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# THE CANADIAN MANUFACTURER

## DEVOTED TO THE MANUFACTURING & MINING INDUSTRIES OF THE DOMINION.

# INDUSTRIAL WORLD.

Vol. 6.

TORONTO, APRIL 15, 1887.

No. 8.

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# THE CANADIAN MANUFACTURER

DEVOTED TO \*  
THE MANUFACTURING & MINING INDUSTRIES,  
OF THE DOMINION. \*  
AND INDUSTRIAL WORLD.

VOL. VI.

TORONTO, ONT., APRIL 15, 1887.

No. 8.

## "COMMERCIAL UNION" AND "RECIPROCITY."

At a recent meeting of the Executive Committee of the Canadian Manufacturers' Association, the Secretary was instructed to communicate with a number of manufacturers and request their views as to the effect that Commercial Union, or Reciprocity in Manufactures with the United States would have on Canadian industries. A circular letter was sent out requesting such views, and as the replies thereto embody many strong arguments against such a political move, we have formed them into a symposium which our readers will no doubt study with great interest.

The idea of reciprocity is not received with favor by Canadian manufacturers. They but too well remember the adverse circumstances against which they had to contend up to the time of the inauguration of our present National Policy in 1879. They well know that that policy made it possible for them to furnish Canadian manufactured products to Canadian consumers, a thing which had never been successfully done before. They know that the small nucleus of then existing manufactures has since grown to proportions which are the surprise of observers, the pride of Canadians and the envy of enterprising American manufacturing competitors.

American manufacturers see in Canada a rich and inviting field in which they desire to market their products, and they know that they are prevented from doing so only by our protective tariff which keeps them out. Hence their wonderful fervor and zeal in declaring their friendship for Canada, and their desire for Commercial Union, Reciprocity or any thing else which would remove our tariff barrier.

Canada must not be allowed to be dragged into a position where she will be compelled to take a subordinate part to the United States. The high and enviable position that country now occupies is due to the protective policy of its Government, and if Canada aspires to a similar position and condition, the end will have to be accomplished by similar means.

It will be observed that of all the writers whose letters are here reproduced but one only is not outspoken against this scheme of obstruction to Canada's nationality and greatness, and that gentleman seems to base his views upon the fact that "the efforts of the Government to protect our manufactures is greatly neutralized by the special prices made both in England and the United States to meet our tariff," and that the undervaluation of imports—otherwise the "special prices" to which he alludes—is "creating considerable dissatisfaction with the Customs regulations." The argument is untenable as favoring reciprocity, but is strongly in favor of some stringent law by which undervaluation may be prevented.

The symposium, which is herewith begun, will be continued in our next issue.

*From MR. B. ROSAMOND, President of the Rosamond Woolen Company, Almonte, Ont.:*

"I look on the scheme as not practical, more from the hostility of parties in the United States, than from any very strong objections to it in Canada.

"From our standpoint there is the difficulty arising from our political connection with England. We cannot possibly let in goods manufactured in the Mother Country duty free, first, because we must have revenue to meet public expenditure and interest on the public debt; and second, because if we did a very large number of manufacturing interests would be inevitably ruined. Can we admit the manufactures of the United States duty free and charge a duty on similar manufactures from England? Perhaps England would consent to our doing so if we demanded permission and backed up our demand with the proper amount of bluster which I think a cheeky demand of that kind should have.

"Supposing this difficulty to be got over all right, there remains the question, how would such a 'Union' affect Canadian manufacturers? There would be many drawbacks to contend with from the beginning. We are accustomed to a small market and can hardly manufacture as cheaply as if we had a population ten times as large as at present, so that at the start at all events we would be very likely to be undersold. I am inclined to think, however, that in time this would rectify itself and that Canadian skill and industry would soon come to the front. I do not think we should be afraid to meet our neighbors on equal terms, or that if they give us their market we should hesitate very much in giving them ours. I would regard as very objectionable any arrangement which would bind us to adopt their tariff against England and other countries. If such a condition be any part of the scheme of Commercial Union it should, from a Canadian standpoint, be considered as fatal to its success."

*From the Manager of a concern in Ontario Manufacturing Vehicles for the wholesale trade:*

"Reciprocity would mean the total annihilation of our concern. Manufacturers can produce goods in our line so much cheaper in the U. S. than here, that they could afford to pay duty and freight and import at less than the cost of manufacture here. This is owing to the large output of many concerns there. Were there reciprocity this would steal our trade, as there is capacity enough there to manufacture all the goods that could possibly be sold in Canada with very little additional labor expense and no plant expense.

"As to the general effect on Canadian industries, it is hard to say what that would be, but as the 'survival of the fittest' governs all things in commercial life, I think it would mean to a certain extent, the crushing out of the weaker and smaller Canadian manufacturers, while some of the larger ones might possibly profit by the enlargement of their field.

"There is no question that in the lines of business with which the writer is familiar, the American factories have

plenty of capacity to turn out enough more goods per annum to supply the entire trade of Canada; and that by the further cheapening of production, thereby making larger quantities of goods, the difference in freight would be more than overcome by the difference in the cost of production.

"Taking one view of the case, while Canada and the United States might be in all except local Government a united people, looking at it from a Canadian standpoint I cannot see how so radical a change could be accomplished without great loss to our manufacturing interests.

"Canada should by all means continue her protective tariff system so as to make herself independent, as far as possible of all foreign productions, for to this policy on their part is due the prosperity and success of the United States."

*From MR. WM. CHAPLIN, of the Welland Vale Manufacturing Co., St. Catharines, Ont., Manufacturers of Axes, Edge Tools, Harvest Tools, etc.*

"I believe 'Commercial Union' or 'Reciprocity in Manufactures' with the United States would have the effect of closing up all our Canadian factories—for we could not enter into the competition on even terms. United States manufacturers had the Canadian trade to a large extent up to 1879, and have to some extent retained a foothold in this country ever since. Their goods are well-known in every part of the country, and would be quite as readily bought as those of Canadian manufacture as soon as they could be as freely placed on our markets. On the other hand, Canadian goods are entirely unknown in the United States, and would be slow of sale there as something new and untried. Then Canada would be a favorite dumping-ground for their prison-made goods, and there are three or four prisons in as many states where goods in our lines are extensively made.

"Nearly everything in our line is covered in some part or other by patent in the United States but not in Canada, and the consequence would be that while U.S. manufacturers would have the free run of our markets, our goods made by similar processes would be rigidly excluded by their patent laws. We are far removed from supplies of iron, steel and coal, and these articles would cost us more than they do rival establishments in Ohio, Pennsylvania or New York—in which states the manufacture of goods in our line is mainly concentrated. Capital is also scarcer and more expensive in Canada than in the United States.

"Commercial Union or Reciprocity in Manufactures, in my opinion, instead of developing manufacturing in Canada would tend to concentrate it in the most convenient centres in the United States and in large concerns, and our people would be reduced to the state from which the National Policy so effectually and speedily lifted them—producers of the raw material at starvation prices for the benefit and profit of those who would work them up for and return them to us at greatly enhanced values. If we desire to develop a national and Canadian feeling we must depend on our energies and keep Canada for Canadians."

*From the Manager of an extensive works in Ontario manufacturing Wire Goods, Pressed Tin-Ware, etc.*

"The amount of capital invested in the principal lines of manufacture in Canada is so limited, that it is questionable if many factories here could hold out against the competition of the large capitalists and manufacturers of the United States.

"It is a known fact that with our present tariff on some lines it is just barely possible to keep American manufacturers out, affording us a living margin.

"The competition in the States, and the system adopted there, of the larger manufacturers running the smaller ones, would have a disastrous effect upon Canadian manufacturers, and there would be no object in Canadian manufacturers pushing the sale of their goods at a loss on the American side."

*From MR. A. J. PARKER, President of the Acme Silver Company, Manufacturers of Plated Ware, Toronto, Ont.*

"Speaking with reference to our own business I am of the opinion that neither 'Commercial Union' or 'Reciprocity' are desirable, for the reason that existing prejudice in the United States would almost prevent Canadian manufacturers from selling their goods to any extent in that country. The immense capital employed in kindred trades in the United States would also militate against us. The Eastern States, being the producing localities of that country, give the factories there an advantage as regards labor and supplies, which would necessitate Canadian manufacturers removing there, or going out of business. Being in the United States we could, with the Canadian market open, sell in Canada, but being in Canada with the United States market open, we should find it more difficult to sell goods there. 'Commercial Union,' to my mind, would lead to annexation in a very short time. Reciprocity, except in 'natural products only,' would be only another name for 'destruction' of Canadian industries, with perhaps a few exceptions."

*From the Manager of an extensive Linen and Cordage Factory in Ontario.*

"I think 'Commercial Union' or 'Reciprocity in Manufactures' with the United States would be most injurious to Canadian industries.

"The investment of American manufacturers in plant and machinery are much larger than it would be prudent for Canadian manufactures to make, as our markets are very limited, and in case of Commercial Union they would no doubt ruin a great many of our manufacturers who operate with only limited capital. If we had a duty equal to the duty now imposed on our goods by the United States it would be most beneficial to Canadian manufacturers and their employees, and consumers would not suffer, as the price of goods manufactured in Canada has not been increased by the duty imposed by our present Government. On the contrary, we are to day selling our goods much lower than we could afford to sell them before we had the duty increased from 17½ to 25 per cent.

"We are now manufacturing a ton a day of a certain article, whereas before 1878 we could not make more than a half a ton, and even then we could not keep our hands employed steadily, as American and English manufacturers were selling their surplus stock of similar goods in our market at cost and sometimes even below cost.

"Reciprocity would no doubt place our manufacturing industries in equally as bad a position as they were under the McKenzie government."

*From an Ontario Manufacturer of Edge Tools, Carriage Springs, etc.*

"I think if Commercial Union was gone into it would lead to annexation in a very short time; and as to the question of Reciprocity, I think it is hardly worth discussing so long as our present relations exist with the Mother Country."

*From MR. A. E. CARPENTER, President of the Campbell Sewer Pipe Company, Hamilton, Ont.*

"I think 'Commercial Union' and 'Reciprocity in Manufactures' are only milder names for Free Trade, and amount to our having Free Trade which, to many of our young industries, means ruin."

*From MESSRS. COLIN MCARTHUR & Co., Proprietors of the Montreal Wall Paper Factory, Montreal.*

"We cannot understand there being any difference of opinion as to the advantage of Commercial Union or Reciprocity with the United States, as it would give us a market of

fifty-five millions instead of five millions of people, and do away with the customs annoyances so much complained of. We understand a few object because we would have more manufacturers to compete with, but as far as our business is concerned we have them to compete with as it is, as they send their surplus and old stocks into Canada at twenty-five, thirty, and even fifty per cent. reduction, and make this a dumping ground to preserve their own market from demoralization.

"Our Government does its best to protect our manufactures, but the protection intended is greatly neutralized by the special prices made both in England and the United States to meet our tariff.

"This again gives rise to trouble between the appraisers and the importer which is creating considerable dissatisfaction with the Customs regulations. Unless duties are levied on fair market values there can be no protection for home industry."

*From MESSRS. W. DOHERTY & Co., Organ Manufacturers, Clinton, Ont.*

"Judging from the painful experience of Canadian manufacturers during the hard times of the McKenzie regime from 1872 to 1878, the keen competition and slaughtering of prices incident upon a change of policy would not be beneficial but ominous both to the manufacturer and dealer.

In our line it would result in cutting into a well earned trade in Canada, against a determined and unprincipled foreign manufacture, without any benefit resulting therefrom to any one. It might be said we could return the compliment, but that is true to a certain extent only, as we are virtually entire strangers to the buying people of the United States, while the most of the old concerns there are well known in Canada. Their tariff is prohibitory, while ours is not, thus giving them access to our markets. It is also a well-known fact that trade combinations exist there controlling production and maintaining prices, simply using Canada as a slaughter market for their surplus stock. It is also a fact that the United States Government gives a bounty for certain classes of goods exported, thus enabling them to recoup any loss they may make in selling such goods in Canada against our domestic manufacturers, so that looking at the question from any standpoint, Commercial Union with the United States is not in the interests of the Canadian manufacturer. I hope that the N.P. which gave Canada to the Canadians will be permanently maintained."

*From MR. W. K. McNAUGHT, of the American Watch Case Company, Toronto.*

"In my opinion 'Commercial Union' or 'Reciprocity in Manufactured Goods' between Canada and the United States is not a question of practical politics, because as long as Great Britain reserves the power she at present possesses of making our treaties, she would be foolish to consent to throw the trade of one of her best customers into the hands of her most enterprising competitor. If it simply rested with the people of Canada to decide this question, I am of the opinion that such a treaty would mean national suicide, because in any such arrangement the advantages would be largely in favor of the United States.

"To our wholesalers it would mean a loss of from fifty to seventy-five per cent. of their business, for the bulk of the Maritime Province trade would be transferred to Boston, that of Ontario and Quebec to New York, and the trade of the North-West to Chicago.

"To our manufacturers who are making goods under purchased American patents, such a treaty would be of no benefit whatever, as their trade would still be coralled in Canada.

"To the bulk of our manufacturers who are making goods similar to those made in the United States, which the American manufacturer has protected in his own country by patents

which either do not extend to Canada or have lapsed on account of non-compliance with our patent laws, such a treaty would simply mean ruin, because the United States manufacturers would then be able to compete on more than equal terms in Canada, while the Canadian manufacturer would, on account of the American patent, be debarred from selling a single dollar's worth of goods in the United States.

"In order to give Canadian manufacturers a fair chance to compete with those in the United States under such a treaty, it would be necessary to wipe out entirely all letters patent at present in force in either country that affect any existing manufactures, and commence anew with a clean slate.

"In regard to new industries, I think that any manufacturer with an eye to future contingencies would certainly locate on that side of the international line where the bulk of the population resided, so that in case of a failure to renew such a treaty at its expiration, they would still be in the country possessing the largest market.

"If Canadian manufacturers succeeded, as the friends of Commercial Union profess to believe, in building up a large trade in the United States under such a treaty, would they not, after having changed their trade to suit the new condition of things, naturally prefer political union, commonly known as Annexation, in preference to being compelled to change back again to the limited market that the cancellation of such a treaty would certainly restrict them to? Viewed from the standpoint of British connection or Canadian nationality, the success of such a treaty would be the strongest argument against it.

"Looked at from any standpoint, the scheme is fraught with danger to Canadian nationalism, because it takes the levying of our customs duties out of our own hands and gives it unreservedly to the United States. Any reader of history knows what would surely follow were this power put into the hands of such anti-British statesmen as Blaine, Ingalls, or even the renowned Finnerty.

"Commercial Union is but Annexation under a different name and more tempting aspect, and the Canadian who countenances such a step is vulnerable to a charge of disloyalty to his country, and betrays his lack of faith in her future. If we are to have annexation, give it to us straight, and let us go into it with our eyes open.

"For my own part I have no great desire to become an American citizen. I am a Canadian by birth, and proud of my country, and I should be very sorry to see the day when this glorious Dominion of ours should, instead of being a land where people who believe in government after British models can work out their destiny after a freer method than obtains in the old land from whence we sprung, become a hanger-on of the American republic, and be utilized by Americans as a tail to their commercial kite."

IN 1866 the British North American Commission, reporting on the prospects of trade with the United States and North America, stated that the trade of the provinces now included in and comprising the Dominion of Canada with the West Indies and South America during the previous year amounted to \$6,700,000. In 1873—the year in which the first Government of Canada resigned—this trade had increased to \$7,865,000, a gain of about 17 per cent. In 1878—the year in which the Mackenzie Government resigned—Canadian trade with the West Indies and South America amounted to only \$5,117,000, a decline of about 35 per cent. In 1835, according to the latest published returns, this trade amounted to over \$8,500,000, an increase of more than 60 per cent. over that of 1878; 9 per cent. over that of 1873, and 27 per cent. over the trade of 1866.

### UNDERVALUATION.

CONSIDERABLE interest is being manifested as to whether the Canadian Government will strictly enforce the law regarding undervaluation of imported merchandise. And while the Government is interested in the enforcement of the law, affecting the revenues as seriously as it does, and while Canadian manufacturers are interested in it for obvious reasons, the surprising spectacle is presented of importers of foreign merchandise urging the Government to close its eyes to the fact that their invoices are cooked and their imports undervalued to an extent that makes it almost impossible for domestic manufacturers to compete with them. It does not appear, we are happy to say, that these undervalued importations are made by reputable Canadian merchants, but by the agents of foreign manufacturers. The usual method of doing this crooked business is for the foreign manufacturer to make a special line of goods which he sends to his agent, invoicing them at or below the cost of production. As there are no other goods made of that special line other than those alluded to, and none on sale in the home market, no special agent of the Government could be able to fix a home value on them, and therefore the invoice price would be accepted as *prima facie* evidence of their value. Once having passed the customs the manufacturer's agent is able to sell them at much lower prices than what similar goods command, to the injury of both the honest importer and the domestic manufacturer.

Under the Canadian Customs Act, section 92, any one in Canada may repudiate the payment of an account for goods which have been supplied him by foreign houses on fraudulent invoices, on which the goods in question have been entered at an undervaluation, and no court in Canada would compel payment if the account was sued.

The customs authorities have long been endeavoring to devise some means by which this species of fraud could be abated and the perpetrators punished; and it is understood that the enactment of a law will be asked charging an additional duty of 20 per cent on all goods imported into Canada on consignment to agents.

### A FREE TRADER'S FLIPPANT ARGUMENT.

"THE Bowmanville Statesman points to the fact that live hogs are worth \$5.90 in Chicago and dressed hogs, in car lots, are worth only \$5.80 in Toronto, "which does not look very well, for the N.P. as a farmer's helper." We fail to see the point. The N.P. does not prevent the Canada farmer from taking his hogs to Chicago, but it does prevent the American farmer from bringing his hogs to Canada."—*Canadian Manufacturer*.

"The farmers will not relish the flippant way in which the organ of the subsidised manufacturers treats of the failure of protection to benefit agriculture. Protection would never have carried if the farmers had been told that the way in which it was proposed to exclude American hogs was to depress the price of Canadian hogs so that the Americans would have no object in sending their animals here."—*Toronto Globe*.

The glumosity of our contemporary is stupendous. Will the *Globe* please explain the process by which Canadian protection depresses the price of Canadian hogs, and how it prevents Canadian farmers from selling them in American markets.

As we before stated, the N.P. does not prevent the Canadian farmer from taking his hogs into the United States. If there was no tariff on hogs imported into Canada would the market price of them necessarily, or as a matter of course, rule higher than at present? If so, why? Would Yankee or Canadian dealers buy live hogs in Chicago at \$5.90 and sell them in Canada, dressed, at \$5.80 if there was no duty to pay? The "flippancy" of the *Globe's* argument lies in holding the Canadian Government responsible for the American tariff.

### THE BRASS WORKERS' "DEMAND."

THE Executive Committee of the Brass Workers' Assembly, Knights of Labor of Toronto, have submitted their "demands" to the master brass workers of the city as follows: That nine hours shall constitute a day's work, Saturdays excepted, during the months of May, June, July, August, September and October, on which days only five hours shall be worked; all overtime to be paid at the rate of time and one-half; payments of wages to be made in full at the end of each week; an increase of five cents per hour on the present rate of wages; minimum rate of wages to be twenty cents per hour. All apprentices at the trade three years or longer to receive present wages for the hours worked by the journeymen.

This brass workers assembly is composed of brass finishers, polishers, moulders and core makers, spinners, opticians, electricians, brass wire-workers, drawers, and brass musical instrument makers.

This "demand" is to go into effect on May 2 and continue in force for one year, or until some further "agreement" is made, either side "desiring" a change to give three months' notice.

The "demand" was sent simultaneously to every master brass worker of Toronto, and compliance therewith requested in writing by April 21.

The master brass workers of Toronto seem to stand before this Brass Workers' Assembly K. of L. with their hands tied. The "demand" is imperative and absolute, and the "agreement" thereto which is "requested" is grimly sarcastic. They will probably be forced to enter a plea of *non contendere*.

### OUR CARD BASKET.

THE following named manufacturers and business men have favored this office with their presence since the date of our last issue:—

F. J. Gibson, of Bryant & Gibson, pickle manufacturers, Toronto; Robert Cream, of the Ontario Straw Goods Manufacturing Co., Toronto; Charles Raymond, sewing machine manufacturer, Guelph; Thomas Cowan, President Canadian Manufacturers' Association, Galt; J. H. Walker, Manager Canadian Rubber Co., Toronto; Geo. W. Inglis, of the Geo. F. Blake Steam Pump Manufacturing Co., Boston; T. S. Fisher, wool broker, Toronto; E. A. Kemp, of McDonald & Kemp, tinware manufacturers, Toronto; George Booth, of Booth & Son, copersmiths, Toronto; Wm. Bell, organ manufacturer, Guelph; J. B. Carlile, Managing Director Manufacturers' Life and Indemnity Insurance Co., Toronto; Charles Knees, Dominion Cordovan Tannery, Milton.

THE  
**Canadian Manufacturer**  
AND INDUSTRIAL WORLD.

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J. J. CASSIDEY, *Managing Editor.*

ED. D. McCORMICK, *Secretary.*

This Journal has won for itself an acknowledged position amongst Trade Journals and is recognized as the representative industrial paper of Canada. All the various industries of the country are represented in its columns, and it has been for years the fearless and consistent advocate of those reforms which were indispensable to the success of the Manufacturers. It now reaches nearly every mill and factory in the Dominion, and its influence is constantly increasing.

As a medium for advertisements of machinery, steam appliances, mill and factory supplies, etc., it is unequalled, and our rates will be furnished on application.

Communications from Manufacturers, Exporters, and others, are respectfully invited.

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Editorial Notes.

MR. FREDERIC NICHOLLS is Secretary of  
The Canadian Manufacturers' Association,  
The Woollen Manufacturers' Association, and  
The Tanners' Association.

His Office is at the Publication Office of  
THE CANADIAN MANUFACTURER,  
6 Wellington Street West, Toronto.

Any association of manufacturers who may desire to hold meetings for organization or other purposes, are invited to avail themselves of the meeting room adjoining the office of the CANADIAN MANUFACTURER.

Every business man who receives the "Canadian Manufacturer" should carefully observe the business cards displayed therein, and, in corresponding with advertisers, mention this journal. This will be of benefit to both the buyer and the seller, and the medium by which they are brought together will also be made more valuable.

At a meeting of Scotch millers held in Glasgow April 5, a resolution was adopted demanding that a duty be imposed upon all flour brought into the kingdom. They want protection.

THE Department of Agriculture has decided to exhibit specimens of Canadian grain at all the country fairs in England this summer for the purpose of inducing English farmers to emigrate to Canada.

At the Colonial Conference opened at the Foreign Office in London, April 4, in his welcome to the delegates, Lord Salisbury favored a customs union. Canada is not in favor of Reciprocity or "Customs Union." The existing arrangements suit very well.

WE learn from the United States consul at Toronto that the value of the declared exports of merchandise from the Toronto district to the United States for the year ending December 31st, 1886, exceeded those of the previous year by \$459,677.57. This is a remarkably good showing for the export trade of this city.

THE American Charge d'Affairs at Montevideo, writes his Government that bacon is worth from 40 to 50 cents a pound in that city. The cities of Buenos Ayres and Montevideo lie almost within sight of each other, and contain more than 500,000 inhabitants. With hog products commanding such high prices there, it would seem that Canadian pork packers would avail themselves of that market.

WE are informed by General Traffic Manager Olds, of the Canadian Pacific Railway Company, that the intended sailings of the Canadian Pacific Line of trans-Pacific Steamships between Vancouver, B.C. and China and Japan, will be westward from Vancouver as follows: Steamers Parthia, June 8; Abyssinia, July 6; Batavia, August 3; and Parthia, August 31, the destination in the East being Yokohama, Japan, and Hong Kong, China.

IN our last issue we stated that there seemed to be a very lively discussion going on in Oshawa over the question as to whether that town should grant a bonus to enable the assignee of the defunct Joseph Hall Machine Works there to resume operations. Our conclusions regarding the matter were drawn from what we read in the Oshawa papers, but we are informed



by Mr. John Livingstone, assignee of the company, that neither the estate nor the inspectors have made any solicitations for any such bonus.

For the past two weeks the Government has been besieged by deputations which have visited Ottawa on every kind of mission, the large majority, however, being interested in changes in the tariff. A deputation from the Canadian Manufacturers' Association has waited upon the Ministers of Finance and Customs for the purpose of presenting the recommendations of the Association which, this year, deal more with the interpretation of the present Act than with radical changes in the rate of duty.

THE Grand Trunk Railway Company have equipped a train running between Ottawa and Montreal with an electric apparatus by which direct communication may be had with the engine driver from any part of the train. The innovation grows out of the failure of the bell-cord to answer the purpose. If the apparatus proves as satisfactory in practical use as is claimed for it, it will be adopted on all trains. This is, we believe, the first attempt on any railroad to utilize electricity for purpose indicated.

THE Canadian Court of Commerce has been established in London, Eng., by exhibitors from the recent Colonial Exhibition, and is practically a comprehensive exchange, sample room, rendezvous and bazaar, open for commercial purposes. From a circular which we have received from Mr. J. George Grant, the Secretary of the Court, we learn that floor and wall space in the building secured for the exhibit is furnished exhibitors of Canadian products at moderate charges, which include rent, taxes, lighting, heating, supervision and attendance. The address of Mr. Grant is at 7 Dean street, Oxford street, London W., England.

*The Australasian and South American* is a monthly trade journal published in New York by the Australasian Publishing Company. It was published originally for the purpose of developing and enlarging the trade of the United States with the Australasian Colonies, and the appearance of it indicates that it has met with gratifying success. Its advertising columns show that quite a large number of manufacturers not only in the United States but in Canada also regard it as a convenient medium for the introduction of their goods not only into the British Colonies in Australasia, but into the various South American countries also.

In connection with the recent failure of the Maritime Bank, it is reported that bills of exchange which passed between the Stewart firm, Guy, Bevan & Co., and the bank, were endorsed by boys under age in the employ of the three concerns. A late English mail brought notices to several of the boys that bills bearing their names had been dishonored, and asking them to provide for them. About a dozen boys were used for this purpose. The operations had been going on for some time, the bankers who accepted the bills thinking that the endorsers were responsible parties. The lads say that they were never shown the face of the bills, and until they received the notice they did not know the amounts that were contained in them. Some of the lads have endorsed to the extent of £4,000 sterling

AN Act of the Canadian Parliament, known as the "Workmen's Compensation for Injuries Act," 1886, defines the responsibility of employers for accidents to their employees; and very many manufacturers are now anxious that steps should be taken whereby employers will be able to protect themselves by the payment of moderate insurance premiums from the heavy penalties imposed by the Act, which they would be liable to incur. To meet this emergency the Manufacturers' Life and Indemnity Insurance Company, of Toronto, have taken all preliminary steps looking to incorporation by the Dominion Parliament. The capital stock is fixed at \$2,000,000 divided into shares of \$100 each, twenty per cent. of which will be called up to enable the company to commence business. Many of the most prominent business men in Canada have already made application for insurance, and it is desired to have as many of the manufacturers and business men of the country as possible interested in it. There is ample room in Canada for another company possessing the special characteristics of this one here alluded to. The business of the company is in the hands of Mr. J. B. Carlisle, managing director, one of the very best insurance men in Canada, of whom all information may be obtained.

THE "National Policy" of Great Britain is that of free trade as regards the importation of foreign goods into the kingdom, and therefore all revenues for the support of the Government must be raised in other ways. But manufacturers there are heavily handicapped in the imposition of local taxes, and petitions are being sent to the Parliament asking relief. A London contemporary, now before us, publishes the petition of the Paper Manufacturers' Association regarding the law relating to rating of machinery now before the House of Commons. It is there stated that the industry is in a depressed condition, owing in great part to the pressure of foreign competition, protected and fostered by fiscal regulations in other countries, and that the cost of production is much enhanced by the burden of rates and taxes upon mills and manufacturers becoming more onerous from year to year, in some cases aggravated by the levying of rates, not only on freehold hereditaments devoted to the manufacture of paper, but on personal property and chattels in the form of machinery, which, though attached to the freehold, is as essentially personal property as stock in trade or any other part of capital employed in trading. The petitioners pray that in any bill which may be passed to amend the law of rating, all machinery of the nature of personal chattels—the mere furniture of a mill or manufactory—shall be specially exempted from being rated for any purpose. That paternal policy which draws the revenues of the Government from those who have their money invested at home in manufacturing enterprises, as herein indicated, and not from foreign manufacturers and importations of foreign goods does not commend itself to the people of Canada as one to be imitated.

THE especial pride of the CANADIAN MANUFACTURER Publishing Co., is the elegant diploma and and bronze medal, that was awarded their literary exhibit at the Colonial Exhibition at London, last year. Friend Nicholls rather got the start of the rest of the craft, being the only newspaper man of any colony that made an exhibit or received such an honor. We have no hard feelings about it, however, and sincerely congratulate him on the reward of his enterprise.—*Toronto Trader*.

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# Manufacturing.

THE CANADIAN MANUFACTURER.

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It is expected that the new saw works at Oshawa will be in operation by May 1st.

MR. J. WARREN, Cobden, will erect an extensive sash, blind and door factory at that place.

JAMES HAY & Co., furniture manufacturers, Woodstock, Ont., have opened a branch warehouse in Winnipeg.

An enterprising gentleman named Winchester has started a rope factory at Newmarket, Ont.

THE Du Lievre Pulp and Paper Company at Buckingham is to increase the capacity of its mills.

THE Huntingdon, Que., organ factory has a new manager, who will push its business with great vigor.

A CONTRACT has been let for the foundation of the Canada Paper Company's new mill at Windsor Mills, Que.

MR. F. H. APPLETON has been made assignee of the Lincoln Pulp and Paper Company, of Lincoln, N.B.

MR. THOS. COURTIS, of Brooklyn, Ont., has purchased the right to manufacture the Calender Improved Harrow.

A MR. TAYLOR, from Ontario, has completed arrangements for establishing a cheese factory at Crystal City, Man.

THE Canada Paper Company have a large force of workmen engaged in building their new mill at Windsor Mills.

THE Dominion Wire Clothes Pin factory is another new enterprise in Coaticook, Ont., which will soon be in operation.

THE town of Ingersoll has voted a bonus of \$20,000 to Messrs. Evans Bros. & Little, of London, to establish a piano factory there.

T. S. SIMMS & Co's brush factory, St. John, is running day and night to supply the great demand for the manufactures of the firm.

MR. S. J. AIKEN is endeavouring to form a joint stock company for the manufacturing of asphalt paving blocks, roofing, etc., in Brantford, Ont.

MR. W. H. LEE, Calgary, Man., has begun the erection of his new carriage factory there. The building will be 100 by 60 feet, three stories high.

THE new artesian well on the pulp mill premises at Chatham, is now down about 500 feet, the indication being that a sufficient flow of water will soon be reached.

MR. JOHN RAISON, who has a pottery established near Minnedosa, Man., purposes greatly extending and improving the variety and quality of his manufactures this season.

MESSRS. MARSHALL & WATERS, of New York, intend going extensively into the manufacture of paper boxes in St. John, N.B., with improved steam power machinery.

MR. JOHN BATTLE, of Thorold, Ont., has received the diploma and bronze medal awarded him at the recent Colonial Exhibition for his exhibit of superior hydraulic cement.

MESSRS. H. E. & A. E. BURKE, Cape Bald, N.B., are doing a large business at their shoe factory this season. They are full of orders, and their product is held in high esteem.

THE Martiu Manufacturing Company, Hamilton, Ont., owing to increase in business, have moved into new quarters. They make a specialty of manufacturing spring baby carriages.

HUSTON, HOPKINS & STEVENSON, Glencoe, will rebuild the sash and door factory at that place. The new building will be of brick, and the equipment will be first-class throughout.

MRS. A. L. DAVIS, Winnipeg, Man., has embarked in a new industry for that country. She has established a factory for canning fruits, vegetables, meats, etc., and the preparation of pickles.

It is proposed to establish at Hull, Que., a company which will manufacture a fire-proof composition out of clay and sawdust. The promoters, who are Americans, are looking around for a suitable site.

A JOINT stock company is being formed at Amherstburg, Ont., with a capital of \$50,000, for the purpose of erecting a dry dock at that place. Mr. J. A. Auld, reeve of the town, can give information.

THE J. B. Armstrong Manufacturing Company, Guelph, have received the diploma and bronze medal awarded them at the Colonial Exhibition, London, for the excellent display they made there last year.

QUEBEC Indians are busy making bead work for the Manchester, Eng., exhibition in honor of the Queen's Jubilee. The Colonial Exhibition gave an extraordinary impetus to the trade in Indian curiosities.

THE Dominion Terra Cotta Lumber Co., with headquarters at Deseronto, are applying for incorporation. The capital stock is placed at \$200,000. Mr. J. F. Torrance and Mr. F. S. Rathburn are interested.

THE Chatham Harvester Company have made a large number of sales in this country of their excellent cordbinder, which farmers say is equal to any in the market and vastly superior to many. *Chatham Planet.*

MR. MUNRO, of the William Hamilton Manufacturing Company, Peterborough, was recently in Burk's Falls, Ont., taking dimensions and completing the contract for supplying the new machinery for Messrs. Train & Son's mill.

SOME 440 votes were cast in favour of the proposition to grant a bonus to Messrs. Evans Bros. & Little, to establish a piano factory there at the recent election held in the town of Ingersoll, Ont., only 15 votes being cast against it.

MESSRS. PORTER BROS., Peterborough, Ont., manufacturers of road carts, carriage tops, etc., are enjoying a fine trade this season. Their new road carts are being shipped at a rate of from six to a dozen a day, and there is also a boom in carriage tops.

THE Landsdowne Piano Company, Toronto, inform us that they are selling a great many of their excellent instruments, and that they are giving entire satisfaction. This is a comparatively new industrial enterprise in Toronto, and gives employment to a large number of skilled artisans.

FIFTEEN doors, fine specimens of workmanship, were shipped from the Rathbun Company's door factory last week for Manchester, England, where they will be placed on view at the great Queen's Jubilee Exhibition to be held in that city during the coming summer. *Bellerive Intelligencer.*

THE Peterborough Lock Manufacturing Company, Peterborough, are in receipt of the diploma and bronze medal awarded them at the recent Colonial Exhibition in London. It is claimed that this company was the only exhibitor who was awarded a medal for such goods as were shown by them.

MESSRS. AMOS BURKE & Co., Cape Bald, N.B., are making large preparations for packing lobsters this season. Mr. George P. LeBlanc, is also preparing his factory at Cape Egmont, which he intends to run very strong. Messrs. P. H. LeBlanc and F. F. Kimball are also preparing for the same business.

THE Vulcan Iron Company, Winnipeg, Man., manufactured a large number of straw-burning stoves during the past season, the article going into consumption among the farmers in that section. Such stoves should be in strong demand wherever straw is abundant and other fuel, such as coal and wood, scarce and expensive.

THE Avon River at Windsor, which is one of the largest tidal rivers in Nova Scotia, is to have a new \$46,000 iron bridge. \$25,000 is to be contributed by the province, the balance—\$21,000—will probably have to be borne by the municipality of West Hants. The bridge will be one of the best of its kind in the Maritime Provinces.

THE Danville Slate Company, incorporated last fall with a capital of \$50,000, have bought out the old Danville School Slate Company's quarries and the Williams roofing slate quarries near Quebec, and have erected a commodious factory, which is being run on full time. It is expected that the company will double their capacity this year.

MESSRS. MacGregor, Gourlay & Co., have received a large order for wood-working machinery from Great Britain, which will be shipped across the water in about a month. We believe that this is the first shipment of machinery from Galt to the mother country, and speaks well for the reputation achieved by Galt manufacturers abroad.

THE Department of Inland Revenue has given orders to manufacturers, importers and vendors of varnishes that under the Weights and Measures Act, the sale of varnishes by other than the Dominion standard gallon, (heretofore known as the Imperial gallon), is illegal. Orders have been given to department officers to compel compliance with the law.

THE decision of Secretary of the Treasury Fairchild that it is illegal for a Canadian saw mill, or factory or railroad company, to send broken machinery into Michigan to be repaired and sent back to Canada, without paying duty, is a decision in favour of Canada and against the United States. Its effect is to extend protection to Canadian repair shops.

APPLICATION will be made at the next session of Parliament for an act to incorporate a company to construct a line of railway from Kingston to Smith's Falls, and thence to Ottawa, with power to construct branch lines to any points where water flows into or from the Rideau canal, and with power also to take over and work said canal and to improve and extend the same.

W. CUMMINS, manufacturer of bricks at Lewisville, Moncton, N.B., has received a bronze medal for his exhibit of bricks and brick clay at the Colonial and Indian Exhibition in London. The Cummins bricks are sold in different parts of the province and have an excellent reputation. The industry is quite an important one in Lewisville, giving employment to considerable labor summer and winter.

THE British Porcelain Works will manufacture both plain and printed pottery ware at St. Johns, Que. The British Porcelain Co. of St. Johns, says the *News*, is about being wound up. The pottery and plant will be acquired by Mr. Dakin, the former manager, and Mr. Allen, one of the solid men of St. Albans, Vermont, who is putting sufficient capital into the concern to lift it out of its difficulties.

THE Toronto Lithographing Company, Toronto, make a specialty of producing fine color work for all commercial purposes, chromo advertising cards, novelties, etc. They also do a superior class of wood engraving. Nearly all business men now-a-days have their letter and bill heads, envelopes, etc. engraved, and those in need of such work would do well to consult the company here alluded to regarding it.

THE Rolland Paper Factory at St. Jerome, N.B., is now lighted by the C. aig electric system, in consequence of which the premium of fire insurance on the works has been reduced to 25 per cent. To light the building 110 lamps and 12,000 feet of wire were required. The mills have been fitted up with every improvement in machinery and plant, and the company is now in a better position than ever to turn out the finest kind of work.

It is understood a movement is on foot to commence the manufacture of salt at a point near Lake Manitoba. Salt has been discovered in several parts of the province, but up to the present time nothing has been done beyond manufacturing a small quantity merely as a sample. The freight of over \$1 per barrel on salt imported from Ontario, should be a sufficient advantage to the home producer to allow of its manufacture here at a good profit.—*Winnipeg Commercial*.

MESSRS. DICK, RIDOUT & Co., proprietors of Toronto Bag Works, 11 and 13 Front street east, Toronto, announce to the trade that they are manufacturers of linen, cotton and jute bags for all purposes, and also of Hessians for mattresses and bales, coat canvasses, twines etc. This is a well-known concern, and those who require any of these lines of goods should govern themselves according to this suggestion. They also furnish storage accommodation, both bonded and free, and issue warehouse receipts.

THE Canadian Rubber Company, whose Toronto office is at the corner of Front and Yonge streets, and whose works are at Montreal, inform us that as a result of their exhibit at the Colonial Exhibition in London last year they have acquired an extensive trade both in England and Scotland, and that they are now filling several large orders for rubber belting and hose to go to mills and factories in the Kingdom. The works of the company at Montreal are now being considerably enlarged, a description of which will appear in these columns in a subsequent issue.

MESSRS. HALEY BROS. & Co., St. John, N.B., who make a specialty of the interior finish of churches, such as pewing, altar railing, etc., have been awarded the contract for furnishing the interior of the new Methodist church at Milltown, Calais, in the State

of Maine. Competition on the work was from Boston, Portland, and other American cities, and, notwithstanding the duty of thirty per cent. that the Messrs. Haley Bros. & Co. will pay on their stock going into the United States, the contract price is nearly twenty per cent lower than that of the Yankee houses.

MESSRS. M. J. HYNES & Bro., proprietors of the Canadian Terra Cotta Works, Toronto, has bearded the American Eagle in his den, or words to that effect. A large building is being erected in Buffalo, N.Y., by the United States Government, and bids were asked for certain terra cotta trimmings therefor. Seven competitors put in bids for the work. Six of them representing extensive manufacturing concerns in the States, the seventh, Messrs. Hynes & Bro. being from Canada. The contract was awarded to the latter, and they are now running their works full time manufacturing terra cotta goods to fill it.

LAST Christmas Messrs. W. E. Sandford & Co., Hamilton, presented a handsome gift to each of their employes. The travelers and heads of the different departments of the concern have now turned the tables and have presented Mr. Sandford with an elegant Shannon letter and bill filing cabinet as a mark of their esteem for him. The Shannon cabinet was one of the wonders of the late Colonial and Indian exhibition. The one specially manufactured for Mr. Sandford is of walnut and maple, about nine feet high and five feet wide, beautiful in design, handsomely carved and finely polished. It is an elegant piece of office furniture, and was manufactured to order by the Schlicht & Field Co., Toronto.

THE *Sherbrooke Gazette* speaking of the safety deposit boxes manufactured by Messrs. J. & J. Taylor, of Toronto, which a bank there had recently put into their burglar proof vault, describes them as being made of thick boiler plate, and are 80 in number, each being 15 inches deep, sizes 5x5, 5x9, and 9x9, each one having an iron door secured by a "safety deposit lock," requiring the use of two keys to open, one of which is retained by the Bank, and the other by the Lessee, thereby rendering it an impossibility for the contents of the box being tampered with. The Lessee of these boxes have all the security for their valuables that the Bank has provided for its own, consequently, they need feel no apprehension for their safety.

MR. GEO. F. HAWORTH, 65 Yonge street, Toronto, is sole agent in Canada for the leather, rubber and cotton belting, lace leather, packing, hose, etc., manufactured by Messrs. H. L. Fairbrother & Co., Pawtucket, Rhode Island. Mr. Haworth has been handling these goods in Toronto for twelve years, during which time he has built up a very extensive and valuable trade, and supplied belting to a large proportion of users in this country. The large demand for these goods is due to their superior excellence and wearing qualities, and Mr. Haworth gives the guarantee that if on fair trial and treatment a belt sold by him fails to do proper service, he will replace it free of any charge whatever.

THE Canada Cordage Association held a three days session in Montreal last week. There were present Mr. A. W. Morris, of A. W. Morris & Bros.; Mr. John F. Stains, of the Dartmouth U.S. Rope Work Co.; Mr. John Brown, of John Brown & Co., Quebec; Mr. P. L. Connor, of Thos. Connor & Sons, St. John, N.B.; Mr. R. Bannerman, of R. Bannerman & Sons, Lachute, Que.; and Mr. E. C. Troimig, of Halifax, secretary of the association. The object of the association is to keep the cordage manufacture in Canada equal in finish to the best American production. The interests of the association and manufacturers were thoroughly discussed, and the best means of forwarding them decided upon. The association adjourned to meet in St. John, N.B., in July next.

THE suit between the Joseph Rodgers & Sons Co. (limited), of Sheffield, England, against the Acme Silver Company and George Rodgers, of Toronto, was last month settled by a decree in chancery which vindicates any man's right to use his own name. It will be remembered that the English firm of Rodgers issued an injunction in chancery to restrain George Rodgers of Toronto, from stamping goods with the name of Rodgers on them, the Acme Silver Co. from selling them, or *The Trader* Publishing Company from publishing any of their advertisements regarding it. This decree in chancery decides that George Rodgers shall be allowed to use his own name and trade marks provided he places the word Toronto below in letters as plain and legible as those forming the name of Rodgers. According to this decision the trade marks "G. Rodgers," "A. L." and "G. Rodgers," "12 dwt. warranted," are perfectly good and legal provided he puts the word Toronto below them. This we do not suppose he will have any objection to do, and if it came to the minds of the Joseph Rodgers Company (limited), it will not do the Toronto Rodgers any harm.—*Toronto Trader*.

# Textiles.

THE CANADIAN MANUFACTURER.

Send \$2.00 and receive it twice a month, postage paid, for one year.

## ALMONTE'S TEXTILE INDUSTRY.

SPEAKING of the advantages of Almonte as a manufacturing town, the *Toronto Mail*, in a recent illustrated article concerning the place says:—"The situation of Almonte is admirably adapted for the character of the manufactories located here, and there are not many water powers in Ontario superior to that supplied by the Mississippi at this point. There are a succession of cascades, with a total fall of 65 feet, which go boiling, seething and racing into the broad expanse of the river below the town. The headwaters of the river are largely controlled by lumbermen, whose principal use of them is to store water sufficient to float logs to their mills. Were these lakes utilized solely for storage purposes the entire year, letting the water out gradually during the dry season, the water power available at Almonte and other towns on the Mississippi would be materially increased—managed as they now are the water frequently fails in the summer months, when the mills are obliged to supplement their power with steam. At its normal height the river supplies here nearly 1,000 horse-power, and it is claimed that with proper control of the headwaters of the river, and the adoption of improved water-wheels by the smaller mills, fully 4,000 horse-power might be made available."

Describing some of the industries of the place, it is said of the Almonte Knitting Factory that it was erected for the purpose of manufacturing knitted fabrics, principally men's and boys' underwear. This is what is generally designated a "three-set" factory—that is, it contains three sets of carding machines and the requisite quantity of knitting and finishing machinery to follow. There are sixty hands employed, and the product averages about 300 dozen shirts and drawers per week. The factory has been run to its utmost capacity for more than a year past. The goods here made stand high for their grade, being manufactured from Canadian wool, and find a ready market.

William Thoburn began the manufacture of fine woolen flannels in 1880, having purchased the buildings and water power adjoining the Canadian Pacific Railway line on the south, and in the very centre of the town. Since then Mr. Thoburn has refitted and enlarged the premises by the erection of a third building, imported the requisite machinery from the United States, and commenced operations. From the very first his enterprise was prosperous, and in 1886 he was compelled to further enlarge his mill and increase its productive capacity fully fifty per cent. The buildings are of brick, roofed with iron, and the machinery now occupies 13,800 feet of floor space, while 5,736 feet of space is used for storage purposes. The mill is run by water power, and lighted by gas made on the place. There are from thirty to thirty-five hands employed, who annually produce about 350,000 yards of flannels of the very best quality, which are manufactured from fine Cape wools, and are in active demand in all parts of the Dominion.

The Victoria Woolen Mills owned by Elliott & Co., are equivalent to what is known as a nine-set mill. The drying of the wool, after having been scoured, is effected by means of cold air drawn through the material by a fan, which is put in motion, like the rest of the machinery, by water power, the wheel used being the "Lffel," for which there is a never failing supply of power from the river. On the first floor is the weaving room, which contains twenty-six looms, mostly attended by women. On the second floor is the spinning room and twister, and also the wrapping room. The machinery here is most ingenious, and it is wonderful to see the precision with which it does its work. On the third floor are five sets of carding machines, one of them being of Platt Bros., Oldham, England, patterns, which cannot be surpassed, and even to an inexperienced eye its action is as perfect as it is wonderful. On the fourth floor are three of Platt's "mules." On the fifth floor is another spinning machine and the wool sorting room. There are employed in the various departments 160 hands, consisting of men, women and girls. From 20,000 to 25,000 yards of finished mill goods are turned out monthly. The firm also own a valuable mill farther up the stream, which is utilized as a wease shed. The firm consists of Andrew Elliott and John Elliott; the senior Elliott being one of the oldest manufacturers of woolen fabrics in the country, having started in this line in Preston, Ont., in the year 1852.

## AMERICAN WOOL INTERESTS.

RECENT reports of the United States Department of Agriculture contain some important statistics regarding farm animals in that country. From them we learn that the number of farm sheep there in February 1887 was 44,759,314, against 48,322,331; in February 1886, a loss of \$3,563,017. The average price of fine washed clothing wove in the United States in 1886 was but 33 cents per pound, against an average of 48 cents for 21 years from 1866 to 1886 inclusive. During the war period, from 1861 to 1866, the average price of fine washed fleeces was 75 cents per pound, and for thirty-seven years, from 1824 to 1861, the average price of the same kind of wool in the United States was 53 cents.

It is not strange, therefore, that the recent great depression in the price of wool has caused a sore and distressed feeling among wool-growers throughout the United States. In Texas many sheepmen got rid of their flocks altogether. In New York State the recent improvement in the wool market came just in time to save many sheep from slaughter. In Kansas sheep were proving very unprofitable, and the flock-masters were reducing their flocks at last accounts as rapidly as possible; and from nearly every State in the Union similar reports were received. We believe this unsatisfactory state of the wool interest is due in a measure to the depressed condition of the woolen industry of the whole world. In all parts of the globe the prices of wool have been low, and the numbers of sheep have decreased in many other countries besides the United States. So low has been the cost of wool abroad that the imports into the United States during the calendar year 1886, in spite of unprecedently low domestic quotations, amounted to 131,263,103 pounds, against 100,000,479 pounds in 1885.

Regarding this question the *Boston Advertiser* says that the depression in the wool interest is general in its character and participated in by other nations, but that the difficulty will correct itself. Already the influence of decreased flocks is being felt in a better price for sheep in all quarters of the world. "The agricultural reports alluded to show," says the *Advertiser*, "that the increase of the wool interest has been one of the marvels of the past quarter of a century. The annual requirement for manufacture is now 6 pounds of wool per capita. In 1880 it was nearly 6 pounds, while in 1860 it was 3.4 pounds. There had been no increase in twenty years previous to the last-named date, as the amount was 3.4 pounds in 1840 and 3.5 pounds in 1850. The proportion of this manufactured wool grown in this country has greatly increased. The home-grown of 1840 amounted to 2.5 pounds per capita; in 1850, 2.7 pounds; in 1860, 2.3 pounds; in 1870, 4.2 pounds; in 1880, 4.8 pounds; in 1885, over 5 pounds.

This splendid development of the domestic wool interest during the past quarter of a century has been due in a great measure to the generous support of the manufactures to the Protective duties upon wool."

THE cotton manufacturers of Blackburn propose to found a technical college as a memorial of the Queen's jubilee.

It is said that Mr. Peter McLaren contemplates starting a mill at Perth, Ont., for the manufacture of woolen blankets.

IN six months of the past year about 1,000 head of sheep were shipped from the vicinity of Kingston to New York State.

THE Magog Textile and Print Company, Montreal, have decided to put machinery in their mills for the manufacture of cotton.

THE Canada Cotton Manufacturing Company of Cornwall, Que., have declared a quarterly dividend of one and one-half per cent.

CONSIDERABLE new machinery is being added to the knitting factory at Coaticook, Que., necessitated by the increased demand for goods.

THE knitting mill at Kingston has sufficient orders on hand to keep it running till September, consequently samples have been withdrawn.

MESSRS. HATHAWAY BROS. and H. E. Hess have formed a co-partnership and are now operating the Union Mills at Woodbury, near Princeton.

MR. JOHN CRAIG is starting a carpet factory at Mount Albert, near Newmarket, Ont. He is an experienced weaver, and will carry on the business in all its branches.

THE Thorold Woolen and Cotton Manufacturing Company, Thorold, Ont., have received the diploma and medal awarded them at the Colonial Exhibition held in London last year.

A FIRE occurred in the picker room of the St. Croix Cotton Mill, near St. John, N.B. a few days ago, but was extinguished after a two-hour's struggle. The damage was not very extensive.

THE Mahew Silk Company, Shelburne Falls, Mass., is filling its second order from England for buttonhole silk.

AMERICAN woolen manufacturers are complaining against foreign competition, pointing out that the present tariff upon the manufactured article is not sufficient to cover the increased cost of production and the duty upon the raw material.

MESSRS. W. E. SANDFORD & CO., of Hamilton, who have been engaged in the manufacture of clothing in that place for a number of years, have become incorporated under the name of the W. E. Sandford Manufacturing Company, with a capital of \$300,000 for the purpose of continuing and enlarging their business.

THE attention of manufacturers of textile goods is directed to the business card of Messrs. W. R. Brock & Co., Toronto, who announce that they are always open to buy and pay spot cash for lines of such Canadian made goods to clear out stock. Manufacturers who have such goods on hand should govern themselves accordingly.

AT the annual meeting of the Canada Cotton Company, recently held at Hamilton, satisfactory reports were presented, and Hon. Mr. McInnes was elected President, and Managing Director. A quarterly dividend at the rate of 6 per cent. per annum was declared, after providing for a loss of over \$40,000 by the inundation at Cornwall last January.

IT is said that the asbestos found in Canada is the best in the world. This peculiar fibrous material is incombustible, and is readily woven into cloth. The asbestos floor covering of the premises of the American Watchcase Company in Toronto saved that works from destruction by fire a few weeks ago. There is a wide possibility for the utilization of asbestos in manufactures in Canada.

A MANUFACTURER of Roubaix has just discovered a very curious application of electricity to looms. He adopts an indicator which strikes when a thread in the warp breaks, and thus saves the warper from taking out any of his work to find the flaw, and he need not pay such close attention to the quickly moving threads, which is so injurious to the sight. The invention can be applied to power looms.

THERE are in Russia 330 linen mills, with an annual production valued at \$9,000,000; 280 factories breaking flax and hemp, with a production valued at \$6,000,000, and 300 rope factories, with a production valued at \$2,000,000. Fully nine-tenths of the entire amount of flax and hemp used in Russia is worked by hand, and only one-tenth by machinery. There are only about 3,000 steam looms and 12,000 hand looms in that country.

THE Globe Woolen Mills Company, Montreal is a concern recently organized with a capital stock of \$200,000. They have purchased the Corriveau silk mills at Hochelaga, which will be converted into a woolen mill for the manufacture of fine dress goods, under the superintendency of Mr. W. F. Esten. Two new wings are being added to the mills, one 159 by 44 feet, the other 102 by 52 feet, and the best machinery obtainable is being procured.

A MOVEMENT is on foot to form a stock company to operate the Port Elgin, N.B. Woolen Mills with a capital of \$30,000. The provisional directors are to be Messrs. Hazen Copp, W. F. George and H. R. Emmerson. Some of the creditors are in favor of this arrangement. The Port Elgin people are very anxious to see the mills again in operation. Besides being of great importance to the place locally, it is of great convenience to the wool growers of the country.

SOME of the mills in Fall River, Mass., are putting in a new safety device for stopping the engines from any part of the mill. An electric wire runs from the engine to each room. There is a box in each room, from which, by the simple turning of a key, the engine may be instantly stopped. This device is designed for use in case of accident in any part of the mill, rendering it necessary to stop the machinery. The boxes are sealed to prevent their use except in cases of emergency.

IF the condensed breath collected on the cool window panes of a room, where a number of persons have been assembled, be burned, a smell as of singed hair will show the presence of organic matter, and if the condensed breath be allowed to remain on the windows for a few days it will be found, on examination by microscope, that it is alive with animalculi. It is the inhalation of air containing such putrescent matter, which causes half of the sick headaches, which might be avoided by a circulation of fresh air.—*Fibre and Fabric.*

THE French Manufacturers' Union for the repression of fraudulent trade marks has just gained a signal victory at Hamburg. The Union in question had invented a stamp for the purpose of guaranteeing

the quality of French goods, and from knowledge which came into its possession, it had reason to believe that this stamp was being imitated for Roumania by a Hamburg house. Proceedings were immediately taken, after due enquiry, against the delinquents, who were condemned to pay damages for every violation of the mark in question.—*The Manufacturer.*

IN the production of flax and hemp Russia surpasses other countries. Russian flax is considered next to Irish in quality. The annual yield of Russian flax amounts to 8,000,000 pounds (or 63 per cent. of the flax crop of Europe), valued at \$55,000,000, half of which quantity is exported. The annual crop of hemp in Russia amounts to 400,000,000 pounds (or 40 per cent of the hemp crop of the world), valued at \$20,000,000. The exports of both flax and hemp have been decreasing for the last five years, owing to increasing competition from other textiles, particularly cotton and jute.

THE number of sheep in Russia is estimated at 48,000,000, or 27 per cent. of the total in Europe. The annual yield of wool in Russia amounts to 400,000,000 pounds, or two-fifths of the product of Europe. Half of the Russian wool is exported. Only one-fifth of the wool raised in Russia is merino, the bulk being of a coarse nature. The annual production of woolen fabrics is estimated at \$125,000,000. The annual consumption of wool per capita is smallest in Russia. It is estimated at only 77c; in Italy, \$1; in Germany and Spain, \$2.25; in England, Belgium and Holland, \$3.75; in France, \$4; and in the United States, \$4.75 per capita.

THE cotton industry in Russia has reached immense proportions, the annual imports of raw cotton being about 300,000,000 pounds, valued at about \$43,000,000. For years cotton has been raised in some places in central Asia, but since the annexation of those regions the industry has declined. As the cotton of Turkestan is of inferior quality, the Russian government is encouraging its cultivation there with American upland seeds, which yield a very good fibre. However, to this time, the government's experiments in planting American seed both in Turkestan and the Caucasus have no practical results. From the Asiatic possessions Russia annually receives only about one-tenth of the amount of cotton needed for domestic consumption.

AN Ontario woolen manufacturer who is visiting in Winnipeg is understood to be favorably impressed with the field there, and will endeavor to associate with himself several local capitalists, for the purpose of establishing a first-class woolen mill in Winnipeg. Such an industry should prove a success in this country, and it is to be hoped the mill will be established in due time. There is only one small mill in the province in operation, whilst the raw material is now produced to a large and rapidly increasing extent. Last season a considerable quantity of wool was shipped to Toronto, and this year the available surplus for export will be greatly increased. There would seem to be no good reason why this wool could not be manufactured on the spot, instead of being shipped to Eastern Canada, manufactured there and then sent back to the Northwest in the shape of the various products of the mill. The saving in freight charges for the double trip should amount to quite an item in favor of the manufacture here, and help very materially in neutralizing the advantage enjoyed in the East in the way of cheaper labor, etc.—*Winnipeg Commercial.*

THE derivation of the word "calico" is very interesting as of such an ancient date is its origin. Mrs. Leonowens says in her "Travels in India," that "in the year 1498, just ten months and two days after leaving the port of Lisbon, Vasco da Gama landed on the coast of Malabar, at Calicut, or more properly Kale Rhoda 'City of the Black Goddess.' Calicut was at that period not only a very ancient seaport, but an extensive territory, which, stretching along the western coast of Southern India, reached from Bombay and the adjacent islands to Cape Comorin. It was at an early period so famous for its weaving and dyeing of cotton cloth that its name became identified with the manufactured fabric, whence the name calico. It is now generally admitted that this ingenious art originated in India in very remote ages, and from that country found its way into Egypt. It was not until toward the middle of the seventeenth century that calico-printing was introduced into Europe. A knowledge of the art was acquired by some of the servants in the service of the Dutch East India Company and carried to Holland, whence it was introduced in London in the year 1676." It is surprising for grown-up children, as well as our young folks, to learn that "Pliny as early as the first century mentions in his natural history that there existed in Egypt a wonderful method of dyeing white cloth." Calico cannot be despised when it boasts of such antiquity. The showy make-up of the present day may look down with contempt upon the calico dress, but "what kind of a lineage has it?" the calico can proudly ask.

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*The hole in every pulley can be readily bushed to fit any sized shaft. Bushings furnished with each pulley. Guaranteed to give from*

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## 70 PER CENT. LIGHTER THAN CAST IRON

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



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NORTHWESTERN MANUFACTURING & CAR COMPANY,  
SHAW & DENNIS, MINNEAPOLIS, MINN. STILLWATER, MINN., AUGUST 17, 1884.  
*Dear Sir:* You ask why we use the Dodge Patent Pulley. I answer because we consider them the cheapest, most convenient and satisfactory in all particulars.  
Yours truly,  
S. R. STIMSON, General Manager.

OFFICE OF NEWTON WAGON CO.,  
CHICAGO, ILL. BATAVIA, ILL., FEB 17, 1885.  
*Dear Sir:* Replying to your favor, will say that after using the Dodge Wood Split Pulley for a year or more we are satisfied they are a good thing, if not the best Pulley made and shall use them hereafter in preference to any other we know of.  
Yours truly,  
NEWTON WAGON CO.

We have sold these pulleys for one year, and they have been put to every kind of service, and their popularity is wonderful. We refer to the following users for proof of the above statements: Pillsbury & Hulbert Elevator Co., Minneapolis; R. M. Pratt & Co., Elevators; Northern Pacific Elevator Co.; The Pacific Elevator Co.; Minneapolis Harvester Works; Minneapolis School Furniture Co.; M. & St. L. R. R. Co.; Willford & Northway; Washburn, Crosby & Co.; St. Paul Electric Light Co.; St. Paul Roller Mill Co.; Minneapolis Brick Co.; N. W. Mfg. & Car Co., Stillwater, Minn., and very many others.

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION,  
NEW ORLEANS, MARCH 19, 1884.  
*Dear Sir:* I have a number of your Patent Wood Split Pulleys in use here at the World's Fair and Cotton Centennial Exposition, driving Dynamos for Electric Lighting. They are doing heavy work, and are held up by the compression of wood on iron. They hold firmly, and do not slip. I have watched with a great deal of interest the iron Pulleys of your make running at this Exposition; and I think them the best Pulleys I have ever seen. I believe they possess the following points of merit over any other Pulley: All Pulleys being split in halves; best belt surface; best shaft fastening; best method of attaching Pulleys to shafts of different sizes; best balance; lightest on the shaft; strong, and I believe durable. I heartily recommend them.  
Yours very truly,  
S. H. GILMAN,  
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According to the best scientific authority it costs one horse power to keep in motion one ton of inert weight; thus for every unnecessary 2,000 pounds weight on your line shaft, cost you one horse power. To maintain a horse power costs from \$25 to \$35 per year. Any manufacturer who will take the pains to investigate the unnecessary weight of Heavy Iron Pulleys, too tight belts, etc., will be surprised to find the enormous waste of power consumed in this manner. 60,000 Dodge Patent Wood Split Pulleys now in use. Our capacity being now equal to 100 Pulleys per day, we shall be ready to keep in stock for immediate shipment all sizes.

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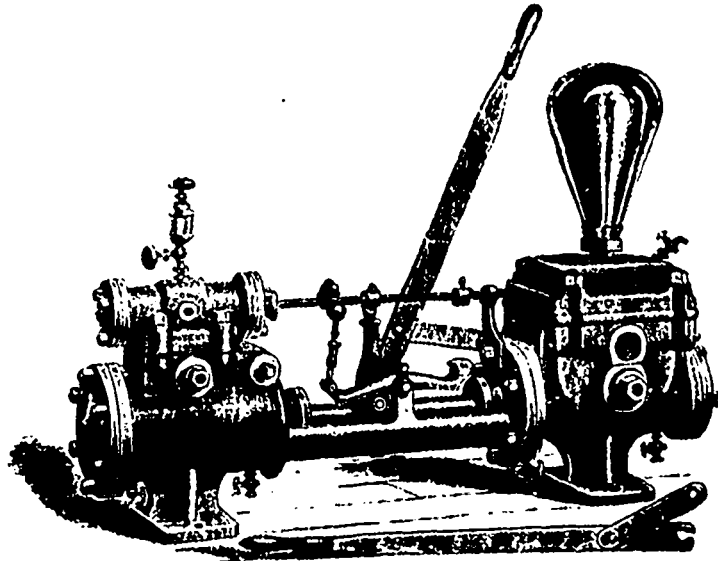
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**MACHINE BRUSHES,**

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Send full particulars of Dimensions and Quality when ordering

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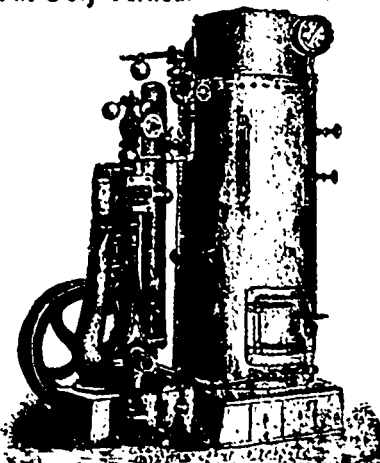
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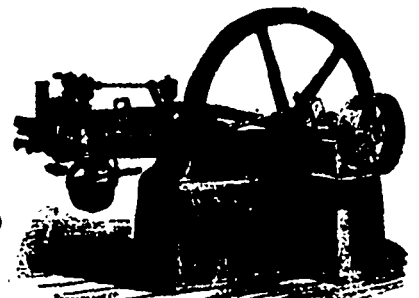
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In sizes from 2 to 7 H.P. Most convenient power in the market.

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# Milling.

THE CANADIAN MANUFACTURER.

Send \$2.00 and receive it twice a month, postage paid, for one year.

Mrs. BONFIELD, Eganville, near Aimonte, will introduce the roller system into her grist mill at a cost of \$6,000.

Mr. J. A. JULIEN has purchased from Mr. D. Johnson, his commercial flouring mills at Wallaceburg, and will proceed immediately to remodel it into a 100 barrel roller process mill.

Mr. J. C. VANSTONE, proprietor of the Bowmanville Flouring Mills, at Bowmanville, Ont., has recently received orders for his Victoria brand of flour from Antwerp, Belgium, Yarmouth, and other parts in Nova Scotia. Mr. Vanstone has also commenced the preparation of rolled and granulated wheat, which is meeting with much favor as an article of food.

The Lake of the Woods Milling Company, Keewatin, have made application for the incorporation, with a capital stock of \$200,000. It is understood that the company will erect a 1,000 barrel mill at Keewatin, on the Lake of the Woods, where there is abundant water power. An elevator will be erected in connection with the mill, and branch elevators and warehouses will be established at points throughout Manitoba, for the purchase and storage of wheat. Keewatin is about three miles west of Rat Portage and 130 miles east of Winnipeg.

The *Millers' Gazette*, of London, Eng., evidently does not think the report of extensive mill building in India by English capitalists, a matter of much concern either to the millers of Great Britain or of the United States. It has been shown over and over again that flour made from pure Indian wheat is hardly an article which either British or American millers need fear in the world's markets. An eminent British baker once remarked in these columns that American millers could well afford to encourage the free and extensive use of Indian wheat by British millers, as the more of it was used the more popular would American flour become with consumers.—*American Miller*

The Department of State at Washington has received information from the United States consul at Milan, Italy, that there will be held in that city in the months of May and June an international exhibition of flouring mill machinery and apparatus connected with bread-making, Italian paste-making, rice dressing and similar industries. The consul advises American manufacturers to send exhibits. He states that American machinery generally enjoys a high reputation in Italy; that especially hydraulic wheels and turbines and windmills are well and favorably known among the educated specialists, both for their excellence and comparative cheapness, and believes they would find a good market in Italy.

A new machine is being brought out at Montreal, so dispatches say, which will create a stir in the mechanical world. The result accomplished by the discovery is the pulverization or grinding of the hardest substance by the action of air set in a motion resembling that of a cyclone. The air is confined in an iron chamber not larger than an ordinary house furnace. At a test given in the paint factory of McDougall, Logie & Co., where the machine has been in operation for six months past, nails, iron, slag and flint rock were reduced to an impalpable powder, while the operation was equally effective with phosphates, mica, asbestos, rice hulls and other pulpy and soft substances. The device is very inexpensive, and so far as the investigation showed, accomplishes results so important as to point to a revolution in pulverizing and grinding operations in numerous departments of trade.

The cable brings the news that British millers have taken the initiative toward putting a tax on American flour. This is only part of the movement that is going on, not only in England, but in almost every civilized country looking to protection of home industries against the undue competition of outside nations. The *Millers' Gazette* points out that while in the last twenty years the home requirements of Great Britain have increased nearly six million sacks of flour per annum, the home manufacture has barely increased a million sacks in that period. The fact of the matter seems to be that the United States is rapidly reaching the same position that England occupied when she threw aside her protective duties and attempted to convert the world to free trade. A pretty long-headed English manufacturer told Mr. Bookwalter that he honestly and earnestly hoped that the United States would not adopt free trade,

as he believed we could then undersell England on every market in the globe. This is a peculiar world. Nations and parties rarely occupy the same platform for any great length of time; hence the strange bed-fellows.—*American Miller*.

The head miller, as he is called in America, of a first-class mill, is very liberally remunerated, and in Budapest, again, the heads of the large flour mills receive high salaries. The mills of Budapest and Minneapolis are, it should be remembered, the best types of the modern merchant mill, and it is probable that their organization might in many points be copied with advantage by us. There is no doubt that the modern merchant miller, if he would succeed, must look after his mill with the same minute attention to detail that is exercised in any other manufacturing business. It is an accepted axiom, which has been often proved by experience, that a factory success or failure may turn upon details of apparently little significance. In a large flour mill on the modern system, with all its inevitable multiplication of departments, there are many possibilities of what is currently termed "leakage," and it must be the miller's constant care to detect and prevent all leakage, if he would keep afloat. So convinced are the Hungarians of the complicated organization of a flour mill that it is very usual in the Budapest mills to divide the work up into two broad divisions: The mill proper, that is to say, the process of manufacture, being placed under the sole supervision of a manager called the technical director, while the counting-house and merchant department is under the guidance of a second chief, known as the commercial director. Now, whether it be possible or advisable in this country to so order a flour mill, it is yet certain that the owner of a mill, if he takes supreme command of his business, must be a manufacturer and merchant at the same time. As a manufacturer, he must understand the process of flour manufacture in all its details, and as a merchant, he must have a thorough knowledge of how to buy and sell at the best advantage. This fact has been appreciated by those in authority at the German milling school at Chemnitz in Saxony, where the course comprehends a complete grounding in the duties of the counting-house as well as in the mysteries of milling proper.—*The Miller, London, England*.

The amount of money spent yearly on cereals and flour in Great Britain forms a very serious item in the national expenditure. The *Shrewsbury Chronicle*, speaking of this fact, says that the total thus spent in 1886 exceeded £43,000,000, and for the previous year nearly £33,000,000. The principal expenditure is on wheat, of which, in 1886, 47,404,344 cwt. were purchased, at a cost of £17,888,155. The amount paid to America was nearly £10,000,000, or considerable more than half. In 1885 the proportion was very different. Then, as in 1886, the total was close on £10,000,000, but in 1885 the total expenditure on foreign wheat was no less than £24,006,013. In 1886 Great Britain bought of India to the extent of nearly £4,000,000, while £4,500,000 were paid to the same producer in 1885. It is satisfactory to note an increase trade with Canada; in 1885 our North American colonies sent us 1,745,542 cwt. of wheat, obtaining £716,829 therefore, and in 1886 they contributed 3,080,964 cwt., worth £1,182,728. Russia is a singularly valuable shipper. In 1884 she sent us £2,126,660 worth of wheat, which in 1885 was suddenly increased to an amount valued at £4,461,722; but in 1886 the value of her wheat shipments was £1,392,383 only. The chief of the minor contributors to our wheat supply are Germany, to which we pay about £500,000 (£520,184 last year); Chili, about the same (£627,510 last year); and Turkey about £100,000 (£82,301 last year). Australia and New Zealand are the most variable of all our sources of supply. One year we may get from them wheat and flour worth over £1,000,000; the next nothing at all may arrive. In 1885, 1,064,000 qrs. of wheat were shipped from Australia; in 1886, 50,000 qrs. only. Bad crops and good crops mark different years in Australia, as elsewhere; but wheat growing must evidently be much more of a speculation in the antipodes than it is here. The expenditure of £8,254,407 of foreign flour suggests uncomfortable doubts as to the average qualities of English makes. The popularity of American flour must have more substantial basis, or it would not increase or extend among the bread consumers of the nation as it has done during the past five years. It is not a simple case of foreign competition. If English makes were preferred, we should buy what we required from the foreigner in the form of wheat, and make it into flour at home. The convenient parcels or quantities in which the American flour is sold may have something—but cannot have everything—to do with its growing use. After America, to which we pay over £6,000,000 for flour, come Hungary (£984,293), Germany (£475,859), and Canada (£421,741). Of France our flour purchases used to be rather extensive, but this branch of trade has now been languishing for ten years or more.

# Lumber.

THE CANADIAN MANUFACTURER.

Send \$2.00 and receive it twice a month, postage paid, for one year.

MESSRS. SHEEWIN & KELLY, Allanwick, have started a shingle mill at that place.

THE Rat Portage *News* reports that the Keewatin Lumber Co. will open a yard at Winnipeg.

MR. H. T. PIERCE, of Martinville, is now associated with the management of the Flint Saw Mills at Three Lakes, Que. This concern will now manufacture bobbins and spools in the rough for Messrs. Thompson & Co., Sherbrooke.

A FIR log 24 feet long, 7 feet 4 inches diameter at one end and 6 feet 2 inches diameter at the other, was recently cut into lumber at the Royal City Planing Mills, at New Westminster, B.C. The log was cut on the north arm of Fraser River, and made about 9,000 feet of lumber.

A ROAD is proposed from the Piles branch terminus at St. Tite Que. to Lake St. John. The new line would open up a country of great wealth in good land, timber, mines and fish. Some local bonuses have been voted, and a Government subsidy, it is believed, would be granted.

THE Bangor *Whig* says the new mills of the Vanceboro Wooden Ware Company are going up fast, and will soon be ready for use. The frame of the main mill, which is 30x400, is up. The slaters are at work on the planer mill, which is 40x70, and the engine room, 38x38, is framed.

MESSRS. McLACHLIN BROS., of Annprior, are said to be contemplating the erection of a railway from their Petewawa limits to the Madawaska, in order that they may have more rapid carriage of their lumber, under their own control, and free from the annoying delay of toting down the Ottawa.

LATELY a redwood tree was cut on the claim of Falk & Co., on the south fork of Elk river, Humboldt Co., Cal., which was sawed into 21 cuts, 4 of which were 16 feet long, 12 were 20 feet long and 5 were 24 feet long, making the total length 422 feet. An accurate tally at the mill showed that the 21 logs furnished 79,736 feet of lumber.—*San Francisco Chronicle*.

E. C. WHITNEY, at the meeting of the Lumber Exchange at Minneapolis, on being called on for remarks as to the outlook for the lumber trade, said that the Canadian markets had been nearly stripped, making a better demand for the Michigan product. The past winter was reported to be the worst for logging in 15 years in the Three Rivers and Ontario districts. The estimated cut on the upper Mississippi during the winter of 1886-87 is 275,000,000 feet.—*Lumberman's Gazette*.

WE have been favored by the Royal City Planing Mills Company, of New Westminster, B.C., with a number of specimens of fine dry planed lumber, manufactured by them from the timber found in that vicinity. The varieties embrace fir, spruce, alder, maple and cedar, and are well adapted to cabinet makers and similar uses. Some of these woods are cut into lengths up to 100 feet, and in widths up to 4 feet. These specimens are on exhibition in this office, where any who feel interested are invited to call and examine them.

THE toboggan craze has made a demand for a good deal of saw mill product. It does not require as much stuff in the construction of a slide as one might imagine—about 7,000 feet—but the great number of slides which have gone up make the aggregate large. It is expected, too, that more slides will be built next winter than were built this. The stuff used is principally dimension and plank. The demand for toboggan facilities has made no such draft on the lumbermen as did the skating-rink craze. To satisfy the latter, dimensions, boards, flooring, shingles, sash and doors were required. The building gave a good deal of work to carpenters. The cost of building a toboggan slide 40 feet high and 175 feet long, ought not to exceed \$225 for material and labor.

FLATT, BRADLEY & Co., Bay City, Mich., have just made a purchase of \$2,000 worth of masts, which will be shipped to England, the firm having a contract to supply masts for the British navy, which will be completed the present summer. They are at present getting out masts on the Picconing branch of the Michigan Central, and a short time since sent several carloads to Nova Scotia, the shipment being made entirely by rail, this being the first time such a shipment was made in that manner. The cars on which the

masts are loaded in this state go straight through to their distant destination. These masts are to be used in the Nova Scotia fishing fleet, and some of them may be placed in the cruisers which give Uncle Sam's fishermen such lively chases on the fishing grounds.—*Bay City Lumberman*.

A WRITER in London *Field* has been in the habit of preparing home-grown timber of inferior sorts of fir—Scotch spruce and silver—by steeping it in a tank, (that is, a hole dug in clay or peat, which was fairly water-tight) in a saturated solution of lime. Its effect upon the sapwood is to so harden it and fill the pores that it perfectly resists the attacks of the little wood-boring beetle, and makes it, in fact, equally as durable as the made wood. He says:—"I have a mill which was lofted with Scotch fir prepared in this way in 1850, and it is in perfect preservation. The timber is packed as closely as it will lie in the tank, water is let in, and unslacked lime is thrown on the top and well stirred about. There is no danger that the solution will not find its way to everything in the tank. I leave the wood in the tank from two to three months, by the end of which time an inch board will be fully permeated by it. Joists and beams would, of course, take a longer time for saturation; but in practice we find that the protection afforded by two or three months' steeping is sufficient if the scantlings are cut to the sizes at which they are to be used."

CLOSE observers fancy they are able to detect among the signs of the times a tendency to a freer use of black walnut. In late years this wood, while it has never really gone out of fashion, has given way in some degree to other and generally lighter colored varieties of hardwood. This has been especially true in respect to interior finish. Ash, cherry, birch, sycamore, butternut, yellow pine and other woods have been employed even in buildings of the best character, in preference to the darker walnut, comparatively little of which has been used in consequence of the growing demand for hardwood finish. But late contracts for fine residences, it is said, call for walnut finish very liberally, and many predict an increased demand for it, growing out of this new freak of fashion. If this forecast be correct, it means a continued rising market for walnut. The wood is already notably scarce, and any great expansion in the demand might be hard to meet. The present trouble with the walnut market does not appear to be due so much as might be supposed to the exhaustion of the supply of timber. Buyers who are scouring the country for stuff to fill their orders, say they find plenty of logs and a fair amount of freshly-sawed stock, but of dry lumber, or even that which has been ninety days on sticks, there is but little to be had. The natural effect of these conditions will be to stimulate the production of walnut during the present season, and give mill men who have it to cut a chance to realize at what ought to be satisfactory prices.—*Chicago Lumberman*.

THE principal industry of the town of Trenton, Ont., is the lumbering interests of Messrs. Gilmour & Co., under the management of Mr. David Gilmour. The property utilized for lumbering purposes lies along the Trent river and extends from the shore of the bay of Quinte to the Grand Trunk Railway tracks, a distance of two miles. At the mouth of the river, and on the bay shore, where there is ample dockage, are located the timber mill, lumber mill and shingle mill, machine shops, engine houses and fire department sheds. The lumber mill has a capacity of 350,000 feet of inch and inch and a half lumber per day of ten hours, cut by gang and circular saws. The timber mill turns out 50,000 feet of ordered stuff daily for builders, and the shingle mill, equipped with the best machinery, cuts 125,000 shingles per day. 500 men are employed in these mills. A complete railway extends the entire length of the property, and has connection with the Grand Trunk and Central Ontario railways, and the yards have storage capacity for 40,000,000 feet of lumber. The big mill is driven by a 1,500 horse power engine, steam for which is generated by 16 boilers. A 250 h. p. engine drives the shingle mill. Connected with the mills is a complete fire system. A commodious brick fire shed has been erected at the water's edge, between the two largest mills, with stables, engine room and quarters for the men. The fire company is composed of 25 uniformed men. They have charge of an Amoskeag steam fire engine, purchased in New Hampshire at a cost of \$6,000. Besides the steamer there is a force pump in the engine house connected with a 12-inch pipe which leads around the different mills and through the yards. This pump can throw 15,000 gallons per minute. There are 10 hydrants outside the mills and 18 inside. An electric fire alarm system, 16 bells, connects the several principal parts of the yard with the fire department. The planing mill is run by water power. At present it has four planers of the latest and best makes. There is room in the building for five more. The mill has a capacity for planing 80,000 feet of lumber per day.

# Mining.

THE CANADIAN MANUFACTURER.

Send \$2.00 and receive it twice a month, postage paid, for one year.

Coal. Branch coal, taken from the outcrop of a 17-inch seam, is in use at Weldford, N.B.

The Temploton and Blance River Phosphate Mining Company was organized at Montreal, March 31st, by-laws passed and directors elected.

SHIPMENTS of coal from the Parisboro mines, near Spring Hill, N.B., began earlier this season than usual. The output of the mines is maintained at about 1,700 tons a day.

A few days ago the British steamer "Sacrobosco" arrived at Philadelphia from Leith, Scotland, with 2,263 tons of coal, one of the largest cargoes of the kind ever imported into that city.

The Victoria Times mentions the fact of quite a number of vessels having been chartered at San Francisco to load coal at Nantimo, B.C. for the former city, and others to load for Honolulu.

Mr. JOHN PAUL, of Ramsay, near Almonte, has received the diploma and medal awarded him at the Colonial Exhibition in London last year for his display of white crystalline limestone and lime.

Mr. E. V. WRIGHT is engaged in mining for silver above the head of the Madawaska. He anticipates on his return in June to bring down specimens of ores that will be proof of the wealth in mineral deposits in that region.

Quite remunerative returns in gold are being had from the ore taken out of the mine at the village of Albert, formerly Hopewell Corner, New Brunswick. Considerable new machinery is about being placed in the works, which are under the management of a Mr. Sargent, of Boston, Mass.

The developments at what is known as "The Globe" manganese deposit in the Dutch Valley district, New Brunswick, continue satisfactory, and the owners are much encouraged. Mr. F. J. Alley, of Bar Harbor, Maine, is the principal promoter of this mine, the developments being done under the superintendency of Mr. W. N. Gould.

Reports from Buckingham say that phosphate mining is moving northwards, several hundred tons having been taken from a mine on the River du Sud, a territory of the De Lievre, some forty miles above the village. The phosphate is of excellent quality, the percentage rating high. It is hauled to the foot of the Long rapids by sleighs, and will be conveyed from that point to the village by scows for shipment.

A NUMBER of persons interested in the establishment of public smelting and sampling works in connection with the mines of British Columbia, were in Ottawa recently on business with the Department of Customs. They want the admission, free of duty, of peculiarly constructed machinery, for the purpose of carrying on their business. The works are to be erected in the Selkirk range and other parts of British Columbia, which are rich in minerals but comparatively valueless for agricultural purposes.

The aggregate quantity of lower ports coal already contracted for delivery during the coming season of navigation, by Montreal coal agents, totals about 225,000 tons. The largest purchasers are, of course, the railway companies and some of the mills. The price paid is about \$3 per ton. The freight on the coal from points of shipment to Montreal for time chartered steamers, which are now almost exclusively employed in this transportation, is about 8s. 6d. sterling per registered ton monthly.—*Montreal Star*.

ACCORDING to the report of the Minister of Mines in British Columbia, the production of gold in that province from 1858 to 1886 amounted to \$50,289,517. The largest returns were during the period from 1864 to 1868, amounting to \$3,000,000 annually. The returns in 1875 were \$2,474,904. The amount of gold exported by the banks of Victoria in 1886 was \$750,043 or an excess of \$160,000 over the previous year. During last year 3,147 men were employed in the gold mines at an average wage of \$287 each.

NOTWITHSTANDING that the gold miners in Australia have a reputation for being experts at their business, the Government is anxious to obtain the best information possible as to the experience of

other countries in this connection. It is, therefore, understood that it has under consideration the advisability of appointing a Royal commission to obtain the latest information on gold mining in America, and the best methods of extracting the gold from refractory ores, with a view to the saving of the precious metal during treatment.

The only mining companies that have yet effected any coal contracts are the General Mining Association, Gowrie and Little Glace Bay mines. These contracts have all been made within the Dominion. The prospects, however, are good for a brisk season around our mines. The price of coal in the various cities and manufacturing centres has an upward tendency, and should war break out in Europe, as is not improbable, there should be a greatly increased demand for coal. Then again the price of American coal is likely to be much higher than it has been for some years past, which will materially assist the demand for our coal in the Upper Province markets.—*North Sydney Herald*.

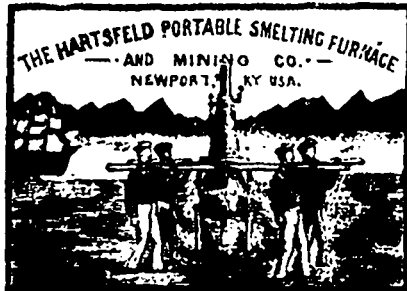
The Royal Queen Smelting and Refining Company, of Queensbury, Eng., who are about erecting extensive smelting works at Denver, Colorado, have contracted with the Hartsfeld Portable Smelting Furnace Company, of Newport, Kentucky, for a refining and smelting plant of 500 tons daily capacity, together with all necessary engines, boilers, shafting, pumps, blowers, belting, tools, and other requisites to be delivered at the company's premises in Denver, and put in operating condition on or before June 15th next. It is claimed for the Hartsfeld smelting apparatus that it will save volatile metal in the otherwise escaping fumes, and in labor and fuel, to the extent of more than \$2 per ton over other smelter, in use of similar capacity, which, in the works here alluded to as about being erected in Denver, will amount to about \$1,000 a day.

MR. ISAAC OPPENHEIMER, a prominent merchant of Vancouver, B.C., in a recent interview speaking of the mining prospects of that part of Canada, said:—"Quartz mining in British Columbia is now a matter of fact. In Cariboo, Lilloett, Nicola, Yale, Selkirk, and other districts, mines are being steadily developed. The Provincial Government this session have passed a grant of \$60,000 to assist in the development of mines. The Quesnel Company at Heroon Creek and the British Columbia Milling and Mining Company are now working shafts in the Cariboo district, and both are sinking on good paying lodes. The Foster mine in the Lilloett district will commence crushing ore on the 15th inst., and capital results are anticipated. The first two will have their mills in operation this season. I have not the slightest doubt that the discoveries of new and rich gold deposits in British Columbia will yet startle the outside world, and that the influx of mining population will exceed the expectations of the most sanguine. Hitherto it has been up hill work to get people into the country; but with the opening of the Canadian Pacific Railway and the facilities afforded, the country cannot help developing rapidly and the immense wealth hidden in the Pacific Province be exposed. Already several hundred thousand dollars have been expended in the development of our quartz mines. There is a great future ahead of British Columbia as far as her mineral wealth is concerned."

The United States Geological Survey in its recently issued report states some very interesting facts regarding the mineral products of Canada. In an article of "Fertilizers," it is shown that the Canadian production of phosphate of lime to have grown from 3,701 tons in 1878, to 24,290 tons in 1885. Regarding gypsum it is said that the beds of that material in Nova Scotia contain the purest deposits yet discovered, that the supply is practically inexhaustible; and that the Grand River Plaster Company of Canada, sends about 5,000 tons of white gypsum into the United States annually. Under the head of "Pyrites" we are informed that the output of the Oxford Copper and Sulphur Company's mine, in Oxford township, Que., and of the Albert mine, amounted in 1885 to 35,000 tons. "This ore was first burned for making sulphuric acid and the cinder smelted into copper matte," most of which was shipped to England for refining. These ores carry about an ounce of silver for each per cent. of copper extracted from the matte, and while carrying workable quantities of copper, burn with great freedom. Speaking of asbestos the report says that the production of asbestos in the United States during 1885 was very slight, "owing to the competition of Canadian producers," and that the importation of Canadian asbestos is increasing. Thetford and Coleraine townships, Que., make large shipments of the article to the United States, the average value of which is about \$70 per ton. A very large proportion of the terra alba used in the United States as an adulterant in paints, confectionary, etc., is made from Nova Scotia gypsum.

The Accident Insurance Company of North America, for which Messrs. Medland & Jones, Toronto, are general agents, have introduced a new system of accident insurance for mercantile and professional firms. It is that of granting joint policies of insurance against accident on members of partnership firms, whereby the whole firm is included under one policy, and in the event of either member dying from accidental cause, the amount of the policy is payable to the surviving member for the benefit of the firm.

A horse power is a unit of power established by James Watt to be equivalent to a force of 33,000 pounds acting with a velocity of one foot per minute, which is the same as a force of 550 pounds acting with a velocity of one foot per second. That is to say, one horse power is 550 foot-pounds of power or effect, or 11-man power of 50 effects each. The product of any force in pounds and its velocity in feet per second, divided by 550, gives the horse power in operation. In Watt's rule for horse power is given a velocity of only one foot per minute, which is equal to 0.2 or one-fifth of an inch per second about the velocity of a snail. The force corresponding to this velocity is 33,000 pounds, or about 15 tons, which is too large for a clear conception of its magnitude, and a horse can pull 550 pounds with a velocity of one foot per second which is the most natural expression for horse power.



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**NOTICE.**

SEALED TENDERS, addressed to the undersigned, and endorsed "Tenders for Indian Supplies," will be received at this office up to noon of SATURDAY, 30th April, 1887, for the delivery of Indian Supplies during the fiscal year ending 30th June, 1888, consisting of Flour, Bacon, Groceries, Ammunition, Twine, Oxen, Cows, Bulls, Agricultural Implements, Tools, &c., 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, &c., 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 for 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 on a Canadian bank in favor of the Superintendent General of Indian Affairs for at least five per cent. of the amount of the 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.

Tenders must make up in the money column in the Schedule the total money value of the goods they offer to supply or their tender will not be entertained.

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

When implements of a particular make are mentioned it is because the articles so designated suit the Department for the purpose required better than others; in such cases the competition between the tenders must, of course, be in the transportation to the place of delivery.

In all cases where transportation may be only partial by rail, contractors must make proper arrangements for supplies to be forwarded at once from railway stations to their destination in the Government Warehouse at the point of delivery.

Tenderers will please note carefully the following conditions:—

1. Supplies will not be paid for until the Department has been assured of the satisfactory delivery of each article for which payment is claimed.
2. No tender for supplies of a description different to that given in the Index will be considered, and supplies which are found, on delivery, to be of a kind or quality different to those described, will be rejected by the agents of the Department; and the contractor and his sureties will be held responsible for any loss entailed on the Department through failure to deliver in accordance with terms of contract.
3. It must be distinctly understood that supplies are to be delivered at the various points for the prices named in the tender; that no additional charge for packing or any other account will be entertained, and that an invoice must accompany each separate delivery of supplies. An invoice for each separate delivery must also be sent to the Department of Indian Affairs at Ottawa, and one to the Indian Commissioner at Regina if the supplies are for the North-West Territories. When the supplies are for points in the Manitoba Superintendency, the triplicate invoice should be sent to E. McColl, Winnipeg.
4. Prices must be given for articles to be delivered at each point for which a tender is submitted, and not an average price for each article at all points of delivery; no tender based on a system of averages will be considered.
5. Tenderers should understand that they must bear the cost, not only of sending their samples to the Department of Indian Affairs, but also freight charges incurred in returning such samples to the tenderer.
6. When supplies are to be delivered "equal to sample," tenderers should understand that the sample is to be seen either at the Department of Indian Affairs, at the office of the Indian Commissioner at Regina, at the office of the Inspector in charge at Winnipeg, or at any one of the undermentioned Indian Agencies.

**MANITOBA.**

AGENT.	AGENCY.
H. Martineau	The Narrows, Lake Manitoba
F. Ouelletre	Portage la Prairie.
A. M. Muckle	St. Peter's.
H. J. N. Pither	Fort Francis.
Geo. McPherson	Assabaskasing.
John McIntyre	Savanne.
J. Reader	Graud Rapids.
A. MacKay	Beren's River.

**NORTH-WEST TERRITORIES.**

AGENT.	AGENCY.
J. A. Markle	Birtle.
J. J. Campbell	Moose Mountain.
A. McDonald	Crooked Lakes.
W. S. Grant	Assiniboine Reserve.
P. J. Williams	File Hill.
J. B. Laish	Muscowpetung's Reserve.
H. Keith	Touchwood Hills.
J. M. Rae	Prince Albert.
J. A. Mackay	Rattleford.
G. G. Mann	Onion Lake.
J. A. Mitchell	Victoria.
W. Anderson	Edmonton.
S. B. Lison	Peace Hill.
W. Pocklington	Blood Reserve.
M. Hegg	Blackfoot Crossing.
W. C. de Balinhard	Sarcee Reserve.

and that no attention will be paid to a sample of any article which may accompany a tender, if a standard sample of such article is on view at the department of Indian Affairs, or any one of its offices or agencies aforesaid.

7. These Schedules must not be mutilated—they must be returned to the Department entire, even if the supply of one article only is tendered for—and tenderers should in the covering letter accompanying their tender, name the pages of the Schedule on which are the articles for which they have tendered.

The lowest or any tender not necessarily accepted.

L. VANKOUGHNET,  
Deputy of the Superintendent-General  
of Indian Affairs.

Department of Indian Affairs, }  
Ottawa, Feb'y., 1887.

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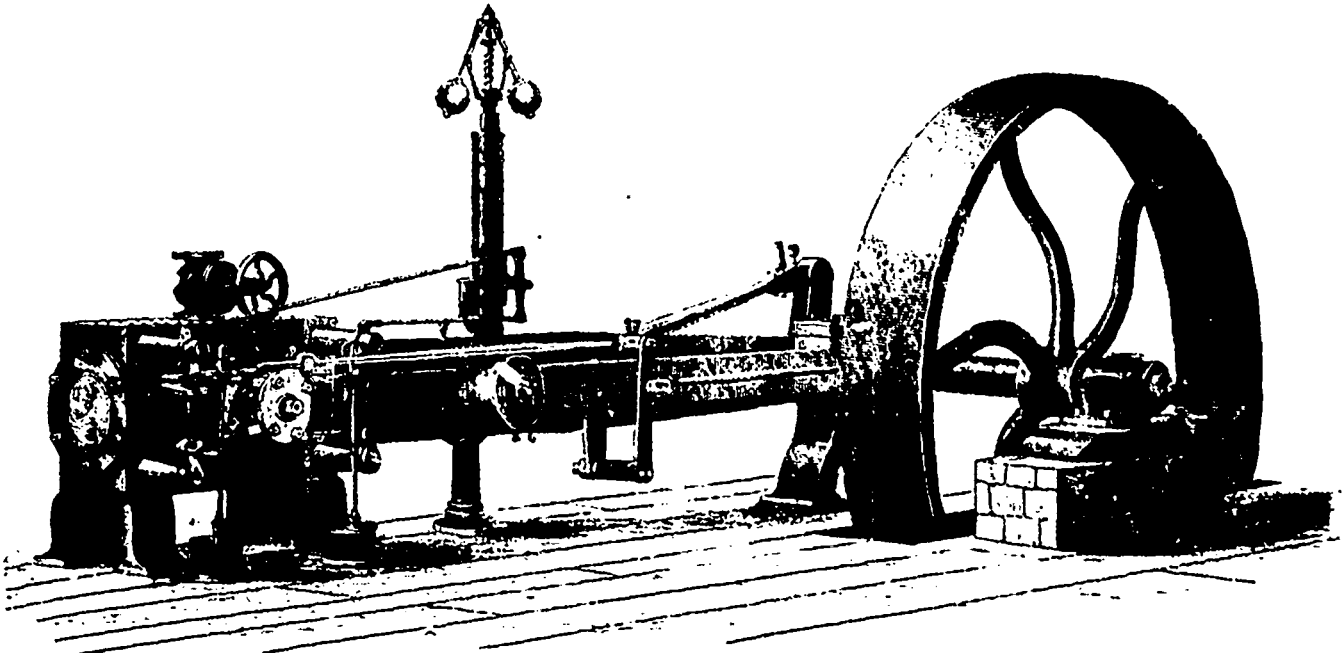
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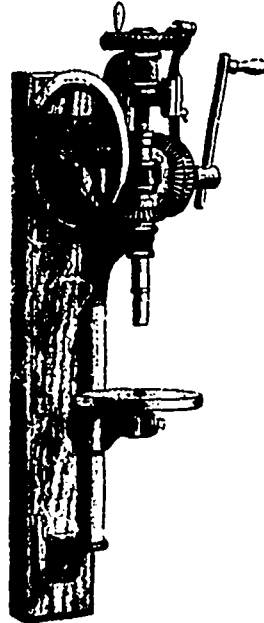
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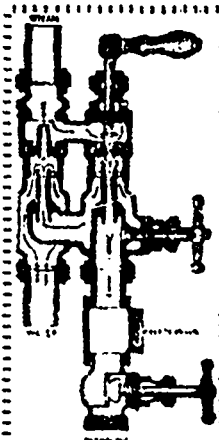
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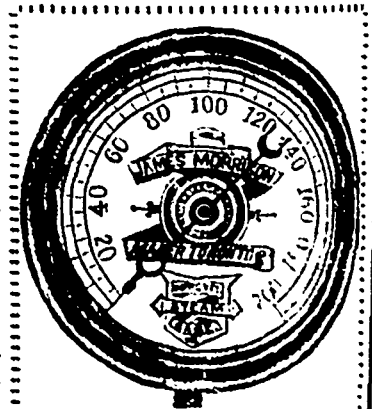
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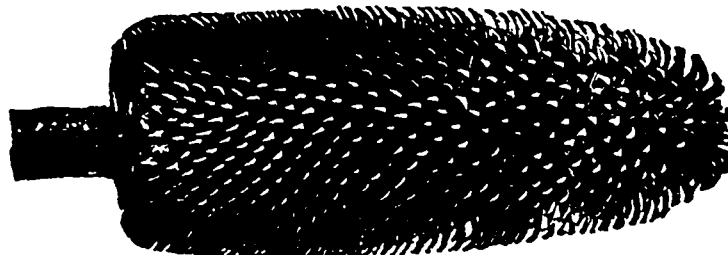
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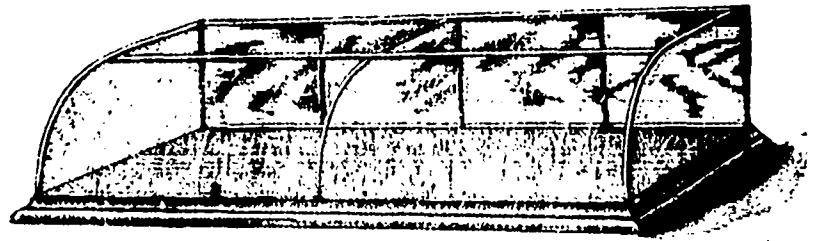
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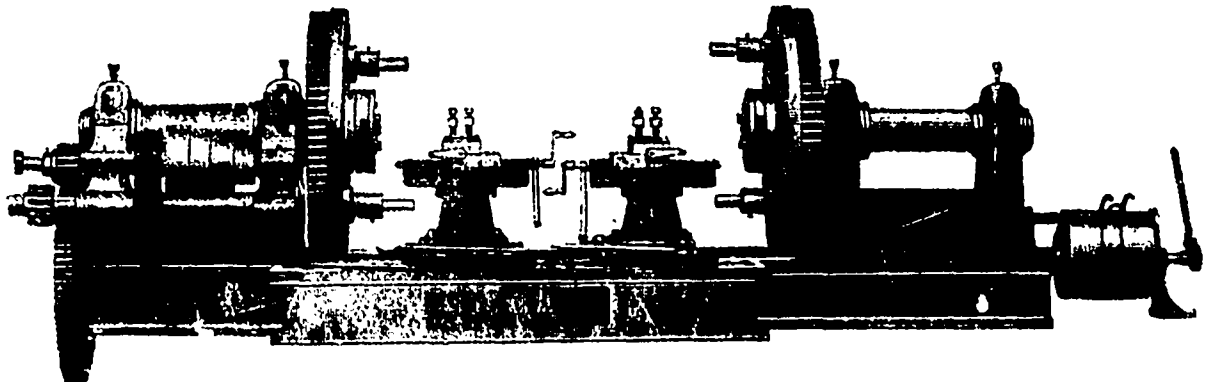
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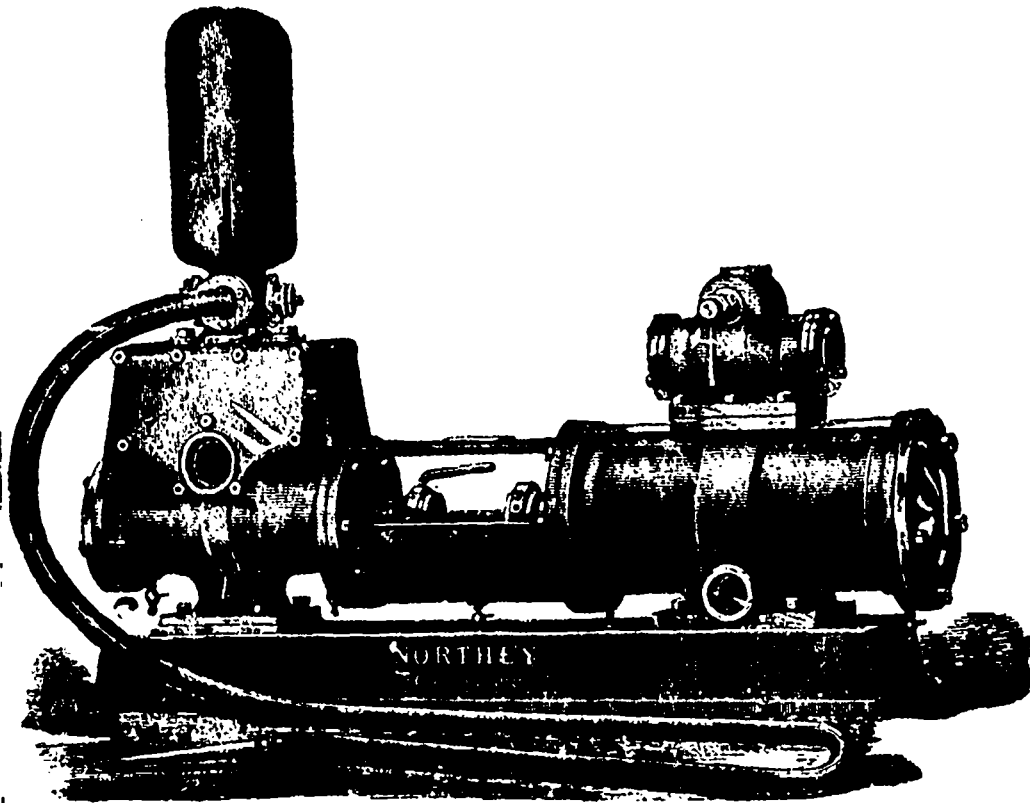
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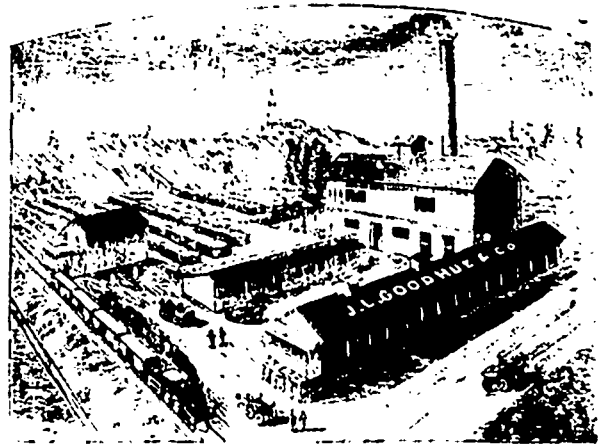
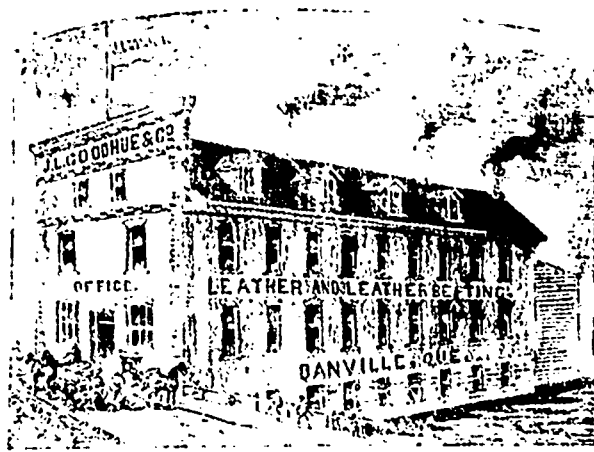
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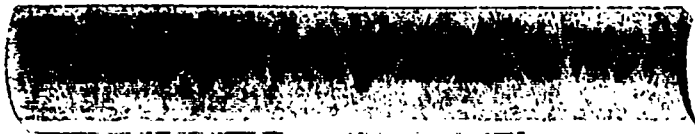
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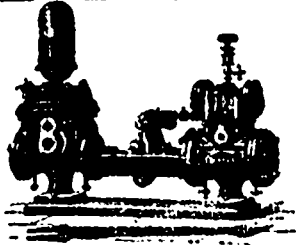
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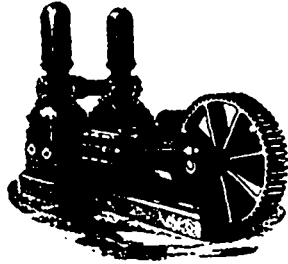
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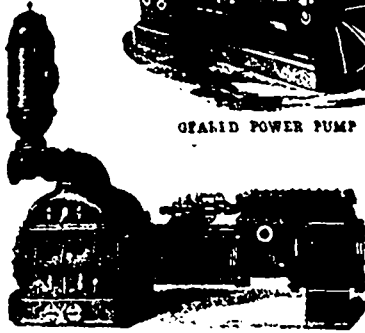
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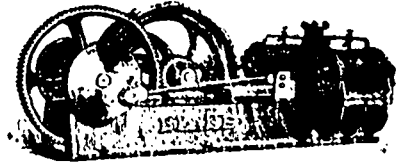
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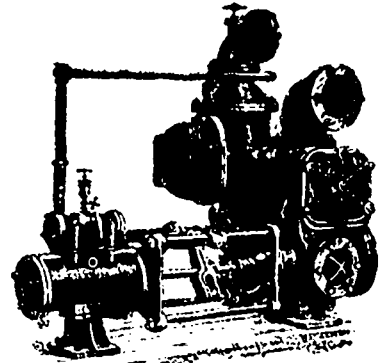
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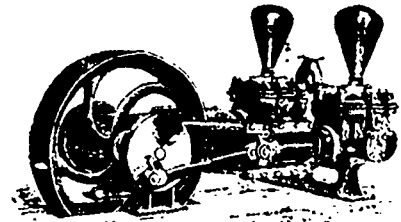
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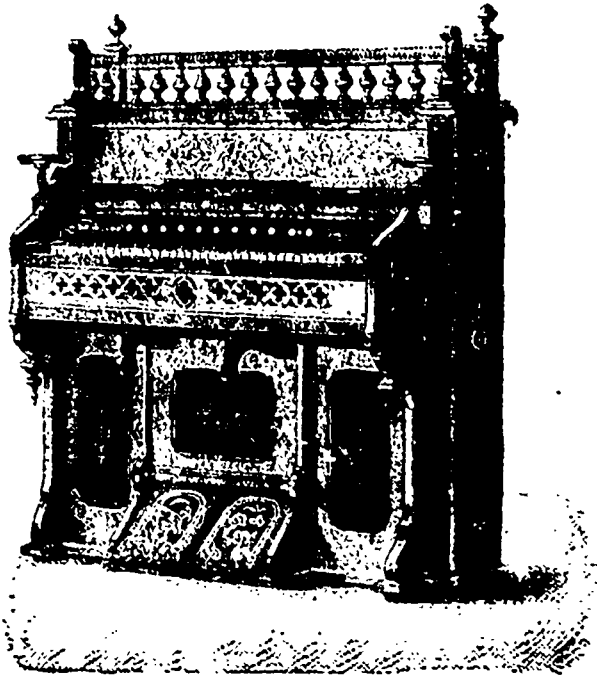


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**G. OUTRAM & SON**, Dominion File Works, Montreal.—Manufacturers of every description of files and rasps.

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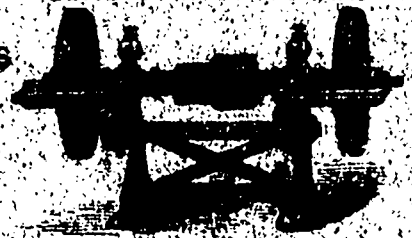
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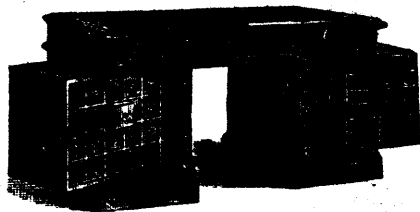
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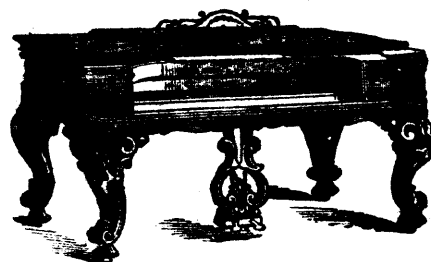


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