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PROTECTION IN ITALY.

ENGLAND is confronting a condition of Protection in many European States that far outweighs in importance all her theories of Free Trade. Mr. Henry O'Neill, the British Consul at Leghorn, in a recent consular report to his Government, shows that Italy's policy of Protection is gradually but slowly closing the markets of that country against British manufactures, while at the same time the influx of British capital into Italy to promote native manufactures is extraordinarily large. He says:

Nor is it British capital alone that has found its way through the hostile barriers; for we find English firms in alliance with Italian houses at Naples, Genoa and other cities, for the production of machinery, while German and French firms control the operations of jute mills at Lucca and the glass works at Pisa. If Italy is determined to exclude foreign-made goods, the foreigner on his part is equally determined to supply the necessary "sinew," and the trained technical knowledge. None of the industries which are now being sedulously fostered at the expense of the native consumer, could exist for a single day if the hostile tariff was withdrawn. Nor does the money made in these industries remain in the country, for the foreign capitalist—who is the person benefited—withdraws a large portion of the profits, although, of course, he gives an impetus to local employment. To the present hostile tariffs are the Government indebted for a large portion of their revenue. The customs duties levied upon imports in 1889 averaged nineteen per cent. of their total value, and upon many articles of daily use the proportion is far greater. This will be seen from the fact that upon every franc's worth of coffee imported sixty cents were paid; for the same value of wheat twenty-five cents; the value of refined sugar was increased to the extent of 180 per cent. *ad valorem*, or a duty of ninety francs upon a value of fifty francs. Industries have grown up which are ill adapted to the soil, and for which the raw products have to be imported, such as cotton, jute and flax, hides, iron—old, scrap and pig—and fuel.

This is looking at the question through Free Trade spectacles; but the facts that Mr. O'Neill states confirm the contention of Protectionists in Canada and elsewhere, that if the best interests of a country are to be considered and its manufacturing and industrial pursuits encouraged, it can best be done by Protection. In this instance we observe not only British but German and French capital flowing into Italy, used generally in connection with Italian establishments, not only for the production of machinery but also for the operation of mills and factories, and the production of manufactured products. Mr. O'Neill tells us that this condition induces the introduction into Italy of expert workmen and artisans, and of those who possess "trained technical knowledge." Is Italy benefited by this influx of capital and skilled labor? Unquestionably: for it is just these elements that make a nation wealthy and important and self-sustaining. Admit that none of these new industries could at this time exist if the protection afforded by the tariff were withdrawn; it is not likely that the Italian Government would commit suicide by abandoning that policy—and then the industries are being established. Mr. O'Neill and British manufacturers and merchants are wasting their time and sympathies weeping over the condition that is creating so much wealth in Italy. Neither does it count for much to be told that the money made in these new Italian industries does not remain in the country—that the foreign capitalist withdraws a large portion of the profits. Perhaps he does—perhaps he does not. If he does, he cannot withdraw the business he has created, nor the plant and fixtures by which he created it. They remain, and there also remains the general accretion of wealth growing out of his investment. The skilled labor he imported also remains, and the homes and surroundings that this labor has acquired remain in Italy, nor can they be removed by the capitalist even if he desired to do so. But there is no reason to suppose that the successful British capitalist in Italy, who has increased his wealth by manufacturing under the influence of Italian Protection, will desire to remove that wealth from the country, but rather to re-invest it in other enterprises.

The details of the Italian tariff are criticized by Mr. O'Neill; but this is a matter that concerns Italian statesmen more than any one else: but it is exceedingly amusing to be told by the Consul that certain industries have grown up in Italy under Protection which are not indigenous to the country and ill adapted to the soil, and for which the raw products have to be imported. He quotes such things as cotton, jute, flax, hides, etc. Pray does not England also import just such things, and has not England's greatness been built upon the conversion of these raw materials into manufactured products?

INTERNAL TRADE.

A CONSERVATIVE journal complains that the "Grit organs" quote the Trade and Navigation Returns and ignore interprovincial trade. So far as this statement is true, the reason is that we have or should have an accurate account of our foreign trade, while the extent of our interprovincial trade must always be a matter of conjecture. Besides, such a record, even if it could be obtained, would be incomplete and misleading. If the whole trade of the country is to be shown we must add

to the foreign trade, not the interprovincial trade merely, but the internal trade. If we keep a record of the trade between Nova Scotia and New Brunswick, why not keep a record of the trade between the old Ontario and the new Ontario that lies a thousand miles away? We must take account, not only of the merchandise that passes from Province to Province, but of the merchandise that passes from county to county and from the grocery to the pantry. There would be no sense in limiting the inquiry to the goods that happen to cross the Provincial lines, which have nothing to do with trade. Of course a record of the internal trade of the country is utterly out of the question; one might as well ask for the moon. The foreign trade of a country is the only trade of which an accurate account can be kept, and it is regarded by all writers upon economics as a fair test of the prosperity of a country.—*Toronto Globe*.

Let us examine the position of the *Globe*. It is this:—If the whole trade of the country is to be shown the internal trade must be added to the foreign trade. If we keep a record of the internal trade that record must include not only that which is interprovincial, but also that which passes from the corner grocery to the pantry of the consumer. It is as unreasonable to attempt to keep a record of the internal trade of the country as to ask for the moon. The foreign trade of a country is the only trade of which an accurate account can be kept: and that foreign trade is the only fair test of the prosperity of that country.

It is thus with a wave of the hand the *Globe* disposes of the internal trade of a country, measuring the prosperity of the country only by the volume of its foreign trade. Why does the *Globe* thus unceremoniously ignore internal trade? The point it wants to make is this—In a strictly agricultural country—a country that is a large producer of exportable products and not a large consumer of domestic products: and a large consumer of importable products and not a producer of such products:—in other words a non-manufacturing country—the foreign trade would be at its maximum, and, according to this standard established by the *Globe*, that country would be in its best possible financial condition. The industry of the country—exclusively agricultural—would provide for large exports of produce, and, of course, everything that the country required except these agricultural products would of necessity have to be imported. This would produce a condition of exceedingly lively foreign trade—everything that the country produced going out, and everything the country required coming in. This condition could only obtain in a Free Trade country, such as the *Globe* desires to make Canada.

It is quite clear that this acme of commercial prosperity could not be attained if any system existed in the country to interrupt that course of trade. If a class of consumers of agricultural products other than the farmers themselves should appear, the export of farm products would be curtailed to the extent of the consumption by this class: and if a class of producers of such things as were being imported should appear, the imports of such articles would be curtailed to the extent of the production by this class. But it does not follow that because of this curtailment of exports of agricultural products, and of imports of manufactures, the country is less prosperous than before: while on the other hand it may be infinitely more prosperous.

To illustrate we will suppose a purely agricultural country that exports say \$50,000,000 worth of wheat a year, and

imports of foreign manufactures to the same extent. This would represent a foreign trade of \$100,000,000 a year. But manufacturing industries are established there which produce say \$20,000,000 worth of goods a year; and those employed in these industries consume of the agricultural products of the country say \$20,000,000 a year; now there would be a reduction of agricultural exports to the value of \$20,000,000, and a reduction of imports of foreign manufactures of a like amount, leaving a foreign trade reduced forty per cent. to only \$60,000,000. Under this new condition there has been no slack-up or diminution in any industry or employment except in the foreign carrying trade. Every acre of the farmer's field has been cultivated and producing as before; every work animal kept constantly employed and every hoe and plow kept bright by intelligent contact with the soil. The farmer has made just as big a crop, and he has received just as much money for it, the only difference being one in his favor wherein he sold his produce in his home market instead of sending it to Liverpool. But the country has been benefited in that its population has been increased, and many who would have otherwise been in idleness were provided with remunerative employment. Under these new conditions of prosperity would the *Globe* pretend to say that "the foreign trade of the country is the only fair test of its prosperity?"

We think we forcibly demonstrate the ridiculousness of the *Globe's* contention in the following facts:—

During the fiscal year ending June 30, 1890, the exports from the United States aggregated \$857,856,159, and the imports \$789,335,855, a total foreign trade valued at \$1,647,192,014. The merchandise represented in this vast sum was an important factor in the internal trade of the country—in fact every ton of it before reaching destination, in being hauled by transportation lines within the United States, constituted just that much of the internal trade of that country. Was there any other internal trade in the United States except this which also constituted the foreign trade? It is folly to claim that this was all the internal trade worth speaking of, or that it was more than an almost inconsiderable portion of that trade. According to *Poor's Manual* the freight train mileage on the railroads in the United States last year aggregated 430,719,737 miles, which means that 619,137,237 tons of freight were hauled an average distance of 110 miles—only about two-thirds the distance between New York and Albany. This means that this railroad freight movement was the equivalent of hauling 68,604,012,396 tons of freight one mile. Can the *Globe* comprehend these figures?

"The foreign trade of a country is the only trade regarded by all writers as a fair test of the prosperity of a country." This is the opinion of the *Toronto Globe*. In previous issues of this journal we have shown the volume of internal trade of the United States as carried on in steam and sailing vessels of that country. It is wonderfully large, and, like the business done by the railroads, does not include that so facetiously alluded to by the *Globe* as passing from the corner grocery to the kitchen cupboard. In this article we refer to the internal trade of the United States as carried on over the railroads. The total number of miles of railroad in the United States at the close of 1889 was 161,397. The share capital corresponding to the mileage at that time equalled \$4,495,099,318, and

the funded debt \$4,828,365,711, the other forms of indebtedness being \$357,477,160. It requires considerable rolling stock to operate these railroads; and last year this included 31,062 locomotives and 1,090,813 passenger, freight and other cars. We have shown the volume of freight moved over these roads—last year the number of passengers carried amounted to nearly five hundred million—to be exact, 495,124,767, which means a movement equivalent to hauling 11,965,726,015 passengers one mile. It cost something to carry on this internal railroad trade in which is not included the grocery and kitchen cupboard trade alluded to by the *Globe*. Last year the operating expenses of these American railroads aggregated \$674,731,517. The earnings in that year amounted to \$992,856,856, and if to this amount be added the earnings of the elevated railroads of New York and Brooklyn, \$10,879,740, the grand total reaches the sum of \$1,003,736,596—a sum fifty per cent. greater than the public revenue of the United States, and greater than the public debt of that country.

Does the *Globe* see the point? All this traffic is transacted by only one method of transportation, and is confined entirely to the internal trade of the country. How much greater the volume of this trade would be increased if the traffic of vessel and other methods of transportation were added, without including that between the corner grocery and the cupboard under the back stairs.

In speaking of the foreign trade and the internal trade of say the United States, according to existing methods of compiling statistics, the value, not the tonnage, of the foreign trade is given; while the internal trade is measured by tons, not dollars. Therefore it is impossible to give the tonnage of the foreign trade, or the value of the internal trade; but reference to the facts, and the exercise of some judgment in making valuations, will show that although the *Globe* purposely belittles the internal trade of a country, as we have shown that trade is the most important factor in a country's prosperity.

BRITISH RIGHTS ON THE HIGH SEAS.

OUR esteemed and usually level-headed contemporary, the Philadelphia *Manufacturer*, works itself up into quite a state of mind anent the Behring Sea matter. Perhaps this condition is more the result of its admiration for Mr. Blaine and his jingoism than of definite knowledge respecting the question, or, we regret to say, any acute perception of the difference between meum and tuum. It may be that "intelligent Americans" entertain a feeling of delight with what our contemporary calls the "complete manner in which Mr. Blaine demolishes his antagonist," Lord Salisbury; but there are other intelligent Americans who entertain the conviction that Lord Salisbury has not been "demolished" in the controversy, and that Mr. Blaine is certainly occupying untenable ground. Twisting the tail of the British lion may afford some childish amusement to Mr. Blaine and his "intelligent" American admirers; and there is no great harm done in thus allowing our exuberant neighbors to be amused; but Mr. Blaine will be careful not to carry the twisting business too far and unduly irritate the animal.

It may be true that the Russian Government claimed precisely the same jurisdiction in Behring Sea that Mr. Blaine

and his "intelligent" American admirers claim; and it will be observed that Lord Salisbury does not object to the claim on the part of our neighbors of all the "rights" they are entitled to there; but objection is made, and will be maintained, to the American "claim" of right to prevent Canadians coming and going just where they please in places over which the United States has no exclusive jurisdiction, and where the British flag is and must be as free as the wind that waves it.

It is remarkable how quickly Mr. Blaine and his intelligent American admirers change the ground of their argument, when it is made to appear that American jurisdiction cannot extend more than three miles from the shore of any land under the jurisdiction of that country. Unable to sustain themselves in this direction, they immediately fall back upon the more untenable ground that the United States must be allowed to exercise police surveillance over the ocean for the sake of protecting seals against extinction. Has that country any more "right" to interfere with British commerce on the high seas in this direction than it would have to regulate the whale fishery anywhere, or to prevent the taking of codfish on the Grand Banks of Newfoundland? Suppose the seal fishery in Behring Sea should be destroyed by Canadian sealers, what is Mr. Blaine going to do about it? If England and other interested countries should agree upon the enforcement of a close season, well and good, but if England does not consent, she will see to it that Canadian sealers have the right to capture seals in Behring Sea every day in the year.

Lord Salisbury is "rebuked" by Mr. Blaine for permitting the Canadian authorities to have a voice in the matter; and perhaps this feature of the discussion is more distasteful to our intelligent American neighbors than any other. England might not care anything about the Behring Sea seal fishery, but Canada does, and England cares for Canada; and Mr. Blaine is discovering that Canada has rights in this matter, and that those rights must and shall be protected and defended.

"Intelligent Americans" may be delighted with what Mr. Blaine has done—and has not done; but they will do well to notice the fact that Lord Salisbury has defined England's position to be, that if the United States persist in seizing Canadian vessels protected by the British flag, when engaged in sealing in Behring Sea, British warships will rescue them. In the language of the late President, Mr. Cleveland, this is a condition to be confronted, not a theory.

We suggest to our contemporary, and to its intelligent American readers, to ponder over and digest what Dr. Woolsey, President of Yale College, says about national rights on the high seas. That distinguished American says:—

The high sea is free and open to all nations. It cannot be the property or the empire of a particular State. It cannot become property, for it cannot be possessed or have any personal action exercised upon it which must prevent a similar action of another. It cannot be mixed up with labor, or inclosed, or, like wild land, be waiting for any such future action. It can as little become the empire of any particular State. Otherwise, one State might exclude others from it and from that intercourse from which it is the pathway, which would be inconsistent with the equality and the sovereignty of the nations. Such empire could begin only in the consent of the whole world expressed by treaty, which was never given, or in prior discovery and use. But this last is no ground at all,

and if it were, would work against the so-called discoverer in favor of the natives of the newly-found coasts. In fine, the destination of the sea is clearly for the common benefit of mankind; it is a common pathway, separating, yet binding, intended alike for all. The liberty of the sea and of navigation is now admitted on all hands. * * * The English, in the seventeenth century, claimed property in the seas surrounding Great Britain, as far as to the coasts of the neighboring countries, and the eighteenth century only softened down the claim of property into one of sovereignty. * * * Russia, finally, at a more recent date, based an exclusive claim to the Pacific, north of the fifty-first degree, upon the ground that this part of the ocean was a passage to shores lying exclusively within her jurisdiction. But this claim was resisted by our Government in the temporary convention of 1824. A treaty of the same empire with Great Britain in 1825 contained similar concessions.

THE BENEFITS OF PROTECTION.

In another page will be found an editorial which appeared in the *Toronto Globe* a few days ago. It is in reply to an article which appeared in the last issue of this journal; the question under discussion being whether the farmer is benefited by Protection. Our object in reproducing the *Globe's* editorial is that the matter may be fully and fairly understood.

Alluding to the painful depression in agricultural industries in England, we argued that unless some sort of relief were afforded to the British farmer, British agriculture must perish. As an answer to this the *Globe* says it is a pity we did not "stop to enquire what the probable consequences of dearer bread would be to other British industries." It shows that under the old Corn Laws the price of wheat frequently reached a famine height—that in 1801 it was 155 shillings per quarter of eight bushels, and that from that year until 1818 it averaged 84 shillings. This meant hunger, it says, and frequently death by starvation to many, and yet the farmer was not prosperous. It shows that food to the value of probably \$2,000,000,000 is annually consumed in the United Kingdom; and that if a moderate protection of only ten per cent. were imposed upon all food products, the \$200,000,000 raised by taxation upon the consumers would be felt by the poor more than by the rich—that the prevention of the present distress by Protection would be infinitely worse than the disease of Free Trade in its effects upon British interests generally.

We do not think it a waste of energy to discuss Protection to British agricultural interests, and to all British industrial interests as a practical policy.

In the language of the immortal Rev. Jasper: "The sun do move;" and because such is the fact it does not follow that because under Protection in 1801 the price of wheat reached 155 shillings per quarter, there should not be starvation in the land and great distress in 1890, as is the case, under Free Trade with wheat at 28 shillings. The surrounding circumstances have entirely changed. The prevailing distress in England is a fact to which even the Cobden Club dare not close its eyes; for at the recent annual meeting of that club Mr. Medley, one of the secretaries, in endeavoring to explain it, declared that the situation was to be attributed to (1) the opening up of new fields of production in agriculture and mining; (2) the discovery of new and cheaper processes of manufacture; (3) economy of transportation by land and sea;

(4) the changes wrought by electricity in all matters of commerce, and (5) the fall in prices owing to currency changes. Mr. Medley thinks that so far as British trade goes these disturbing agencies have spent their force; and he points to the fact that the foreign trade of that country last year reached highwater mark:—that "the country is enjoying an abounding prosperity." But Mr. Medley certainly does not expect the world, or even the *Globe*, to accept this assertion when the contrary facts are well known. If England is "abounding in prosperity" why do we see thousands of acres of farming land going out of cultivation every year? Why do we see thousands of farmers and agricultural laborers flocking to the cities seeking employment which they cannot obtain on the farms? Why do we see thousands of dock laborers and coal miners striking against starvation wages? Why is it that even those in Government employ—policemen and postmen furious and desperate from their unequal battle for life, quitting their employment because they do not receive enough remuneration for their services to enable them to keep soul and body together? If the Cobden Club and Free Traders generally can perceive "abounding prosperity" in this situation, it is much more than the laboring classes of England can do.

The *Globe*, echoing the Cobden Club, contends that the foreign trade of a country is the measure of prosperity, pointing to the fact that last year England in this respect "reached highwater mark." Of what benefit is this immense foreign trade to the laboring classes of England? The brawn and muscle of these classes is the source of wealth, but how much of this wealth do they enjoy? The *Globe* thinks they would object to having the cost of their living increased ten per cent. by Protection, and quotes Lord Salisbury as saying that "Protection would introduce a state of division among the classes which would differ little from civil war." To the *Globe* we would say that if the starving and unemployed poor of England have no money the price of food is an unimportant matter. Under Free Trade starvation is the companion of the poor, and they would hail with joy the introduction of any fiscal system that would give them employment at living wages. Protection would do this. To Lord Salisbury we would say that if the introduction of Protection, giving employment at living wages to the now starving masses, would bring about civil war, as distressing as such an event would be, it would be less objectionable to them than lingering starvation. Lord Salisbury stands in no danger of death by starvation, neither do the gentlemen of the Cobden Club. Their livings are assured. But the laboring classes of England must have employment, and they will not allow the chimerical views of the Free Traders to stand between them and it. My Lord should ponder upon Abraham Lincoln's views of Government which, he said, should be "from the people, by the people, and for the people."

Did Free Trade cause the prosperity of England, or did it result in spite of it? Professor Fawcett says:

We in England are much too prone to over-state the results of Free Trade. Scarcely a week passes without its being said that English imports and exports have more than quadrupled since Protection was abolished, the income of the country as shown by the income-tax has more than doubled, wages have been advanced and population has increased. But a moment's consideration will show that other causes have been in opera-

tion besides Free Trade. In like manner, America and other Protectionists may adduce statistics (probably even more surprising than those of England) to show the increase of wealth under Protectionist tariffs imposed in their own countries. No useful conclusion can therefore be arrived at by arraying the prosperity of one country against that of another.

Under the circumstances England should have prospered under her almost half century of Free Trade and in spite of it. Soon after the inauguration of that system, and before it had had any opportunity to display any impress upon the country, occurred that Great Exhibition in 1851 which was the forerunner and exemplar of all others, that have since occurred. Under the previous conditions England had attained a high position through her manufacturing, her maritime and her commercial enterprises. She had great advantages over other nations in these respects; and she possessed abundance of capital, machinery, brains, educated and expert artisans and workmen, and unlimited stores within her own borders of coal and iron. Her flag waved over her ships in every quarter of the globe, and she was possessed of colonies and dependencies which were her already acquired markets for all the merchandise her manufacturers could produce. Under these auspicious circumstances, brought about not by Free Trade but under the ægis of Protection, she enlarged her markets and increased her importance largely through the effects of her Great Exhibition of which that far-seeing man, the Prince Consort, was the moving spirit. Slightly preceding that event England had opened up her comprehensive railway system; and then came the gold discoveries of California and Australia. Then—in 1861—came the war of the Rebellion in the United States which resulted in the destruction of the maritime supremacy of that nation; and which gave the carrying trade of the world almost entirely to English ships. In that decade came the abandonment of wooden ships, which depended upon wind as a propelling power, for iron ships propelled by steam. When this change came it found England prepared—she had the ship-building plants, the architects to conceive, the workmen to execute, the coal and iron with which to produce the materials, and the capital with which to carry on the new and vital industry. England was then confronting two great European commercial rivals—France and Germany, who were striving to divide with her the prosperity she was enjoying; and it was early in the next decade that England reached the zenith of her commercial superiority. As in the previous decade she had been benefited by the American war, so in this decade was she benefited by the contest between France and Germany. Since that war and under Protection the commercial prosperity of those countries has been phenomenal, particularly that of France, which, on the downfall of her Emperor, lay prostrate in subjection to Germany. The story of France's recoupment under Protection is familiar to all; and we all know of the commercial rivalry of both Germany and France that is fast decreasing England's supremacy. Many lines of German and French goods dominate the English market, and English working people go in idleness or are forced to accept starvation wages. Free Trade is responsible for the situation. Protection would certainly secure the home market to English workmen and English industries. In grasping at the unsubstantial shadow of Free Trade, England is losing the substantial prosperity she had acquired under Protection.

The *Globe* thinks that English workmen could not afford to pay eleven cents for a loaf that now costs ten cents. The trouble with them now is to obtain the ten cent loaf. Perhaps the price is too cheap. If the eleven cents were demanded, it would be because Protection had raised the price; but under Protection the cheaper products of other countries would be barred out of the English market, or else made to contribute to the English revenues. The *Globe* does not tell us the fact that at the time of the repeal of the Corn Laws, and for more than twenty-five years after, including a period of England's greatest prosperity, the average price of wheat in England was fifty-six shillings per quarter, while now it is only twenty-eight shillings, with distress and ruin staring English farmers in the face. Free Trade has wrought the ruin. India can produce wheat with labor costing less than ten cents per day—England cannot do this, and English farmers are the sufferers. France can produce silks much cheaper than England, and English silk weavers are the sufferers. Germany can produce many lines of iron and steel goods cheaper than England, and English workers in steel and iron are the sufferers. The philanthropic sentiments of the Cobden Club want to keep the English markets open to the cheaper production of all the rest of the world, and all classes of English wage-earners are the sufferers. They ignore the fact that production at home is the true source of England's wealth. The result of their policy is to cripple English capital and withdraw the means of sustenance from English labor. They make bread cheap and deprive the poor of the power to purchase it. They aim to give England the distinction of having the largest foreign trade of any nation, while the laboring element, the bone and sinew of the country, is fast becoming pauperized. English farmers, unable to compete with Indian labor at ten cents a day, abandon their farms, and the aristocracy of wealth and of blood occupy these farms as game preserves. The favored few flourish in wealth and luxury, and the masses freeze and starve. It may be true that under Protection the people would pay more for their bread; but the English producers of the necessities of life would be benefited, and the cost of these could not be increased beyond the amount of the duty, while the benefit accruing to the producers would extend to the whole community. How else than through Protection is England going to find employment for her starving masses?

THE N.P. AND THE FARMER.

[The following editorial appeared in the *Toronto Globe* a few days ago.]

THE CANADIAN MANUFACTURER is the "own bairn" of the Manufacturers' Association, the *Empire* being merely the adopted child which the Old Man left on the doorstep. It is not easy to carry on a controversy with the *Empire* upon tariff questions, for, apparently owing to some congenital affection of the head, that expensive foundling does nothing but scream and go off into convulsions. THE CANADIAN MANUFACTURER, on the other hand, is quite competent to pursue a serious argument, and, drawing a bow at a venture, we should say it is by odds the more valuable paper of the two to the protected interests. Nevertheless, even THE MANUFACTURER

is unable to make out a plausible case for the theory of the Association that the N.P. benefits the Canadian people at large. Here is the proof for this assertion:—

In its last issue our contemporary argues that Protection must be good for the Canadian farmer inasmuch as the withdrawal of the protection furnished by the Corn Laws has injured the British farmer. There is always danger in arguing that what was good for A must suit B. The proposition is at variance with the large amount of human experience wrapped up in the saying that one man's meat is another man's poison. But let that pass. **THE MANUFACTURER** asserts in so many words that unless the Corn Laws are revived British agriculture must perish. It is a pity it did not stop to inquire what the probable consequences of dearer bread would be to other British industries. Under the Corn Laws the price of wheat frequently reached a famine height. In 1801 it was 155 shillings per quarter of eight bushels; in 1810 it was 116 shillings; from 1801 to 1818 it averaged eighty-four shillings. This meant hunger and death itself for the poorer classes, yet the farmers did not do well. For in determining rents the landlords always based them on the highest range of the wheat prices, so that in years of plenty when the price fell down to fifty shillings or thereabouts the tenant could not make both ends meet. Let us suppose, however, that the price of wheat was artificially augmented not to 116 or to 155 shillings, but, say, by an addition of ten per cent. to the present cost. In the time of the Corn Laws there was a kindred code known as the Provision Laws, under which the importation of live cattle and dead meat was prohibited, while imported butter and lard were not allowed to be used for food, but only in the manufacture of axle-grease and sheep-tar, the customs officers being provided with a tarred stick which they thrust into each package in order to render it unfit for human consumption. Let us suppose that in addition to a wheat tax of ten per cent., a tax of ten per cent. was placed on beef, lard, butter and all other articles of food. This would be probably as small a margin of protection to the British farmer and to the other food-producers as they could be induced to accept. Now, then, what would be the result? Roughly speaking, food to the value of \$2,000,000,000 is annually consumed in the United Kingdom. This includes everything coming under the head of food. No one pretends that so vast a quantity could be raised there under a hot-house protection; whether or not, it is clear that the ten per cent. tax on foreign breadstuffs would involve an addition to the cost of the food of the British people \$200,000,000 a year, and, as before, the pressure of this load would be felt by the poor more than by the rich. It is scarcely worth while to push on to the other conclusions and show what the effect of this would be on wages and foreign trade as well as on the social and political condition of the country. In replying to a fair trader who, like **THE CANADIAN MANUFACTURER**, was talking at random about restoring Protection to the British farmer, Lord Salisbury said (April 13, 1888).—"I utterly disbelieve that it is in your power to introduce Protection, and if it were, I think it would be introducing a state of division among the classes of this country which would differ little from civil war." It is true, as **THE MANUFACTURER** says, that British agriculture is depressed, and that the depression is largely caused by the competition of cheap-labor countries which might be overcome

by a Protective system. But as the prevention would be infinitely worse than the disease in its effects upon British interests in general, is it not a waste of energy to discuss it as a practical policy?

There is a wide difference, however, between Canada and Britain in respect to the conditions under which agriculture is carried on. Britain is an importing country (at present she imports over thirty per cent. of all the food she consumes), whereas Canada is an exporting country. It follows that, in years of average plenty when we have a surplus of products to sell, neither the N.P. nor any other Protectionist contrivance can add a cent to the price received by the farmer. If we were to give him a protection of 6s. 4d. per bushel, such as the British farmers had in the sliding scale when wheat was cheap, it would not help him in the least—he would still have to take the price fixed abroad, and that price would determine the market value here at home. It may happen, of course, when there is a scarcity in Canada that the price of farm products is augmented by the N.P., for, like Britain, we are then obliged to import food for man and beast. Per contra, the N.P. alike in lean years and in fat years impoverishes and robs the farmer by artificially exalting the cost of the necessaries and conveniences of life and labor. Take the case of any article in common use, cotton for instance. The specific and *ad valorem* duties levied on foreign cottons amount to an addition to their cost of probably forty per cent. on the average. That is, the native manufacturer is allowed by law to charge that much more for his cottons than the farmer could get them for were he permitted to carry on a free exchange of wheat or beef for cotton with Lancashire. He was assured that home competition would tend to keep the Canadian price down to the foreign level, and that all the manufacturers wanted Protection for was merely to enable them to start factories, so that they might secure the legitimate profits otherwise obtained by the foreigner. The formation of a "combine" has disposed of that appeal to our ignorance, and the fact remains that the N.P. taxes the farmer for the benefit of a cotton monopoly whose operations do not add a farthing to the value of his land or products. And so it is throughout the whole list—the Government holds him by the throat whilst the proprietor of each infant industry takes something out of his pocket and puts nothing back. He was promised a home market, but, as has been said above, the foreigner is the man who fixes the prices for us in normal seasons. The farmers of New England, who are surrounded by a perfect forest of tall chimneys, have found out that whilst the burdens laid upon agriculture by Protection in the manner described are grimly real, the benefits accruing to it from the multiplication of factories are in the main illusory. And, in spite of the efforts of **THE MANUFACTURER** to throw dust in his eyes, the Canadian farmer is rapidly coming to the same conclusion.

DIFFERENCE BETWEEN COST AND SELLING PRICE.

In discussing the prevailing low prices farmers are now receiving for their produce, due notice is not taken of the fact that the cost of producing and marketing is also greatly reduced. In 1870 the average freight rate on corn from

Chicago to New York was twenty-eight cents a bushel, and on wheat thirty cents, while in 1889 the respective rates had fallen to 12.8 cents and 15 cents—a decrease on corn of 54.2 per cent., and on wheat 50 per cent.

Speaking of this fact, the *Railway Age* says that while the decrease in cost of transportation mainly insures to the consumer, a fact which the farmer overlooks when he demands that the railroads shall reduce their charges because the price of his commodities is low, still it must be remembered that the cheapening process which has been going on in the cost of transportation has also been at work to reduce the cost of production. The wheat raiser may get a smaller price for his wheat, but through improved methods and means of cultivation he is able to produce his wheat at a less cost. This fact Congressman Walker, of Massachusetts, recently brought out very clearly, and the force of his logic the inflation champions were unable to break. To the claim that it takes more bushels of wheat to pay over a \$1,000 mortgage on a farm now than it did years ago, Mr. Walker presented the incontestable fact that it takes less labor and less money to raise sufficient bushels of wheat to pay off the mortgage now than it did before.

Even if at one time 1,000 bushels of wheat would pay off \$1,000 of debt, while now 2,000 bushels would be required to accomplish the same end, the fact that the farmer could produce 2,000 bushels at a less cost to himself than the 1,000 bushels formerly cost him made him better off than when the price of wheat was higher. The trouble with demagogue logic is that it only scratches the surface of facts, it does not dig right down to the bottom. It can see a bushel of wheat, and a bushel of wheat is, of course, a bushel of wheat at all times.

But a bushel of wheat or corn is no: a fixed standard of value, although it may be of measure. At the same price for wheat a farmer may one year make a handsome profit, and in another year a disastrous loss. The difference between the cost of raising the wheat and the price he gets for it determines the measure of his prosperity. And unless this difference is figured out accurately and correctly, no correct deduction can be made from the price which wheat commands in the market. The railroad has been a great cheapener of all products; not only those which the farmer produces, but those which he uses, and when he attacks the railroad as an enemy, he strikes at the medium that has enabled him to raise cheap wheat at a profit.

WAS THE COMMISSION NON-POLITICAL?

MR. ARCHIBALD BLUE, Chairman of the Royal Commission appointed to report on the Mineral Resources of Ontario, vigorously denies that the Commission entertained or exhibited any political bias in their report, especially regarding Reciprocity with the United States. We extract the following from the Report:

In 1887 the per capita consumption of finished iron and steel in the United States exceeded 300 lbs., while in Canada the consumption fell short of 200 lbs. per capita. As has been previously shown, the output of iron ore in the United States for 1887 was twelve times greater per capita than the output of Canada, while the production of pig iron in the United States was over twenty one times greater per capita than in Canada. Enquiries have been made as to whether it

is not possible, under existing circumstances, to largely increase our iron production, and it is now proper to enquire as to what might and probably would be the effect upon our iron interests of the removal of all commercial restrictions between the two countries.

The export of iron ore from Canada for the four fiscal years ending June 30, 1888, has been as follows, by provinces:

Provinces.	Country of shipment.	1885.		1886.		1887.		1888.	
		Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.
Ontario.....	U. S.	52,532	\$127,542	7,330	\$22,140	18,907	\$61,320	13,534	\$39,500
British Columbia.....	U. S.	1,835	4,432	200	450	4,440	10,500		
New Brunswick.....	U. S.			12	449				
Quebec.....	G. B.					2	10	10	350
	U. S.					38	114		5
		54,367	\$131,974	7,542	\$23,039	23,387	\$71,944	13,544	\$39,946

All the ore exported from Ontario found a market in the United States. Great deposits of ore can be reached by rail and cheaply laid down at Lake Ontario ports. The cost of transportation from the mine to Cleveland, Ashtabula or Pittsburgh is not greater, and in some cases is slightly less, than from the mines of northern Wisconsin and Michigan to the same points. Numerous mines not yet available can be easily reached by short branches from railway lines now constructed. Millions of dollars worth of iron ore could be placed in the American markets annually, and apparently the only thing that stands in the way of the development of a great and profitable trade with the United States is the American duty. The magnitude of the shipments of ore to Lake Erie ports from Michigan, Wisconsin and Minnesota is suggestive as to the possibility of utilizing our own great and hitherto nearly useless deposits.

The total shipments of iron ore by rail and lake from the mines of Lake Superior since 1850, when the first shipment was made, amounted at the close of 1888 to 40 812,360 long tons. This enormous business has of late years given employment to a considerable part of the lake marine. The value of the output of 1888 at the point of shipment was over \$16,000,000, and in its transportation to Lake Erie ports American shipping on the lakes earned at least \$6,000,000. When this immense volume of business is compared with the trifling export of 13,534 tons from the mines of Ontario in the last fiscal year, it is natural to enquire why the shipments from Lake Superior ports should be 340 times greater than the entire shipments from our own province. The shipment of iron ore from the mines of the Lake Champlain region to New York and Eastern Pennsylvania furnaces amounted for 1887 to 768,852 long tons, or sixty times more than the entire export of ore from Ontario last year. Is it surprising that the owners of Ontario iron mines should eagerly desire the removal of restrictions which keep out American capital that would seek investment in our mines but for commercial beligerency, or should wish to be able to share upon equal terms in the distribution of the millions paid out in American iron centres near our borders for the article of which they have an unlimited supply?

THE LUMBER TRADE.

A FEW days ago the *Toronto Globe* published a telegram over a column long from Ottawa under the startling head line, "Severe Depression prevailing in the Lumber Trade," and giving the opinions of some of the lumbermen of that section. This it used as a pretext for a column long editorial, in which it attempted to show that the prevailing depression in that trade was due to the "restricted commerce" between Canada and

the United States, and that the only hope ahead for Canadian lumbermen was Unrestricted Reciprocity between the two countries. The *Globe* says:—

"Briefly stated, the causes of the depression are these:— In the first place, the British and South American markets are stagnant just now. In the United States railroad development in the South has opened up vast tracts of red pine, the product of which comes in competition with the Canadian white pine in the markets of the Middle States and even in those of the North. A good demand for Canadian lumber is reported, however, in New York State. Lastly, lumbermen in this Province are exceedingly anxious regarding the action of Congress with respect to the lumber duties. * * * The Senate Finance Committee has reduced the proposed duty on white pine to a dollar but has left in the Bill the clause relating to the export duty on logs. The uncertainty prevailing in Canada with respect to this matter has led many of the lumbermen to curtail their operations for the present.

Reference to the Ottawa telegram, in which the opinions of the lumbermen there are set forth, shows that the *Globe* deliberately attempted to deceive its readers who might be gullible enough to accept the *Globe's* conclusions without carefully reading the evidence. Mr. George Hurdman said:—"The South American trade is dull. The uncertainty regarding the American tariff has caused the Americans to buy only what they could not help, though, as is now apparent, that tariff cannot in any event affect this year's sales." Mr. Pierce, of Messrs. Pierce & Co., blamed most of the dullness on the South American market, which, owing to the financial crisis there, is dead. No orders from there are received, and the English market is a little uncertain. Mr. E. H. Bronson, according to this telegram, "gave four causes for the depression in this industry—over-production in the North, a keen competition from United States Southern timber, the South American congestion, and dulness in the English market. Messrs. Bronson & Weston have been sawing for the South American market, and are specially affected by the financial crisis in the Argentine Republic. "Unless the situation there improves," and Mr. Bronson said there was no prospect of it, "they would have to shut down some of their mills. There had been over-production in this section of the grade of lumber sold in the United States, and there had been over-production in that country. Then there was the competition they had to meet in the United States from lumber cut in the South. They found that growing keener and keener every day, and it was perhaps as important a factor in the present depression as any other single item. The competition was being pushed further north every year. There is a world of timber in the Southern States, and within the last five years a good many lumber manufacturers in the Western States, finding their timber about out, have been going to the Southern States and buying up large quantities of this Southern timber. These men were practical lumbermen, and had gone South to do business. They had some advantages over the Canadians in the Northern markets. They had cheaper freight rates, practically no stumpage fees, and no customs duties to pay, and the result was they were able to undersell the Canadian manufacturers, particularly in this coarse lumber." Mr. Cox, an Englishman engaged in this trade, said:—"The English market is glutted. There is great over-production of square timber here. There has also been

English supply comes." According to Messrs. Perley & Pattee, "not the least ugly feature of the situation is the fact that as far as South America and England are concerned, the depression may last for a couple of years."

Last year the exports of Canadian lumber to the United States was valued at about \$11,000,000, and this represents only about one-twenty-fifth of the lumber annually consumed in that country; and the testimony of Mr. Bronson, who has evidently studied the subject critically, shows that the demand for Canadian lumber in that country will probably be much less before it is ever any greater, whether there be Reciprocity between the two countries or not. The South is an important factor in this business, and the *Globe* itself shows that the lumbermen there "demand the continuance of Protection."

The *Globe* evidently thinks that the tariff is a suitable thing to charge everything up to, whether it should go to that account or not; and that Reciprocity would be the great panacea for all the ills that afflict nations. The war and consequent financial depression in South America, the glut in the English market, over-production in the Baltic, over-production in Canada, and new sources of supply in the South, are all to be charged against the N. P., and the way it proposes to remedy these evils is by Reciprocity.

EDITORIAL NOTES.

THE foreign trade of a nation is no sure indication of the happiness or prosperity of the people.

IT is more important to give employment to the people of a country than to know how to feed them cheaply.

"HE who provideth not for his own household denieth the faith and is worse than an infidel." Thus saith St. Paul.

IT is of more importance to give employment to the people of a nation than to boast of the large amount of foreign trade that nation is capable of doing.

IT is better to supply the people of a country with legitimate labor than to devise means for supporting them in charity at the lowest possible cost for food.

RECENTLY in alluding to the car-wheel works in operation in Canada, we mentioned that at St. John, N.B., as being owned by Messrs. John Harris & Co. The name of that concern is always signed J. Harris & Co.

THE nation that is self-contained, giving employment to its people and producing within itself all that the people require, may be enjoying the acme of prosperity, although it has never a ship upon the ocean and has no foreign trade whatever.

BY increasing the tariff to twenty-five per cent. or less, Mr. Mackenzie could have retained power in 1878, and might have been governing to-day.—*Toronto Globe*.

Of all sad words of tongue or pen,
The saddest are, It might have been.

ENGLAND taxes the necessaries of life, such as tea and coffee, to the extent of millions annually; while silk and other articles of luxury are admitted free. The laboring classes pay

the duties on the necessaries, while the privileged classes pay no duties.

In a recent issue of this journal it was stated that there were four establishments in Canada engaged in the manufacture of malleable iron, the names of which were given. A correspondent informs us that our list was not complete, and that the following additions should be made:

Burrow, Stewart & Milae..... Hamilton, Ont.
P. Kyle..... Merrickville, Ont.
Montreal Malleable Iron Works..... Montreal.

A TORONTO man is experimenting in the growth of bananas. But perhaps it will not do to say too much about the enterprize. If by ill-luck it is found that the desirable fruit will grow under glass, Mr. Foster will clap on a duty in the interests of native industry.—*Toronto Mail*.

We give the *Mail* a pointer. There are some things that grow luxuriously in Toronto that are not affected by either Protection or Free Trade: smart Alecks. There is a flourishing specimen of this genius to be found beneath the tall tower at the corner of King and Bay streets.

THE manufacturers of vapor or gasoline stoves, do not seem to consider their interest when it is almost impossible to buy gasoline at retail for domestic purposes in a city the size of Toronto. Without doubt a vapor stove is a great convenience in a family in hot weather, for with it all the cooking, preserving, etc., can be done without the attendant annoyance of heat and discomfort incident upon the use of a coal or wood stove; and it is more economical. There are families in Toronto who have vapor stoves, but they are practically useless, because the owners cannot find gasoline on sale.

THE Minister of Customs need not have called in the services of the Dominion analyst to show that asphalt for street paving purposes is not a raw material. The difference between the crude asphalt as taken from the bitumen lakes of Trinidad, and that prepared for street paving purposes is quite visible to the naked eye. It is true, as the *Globe* observes, that there are no asphalt lakes in Canada, nor is there any works here as yet for the refining of the article; but, thanks to the good sense of the Minister, works will soon be established here that will give employment to large numbers of Canadian workmen. The N.P. is all right.

London Colonies and India says that "Bank managers in Canada have a practice that might well be followed in this country. At the meetings of their shareholders they give an account of the trade of the country for the year, and their opinions as to the prospects of the coming year. Not unfrequently they also give traders and others wholesome advice which they would do well to follow. Recent addresses of the kind alluded to have been of a very hopeful character. One manager, in reference to a statement that had been going the rounds of the press, took occasion to refer to the large number of farmers numbered among their depositors, and, what is even more to the point, to the very large amount they collectively had to their credit. This is quite refreshing, after the gloomy reports one is accustomed to hear now and then of the condition of the agricultural population of Canada."

THE conditions existing in the Dominion at present render it wholly inexpedient for us to adopt Free Trade with all the world. A large proportion of the people would resist the direct taxation which it would involve.—*Toronto Globe*.

Then why does the *Globe* advocate free trade with the United States? Is a chain stronger in its strongest link than in its weakest? If it is inexpedient to adopt free trade with all the world, why adopt it with any particular nation to the exclusion of all other nations? If the people would resent the direct taxation which free trade with all the world would involve, why would they not resent the policy that would give free trade to the United States? Which would hurt the dog the most, to cut off an inch of his tail, or to cut off the whole tail?

As for unrestricted trade with the States being unpopular, neither unrestricted trade nor the N.P. has yet been fairly submitted to the people. Sir John has always refused to allow an unfettered expression of opinion. In 1882 he gerrymandered the constituencies; in 1887 he tampered with the lists; on both occasions he invoked the aid of the manufacturers, and it was tendered in the shape of cash.—*Toronto Globe*.

If the *Globe* means by this that in 1882 the manufacturers contributed money to enable Sir John to "gerrymander the constituencies," and 1887 again contributed money to enable Sir John to "tamper with the voting lists," or that they at any time contributed money to corruptly interfere with a free "expression of opinion" by the people regarding any political question, it says what is most emphatically false.

IN Buckle's History of Civilization in England, in discussing the prevalence of superstition among different classes of the community, the writer says: "It would be easy to show how the progress of manufactures, besides increasing the national wealth, has done immense service to civilization by inspiring man with a confidence in his own resources; and, how by giving rise to a new class of employments, it has shifted the scene in which superstition is most likely to dwell." In Canada at this time, as it was in England at the time of which the historian was writing, the great need to the advancement of civilization is the multiplication of manufacturing industries. No matter what may have been the influences either for or against, bearing on manufactures in England in the long ago past, it is a fact that manufactures in Canada have increased under the influence of Protection and the National Policy much more rapidly and satisfactorily than under any other influence. Those who desire to see Canada advanced to the acme of modern civilization are those who insist on her maintaining and cultivating her manufactures.

As we have heretofore announced, Mr. Adam Brown, M.P., of Hamilton, Ont., has been appointed Honorary Commissioner by the Dominion Government to represent Canada at the Exhibition to be held in Kingston, Jamaica, W.I., in January next. This Exhibition is to be of Island products, manufactures and works of art, together with exhibits of works of art, machinery and industrial and agricultural products from Great Britain, British colonies and other countries. In view of the geographical relation of the Island of Jamaica with the Atlantic seaports of Canada, and the nature and extent of the imports of Jamaica, as well as the products of the Island, the Dominion Government accepted an invitation of the Government of Jamaica to participate in the Exhibition, with a view to obtaining an extension of markets for the products and manufactures of this country. The Dominion Government

will pay the freight on all approved Canadian exhibits. Entries must be made not later than September 30th; and the latest date at which exhibits can be sent forward from Halifax, N.S., or St. John, N.B., will be about October 20th, as all exhibits must be in Jamaica early in December. Forms of application and general information can be obtained on application to Commissioner Brown, at Hamilton, the Department of Agriculture, Ottawa, or Mr. Frederic Nicholls, Secretary Canadian Manufacturers' Association, Toronto.

THE Antigonish, N.S., *Echo* does not set much store by the N.P. Antigonish is mainly an agricultural county, and the farmers there, as elsewhere, are getting less for what they have to sell than in former times and paying more for what they buy than they would be called on to pay were the tariff a reasonable one. "We are not as well off to day," says the *Echo*, "under a thirty-five per cent. tariff, as we were before Confederation"; in fact, the N.P. "has been worse than a failure in this country." It is a failure everywhere so far as the farmers are concerned. The best even the CANADIAN MANUFACTURER can say is that it augments the price of farm products in lean years when we have to import. It is a poor recommendation for a commercial policy, however, to say that its effects are felt only in aggravating scarcity.—*Toronto Globe*.

The trouble with Antigonish county, Nova Scotia, is that it is an exclusively farming country, and that it does not abound with high chimneys of manufacturing establishments. If it did thus abound, the farmers there would have a home market and plenty of consumers for all the farm products they had to sell. As it is, everything the farmers have to buy is imported, and the importers, having no domestic competition, force the farmers to pay the very highest prices obtainable. The Antigonish *Echo* certainly does not expect the N.P. to be a success when no one in that county endeavors to make it so. Before Confederation, and before Protection, Antigonish possessed no manufacturing industries and no prosperity, and if, under Protection, the people do not experience any more ambition in that direction than they did before, the N.P. should not be blamed for it.

THE Dominion Minister of Customs is to be congratulated upon having refused to accede to the request of the Mayor of Toronto to have refined asphalt for street paving admitted into the country duty free. In the first place it was represented to the Minister that the asphalt was "crude" or unrefined, but this was deceptive, for such was not the fact; and then the duty was sought to be evaded on the plea that the asphalt was for general street paving, but why it should be exempt from duty for that reason was not shown. There should not have been any attempt to deceive or mislead the Minister as to the condition of the asphalt; and those who applied to have the article placed on the free list knew, or should have known, that it had passed through a process of manufacture which had required the use of valuable machinery and much manual labor in its preparation. The stuff was to be brought from the United States, where the machinery and labor alluded to was to have been employed. The raw material, however, is not produced in that country, but in the Island of Trinidad, W.I. This is an illustration of where Protection protects. It is quite as easy to import crude Trinidad asphalt into Canada as into the United States. Refined asphalt is rapidly coming into use in Canada for street paving purposes; and the thousand

of tons of it required, should be refined in Canada, rather than in the United States. The process is simple, but it requires capital and the employment of considerable labor, and these ought to be Canadian, not American. It is just this sort of selfishness that tends to keep Canada down. These asphalt people may admire Protection when applied to the industries of others, but not when applied to their own.

MR. A. LOUGHREN, P.L.S., has just returned after surveying 1,740 acres of iron lands on the Black Sturgeon River. The ore deposits are thirty five miles up the river from Black Bay. The ore is red hematite, and assays on the surface give sixty-four per cent. metallic iron. The most northerly outcrop is exposed on the surface for a distance of $1\frac{3}{4}$ miles, and has an average width of 125 feet, and attains a maximum width of 200 feet. The next exposure south is about one mile long and has an average width of fifty feet. No iron was found in place on the southerly location, but large quantities of float ore of a first-class quality were found. There is no jasper, granite or other capping except in places a slight depth of red gravel. The locations are well timbered with Norway pine, spruce and tamarack; their position on the Black Sturgeon ensures a plentiful supply of water. Mr. Loughren estimates that there is plenty of ore in sight to warrant the building of a fifty-mile railway. Messrs Hammond & Quigley, of Fort William, located some iron lands five miles south of Finmark Station, on the Canadian Pacific Railway, thirty-five miles west of Port Arthur. It is a magnetite; the outcropping is $1\frac{1}{2}$ miles in length and has an average width of thirty-five feet; assays from surface specimens by F. Hille, M.E.Ch., Port Arthur, gave sixty-one per cent. metallic iron. The convenient situation of this deposit to rail and deep water at Port Arthur will make it a very valuable property.—*Lake Superior Mining and Manufacturing Review*.

The discovery of these additional, immense and valuable deposits of iron ore in the Lake Superior region of Canada will throw the Canadian shriekers for Reciprocity and Annexation into spasms. The time will come some day when the manufacture of iron will be begun in Canada, but probably not until these valuable deposits of ore have passed into the possession of more patriotic and sensible men than those who now control them.

ACCORDING to the London *Iron and Coal Trades Review*, "a town meeting was held in Paradise Square, Sheffield, recently, to protest against the proposed McKinley tariff, now under consideration by the legislature of the United States. Such a meeting is unique, for never before have the people of an English town been called together by their mayor to protest against the economic policy of another country. Handbills were extensively circulated stating the objects of the McKinley Bill, advising every form of retaliation if it is passed, and declaring that it is far better to 'fall fighting' like men rather than 'stand by with quaking knees while the Americans work their own sweet will.' In regard to the opportunities for retaliation it is pointed out that while the exports to the States amount to £30,000,000, the imports of the States reach the figure of £95,461,475. There was an enormous attendance at the meeting, the large square being packed with people. On the the platform were the mayor (Mr. Alderman Jackson), who presided, Mr. S. G. Richardson (master cutler), Mr. G. F. Lockwood (President of the Chamber of Commerce), Sir William Leng and many others. The mayor said the meeting was not intended to threaten the United States with retaliation or to say that they wished in anyway to interfere with their International legislation. All that they wished to impress upon the United States was that, unless they were prepared to trade with us upon mutually advantageous grounds,

we, in our turn, should give them a very small amount of our custom. Mr. S. G. Richardson moved: 'That this public meeting of the people of Sheffield, assembled in Paradise Square under the presidency of the mayor, protests against the prohibitory tariff proposed to be placed on British goods by the United States of America in return for the free market accorded in the United Kingdom to American products, and calls upon Her Majesty's Government to acquaint the President of the United States that such action, hostile and unfair as it is to the welfare of the manufacturing population of Great Britain and Ireland, is viewed with great disfavor in this country.' The resolution was carried with great enthusiasm."

WE beg to inform our very inexact contemporary, the *Montreal Herald*, that the figures given in a recent article in this journal anent the amounts received in Great Britain as customs revenues were obtained from fountain head—a Blue Book issued by the British Government. The *Herald* dodges the question. We had stated that the customs revenue of Great Britain was "derived chiefly from duties imposed upon the commonest necessaries of life," and to this the *Herald* took exception, requesting a bill of particulars. We did not say that these duties were imposed upon all the necessaries of life, or that many of them were not on the free list. We gave a list of all dutiable articles and the rate of duty imposed upon them; and we also gave a table showing the revenue derived from importations of these articles into Great Britain for the year ending March 31, 1889. These articles we classified in one class including tea, coffee, tobacco and dried fruit, the duty upon which aggregated £14,252,403; placing spirits, wines and all other imported articles in the other class, the duty upon which aggregated only £5,718,788. And now comes the *Herald* and replies that while it is true that tea and coffee may be regarded as necessaries of life they are not so much so as some other articles which are free in Great Britain; and that tobacco is not a necessity to the average Britisher, but ranks with spirits and wines as a luxury. It also tells us that dried fruits are also luxuries. It moralizes upon the use of tobacco, claiming that it has hurtful tendencies; and mitigates the point regarding dried fruits by saying that the importations were small—last year the duty derived from this source amounted to nearly \$3,000,000. The weakness and ridiculousness of this denial is characteristic of anti Protectionists. We never intimated that sugar, breadstuffs, meats, clothing, tools, implements, etc., were not on the British free list, or that such things are not liable to duty when imported into Canada; and our contemporary should try to get the idea into its head that it is no "perversion of facts" to state certain established facts and not to state other similar facts. To avoid the force of our argument it classes tobacco and dried fruits as luxuries. This is enough to cause a smile to ripple over the countenance of the bronze statue of the Duke of Wellington.

IN a recent issue of this journal, alluding to the prevailing distress among the farmers of Dakota, we commented upon the "good face" our esteemed St. Louis contemporary *Farm Machinery* tried to put upon the matter. That journal republishes our remarks and comments thusly:—

Editor Cassidey shows his patriotism in the above. Canada has appreciated his work in the most substantial manner by recognizing his as the most influential trade journal in the

Dominion, and he has done a great deal in bringing the prosperity and possibilities of the country before the world. But any of us in our zeal are liable to overlook our own imperfections in a too intent search for flaws in our competitors. In fact, we are guilty of this to a more or less extent. The Dakotans have had a hard row to hoe, it is true, but if present indications can be depended upon they will have passed the worst days of the struggle after this year. The Dakotas are no longer an experiment; they are a certainty, and not only have thousands found homes in them, but also have hundreds made fortunes. Manitoba, beyond doubt, offers "fair fields and bright prospects" to farmers, and it would be strange indeed if Americans did not take advantage of them, for wherever money is to be made, there will the Yankee be found. But Canada is not all like Manitoba. Anyone who has ever traveled extensively through the Dominion could not be otherwise than impressed with the uninviting appearance of certain regions. Along some of the railroad lines can be seen mile after mile that do not present "fairer fields" by any means. Even if the Dakotas are all that the CANADIAN MANUFACTURER intimates, it must be acknowledged that American energy is not neglecting them. Can it be said that the Canadians are doing the same for every portion of Canada? There are States in the Union less favored by nature than others, but they are not passed by for that. And the day will come when irrigation will even make our desert bloom like a rose. If American farmers are going to Canada, then the CANADIAN MANUFACTURER has great cause for rejoicing, for the farmers will show its people what fearless enterprise, indefatigable work and Yankee ingenuity can accomplish. We don't begrudge them to our sister country. She is of the right sort, and neither ingratitude nor an unwillingness to learn can be numbered among her faults.

It gives Canadians no pleasure to know that any people are in distress, and all Canada sympathizes with the Dakotan farmers whose hard lot are driving them away from the homes they had fondly hoped to establish there. They have indeed "a hard row to hoe," and our information is that they have not passed the worst days of the desperate struggle. But a few days ago, on application from some of those suffering Dakota farmers, the Dominion Minister of Agriculture sent an agent to Dakota to arrange for a migration of farmers to Canada, where fairer fields and brighter prospects await them. All Canada will give these sturdy Americans a hearty Canadian welcome.

WE were greatly pleased, although somewhat surprised, to find quite a long article in the *London Advertiser* advocating the prosecution of the beet sugar industry in Ontario, and admitting that there is an abundant home market for the product of at least three factories. It is something new to find from this Free Trade organ that any manufacturing interest can prosper in Canada without free access to the sixty-million market south of us, through Commercial Union or Unrestricted Reciprocity. We welcome the admission, but would respectfully suggest to our esteemed contemporary that in treating a business subject like this, a little more care should be taken in preparing its figures. Those in the article in question are so glaringly incorrect, that they must have proved very bewildering to careful readers. It says that one factory, having a capacity to work 300 tons of beets per twenty four hours, giving a yield of ten per cent. in sugar, would yield a daily product of thirty tons of sugar, or in 120 days 72,000,000 pounds, or 36,000 tons. Clearly this should have been 7,200,000 pounds, or 3,600 tons. Again, the *Advertiser* says, "on the basis of a ten per cent. yield, it would require 360,000 tons of

roots to supply one mill, and at fifteen tons per acre, a crop area of 240,000 acres would be necessary to grow the roots, or say 2,400 farms, each having an average of ten acres in beets." This should have been 2,400 acres, and 240 farms; 2,400 acres, at fifteen tons per acre, would produce 36,000 tons of roots, being the supply required for a factory of 300 tons daily capacity. Again the *Advertiser* gives to the farmers who produce the beets for the factory \$1,440,000 for the roots alone. The 3,600 tons of sugar would probably realize for the manufacturer \$4.50 per 100 pounds, or \$324,000 for his season's output of sugar. How is he to pay the farmers \$1,440,000 for their roots? This latter sum should have been \$144,000. The *Advertiser* sees an opening for three such factories in Canada. As the Dominion imports annually about 110,000 tons of raw sugar for refining purposes alone, there is an opening for thirty factories of the capacity referred to by that journal. With these corrections, we heartily endorse the views of the *Advertiser* as to the bright prospects for the successful prosecution of the beet sugar industry in Canada. If the Reform press of Canada would take a candid survey of our position, it would find that not only for sugar beets, but for iron, coal and many other of our partially developed resources there is a large home market available; and that for fat cattle and sheep, and for the products of the dairy, we have the markets of Great Britain open to us on terms especially favorable. Our privileges there for cattle and sheep are the cause of very considerable envy to our neighbors of the boasted sixty-million market.

SPECIAL ADVERTISEMENTS.

Advertisements will be accepted for this location at the rate of two cents a word for the first insertion, and one cent for each subsequent insertion.

TISDALE'S BRANTFORD IRON STABLE FITTINGS.—We lose no job we can figure upon. Catalogue sent free. The B. G. Tisdale Co., Brantford, Canada.

FOR SALE.—Plant for making Washers, consisting of power press, with full set of dies, small shears and tumbling barrel. This is the only washer making machinery in Toronto. Apply to 10 and 12 Pearl Street, Toronto.

A DYER—Blue vats and fancy colors in wool and piece. Fast carriage green cloths, tricots, flannels, etc., etc. Am at present engaged in the States, but desirous of coming to Canada. Address, GUBELINUS, this paper.

FOR SALE.—In town east of Toronto, Two Set Woolen Mill, fully equipped and in good running order; never failing water-power, main building stone, 50x150 feet, three stories; picker house, brick, 24x30, two stories; railway and water convenient for shipping, will sell with or without machinery. For further particulars, address this office.

FACTORY TO LET.—Ten years lease; containing about 11,000 feet of floor space, fitted up complete with engine, boilers, shafting, steam heating, gas light and water service fixtures throughout; adjoining building can be had if desired; five floors, each 30x110, with hoist. Apply to Samuel May & Co., 111 Adelaide Street west, Toronto.

FOR SALE in Kent County, Michigan, the Buchanan Mill property consisting of a first class lumbering mill the extensive water power in connection with it including the entire power furnished by the river with real estate on both sides of sixteen acres, situate one mile from Main Street of Lowell, a rich farming country surrounding an excellent location for paper mill, furniture factory, woolen mill and the many uses that require power. Also a splendid home and farm of 87½ acres with buildings, fruit, evergreens etc. For further information all at the premises of JAS. R. BUCHANAN, Lowell, Michigan.

TO MANUFACTURERS—The Town of Thorold, Welland County, Ontario, is a splendid site for manufactures of all kinds, and reasonable encouragement will always be given for the settlement of bona fide industries. It is situated on the boundary between the Counties of Lincoln and Welland; population, 3,000; lighted by electricity (public and private circuits); electric street railway connection with the City of St. Catharines, four miles distant; nine miles from Niagara Falls; the New and Old Welland Canals, also the Welland (G.T.R.) and Niagara Central Railways, all run through the town; water power from the canal; bonded debt small; situation, on the brow of the mountain, overlooking Lake Ontario, most picturesque; public health not excelled; five churches; first-class High school, also two Public and one Separate school. Any information desired will be cheerfully given by application to JAMES LAWSON, Mayor.

A NEW industry is being developed near Brooklyn, says the *Hants, N.S., Journal*. The tide deposit left on the banks of the river Herbert, that Province, has been found to be the finest thing yet tried for moulding purposes, being superior in most respects to sand. A Boston firm has purchased one hundred and seventy tons, which are now being sent them.

A PRESS despatch from Windsor, Ont., a few days ago, stated that natural gas had been struck at a depth of 900 feet in the Kingsville, Essex County, gas well district, and the flow was estimated at 20,000,000 cubic feet a day. The roar was deafening, and when the vein was struck the drills were thrown high in the air. The well is situated on the second concession of Gosfield, and is but 300 feet away from the Coste gusher.

It is now announced that a company of British capitalists has been formed to acquire from the representatives of the late John Roach the ship-building yards and engine works at Chester, on the Delaware river, and the Morgan Iron Works. The new corporation is to be known as Roach's Shipbuilding and Engine Company (Limited), and it has been incorporated in Great Britain under the Companies' Acts of 1862 to 1886. The preliminary prospectus sets forth that the share capital is to be £600,000, divided into eight per cent. preference shares of £10 each, £300,000; and ordinary shares of £10 each, £300,000, of which a portion will be issued to the vendors in part payment of purchase money. In addition to the share capital a debenture capital of £300,000, in 15,000 six per cent. debentures of £20 each is provided for. The prospectus announces that the board of management in the United States will consist of John B. Roach, President of the Chester Works; George E. Weed, President of the Morgan Iron Works; Henry Steers, President of the Eleventh Ward Bank, and William Rowland, of New York city. The National Bank of Scotland is named as the bankers of the new corporation. For three years, from 1887 to 1890, the work executed is put down as \$828,616, \$1,203,367 and \$2,701,384 respectively, and it is estimated that after paying six per cent. on the indebtedness, eight per cent. on the preference shares, and twelve per cent. on the common shares, there would be a surplus of about \$50,000 to meet expenses of administration and incidental disbursements. The valuation placed upon the property as it stands to-day is \$2,357,261, not including good will. The amount to be paid to the representatives of the estate is fixed at £800,000, payable partly in cash and partly in ordinary shares, at the option of the directors.

Manufacturing.

This department of the "Canadian Manufacturer" is considered of special value to our readers because of the information contained therein. With a view to sustaining its interesting features, friends are invited to contribute any items of information coming to their knowledge regarding any Canadian manufacturing enterprises. Be concise and explicit. State facts clearly, giving correct name and address of person or firm alluded to, and nature of business.

SLATER'S new shingle mill at Vancouver, B.C., has capacity to cut 140,000 shingles per day.

THE tannery of Mr. Edward Conlin at Delhi, Ont., was destroyed by fire August 2nd, loss about \$5,000.

MR. FRANK L. PATTON is establishing a new boot and shoe factory at Hebron, near Yarmouth, N.S.

THE name of the Hamilton Bridge and Tool Company, Hamilton, Ont., has been changed to Hamilton Bridge Company.

THE Fredericton Soap Company has been organized at Fredericton, N.B., with a capital stock of \$10,000, for the manufacture of soap.

THE British Columbia Tanning Company, Nanaimo, B.C., will enlarge their business and engage in the manufacture of boots and shoes.

THE flouring and grist mills of Messrs. C. Macdonell & Sons, at Collingwood, Ont., were destroyed by fire August 10th, loss about \$35,000.

THE American Whip Company, Hamilton, Ont., will be incorporated with a capital stock of \$100,000, for the manufacture of whips, lashes, etc.

THE Kerr Vegetable Evaporating Company, Canning, N.S., have made large additions to their works, and will do unusually large business this season.

PROMINENT business men of the towns of Galt and Preston, Ont., are organizing a company to build and operate an electric railroad between the two places.

THE Glassford Organ and Piano Company, Chatham, Ont., has been incorporated with a capital stock of \$20,000 for the manufacture of musical instruments.

MR. GEO. H. FROST, of Nanaimo, B.C., has been awarded the contract by the Dominion Government for the erection of a lighthouse at Camanno Point, B.C.

THE Keewatin Milling Company are building a 35,000 bushel elevator at Griswold, Man.; and Mr. W. P. Smith is also building a 30,000 bushel elevator at the same place.

THE Provincial Exhibit Association of British Columbia will send a fine exhibit to the Toronto Industrial Exhibition. An effort will be made to eclipse the exhibit sent to Toronto a year ago.

THE Calgary Woolen Manufacturing Company is being formed at Calgary, N.W.T., with a capital stock of \$25,000, to take over and operate the woolen mill and business of Messrs S. W. Shaw & Co., of that place.

THE Globe Tobacco Company, of Windsor, Ont., will probably remove their works to London, Ont. The authorities of the latter city will grant the usual favor of exemption from taxation for ten years as an inducement.

MESSRS ROBINSON, FEILING & McMANUS, Victoria, B.C., are promoting a company to be known as the British Columbia Tanning and Manufacturing Company, with a capital stock of \$200,000, for the purpose indicated by the name.

MESSRS. PALMER, CROSSMAN & LAWS have established a new foundry and machine shop at Amherst, N.S., where they will manufacture rotary sawmills, shingle, lath and clapboard machines, etc., and also do machinery repairs.

MESSRS. FAIRBANKS & Co., the well known pork packers of Chicago, will establish a branch of their works at Montreal. So much for the N.P. If the mountain will not go to Mohammed, Mohammed must go to the mountain.

MESSRS. COWAN & Co., proprietors of the Galt Foundry, Galt, Ont., inform us that their works are being run to their full capacity—that they are full in all departments. Included in work in hand are three large boilers for water works at St. Thomas, Ont.

MR. R. WHITELAW, of Woodstock, Ont., is building flour and oatmeal mills at Pilot Mound, Man. The flour mill is to be 36x40

feet; the oatmeal mill 24x24 feet; kiln 22x22 feet, and the engine house 22x24 feet. It is to be in running order in September.

MESSRS. WILLIAM AND DAVID YUILE, glass manufacturers, of Montreal, and others have been incorporated under the name of the Diamond Glass Company, with a capital stock of \$10,000, for the manufacture of window glass and glassware of every description, etc.

MESSRS. W. BELL & Co., Guelph, Ont., manufacturers of organs and pianos, will make a fine exhibit of their instruments at the forthcoming Exhibition at Kingston, Jamaica. The company will establish agencies for the sale of their goods in all the chief centres of the West India Islands.

MESSRS. HOOPER & Co., of West Selkirk, Man., have recently put in a plant for the manufacture of the fish boxes used by the fish companies on Lake Winnipeg. They expect to supply about 25,000 this season. Until this year all the boxes were imported from Toronto and Hull, Que.

THE Dominion Minister of Marine is calling for tenders for the construction of a steel screw steamer for buoy and lighthouse service in British Columbia, of the following dimensions: length, 170 feet; breadth, 31 feet; depth, 13'6 feet. The tenders are to include the building of the vessel, hull, machinery, tackle and equipments, as specified.

THE Citizens' Natural Oil and Gas Company, of Kingsville, Ont., struck a fine flow of natural gas in their well near that town a few days ago. This well is about 300 feet from the great gusher No. 1 of the Ontario Natural Gas and Oil Company, and about the same depth—1,020 feet. It is estimated that the flow of gas will be about 15,000,000 cubic feet a day.

A COMPANY has been formed at Victoria, B.C., under the title of the British Columbia Brewing Company, for the purpose of acquiring and extending the Vancouver Brewery, owned by Mr. Thomas Carter. The object is to supply the demand for lager beer. It is also the intention to add a distilling department. The estimated cost of the plant for the brewery extension, including working capital, is placed at \$75,000.

AMONG a boom of logs at Leamy & Kyle's mill, on False Creek, Vancouver, is a tree cut into four 24-foot logs taken from one tree, which is one of the largest specimens of the Douglas fir that has ever been cut in this Province, whose record for giants of the forest is world-wide. These four logs were respectively eighty-four inches, seventy-six inches, seventy inches and sixty inches, and in none of them was there a knot or other defect. The total number of feet of lumber that can be cut out of this tree is 28,614.—Vancouver, B.C., *World*.

THE tannery building of the new British Columbia Tanning and Manufacturing Company at Victoria, B.C., has been completed and operations commenced. The main building is forty-eight by eighty feet in size, with four flats. Heavy stock will be made principally. Sheep-skin tanning will also be done, and the company will make a specialty of tanning buckskin from the abundant local supply of deer skins obtainable. It is also the intention to establish a shoe factory in connection, where shoes will be manufactured wholesale for the provincial trade. The manufacture of gloves and mitts will also be undertaken.

MR. W. H. LAW, of the Central Bridge Works, Peterborough, Ont., has been awarded contracts for the construction of five bridges to be put up in Ontario county. Three of them are for Whitby township, two to be put up at Brooklin. The other two are for Pickering township, and will be put up at Cairmont and at Pickering village. The Central Bridge Works have also a large contract to fill for the Grand Trunk Railway. It includes five bridges for the Northern and Northwestern Railway, one of 166 feet span, two of 102 feet span and one of sixty-five feet span, and trestle and other work.

THE McKinnon Dash and Hardware Company, St. Catharines, Ont., have sent us their 1890 illustrated catalogue and price list of goods manufactured by them, in which is included leather dashes, whip sockets, buggy boots, valances, buckle loops, leather fenders, curtain lights, knob eyelets, top props, knobs, prop nuts, toe nuts, etc. The aim of this company has always been to make the best goods of their kind, to lead in improvements and to increase their trade. With this end in view they have made numerous changes in style of goods since the publication of their previous catalogue. The trade are invited to send for this new catalogue.

THE Acme Silver Company, Toronto, have removed their large factory from their old quarters, 35 Wellington Street, to the large building in Hayter Street, formerly known as the R. S. Williams' piano factory. The property is 150x64, and was bought for \$30,000. The factory consists of six stories, and covers the

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entire lot. Since the purchase Managing Director Parker has expended \$15,000 in remodeling and fitting. This concern gives employment to 110 men, making the Acme one of the largest silver-plate manufacturing concerns in Canada. The company have sufficient of foreign and domestic orders in to keep the factory going at full pressure for the next four months.

THE fire committee of the Moncton, N.B., City Council have decided to recommend the purchase of 500 feet of jacket hose, same as now in use, from the American Fire Hose Company, and 500 feet of the Maltese Cross carbolized rubber hose from the Gutta Percha and Rubber Manufacturing Company, of Toronto. The latter is a higher priced hose than the jacket, but is highly recommended, and is especially valuable, as it does not require special pains in drying and is more easily cleaned after use in muddy weather. The city of Halifax in purchasing 2,000 feet the other day decided to take the whole quantity in Maltese Cross, which is in use there and gives great satisfaction. — Moncton, N.B., *Times*.

A FEW days ago Mr. Joseph Cove, of Amherst, N.S., showed us a sash balance and window lock for which he has just obtained the patent in Canada and expects soon to have patented in the United States. The invention is very simple, and can be applied to old as well as new sashes, at a cost of not more than twenty-five cents a window. The balance simultaneously opens the window at top and bottom to any required distance, without the use of weights, while the lock is a very ingenious contrivance to prevent the window from being further opened when raised a few inches for the admission of air, thus making the window burglar proof. Mr. Cove intends to form a company to place this invention on the market. — *Maritime Sentinel*.

We are in receipt of a large and beautiful colored lithograph issued by Messrs. John P. Mott & Co., Halifax, N.S., having reference to the chocolates, broma and cocoa manufactured by them. These articles, we are assured, are most excellent in quality and flavor, and are comforting to old or young, robust or feeble. These goods are well and favorably known throughout Canada, and are on sale in all the best stores; and are fast supplanting similar goods of foreign production. The lithograph, which is the product of the Toronto Lithographing Company, Toronto, is a work of art, its beautiful design and artistic execution guaranteeing for its preservation as such. Messrs. Mott & Co. are to be congratulated on the elegant card the Toronto Lithographing Company have prepared for them.

As the manufacturers abroad claim that the supply of ivory is too small to meet the demands of industry and art, an extensive industry has arisen in France to supply an artificial substitute for natural ivory. Until recently the substitute used has been obtained by interjecting white wood with chloride of lime, under strong pressure. Within a short time, however, it has been established that a substitute may be prepared with the bones of sheep and waste pieces of deer and kid skins. The bones are for this purpose macerated and bleached for two weeks in chloride of lime, then heated by steam along with the skin so as to form a fluid mass, to which are added a few hundredths of alum; the mass is then filtered, dried in the air, and caused to harden in a bath of alum, the result being white tough plates, which are more easily worked than natural ivory.

AMONG the important industries established in Toronto within the last year is the Eno Steam Generator Company, Limited, with an authorized capital under Dominion charter of \$100,000, of which \$50,000 is paid up. Its object is the manufacture of steam appliances, prominently the Eno steam generator, a device of much interest to steam users and manufacturers. By its use the consumption of fuel is reduced fifteen to twenty-five per cent., or boiler capacity is increased twenty to thirty-five per cent., without increase in consumption of fuel, and boiler kept clean. The company guarantees these results, and judging by the names appearing on the directorate the company's guarantee is worth all it expresses, and no one, after seeing the intense circulation produced, would doubt that these results are obtainable. Orders are coming in faster than they can fill them, and already increased manufacturing facilities are being contemplated. At its first annual meeting, held on Wednesday last, the following officers were elected from the new Board of Directors:—President, Benjamin Westwood; Vice-Presidents, Samuel Corrigan, Alexander Stewart and W. A. Wilkes; Managing Director and Secretary-Treasurer, Sturgeon Stewart; Mechanical Superintendent, John M. Clements. Their offices and factory are located at 7 Richmond Street West, where the generators can be seen in full operation.

A WELL equipped planing-mill is the efficient factor in the development of the building trade, and in recent years factories devoted to the production of manufactured timber have been brought to a

very high stage of perfection. In dealing with the industrial resources of Bridgetown it is right that prominent mention should be made of the Bridgetown Sash, Door and Blind Factory, an institution that has greatly facilitated building operations in this section of Nova Scotia, and in no small degree has contributed to the industrial thrift of the place. This factory, which is owned by Messrs. Fisher & Shaw, was established in 1883, and is one of the best equipped establishments of its kind in the country, being supplied with the most improved modern machinery, operated by a twenty five horse power steam engine, while employment is given to three hands, which are increased in busy seasons. The products of this factory, made from thoroughly seasoned lumber of the best quality, consists of doors, sashes, blinds, windows, window frames, door frames, balisters and all kinds of mouldings, church pews and everything pertaining to church and house furnishings. Doors are turned out from one dollar upwards, sashes from fifty cents and blinds from two dollars. The products of this establishment have a standard reputation on the market, and an extensive trade is done in this section of the Province. Contracts are entered into for church and school work and building supplies of all kinds. Messrs. Fisher & Shaw enjoy every facility for promptly and efficiently executing the largest contracts, and those placing orders with this reliable house may depend upon every satisfaction being given them. — Bridgetown, N.S., *Monitor*.

THE new dredge, which is being built at Turpel's ways for Mr. Rithet, and which is designed for use in the harbor of Victoria, will, when completed, be a splendid piece of work and will, in fact, be the best appointed thing of the kind on the Pacific Coast. It will be what is known as a "Standard Dredge," its machinery coming from Welland, Ontario, where the patents are owned. It is to be capable of dredging down to 38 feet, and to have a capacity of 1,000 yards a day. She will be provided with an immense amount of engine power, and will be built as strongly as wood and iron can make her. She will have 180 knees in her of Douglas pine, and in addition there will be used in her construction about 100,000 feet of lumber. She will be 90 feet long over all; 30 feet beam and 7 feet deep from her main deck, and 17 feet 7½ inches from her upper works. She will have twelve tiers of keelsons fore and aft, all of 85 feet long Douglas fir, dimensions 6 by 11 inches. Her bottom planks will be 4 inches thick and 9 inches wide, her deck planking being of 3 inches. Her deck beams are 12 inches by 16 inches, and her cylinder timbers 12 inches by 24 inches. Her stern posts will be 21 inches square, two of them at each corner. Her bow anchors are to be 24 inches square by 68 feet long, and her stern anchors 16 inches by 68 feet. Truss rods of 2½ inches go right through her, while all along her sides are substantial trusses, diagonal rods also running through her from stem to keelson. It is expected she will be launched in about two months, by which time it is hoped her machinery will have arrived, when no time will be lost in completing her. The dredge, when in working order, will be a credit to all connected with her, and be a magnificent tribute to the enterprise of her owner. — Victoria, B.C., *Colonist*.

MIMICO, the new manufacturing centre now rapidly building up, is but a short distance from the western boundary of Toronto, and easily accessible by the railroads. Speaking of the new works now being established there, *Hardware* says:—Thomas Macdonald & Co. are putting up a large factory, 275 feet long, and proportionally large in its other dimensions. It will be finished by the end of October. Galvanized iron ware articles will be the product of the industry carried on in this large establishment. Their big factory on Sherbourne Street in this city will also be kept running. Sheridan Bros., of the J. F. Pease Furnace Co., Queen Street, are putting up a building 175x50 feet and two storeys high. This factory will supplement the one the company has now in operation on Queen Street. When the new one gets running the company will have nothing to import. All their stock will be of native manufacture. Seventy-five feet of the new building will be used as a foundry for making registers, etc. They will be at work in it by November. Mr. James Morrison's factory is expected to be running before the first of November. It is to be three storeys high, and 40x150 feet, built of brick and stone. In addition to the brass and copper work now done by Mr. Morrison, there will be a chandelier department in the Mimico factory. The manufactory on Adelaide Street here will continue to turn out the same wares as usual. Keith & Fitzsimmons are putting up a brass foundry where will be manufactured plumbers' supplies and ornamental brass work. Mr. McNally is making good progress with his glue factory. There are other industries, but they either are not expected to be running this fall, or are not within the province of the trades represented by this journal. The roads are being graded through from the lake shore, and soon the place will be ready for industrial occupation."

WELL nigh seventy years ago a family came to Ontario from Ireland, the last member of which was buried last month. Robert Barber was born in Antrim, Ireland, in 1819, and was the youngest of a family of five. When he was two years old his father and mother with their children emigrated to Canada and settled at Niagara. When the four boys were old enough they went into the woolen and paper mills at Crooks' Hollow, above Dundas, which was the property of the father of the late Hon. Adam Crooks. The brothers learned the business, and some time before 1850 went to Georgetown and set up a woolen mill, the business being carried on under the style of William Barber & Bros. The four brothers were William, James, Joseph and the youngest Robert. Some little time after the mill at Georgetown was working Robert went to Streetsville and started another woolen business. This mill was the property of William Barber & Bros., but the style of the firm was Barber Bros. Robert was followed to Streetsville by William, and the two brothers built up an extensive business. In 1862 a big fire destroyed the mills, but such was the energy of the firm that eight months after the fire cloth was again being sent from the reconstructed mill. When the woolen business was removed to Streetsville, the mill at Georgetown was turned to making paper under the management of James, and is running yet for the well-known Barber & Ellis Company, of Toronto, its management being in the hands of John R., a son of James. In 1884 the affairs of the Streetsville firm became involved, and the mill passed into other hands. He leaves one son and three daughters: the son being Mr. R. B. Barber, of the Georgetown mill. The remains were taken to Georgetown.—*Toronto Globe*.

The three steamers—the *Empress of India*, *Empress of Japan* and *Empress of China*—which are to carry on the Imperial mail service via the Canadian Pacific Railway to China and Japan, are now making rapid progress towards completion at the yards of the Naval Construction and Armaments Company, Barrow-in-Furness. The *Empress of India* is so far advanced that she will be launched with due ceremony on August 30th, and leave for the Pacific, probably by way of Australia, about November 1st. The other two vessels will follow at intervals of about two months, i.e., about January 1st and March 1st respectively. Arrangements are being made for through rates to all eastern points, and an agreement has been con-

cluded with the P. and O. Company for the issue of round-the-world tourists' tickets. That no expense or trouble has been spared the Barrow Company and the Canadian Pacific authorities to make the service equal to any afloat, may be judged by a few details of the vessels. They are twin-screw steamers, of 10,000 horse-power, a gross tonnage of 5,700, and are contracted to do 18 knots on the measured mile, and 16½ knots on a 400 miles' sea trial. The dimensions are: Length between perpendiculars, 485 feet; breadth, moulded, 51 feet; and depth, moulded, 36 feet. Each vessel will be lightly rigged with pole-masts and fore and aft canvas, and the form, both under and above the water, is of such symmetry and finish as to ensure propulsion at the high speed required. The greatest possible attention has been paid to precautions for the safety of the vessels. The plans were submitted to Mr. White, the Superintendent of Naval Construction at the Admiralty, and approved by him before construction was commenced. There is, too, a completely-divided set of engines and boilers, and the greatest possible strength has been concentrated in them, so that the canvas will not be required except to hold the vessels down in a heavy gale. The accommodation for passengers is extensive and luxurious. Each vessel will carry 120 first-class, 50 second and 300 steerage, as well as nearly 4,000 tons of cargo. On the upper deck an extra promenade is provided for the use of passengers in the heaviest weather, while a good many special state rooms are also to be found on this deck. On the lower deck, which is 220 feet long, there is a covered promenade of 100 feet, where shelter and fresh air may be sought in wet weather; while the dining saloon, library and other parts of the saloon accommodation, are richly upholstered. A special feature will be made of the second-class travel, which the Canadian Pacific authorities believe may be extensively developed. They believe, too, the whole traffic by this route is capable of much expansion. Western ideas have of late permeated the life of China, and especially of Japan, that the people of these countries are travelling far more than they did formerly; while the success which has already attended the effort to divert the tea and general Eastern trade to the Canadian route, is a good augury of what may be expected when this increased and improved accommodation is available. The total cost of the three vessels is estimated at between £600,000 and £650,000.—*London Canadian Gazette*.

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JAMAICA EXHIBITION, 1891.

AN EXHIBITION will be held in Kingston, Jamaica, in January, 1891, of Island products, manufactures and works of art, together with exhibits of works of art, machinery and industrial and agricultural products from Great Britain, other countries and colonies.

In view of the geographical relation of the Island of Jamaica with the sea ports of Canada, and the nature and extent of the imports of Jamaica, as well as the products of the Island, the Government of Canada accepted an invitation of the Government of Jamaica to participate in such Exhibition, with a view of obtaining an extension of markets for the products and manufactures of Canada.

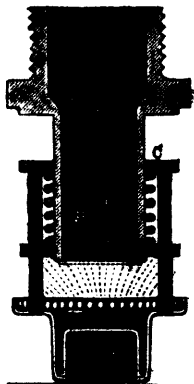
The Canadian Government will undertake to pay freight of all approved exhibits. Entries must be made not later than September 30th next; and the latest date at which exhibits can be sent forward from Halifax, N.S., or St. John, N.B., will be about October 20th, as all exhibits must be in Jamaica early in December.

Mr. Adam Brown, M.P., has been appointed Honorary Commissioner to represent Canada at the Exhibition.

Forms of application and general information can be obtained on application to the Honorary Commissioner, Hon. Adam Brown, at Hamilton, Ont., Mr. H. B. Small, Secretary Department of Agriculture, Ottawa, or Mr. Frederic Nicholls, Secretary Canadian Manufacturers' Association, Toronto.

By order of the Minister of Agriculture. H. B. SMALL, Secretary Dept. of Agriculture. Ottawa, July 24, 1890.

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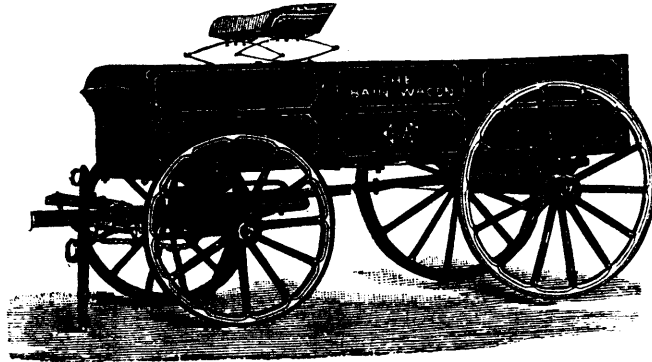
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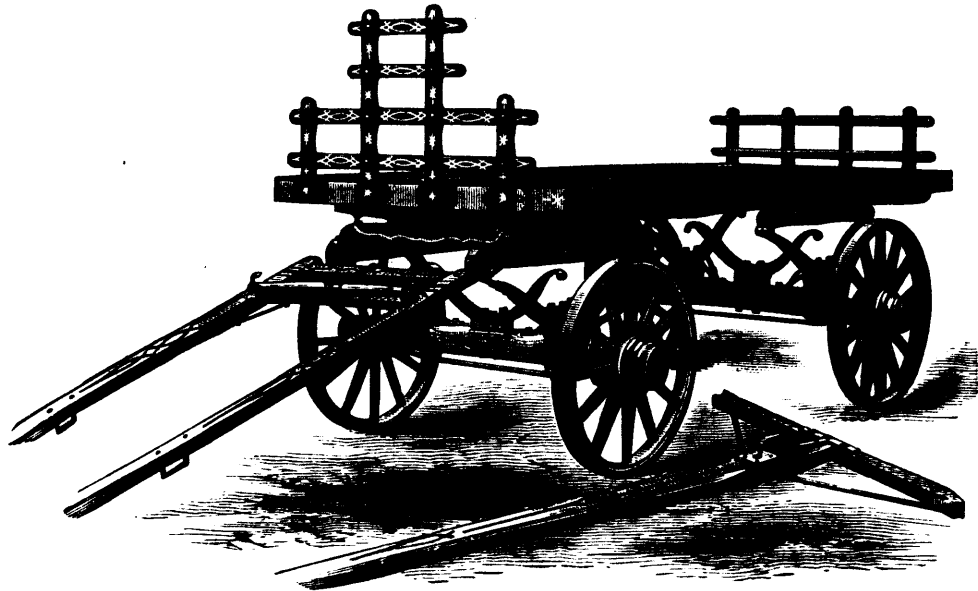
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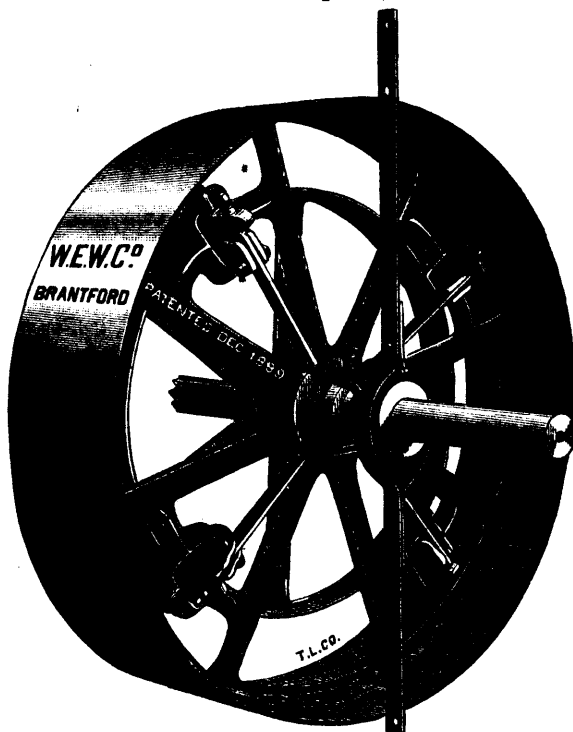
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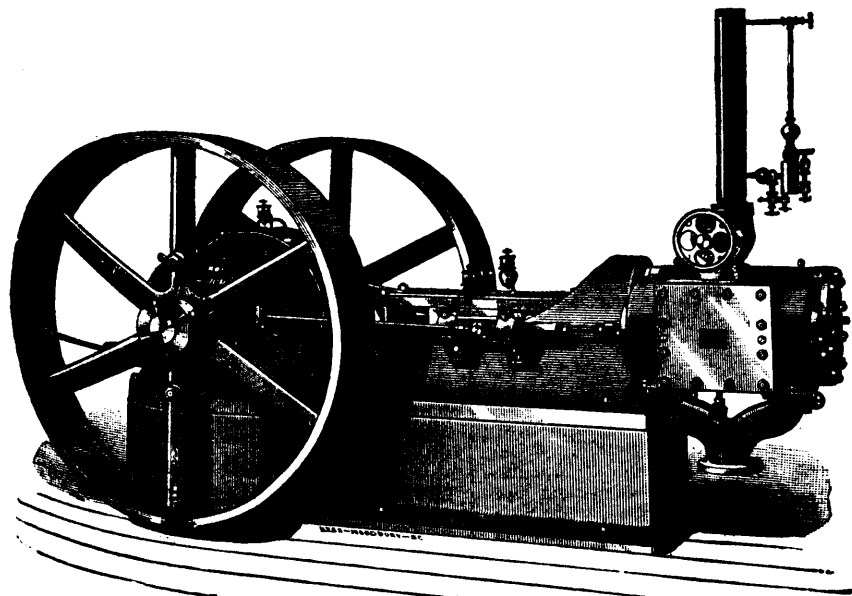
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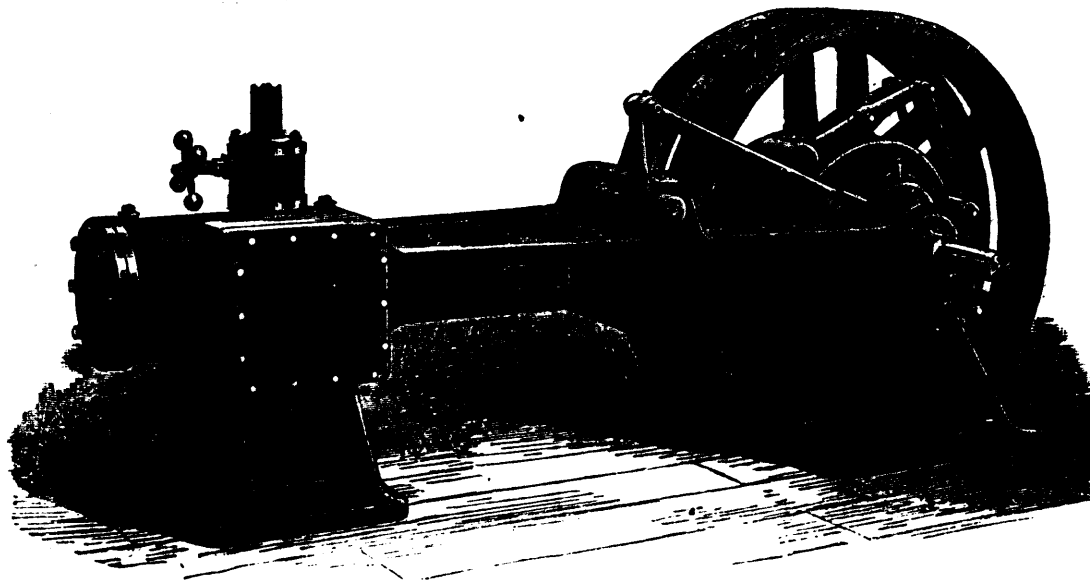
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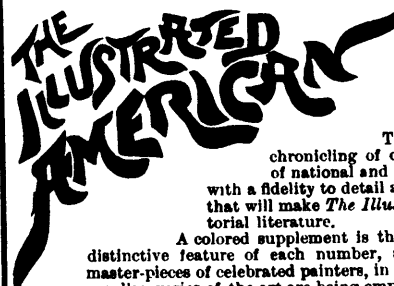
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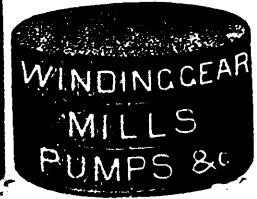
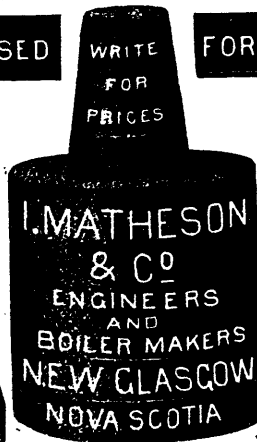
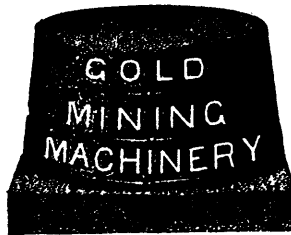
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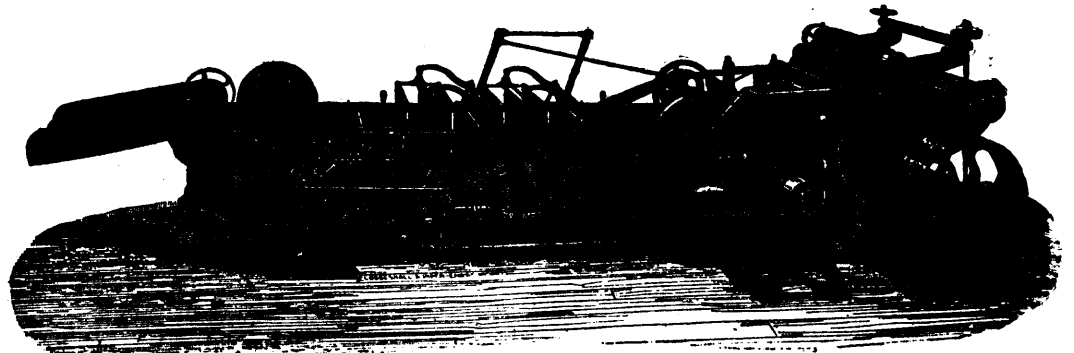


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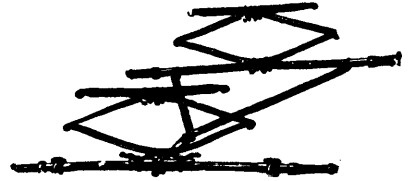
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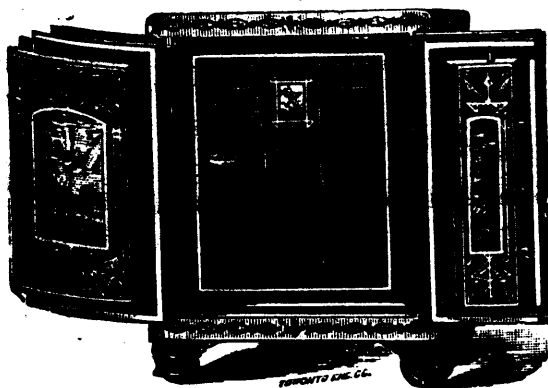


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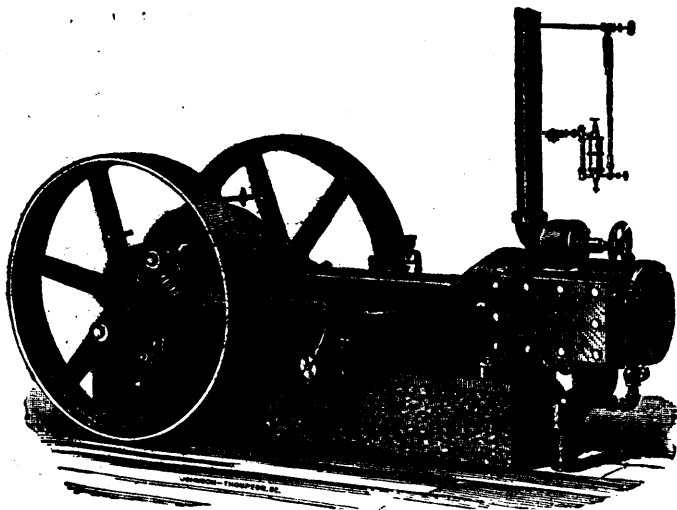
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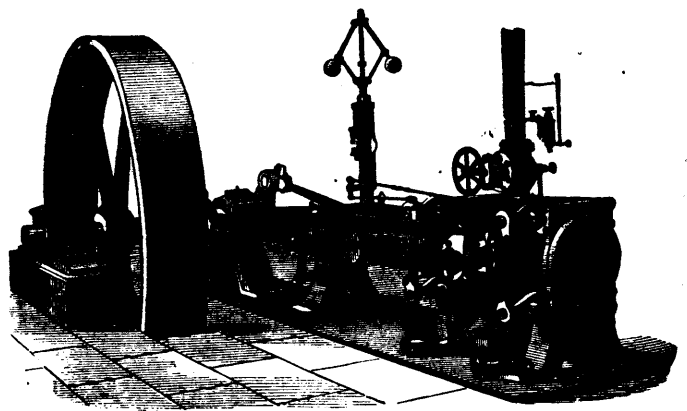
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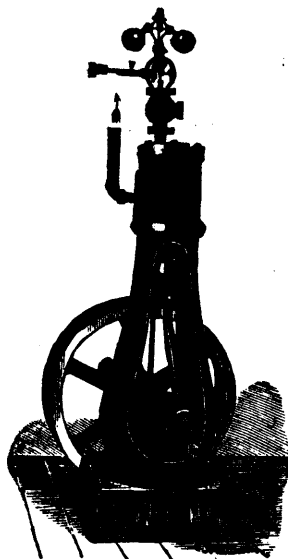
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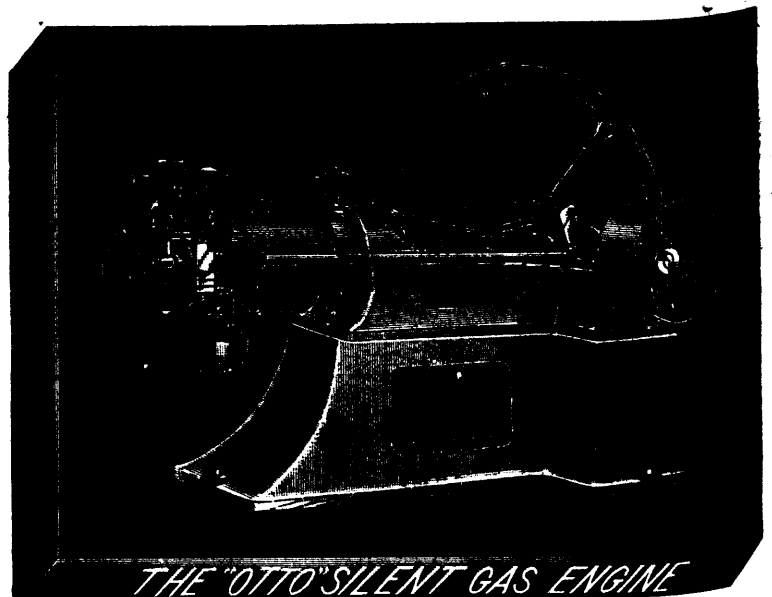
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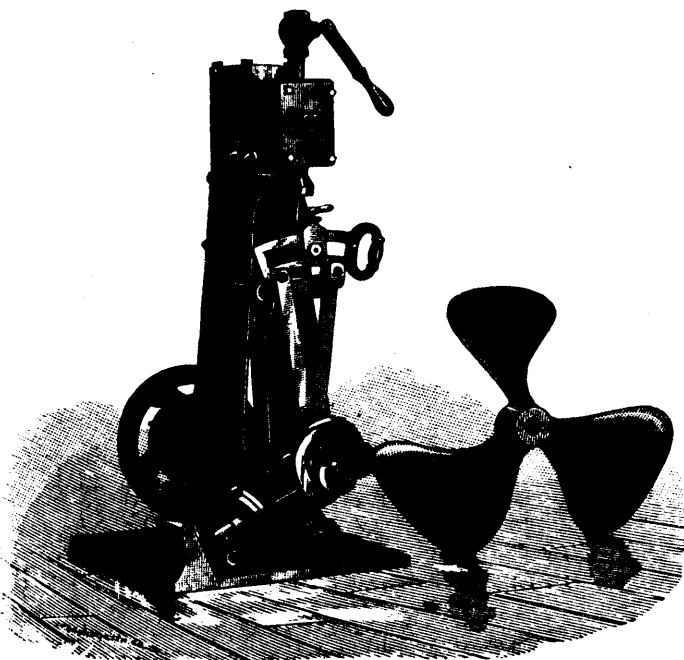
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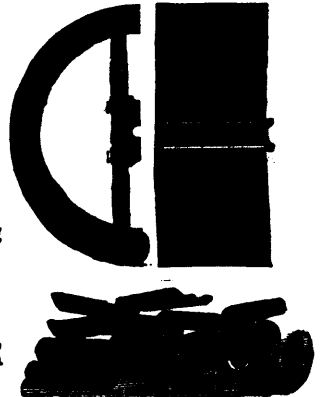
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And 50 per cent. Lighter than Wrought Iron or Steel Pulleys.

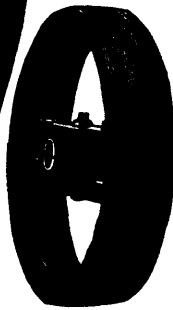
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NORTHWESTERN MANUFACTURING & CAR COMPANY,
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Gentlemen: You ask why we use the Dodge Patent Pulley. I answer because we consider them the cheapest, most convenient and satisfactory in all particulars.
Yours truly, S. R. STIMSON, General Manager.

OFFICE OF NEWTON WAGON CO.,
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SHATTO & DENNIS, MINNEAPOLIS MINN.

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Send for Illustrated Circular and Reference List.

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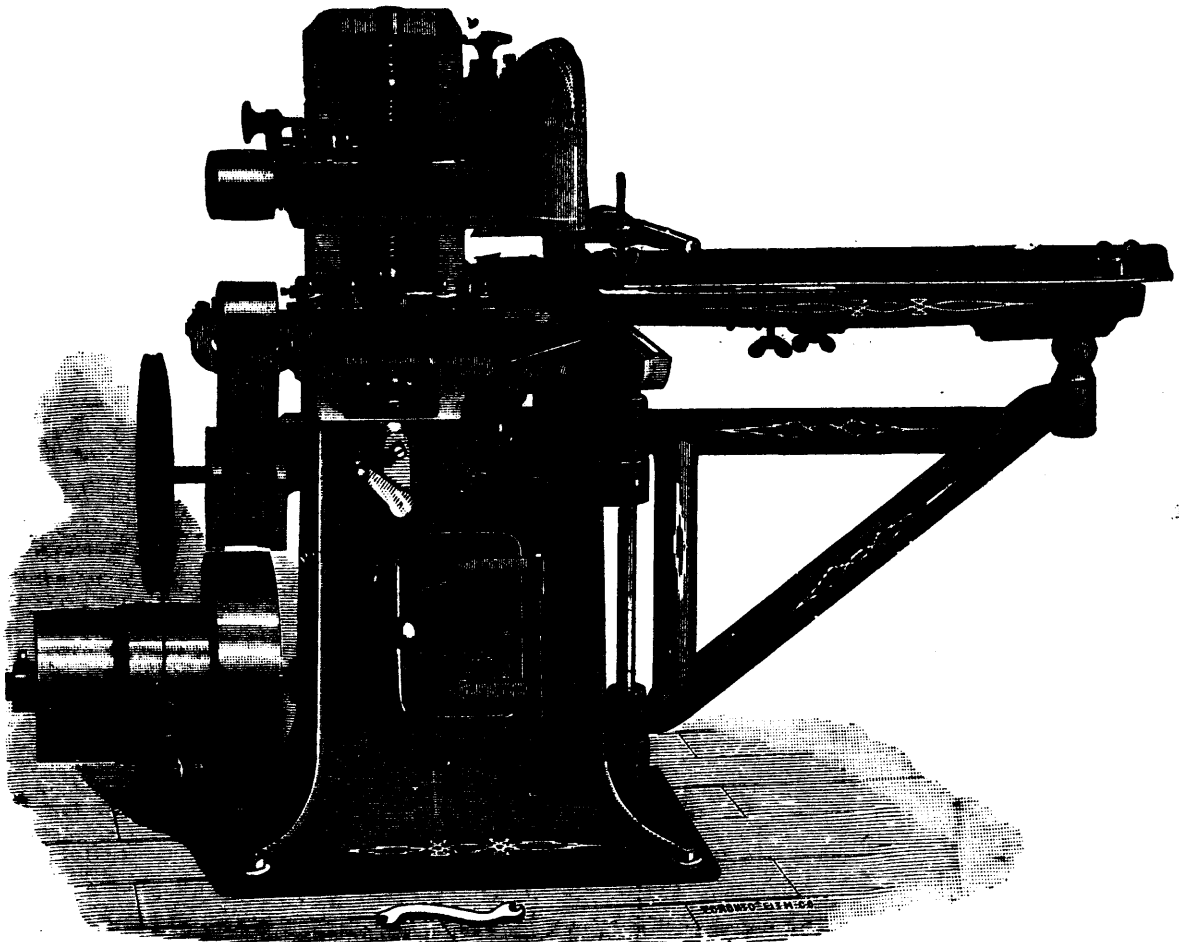
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We beg you will note this fact when comparing our List with others which are for SOLID RIM, and NOT for Pulleys in HALVES.

NEW AND IMPROVED *Pedestal Tenon Machine.*



This is an entirely new style of Tenon Machine. The frame is cast in one piece, and the working parts stand solidly on a pedestal, avoiding all vibration.

The Cutter and Cope Heads are connected and are moved all together, or separately, as required. The Upper Head and Boxes also adjust horizontally to suit shoulder of tenon, the Cope Knives moving with the Heads to prevent re-adjustment.

A special feature in this machine is the Bed, or Carriage, which is at once light and strong. The outer end works on rollers and is moved very easily.

In cutting the tenon the Bed and Carriage move entirely past the Heads and Cutters, the operator having full control of the work. It has also the advantage of leaving the Heads and Cope Knives clear, and of ready access by the operator.

The Carriage is so arranged that it cannot tip over the Slides nor be thrown into the Cutters, and is also supplied with extension bar for long stuff, as in all Tenoning Machines.

This Machine is supplied with single or double Copes, as ordered, and for furniture work it is without Copes, and with an adjustable cut-off Saw.

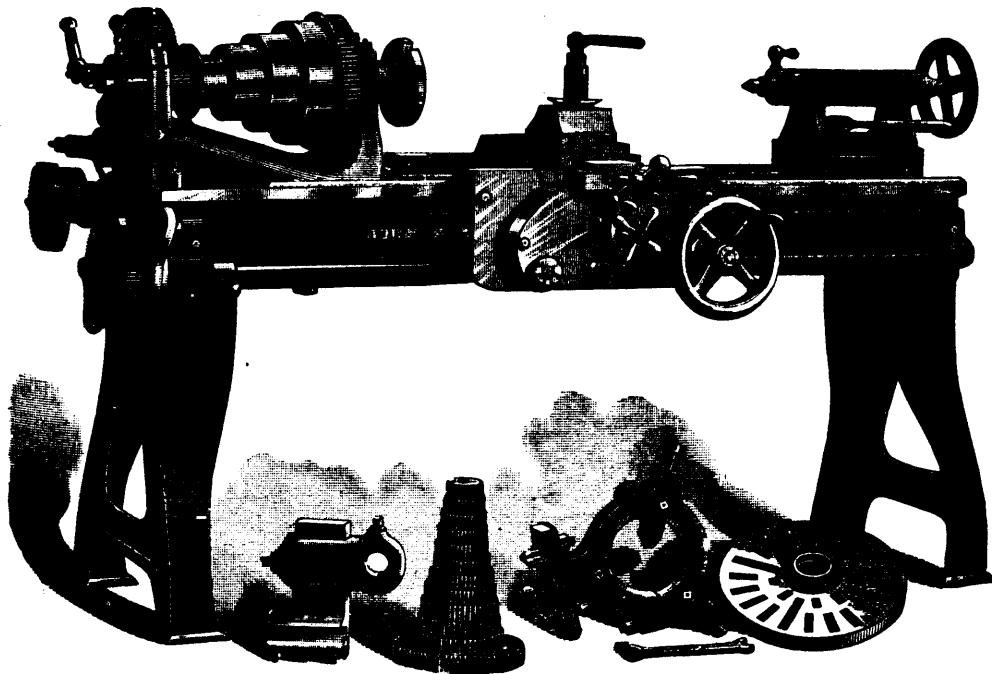
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Locomotive and Car Machinery, Special Machinery, Price List and Photographs on application.

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Pumping Machinery



BOSTON.

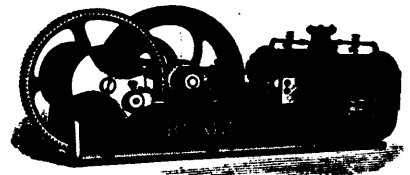
FEDERAL STREET

NEW YORK

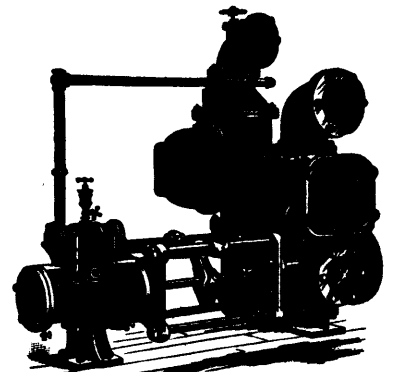
95 & 97 LIBERTY STREET.

SEND FOR ILLUSTRATED CATALOGUE.

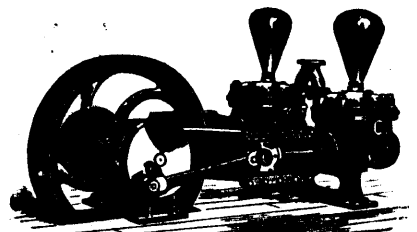
These goods may be seen at the Permanent Exhibition 63 to 69 Front Street West, Toronto.



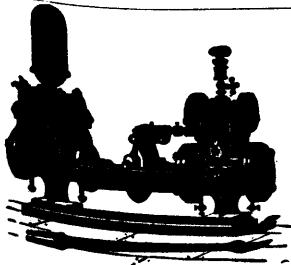
AIR COMPRESSOR.



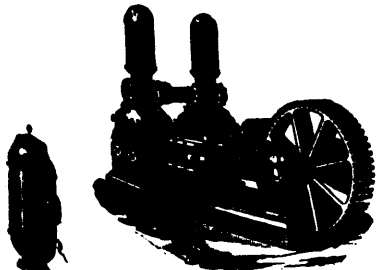
AIR PUMP AND CONDENSOR.



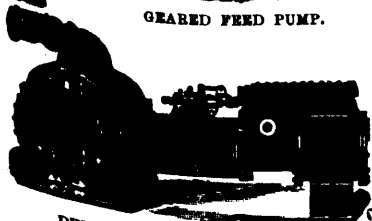
BELT PUMP.



BOILER FEED PUMP.



GEARED FEED PUMP.



DUPLEX COMPOUND ENGINE

Nova Scotia Steel Co., Limited,

NEW GLASGOW, NOVA SCOTIA

(Only Steel Works in Canada),

MANUFACTURERS OF

Hammered *and* Rolled Steel

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SIEMENS-MARTIN (OPEN HEARTH) PROCESS.

ROUND MACHINERY STEEL for Shafting, Spindles, etc. MILD STEEL for Rivets, Bolts, Thresher Teeth and many purposes where Norway Iron is now used.

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STEEL NAIL PLATE.

□□ *Binder Bars, Z and other Special Sections.*

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Particular attention given to the manufacture of Rake, Cultivator and Harrow Teeth, and other Agricultural Spring Steel Forgings.



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FOR SALE BY THE

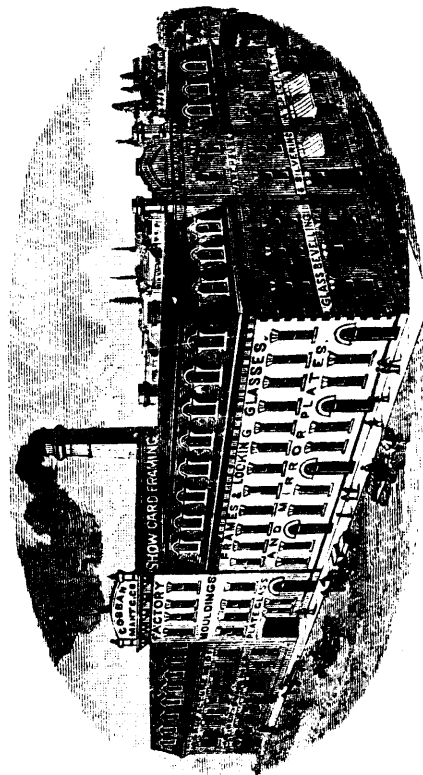
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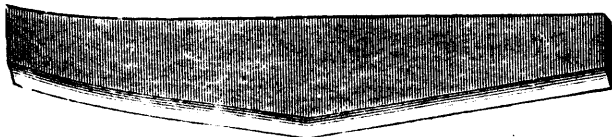
PLANING MACHINE
KNIVES.



STAVE CUTTER KNIVES.



STAVE JOINTER KNIVES.

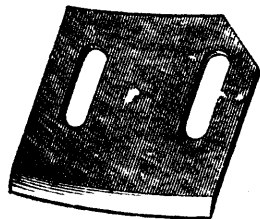


MOULDING, TENONING

MITREING

SHINGLE JOINTER,

And other irregular shapes.



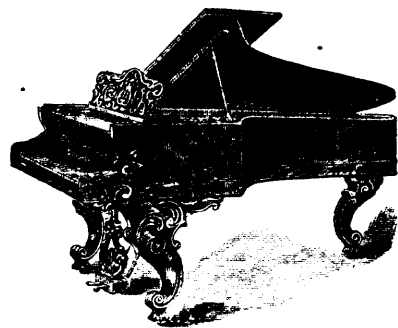
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FOR SALE AT LOW PRICE:

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Two 25-Light Ball Dynamos, Mica
Insulation. Almost as good as new

One 15 Light American Dynamo, in
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Apply for the above or for new plant to

THE RELIANCE ELECTRIC MFG CO., Ltd.
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HICKORY PULLEYS.

We make only hardwood bent
rim spokc arm split pulley; only
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pulley with oilless bearings; only
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Send for discounts and circulars.

Menasha Wood Split Pulley Co.

MENASHA, Wis.

This Space for Sale.

SPECIAL NOTICE.

Our attention has recently been called to
circular quotations by certain dealers pur-
porting to be for "72-hour Connellsville
Coke." Investigation showed the dealers
referred to were not getting any Coke from
the Connellsville Region but were drawing
their supplies from works on main line of
Pennsylvania Railroad known as the "La-
trobe" district. These Cokes are not equal in
quality to "Connellsville," are not known by
that name, and should not be sold as such.
They can be detected by the freight charge,
which is 17 cents per ton less than on "Con-
nellsville" Coke when shipped west, and 25
cents per ton less when shipped east. When
shipped east from Gallitzin, Mountain, Bells
Gap and Clearfield districts, 50 cents per ton
less.

Respectfully,

H. C. FRICK COKE CO.

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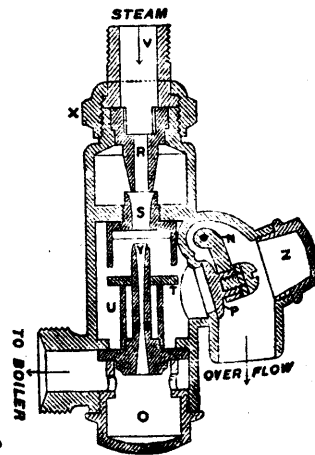
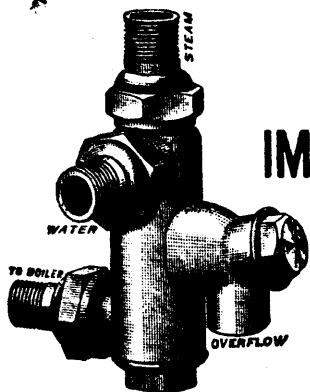
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IMPROVED AUTOMATIC INJECTOR.

10,000 IN USE IN CANADA.

Cheaper than a Pump, takes up Less Room and
Feeds the Boiler with Water at
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And the Only Absolutely Automatic Injector in the Dominion.

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