					
National Investment Co					
Ontario Loan & Debenture Co					
Ontario Savings & Investment Soc					
People's					
Real Estate Loan & Debntr's Co					
Union Loan and Savings Co					
Western Canada Loan & S. Co					

FIRE INSURANCE COMPANIES

British America					
Western Assurance					
Canada Life					
Confederation Life Association					
Consumers' Gas					
Dominion Telegraph					
Montreal Telegraph					
Globe Printing Co					

DEBENTURES, &c.

	Interest Payable.	Books Close.
Dominion Gov't stock, 5 per ct.	30th April and 1st Oct.	Ottawa, Montreal, and Toronto
County (Ontario), 6 "		
Township " "		
City of Toronto " "		
Toronto, G. & B. bonds, " "	January and July	London (Eng.) & Toronto
Toronto and Nipissing Rail'y	(January) and July	Toronto

MONTREAL STOCK REPORT

BANKS. NAME.	Par Value	Capital subscribed.	Capital paid-up.	Rest.	Dividend last 6 Months	Closing Prices June 15. Sellers.	Buyers.
British North America	£20						
Canadian Bank of Commerce	$50						
Dominion Bank	50						
Du Peuple	50						
Eastern Townships	50						
Exchange Bank	100						
Federal Bank	100						
Hamilton	100						
Hochelaga							
Imperial Bank	100						
Jacques Cartier	25						
Maritime	100						
Merchants' Bank of Canada	100						
Molson's Bank	50						
Montreal	200						
National	100						
Ontario Bank	100						
Quebec Bank	100						
Standard							
Toronto	100						
Union Bank	100						
Ville Marie							
Canada Cotton Company	100						
Dominion Telegraph Co	50						
Montreal Telegraph Co	40						
Montreal City Gas Company	40						
Montreal City Pass'ger R. Co	50						
Montreal Loan & Mortgage Co	100						
Richelieu & Ont. Nav. Co.	100						
Intercolonial Coal Company	100						
Quebec Fire Association Co	100						
Silver Plate Company	100						
Royal Canadian Ins. Co.	50						
Graphic Printing Co's bonds							
Dominion Type. Stock							
Montreal Har. 6 p.c. bonds							
Montreal 5 p.c. Stock							
Do. 7 p.c. do.							
Do. Corporation Bonds							
Do. Waterworks do.							
Montreal Building Assn.	50						
Canada Shipping Company							
Dundas Cotton Company							
Montreal Cotton Company							
Canada Paper Company							
Canada Central Bonds							
Bell Telephone Company							
Champlain & St. L. R. Bonds							
Graphic Stock							

STEAM USERS

[illegible] the Exhibition at Montreal [illegible]

SAVE MONEY BY SAVING FUEL.

INCREASED CAPACITY OF STEAM POWER.

[illegible] CARVILL System of Steam Engine Economy [illegible] at Boiler Cleaning Works in Operation [illegible] Gilda' Leaf and Dye Works, [illegible] & Mitchell, Printers and Machinists [illegible] Printing Co. [illegible] the Lumber Trade [illegible] the CARBON-SILEX PROCESS, the waste gases [illegible] with but little [illegible] of the fire, which [illegible] perfect combustion. Waste fuel used with at least [illegible] recipes, [illegible] Engineers and Steam users, etc.

JARVIS FURNAC C[illegible]

P.O. Box [illegible] 114 A[illegible] Water St.

J. Wright & Co.

MANUFACTURERS OF

ART FURNITURE, WOOD CARPETING and PARQUET FLOORS,

Bank and Office Fittings, Church Furniture.

FACTORY AND SHOW ROOMS:

11 to 17 Hermine Street,

MONTREAL, P.Q.

RECORD OF THE LYMAN BARE.

FIVE FIRST PRIZES AWARDED THE

"LYMAN" FOUR-BARB WIRE FENCING

EXHIBITIONS.—Montreal, Que.; Hamilton, Ont.; Cincinnati, Ohio, Syracuse, N.Y. Davenport, Iowa.

FOR EXCELLENCE AND SUPERIORITY OVER ALL COMPETITORS.

The CHEAPEST and BEST FENCING in the WORLD.

Adopted and in use on 19 Railway Lines in the U.S. and Canada. See that our trade mark, "LYMAN BARB," is stencilled on each reel. KEY NO

OTHER. Send for Prices and Circulars to

DOMINION BARB WIRE FENCE CO., MONTREAL.

TENTS! TENTS! TENTS!

FOR SALE OR HIRE.

LUMBER TENTS a SPECIALTY.

The attention of Lumbermen and others is called to the above, and they will find it to their advantage to call before purchasing elsewhere. Price List on application to

Christopher Sonne,

13 Common St., Montreal,

(Near Allan's Wharf.)

Sailmaker and Tarpaulin Manufacturer, Horse and Waggon Covers, Tents, Awnings, Window Shades, Grain Bags and Tarpaulins for Sale or Hire. His Tents are now on view at the Exhibition.

STENCIL PLATES.

STEEL STAMPS for marking tools, etc.,

STAMPS AND SEALS of every description.

Pritchard & Mingard,

[illegible] ST., OTTAWA.

P. FREYSENG J. E. DOYLE

P. FREYSENG & CO.

PROPRIETORS OF THE

DOMINION CORK CUTTING CO.

71 Jarvis St., Toronto, Ont.

J. E. DOYLE & Co.

31 & 33 Bonaventure St., Montreal.

ALL KINDS OF CORKS IN STOCK AND CUT TO ORDER

CORK LIFE PRESERVERS A SPECIALTY.

Also Corkwood, Tinfoil, Capsules, Wire, etc.

ANILINE DYES

For Leather, Cotton, Wool, Silk

LARGE STOCK AT MANUFACTURER'S PRICES ON HAND ONLY THE VERY BEST PRODUCTS OF THE DAY ARE USED

EMIL THOURET & Co.

15 Lemoine Street, Montreal.

J. R. McLAREN, Jr.

MANUFACTURER OF

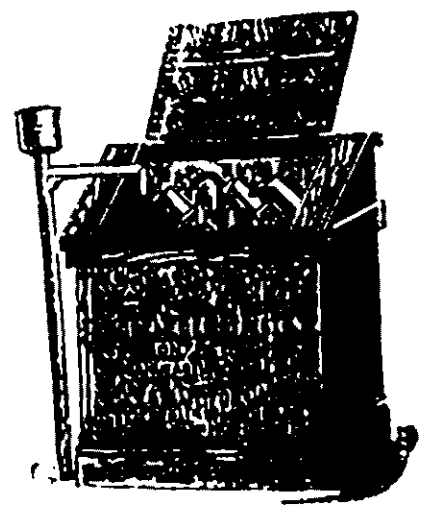
SHARP'S

SAFETY

Oil Cabinet

REFRIGERATORS,

MEAT SAFES



CHILDREN'S

Carts, Waggons, Sleighs,

VELOCIPEDES

—AND—

GENERAL WOODEN WARE.

FINE TURNING

OF ALL DESCRIPTIONS

A SPECIALTY

Factory, Hochelaga.

P.O. BOX 1233.

OFFICE:—63 COLLEGE STREET, MONTREAL.

Porter & Savage

TANNERS,

AND MANUFACTURERS OF

Leather Belting,

FIRE ENGINE HOSE, HARNESS, MOCCASINS

LACE, RUSSET AND

Oak Sole Leathers,

OFFICE AND MANUFACTORY

436, 438, 440 and 442 VISITATION St., MONTREAL.

ROBIN & SADLER,

594, 596, 598,

ST. JOSEPH STREET,

MONTREAL,

LEATHER BELTING

Manufacturers of

Fire Engine HOSE,

LACE LEATHER,

Mill Supplies, &c.

FILES.

DOMINION FILE WORKS

MONTREAL.

G. OUTRAM & SONS

Manufacturers of every description of hi h class

FILES and RASPS,

Made from the best Sheffield cast steel, and [illegible] adapted to the Canadian trade. Mill and Taper Saws put up to lengths to suit purchasers. Our own invention, which is handy and [illegible] We were awarded the only medal ever given for Files in Canada, at Quebec, in 1870. [illegible] the only medal for Files alone at Paris, 1878.

FAIRBANK'S STANDARD SCALES

RECEIVED HIGHEST AWARDS

WORLD'S FAIR, London.
WORLD'S FAIR, New York.
WORLD'S FAIR, Paris.
WORLD'S FAIR, Vienna
WORLD'S FAIR, Santiago, Chili,
WORLD'S FAIR, Philadelphia,
WORLD'S Fair, Sydney, Au
WORLD'S FAIR, Paris, 5 Medals.

DOMINION MAT & FUR CO'Y,

Manufacturers of

SHEEPSKIN MATS

Glove and Shoe Kid in all Colours,

AND

DRESSERS AND COLOURERS OF EVERY DESCRIPTION OF FURS.

WAREHOUSE & OFFICE, 15 JARVIS STREET, TORONTO

ASBESTOS, ASBESTOS, ASBESTOS

FENWICK & SCLATER,

ASBESTOS WAREHOUSE

223, 231 & 233 COMMISSIONERS ST. MONTREAL

(Old Montreal Horse Building)

Asbestos Piston Packing.
In [illegible] in Diameter. Won't cut and will last [illegible] longer than any other.

Asbestos Steam Joint Packing.
[illegible] of an inch to [illegible] of an inch thick, weighs [illegible] less than Rubber, and will last longer

Asbestos Lampwick Packing.
In Balls.

Asbestos Fire Proof Roofing.
The lightest, coolest, and most durable Roof

Asbestos Cement.
For covering Boilers and Steam Pipes. Saves [illegible] per cent. of Fuel.

Asbestos Roof Paints.
Fine finish, cheap and durable. Ready for use.

Asbestos Finishing Paints.
Ready for use in 30 different shades.

Asbestos and Hair Felt.
For covering Steam Pipes and Boilers. Very light [illegible] 33½ per cent. of Fuel.

Asbestos Lubricating Compound.
Used with Patent Piston Cup. Will save 75 per cent on oil. Try it.

Blocks and Pulleys of every description. Rope, Sheathing, Hemp, Oils, etc. Sole Agents Phœnix Fire Hose and Engine [illegible] Asbestos Packing Co.'s Bidwell & Lewis Phœnix Fire Hose Co. Fire Engine [illegible] Canvas Hose plain and rubber lined, Couplings, etc.

BUY THE GENUINE

Wilson Scales

—THE—

FINEST SCALES

IN THE WORLD.

—RECEIVED—

29 First Prizes

AND MEDAL, 1880.

AND ALSO RECEIVED

Governor General's Grand Diploma

WRITE FOR CIRCULAR

C. Wilson & Son

45 Esplanade St., Toronto.

Mention This Paper.

Special Inducement

For the Month of September. The BOSTON

ONE PRICE CLOTHING STORE

41 & 43 St. Joseph St., Montreal.

OVER THE

LARGEST AND BEST ASSORTED

Stock of Clothing in Canada at greatly

REDUCED PRICES

Suits worth $10 reduced to $6.

Country dealers can save [illegible] per cent. by buying from the

Boston Clothing Store