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### WILL BRITAIN RETURN TO PROTECTION?

THE Toronto *Globe* produces a long editorial to prove that Britain cannot and will not enter into a zolverein with her colonies as against the rest of the world by the establishment of a discriminatory tariff, capping its argument with the assertion: "Not only would the people of Great Britain have to be content with dearer supplies (should such a zolverein be formed), but they would imperil a trade of £554,000,000, the present amount of their foreign commerce, for the sake of a possible increase in a colonial trade of £184,000,000;" quoting what Sir Thomas Farrer said, that "England is surely not the dog to drop the meat in order to snap at the shadow." It reminds us that Lord Salisbury had said that any form of protection (in Great Britain) augmenting the price of food would bring about a state of things scarcely distinguishable from civil war.

The Premier of Great Britain is no doubt as firm a believer in the correctness of the theory of universal free trade as ever Mr. Cobden was, and he may hope as fervently that he may live to see the realization of that theory; but it is evident his Lordship sees and understands that universal free trade is much farther off in the dim and distant future than what Mr. Cobden thought it was, when he predicted fifty years ago that within ten years all the important mercantile nations of the earth would have adopted free trade.

Transpiring events are object lessons that bear directly on the question. Lord Salisbury may be viewed as the standard bearer of free trade; and we may enquire what advances that theory has made outside of Great Britain since it was inaugurated fifty years ago. The answer is, that while Great Britain has clung to it with great tenacity and perseverance, there is now no other important nation that entertains it. It has been abandoned for protection; and we see that under the benefits of protection France and Germany are sharing largely

in a trade that was once under the entire control of Britain, even invading the British home market and creating havoc and consternation among British manufacturers, and the utmost distress among British workmen. Lord Salisbury has no power, under free trade, to relieve this terrible state of affairs.

On the other hand Mr. Blaine, backed by the power of American protection, is forcing other nations to make terms with him by which they will receive American products on better terms than Lord Salisbury can hope to obtain for his country. Mr. Blaine forces Brazil to adopt a schedule of very low duties as applied to certain American products, in consideration of the United States admitting Brazillian sugar, coffee and hides free. If Brazil had declined to accede to this arrangement the United States would have imposed very heavy duties upon Brazillian products, and Brazillian producers would have had the burden on their shoulders. Lord Salisbury does not have it in his power to effect any such diplomatic feat. Spain has heretofore insisted that Cuba should levy high duties upon all but Spanish flour. The United States is the natural source of supply of flour for Cuba. Cuba is a large producer of sugar and tobacco, and the United States has heretofore taken about all the sugar Cuba had to sell, and a large proportion of her tobacco. Mr. Blaine gives Cuba the alternative of admitting American flour and other products on more favorable terms than heretofore, or of having her sugar and tobacco excluded from the American market. Spain does not like this condition, but what is she going to do about it? Heretofore Spain supplied Cuba with nearly all the flour consumed there; and the duties upon such merchandise as Cuba received from the United States constituted a very large part of the revenues of the Island. Spain does not consume Cuban sugar, heretofore the whole output going to the United States. Brazil, too, is a large producer of sugar, but under the recently arranged reciprocity between that country and the United States, the latter country admits Brazillian sugar free; and unless some reciprocal arrangement is made with Cuba sugar from that Island will continue to pay a duty of about 2½ cents per pound. Cuba must have a market for its sugar, and whether Spain likes it or not, or whether Cuba likes it or not, Cuba will be forced to modify its tariff affecting American flour and other products to save its sugar interest from destruction and the people from revolution. Lord Salisbury could never have forced such an arrangement in favor of free trade Britain; and Mr. Blaine could never have forced such an arrangement if the United States had not entertained a high tariff policy.

That the manufactured products of protection countries are making painful inroads even in Britain upon the business of British manufacturers is evident from the British Board of Trade Returns for February, wherein, although the imports showed an increase, the exports showed a serious reduction. The imports amounted to £33,311,000, an increase of £2,293,000, or about 7½ per cent, and the exports to £20,471,000, a decrease of £614,000, or about 3 per cent. The increased value of imports was largely due to cereals and raw cotton, while the imports of jute and raw silk showed a heavy decline. On the other hand the imports of manufactures of cotton were increased by over 10 per cent, the receipts for the month

being valued at nearly a quarter million sterling, a state of affairs well calculated to cause anxiety in Nottingham. The imports of woollens were not inconsiderable, the receipts being valued at £645,773, a condition which Yorkshire certainly cannot view with equanimity.

This is protection bearding the British free trade lion in his den; and these importations into Britain of cotton and woolen fabrics are from the most highly protected countries—France, Germany and the United States. At a recent meeting of the Associated Chambers of Commerce, held in London, Lord Salisbury stated that remonstrances addressed to foreign governments regarding what he termed "hostile tariffs" only confirm them in their hostile intentions. "This matter of commercial tariffs," said the Premier, "is singularly unfitted for the exercise of the magic spell of remonstrance and oburgation, of which the people of this country are so fond. The object of a foreign power in raising its tariffs is to exclude your commodities, and when you tell them in reproachful tones that the effect of their policy will be to exclude your commodities, the only result is that they say, 'Thank you, that is just what I intended,' and they give another turn to the screw of the tariff, in order that the effect may be quite unmistakable." And while deprecating remonstrances, as being certainly futile and probably harmful, Lord Salisbury emphatically declares that "we have no means of influencing the course of events" in regard to foreign tariff legislation. "This country," he said, "has decidedly renounced, as far the opinion of our leading commercial men may enable us to judge, every idea of influencing the fiscal action of foreign countries by any modification of our own fiscal policy. Taking that fact as a starting point, you may say we have no means of influencing the legislation which other countries may think it right to adopt."

This looks like a confession of inability to cope with existing circumstances, and also a dogged determination not to yield to the inevitable. The London *Times* alluding to the situation, says: "Other nations will not give us something for nothing nor is it reasonable to expect it. Wisely or foolishly we elected to denude ourselves of the power of offering them a fiscal *quid pro quo*, and to trust entirely to the force of example and the inherent power of our free trade principles. Having nothing to offer in return for favors, it is idle to beg other nations to refrain from what they think profitable merely because it is disagreeable to our manufacturers," and this is the correct view.

In the adoption of her free trade policy Britain denuded herself of the means of making bargains with other nations, and the only thing left for her to do is to take up the weapon Mr. Cobden threw aside. She cannot be prevented from doing so, and did she again adopt some system of protection, she would be equipped with an armament that would force such ultra legislation as the McKinley bill to be quickly cancelled.

Protection means commercial power.

#### AS TO AGRICULTURAL IMPLEMENTS.

DURING the recent election campaign the Grit papers paraded the names of several Canadian manufacturers of agricultural implements who were claimed to be anxious for unrestricted reciprocity with the United States. They said they

would be quite willing to admit American implements to the Canadian market if they could have the privilege of selling their implements in the United States. The following article from the St. Louis *Farm Machinery*, affords an insight into the conditions of trade across the boundary:

"An enterprising manufacturer of threshers and engines, who is as well posted as any man in the United States in his line of business, speaks very plainly as regards the situation. He does not mince his words, as is shown by his language, which is here quoted verbatim:

"It is too early for us to even guess at what the trade will be the coming season. Our reports of the prospects for wheat are favorable indeed, but the worst test is to come yet. If the wheat gets through the month of March we expect a good trade. As for the last year's business, we think that was the most unsatisfactory year that thresher manufacturers have ever experienced, and we have in our time known some very tough ones. The fact is, the grain would all be threshed and properly cared for if there was not a single threshing machine sold within the next two years. We think the thresher manufacturers themselves are to blame for the condition of the trade. They build too many goods, and then, when the rush of the season begins, the inclination is to sell, even if the paper is not what it ought to be. They sell on long time without any payment down, and this invites a class of customers that would not think of buying a thresher or an engine if they had to pay one-sixth in cash. If these parties have had good luck and a good year, they make their payments, but if they have a bad year they cannot make their payments, become discouraged, thresh for half price and drive the good customers out of the business. The older manufacturers understand this, and, we believe, are doing what they can to overcome the evils that have crept into the business, but the trouble is, every few years a new concern starts; it has the cash and can take a piece of paper and a pencil and figure out immense profits; it does a slashing business for about three years, gets all its capital and what it can borrow into bills receivable, and then sets up the claim that other manufacturers are ruining the business. There is, in our opinion, no reason why a threshing machine should be sold on longer time and easier terms than real estate is sold. If there is any machine for which the farmer ought to pay part cash it is the threshing machine. It is the only machine that we know of that is a direct source of income, and, as a rule the owner gets his money as fast as it is earned."

"Dealers, generally, will agree with the manufacturer in his position as stated above. But the dealer is powerless. He cannot hope to enforce shorter time and prompt payments as long as the manufacturers display such an eagerness to sell that they will grant any time and terms demanded by the farmer. Whenever the manufacturers agree upon a stated policy—and stick to it—they will find the dealers with them first, last and all the time. As it is, however, the dealer is as great a sufferer as the manufacturer."

Competition in Canada has brought the price of agricultural implements down to rock bottom, and it may be that there is not much profit in the business except under the most favorable circumstances. But if the outlook for the trade in Canada is not bright, it is certainly very gloomy in the United States. The manufacturers there are despondent, and they would be but too glad to gain access to the Canadian market. It is not probable that the Canadian manufacturer would be able to sell his implements in the United States if he could get there; the business is overdone, and it is noticeable that all the grain grown in that country could be thrashed out and properly cared for, if there was not another threshing machine sold there within the next two years. The manufacturers there have their warehouses and agencies filled with implements made in anticipation of demands for them, and they are continuing the production of them; and it is difficult to see what chance Canadian machines could possibly have in that market. On the other hand, were the American manufacturers admitted to the Canadian market, with their large stocks of implements to dispose of at slaughter prices they would certainly fill all demands from Canadian buyers, leaving the Canadian manufacturers sadly in the lurch.

## UNDESIRABLE IMMIGRANTS.

In the March number of *Night and Day*, edited by Dr. T. J. Barnardo, at London, is the following announcement: "Two hundred of my trained lads—the first party of young emigrants this year from the Homes—will say farewell, and be commended to our Father's care on Thursday evening March 19th at Exeter Hall. \* \* Our emigration season for 1891 is just about to open and we contemplate sending out, on 21st March, our first party of trained emigrants, boys and lads, for the year. We hope this party will number at least 200, of whom fifty lads will be bound for our new Industrial Farm in Manitoba, while the bulk of the remainder will be placed out in situations through the agency of our distributing Home in Toronto." Last week the Toronto daily papers announced the arrival in this city of a party of over a hundred of these Barnardo emigrant waifs, who were sent to the distributing home.

In the recently published report of Sir Charles Tupper, High Commissioner for Canada, in London, is a list of some of the institutions in Great Britain concerned with emigration who largely direct their attention to the Dominion, taken from a hand-book issued by the Emigrants' Information Office. Included in this list are the names of ten trade societies which assist their members to emigrate; and from the facts given it is evident that the emigrants coming to Canada under their auspices are of a very desirable sort. There are some seven women's emigration societies, the general object being to assist the emigration of young women of good character, and no doubt these emigrants are of great value to the places where they locate. There are twenty general emigration societies which assist all classes of emigrants, and while some of these may be of a desirable character, it is to be feared that others of them include many of the off-scouring of creation. The names of ten children's emigration societies are given, among which is that of Dr. Barnardo's Homes, part of the work of which is to train boys and girls and emigrate them to Canada. The boys from these homes are sent to Toronto for distribution, and the girls to Peterborough, the institution having also an industrial farm in Manitoba to which the older lads are sent. The total number emigrated to Canada by this institution up to the end of 1889 was 4,150.

The Children's Emigration Homes, of Birmingham, were founded "to save boys and girls," and 1,731 of such have been emigrated to Canada, going to London, Ont., for distribution.

The Orphans' Home of Scotland, of Glasgow, take destitute children, train them for emigration to Canada, and send them to Brockville, Ont. About 3,000 of these have been sent to Canada by this Society.

The Liverpool Catholic Children's Protection Society, of Liverpool, have sent 1,100 children to Kingston, Ont., since the Society started.

The Sheltering Homes for Orphans, Fatherless and Destitute Children, of Liverpool, emigrate their proteges to Canada. 136 children were sent out by this Society in 1887.

The Boys' Home, of London, take friendless and destitute boys and emigrate them to Toronto for distribution.

The Church of England Central Society for Providing Houses for Waifs and Strays, of London, send their "waifs and strays" to Sherbrooke, Que.

Miss Macpherson's Home of Industry, London, emigrate boys and girls to Stratford, Ont., for distribution.

Miss Rye's Emigration Home for Destitute Little Girls, of London, sent 109 children to Niagara, Ont., in 1887.

The Manchester and Salford Boys' and Girls' Refuges and Home, and Children's Aid Society, of Manchester, emigrate their refugees to Belleville, Ont., 400 children having been sent to this destination for distribution.

In the 1890 report of the Minister of Agriculture is a statement showing the number of emigrant children landed in Canada last year, under the auspices of charitable societies and individuals. This shows that 918 children were landed at Quebec, and 539 at Halifax. The shipments were made by twenty-nine different societies and individuals, and the destinations throughout Canada from Halifax as far west as the North-West Territories.

An estimate of the character of these young paupers may be learned from the following:—In the *Croydon, Eng. Chronicle* of February 28 is an account of the bringing of twenty boys and girls from the Croydon workhouse before two magistrates, to go through the necessary formality for their emigration to Canada. The clerk of the Guardians of the Workhouse appeared by direction of the board and stated that the children would be taken to a Home in Ontario, and from there distributed to whoever would take them. The mother of one of these girls was confined in the workhouse, but had given her consent to the emigration of her child; in two other cases the consent of the parents was had, and all the others were deserted children or orphans. Mr. Wallis would take these children from the workhouse to the ship at Liverpool, from whence they would sail for Canada on March 19. So reads the *Chronicle*.

A far more vivid description of the moral leprosy of these "waifs and strays" being sent to Canada is given by Dr. Barnardo in his *Night and Day*. Speaking of a girl named Martha Roots, this enemy of Canada says:—"She is nearly thirteen, and I have just got possession of her. Her life for four years has been that of a drudge, a beast of burden, a little slave; and not only so, but her surroundings have been full of nameless peril. To be a slave, getting no schooling, no holiday, to be half starved and often beaten, to serve in a house whose women inmates are all degraded and depraved, is a horrible position for a girl between twelve and thirteen years of age." Speaking of another of these children Dr. Barnardo says: "A little motherless waif was Oscar. I dare not raise the veil fully from the home of drunkenness, of immortality, and of cruelty from which he was admitted. His mother had, after a dissolute and degraded life, died the year before Oscar's case came under my notice. The father, of no occupation, was a drunkard and a thoroughly bad man, living in immorality, and, as was to be expected, ruin fell upon his ill-starred children. What that ruin was, and how deep and dark the shadow that it cast, may be gathered from the fact that one girl, not 16, was already an inmate of a Home for fallen women, and two other girls had been received into a Preventive Home. As for Oscar, his condition was so filthy that his clothing could only be burnt. Few of the candidates at my doors have ever exhibited worse signs of neglect." Speaking of another boy whom he calls "Poor Connor," aged

twelve, Dr. Barnardo says : "The mother had caused much trouble during her husband's lifetime by her thriftless, indolent and dirty house keeping, at once the cause and effect of the drinking habit. On the day of her husband's death she was found helplessly drunk on the bed beside the coffin. Since then, homeless and degraded, she has lived anyhow in the mysterious way so often seen among the lowest poor of London, who have lost their last hold on the lowest rung of the social ladder."

Dr. Barnardo has been active in this reclamation scheme for twenty-five years ; and in making a retrospective glance at what he has done, and the demoralization he has encountered within that time he says :—"A vast procession passes ; let us stand and watch it. \* \* Six thousand march with drooping heads and faces of shame, for their parents are such as no child could ever honor or regret. Ten thousand of these young people bear sore bruises or recent scars. Theirs have been the habitations of cruelty, and their earliest experiences have been among the tormentors. The serried ranks are closed by fifteen hundred processionists who can scarcely be said to march, for some can only hobble. Some of these are led by the hand, others grope in blindness, others are pushed by the kindly hands of helpers, and some, though old and big, have to be carried with the tenderness of a mother for her babe. These are the maimed, the halt, the blind : those who entered upon life heavily and hopelessly burdened by their physical defects. These are the homeless, destitute waif and stray children, little and big, of either sex, of all ages, of every nationality, of any religion or none, who for five and twenty years have been entering in by the ever open doors of our Homes."

Dr. Barnardo publishes a list of some cases recently admitted to his Home, the following being specimens :—"Dolly G.W.—Mother has no home, sunk to lowest depth of degradation, and has lost all sense of decency. Nothing known of the father." "Bertie O., and Fred A. O.—The worthless mother, five years ago, deserted her family. The father died in a hospital." Edward P.—Mother leading a degraded life in a disreputable house. Nothing known of the father." "Sarah M.—This wild little street Arab has had no other surroundings than those of degradation and squalor ever since she was born. She is fatherless, and her mother is a depraved and drunken woman."

It is with these "waifs and strays" that Dr. Barnardo and the other British philanthropists (?) are populating Canada, and the Dominion Government are encouraging them to do it.

#### FROM ALL SUCH, GOOD LORD DELIVER CANADA.

DR. BARNARDO prays with much fervor that God will put it into the hearts of people to give him money with which to gather up the "waifs and strays" of the slums of London, wash off the slime and filth from their bodies, put clean clothes upon them and dump them down in Canada. These "waifs and strays" are tainted and corrupt with moral slime and filth inherited from parents and surroundings of the most foul and disgusting character, and which all the washing and clean clothes that Dr. Barnardo may bestow cannot possibly remove.

There is no power whatever that can cleanse the lepers so as to fit them to become desirable citizens of Canada. Dr. Barnardo is probably doing a good thing for London in decreasing as far as he is able the vicious and criminal classes there ; but he is certainly doing a great wrong in dumping his human warts and excrescences upon Canada. Under the most favorable circumstances Canada has quite enough of her own waifs and strays to look after without being made a cess-pool into which the moral sewers of London is to be discharged. We may be sorry for the poor unfortunate waifs and strays of London, and would like to see their moral condition elevated, but our sorrow does not lead us to consent that Canada shall be contaminated by such contact with them as Dr. Barnardo is constantly forcing upon us. It is an outrage and a shame against which we protest. Canada will gladly welcome all emigrants who seek our shores with a view to creating homes for themselves and benefiting the state, provided they are not of the vicious and criminal classes, and are not such waifs and strays as Dr. Barnardo is deluging us with. Poverty is no crime, and the poor of Britain are welcome to homes in Canada if they are morally clean.

It is quite time that the people of Canada aroused themselves to a realization of the enormity of the outrage being perpetrated upon them by such so-called philanthropists as Dr. Barnardo and General Booth, of the Salvation Army. Under its wretched system of free trade the working classes of Great Britain are constantly going from bad to worse in the social scale. All of the great industries of that country by which the working classes are supposed to live are being destroyed, and the unfortunate people are sinking constantly into despondency, poverty, crime and wretchedness, from which it is impossible under Britain's present fiscal system to rescue them. In another article in this journal allusion is made to the large number of societies in Britain organized to emigrate these paupers, waifs and strays to other countries, Canada being the favorite dumping ground. There are many more such organizations in Britain than those alluded to ; and there are hosts of dear, good, pious and benevolent individuals engaged in the same business. In a recent issue of this journal allusion was made to the scheme of General Booth to rescue as many of the moral lepers as possible of Britain, and send them to Canada and other countries. British benevolence always takes this direction. When pious souls observe the destitution about them, and feel that they must do something to alleviate it, they never consider that the fiscal system of their country is responsible for the situation, and that the alleviation might be obtained by a change of that system. They are too self-satisfied to view the matter in that light. But they get together and resolve themselves into an emigration society, make affecting appeals for money, and expend it in gathering up the very worst, most vicious, most dangerous, and most worthless characters they can discover in the slums of their great cities, and send them to Canada. They think they have done God's will ; that they have discharged a high Christian duty, and that they have shown an excessive amount of patriotism when they have bailed a few buckets-full of water from their fast sinking ship by ridding Britain of a few thousand of her undesirable population. They seem to think that God will not hold them responsible for the injustice and injury

they inflict upon the unfortunate countries which they select for the dumping grounds and scavenger yards of Britain's human excrement.

When General Booth announced his scheme to colonize his acquisitions from the slums of London, numerous public bodies in Victoria, Australia, adopted resolutions pledging themselves "to resist to the utmost any attempts which might be made to introduce the surplus and pauper population of Britain into the colony," and the Amalgamated Miners' Association there issued a circular in which, after quoting from General Booth's book, they declared: "You will see that we are threatened with an invasion as bad as that which roused the people of these colonies when they opposed the landing of French convicts on adjacent islands. Australia has suffered enough already from the taint of convictism, and should resist most strenuously this fresh attempt of the old country to get rid of the evils produced by social wrong and the unjust laws of society." This language has a good ring. It sounds like business, and the Australians meant business when they intimidated force and fight if necessary to prevent the outrage General Booth proposed to inflict upon them. Australia invites immigration, but her people would prefer the solitude of the desert to such a population as General Booth proposed sending there.

Dr. Barnardo, General Booth, *et id omne*, may preach about the obligations people are under to help the fallen and to give them a chance to make a new start in life, with the prospect of their becoming good and valuable citizens. We have no objection to their making experiments, but not in Canada; oh, no! not in Canada. History and observation affords too many instructive instances of the heredity of crime. In an article by Prof. Eby in *The North America Review*, on "Pauperism in the United States," is the following:

"Mr. Richard L. Dugdale examined the history of the Jukes family. The ancestor of the Jukeses is called 'Margaret, the Mother of Criminals;' and Mr. Dugdale estimated that 1,200 of this family in seventy five years cost the community directly and indirectly not less than a million and a quarter of dollars. Mr. Oscar McCulloch a clergyman of Indianapolis, looked up the family record of the 'tribe of Ishmael.' This band of paupers and criminals takes its name from one Ben Ishmael, who was living in Kentucky in 1790. The descendants of this family have intermarried with thirty other families. Several murders can be traced to the tribe; there were 121 prostitutes among them; thieving and larceny are family traits, and nearly all of them are beggars. They are usually unable to endure hard work or bad climate, they break down early and go to the poorhouse or hospital, and die young. The city missionaries in Berlin examined the record of a criminal and pauper family in whose ranks were found 106 illegitimate children, 164 prostitutes, 142 beggars, and seventy-six guilty of serious crimes, who together had passed 116 years in prison. It is estimated that this single family cost the State over half a million dollars."

Does Canada desire an increase of the criminal element in her midst? Assuredly not.

#### A GOOD RULE WORKS BOTH WAYS.

WITH her large and still growing manufacturing interests seeking an unrestricted outlet, the United States cannot afford to rudely close the door in the face of so promising a customer as Canada, whose immense grain fields are opening up a market

for our agricultural implement trade."—*St. Louis Farm Machinery*.

A great many intelligent people in the United States do not comprehend the difference in the views of the two political parties in Canada upon which the issue was made in the recent election. The government party, under the leadership of Sir John Macdonald, advocated limited reciprocity with the United States, while the opposition party advocated unrestricted reciprocity. The Conservative party advocate a protective tariff for the purpose of building up manufacturing industries, but are willing to abate or remove the duties on certain articles if the United States will do the same thing, thus establishing limited reciprocity. The Liberal party profess to be advocates of free trade, and opposed to all tariffs, but are willing to accept and adopt the higher tariff of the United States if by doing so they can obtain free trade with that country. There is no more feeling of "commercial belligerency" felt on the part of Canadian Conservatives towards the United States or any other country than there is on the part of tariff Republicans in the United States towards any other country—perhaps not as much, for in Canada there is a strong impression that the imposition of a prohibitive duty upon eggs and barley, as under the McKinley tariff, is a most pronounced exhibition of commercial belligerency.

What, pray, made the United States the great, self-contained and self-sustaining nation it is but the natural resources it possesses and the protective policy it has adopted, and under which have sprung up the manufacturing industries that have made it great, self-contained and self-sustaining? The United States has more than a century the start of Canada in this race for greatness; but Canada is quite as highly endowed with natural advantages; the people are of Anglo-Saxon blood, and they are actuated by such impulses as result in the formation of great and powerful nations. But nations cannot become great unless they are self contained and self-sustaining, and these qualifications cannot be acquired unless through the effects of such a fiscal policy as has made the United States what it is. History makes no mention of any great nation that did not acquire its greatness through the effects of some system of protection resulting in the establishment of manufacturing industries. If Canada could be satisfied with being a granary for other nations; content with producing food products, but not sufficiently ambitious to manufacture the agricultural implements required in its agricultural pursuits, it could never become a great nation. Unfortunately for her, there are those who, for the sake of present cheapness would rather buy manufactured articles in foreign countries than to encourage a fiscal policy which would result in factories for their production at home. This idea of "cheapness" is a curse to any people who shape their policy by it.

Many Americans, and Canadians also, seem to think that such reciprocity as Canadian Conservatives desire with the United States would be one-sided, the advantages all being on the side of Canada. Like *Farm Machinery* they imagine that Canada has nothing to offer in the way of a *quid pro quo* for what they desire from the United States. Our contemporary desires American manufacturers of agricultural implements to have free access to the Canadian market; is the gaining of that market worth any sacrifice to the United States? Mr. Blaine



scours the American continent to find an outlet for American manufactures, and the American people cackle like hens over new laid eggs at the announcement of a reciprocity treaty with Brazil; but reference to their own statistics will show that while their export trade with Brazil in 1890 amounted to but 1.42 per cent. of their entire trade, and with all South America to but 4.47 per cent., their exports to Canada were ever more valuable, being 4.56 per cent. They may find it very advantageous to buy coffee, sugar and hides from Brazil, but they do not seem to attach much importance to their large export trade of manufactured products to Canada. In 1890 the value of goods imported into Canada for consumption amounted to \$112,765,584, of which \$52,291,973 came from the United States, and \$43,390,241 from Great Britain. Was this American export trade to Canada worth anything, and is it worth cultivating? The duty collected on the larger imports from the United States amounted to but \$8,220,299, while the duty upon the smaller imports from Great Britain amounted to \$9,576,965. And still the United States imposes a duty of five cents per dozen on Canadian eggs. A very large proportion of American goods imported into Canada are manufactured products, the output of American workshops and factories. The importation of these goods is made possible by the comparatively low duties imposed upon them; and the question arises: Why should these American products be allowed to come into Canada at low rates of duty while Canadian eggs are taxed five cents a dozen, and Canadian barley thirty cents a bushel on entering the United States?

#### WAS MR. COBDEN A TRICKSTER?

THE commercial treaty between Great Britain and France, now about expiring, was signed in 1860, and thereby hangs a tale. In a recent issue of *Le Temps*, M. Jules Simon gives an account of the proceedings which led to the signing of this treaty, the details of which are of a character to place Mr. Cobden in a not very enviable light. "Mr. Cobden," says the Parisian journalist, "was convinced by M. Michel Chevalier that if France could only be induced to abandon her prohibitionist tariff policy, the rest of the world would follow the example thus set. The first step necessary in order to effect this change was to obtain a reduction of the then existing duties. This much accomplished, the rest would be easy, for although a partial cutting down of the protective wall could not be regarded as a complete triumph for free trade, it would be a sure augury of future victory. The English statesmen of that day raised no objections to the scheme propounded by M. Chevalier. Lord Palmerston was favorable, Mr. Gladstone, then Chancellor of the Exchequer, was ready to sign, and Mr. Cobden was won over. But the farther he went, the more he felt the necessity of secrecy. M. Persigny, the French Ambassador at St. James', was in the conspiracy, and everything possible was done to blind the French press and public as to the object of M. Chevalier's visit to London. Eventually both M. Chevalier and Mr. Cobden found themselves in Paris, which city they reached by different routes. There Mr. Cobden interviewed Napoleon, who appeared delighted with the idea, according as it did with his views. But the Emperor strictly enjoined the necessity of secrecy—an injunction

which, after what has already been said as to the manner in which the scheme from its inception had been hushed up, would appear needless. Mr. Cobden finally requested permission to bring in a specialist, so that exact figures might be furnished. The expert arrived—it was M. Chevalier himself. Finally, when all the details had been arranged, confidants were made of M.M. Rouher and Baroche. On the other side, Lord Cowley, the British Ambassador, and Mr. Cobden had the control of the negotiations. On January 3rd the Emperor published his famous letter, the effect of which was electrical. On every side men were stupefied. The manufacturers were thrown into a state of consternation and irritation combined. They cried out that France was lost. 'Of what advantage,' they asked, 'to the workers will be cheapness, if you have no money wherewith to buy?' The treaty appeared on January 23rd. It was signed on behalf of France by M.M. Baroche and Rouher; on the part of Great Britain by Lord Cowley and Mr. Cobden.

"After the signing of this treaty with France, at short intervals Great Britain effected treaties with Belgium in 1861; with the Zollverein in 1862; with Italy the year after; with Switzerland in 1864; with Sweden and Norway, the free ports of Hamburg, Lubeck and Bremen, the Grand Duchies of Mecklenburg Schwerin and Strelitz, and Holland, in 1865; with Portugal and Austria in 1866; and with the Pontifical Dominions in 1867."

The prophecy that the treaty with France would pave the way to the abolition of tariffs by all countries has not been fulfilled. On the other hand the tariff that France is now adopting is particularly objectionable to Great Britain, and calculated to do great damage to British manufacturing industries.

If it is a fact that Mr. Cobden played the part attributed to him by M. Simon, the great reformer was not as great a man as his friends and admirers would like to believe him to be.

#### EDITORIAL NOTES.

THE sixteenth regular annual meeting of the Canadian Manufacturers' Association, was held in Toronto yesterday afternoon, and was largely attended. The following officers were elected for the ensuing year:—President, W. K. McNaught; First Vice-President, John Bertram; Second Vice-President, P. W. Ellis; Treasurer, George Booth; Secretary, J. J. Cassidey; Chairman Executive Committee, Frederic Nicholls; Representatives to Toronto Industrial Exhibition Association:—W. K. McNaught, George Booth, R. W. Elliot, Samuel May, J. J. Cassidey. Strong resolutions were passed expressing the continued confidence of the Association in the N. P. Full proceedings of this meeting will appear in our next issue.

THE first locomotive to pass through the tunnel under the St. Clair river at Sarnia, Ont., built by the Grand Trunk Railway Company, did so on April 9th inst. The run was made from the Canadian to the American side and returned. The track was in good shape and everything was entirely satisfactory.

THE legality of employes combining to compel the discharge of one of their number for the offence of being non-union is being tested by Foreman Todd, of Ashley & Bailey's silk mill in Paterson N.J. Twenty-two workmen were arrested, charged with conspiracy, by which he lost his position. The question will be decided whether employes may combine to drive from his position one of their number who is objectionable on the grounds alleged.

THE German Socialists are highly indignant over the fact that their great leader Bebel is living in high luxury in Berlin. It is said that Bebel, not satisfied with a house grandly furnished and a select and abundant larder, has one of the finest wine cellars in Berlin and indulges with his friends in the choicest champagnes, tokay and other beverages, while he makes a business of denouncing the luxury and extravagance of capitalists and holding himself forth as a model for the masses. This sounds exceedingly like the complaints raised against Mr. Powderly. These great leaders come high.

ACCORDING to a bulletin issued by the Census Office, upwards of \$100,000,000 is invested in truck farming in the United States. The annual product reaches a value of over \$175,000,000. The industry is carried on on 534,440 acres, and employs 216,765 men, 9,254 women, and 14,874 children, aided by 75,886 horses and mules and \$8,971,206 worth of implements. The most important locality for truck farming is the second district, including the states of Pennsylvania, New Jersey and New York. Cabbage, which covers a greater acreage than any other kind of truck, occupies 41,054 acres. Celery is the most expensive kind of truck for the farmer, and also the most profitable.—*Bradstreet's*.

GREAT BRITAIN imposes duties upon tobacco, tea, coffee, currants, rasius, wines, rum, brandy, and other spirits, and some other minor articles of import. The revenue last year amounted to £95,326,136, raised as follows: From customs on above named articles, £20,695,492; from excise (tax on domestic spirits, beer, railways, etc.), £25,282,635; from stamp taxes (on probate, legacies, deeds, receipts, succession duty, estate duty bills of exchange, patent medicines, marine insurance, etc.), £15,475,824; from land tax, £1,065,537; from house duty, £1,978,596; from income and property tax, £13,234,992; from the post office £10,747,594; from the telegraph service, £2,642,329; from crown lands, £507,319; from Suez Canal shares, £279,155; and from various other sources, £3,416,663.

ACCORDING to the most reliable authorities the average rent of land in England is at the very least \$5 per acre. Less than ten years ago the property of English land owners was mortgaged to the extent of 57 per cent. of its market value, and it is now estimated that it is mortgaged to the extent of 65 per cent. In 1866 the estimate was 33 per cent, showing an increase in seventeen years of nearly 20 per cent, or an upward tendency, which it is safe to say under the circumstances of agricultural distress has continued since. In the same year the average ratio of the debt in England to each unit of the population was \$225. In Germany the land mortgages in 1869 were 51 per cent., the average debt per unit of population being \$190, and what is perhaps a better

test—as it is also a new country—is in the case of Australia, where the average indebtedness was \$200.

“IMMIGRATION from the two States of Dakota into Manitoba promises to be so large this season as to form an important portion of the total immigration for the year. Last fall quite a number of prospectors from Dakota visited Manitoba and other parts of Western Canada, with a view of sizing up our advantages. Many of these went away well pleased with what they saw here, and promising to return in the spring with their families and friends, as permanent settlers. These promises have been realized to quite an extent, and already this spring quite a number of Dakotans have crossed the boundary to settle on this side. Considerable emigration work has been done in Dakota, in the interest of Western Canada, by the railway companies and the Government, and a systematic plan is now proposed of carrying on this work, by which the Dakotas would be thoroughly canvassed. Those coming from Dakota to Manitoba are mostly Canadians, who left Eastern Canada some years for the west. Their experience in prairie farming will make them valuable settlers for Manitoba.”—*Winnipeg Commercial*.

“IT will now be in order for some genius to write to the *Empire* stating his opinion that the lynching of the Italians in New Orleans is a strong argument against reciprocity.”—*Toronto Globe*.

“It certainly is a strong argument against annexation, with which reciprocity is a synonymous term.”—CANADIAN MANUFACTURER.

“We thought THE MANUFACTURER would be equal to the emergency. Passing by the crass crankism that makes reciprocity and annexation synonymous terms, we suggest that the organ of the combines give some attention to the new annexation-reciprocity movement just inaugurated by Sir John Macdonald's Government.”—*Montreal Herald*.

This journal has never been opposed to a limited reciprocity with the United States, but it is decidedly opposed to unrestricted reciprocity, which could not but briefly precede annexation. The *Herald* may safely leave this business in the hands of Sir John, where the people confided it.

At a recent meeting, in Montreal, of the Society for the Protection of Women and Children, Mr. S. Carsley, a dry goods merchant of that city said:

“The legislators have so arranged the tariff at Ottawa that the poor have to pay towards the support of the Government in revenue at a much higher rate proportionately than the rich. The duties on the materials used by the poor are higher than the duties on the materials used by the wives and families of the men who make the laws.”

The manufacturing industries of Canada have been advanced to a position where they can supply about all the needs of the poor in the way of dry goods, etc., at prices lower than ever before—much lower than before the existence of the N. P.—and none but the wealthy who can afford to pay for fine and expensive foreign goods upon which high duties are levied need buy any other than Canadian made goods upon which no duties are levied. Perhaps Mr. Carsley's argument is what he offers to poor people who go to trade with him when he wants to explain the reason for the high prices he charges for Canadian made goods.

THE census of Massachusetts shows some curious facts. While the growth in the ten years since 1880 in the population of Massachusetts has been 25.57 per cent., the growth in

the same period in those manufacturing cities turning out \$10,000,000 worth of product or more annually has been 42.81 per cent. While the agricultural town languishes, the manufacturing city prospers. While the average percentage of gain in population in Massachusetts from 1880 to 1890 was 25.57 per cent. the percentages of growth in its industrial cities display marked variations. For instance, in the "textile" cities and towns the gain was 32.75 per cent.; in the "boot and shoe" cities and towns, 23.71 per cent.; in the cities and towns which lead in the manufacture of "metals and metallic goods," 36.58 per cent.; in those cities and towns in which the manufacture of "leather" is the leading industry, 29.02 per cent.; in the cities and towns which lead in the manufacture of "paper and paper goods," 44.23 per cent., and in the "furniture" towns, 36.62 per cent. The greatest gain has been made in the so-called "paper towns," notably in Holyoke, with its increase of 62.61 per cent.

SPEAKING of the reciprocity recently effected between the United States and Brazil, the Manchester, Eng., *Textile Mercury* says:—

"The world has almost become accustomed to regard Great Britain as a vast gold mine, which every one can plunder. We are, therefore, expected to buy of all, and to be satisfied with selling in return what little we can in the face of hostile tariffs in every civilized community on the face of the earth. But this latest attempt to cripple us should surely make even Cobden turn in his grave. We cannot complain where there is no discrimination shown against us, but can scarcely be expected to continue to exist as the leading commercial nation if such countries as the United States are to use their retaliatory and reciprocitarian powers for the purpose of obtaining advantages which enable them to sell goods abroad at prices twenty-five per cent. lower than those at which our own can be offered. The move of the Washington Government is calculated to have as malignant an influence on our interests on the American continent as Napoleon's famous decree, had it not been practically rendered ineffective by the guns of a powerful navy, would have had upon English trade in Europe."

It is dawning upon Great Britain that if the world will not come to her free trade Mohamet, she will have to go to the world's mountain of protection.

ADVICES from England indicate that the colossal enterprise by which Sault Ste. Marie is to be made one of the biggest manufacturing centres on the continent, is likely to be a success. The company is organized for utilizing the enormous water power of Lake Superior, and constructing very extensive works in the vicinity of Sault Ste. Marie. The waters of Lake Superior fall at the Sault about thirty feet to the level of Lake Huron, the velocity being recorded by Gen. Powell, of the United States service, as a little more than 90,000 cubic feet a second. Careful and accurate measurements and calculations show the actual velocity and volume of water to be 122,000 cubic feet per second, equivalent to 236,000 horse power. This company intend to build a tail race five miles long on the Canadian side, and a canal five miles long on the American side. These canals will be each 1 000 feet wide, the widest in the world. They will construct large dry docks on both sides, to be filled and emptied by gravitation. On the Canadian side all the principle works will be above the rapids, and on the American side below the rapids. Blast furnaces and shipyards,

and it is expected paper mills, flour mills and other industries will be established, whose motive power will be supplied by this company, or by one of the several subsidy companies which it is expected will be formed.

'ONE effect of the United States protection tariff is that, rather than pay the enormously increased cost of certain articles, inferior substitutes of the same are being made in the country. As an example of this, we may state that the high duty placed on pearl buttons, with the view of reviving their manufacture, has led to the introduction of a substance known as vegetable ivory, which is utilized in imitations. This new button is nothing like as handsome as pearl, but it is claimed that it does not break so easily, nor does it break the thread or the button-holes, whilst the pearl button does all this, and hence the new substitute is likely to take the place of pearl to a very great extent. We have no means of judging the merits of the 'ivory' in question, or to test the accuracy of the statement as to its wear; but the practice of foisting shams on the market is a fair instance of what the Americans are being driven to by their untenable protective policy."—*The Manufacturer, London, Eng.*

If what *The Manufacturer* don't know about the button industry on this side the Atlantic could be manufactured into building materials, there would be enough of it to construct a railway to the moon. There never was a pearl button industry in the United States until the McKinley bill induced the transfer of it from Europe. The manufacture of vegetable ivory buttons has been in existence both in Canada and the United States for years, and it is a large success; but vegetable ivory buttons are not made in imitation of pearl buttons, nor is their manufacture "foisting a sham" on the American or any other market.

IT is the desire and the evident intention as far as their influence goes of an element in the United States to force Canada into annexation. A Philadelphia contemporary, *The Manufacturer*, declares:

"While Canada is a British dependency, shut out from free access to our market, it will remain weak and poor, and that is just the condition in which the Dominion should remain unless it is to become a menace to this country. As for the matter of annexation, there is good reason for the assertion that the more rigid our policy of exclusion of Canadian products, the greater will become the presence of public opinion in the Dominion in favor of annexation. The dollar argument will outweigh every other consideration when the Canadians find that annexation is the sole condition upon which free trade with us will be permitted."

The American Eagle feels chafed and uncomfortable with the British Lion reposing on its northern border. It considers the presence of the Lion a menace, but what is it going to do about it? Canada is neither weak nor poor, nor does the dollar argument outweigh all other considerations with Canadians, which fact marks a great difference between Canadians and Americans. Canada would like to live at peace and have commercial intercourse with the United States, but she does not desire free trade, and would not accept it if offered. *The Manufacturer* is unduly alarmed. The British Lion will remain a near neighbor to the proud Bird of Freedom, but he will not be imposed upon.

"THE McKinley bill, with the hearty approval of the mass of the American people, has considerably narrowed the market in

this country for Canadian products, and the consequences are likely to be calamitous to the farmers of the Dominion. Their relations to the United States, in a commercial sense, are of far more importance to them than to us. The question for them is whether they shall trade in the greatest and richest market in the world or shall confine themselves to the domestic market, which is one of the smallest and poorest. The trade of Canada is of insignificant consideration to Americans who have free access to their own market."—*The Manufacturer*.

Without doubt the McKinley bill has considerably narrowed the American market for Canadian farm products, and we suppose that this is precisely what it was intended to accomplish. It was intended to be calamitous to the farmers of the Dominion, the hoped for result being annexation. Our American friends do not bear in mind the fact that Canadians are Anglo-Saxons who cannot be driven to forswear their heritage through such petty annoyances as the McKinley bill subjects them to. It is a mistake to suppose that the consequences of the hostile American tariff are as calamitous as our contemporary suggests. When the time arrives that the manhood and independence of Canadians depend upon such favors as their American neighbors may be disposed to show them, when it is the avowed intention to force Canada into the American union, then let Canada perish. But she will not perish, neither will she accept annexation. The world is wide and Canada will carve out her own destiny.

THE Louisiana Sugar Planter publishes a communication from a correspondent at Watsonville, California, which gives some idea of the value of a beet sugar factory to a community, and prompts us to enquire why the industry is not established in Canada. The Planter's correspondent says:—

"The Western Beet Sugar Company is making contracts for four foot redwood, to be delivered next fall. The price is \$3.50 per cord, which is considered good by woodmen. The company will want 7,000 cords, and much of it has been contracted. The wood will be used in place of coal, and it means that nearly \$25,000 additional will be disbursed by the beet factory in Pajaro valley this year. Most of the money will go to men who are clearing off mountain land for orchard cultivation, and this money will not only be a big and timely aid to them when received, but will hasten the time when their places will be entirely cleared and in fine bearing. The beet factory has disbursed close to \$500,000 in this section (the cost of the machinery is not included) for labor, beets, material, etc., since our citizens gave the company the factory site. Most of that money went into local circulation, and it quickened and aided every branch of business in the community. Without the beet factory Watsonville would have been a very quiet town for the past three years. What stir it has experienced in that time has been due to the factory. It is to-day the largest and most complete beet sugarie on the continent, and has been the pioneer of what promises to be one of the great interests of the country. The people of Watsonville and its merchants should have the kindest feeling for Superintendent W. C. Waters and the stockholders of the Western Beet Sugar Company, and when opportunity offers they should give this enterprise the assistance of their kind words. Our people encouraged it to locate here, and in return it has done much—very much—for the town."

"BRITISH manufacturers of agricultural machinery and appliances appear to show a lamentable lack of enterprise in the introduction of their implements into French agricultural districts. The French Department of Agriculture holds each year a succession of fairs in every important agricultural district. At these gatherings all kinds of machinery applicable

to agriculture are tested in competition, and prizes, medals and diplomas are awarded. French implement manufacturers are notably behind in their productions, which entirely lack novelty, and are not very efficacious. As a consequence, the contests most frequently result in the victory of foreign competitors, and of these the American manufacturers are the most successful. There is absolutely no reason why Great Britain should not take some considerable portion of these awards, and by this means introduce her products into a country where, as is perpetually being shown by consular reports, there is a very great demand for all classes of agricultural implements. From recent accounts it is shown that mowers, reapers, binders, hay-tedders, horse-rakes, hay-presses, threshers, cleaners, drills, ploughs, harrows, cultivators, horse-hoes, all kinds of hand-tools, scythes, garden tools, fencings, barbed wire, etc., etc., are frequently enquired for; the great desideratum in the machinery being lightness, combined with durability and efficiency. We consider this subject so important that we have obtained from the French Minister of Agriculture full particulars and dates of the principal *con-cours régionaux* which are to be held during the coming season, and our readers will find every information in our Exhibition columns."—London, Eng., *Manufacturer*.

The Massey Manufacturing Company, of Toronto, were awarded the highest prize at the recent Paris Exhibition for the best displayed agricultural implements. These representative Canadian goods embodied those great desiderata in such machinery—lightness combined with durability and efficiency. This concern do a large export trade to France and other countries.

THE Sherbrooke, Que., *Examiner* is in favor of free trade and direct taxation on general principles, but strongly in favor of protection when the interests of Sherbrooke are involved. There is a close financial connection between the Paton Manufacturing Company, of Sherbrooke, and the Quebec Worsted Company, of the city of Quebec. It will be remembered that an explosion in the Quebec works a short time ago caused such great damage that the works were shut down, and now it is found by the proprietors that it will be to their interest to consolidate the two concerns either at Sherbrooke or Quebec. The citizens of Quebec, realizing the fact that they may possibly lose an important industry, have petitioned the municipal corporation of their city to offer a valuable bonus to the Worsted Company as an inducement to rebuild their works and remain where they are. On the other hand the Sherbrooke people know that if the works of the Worsted Company are not removed from Quebec the works of the Paton Company will be removed from Sherbrooke, and so the citizens of Sherbrooke are proposing to bonus the Paton Company to remain where they are, and to bring the Worsted Company there also. The *Examiner* calls attention to the fact that Sherbrooke is to a great extent dependent for its financial prosperity upon the continuance of its manufacturing industries; that if these industries should be lost the city would feel the effects very painfully, and that real estate would depreciate rapidly in value. Within the past few months Sherbrooke has lost the Edison works, which have been removed to Peterborough, and anxiety is felt that the Paton mills may also go; and the *Examiner* urges that the granting of a bonus to retain the Paton works would be a profitable investment for the place. Of course the granting of a bonus by either of these cities is in the direct line of the N P that encourages the establishment of just such

industries in Canada, by the imposition of tariff duties, and with-out which neither of these concerns could exist in Canada. We suggest to the *Examiner* that consistency is a jewel.

LORD SALISBURY has recently delivered himself of some exceedingly sensible views on the rights of labor. At a meeting of the Associated Chamber of Commerce, held in London in March; speaking of labor unions he said "union was not the discovery of agitation, was not invented by any particular man, nor was it the result of any set of political institutions. The people who made trades' unions and employers' federations were Watt, who invented the steam engine, and Wheatstone, who invented the electric telegraph. They were the result of the easier communication which exists between all mankind compared to what existed in the days of our grandfathers; and apart from all questions of politics and questions of agitation, it must needs be that as the means of communication increase men who have the same interests and are fighting with common dangers will unite together more and more, and combine their interests in common action. All we had to hope was, not that this spirit should abate, but that it should go on and have its perfect work, and that all who are united by common interest should be guided by common counsel to do that which was wisest and best for themselves and the community in their judgment." "But," continued the Premier, "the correlative of unions is perfect freedom not to have unions. The corollary of liberty of uniting is the absolute liberty of refusing to unite, and the State, all who bear office, or who exercise influence in this country, are bound to do their utmost that each man in his own discretion may use his own liberty to dispose as he thinks best of every commodity, including that greatest of all commodities, his labor, according as he may judge his own interest to be. That is not a mere controversial proposition; it lies at the base of our national character and our national existence. Either Englishmen must absolutely change their characters so that they shall be as unlike anything which they have ever been before, or they will continue to require that each man shall be free in his own actions to carry on his own industry. You may have what political movement you please, you may have what vicissitudes of parties or changes of Government you like, you will find that in the long run facts will be stronger than sophistries or theories, and that the facts will require that men shall work as they please, and not otherwise."

"LORD SALISBURY'S Government has not been altogether so vigilant on behalf of British trade with Brazil as circumstances required. The Pan-American Congress should have put the Foreign Office on its guard. It was known that the United States were eager to conclude a treaty with Brazil; and that the new Republic was not unwilling to receive the advances of the Union. But the British Government persisted in regarding the Republican *regime* at Rio as a house of cards, which ought to be ignored. Ministers, apparently, were inadequately informed; and Lord Salisbury, busy with Newfoundland, African and Egyptian affairs, for once allowed Mr. Blaine to steal a march. The treaty of reciprocity between the United States and Brazil was quietly signed and it comes into force to-day. By its chief provisions certain articles produced in the United States are relieved from import duties, and a reduction of 25 per cent. is made on others. Great Britain, having no commercial treaty whatever with Brazil, is left out in the cold. Lancashire is likely to suffer very severely

by the new treaty. American drillings and other cotton textiles will now be pushed into the Brazilian markets, to say nothing of many other United States manufactures which preferential treatment will send on the way rejoicing. Among others we may instance the boot and shoe trade. Of all foreign markets importing British-made boots and shoes that of Brazil is by far the largest; and Northumberland, Leeds, Leicester, and Bristol will probably soon find their Brazilian trade cut off by makers of foot gear in the Eastern States."—*British Trade Journal*.

All the vigilance that Lord Salisbury's Government could have possibly displayed, and as imperative the requirement of the circumstances, could not have placed it in their power to do for their country what Mr. Blaine did for his. Lord Salisbury's Government have not yet acquired the knack of making something out of nothing, and they had absolutely nothing to offer the Brazilians in exchange for such favors as was accorded to the United States. But Mr. Blaine, in behalf of his Government, had something to offer that the Brazilians wanted badly—a free market in the United States for their coffee, hides and sugar. This free market they had not had and could not get only by agreeing to admit certain American products into their country free, and certain other products at greatly reduced duties. Brazil had free access to the British market—all countries have it—and, therefore, Lord Salisbury had no lever by which he could force Brazil to show such favors to Britain as she now shows to the United States. The British Premier may wince and squirm, and British journals may apologise and try to explain why Britain's greatness and supremacy is fading away, but Britain can never again hold her own unless she acquires a power that will enable her to dictate terms. Protection alone will do this.

HERE is another protectionist American journal that can't sleep comfortably because the British Lion is a near neighbor to the American Eagle. This is the way the *Philadelphia Textile Record* views it:—

"Because reciprocity with Brazil may be a good thing for this country, reciprocity with Canada is not necessarily desirable. Brazil now buys much more from us than we buy from her; but in the case of Canada the balance of trade is largely in our favor. The products of Brazil which we purchase are tropical products, such as we can never obtain from our own resources. Canada, on the other hand, produces little or nothing which we cannot find at home. Most of the commodities imported to Canada may be bought in this country more cheaply than they can be bought in Europe; but most of the articles imported to Brazil may be had at lower prices in Europe than in the United States. When we offer to Brazil free entry to our ports for certain of her productions, we remove tariff protection from no American product, excepting sugar; but any reciprocity arrangement we make with Canada will involve removal from many American commodities of the protection now accorded them by the tariff. It is also to be considered that Canada can never become rich and strong unless it can arrange to trade freely with the United States, and it cannot be to our interest to have a wealthy and powerful nation in the great region to the north of us, so long as that region belongs to the British Empire. Every just man hopes there will never be any warfare between England and this country; but if hostilities should at any time occur, it would be greatly to our disadvantage that our three thousand miles of northern border line should be held by a strong colony of England's rather than by a weak one. Few Americans covet possession of Canada, but Canada should not be permitted to

acquire the free access to the American market which is the privilege of citizenship until it consents to cast in its lot with ours."

The value of merchandise imported into Canada from the United States, in 1890, amounted to \$52,291,973, and the value of Canadian products exported to the United States in the same year amounted to \$40,522,810. This shows an excess of imports over exports of \$11,769,163, and if the *Textile Record* will investigate the matter it will discover that a very large proportion of this more than \$52,000,000 worth of American goods sold to Canada were manufactures. The fact is, last year the United States sold to Canada more merchandise than she sold to all the States of South America. If, then, it is the policy of the United States to have reciprocity only with those States that produce little or nothing which is found at home, thereby barring out Canada from any reciprocity of trade, and in view of the fact that the McKinley bill was intended to injure certain Canadian industries, why should Canada not impose discriminating duties upon the products of such nations as levy a duty of five cents a dozen upon eggs? Canadian fat cattle are worth ten dollars per head more in England than American cattle: and Canada might well go into the raising of fat cattle for the English market, utilizing her hay and coarse grains for that purpose, instead of sending them to the United States, even if they were admitted there free of duty. The *Textile Record* may rest assured that that three thousand miles of border separating the two countries will never be changed, and that it will always be held by a strong colony of England's, or by an independent Canadian nation.

## 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. Subscription \$1.

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 call at the premises of JAS. R. BUCHANAN, Lowell, Michigan.

FOR SALE, A VALUABLE CANADIAN PATENT.—The Trenholm Improved Perpetual Hay Press, patented 1882, has been manufactured in New Brunswick for nine years, and stands without a rival in the Maritime Provinces. As it has not been introduced in the Upper Provinces, the purchaser can, if he manufactures there, get practically a complete control of the business in Canada, as this machine is cheaper, stronger, earlier running and more durable than any other Press of its class, and is well protected by patent. Full investigation invited. Terms easy. Write for particulars to A. J. TRENHOLM, Sussex, N.B.

A RISING TOWN.—The Town of West Toronto Junction possesses exceptional residential and business advantages, and promises to speedily become the chief manufacturing centre of the Dominion. This town has the following railways, viz: Grand Trunk Main line (Carlton West Station); Northern Division of the Grand Trunk (Davenport Station); The Toronto, Grey and Bruce, and Credit Valley, and Ontario and Quebec Divisions of C.P.R., and Belt Line Railway (now in progress). The town offers to large manufacturers free sites, water at cost and exemption from taxation. Any information regarding the same will be given upon application to ROBT. J. LEIGH, Town Clerk, or D. W. CLENDENAN, Mayor.

WEST TORONTO JUNCTION ENTERPRISES.—The ten large factories which have located at West Toronto Junction during the past three years are all doing large trades. The "Barnum Iron and Wire Works," the "Toronto Rolling Mills and Forging Company," and others about to locate will swell the paying industries of the town and augment its population. A large number of fine residences and business blocks have added to its appearance and to its facilities for supplying the peoples' wants. A perfect fire alarm system (the "Gaynor"), and an efficient system of water-works, both now in operation, with sewers, electric lights and improved streets now contemplated, will add to the protection and the comfort of the people and their houses. Free sites, free water and exemption from taxes are inducements offered to first-class manufacturers, and it is now acknowledged by all that Toronto's western suburb, with its great continental railway connections, is destined to be among the most prosperous cities of Canada. Dr. Carleton is Chairman of the Factory Committee.

THE *Ladies' Home Journal* for June will have an article in its Boys' Department on the "Ins and Outs of Base-Ball," by the popular Buck Ewing, captain of the New York's, in which the famous catcher will tell how to play the game; how to form a nine; the hardest positions and how to fill them; how to throw a ball, etc. This is Ewing's first article, and it said to be the best ever written for boys on this great game. Sister Rose Gertrude has written another article for the *Journal*, which will appear in the June number, on "What it is to be a Leper," in which she gives a clear glimpse of leper life in Molokai; how the disease is contracted and cured, and how the lepers live in their exile.

MESSRS. JOHN LOVELL & SON, Montreal, have sent us "Lovell's Historic Report of the Census of Montreal," to which is added the report of the town of St. Henry, St. Cunegonde, St. Louis de Mile End, Coteau St. Louis, Notre Dame des Neiges and Outremont, all of which border on the limits of the city of Montreal. The contents of the book include all the data to be expected in such a work, including portraits of many of the leading men of the city and biographical sketches of their lives; illustrations of all the public buildings, churches, etc., and descriptions of them; an exceedingly interesting historical sketch of the city from its foundation, etc. The book is well got up, and testifies to the enterprise of the publishers.

THOSE who have not seen the *Dominion Illustrated* since it has been so much enlarged and improved should secure a sample copy at once. Both from the literary and artistic point of view the *Illustrated* is a credit to Canadian journalism. The prize competition, which has been inaugurated with the double purpose of conferring benefit on readers and publishers, consists in finding in current numbers of the journal the answers to thirty-six questions, six of which are published every month. The prizes aggregate over \$3,000 in value. There are 100 in all, the lowest being valued at \$5. The first is \$750 in gold. On receipt of twelve cents in stamps the publishers (the Sabiston Litho. & Pub. Co., Montreal), will send to any address a sample copy with full particulars.

THE Dominion Dyewood and Chemical Company, Toronto, have sent us an exceedingly handy, concise and neatly bound copy of *Metrical Tables of Weights and Measures*, showing percentage for dyeing certain quantities of goods; also tables showing measures of capacity and length; long measure, showing conversion of metres into yards, and yards into metres; fluid measures, showing equivalents of litres and gallons; conversion of kilograms into English pounds, ounces and grains, and *vice versa*; conversion of English weights and prices into German weights and prices; conversion of English gallons and prices into German litres and prices; weights of different countries; conversion of different thermometric standards into each other; conversion of German and English money standards into each other, etc. The book is of a size convenient to be carried in the pocket, and cannot but be exceedingly useful to those for whom it is intended.

MR. J. S. OGILVIE, 57 Rose Street, New York, has sent us "Palliser's American Architecture, or Every Man a Complete Builder." This exceedingly useful book is by Messrs. Palliser, Palliser & Co., well known architects of New York, and has been prepared with great care and accuracy. The title sufficiently indicates its character, the aim being to present a variety of plans which, with few changes can be adopted to the requirements and individual tastes of those about to build, whether in town or country. The plans have all been built from and their practicability proven, giving also correct figures of cost, which might be varied to circumstances and locality. The book is a plain and practical aid to people who desire to build at moderate cost, teaching the enquirer what are his requirements, and imparting ideas to enable him to meet them. Those who may desire further information should communicate with Mr. Ogilvie at above address.

It is not yet too late to enter the *Dominion Illustrated* prize competition, in which, at the end of six months, prizes to the value of \$3,000 will be distributed. The first prize is \$750 in gold, and the list includes a Heintzman piano, Bell, Karn and Cornwall organs, gold watches and other valuable articles—100 in all. The smallest is valued at \$5. The competition consists in finding in current numbers of the journal the answers to thirty-six questions, six of which are published each month. For sample copy and full particulars send twelve cents in stamps to the publishers, the Sabiston Lithographing and Publishing Company, Montreal. The *Dominion Illustrated* is the only high-class illustrated weekly published in the Dominion, and no pains are spared to make it more and more worthy of the praise of the home circle. With every sample copy is sent out a circular with rules and particulars of the prize competition now going on, and which any new subscriber may enter. The prizes aggregate over \$3,000 in value.

THERE are many taking features in the April *Wide Awake*, with its frontispiece of white lilies:—"Chollemyisses' Afflicted Holiday," by the author of "Cape Cod Folks"; "Egg-Rolling at the White House on Easter Monday," by Prof. Mason, of the Smithsonian Institute; a quintette of admirable short stories, "The Mysterious Choir Boy," by Henry Kirke White, jr., "Hong Wing's Sea Voyage," by Elizabeth Cumings, "The Story of My Bank Book," by Louisa Trumbull Cogswell, "A Lost Story," by Anna Leach, and "The Cock of Sebastopol," by M. M. Steel; two natural history papers, "A Precious Bug," by Amanda B. Harris, and "Concerning Bats," by Grant Allen; an exquisite mother-song by Mrs. Mary E. Blake, and a Tuscan "Stornelli," by Mrs. Cavazza, with a beautiful picture by Irving R. Wiles; an outspoken Margaret-Patty Letter, by Mrs. William Clafin, and no end of short articles, pictures and poems. The serials are captivating this month:—"Five Little Peppers Grown Up," by Margaret Sidney, "Cab and Caboose," by Kirk Munroe, and "Marietta's Good Times," by Marietta Ambrosi. *Wide Awake* is \$2.40 a year. D. Lothrop Company, publishers, Boston.

"ARMED ITALY—Her Strength by Land and Sea," is the title of an article in *The Illustrated American* for the week ending April 18th, which is not only interesting in itself, but exceedingly timely in view of the consequences of the New Orleans tragedy. Illustrations are given of soldiers and war vessels. The New Orleans affair is further the subject of a cartoon by Nast. The familiar face and form of ex-President Grover Cleveland appear in a series of large, well-executed portraits of Presidential possibilities. Other portraits presented in the same issue are those of the late Earl Granville, Charles N. Felton, United States Senator-elect in California, and Mrs. Diggs, of the Farmers' Alliance. Some spirited sketches by Arthur Jule Goodman illustrate an account of the new play, "The Power of the Press." A long and splendid illustrated history of the development of the American railroad is given, and the perfection of modern communication is described. A discussion of the question, "Why Grouchy failed to go to the assistance of Napoleon at

Waterloo?" lends additional interest to the account of his career as one of Napoleon's Marshals. The regular department devoted to the affairs of women and to games continue to be edited with vigor and discrimination.

THE twenty-second volume of the *Columbian Cyclopedia* is announced as just ready. The entire set is to be completed the present year, in thirty-two volumes, aggregating about 26,000 pages. Its price is remarkably cheap, only \$25 for the entire set, with easy instalment terms to those who want them. The high character of the work is vouched for by innumerable witnesses, among others by Prof. Jas. Strong, S.T.D., editor of *McClintock & Strong's Cyclopedia of Biblical, Ecclesiastical and Theological Literature*, who speaks of it as follows:—"The *Columbian Cyclopedia* seems to me to strike a happy medium between the loose, superficial works, and the too elaborate and profound ones, which few are competent or desirous of using. Most of the larger general cyclopedias are overloaded with a mass of technical science and official detail that is embarrassing and useless to ordinary readers. The *Columbian* is eminently practical, sufficiently full, carefully compiled, well got up, convenient in form and extent, remarkably cheap, and, as I should judge, admirably adapted to families and general consultation. I think that if properly presented to the public it will have a very wide sale, and be an exceedingly useful work. There is ample room in the market for a cyclopedia like this, which combines, likewise, the advantage of being an excellent dictionary of the English language." For free specimen pages, address the publishers, The *Columbian Publishing Company*, 393 Pearl Street, New York.

THE Humbolt Publishing Company, 28 Lafayette Place, New York, have sent us the following volumes of their Humbolt Library; "Mind and Body; the Theories of their Relation," by Alexander Bain, professor of Logic in the University of Aberdeen; "Seeing and Thinking," and "Conditions of Mental Development," by William Kingdom Clifford, F.R.S.; "Hereditary Traits," and "Illusions of the Senses," by Richard A. Proctor, F.R.A.S.; "The Diseases of Memory;" "The Diseases of the Will;" "The Diseases of Personality," and "The Psychology of Attention," by Th. Ribot, Professor of the College de France; "Illusions; a Psychological Study, in two parts," by James Sully; "Aesthetics; Dreams and Association of Ideas," by James Sully and Geo. Croom Robertson, "The Morphine Habit" (Morphinomania), by Professor B. Ball, M.D., of the Paris Faculty of Medicine, and "Hypnotism; Its History and Development," by Frederick Bjornstrom. These fourteen books relate with more or less directness to psychology, and are from the pens of the best thinkers of the age. Hypnotism and its strange and wonderful effects upon the human mind and body is fully discussed; and as this subject is at this time receiving renewed and marked attention throughout the world, these books, which are published at the low price of fifteen cents each or \$1.90 for the series, free by mail, cannot but be an acquisition to the library of the student.

#### THE PRODUCTION OF IRON AND STEEL IN ONTARIO.

At a recent meeting in Toronto of the Geological and Mining Section of the Canadian Institute, Mr. W. H. Merritt, F.G.S., read the following paper on "The Production of Iron and Steel in Ontario."

The year before last I visited the Laurentian iron producing district in New Jersey, and you will remember I read a paper with a view of pointing out the mineralogical and geological similarity between that iron ore producing belt, which stretches round through the north of New York State, and our iron ore producing territory in Eastern Ontario. The pleasing point to me, beside the similarity of occurrence, was the proved permanency of these ore beds, one which I visited being worked at a depth of 600 feet, and in several places along a length of two and one-half miles. As a rule, abandonment of these deposits has come not so much from the lack of ore, or the exhaustion of the veins, but from heavy expenses, etc., when too great a depth has been reached.

The yield in 1887 was:

For New York State .....	1,266,000
For New Jersey State .....	447,738

Total .....

1,713,738 tons.

Of this amount nearly all the New Jersey output was magnetite, and in New York State 926,000 tons were magnetite, 185,000 tons were hematite, 43,000 tons limonite, and 112,000 spathic ore. I was able also to point out that, as a rule, these New Jersey ores contained more phosphorus than our Eastern Ontario ores.

Last year, after visiting the Vermillion, Goegebic, Menominee and Marquette iron ranges on the north-west and southern shores of Lake Superior, I read before you a paper on these ranges for the same reason that I had treated on the New Jersey deposits, namely, because it has been proved, in the case of the Vermillion range, that it runs into Canadian territory to the south-west of Port Arthur, and it is also by no means improbable that we may find similar ranges on the north or east shores of the lake, where we have vast areas of rocks of the same geological formation. In fact, as I was able to point out, the mode of occurrence and the formation (save the jasper) is very similar to the deposits at Sudbury, though the iron in the latter case is a sulphide instead of an oxide. This latter fact alone served to magnify, in my opinion, the importance of the Sudbury deposits.

The magnitude and richness of the above mentioned Lake Superior iron ranges would, if justice were done to them, read almost like a romance. In 1890 (last year) they produced 8,893,146 tons, or, to give some practical idea of this quantity, it would represent a train load of iron ore passing a given point about every twenty minutes, day and night, during the whole year.

We have been told that the iron ores of the United States were becoming exhausted and that they, therefore, must have our ore.

In my paper I pointed out that it was not correct, and since then the Lake Superior mines turned out half as much more ore last year as they did in 1889.

The statement that they must have our ore is also misleading, for it takes us away from the great question of developing and utilizing our own iron ores.

Year succeeds year and still we remain content with a half-hearted "iron policy," and import our iron and steel from England or from the United States, save a very small portion which is manufactured in Nova Scotia.

While we are standing still let us note how things are progressing across the border. I find in the New York *Mining Journal*: "More than 10,250,000 of tons (of 2,000 lbs. each) is the grand total of the production of pig iron in the United States for the year 1890, an increase of 1,750,000, or more than 20 per cent. over the product of 1889." The following table, also from above paper, is of interest:

Production of Pig Iron in United States.	Net Tons.
1860.....	919,770
1873.....	2,868,278
1882.....	5,178,122
1890.....	10,260,000

The *Journal* also states: "The production of pig iron in Great Britain in 1889 was 9,234,776 net tons." It is estimated that it will not exceed this amount in 1890.

"The United States has therefore surpassed Great Britain for the first time in the production of pig iron."

"Our estimate of the production of steel ingots in the year 1890 is 4,900,000 net tons, and of steel rails 2,200,000 net tons."

We produced in Canada 25,921 tons of pig iron in 1889.

In the United States they produce '67 of a ton of pig iron per capita of the population. In Canada we produce '005 of a ton of pig iron per capita of our population. Or, in the United States each person has 134 times as much pig iron manufactured for him in his own country as he would have if he lived in Canada.

This comparison is drawn not for the purpose of belittling the efforts of those among us who are striving to build up our metallurgical industries, but to invite attention to the disparity which is exhibited in the working results, and which no one can believe legitimately exists in the possibilities of the two countries.

I boldly make the assertion that Canada's greatest deficiency lies in not producing her own iron and steel.

We have built magnificent railroad systems, have created splendid steamship lines, and are constantly projecting others. These may be said to be our greatest works, but what are they but iron and steel?

What if we had produced it all in Canada, and were now manufacturing, that which will be useful in all the newly projected railroads and steamship lines, to say nothing of all the multitudinous requirements of everyday consumption of the king of metals? We can say at least that there would be a million more people in Canada to-day.

We cannot point to any nation in the world that amounts to anything which does not manufacture its own iron and steel.

One who has never visited a "black country" cannot conceive the stupendous scale of each member of the family of industries that goes to make up the creation of iron and steel. First, the under-

ground world teeming with miners to produce the ore and coal, or the busy neighborhoods where the forests supply charcoal, the great traffic of these products to the railroads to some central point for smelting, the men day and night round the blast furnaces, the swarm of workmen at puddling and rolling the product, if iron, or converting the pig into steel and then rolling it. In all of these the consumption of nearly every product is so prodigious that a thousand other trades are permanently benefited—from the farmer, who produces food for the workman, to the cloth maker, who turns out his Sunday clothes.

Let me quote a paragraph from the controversy between Mr. Gladstone and Mr. Blaine. Mr. Blaine writes as follows: "Mr. Gladstone may argue for Great Britain as he will, but for the United States we must insist on being guided by facts and not by theories; we must insist on adhering to the teachings of experiments which 'have been carried forward by careful generalizations to well grounded conclusions.' Mr Gladstone boldly contends that 'keeping capital at home by protection is dear production, and is a delusion from top to bottom.' I take direct issue with him on that proposition. Between 1870 and the present time considerably more than 100,000 miles of railroad have been built in the United States. The steel rail and other metal connected therewith involved so vast a sum of money that it could not have been raised to send out of the country in gold coin. The total cost could not have been less than \$500,000,000. We had a large interest to pay abroad on the public debt, and for nine years after 1870 gold was at a premium in the United States. During those years nearly 40,000 miles of railway were constructed, and to import English rail and pay for it with gold bought at a large premium would have been impossible. A very large proportion of the railway enterprises would of necessity have been abandoned if the export of gold to pay for the rails had been the condition precedent to their construction. But the manufacture of steel rails at home gave an immense stimulus to business. Tens of thousands of men were paid good wages, and great investments and great enrichments followed the line of the new road and opened to the American people large fields for enterprise not theretofore accessible. I might ask Mr. Gladstone what he would have done with the labor of the thousands of men engaged in manufacturing rail, if it had been judged practicable to buy the rail in England? Fortunately he has given us his answer in advance of the question, for he tells us that 'in America we produce more cloth and more iron at high prices, instead of more cereals and more cotton at low prices.'"

Yet we rich Canadians can well afford to send out money for our iron and steel and go on borrowing. You are probably aware that a Commission reported last year on the mineral resources of Ontario, and in connection therewith some information was given about this question of iron and steel smelting. The report states on page twenty-one: "The industry is of first-class importance, and every proper means should be taken to secure its establishment in Ontario;" also on the same page: "It is unquestionably in a country's interest not only to smelt its own ores, but to refine and manufacture the metals, providing always that the various operations can be carried on economically and without taxing other interests indefinitely for their maintenance."

I think the few notes I have given will have shown that there certainly exists a great gap in the chain of our national development, for who will deny that iron and steel are the backbone and sinews of a nation?

- The next two questions which inevitably follow are:
1. Can we make iron and steel; have we the materials?
  2. Have we market for it if made?

I shall be obliged to answer these important questions shortly, but I think satisfactorily.

I shall not allude to Nova Scotia, where smelting is carried on, and where in more than one locality ore and coaking coal occur at no great distance from one another. But in Ontario I have shown in the commencement of my paper that parts of the greatest iron producing ranges of the United States run into Ontario, and that, geologically speaking, there is no question about the quantity of iron ore available. Furthermore, the considerable quantities of ore produced in the past in Eastern Ontario, as instanced in a very interesting paper by Mr. T. D. Ledyard, read before the New York meeting of the American Institute of mining engineers last September, and many other sources, leave no room for doubt that the supply of good ore will be forthcoming in the future.

There will, of course, be many disappointments about individual occurrences of ore as there have been in the past, and much expensive and heavy work lies in front of those who undertake the prospecting and development of our iron ores to supply the steady demand of smelting. But this steady demand would be met, and further, on account of it, developments would be made which would



prove the possibility of our supplying foreign demand if it should arise.

With regard to fuel, I may draw your attention to the facts embodied in the Mining Committee's report, which carry out the fact so long recognized, that there is no more favorably situated district for charcoal iron smelting in North America than Eastern Ontario. In this connection I would add that the Rathbun Company, of Deseronto, is shipping large quantities of charcoal to the United States, and it is a known fact that for a long time charcoal has been shipped from Essex to Detroit chiefly for iron smelting purposes.

With regard to coke, let me briefly remark that the Illinois Steel Company at Chicago produced last year the largest output of steel rails of any firm in the United States—nearly a million tons (exact amount 925,000 tons), and we would not have to bring our coke or ore so far to the works—say at Toronto.

A new and great factor in steel making, as you all know, has recently appeared, Mr. James Riley, of Glasgow, and others, showed that structural steel could be improved in quality by alloying it with from one to five per cent. of nickel, and carrying out the tests on a larger scale; recent experiments at Annapolis proved that armor plate made of steel containing nickel was superior to any other plate.

These facts and the statement in the *New York Mining Journal* in connection with the Sudbury deposits (and which my observations lead me to believe are correct) "that the Canadian mines alone could supply the whole demand in the world even if the other sources did not produce anything," give to us a new interest in this question of manufacturing steel, as well as gratifying information as to the supply of this new element which, without doubt, will enter into its composition in the future.

I shall, lastly, briefly touch on the question of market. I merely allude to home market, for what foreign demand might spring up for a superior grade of nickel steel, did we make it, I shall not attempt to predict.

The fact that I previously pointed out that a man living south of the 49th parallel has produced for him in his own country 134 times as much pig iron as if he were located to the north of the said line, seems to prove to me one of two things, namely, that there is a great deficiency that can be legitimately made up by smelting and manufacture, or that the average Canadian is lower in the scale of civilization than I believe him to be.

I think if the matter were thoroughly investigated that a Canadian uses per capita as much iron and steel as an inhabitant of the United States.

As to the amount of the consumption. I do not think I could quote anything more disinterested as authority than the geological survey of Canada. In the report for the year 1887-88, page 37 of part S, we find that "during the years 1886 and 1887 there were imported for consumption into Canada 345,000 tons of pig iron and 283,000 tons of steel. If to this is added the amount of pig iron consumed as such, it will be seen that, excluding all the iron and steel entering into such highly manufactured articles as cutlery, surgical instruments, edge tools, machinery of all kinds, engines and many other hardwares and manufactures, there was a total consumption equivalent in pig iron in 1886 and 1887, respectively, to about 415,000 tons and 356,000 tons. If made in the country, this quantity of pig iron would represent to our makers at actual prices a value of about \$5,000,000; it would necessitate a yearly supply from Canadian iron mines of 1,000,000 tons of ore, and, before this ore could be smelted into pig iron and further made into the different mercantile articles of iron and steel, which are now imported, it would also require about 3,000,000 tons of coal."

Taking this amount, say 400,000 tons (which we must believe is constantly increasing from year to year), we have the product of twenty-seven to twenty-eight blast furnaces being used per annum in Canada, instead of what we often hear—that one blast furnace would glut our market. I take the basis of furnace output, the standard adopted by Mr. Bartlett, alluded to in his evidence before the Mining Commission.

I would refer you as having a most important bearing upon this matter to the sworn statement of Mr. J. H. Bartlett, of Montreal, which appears as evidence given before the Royal Commission on the mineral resources of Ontario—page 396 and following pages. Mr. Bartlett is the author of a book on the manufacture, consumption and production of iron, steel and coal in Canada. I might add that he is also one of the ablest and most authoritative writers on the subject in Canada, both from the standpoint of theory and practice, and his evidence contains an epitome of many of the most important facts and statistics bearing upon it, and I would strongly urge its perusal by all interested.

In 1879, after I had been for some time at smelting works in

North Staffordshire, I wrote an article, "A Few Words About Iron," in the *Canadian Monthly*. In it I pointed out that iron of the finest quality was being produced at that time in North Staffordshire for \$5 a ton, while it was costing \$20 a ton at Pittsburg to smelt a Bessemer grade, prices in both cases not including management, interest, etc. I then stated that I was at a loss to know how we in Canada were to build up our iron and steel industries under a smaller protection than the United States.

I have yet to be enlightened on that point, and the existing state of affairs seems to indicate that no satisfactory basis has yet been arrived at. It would surely be better to have no protection than a half-hearted one, which is a tax on the consumer and yet one which will not build up a national industry.

The expenses in connection with the establishment of smelting works are so enormous that without a policy which says, "We are going to smelt our own iron and steel," little can be hoped for.

But once that policy is adopted, whether by protection or by bonus, and the gigantic industries can be launched and set running, and we shall have taken a greater step in the commercial development of our country even than by the building of the Canadian Pacific Railroad.

This question is one of immense, nay, of vital, importance to us who are citizens of Toronto. There ought to be no point more favorably situated. Iron ore can be brought from the North-East, nickel from the North-West and coke from across the lake. The magnitude of the operations can be realized when I say that, from my personal knowledge, one private works in England paid in wages alone \$40,000 a week.

And not only Toronto, but the whole Province would be benefited if we smelted our own iron and steel. Iron ore occurs in so many parts that it is difficult to say what part of the Province might not be directly benefited by mining, besides the general renewed prosperity it would give to the whole Dominion.

SIR BENJAMIN BAKER, writing on the Chignecto Ship Railway, states that, "in the future there will be many instances throughout the world in which ships will be loaded on to special trucks and be transported overland by rail from point to point, instead of doubling remote headlands or passing through canals which have cost so much money to construct, that, like the Panama Canal, they have involved their promoters in financial disaster." The hydraulic lifts and machinery for the Chignecto, he says, together with the hydraulic traversers for shunting laterally sections of the cradles with small coasting vessels on them off the main line on to the siding, have been almost completed and shipped by the manufacturers, Messrs. Easton and Anderson, London: the cradles are well advanced at the works of Messrs. Handysides; the earthworks of the line and docks remaining to be done are only about one-eighth of the total quantity, and the whole of the permanent way—the rails weigh 110 pounds to the yard—has long been on the ground. It will be seen, therefore, that as little remains to be done but the completion of the masonry and the erection of the machinery, there is good reason to hope that the much-debated question of ship railways *versus* ship canals will soon receive a practical answer by the opening of the Nova Scotia undertaking.

MESSRS. GOLDIE & McCULLOCH, Galt, Ont., have sent us their illustrated descriptive price list having reference to the wood-rim split pulleys now being manufactured by them. These pulleys are quite different in their construction from other wood split pulleys in that they are made with cast iron hubs, which are bored out accurately to fit the shaft, to which they are clamped by four bolts which fastens them securely to the shaft, without any danger of their slipping, or springing the latter. The arms for all above eighteen inches in diameter, are made of wrought iron tubes screwed securely into the hub. For the smaller sizes the arms are of cast iron. The rim is of properly seasoned hardwood, kiln-dried to prevent any shrinkage after being built into the pulley. The arms are properly secured in the rim by a device for which a patent is now pending. We are informed that it is now generally conceded that a wooden pulley will, under the same conditions, transmit more power than an iron one, owing to the greater adhesion of the belt, the increase being variously estimated at from 25% to 50% or upwards. The wooden pulleys are also much lighter, averaging only from 40% to 60% of iron pulleys. Messrs. Goldie & McCulloch say that in order to meet the wants of many of their customers they commenced the manufacture of these wood-rim split pulleys, and have introduced into their shops special machinery for their manufacture which will enable them to produce a superior pulley at a very reasonable price. They also supply iron bushes for these pulleys, so that when required any pulleys may be used on a smaller shaft than it has been fitted for.

# 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. Subscription \$1.

MESSRS. FORD & Co. are erecting a large planing mill at Sudbury, Ont.

MR. JAMES A. SHARP is removing his lumber mill from Inglewood, Ont., to Sudbury.

THE British Columbia Tanning Company, Vancouver, B.C., will increase their capital stock \$15,000 and will add to their business the manufacture of shoes.

THE Nelson Smelting and Mining Company, Nelson, B.C., has been organized with a capital stock of \$500,000 and will erect smelting works at that place.

THE Victoria Canning Company, of British Columbia, has been incorporated at Victoria, B.C., with a capital stock of \$500,000 to acquire and operate a number of salmon canning factories in that province.

A DYE house is to be established in connection with the Western Woollen Mills at St. Boniface, opposite Winnipeg. The company intends doing custom work in addition to their commercial work.—*Commercial.*

THE John Doty Engine Company, Toronto, have secured the services of Mr. O. P. St. John, for many years boiler inspector at Toronto, and assigned him to duty as their soliciting agent in British Columbia.

A CANNERY, saw-mill and box factory will be erected at Chilliwack, B.C. A large amount of building is now going on, about twenty buildings being in course of erection at that place, amongst which is a large hotel.

SEVEN car loads of material shipped by Mr W. H. Law, of the Central Bridge Works, Peterboro, Ont., has been received in Toronto for the Belt Line Railway, to be used in the bridge crossing Yonge street, north of Mount Pleasant Cemetery.

THERE is great activity at the local saw-mills, the demand for lumber being more than ordinarily large. Indeed, so anxious are the builders to obtain their supplies, that the very greenest of material is eagerly made use of.—Victoria, B.C., *Colonist.*

THE formal transfer of the Hastings Saw-mills and the Royal City Mills at Vancouver and New Westminster to the British Columbia Mills, Timber and Trading Company, has been effected. The mills will still continue to be under the same management.

A CONSIDERABLE amount of work has lately been done at the British Columbia Terra Cotta Works. Two new boilers have lately been placed in the pipe mills, and a large steam engine. Besides these, there are large kilns for making the sewerage pipes.—Victoria, B.C., *Colonist.*

FIRE in Cote, St. Paul, near Montreal, on April 4th, destroyed the File and Spring Works of Messrs. Duffy & Hutchins, loss about \$30,000 and the Bell foundry of Mr. C. O. Clarke, loss about \$10,000, and damaged the hat factory of Mr. Joseph Godin to the extent of about \$6,000.

THE Maine Company, who own extensive timber limits on the Keswick river, New Brunswick, will build a wood pulp mill near Zealand, that province on the line of the C.P.R. They will also erect on the same railroad, at Cardigan, a saw mill and necessary buildings to manufacture fruit boxes, brushes, broom handles, lasts and small hardwood ware.

AT Tidnish, the contractors for the Chignecto ship railway have been busy the last three months blasting the rock in the channel entrance, preparatory to dredging. There are now in frame at Fort Lawrence, two scows 60x20x7 feet, and one dredge 80x35x8 feet. The dredge is to clear out the mouth of the Laplanche river after the dock gates are put in.

THE Westminster Slate Company, Westminster, B.C., has been formed, with a capital stock of \$100,000, to purchase Jervis Inlet slate quarry, near that city. The slate is of first-class quality, of a uniform blue color, without flaws or impure matter in it, splits easily and is said to cut much closer than the Bangor product. It takes holes without breaking or cracking.

THE first of the sealing schooners that are being built on False Creek, Vancouver, was successfully launched from Leamy & Kyle's mill on Monday morning. This is the first vessel that has been built in Vancouver for sealing purposes. There are now four sealing schooners, four steamers and five scows being built on the shores of False Creek.—Vancouver, B.C., *News.*

MR. W. W. PLEWES, of Brantford, Ont., was present at a recent meeting of the Calgary, Alberta, council and desired to obtain some definite information in regard to the offer of the city to grant a site and exemption from taxation for the erection of a flour mill. If the matter can be arranged satisfactorily, Mr. Plewes will at once order machinery for a 100 barrel mill and will at the same time begin building operations.

MESSRS. AHEARN & SOFER, proprietors of the electric street railway now about being built in Ottawa have closed with the Westinghouse Electric Company for their new gearless motors and the whole electrical equipment, which will be of the most modern make. It is expected that the first consignment of cars will reach Ottawa about May 5th. It is anticipated that the rails will arrive about the 25th inst., when the work of construction will be commenced.

THE Watson Manufacturing Company, is making an iron lawn roller which is the handiest and most convenient implement of the kind we have seen. It is so constructed as to turn without the slightest trouble on a space of its own width, is of diameter to make it easily rolled, has a balanced handle, which always remains upright, and out of the way when not in use. We can most cordially recommend this roller to any one requiring such an implement.—*Galt Reporter.*

HON. R. W. SCOTT, of Ottawa, is organizing a company for the manufacture of glass, and will locate the works at Welland, Ont., if that town will give the enterprise a bonus of \$25,000. Mr. Scott states that his company propose starting with one ten-pot furnace, which will give employment to sixty men, to which will be added during the following year, another furnace, giving employment to from 150 to 200 hands, with a capacity of turning out \$100,000 of work annually.

THE Jenckes Machine Co. at Sherbrooke, Que., has just completed a very large colliery winding engine, sixty tons in weight, ordered by the Intercolonial Mining Co., for work at their mines at Westmill, Nova Scotia. The engine is a double one with cylinders 28x60 inches, fitted with Cornish valve gear, and is 500 horse power. The drums are ten feet in diameter, and will wind over 5,000 feet of rope each, and it is intended to hoist seventeen boxes of coal at each lift from the slope of the mines, which are at present about 4,000 feet in depth.

AN electric tramway, said to be the first for this purpose in Canada, will be put in the New Vancouver coal mines at Nanaimo, B.C. The plant of which the first instalment will cost \$20,000, consists of an eighty horse power generator, and two thirty horse power electric locomotives, each of which will haul at a speed of nine miles an hour 150 loaded coal cars. Besides the electric tramway, other generators will be used to furnish a current for light in the mines, 600 of which will be used. The same current will also be employed in working electric coal drills and cutters.

MR. ALEX. CARTER has just finished a nut lock bending machine of his own invention for the Thomas Nut Lock Company, at the lock factory, which speaks well of Mr. Carter's mechanical abilities. The machine bends three locks at a time and is noiseless in operation. It will be sent to the United States, and two more like it built at the factory at once. Mr. Carter's baby carriage is well known as a neat piece of workmanship and carried off a special prize in the exhibition held here two years ago. Several parties are wanting to buy the patent hub on it which is claimed to be the best yet got up.—Moncton, N.B., *Times.*

THE sub-committee of the Waterworks Committee of the Toronto City Council appointed to examine tenders for the new 10,000,000 pumping engine for the Toronto Waterworks have recommended the acceptance of the tender of the Blake Manufacturing Company, of Boston, Mass. The tender provides for the building of one engine, with necessary boilers and connections, for \$54,418, allowing the city \$3,800 for the old engine. This practically makes the tender \$50,618. In making the tender the Blake Company undertake to give the Polson Iron Works Company, of this city, at least \$30,000 worth of the work to do.

MESSRS. E. JANNET AND P. BEAUDRY, connected with Count de Roffignac, who has founded the French colony at Whitewood, Assiniboia, have returned from Europe. Count de Roffignac's ambition is to transplant to this agricultural region a manufacturing village from the heart of France. The principle industries which he seeks to establish are the making of sugar, chicory and woollen

goods. He has spent the last ten years preparing Rolandie farm for this purpose, and now Mr. Jannet says the scheme is becoming a practical success. He engaged some forty employees during his recent trip to France. Cheese making will also be entered into. They have engaged an expert from Switzerland, who will oversee the manufacture of genuine Benvere cheese.

THE Dodge Wood Split Pulley Company, Toronto, report a steadily increasing demand for their pulley from all branches of power users throughout the Dominion. They have lately filled large orders from Northern Pacific Railway Company's shops, Winnipeg; Berlin Piano Company, Berlin, Ont.; Boynton Wall Plaster & Cement Company, Kingston; Toronto Electric Light Company, Toronto; Ross & Taylor, Exeter; St. John Gas and Electric Light Company, St. John, N.B.; R. Thackray, Ottawa; Jencks Machine Company, Sherbrooke, etc. They invite all users of power, mill men, etc., who have not yet investigated the merits of this pulley to do so without cost to themselves, as they furnish any pulley for thirty days trial, and if not satisfactory to be returned without charge. They mail, free on application, a handsome illustrated catalogue and price list, and solicit correspondence.

EX-CHIEF McROBIE, of the Winnipeg Fire Department, has invented a fire extinguisher which was tested recently in the presence of city aldermen and others. The test was made on a pile of pine shavings drenched with coal oil, the flames, which had been allowed to gain considerable headway, being extinguished the instant the liquid touched the burning wood. It was shown that the liquid and the fumes therefrom were deadly to fire by casual contact. Those who witnessed the exhibition concluded that McRobie has discovered a valuable extinguisher. The extinguisher is simple in regard to the method of application and is also cheap. The inventor claims that the fluid contains no acid, and is not harmful to the hands or clothing. He intends establishing a factory in Winnipeg for the manufacture of the extinguisher. This should just be the thing for the smaller country towns, where expensive machinery cannot be afforded.—*Commercial*.

A NEW dado machine has just been made by the Cant Bros. Co., of Galt, which shows various improvements on preceding ones. The machine is heavy and substantial, and all the joints in it are planed so that when bolted together the greatest stiffness and firmness are secured, a centre bearing, which is a distinct improvement, helping not only to strengthen the machine but to keep the heads always at the same level. The arbor is of steel and is supplied with four dado heads and two saws; but it will carry any desired number of heads which can be adjusted to any desired position, the two end heads carrying cut-off saws which simultaneously reduce the work to proper length. The bed, instead of having merely grooved slides, has wheeled slides on planed ways, thus making it much more easily and smoothly worked, while the material is held down by clamps. The depth of the dados made is regulated by the hand-wheel at the end of the machine. Material can be handled on this machine two feet wide and four feet long.

A most suggestive and unique procession of farmers' teams was seen in Stratford, Ont., last week. Led by a band of music, the procession consisted of a large number of teams of horses, each team drawing a self-binder manufactured by the Patterson & Bro. Company, of Woodstock, Ont., the cortege extending a distance of about two miles. It was the regular spring delivery of binders. The Patterson binder is an implement that represents the skill and capital of one of the largest, oldest and most successful concerns in Canada. Everything about the "Patterson" is as neatly made as if for use in the parlor instead of the field. Strength and durability are not sacrificed, however, for steel of the best quality is largely used. There is a double frame around the drive wheel, as contrasted with the single frame of others, and thus lightness and complete rigidity are secured. This enables the firm to boast that "the first cost is the only cost." That the machine has a gilt-edged reputation goes without saying, but that a sale of between one and two hundred should be effected so long before harvest reflects most creditably on the energy of all concerned.

SPEAKING of the works of the Edison Construction Company now being erected at Peterborough, Ont., the *Review* of that town says:—"The trestles for the roof have all been placed in position. This has been looked forward to as a heavy undertaking, but under the superintendence of Mr. Wade, the foreman, they were safely placed on their lofty perch in less than two days. There are fourteen of these trestles, each of them constructed of heavy timber and made secure by strong iron braces. Each of them was fifty-two feet in length, six feet high and weighed 3,600 pounds, they had to be lifted about fifty feet, and it will be seen that it was no child's work to place them in position. A gin pole was used, and, as stated, the work was accomplished expeditiously and without accident. The sheeting

of the roof will be pushed rapidly to completion. Inside the building everything that can add to the strength and standing powers of the structure is being done. The timbers throughout are heavy and solid, and thick iron girders are being stretched across the building and interlaced through the timber supports to add to their strength.

THE first mining firm in Canada to call electricity to its aid in the practical development and working of its property, is the New Vancouver Coal Company. Mr. Samuel M. Robins has long been studying the subject, and, having made up his mind that electricity is cheaper and safer than steam, he, yesterday, placed an order for the necessary plant, to cost, complete, between \$50,000 and \$100,000, with Mr. John S. Anderson, of the Edison Electrical Company, Portland, who passed through the city later in the day on his way home. The proposed electric plant will include an underground tramway, with power sufficient to maintain a uniform speed of eight or nine miles an hour, with 150 loaded cars continually moving. Six hundred incandescent lights are also to be used in the mines of the company, and the drills and cutters are to be operated by the same current. The engines, generators and other stock will come over from the other side in a few weeks, and be immediately put in position, and then in service. The New Vancouver Company will, in all probability, retain the honor of being the only firm in Canada mining by electricity but a very short time, as others are even now considering the subject.—*Victoria, B.C., Colonist*.

ONE of the busy, thriving and flourishing industries of Stellarton is the foundry and machine shop of Weir & Morrison. These shops are conveniently situated near the station house, and are exceedingly well fitted up with all the latest and best improved machinery for turning out first-class work of every description in their lines. The machine shops present a busy hive of industry. There you will see four laths, planer, milling machine, drill, cutting-out machine and several smaller and indispensable articles of machinery. The firm manufactures portable mills, stationery and portable engines, shingle mills, wood working machinery. They have just built a magnificent double service planer and matcher and have orders for three more. They are the only firm in the Maritime Provinces who make this machinery. Besides building such a large amount of new machines, the firm do a large business in jobbing of all kinds. They also expect to put in and fit up a lot more machinery this summer and will probably go into boiler making and blacksmith work. The foundry department is full and complete, the patterns modern and the work turned out of a superior quality. Their hot air furnaces are among the best in the Maritime Provinces and they expect a large trade.—*New Glasgow Enterprise*.

A DEFINITE estimate of the extent of our nickel deposits around Sudbury is found in the report recently made to the United States naval authorities by Commander Wm. Folger and Lieutenant B. H. Buckingham, of the United States' Navy. The report of these officers to their Government give the following summary of the acreage and operations of the three companies:

	Canadian Copper Co.	Dominion.	Vivian's.
Acres owned known to us .....	13,000	480	320
Additional claimed .....	.....	5,000	4,000
Amount of ore taken from mine to Oct.			
1st, tons .....	105,000	45,000	8,000
Daily crushing capacity, ore, tons....	1,200	400	150
Daily furnace capacity matte, tons ..	72	14	5

The estimate made by these gentlemen of the number of tons of nickle "ore above the surface of the ground in deposits seen by us," is: Canadian Copper Company, 650,000,000 tons; Dominion Copper Company, 2,500,000 tons; Vivian mine, 240,000 tons. There is something definite here, at all events. These are calm official figures and deliberate estimates by unprejudiced persons, very different from the spread-eagle statements and rose-colored guesses so often indulged in by mining prospectors or mineral enthusiasts.—*Monetary Times*.

THE house of the near future will have no fireplace, no steam-pipes, no chimneys, and no flues; and, of course, if there are no chimneys there will be no chimney sweeps to break people's morning rest. Wood, coal, oil and other forms of fuel disappear altogether in places having factories. Gas has become so cheap that already it is supplying fuels. A single jet fairly heats a small room in cold weather. A New York artist has produced a simple design for heating entirely by gas at a more nominal expense. It is a well-known fact that gas throws off no smoke, soot or dirt. The artist filled a brazier with chunks of colored glass, and placed several jets beneath. The glass soon became heated sufficiently to thoroughly warm a room ten feet by thirty feet in size. This design does away with the necessity for a chimney, since there is no smoke; the

ventilation may be had at the window. The heat may be raised or lowered by simply regulating the flow of gas. The colored glass gives all the appearance of fire; there are black pieces to represent coal, red chunks for flames, yellowish white glass for white heat, blue glass for blue flames, and hues for all the remaining colors of the spectrum. Invention already is displacing the present fuels for furnaces and cook ranges, and glass doing away with delay and such disagreeable objects as ashes, kindling-wood, etc.

SEVERAL new sawmills are talked of in British Columbia, at Liverpool, opposite McLaren-Ross mill; at Hall's Prairie; one by Clarence Debeck, a late partner in the Brunette Saw Mill Co., on the north-west coast of the mainland, with a capacity of 100,000 per day; one by N. Slught & Co., late of Michigan, at Steveston, near mouth of Fraser River; one by C. L. Street & Co., at Chilliwack, now almost ready and making a speciality of box lumber. The Victoria Lumber and Manufacturing Co.'s, new mill at Chemainus, will begin cutting early in April with a capacity of 200,000 per day. The Brunette saw mill starts again after completing some improvements and alterations. The McLaren-Ross mill is soon expected to be in full operation. Following is the cut of lumber by some of the principal British Columbia coast mills for 1890:—Victoria Lumber Manufacturing Co., 4,000,000 feet; A. McKinnon, Duncans, 500,000 feet; Moodyville Saw Mill Co., 18,620,000 feet; Royal City Planing Mills Co., 35,000,000 feet; Hastings Saw Mill Co., 30,000,000 feet; J. B. Tiffin, 3,800,000 feet; Burnette Saw Mill Co., 9,000,000 feet; Nanaimo Saw Mills, 6,000,000 feet. In the foregoing the Burnette Co. cut 3,000,000 with their old mill and 6,000,000 with the new one. They lost considerable time in building and moving into the new mill. The cut of Hastings is also small, as the mill has been thoroughly repaired and was prevented cutting while the same were going on. The Moodyville Saw Mill Co., cut laths, 22,500 bundles; Brunette Saw Mill Co., shingles, 3,000,000; G. F. Slater, Vancouver, shingles, 12,000,000.

The first annual general meeting of the Bell Organ and Piano Company, of Guelph, was held at London, England, on the 19th of March. The directors congratulated the shareholders upon the very satisfactory results of the first year's trading. The net profits for the twelve months ending November 30, 1890, amounted to £24,086 3s. 11d., which with the sum of £20 6s. 7d., interest on deposit and transfer fees, brings the total income for the year to £24,106 9s. 6d. as compared with £23,646 2s. 6d. for the previous year. After payment of the London expenses, there remains a balance of £22,950 8s. 5d. carried to the appropriation account. The directors now propose out of the profits to pay off the whole of the preliminary expenses amounting to £901 12s. 6d. and also to defray the interest on the purchase money payable under the contract, amounting to £9,417 5s. 8d. They have also to provide the interest on the debenture bonds to November 30, 1890, leaving a balance of £11,746 10s. 3d. available for dividend. Out of this the directors propose to pay a dividend at the rate of 8 per cent. per annum on the preference shares and 10 per cent. per annum on the ordinary shares, from the date of payment of the instalments, which will absorb the sum of £1,732 18s. 6d.; to place to a reserve fund the sum of £8,000 and to carry forward to the next account £2,013 11s. 9d. The chairman, in returning thanks, said the shareholders were very much indebted to their general manager at Guelph, Mr. Alexander, and also to their London manager, Mr. W. J. Bell, who occupied a seat on the board as hon. manager. They thought they could not do better than get the assistance of Mr. Bell, whose long experience of the business had been valuable to them.

ACCORDING to the report of the Secretary of State for Canada, just published, thirty-six joint stock companies were incorporated between January 1, 1890, and December 31st last, under the Dominion Act. The total capital stock of which amounted to \$7,320,000. Of these three had a capital stock of \$1,000,000 each. Of the others two had \$500,000, two \$400,000, three \$240,000, ten from \$100,000 to 200,000, five from \$50,000 to \$100,000, and eleven \$50,000 and under. Of the total number incorporated, the headquarters were at the following places: Halifax, N.S., one at \$75,000, New Glasgow, N.S., one at \$90,000; St. Johns, N.B., one at \$25,000; Charlottetown, P.E.I., one at \$400,000; Montreal, seven—two at \$1,000,000, two at \$100,000, one at \$30,000, and two at \$10,000; Ormstown Que., one at \$10,000; Toronto, Ont., seven—one at \$500,000, two at \$150,000, two at \$100,000, one at \$75,000, and one at \$20,000; Port Credit, Ont., one \$80,000; Merriton, Ont., one at \$500,000; Kingston, Ont., two—one at \$60,000, and one at \$50,000; Strathroy, Ont., one at \$150,000; Windsor, Ont., three—one at \$1,000,000, one at \$200,000, and one at \$100,000; Ottawa, three—one at \$25,000, one at \$20,000, and one at \$15,000; St. Catherines, one at \$25,000; Brantford, two—one at \$100,000, and one at \$25,000; Petrolia, one

at \$150,000; Winnipeg, Man., one at \$250,000; and Golden City, B.C., one at \$400,000. In addition to the new companies incorporated as above, three previously incorporated received supplementary letters patent, increasing their total capital stock by \$950,000, and thereby making the total amount of capital stock for the year 1890, \$8,270,000. The report will serve as a useful guide to those who are desirous of obtaining reliable information as to what the National Policy is doing for the Dominion of Canada.

We are sorry to find that by a misprint in our weekly of Saturday last it appeared that A. Robb & Son's machine shop had been burned. Far from that being the case we are pleased to find on calling on them this morning that their machine shop was undisturbed and is running full blast. Their sales-room also presents the appearance of activity and they seem determined to carry a fuller and more varied stock of supplies, etc., than ever before. Passing upstairs we entered the draughting room where we found the drawings etc., for new engines, which the firm are getting up, being prepared and put in shape. Leaving this department we passed through the pattern shops where we found a busy hum, and down and out of the building till we come upon the burnt district. Messrs. Robb had from the appearance of the place, lost no time in removing the burnt debris. They began that work last week before the fire was all out, and the contract was given on Saturday morning for a new building which is to be utilized as a boiler shop and foundry. Upon looking round we found that already the timbers had arrived from different sources and are all to be in shape for the force of builders coming in to-morrow morning. The contractor expects to have the building closed in this week and the firm expect to have the boiler shop in operation and to be casting in the moulding shop next week. When asked what provision they had made for their present orders the firm said that they intended to keep their boiler-makers at work on boilers out of doors, and that they had made arrangements to get their casting made elsewhere until they can get their foundry in operation. The Messrs. Robb do not seem entirely disheartened notwithstanding their second serious loss within so short a time, and although the loss has been heavy this time, as well as in the former conflagration, still they seem cheerful and say that they will be able to have all their machine tools put in shape by the time the building is ready next week and everything will then be running as it was on Thursday of last week. They also seemed more anxious than ever to get at least some of their permanent buildings started at once, which we hope they will be able to do.—Amherst, N.S., Gazette.

AN important announcement to manufacturers and traders in hosiery has just been made public for the first time, and carries with it very general interest to the public at large. Briefly, it is a patent by which the cost and character of cheap hosiery will be changed, if not indeed revolutionized. Students of the McKinley tariff, says an industrial journal, know that in the new schedules no attention was given to the old style of seamed stocking, because it has been taken for granted that this style of manufacture was superseded by the fashioned hosiery of to-day. For this reason, there was no change in the law, the advance being confined to fashioned goods. Foreign manufacturers thereupon made unusual efforts to see if they could not revive the old style of manufacture, so that it should be as popular as the present seamless hosiery. Among those that were at work on this problem was the famous house of Gebruder Herfurth, who rank among the leading hosiery manufacturers of Chemnitz and of the world. In due time these manufacturers devised a method which solved the problem. The stocking was cut as formerly from the piece, but by the new process the seam is so fine that it can scarcely be noticed, and causes no inconvenience to the wearer. At the same time, it gives good wear. Just as Gebruder Herfurth had perfected this idea, they found that several of their competitors had been studying the same problem, and that they, too, were about ready to put their inventions on the market. By prompt action, however, the Herfurths gained priority of application. Of course, they immediately applied for a patent in this country, but they found that a much earlier patent on file in our Patent Office substantially covered the ground. The patentee was looked up, and made an arrangement by which Seward & Tourtellot, agents of the Herfurth's in America, became the sole agents or assignees for the patentee. Hence the new invention is entirely protected both in Europe and in America. So admirable is this new machinery said to be, that by means of the process, Gebruder Herfurth are able to manufacture a cotton stocking at a price that will enable Seward & Tourtellot to import it into this country, and sell it to the trade to retail as low as two pairs for twenty-five cents. This is unprecedented in the history of hosiery, and those who are best qualified to judge predict a revolution in the trade.—Boston Advertiser.



**TENDERS.**

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for Indian Supplies," will be received at this office up to noon of SATURDAY, May 9, 1891, for the delivery of Indian Supplies, during the fiscal year ending June 30, 1892, consisting of Flour, Beef, Bacon, Groceries, Ammunition, Twine, Agricultural Implements, Tools etc., duty paid, at various points in Manitoba and the North-West Territories.

Forms of Tender, containing full particulars relative to the Supplies required, dates of delivery, etc., may be had by applying to the undersigned or to the Indian Commissioner at Regina, or to the Indian Office, Winnipeg.

Parties may tender for each description of goods (or for any portion of each description of goods), separately or for all the goods called for in the Schedules, and the Department reserves to itself the right to reject the whole or any part of a tender.

Each tender must be accompanied by an accepted cheque in favor of the Superintendent General of Indian Affairs, on a Canadian Bank, for at least five per cent. of the amount of Tender, which will be forfeited if the party tendering declines to enter into a contract based on such tender when called upon to do so, or if he fails to complete the work contracted for. If the tender be not accepted, the cheque will be returned, and if a contract be entered into for a part only of the supplies tendered for, an accepted cheque for five per cent. of the amount of the contract may be substituted for that which accompanied the tender; the contract security cheque will be retained by the Department until the end of the fiscal year.

Each tender must, in addition to the signature of the tenderer, be signed by two sureties, acceptable to the Department, for the proper performance of the contract based on his tender.

This advertisement is not to be inserted by any newspaper without the authority of the Queen's Printer, and no claim for payment by any newspaper not having had such authority will be admitted.

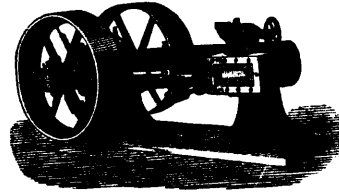
L. VANKOUGHNET,

*Deputy of the Superintendent-General of Indian Affairs.*

Department of Indian Affairs,  
OTTAWA, March, 1891.

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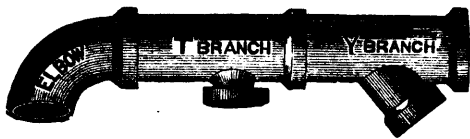
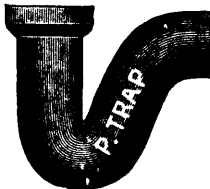
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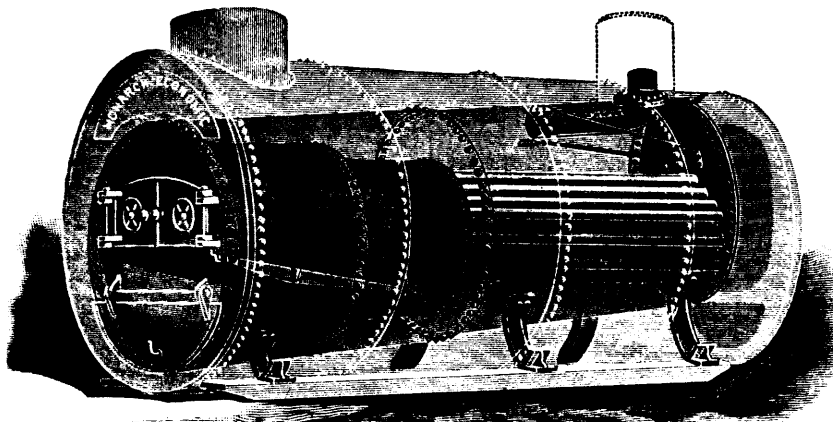
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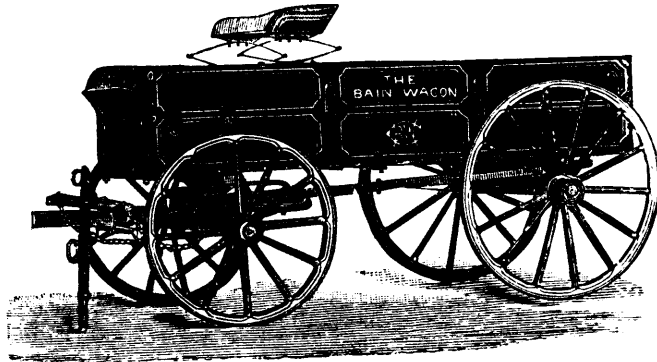
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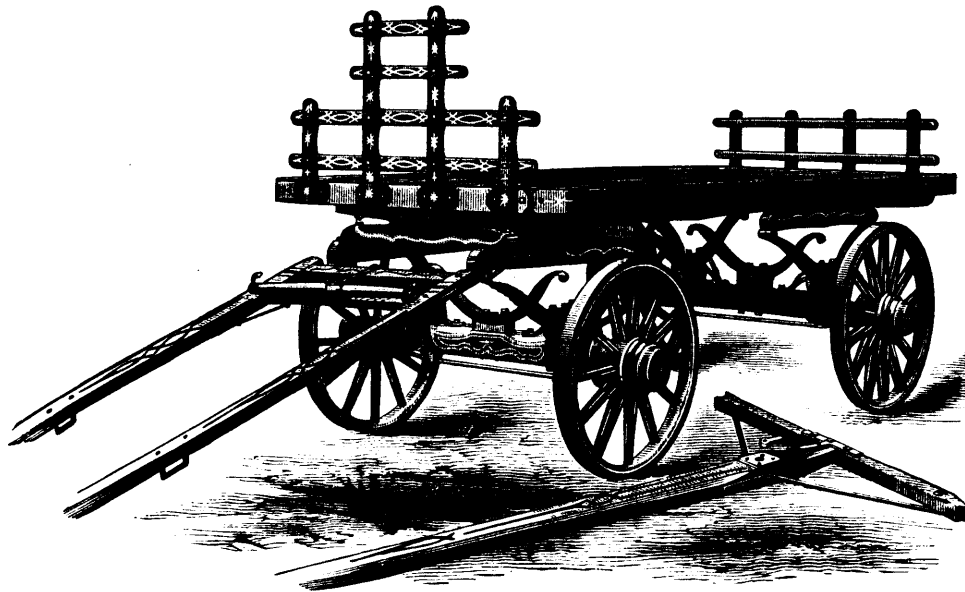
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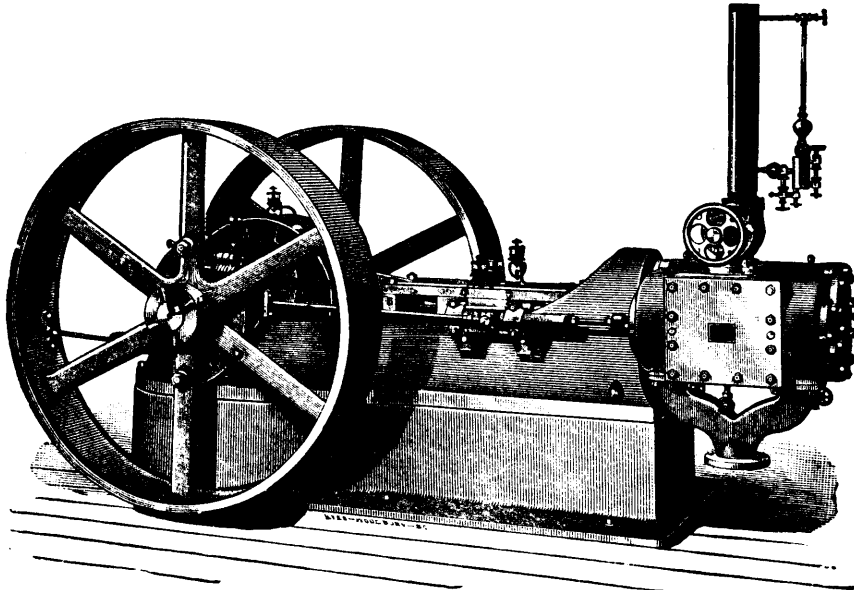
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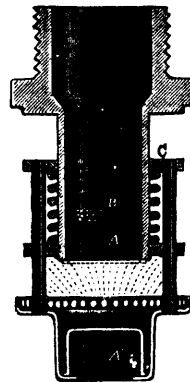
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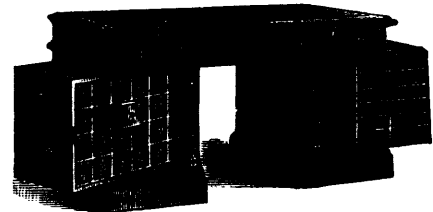
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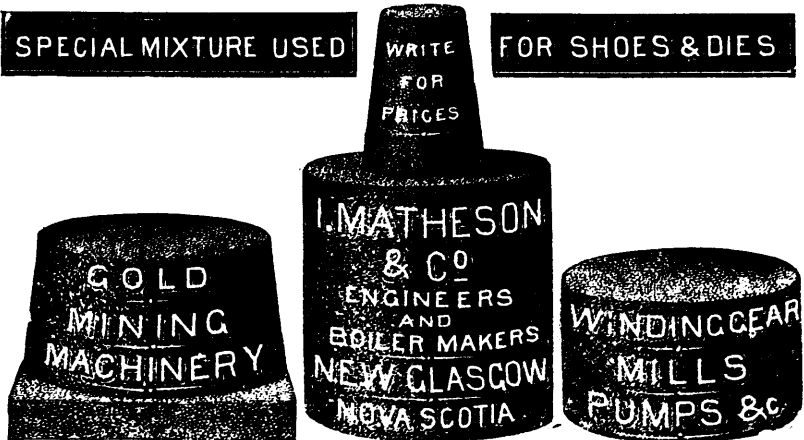
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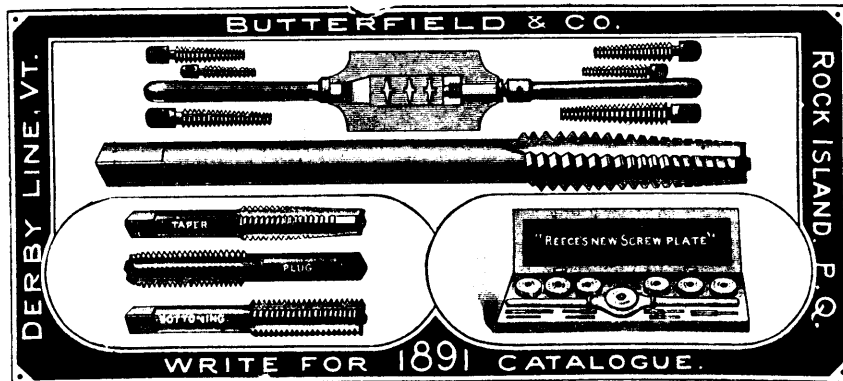


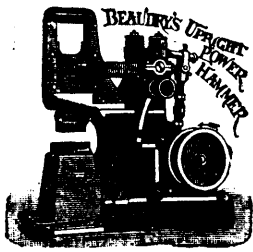
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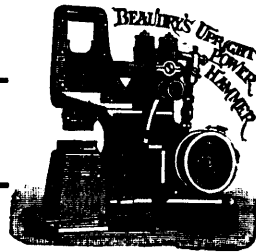
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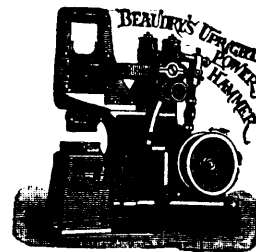




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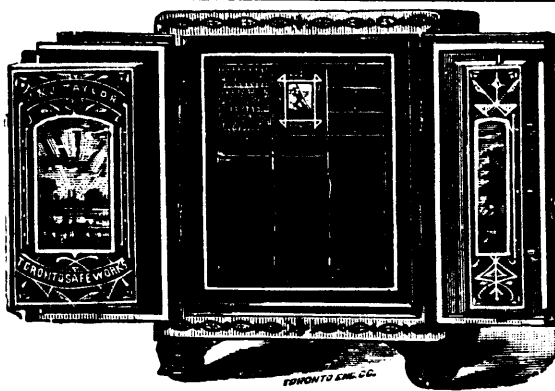


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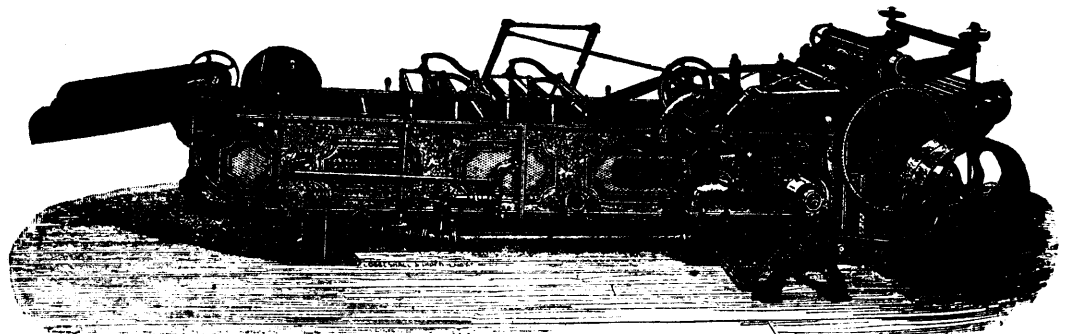
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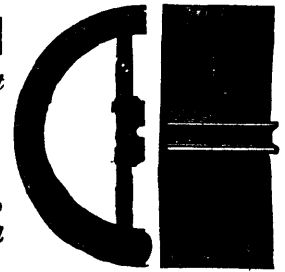
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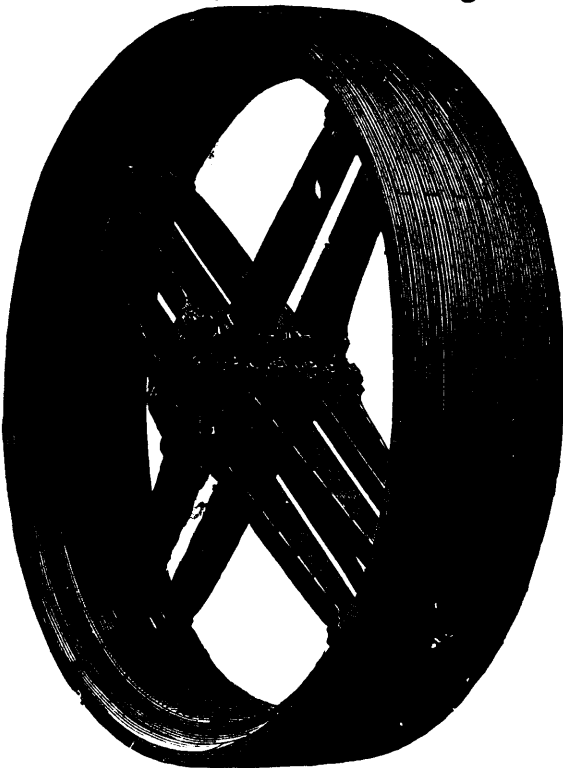
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We remain, yours truly,  
McDONALD KEMP & CO.

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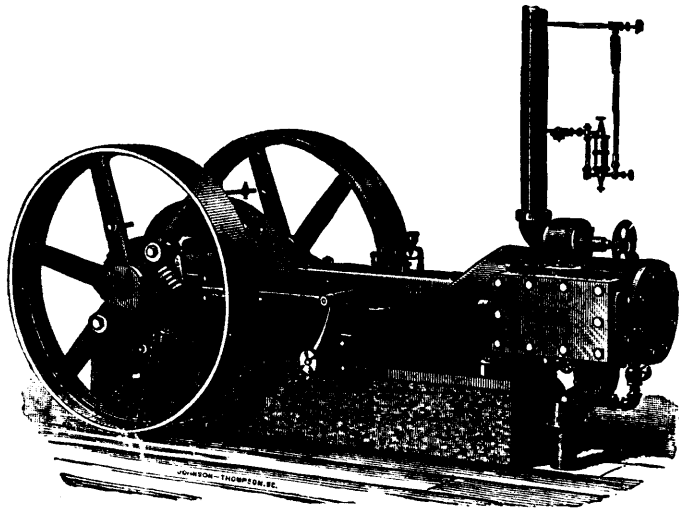
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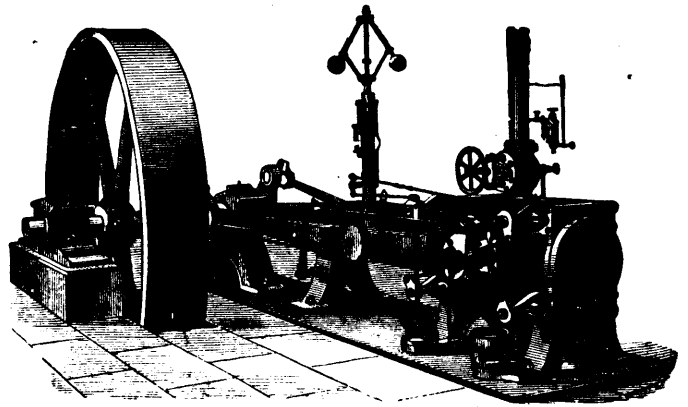
**TAKE NOTICE.**—Our List of Prices for the Dodge Patent Wood Split Pulleys is for all Split Pulleys.

We beg you will note this fact when comparing our List with others which are for Solid Rim, and not for Pulleys in halves.

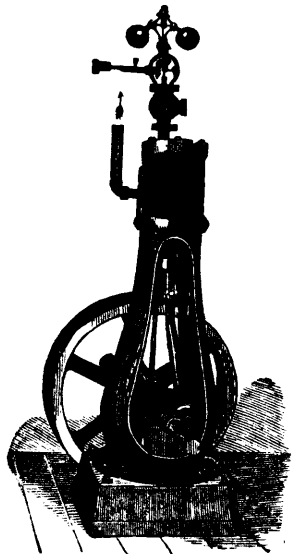




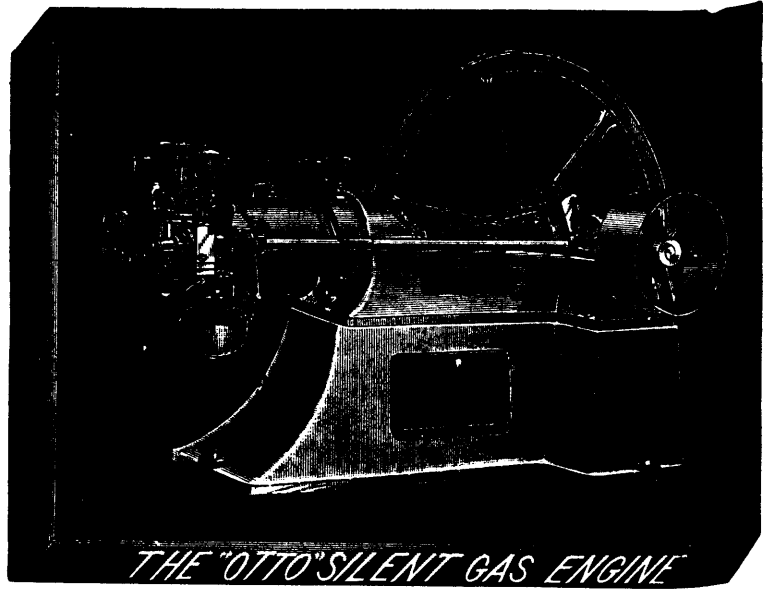
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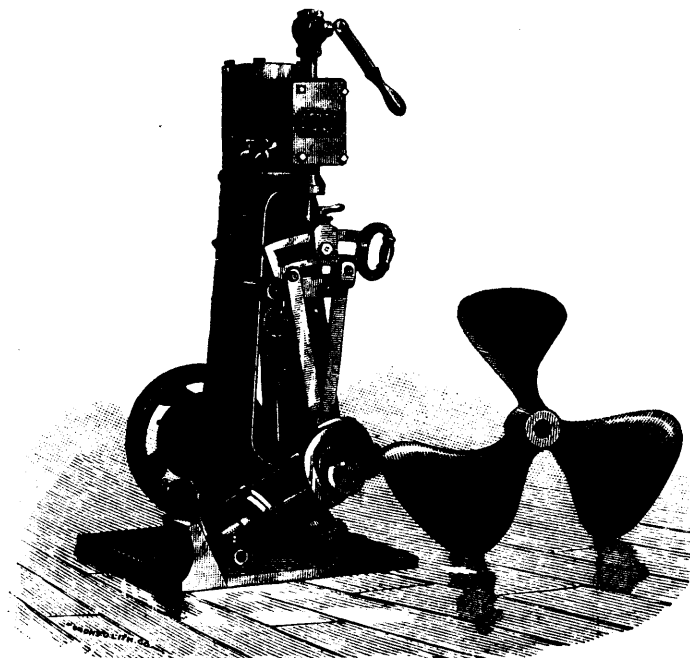
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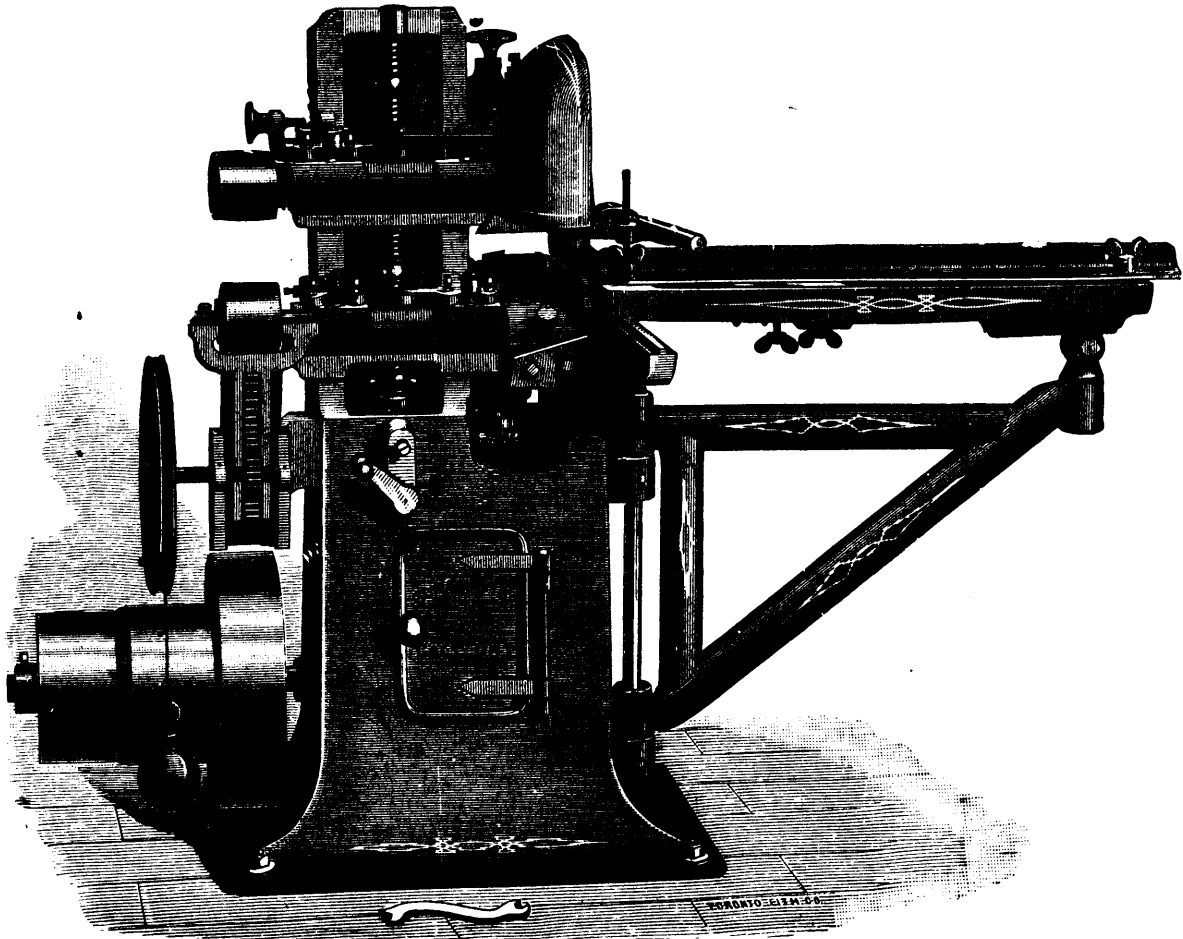
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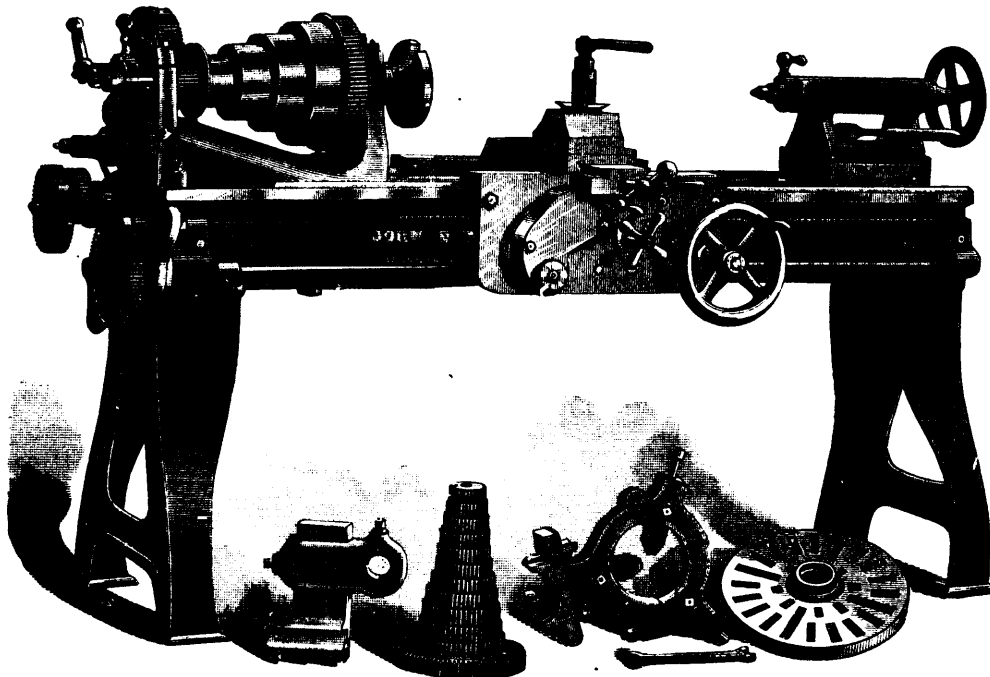
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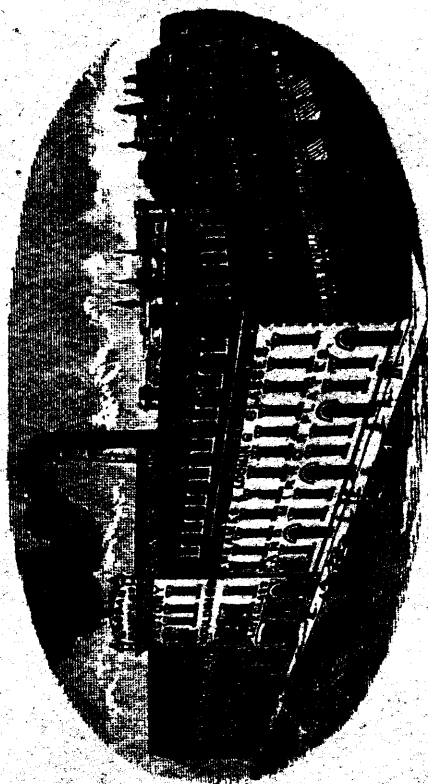
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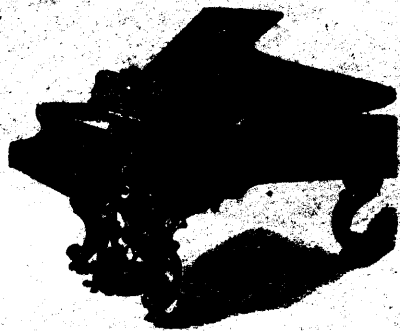
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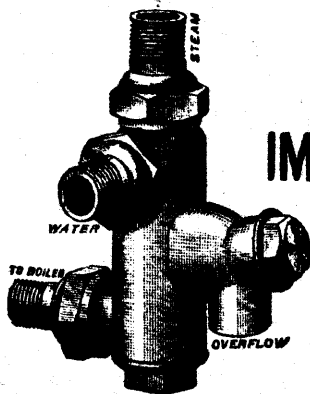
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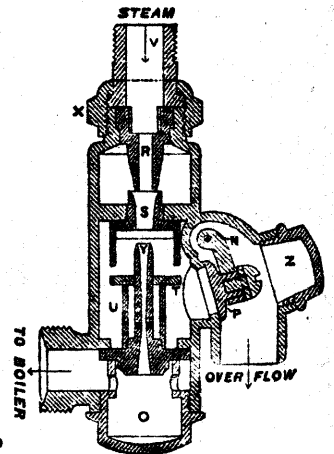
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**PROMINENT FEATURES ARE:** They start at about 25 lbs. steam pressure and work to 150 lbs. Lift water up to 20 feet, and work from a head as well. They require little watching, as, being automatic, they restart if feed to boiler is broken by air or sudden jarring. The parts are interchangeable and can be removed without uncoupling machine. Send for pamphlet to **PENBERTHY INJECTOR CO., Detroit, Mich.** Factory at Windsor, Ont. Handled largely also by Waterous Engine Works Co., Limited, Brantford; J. H. Taylor, Montreal; S. J. Shaw, Quebec; Park Bros., Chatham; McDonald & Co., Limited, Halifax, N.S.; A. R. Williams, Toronto.