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THE CANADIAN MANUFACTURER AND INDUSTRIAL WORLD

DEVOTED TO HOME INDUSTRIES, COMMERCE, FINANCE, INSURANCE, RAILWAYS & MINING.

Vol. 2. TORONTO, FEBRUARY 9, 1883. No. 4.

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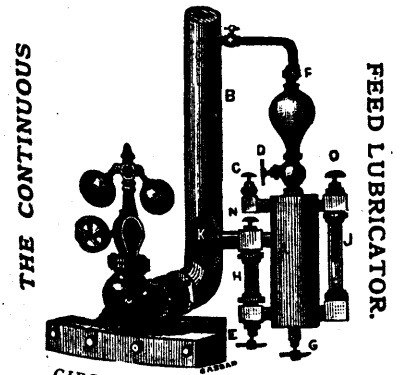
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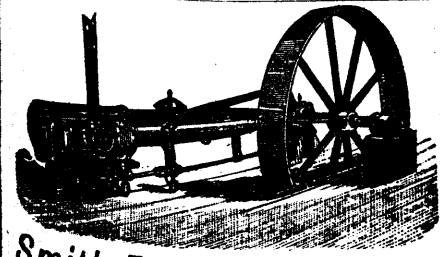
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THE CANADIAN MANUFACTURER

AND INDUSTRIAL WORLD.

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VOL. II.

TORONTO, ONT., FEB. 9, 1883.

No. 4.

RECIPROCITY IN MANUFACTURES.

Referring to some remarks by the *New York Sewing Machine Journal*, relative to the establishment by the Singer Company of a branch manufactory in Canada, we invited our contemporary to say whether it approved of the old unfairness of free trade on one side of the border along with protection on the other. On which point the *Journal* thus replies:—

"It does not require any special boldness or bravery on the part of the *Journal* to say that it does not believe in any one-sided system. It is well understood, at least by those whose capital is invested in manufacturing enterprises, that such enterprises must be protected in a young and growing country, else they never would be entered upon, or if begun would have to struggle against fearful odds, and perhaps perish ere they gained maturity. Most manufacturers on this continent come within this category, those of Canada as well as those of the United States. Therefore, protection of home manufacture is and always has been a cardinal principle in our politics. The manufacturers of Canada being governed by the same circumstances, must of necessity follow the same course for self-protection, and no right minded person should take exception to it. If our sewing machine manufacturers do not care to pay a duty that they—through the government officers—compel Canadian manufacturers to pay under similar circumstances, they are not the kind of men we take them to be. Fair play is all they ask. To repeat what was said in the *Journal* last October when speaking on this same subject: "What is sauce for the Canadian goose ought to make the American gander palatable." and vice versa. Free trade in Canada and protection in the United States would be a little too one-sided for any sensible man to ask. But what does our esteemed Canadian contemporaries think of reciprocity between two such neighbors as Canada and the United States, whose interests are, and always must be, nearly identical?"

This means, of course, reciprocity in manufactures. As for reciprocity in farm and other natural products, similar to what we had under the old treaty, a standing offer of it has been on the Canadian statute book for now nearly four years. No long and intricate negotiations are required to bring it into operation: a brief official communication from Washington, stating that a law to correspond had been passed by Congress, would cause reciprocity in natural products to take effect at an early date thereafter. Section 6. of the Canadian National Policy Act, passed in the session of 1879, authorizes the Governor in Council to make free by proclamation all the natural products named (as in the old treaty) immediately the same articles are made free by the United States. By this plan there would be no treaty, but merely reciprocal legislation, which either party

could repeal at discretion at any future time, and without any necessity of giving notice. So much for reciprocity in natural products only. But what the *Journal* has in view is reciprocity in manufactures, sewing machines included, and we are asked what we think of that.

We have to reply that it would not do for Canada at all, for the reason that it would work ruin to our manufacturers generally. In most branches Canada is but a young manufacturing country, compared with the United States. Over the border the number is legion of individuals and of companies, far longer established and working on a far larger scale than anything we have to show on this side. In some branches we might probably hold our own—in woollen fabrics and in boots and shoes, for instance, and possibly in sewing machines to some extent. But in cottons, and in most kinds of iron and other metal work, the great companies of the States nearest to us would soon flood our markets and close up our factories, if there were open ports on both sides. American manufacturers would make big sales on our side, from Halifax to Winnipeg, but if Canadian manufacturers attempted to make sales in the Western States, they would find themselves "left" pretty badly. In manufactures generally the Americans are older, and greater, and stronger than we are, and we may as well admit that under straight reciprocity we would be beaten out of the field. We may safely enough offer reciprocity in natural products; but not in manufactured articles, at our peril.

During the war, and for years afterwards, say up to 1873, values were so enormously inflated in the United States that many manufactured articles could be and were turned out cheaper here than there. But that time and its peculiar circumstances have passed away, probably never more to return. Even supposing the actual cost of production were the same on both sides, our American competitors, with their far larger capital and far larger turn-out annually, would be able to seize and hold this market by selling at or under cost until Canadian competition was crushed out. We cannot afford to run the risk, either with the United States or with England. Those who think we should try it are cordially invited to state their reasons why. During the war, and for a number of years after it had closed, there were Canadian manufacturers who thought that with open ports on both sides they could compete with the Americans. We doubt whether there be any among them who remain of the same opinion still; but if there are, we should be glad to hear their reasons why, after times have so greatly changed.

ELECTRIC LIGHTING.

ITS DIFFICULTIES AND FUTURE.

The subject of electric lighting has occupied so much attention of late both in Europe and America, that the matter seems nearly threadbare. However, it may be well to look at the question from the view of a manufacturer and consider its difficulties, and to ascertain whether the light is likely to become the formidable rival of gas which in some quarters it is expected to be. Considering the electric light has been before the public as a commercial commodity for the last five years, people naturally expected to see it competing with other illuminants to a much greater extent that it has done. During the earlier part of the period we saw occasional exhibitions at the expense of exhibitors. It was with difficulty, that people could be persuaded to buy the light in the same way as gas was bought. The expense of generating the electric current, during the earlier trials, was a cause of much annoyance and disappointment to the promoters. Difficulties arose in the initial stages incident to all new inventions, one of which was to obtain a cheap source of current, a reliable lamp and a source of power which would not fail to generate a constant current of electric energy. Dynamo machines can now be made very cheaply. We have not to rely on chemical means to generate current any longer, nor have we to expend the same amount of money. The present condition of the dynamo-machine is one of great excellence, and may be relied upon to give very great and economical results. It will give out more than ninety per cent. of the mechanical force it receives as electric energy, and 90 per cent. of this may be converted into mechanical force again at a short distance of a few hundred yards. The very small loss of purely mechanical power is under twenty per cent. but this is quite capable of being reduced by further improvements in the construction of the machines. The principal features requiring alteration in the construction of the machine, are the prevention of induced currents in the iron, and the placing of the wire in such position as to make the whole of it available for the generation of outward current. These improvements are capable of almost infinite expansion, and of every variety of form, along with each of which may be expected further reductions in cost.

The next matter of interest is the creation and improvement of the incandescent lamp in vacuum. This brings us to the various lamps now before the public for the purpose of diffusing the electric current so as to make it useful as a domestic illuminant. This lamp is now so well developed in every particular that all question of improvement for the purpose of its effective working has practically ceased; we are now face to face with an entirely new system of illumination, such as five years ago was not in existence. The incandescent lamp of 16 candle power can now be manufactured for less than \$1.00 and will do 1,000 hours work before giving out. Consider the scheme of electric lighting and its cost as carried out in London, Paris, and New York. According to Dr. Siemens of London, and Mr. Edison of New York, the cost of plant is taken at about £2.0.0 and \$10.00 respectively per lamp, when the provision is for 10000 lamps and upward. Experience has shown that the most economical results from power and lamps are obtained when the number of lamps per horse power is

from 8 to 9, or 200 lamps to 25 horse power. When the number of lamps to horse-power exceeds this limit the lighting is carried on at too great a cost for lamps and when it falls below, the expense of power is increased. In other words, when too many lamps are allotted to power, the life of the lamp is shortened, and when too few, it is prolonged to a practically indefinite period, but at a cost of power out of all proportion to the saving of lamps effected. As the result of much experience, Dr. Siemens has proposed that an area not larger than a quarter of a mile square should be occupied by each central station. It is claimed that this unit of area will yield the best results in economy of plant and working cost. According to this plan of working it is shown that light of 16 candle power can be furnished to the poorest widow in her garret, for six hours a day, at less than a cent per day. These statements are not based on mere theoretical considerations, but on actual working results in London and other English cities and towns. This price is named for a London parish, where gas of 17 candle power can be bought at 64 cents per 1000 ft, which, as compared with the light of electricity, is 33 per cent dearer.

In the United States results equally great may be confidently expected from the steady rate of increase in the consumption of electric light. Strange to say, the electric light has hitherto made greater progress in England where gas is so cheap, that its price seldom exceeds one dollar, while in the large cities of forty or fifty thousand people it is not more than seventy cents, and often as low as 44 and 46. Possibly climatic conditions may have much to do with this; the humid atmosphere and the dull autumn and winter days have no doubt created a demand for better light, as they have for superior sanitary conditions. A glowing cheerful light will have an important effect on the ventilation of their dwellings, which are already superior to ours in that respect. The experience of American cities does not at present show any promise of gas becoming cheaper, or electric lighting either, unless lower prices are to be charged to consumers. In the case of isolated plants it is different, and great economy has resulted from the use of electricity by manufacturers. A plant of 60 lights of 16 candle power, may be furnished to a manufacturer at a lower cost than gas at 70 cents per thousand feet. The hourly cost of running is less than 5 mills per lamp per hour, when the expenses of power, depreciation of machinery and lamps, and interest at 6 per cent. is charged. In many cases manufacturers can spare the power required to run the dynamo machine, and this reduces the cost 20 per cent. Anybody may calculate the cost of electric lighting, for say 1200 lamps, to supply which would require on the 8.5 lamps per horse power basis, some 140 horse power to generate current. The cost of electrical plant would be about \$10 per lamp, and boiler and engine power about \$20 per h. p. If fuel be taken at \$5.00 per ton of 2240 lbs, and labor of two men, at \$1,000 per year, rent, taxes and interest, and making full provision for depreciation, the cost of providing light for 1200 lamps can be easily reckoned. A manufacturer could not buy light so cheaply by using gas at 56 cents per thousand. A plant of 1,200 lamp power would be a capital basis of operations for a block of houses, in a city where 25 or 50 lamps per house could be used, or for a block of 120 stores, where an average of ten lights could be used. In the

latter case, the cost of ten lights would be four cents per hour. Gas at 5 cents per light would require an hourly consumption of fifty feet, which, at \$2.00 per thousand, would be ten cents per hour, without allowing for fittings and rent of metre. There are few places in Canada or the United States where gas is as low as \$2.00, but even at this price, the better light can be obtained at 40 per cent of its cost. The experimental stage of electric lighting is passed, and the only thing that remains to be done is to put the two sources of light in competition, and ascertain what improvements are necessary to bring gas down to the point of competition. There is no reason to suppose that finality has been reached in the manufacture and distribution of coal gas, and it is possible that great improvements may be made here as they have in England, where electric lighting has assumed a threatening aspect as a rival.

A SATISFACTORY SETTLING DAY.

In commercial circles the fifth of February has been looked forward to of late with much interest, and perhaps with anxiety besides. It was known that the fifth (the fourth falling on Sunday) would be an important settling day at the banks, and hence the interest attaching to it. From Montreal we hear that the day passed over there in a manner highly satisfactory to the banks, mercantile obligations being well met and provided for. The *Mail's* Montreal correspondent says: "All the banks here report that commercial payments have never been more scrupulously and promptly met at this season of the year than to-day. The bank of Montreal, with its eighteen hundred notes matured yesterday (Sunday), but payable to-day, has never had more satisfactory settlements than are recorded in the bank books to-night. It is the same all round, as managers positively declare. It is also said that never have so few orders come in from the country to protest notes as this morning." The *Globe's* correspondence is to much the same effect, reporting banks and wholesale houses very well satisfied with the day's settling up of indebtedness.

The report is that payments the same day in Toronto were also well up to the mark, and much better than had been expected. Toronto wholesalers are said to be well pleased with the way in which the occasion was met by their customers generally. The *Montreal Gazette*, referring to the day's figuring-up there, says that as one of the most trying seasons of the year has been safely passed, the outlook becomes very promising.

ANNUAL MEETING OF THE TORONTO BOARD OF TRADE.

The adjourned annual meeting of the Toronto Board of Trade was held on Monday, Jan. 29. The officers for 1883, including those elected without opposition at the former meeting (on the 25th), are as follows:—

President—W. H. Darling.

Vice-President—Wm. Ince.

Secretary-Treasurer—Geo. Maclean Rose.

Council—Wm. Christie, W. F. McMaster, R. W. Elliot, J. Laidlaw, B. Cumberland, A. M. Smith, A. B. Lee, R. Jaffray, W. B. Hamilton, H. Blain, Alex. Nairn.

Board of Arbitration—R. Carrie, P. D. Conger, T. Dixon, Craig, H. W. Darling, W. Ince, R. Jaffray, D. McLean, W. D. Matthews, Sr., E. A. Smith, G. B. Smith, F. Wyld, G. W. Beardmore.

Representatives on Harbor Commission—A. M. Smith, R. W. Elliot.

Representatives on Industrial Exhibition Association—W. B. Hamilton, W. F. McMaster.

The following are extracts from a synopsis of the annual report of Mr. G. M. Rose, the retiring President:—

A memorial had been prepared and presented to the Dominion Parliament, asking for the passage of an Act having for its object the equitable distribution of the estates of insolvent debtors. No action had, however, been taken by the Parliament, and the country was still without an Insolvent Act. The report incorporates a letter from Mr. Edward Evans on this subject, in which feasible suggestions are made to what the law should contain.

The next subject dealt with is disasters at sea. During the summer the attention of the Board was called to the frequent loss of life and property on the coast of Nova Scotia, and a petition was signed on behalf of the Board, praying the Government at Ottawa to place buoys and lighthouses at certain dangerous points described in the memorial.

The question of a railway commission next occupied their attention, and the result was the appointment of a special committee to draft a memorial praying the Dominion Government to appoint a commission to adjudicate on all matters in dispute between railways and forwarding companies, and between the former and individuals, with power to settle cases of unjust discrimination between certain points on the various lines running into Toronto. The committee reported a petition, which was referred back for amendment, and it will now be in order to revive this committee, and have the wishes of the Board presented to Parliament at Ottawa next month.

The next point considered was the discriminating rates on railroads. The report says, "The subject has been frequently discussed by the Council and the Board, but so far railway companies have paid little attention to our remonstrances. The same evil exists in the United States, and fair traders are crying out like us against it." It then cites a decision lately made by Judge Baxter, of Ohio, in a case against a railway company that had given special rates to a favorite customer. Some paragraphs, among them the following, are quoted: "It is only on the hypothesis that railroads are quasi-public highways that the Legislatures can constitutionally invest them with authority to condemn private property to their use; and, being such highways, every individual constituting a part of the public for whom railroads are constructed, possesses the right to equal facilities and accommodations in their use." The decision then states that if railroad companies had the legal right to charge one man one price and another a higher for the same work all business would be at the mercy of these corporations. "Railroad corporations are invested," says the judge, "with no such dangerous power. Their officials are in a qualified sense trustees for the public as well as for the shareholders, and are in law as well as in morals bound to execute the trusts imposed upon them by their charters, so as to secure to everyone applying therefor equal facilities in the use of their roads and upon the same trains."

MONTREAL AND TORONTO TRAIN TIME.

A deputation from the Toronto Board of Trade had an interview recently with Mr. Patteson, the city postmaster, with reference to the inconvenience caused by the too early closing of the evening mail going east, at 5.45 p.m. Mr. Patteson

said that letters taken to the Union Station could always be posted there up to five minutes of the train time. That was the best that could be done at present, but something better was desirable. He thought the best arrangement of all would be secured if they could get Mr. Hickson to change the hour of departure of the evening train east from 7.07 to 8 o'clock, which would allow the letters being despatched from the post nearly an hour later than at present. A committee has been appointed by the Board to confer with Mr. Hickson and the Postmaster-General, with the view of securing the arrival of the morning train from Montreal an hour earlier, and the departure of the evening train an hour later. It is complained, too, that the present time of the night train favors Montreal at the expense of Toronto, in other ways besides the posting and delivery of letters. Business men taking the night train east get to Montreal in time for an early breakfast, and have the whole day before them, after which they can leave for home the same evening. But when coming to Toronto, they do not arrive here until twelve or one o'clock, sometimes later, and their time for business the same day is limited to a very few hours, more or less. It may be expected that, when the Grand Trunk has been double tracked all the way between the two cities, a work which is to be completed ere the present year closes, there will be a considerable improvement in train time, and in the convenience of the hours of arrival and departure here.

BUSINESS TROUBLES IN THE UNITED STATES.

Dullness in business generally, and in the iron trade demoralization—such is the present report from over the border. The *New York Tribune* says that last week was not a satisfactory one in business. "The failure of a large and important iron establishment at Chicago, the closing of the Goodyear Rubber Works, throwing 1,300 men out of employment for a time, an ugly strike resulting in a riot near Cincinnati, the destruction of large refining works at Cleveland by fire, the defalcation of the Treasurer of Alabama, the delay of Congress in acting upon the Tariff Bill, and the prospect that it may refuse to suspend silver coinage—all have tended to make the week a somewhat discouraging one. The volume of business grows smaller, judging from the exchanges, which, after allowance for transactions from sales of stocks, probably did not exceed \$491,000,000 at New York last week—27 per cent less than those of the corresponding week in 1882. At the west, severe storms have blockaded some of the roads and seriously interrupted business. It is noticed that buyers of dry-goods 'operate with rather less liberality than is usual at this stage of the season.' Breadstuffs and cotton are very quiet for export, but active in speculation; and petroleum and provisions are in somewhat the same condition. The worst feature of the situation is that the gambling end of most markets is very active, while the business end is very dull. Thus there were sold last week 67 bales of cotton for export, 2,513 for consumption, and 448,400 bales 'for future delivery.' As the Northern spinners require nearly 200,000 bales a month, and have bought in New York only 15,446 bales since January 1st, it may be inferred that they are using as little as possible at present."

Of all the causes of dullness named, uncertainty with regard to what Congress may or may not do is undoubtedly the chief. As a disturbing cause it goes beyond all the rest put together. The time for the present Congress to do anything expires on the fourth of March. If before that day a comprehensive, thorough-going tariff bill has been passed, containing sufficient protection to American manufactures, the darkness and dullness will steadily give way before a burst of commercial sunshine. But, should any lame and halting tariff measure be passed this session, or should the whole matter be left over to be dealt with by the Democratic majority of the next Congress, a commercial crisis would be among the near probabilities. Doubtless protection would sweep the country like a whirlwind at the Presidential election in November, 1884; but meantime many shops, and mills, and factories would shut down wholly or come down to half time, and then workmen would get a sharp foretaste of the blessings of uncertainty attending half-and-half free trade. What the present Congress is yet destined to do must very shortly appear.

A DISTRIBUTION ACT WANTED.

The Montreal Board of Trade, having for some time had in contemplation the submission of a bill to the Parliament of Canada to provide for the prompt and equal distribution of the assets of the estates of insolvent debtors, has sent out a circular inviting the co-operation of other Boards throughout the country. We make these extracts:—

"Since the repeal of the Insolvent Act of 1875 and amendments, the mercantile community has had to depend upon the imperfect and widely differing systems for collections of debts prevailing in the different provinces of Canada. It is almost needless to add that the means provided by the provincial laws are most inadequate for the purpose contemplated by this Board. It is believed the business men of the Dominion feel that in these circumstances a general and uniform law for the equitable distribution of the assets of persons who are no longer able to pay the full amount of their debts, and who are virtually at the mercy of the bailiffs of every creditor, is a pressing necessity.

"It is found that there is a great concurrence of opinion in favor of an efficient measure that will provide an inexpensive method of distributing the assets of an insolvent among his creditors, free from the expense and annoyance to which both creditors and debtors are subjected under the present system, a measure that will grant relief without encouraging insolvency. It is expected that Parliament, in its wisdom, may be relied upon to give effect to the reasonable desire of the country generally."

The *Mail's* Montreal correspondent sends the following letter, including something quoted from the *Star*, which will be of interest to business men generally:—

MONTREAL, Feb 3.—Commercial circles here were thrown into a state of consternation this week by seeing an official letter from the President of the local Board of Trade in the papers under the startling head of "An Insolvent Act Wanted." It certainly was at first a surprise, for everyone was well aware that to the indomitable exertions and great influence of our Board of Trade at Ottawa was principally owing the total repeal of the former demoralizing Insolvent Act. On reading the production of course one's views were modified, as it was at once seen the Council of the Board was not going back upon its praiseworthy record. After the letter appeared, the *Mail's* correspondent called upon Mr. F. W. Henshaw, the

president of the board, and asked him to define the terms and objects of the Insolvent Act which his council demanded, for it looked like a somersault, or at least a retrograde policy, on their part to ask for any legislation in the direction of an Insolvent Act. The president promptly replied that it was an entire misapprehension to imagine for a moment that the Council desired an Insolvent Act after the painful infliction upon the country of the last.

"What do you want, then, by the agitation you have inaugurated?" enquired the correspondent.

"We want simply," said Mr. Henshaw, "A general Act for the whole Dominion to distribute the assets of an insolvent debtor equitably between all his lawful creditors, so that as at present one or two preferred creditors cannot gobble up everything to the dead loss of everybody else."

As the president was engaged in a conference at the moment the correspondent called, the latter did not feel warranted in detaining him in order that he might state what might be the plans of his Council for organization to carry out such a modified Act as that which is proposed. However it is of little importance, as in extensive interviews with commercial men since scarcely one was found who had a practical plan devised in his mind as to what would be the most economical and efficient organization. All without exception, however, repudiated the old official assignee system as a monstrosity—some even used a stronger word—that would not be tolerated for a moment. There is no difference of opinion among the heads of all our important leading houses in every department of business as to the exact limit of legislative interference in this important matter. They are a unit as to holding firmly in the hands of the creditors, apart from any control by the courts, the granting of a release to an insolvent. There is a difference of opinion as to whether the vote of two-thirds or three-fourths in number and amount should be required to give the debtor his discharge; the large majority of those spoken with favor the maximum number. The standard is held under all circumstances as that of paying 50 per cent. of the indebtedness to entitle an insolvent to a clear discharge. In the course of my inquiries I only found two wholesale merchants, one in dry goods and the other in iron and hardware, both in the most extensive way of any in their lines here, who took the high moral principle of not granting an acquittance from debts until the last dollar, or, as some might say, the pound of flesh, was paid.

The public is indebted to Mr. E. G. Clouston, the young but clear-headed local manager of the Bank of Montreal, for suggesting the most practical, sensible, and economical plan of winding up insolvent estates that has ever been devised here. The following excerpt of his views on the whole subject is taken from a report in the *Star*. Mr. Clouston said:—"What is very necessary is some machinery whereby the assets of an insolvent can be rateably, expeditiously, and inexpensively divided amongst the creditors. The estate might be transferred from the insolvent through a Government official paid by salary, and not by commissions, to such person or persons as the majority of the creditors might select—one of themselves for instance. Should we have a recurrence of the old hard times, when the most frequent and best attended entertainments were those of official assignees, I would strongly advocate in self-defence the establishment of a department in our bank to undertake the realization and distribution of estates in which we were interested. This should secure the least possible delay, small charges, and honest administration, and would, I think, be acceptable to the rest of the creditors interested in the same estate. I think provision should be made for discharge if, say, three-fourths in number and amount of the creditors are agreeable, but no discharge should be given if less than fifty cents on the dollar is paid. An insolvent paying less is either dishonest or incapable, or should not be permitted to remain in business to the detriment of other traders. If fraud or cognizance of insolvency for some time previous to the assignment can be proved, it should not be in

the power of the creditors to grant a discharge. I place the proportion necessary to a discharge at three fourths, as an Act requiring unanimous consent would place it in the power of some small creditor either to blackmail or expatriate a man whose case might be a hard one and well worthy of lenient treatment.

On inquiring from three of the most prominent merchants in the city what they thought of Mr. Clouston's views, they endorsed them thoroughly. They said the plan he mentioned, or one based on his idea, of the banks coming to the front in all insolvency cases, is without doubt the most desirable for all concerned that could be originated. They only hoped it might be carried into effect. In the collateral opinion given by Mr. Clouston the bankers and commercial men completely acquiesce. No one wants an Act going beyond the distribution of assets equally all round, and the least expensive but most efficient way of realizing them. There is a very keen interest manifested in the whole subject, as commercial men as a body are hoping for legislation on it during the coming session. Mr. G. Hague, of the Merchants' Bank, favors the introduction of the Scotch insolvency law as the best in his opinion for Canada.

THE FRENCH TREATY.

Mr. C. O. Perrault, Vice Consul of France, who has recently returned from Paris, is credited with a statement that Sir A. T. Galt has been asked to postpone further negotiations as to the commercial treaty between France and Canada, because a treaty must be first made between France and England. This is a most extraordinary statement. We can scarcely believe that Sir Alexander Galt will allow himself to be any longer duped by the French Government. Canada wants no treaty with France or with any other country. What she wants, and has a right to claim, is that France will admit her exports as she does those of Great Britain, on the same terms as the most favored nations, as Canada does all French exports. There is no longer any probability that there will be a revival of the commercial treaty between France and Great Britain. The latter country being committed to Free Trade is not in a position to retaliate, otherwise she could compel France to reduce her duties. Canada has no object in demanding any change in the French duties, and even if she had, would not have the most remote chance of obtaining such a concession. Her policy should have been to give a plain intimation to France that, unless she is placed on the same footing as the most favored nations, it will be impossible for her to continue to place France on that footing, and that an extra duty of 10 or 20 per cent. will be exacted on French imports. Unless Sir Alexander Galt has received authority to make such a demand, all his negotiations will prove a farce. The treatment of Canada by the French Government has been simply outrageous.—*Montreal Journal of Commerce*.

"There appears to be little reason to doubt that a two-cent rate of postage will this year be established in the United States. The Senate Sub-Committee has retained the provision for the two-cent postage in the Post Office Appropriation Bill, and the measure will likely become law as it now stands." A two cent postage rate is not a new thing under the sun. We were shown by Postmaster King, some days ago, a self sealing letter or double card now in use in Belgium, which the Postal authorities there sell at two cents. It is in shape like our new two cent post card but considerably larger. It is perforated along the sides and ends, and these edges being mutilated, when they are brought together and wet the letter or card is sealed and the contents secured from prying eyes. In the opinion of those who wish to conceal their writings from all except those who are addressed, this two cent letter-card is an improvement on anything in use in Canada.—*St. John, N. B., Sun*.

THE
Canadian Manufacturer
 AND INDUSTRIAL WORLD.

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FREDERIC NICHOLLS,
 Managing Editor

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TRAVELLING CORRESPONDENT		Mr. A. L. W. Begg.

ANSWERS TO CORRESPONDENTS.

Hespeler Manufacturing Co., Hespeler.—Many thanks for the suggestion, which we have in part acted on. You will observe that the top of the pages are numbered to include the advertisements, while the figures at the bottom denote the number of pages of reading matter only.

Editorial Notes.

The office of the CANADIAN MANUFACTURER has been removed to Room No. 5, Mechanics' Institute, corner of Church and Adelaide-streets. One stair up, turn to the right.

THE "TRUTH" ABOUT US.

The CANADIAN MANUFACTURER has been changed from a weekly to a fortnightly issue and has been enlarged to nearly double its former size. The CANADIAN MANUFACTURER is the leading paper of its class in the Dominion, and both in editorial ability and excellence of typography it reflects higher credit upon the interests it represents than any other class paper in the country.—*Toronto Truth.*

Since the first of January the price of wheat has advanced from 12c. to 12½c. in Chicago.

We find the following in the American *Machinist*:—"Cut straw is said to serve a better purpose in preventing hydrants from freezing than any substance ordinarily used."

The Winnipeg *Commercial* is credibly informed that over thirty mining companies are likely to be engaged in gold mining operations in the North-west before the close of the present year.

The merchants of St. John, N.B., are bestirring themselves to increase the membership and extend the usefulness of their Board of Trade. It is also proposed to establish a Stock Exchange.

Last week sixty girls, sewing machine operators in the Telfer Corset Works, Toronto, struck against a reduction of wages. The threatened order of reduction has since been withdrawn, and work has been resumed.

Under the heading of "Lumbering" will be found some extracts of great interest from a paper by Mr. Jack, of New Brunswick, on "Second-Growth Pine," which we commend to the attention of our readers.

Following the great failure of the Union Iron and Steel Company, of Chicago, we hear next that the Kansas Rolling Mills Company has suspended, with liabilities of \$600,000. This looks bad for the iron trade over the border.

Mr. Erastus Jackson, one of Canada's veteran journalists, and recently elected Warden of the county of York, announces his retirement from the editorial management of the Newmarket *Era*; which is now assumed by his son, Mr. L. G. Jackson.

It is not a new Insolvent Act, by any means, but simply a Distribution Act, for the fair, and equitable, and speedy dividing of the estates of insolvents among their creditors, that is wanted by leading business men in Montreal. So it is explained by the Montreal correspondent of the *Mail*; and his letter, elsewhere copied, ought to be of special interest at this time, when the Boards of Trade are asked to give their opinions on the subject.

An industrial and agricultural exhibition will be opened at Lisbon, Portugal, under royal patronage, in May, and continue for two months. It is a purpose of the managers—the Royal Agricultural Society and others—to make a special effort to bring into publicity the qualities of Portuguese woollen manufactures and Portuguese wines. The usual concessions in rail-way fare are made to exhibitors.

There is reported to have been quite a scene at the annual meeting of the Royal Canadian Insurance Company, at Montreal, on the 1st inst. A vigorous attack upon the management and directorate was made; but at length the tumult ceased, the report was received, and the Directors were thanked and re-elected. They claim that the Company never was in better condition than at present.

A bill to preserve certain portions of the forests in the Adirondacks from spoliation has passed both Houses of the New York State Legislature, and now awaits only the Governor's signature to become law. Measures for the protection of forests are wanted in these Provinces too; and possibly we might get them if there were more patriotism and less party politics in our local Legislatures.

The St. Louis *Age of Steel* speaks of a method of stopping steam engines by means of electricity, devised by Mr. Tate, manager of large woollen mills in Bradford. An application of electricity to the same purpose, the efficiency of which has been proved by many trials, has been for some time in operation in the Dominion Bolt and Iron Works, Toronto; and was described several months ago in these columns.

To Mill Owners and Manufacturers.

U S A

F. E. DIXON & CO.'S

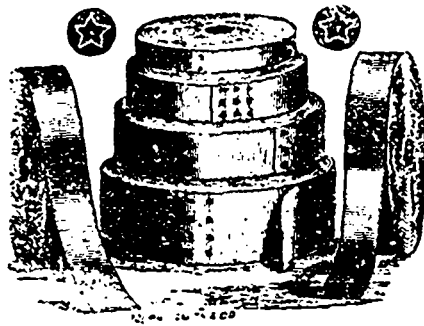
PURE BARK-TANNED

Star Rivet Leather Belting !

FIRST PRIZE FOR
LEATHER BELTING

-AT-

Provincial Exhibition, Ottawa, - 1875.
" " Hamilton, 1876.
" " London, - 1877.
Industrial Exhibition, Toronto, - 1879.
" " Toronto 1880



INTERNATIONAL MEDAL

-AT THE-

Centennial Exhibition,
PHILADELPHIA, 1876.

FIRST PRIZE FOR

BELTING LEATHER

AT THE

Industrial Exhibition, Toronto, 1879.
" " " 1880.

EXTRA PRIZE FOR
Genuine Oak Tanned Belting.

-AT THE-

Provincial Exhibition, Hamilton, 1876.

Our Belting is Short Lap, and is warranted to run straight and even on the pulleys, and certainly cannot be surpassed in quality by any other Belting in the market at the same prices.

Our Leather is of Pure Bark Tannage, and consequently is much more durable than the chemical tanned leather of which most of the American Belting imported into Canada is made, though sold under the name of Oak Belting.

To accommodate those who desire to have a really genuine article of Oak Belting, we beg to say that we keep in stock a quantity of

Oak Leather of the Celebrated Tannage of J. B. HOYT & Co., of New York,

and as the duties on imported rough Leather are much less than on the manufactured Belting, we are thus enabled to sell the Belting made from this quality of Leather much cheaper than it can be imported.

LARGE DOUBLE BELTS A SPECIALTY.

Please note that our Price List averages Twenty to Twenty-five per cent. lower than the American Price List at which all American Belting is sold in Canada.

Lace Leather of the very best quality always on hand.

All Work Warranted.

Orders Solicited.

F. E. DIXON & Co.,

81 Colborne Street, Toronto

H. L. FAIRBROTHER & CO'S.

—AMERICAN—

LEATHER BELTING,
AND LACE LEATHER.

STAR RUBBER CO'S.

AMERICAN

RUBBER BELTING,
PACKING AND HOSE.

**Noye's Castor Oil Belt Dressing for Oiling and Preserving
Leather Belts and to prevent Slipping.**

We keep a larger Stock of Belting on hand than any other makers or
dealers in the Dominion.

—ORDERS SOLICITED.—

GEO. F. HAWORTH,

SOLE AGENT FOR DOMINION OF CANADA

65 Yonge Street, Toronto.

On Monday a deputation of Toronto carriage manufacturers had an interview with the Ministers of Customs and Finance, at Ottawa, to urge that the duty on carriages be changed from *ad valorem* to specific. They requested that a duty of \$30 be imposed upon all waggons coming into the country, and from \$100 to \$120 on carriages, according to the cost of manufacture. The Ministers promised to consider the request favorably.

Consul Leland, in his late report to the State department at Washington, says: "The manufacture of stoves is the leading industry of Hamilton. From careful estimates I learn that \$900,000 of capital is employed in the business; constant employment is given to from 600 to 700 men. Nine thousand tons of iron were used in the business during the past year, and nearly 25,000 stoves were manufactured, which were sent to every part of the Dominion, including Manitoba and British Columbia."

There is a bill now before Congress to prevent the importation into the United States of adulterated trash called "tea," which is sold by auction at $4\frac{1}{2}$ or 5 cents per pound; and which is afterwards put upon the actual consumer at from 25 to 40 cents retail over the counter. It is said that the bill is sure to pass, and then look out for the stuff being thrown on the Canadian market in car loads. This matter demands the immediate attention of the Finance and Customs Departments. Against this kind of trash the English market was closed some years ago.

This is what we hear from Quebec about the melancholy ending of what was once deemed a promising enterprise: What remains of the buildings of the Quebec Steel Company have just been sold for old materials, the purchaser paying \$255 for what must have originally cost \$20,000 to \$30,000. These works were originally started to convert the magnetic iron sand of the lower St. Lawrence into steel, but owing to deaths among the management and other causes they proved a complete failure, though very large sums were spent in experiments and otherwise to make them a success.

The *Gazette* says it is reported that a Montreal firm recently purchased a lot of over 100 packages of Canadian creamery butter in New York (originally costing 32c. laid down there), for 20c. duty paid, which shows a loss of about \$7 per tub. This is another instance of the folly of keeping butter for speculation, especially creamery, which, as a rule, is mildly salted, and, therefore, more susceptible of deterioration. The fancy quality of this lot must have been pretty effectually extracted when it would not bring within 18c. per lb. of the best American creameries, and could only be sold on a par with American factory or ladle packed butter.

The American *Machinist* says that in machinery manufacture 1882 was a signally prosperous year, but does not see so good an outlook for 1883. Prices of machinery and tools are lower than they were in January, '82, and the tendency is toward closer competition. Shops have enlarged their capacities to such an

extent that, even should the demand during 1883 prove equal to what it was in 1882 (which at this writing seems unlikely), customers generally will not have to wait any extra length of time to get their orders, filled. One feature of interest, however, is the fact that several manufacturers are having a foreign trade for their machinery as well as a good home demand.

The news that the Goodyear India Rubber Company, of Boston, has suspended, will be a surprise to most people who take an interest in such events. The suspension is expected to be only temporary, but meantime thirteen hundred people are thrown out of employment. The recent enormous advance in the price of rubber, the Company's raw material, is probably a principal cause. On January 17, a meeting at which twenty-nine rubber companies were represented was held at New York, to consider the situation, and an adjournment was made to Wednesday, February 14th. In the American rubber manufacturing trade no less than forty thousand people altogether are employed.

It appears that the border town of St. Stephen, N.B., is being used by lottery swindlers as a base of operations. They send their advertisements only to distant points in the States, and sell no tickets to anybody in Canada or New England. Their calculation is that the parties whom they swindle, being far off, will never be at the trouble and expense of hunting them up. The American post office authorities have no right to meddle with Canadian mail matter, and cannot interfere. Were the game carried on wholly in the United States, it would soon be "spotted," and the money letters addressed to the lottery swindlers would be seized. It is highly probable that the criminals, as well as their victims, are citizens of the Republic; but still it does appear as if some decided action on the part of the Canadian authorities would be in order.

In one particular way the N.P. is beginning to tell, at last. The profits of sugar refining, which it was alleged three or four years ago would be perfectly enormous, are already getting down to very moderate figures. From a notice of the Canada Sugar Refining Company's meeting on another page it will be seen that its last yearly dividend is only 6 per cent., and the reasons why are stated. The *Montreal Gazette* says:—"The Canadian refined sugar is the purest now in the market; in the past year it has been sold lower than the price at which the foreign article could be laid down under the old duties. Five refineries have been put into operation as a result of the protection afforded, some two thousand hands have been given employment, a large traffic has been created for the Inter-colonial Railway, our direct trade with Brazil and the West Indies has been enormously increased, the public revenues have not been sacrificed, and in addition to all these advantages we repeat that the consumer has obtained his sugar cheaper than ever before, and cheaper than the cost of importation under the late duties. The monopoly cry in this instance has been exploded very effectually; too much so, the shareholders in the sugar refineries probably think, and, as in his case, so in all others, competition debars the producer from taking any undue advantage under the protection of the tariff."

Textiles.

THE COTTON AND WOOLLEN MILLS OF EUROPE.

For the benefit of our friends who are engaged in the various Textile industries we copy from the Textile Record (Philadelphia) some selections made by it from consular reports on the cotton and woollen mills of Europe.

In reference to a circular from the Department of State, the American Consuls in various centres of textile industry in Europe have forwarded valuable reports concerning the manufacture of cotton and woollen goods in those countries.

England.

COTTON INDUSTRY OF THE UNITED KINGDOM.—No official statements exhibiting the extent of cotton industry of this country has been published since the year 1879.

COTTON FACTORIES IN THE UNITED KINGDOM.

Table with 5 columns: Year, No. of factories, No. of spinning spindles, No. of looms, No. of persons employed. Rows for 1878 and 1882 (estimated).

The official return next preceding, that of 1878, referred to the factories in operation on the 31st of October, 1874. This document showed that the number of spindles was 37,515, 772, and of looms, 463,118.

WAGES. — The amount of wages paid in the British cotton industry may be put down at \$121,662,500 per annum. This estimate applies only to the earnings of the workpeople in the spinning and weaving mills.

WAGES PER DAY IN AN EAST LANCASHIRE COTTON-WEAVING MILL. (Hours of labor, 56 per week.)

Table with 2 columns: Category (Weavers, Beavers, Winders), Wages. Rows for different mill types and laborers.

Table with 2 columns: Category (Tapers or sizers, Tacklers or overlookers, Engine-drivers and firemen), Wages.

The total value of the cotton manufactures produced in the United Kingdom, including all descriptions, during last year, was about \$474,916,368.50.

The product was distributed in the following manner:— Cotton manufactures exported, \$320,808,913; cotton yarn exported, \$64,077,205.50; total exported, \$384,886,118.50;

WOOLLEN INDUSTRY OF THE UNITED KINGDOM.—The number of factories employed in the production of woollen and worsted goods as well as the number of spindles and looms on October 31st, 1878, and the estimated number at present, are given in the following table:—

WOOLLEN, WORSTED AND SHODDY FACTORIES IN THE UNITED KINGDOM. Table with 5 columns: Year, No. of factories, No. of Spinning Spindles, No of looms, No. of persons employed.

The amount of wages paid in the various branches of the woollen industry is about \$68,131,000 per annum. It is scarcely possible to form a satisfactory estimate of the total value of the production throughout this greatly diversified industry, nor of the amount of capital invested in it.

EXPORTS OF MANUFACTURES OF WOOL.

Table with 2 columns: Year, Value. Rows for 1879, 1880, 1881.

The woollen yarn exported goes chiefly to Germany, whence also, there is a large import of woollen yarn into this country, the Germans excelling in the production of particular kinds of yarn, and especially of that in which wool and cotton are blended.

FRANCE.

COTTON-SPINNING MILLS.—The following are some of the last published statistics in relation to cotton mills in France:—

Spinning: Whole number of mills, 1058; number of workmen, 114,529; horse-power, 35,180; number of spindles, 4,644,167; not in operation, 278,308; looms in activity, 50,236; not in activity, 6,210; hand-looms, 78,037.

WAGES.—Wages in cotton-spinning mill per diem: Men, ordinary, 77 cents; maximum, 96; minimum, 72. Women, ordinary, 37 cents; maximum, 43; minimum, 29. Children, ordinary, 33 cents; maximum, 37; minimum, 24.

Wages in weaving mills: Men, ordinary, 67 cents; maximum, 77; minimum, 58. Women, ordinary, 53 cents; maximum, 67; minimum, 48. Children, ordinary, 26 cents; maximum, 33; minimum, 24.

CONDENSED STATEMENT SHOWING THE VALUE BY ARTICLES, OF FRENCH MANUFACTURES OF COTTON EXPORTED FROM FRANCE DURING THE YEAR 1880.

Table with 2 columns: Description of Cotton Yarns (Single, Twisted, etc.), 1880 Value. Total value of cotton yarns exported, \$725,258.

Of grown-up persons : Working hours of males, 10 to 12.5 ; of females, 10 to 12.5. Wages of males, 27 to 71 cents ; of females, 19 to 59 cents. Of persons from 14 to 16 years old : Working hours for males, 10 ; females, 9.75 to 10 ; wages, males, 47 cents, females, 21 cents.

Another such report from Rhenish Bavaria states the average wages per day for all (old and young) persons employed in the textile branch to have been 48 cents for males, 32 cents for females, and the annual average wages for 300 working days, \$146 for males, and \$96 for females.

The big steam engine is now being put in the Moncton cotton factory.

Malcolmson and Sons offer to erect a woollen mill in Brantford, the building to contain \$15,000 worth of machinery and employ 35 hands, if the city grants \$20,000 bonus and exemption from taxes for five years. The Board of Trade recommend the Council to accept the offer.

Mr. A. Campbell, who for the past three years has been engaged in the manufacture of carpets in Uxbridge, will shortly remove to Stouffville. He has found the business increase to such an extent lately—thanks to the N.P.—that his present premises have become too small. A good offer was accordingly made him by a number of gentlemen in Stouffville, and as soon as a proper building is erected he will move his whole plant there. He intends employing about fifty workmen.

Application is being made to the Lieutenant-Governor-in-Council (P. Que.) for the incorporation of "the Magog Textile and Print Company" with a capital of \$1,000,000, head office at Montreal and manufactory at Magog. The object of the Company is to manufacture textile fabrics and to carry on the business of bleaching, printing and dyeing. The promoters are Messrs. William Hobbs and John Thornton, M.P.P., Coaticook, J. K. Ward, George R. Grant, Joel Leduc and A. Desjardins, M.P., of Montreal, R. N. Hall, M.P., Sherbrooke, C. C. Colby, M.P., Standstead and T. C. Keefer, of Ottawa.

A Times reporter visited the factory and show room of the Moncton Knitting Factory Company, Saturday evening, and found the Manager, Mr. Winter, busy getting samples together, which he will take out this week and show to the trade. To give some idea of the extent of future operations it may be stated that Mr. Winter expects to be able to secure orders for 5000 dozen pairs without any difficulty. This would keep the factory running six months, the calculations being on the production of fifty machines. At the present time only a few machines are in operation, Messrs. Abrams and Kerr, the makers, being unexpectedly delayed on account of fire and other drawbacks. But everything has been got in readiness for the prosecution of work on an extensive scale when the machines are set up, and the premises in Dunlap's Block are large enough to accommodate a great many machines. A skilful workwoman can knit two dozen pairs of women's and three dozen pairs of men's stockings in a day. The machine is the "Universal," the best in use, and Mr. Winter, who has had an experience of 21 years in the business, is confident the Moncton Factory will be able to give as good satisfaction as any in the Dominion, while it is the intention to go into some lines not heretofore attempted in the Dominion. The work will all be done by the piece. * * As far as possible domestic yarns will be used, and we are glad to notice in this connection that a large part of the domestic supply is being drawn from the woollen mill of Messrs. Humphrey and Snow, at Humphrey's Mills in this parish. The stockings made from these yarns, even to an experienced eye, do not suffer in comparison with those made from other yarns, and so well are they liked that they have been used in getting up a line of extra heavy and large stockings and over-stockings especially for the North-West trade. Stockings from Canadian wool can be got up astonishingly cheap. Of course it is necessary to import a considerable quantity of yarn from English, Scotch, and Saxony wool, and arrangements have been made to do this to the best advantage. The Quebec Worsteds Company will probably be able to supply worsteds in the course of time, but so far they have not got in fair operation.—Moncton, N. B., Times.

Iron and Machinery.

INDUSTRIAL ENGLAND.

WAGES IN GLASGOW AND IN THE CLYDE SHIP-YARDS.

We continue our extracts from the letters by Mr. Robert P. Porter, member of the late American Tariff Commission, now being published in the New York Tribune :

WAGES IN GLASGOW, IN VARIOUS TRADES.

The close proximity of Glasgow to the iron fields has made the iron and steel industry one of the staple industries of the city. The Glasgow Exchange is the scene of the sale of this manufacture. For twenty years the average production has been over 1,000,000 tons annually, and in 1881 it reached 1,176,000 tons. It will be about 40,000 tons less this year. But this industry as well as the shipbuilding and textile industries will each be important enough for a special letter after I have visited all the manufacturing towns within the rectangle described in the preceding letter.

The Glasgow Herald on Tuesday published verbatim such of the schedules of the Tariff Commission report as affected the Glasgow interests. Of course, it included chemicals, metals, sugar, cotton, flax, liquors, woollens, and two items in the sundry schedule. Sugar-refining is an important industry here and at Greenock. Almost all varieties of textile manufacture are now carried on. The estimated value of the ships and shipping machinery may be said to be \$40,000,000. The total number of men employed in the thirty-seven yards on the Clyde and its tributaries is estimated at 50,000. One yard which I visited yesterday employs 5,000 hands. From these yards in 1881 were launched the Servia (7,392 tons), the Alaska (6,932 tons), the Austral (5,600 tons), the Missouri (5,146 tons), the Belgravia (5,075 tons), the Rome (5,013 tons), and the Carthage (5,013 tons); twelve iron ships of from 4,000 to 4,911 tons, thirteen of from 3,000 to 3,972 tons, and thirty of from 2,000 to 2,989 tons. The year which is drawing to a close has been one of unusual activity on the Clyde. The builders have surpassed all their previous efforts. From 35,709 tons in 1859 they have increased to 391,934 tons for 1882. This exceeds 1881 by nearly 51,000 tons, while it is nearly 130,000 tons in excess of 1874, which was for some time considered the greatest year in the history of Clyde shipbuilding. It is said that wages in the shipbuilding industries were never so high as now. This, as I shall show in subsequent letters, does not hold true in other industries. From the most trustworthy sources I have obtained the following table, showing the weekly wages paid in 1881 in Glasgow for the trades indicated :

Blacksmiths and engineers	31s. 6d.
General smiths	31s. 6d.
Bootmakers	30s.
Bricklayers	34s.
Cabinetmakers	31s. 6d.
Calenderers	28s.
Carriers	26s.
Coopers	25s.
Gilders	31s. 6d.
Joiners and house carpenters	31s. 6d.
Laborers	18s. to 20s.
Letter press printers and book work, by piece	32s. 6d.
Do., newspaper offices	32s. 6d. to 40s.
Masons	31s. 6d.
Moulders	31s. to 34s.
Painters	31s. 6d.
Plasterers	31s. 6d.
Plumbers	31s. 6d.
Porters in shops and warehouses	20s.
Sawyers (by piece)	27s.
Slaters	31s. 6d.
Tailors	30s.
Turners and fitters	31s. 6d.

The cost of living in Glasgow will be seen by a glance at the following table, which may be trusted as accurate :

Oatmeal per stone (14 lbs.)	2s. 2d.
Potatoes per stone (14 lbs.)	6d.
Beef, first quality, per lb.	1s.
Beef, second quality, per lb.	9d.
Beef, third quality, per lb.	7d.
Bacon, per lb.	9d.
Pork, per lb.	9d.
Bread, first quality, per 4 lb.	8½d.
Bread, second quality, per 4 lb.	7½d.
Sweet milk, per half gallon	8d.
Buttermilk, per Scotch pint	1d.
Cheese, per lb.	8d.
Fresh butter, per lb.	1s. 8d.
Salt butter, per lb.	1s. 2d.
Black tea, per lb.	2s.
Brown sugar, per lb.	2½d.
Brown soap, per lb.	2½d.
Black soap, per lb.	3d.
Coal, per cwt	7d. to 8d.

Rent for single rooms I found varied from £4 10s. to £5 per annum ; two rooms from £7 10s. to £8 and £9 10s. ; three rooms, £12 to £15 per annum. It will be impossible to draw any conclusions from these figures until I have obtained similar statements from all the other cities. It will be observed that iron and steel-workers, ship-builders and the textile trades are not included. An attempt will be made to present facts more in detail in the letters especially devoted to these branches. Upon the whole, I was agreeably surprised with Glasgow, both in its appearance and with the condition of its people. A great deal of money is spent in drink, and there are, with all the strict police surveillance, more public houses than are necessary—in all about 1,800. Forty years ago it was said of Glasgow that every tenth house was a spirit shop, and that the per capita proportion of whiskey consumed was twice as much as in any similar population. To-day the proportion is one public house to every 285 of the population. It is hardly probable, taking it all in all, that I shall, in the trip mapped out, find a more flourishing and prosperous city.

WAGES IN THE CLYDE SHIP-YARDS.

I made very careful inquiry in regard to the wages paid, and the social condition of the workingmen of Dumbarton, and was told that some riveters earned £3 a week, and platers who had charge of gangs from £3 to £4 a week. The average earnings of a blacksmith were £2 5s., of a joiner, £1 15s., and of laborers from 15s. to 18s. a week. The latter, I found, were mostly Irish, and they lived in miserable dens—the single men in lodgings, and the married whole families in one room. Their midday meal consisted chiefly of bread and tea.

I was well aware, as I shall demonstrate presently, that the "average earnings" were greatly exaggerated, and this shows the utter folly of trusting in off-hand statements of wages made by employers in England, which invariably are founded upon maximum payments. In the face of these random assertions about wages, I have obtained the actual figures from the analysis of the fortnightly pay-roll of one of the most celebrated of the Clyde ship yards. I withhold the name for apparent reasons, but if anyone doubts the accuracy of the exhibit, I am prepared to substantiate the facts. It shows at once the ignorance of those raving demagogues who grotesquely announce that wages are as high in England as in the United States. The particular pay-roll taken was for the last two weeks of November, this year. The highest prices were being paid for labor, and, to use the language of a ship-builder, "English and Scottish workmen work like demons the few weeks preceding holidays." Added to this, the yard was overflowing with work. Eighty "piece-workers" had all they could do, while "timers" were on full time and pay. The exact number on the pay-roll, including foremen and apprentices, was 1,614; the exact amount of the fortnight's pay-roll was £3,988. Of this number I found that 27 per cent., or a little over one-quarter, were "timers," and 73 per cent., or nearly three-quarters, were

"piece-workers." For convenience' sake I will give the odd fourteen men a pound apiece, and call the number of men 1,600, and the amount of the fortnight's pay-roll £4,000. Here is the result :

$4,000 \div 1,600 = 2 \frac{1}{2}$.
Average fortnightly earnings of each man, £2 10s. or \$12.50,
Average weekly earnings of each man, £1 5s., or \$6.25.

The amount of wages paid is not what a man can earn, nor what a few men do earn, but what whole classes of operatives or artisans are actually paid by their employers. It must be borne in mind that the pay-roll I have taken, from the season of the year and the pressure of business, is a very favorable one for the workman, as estimating (an outside estimate) that the men received twenty-five similar amounts during the year, which is hardly probable, we have for the average annual earnings of all employed in one of the great shipyards of Scotland (including foremen, platers and riveters and other experienced men) £62 10s., or \$312 50. Only 10 per cent. of the total amount of the £4,000 paid out, the books show, was for unskilled labor. How many persons received the 10 per cent. or £400?

Number of unskilled laborers, piece-workers	190
Number of unskilled laborers, timers	248
Total	348

Thus while the laboring man numerically represented considerably over twenty-five per cent. of the total number on the pay-roll, he only receives ten per cent. of the pay, or a trifle over 18s. per fortnight, or actually less than \$2.50 per week. If the unskilled laborers are deducted from the skilled, there remains about £3,600 to be distributed among 1,176, making the average weekly pay of the skilled workman about £1 10s. per week. On this sum a man can live in England decently, but on 10s. he simply drags out an existence of constant want and misery, and ends by becoming one of the million pauper population of the Empire.

But how much does the ship-builder earn in the United States? Unfortunately I have no statistics at hand but those of the census, which, I believe, includes all kinds of ship-building, and does not give iron ship-building (by far the highest wages being paid in that branch) separately. For 1880, I find that \$12,800,000 was paid out in wages to 21,330 hands employed, or about \$600 per annum. Could we take a similar birdseye view of all classes of ship-building in Great Britain, and not merely of the most highly paid branches of it, the result would demonstrate beyond a doubt that the wages paid in this industry at home exceed those of Great Britain by over 100 per cent. It is very rarely that one can obtain such trustworthy data as that above given, direct from the counting room, and it certainly throws considerable light on one reason why England can build ships so cheaply to say nothing about running them after they are built.

I asked one of the Mr. Dennys if most of the English ships were manned with British sailors. He smiled at my ignorance and said :

"Thirty-five per cent of our sailors are foreigners—East Indians. Why, they can be had for 30 shillings a month and a little rice ; and then they don't drink. Englishmen won't work for less than £3 10s. and £4 a month, and they require better food."

I told him that Americans would want about \$2 a day for such work.

From what I heard during my stay on the Clyde, I am inclined to think the ship-building and ship-owning is being overdone just as railroading has been in the United States. Small capitalists have been induced to go into it, and I have before me four most enticing circulars, each urging the person to whom they are addressed to buy shares in one of "the most economically built ships ever turned out of a ship-yard." I showed some of these circulars to a first-class builder on the Clyde, and he said he could not conceive how the boats were built for the money, and that this sort of investment was hazardous

in the extreme. Steamship-owning here has been very profitable. Managing owners, taking advantage of this and of the law that allows a vessel to be owned by a large number of owners of the sixty-four parts into which its ownership is legally divisible, have induced capitalists to buy single shares in amount ranging from £250 to four times that sum. The managing owner, in all of the circulars I have seen, receives a considerable remuneration, often in addition a percentage of the gross profit, for the management of the vessel; the accounts furnished to his co-owners are of the most skeleton character, and it is the exception to find any reserve laid aside for purposes of renewals or heavy repairs. Under these circumstances, I am informed, new vessels yield necessarily large dividends; but those who know the depreciation in the earning power of steamers, the need for renewals in less than a dozen years, and the heaviness of insurance in such cases, look with anxiety to the future.

SUCCESS IN THE IRON AND FOUNDRY TRADE.

The *Mail's* Montreal correspondent says:—A fortunate citizen here is Mr. William Clendinneng, of the famous stove factory and iron foundry in Griffintown. It is said he has control of all the pig iron in the city, over two thousand tons, which has enormously increased in value since he purchased it. He can now realize a handsome fortune as profit if he wished to part with it. On congratulating him on his good luck, he corroborated the facts by pulling out a handful of promissory notes which he had retired to-day, and assured me that every ton had been duly paid for. Mr. Clendinneng is a firm believer in the N. P., and thinks the country has not reached the zenith of its prosperity by a long way yet. He is a good example of what the improved state of our industries has brought about. Four years ago he admits he was on the verge of collapse, and his real property was about to be sacrificed for mortgage. At present he has discharged all his liabilities on city property, increased his industrial works enormously, and employs three or four times the number of skilled mechanics at double the wages he was giving four years ago. His brief history might be multiplied thousands of times here as well as elsewhere in the Dominion if necessary. The notes proved that the fortunate owner of the iron purchased it from holders in the city. He is not by any means trying to make a corner on it, for he can use it all if necessary in his own foundry.

A heavy lathe was added recently to the machinery in Mr. Wm. Hamilton's foundry, Peterborough. It was brought from Dundas, and three teams drew it from the station.

A new turbine wheel has just been placed in the machine shops of the St. Croix & Penobscot R. R. C., located at the Salmon Falls, N.B. The machinery is now run by water power.

Messrs. J. B. McMullen and S. J. Ritchie of the Prince Edward Island Railway, were in Kingston recently conferring with the manager of the locomotive works. They desired to have six engines manufactured for their railway, but the time for their delivery being so short no definite arrangements were made with the company.

THE CIRCULAR SAW CONDEMNED.—In the last report of the French Society for preventing Accidents from Machines—a society founded under the auspices of the Societe Industrielle de Mulhuse—a recommendation is made for the avoidance of the use of circular saws in all workshops where practicable. The following are the reasons for this recommendation: 1st, circular saws are dangerous to workmen; 2d, they require more power than other saws; and 3d, they cut a broader line and are consequently more wasteful.

It is said that the G. T. R. car-shops are crowded with work, and the yard is filled with cars waiting for repairs. The present staff does not appear to be sufficient for the completion of the work in hand, and it is certain that as soon as warm weather sets in a considerable addition will have to be made to the number of men. Under the terms of the L. and P. S. R. lease the company are compelled to maintain a force of 300 men in the London shops, otherwise the lease becomes invalid.

The *Perth Expositor* says:—“The town of Smith's Falls with its new dignity is showing fresh energy, and advantage is being taken of its good position for manufactures. Several new industries are about to be established, among which are the stove and novelty works of Powers & Jones at the Canadian Pacific Railway station, to employ 200 men; the stove and general works of Johnson & McGregor, at the landing field near Jones' Locks, to employ twenty men; and the bolt works of Mylne & Currie at the extreme south end of the town on the east bank of the Rideau, to employ twenty or thirty men and boys. A newspaper is also reported as about to be established.”

The Toronto Bridge Co. intend commencing the erection of new shops at Lachine early in the spring, their Toronto shops, however, are not to be abandoned, but on the contrary are going to be considerably enlarged, and have some eight or ten thousand dollars worth of new machinery added in the course of the next two months. In March they will commence to run night and day, with two separate gangs of men, and intend making things “hum” in the west end of the city. Their shops are illuminated by the “Ball” system of electric light, which is said to give every satisfaction. Next week they ship fourteen car loads of bridge material to Winnipeg, for the Canada Pacific Railway.

The sixteenth annual general meeting of the Montreal Rolling Mills Company was held at their office, 409 St. Paul street, on Jan. 30th. A satisfactory report of the business was presented, and a dividend of five per cent. for the half-year ending 31st December, 1882, was declared, making, with the interim dividend paid on the 1st of July last, a total of eight per cent. for the year. The following officers were elected for the current year:—Charles S. Watson, President and Managing Director; Andrew Allan, Vice-President; Directors, Hon. John Hamilton, Messrs. Edward Mackay, E. S. Clouston, Hon. J. J. C. Abbott and Hugh McLennan; William McMaster, Jr., Secretary.

A singular and remarkable occurrence is reported from the Reading (Pa.) Hardware Works. The foundry windows were tightly closed against the inclement weather without, and about ninety men were at work. Suddenly a large volume of sulphurous gas poured out of the opening in the cupola and flooded the foundry. Ten men became deathly sick and dropped to the floor at once. The others commenced vomiting, and complained of severe pains in the stomach and the head. Two were perfectly unconscious, and remained in that condition for some time, having to be taken to their homes in carriages. The foundry presented the appearance of a huge hospital, with men lying in every direction. About seventy men were affected, and the foundry was obliged to suspend operations for some days.

UTILIZING SCRAP TIN.—The following method is suggested by E. Rousset in the *Bergu Huttenmannische Zeitung*: He first heats the tin in an oxidizing flame, which oxidizes all the pure tin and also that combined with the iron. When this operation is properly completed, the scrap is found to be covered with a brown and brittle crust, the upper layer consisting of oxide of tin and the lower of magnetic oxide of iron. It is then passed through rollers, by which the film of oxides is loosened, and may be separated by sifting. The iron that remains makes good wrought or cast iron, but is said to be particularly adapted for precipitating copper. The oxide of tin, though mixed with iron oxide, can be easily reduced to metallic tin, and the metal is free from sulphur and arsenic. The method of reduction, especially the separation of iron and lead, is not given.

Messrs. Wm. Kennedy & Sons, Owen Sound, have furnished all the heavy driving machinery, such as gears, steel shafting, pulleys, etc., for the Toronto Paper Co's new mill at Cornwall, and also a lot of machinery for the Montreal and other cotton mills.

Leather, Glass, Paper, &c.

King Bros. of Whitby, are thinking of enlarging their tannery.

The Napanee Mills Paper Company are erecting a pulp mill at Fenelon Falls.

Several boot and shoe manufacturers in Quebec have lately received heavy orders from Winnipeg.

A Kingston despatch of Jan. 30 says:—The Superintendent of the Napanee Glass Works, who has been in the city for some days, will recommend capitalists to establish such an industry in Kingston. He found in this vicinity a quality of sand which it was thought would have to be imported by Canadians.

Mr. J. S. Bingeman, representing the Berlin Glove Works, has been in Montreal the last two weeks taking orders for the fine goods manufactured by this concern. He has sent home very large orders every day since he left—frequently as high as \$2,000 in a single letter. This shows the great popularity of Berlin Gloves.
—*Berlin News.*

PHILADELPHIA, Pa., January 27.—Bergin & Son's Glass Works have shut down. Two hundred hands are out of employment. The firm announces its inability to compete with the New Jersey manufacturers, who pay their men in store orders, realizing a profit on the stores which they run instead of manufactories. It is also said that the workmen cut wages under the Union rate, enabling the employers to undersell.

The *Brick, Tile and Metal Review* reports a new use of glass for shingles. It is claimed that glass roofing is at once better, more durable and cheaper than slate. The glass is usually opaque, but may be translucent or clear as desired. The exposed parts of the shingles are corrugated. The shingles lap at the sides, are closely interlocked, and one rivet suffices for a pair of shingles. It takes but fifteen of these shingles, 8 by 12 inches, to cover a space of 100 square feet, the waste is so small; whereas of slates of the same size 300 are required.

The competition in the local bonus business goes bravely on, as may be seen by the following from the *Brant Review*:—Stratford is about to submit a bonus by-law to their ratepayers, granting a bonus of \$12,000 to A. J. Halter and Co., to secure the establishment of the Paris Button Works in their city. To secure this Mr. Halter would have to expend in building \$24,000, and employ a large number of hands. Woodstock is also prepared to submit a by-law giving them a loan of \$10,000 for ten years. It looks as though Paris might lose this industry, which is certainly of as much importance to Paris as to any other town or city. If anything reasonable would induce the company to permanently establish themselves here, we should like to see it extended to them. In some town councils there is a committee appointed on "trades and industries," and if such a one existed in the Paris council they might find out the true state of things in regard to the removal of these works. We have previously intimated that such a committee should be appointed.

The contracts for the erection of a large factory on St. Antoine street for Messrs. George Barrington & Son, the well-known manufacturers of trunks, bags, valises, etc., Notre Dame street, were given out this week from the office of Messrs. Fowler and Bowes, architects, who prepared the plans and specifications. The building throughout will be of the most substantial construction, the walls being of brick with stone foundation. The frontage toward St. Antoine street is divided by stone and brick piers, with horizontal bands of white brick, having an ornamental tower for flag-staff above the main corner. The ground floor contains the offices, which are lighted with plate glass windows. The principal entrance to the main building in rear also is placed on St. Antoine street. The factory in rear is about 200 feet long, with a wing about 68 feet long, in the shape of an inverted L, being three floors in height with a basement. Fire escapes are also provided for. When complete the structure will be one of the most convenient in the city for manufacturing purposes, as light is provided for on all sides.—*Montreal Witness.*

Milling.

CANADIAN MILLERS MUTUAL FIRE INSURANCE COMPANY.

The fourth annual meeting of this Company was held in their office, No. 59 James-street North, in the city of Hamilton, on Friday, 2nd instant, at 12 o'clock noon. There was an unusually good attendance of the members, among whom were:—D. Goldie, Ayr; William Snider, Waterloo; A. Bowman, Blair; G. L. Baumwart, DeCewsville; Peter Shirk, Bridgeport; James Goldie, Guelph; R. Shirra, Caledonia; J. D. Saunby, London, and Seneca Jones, Hamilton. Letters of regret were also read from several who were unable to attend. The President, Mr. D. Goldie, was called to the chair, and the Secretary-Treasurer, Mr. Seneca Jones, read the report of the Board of Directors. The report shows that the Company has had another very successful year—only one loss having been made, and which is the second since the Company was organized, over four years ago. The amount at risk has been considerably increased, also the amount of the deposit notes, while the Company carries forward a very snug cash balance after providing for every liability. The following gentlemen constitute the new Board, viz:—D. Goldie, William Snider, G. B. Salter, James Goldie, R. Shirra, A. Bowman, J. D. Saunby, A. Watts, and J. Wissler. The directors express the hope that many millers will avail themselves of the advantages offered by the Company during the year.

The *Moncton, N. B., Times* describes a large new steam flouring mill there, which is being run by Mr. J. R. Foster, under a lease. It has four runs of stones and a steam engine of 180 horse power, with smutter, separator, polisher, purifier and other appliances of first-class mills.

The drought has of late been seriously felt along the St. John river between Oak Point and Fredericton, N. B. At Grand Lake and Washademoak, only two grist mills out of one dozen usually employed at this season, are in operation, and thousands of bushels of grain remain to be ground. The rain of Sunday week did not reach the districts named.

The Minneapolis flour mills begin the year 1883 with a maximum capacity of producing 25,650 barrels of flour a day, in twenty-five establishments. During 1882 they received 18,403,700 bushels of wheat, shipped 2,054,500 bushels of wheat, and made 3,124,919 barrels of flour. Of this latter amount about 75,000 barrels were used in the Minneapolis home market, and in 1881, 1,181,322 barrels of flour, worth \$7,678,964, were shipped directly to Europe. Practically the entire wheat and flour of Minneapolis is transported by rail. The flour product of 1882 was below that of 1881, chiefly on account of the damaged condition of the crop harvested in 1881.

THE COST OF ELECTRIC LIGHT.—Says the *London Pall Mall Gazette*:—It will cost £14,000,000 to lay down the requisite plant to supply the whole of London with the electric light. If all towns in Great Britain and Ireland were to demand to be supplied with the new illuminant, the capital outlay would be £84,000,000, not including £17,000,000 for lamps and internal fittings. After this expenditure had been incurred the relative cost of electricity to gas of the same illuminating power would be as 29 is to 22. These figures are taken from the calculations which Dr. Siemens laid before the meeting of the Society of Arts. The enormous initial outlay, to say nothing of the hazardous nature of the enterprise and the extreme uncertainty concerning the ultimate development of electric lighting, ought to prevent any municipality from applying for powers to light the whole or even any part of the area. It is the money of speculators, not that of ratepayers, which should be squandered on such experiments.

Lumber.

SECOND GROWTH PINE.

An interesting paper by Mr. Edward Jack, of New Brunswick, appears in the *St. John Telegraph*. Our readers says a contemporary, should ponder, as it contains some valuable hints relating to the second growth of pine. Mr. Jack is an authority on the subject, and his remarks carry a good deal of weight. He says:—

"A few weeks since, just after the railway cars in which I was riding had passed through the Hoosac Tunnel, the news agent handed me a copy of the *Springfield Republican*, December 9th. As I glanced over it my eye fell upon this passage:

"The second growth of white pine sawed in Massachusetts, census year, was worth about \$1,000,000."

"This was an extract from a paper lately read at the State Board of Agriculture in Northampton by Prof. Sargent, of Harvard College. The Professor says that 'a large portion of the neglected farming lands in Central and Southern New England is growing up to white pine,' and could that growth be encouraged and protected, Prof. Sargent sanguinely predicts that its value in Massachusetts, alone, would in a few years exceed the net profits upon half a century of farm crops.

"This statement attracted my attention so much that I made it my business, for the rest of the journey through this part of Massachusetts, to notice every grove of second growth pine, as well as every board pile visible from the car windows. The numerous piles of pine board which met my view, as we passed along, were with but few exceptions, sawn from small second growth trees. What I saw convinced me that if Massachusetts could make large profits out of second growth pine, New Brunswick could do the same.

"One-third of our Province is embraced within the limits of the gray sandstone of the Coal Measures, the meagreness of whose soil is so well described by Prof. Johnston, in his Report on New Brunswick. This soil, although suitable to the growth of little else, is well adapted to that of White and Norway pine, and clumps and groves of these woods are now springing up all over the burned lands of these districts. Indeed, many a good pine log has been cut in New Brunswick on ground swept by the Miramichi fire. Looking across the Nashwaak from the highway near the dam, at Mr. Gibson's mills, one sees on the south side of the river a growth of stout sapling pine, which will soon be fit for timber. It is not many years since the land on which these trees are growing was under crop, and did others exercise the same care that Mr. Gibson has done, in this case, the benefits to accrue to the country would be immense.

"It is not, at present, needful for us to plant trees on our waste lands; all that we are required to do to secure in not very many years an immense return from these lands, would be to protect the trees which nature, herself, has caused to grow upon them. The question arises, How can this be done? Probably the best way to attain this end would be for the Government of the country to offer a prize of, say \$500, for the best 50 acres of second growth pine land, which is to be found in the country at the end of ten years, say from the date of making the offer, with second, third and fourth prizes of less value to other tree preservers of like extent. People thus preserving their trees would find that, beside the value of the bonus, there would be a real cash value in the lumber which they had protected, and others would be led to follow the good example set them. Of course there would have to be conditions attached to the grant bonus, and the age of the trees would have to be taken into consideration, as well as the care to be bestowed upon them. This, it seems to me, would be the readiest way of awakening our people to their best interests in this matter. It is almost unnecessary to remark on the destruction of the forests of America; on the policy of all

enlightened European Governments in conserving their forests, and on the innumerable bad economic and climate results of the wholesale removal of forests, either by fire or the axe of the woodmen. These facts have just begun, almost too late, to make an impression on the people on this side of the Atlantic."

Gilmour & Co's big sawmill at Trenton gives employment to 150 men.

Mr. R. Nagle, Ottawa, has sold some of his limits on the Nipissing to Mr. Allan Grant, for \$100,000

One of the Quebec lower town lumber houses is reported to be about transferring its business to British Columbia.

Messrs. Turnbull & Thompson, of Paris, Ont., have bought three hundred and ten trees from John McRuer, principally oak and bass wood, for the sum of \$1,600.

The total amount of Crown timber dues collected at Ottawa during 1882 was \$841,738, of which \$457,564 belonged to Quebec, \$270,158 to Ontario, and \$114,004 to the Dominion.

The *Winnipeg Commercial* says that American capital has been secured to handle Mr. John Adams' lumber limit of 37½ square miles in the Cypress Hills. Mr. Lewis Sands, of Manistowish Mich, will put \$200,000 into the enterprise.

The *Quebec Chronicle* states that there is no doubt that the great Hall estate, consisting of extensive mills and timber limits in this Province, has been bonded to Mr. Senecal for a European Company, and that the transfer will be made as soon as the intending purchasers are ready to comply with the conditions of the bargain.

The *Belleville Intelligencer* describes the various works carried on by Rathbun & Son, at Desoronto, formerly Mill Point. Their new saw-mill is, or soon will be, a model of its kind, and is now being furnished with all the latest improvements in machinery. When completed it will cut 250,000 feet of lumber per day. The same firm runs also a planing mill, sash and door factory, a lathe mill, a cedar-mill, a ship-yard of considerable importance; and a new flour-mill of the first class, turning out from 173 to 190 barrels per day. The sash factory has an order just now for 10,000 boxes for the Welland Vale Works, near St. Catharines.

The *News Argus* says that Irwin & Boyd's great lumber sale took place at Peterborough on 10th January. There was a good representation from Stirling, and four gentlemen, Messrs. Featherner & Church, F. B. Parker and Jas. Boldrick purchased among them not less than half a million feet. It will take nine trains of seven cars each to transport this immense quantity of lumber, and it is expected down as fast as cars can be provided for its shipment. These gentlemen seem to have every faith in the building operations of the coming season, and intend to push their dealings over the wholesale section. A number of car-loads have already been sold, which will not be unshipped here at all.

A bill to encourage tree planting in Ontario has been passed by the Legislature. It provides that any person owning land adjacent to the highway or street may plant trees on the portion adjoining his land, and any owner of a lot may, with the consent of the owners of adjoining property, plant trees on the boundary line. The council of any municipality may pass a by-law for paying a bonus of 25 cents for each tree planted, and appointing an inspector of trees. The inspector is to report the number of trees alive and healthy at the expiration of three years, when the person planting the same will be entitled to the bonus. The money paid is to be recouped by the province, \$50,000 being appropriated for that purpose. It is a good measure, and will have a most beneficial effect.

The circular of J. B. Snowball, of Chatham, Miramichi, for the year 1882, contains some interesting particulars. The year's

stood in the market at a high first cost, and prices were well maintained. This is more practicable as the export business of the Province is being gradually concentrated into fewer hands. The shipments from Miramichi were 117,006,935 superficial feet deals, &c.: 4,014,316 palings; 793 tons of birch, and 1,921 tons of pine. From the other New Brunswick ports there were shipped 193,769,100 superficial feet, deals and boards; 321,033 palings; 7,368 tons of birch; and 3,338 tons of pine. The shipments from the Province of Nova Scotia are also given in the circular; they were 85,750,000 superficial feet, deals and boards; and 4,258 tons of birch. The observation is made that the preparation for this winter's business is considerably short of last year, but the weather so far has been fine, and if it continues, an average supply may be expected; but as we have had very little frost for the season, the ground in the woods is not sufficiently frozen, and the prospects for brook driving are poor. The outlook for next season's stock is, therefore, more uncertain than it has been for many years,

A correspondent of the *Maple Leaf* writes: Robt. Robertson, Jr., bought the spool factory from the Petitcodiac Lumber Co. for \$6,000. Many thought at the time that Mr. J. Bois DeVeber, of St. John, was a partner, but the closing chapters of the business show that it was rather optional. The late manager, though shrewd in some matters, soon had affairs so arranged that expenditures of large amounts were necessary to keep things afloat, and then made application to a brother in Liverpool, G. B., named James U. Robertson, who had first supplied the purchase money and taken a mortgage on the factory, and who had agreed to make further advances to the amount of \$20,000 for the carrying on of the business, he to be sole creditor. Fine machinery, etc., were put in, additions made, and houses built, which called for such large drafts, that Mr. James U. became alarmed, and on casting up the accounts found, that instead of \$20,000, there were \$36,000 drawn, and at once took another mortgage on all the property and effects of Robt. Robertson, jr. Having an idea that the business was being extravagantly managed, he sent out another brother, Geo. S. Robertson, whose report of affairs was such as to cause Mr. Jas. U. to send out his confidential book-keeper, Mr. James W. Pickup, to whom the management of the factory was transferred. Mr. Pickup seems to be a real gentleman and shrewd business man. He has already got out 1,000 cords spool wood, and is getting still more to carry on the summer's business. The name, under his order, has been changed to "The Canada Bobbin Co." Mr. R. Robertson suddenly left the town, over a month ago, owing almost everybody; not a few as high as \$600 and \$1,000. It is currently reported that his private liabilities amount to \$7,000. *Moncton, N. B., Times.*

The following is a condensation of the *Chronicle's* review of the timber trade of Quebec, for 1882:—The wintering stocks of timber here at present will as a whole barely suffice for the loading of even a small spring or summer fleet next season. It is true that the stock of white pine is about two million square feet in excess of last year, but it must be kept in view that this winter there is not a single raft left behind in the Ottawa streams, against about two millions last year, and in addition to this it is known that new timber will each year be later in reaching the market, and very few rafts of the better class of white pine can possibly be delivered in Quebec before August. This remark stands good also as regards waney-board pine, oak and other hardwoods, from Western Canada, Ohio and Michigan. In pine and spruce deals it is stated that the English markets have been far from satisfactory; the London market especially having been paralyzed by large stocks of last year's importation remaining in the hands of certain importers there, and causing buyers to hold off in the belief that they would be able to buy on easier terms. Shippers must obtain higher values for both these articles if they are to continue to export them, and as the manufacture will probably not only be curtailed this winter, but the cost of production will be materially increased, an advance in price must follow. All contracts made for the next year's delivery of spruce deals have been at an advance, and all the stocks of this wood are now in the hands of the shippers. As a whole the timber trade of the port during the past season is regarded as being fairly prosperous, though one feature which told against it was the exorbitant rates charged by the English marine Insurance Companies. The dry-goods and boot and shoe trades are said to have been tolerably profitable, the tanning industry wonderfully successful, the grocery and hardware lines fairly active, the tobacco business on a good paying basis, and the amount of business done in fish and fish oils fairly remunerative to the dealers and fishermen.

Financial and Commercial.

CANADIAN BANK FUNDS IN NEW YORK.

(From the *Montreal Journal of Commerce.*)

The *Gazette* has exaggerated a good deal the effect of the withdrawal by some of our leading banks of funds which they formerly kept in New York on loan, but which of late they have found it their interest to employ in Canada. In December, 1880, the balances due by foreign bankers amounted to about twenty-seven millions of dollars, but the bulk of this, or about twenty-five millions, was due to four leading banks, viz., the Banks of Montreal, British North America, Merchants and Commerce, while the thirty-two other banks had comparatively small balances held obviously not for employment in loans, but for exchange operations. It is therefore misleading to class such funds with the ordinary bank reserves. The alleged inflation arises simply from the large increase of the resources of the banks during the last two years, and which will aggregate about thirty-five millions of dollars, of which nearly nine millions consist of profits which have been added to the Reserves and Contingent accounts. The deposits and circulation have also largely increased. How far the banks are wise in relying on the prompt realization of call loans in such a money market as Montreal may be open to question. The whole volume of Canadian loans might be called up any day in New York without producing any serious disturbance in the money market, but of course it would be very different in Montreal. The banks, however, may be presumed to know what they are about, and there is, so far as can be judged by their statements, no real ground for apprehension. Those of them which have thought it advisable to reduce their New York balances are the very strongest of our banks, and least liable to suffer any inconvenience from the change.

The point made by the *Gazette* of a serious diminution in the cash reserve is based on the large diminution in the New York balances. Now it will be found that in New Brunswick and Nova Scotia there is actually a larger amount due by foreign agents in 1882 than in 1880. In Ontario, where there are the headquarters of nine banks of undoubted standing, there is, if the Bank of Commerce be excluded, no less than about \$650,000 more in the hands of foreign agents than in 1880. In the Province of Quebec, if the three large banks to which we have referred be excluded, it will be found that the New York balances of the other twelve are more by about \$50,000 than two years ago. As to the actual cash reserves, viz., gold, Dominion notes and cash balance, they are considerably more than they were two years ago. The ground of alarm, then, is owing simply to the fact that four of our strongest banks have seen fit to make loans in Canada, in preference to New York and Chicago, to the extent of some fifteen or twenty millions of dollars.

(From the *Montreal Gazette.*)

The *Journal of Commerce* insists that the Canadian banks have not had their strength in any way impaired by the reduction of the foreign balances to the amount of twenty millions within the past two years, and then proceeds to answer its own assertions in this way:—

"How far the banks are wise in relying on the prompt realization of call loans in such a money market as Montreal, may be open to question. The whole volume of Canadian loans might be called up any day in New York without producing any serious disturbance in the money market, but of course it would be very different in Montreal. The banks, however, may be presumed to know what they are about, and there is, so far as can be judged by their statements, no real grounds for apprehension. Those of them which have thought it advisable to reduce their New York balances are the very strongest of our banks, and least liable to suffer any inconvenience from the change."

If it were true that the reduction in foreign balances has resulted entirely from the fact that the banks have found it more advantageous to employ their money in Canada than in New York, the fact would still remain that the banks occupy a less strong position to-day than they did in January, 1881, in respect to the convertibility of assets, because of the greater difficulty of calling in loans from the Canadian than from the New York money market. But the explanation of the decrease in the foreign balances given by our contemporaries is an altogether mistaken one. The process of reduction began two years ago, and continued during several months of 1881, at a time when money was a drug in the Canadian market, when the resources of the banks were so much in excess of the demand for funds that interest on deposits could with difficulty be obtained, and when rates of interest were down to 4 per cent. for loans on stocks. It was not the more profitable field for employment here that caused the reduction of New York balances at that period, but the demand for Sterling Exchange, which then as now exceeded the supply, and which during two short years has so contracted the foreign balances that, if continued twelve months longer in the same proportion, the latter will entirely disappear, and we shall be forced to purchase our Exchange on credit. With the exception of about half a million dollars brought into Canada in gold by the banks, the whole of the decrease of twenty million dollars in the foreign balances during the past two years has been caused by purchases of Exchange by importers and by the Government in remittance of interest on the public debt, and in place of the gold assets thus disposed of, the banks hold the *promises to pay* of Canadian merchants. To assert, as the *Journal of Commerce* does, that the reduction in foreign balances brought about by this process has not introduced an element of danger into the financial situation, is to encourage a sense of false security. It is simply absurd to pretend that, in respect to foreign obligations which must be paid in gold, such assets as call loans in Montreal or commercial bills under discount, are equivalent to balances in the hands of New York and London

Robert Foster, harness maker, of Emerson, Man., is asking for an extension. He shows a surplus of about \$10,000, but overbought last fall.

The Star Machinery Manufacturing Company, of Montreal, is embarrassed through the assignment of Charles Childs, who is the principal stockholder in the company.

A branch of the well known firm of W. J. McMaster and Co., of Toronto, has been opened at 385 Main Street, Winnipeg, under the charge of Mr. George Bengough.

The grocery stock of Wm. Taylor, of Portage la Prairie, has been sold by the sheriff. Taylor's failure was occasioned through his connection with the late firm of Eadie & Taylor.

Charles Childs, last manufacturer, Montreal, has assigned in trust. His difficulties have been brought about through his having given accommodation paper to a large amount to A. R. Brown & Co.

Alphonse Valiquette, dry goods dealer, Montreal, whose difficulties were alluded to in a former issue, has assigned in trust. His liabilities are stated at \$82,000, and assets about \$30,000 in excess.

One of the oldest merchants in Hamilton, P. B. Barnard, is again in difficulties and asking his creditors for an extension of time. He has failed a number of times and his present difficulties were not unexpected.

B. Savage, who has carried on the dry goods business at St. Johns, Que., for some years, is offering his creditors fifty cents on the dollar. J. E. McNulty, general dealer, of the same place, has called a meeting of creditors for the 16th inst.

Jacob Lewinson & Co., cigar manufacturers, Chenneville street, Montreal, have assigned to Mr. S. C. Fatt, accountant. The liabilities are comparatively large, ranging in the neighborhood of \$25,000 to \$30,000.

W. G. Whitehead has been in the fancy goods business at Winnipeg since last fall. Business must have been very quiet, as he has failed with liabilities of about \$5,000 and assets \$3,000. Several judgments have been recorded against him.

Guy & Husband, merchant tailors, Guelph, are asking an extension of time. They claim a stock of \$12,000, book accounts \$6,000, and liabilities of \$9,000. Business, they complain, has been quiet, and they cannot meet engagements maturing this month.

Booth & Son, coppersmiths, of Toronto, are likely to effect a settlement with creditors. Their liabilities are about \$70,000 and assets (including Booth's private estate) about the same amount. A number of city plumbers are affected through giving accommodation paper.

In the Province of Nova Scotia, Jas. McLean & Son, of Halifax, are asking an extension, and Wm. Lowe, grocer, of the same place, has assigned in trust. B. Spinney & Son, general dealers, of Melvern Square, and Lewis B. Cochran, in same business at Maitland, have both failed.

Messrs. Senecal, Cadieux & Co., wholesale grocers, Montreal, have suspended payment and called a meeting of creditors. The liabilities of the firm are about \$50,000, and it is expected that an arrangement will be come to with the creditors for continuing the business without interruption.

Wm. Hood & Co., carrying on a double business at 415 Notre Dame street, as bookbinders and stationers and harberdashers, have assigned in trust to Mr. Robert Miller, of Robt. Miller & Son, wholesale stationers. The liabilities are small and are believed to be fully covered by the assets.

E. G. Thomas, organ manufacturer, of Woodstock, is temporarily embarrassed. His banker is pressing for security which Thomas is not disposed to give as it would be to the detriment of other creditors. He claims a surplus of \$12,000, and expects to be able to secure a partner in a few days.

Adam Laidlaw, dry goods dealer, Yonge street, Toronto, assigned in trust to John Macdonald & Co., on the 6th inst. He has been in business many years, but for some time past it has been wondered at how he has managed to continue on. This is his second failure. Liabilities about \$10,000.

Dinsmore & Bro., general dealers, Warton, have closed their store, and creditors are looking after their claims. Dinsmore & Bro. recently received several thousand dollars from the Indian Department, which should have relieved them, and their embarrassment is a surprise. Liabilities are estimated at about \$10,000.

J. & P. Lyons, the largest firm of builders in Winnipeg, are under seizure at present. Miller & Hamlin, of Brandon, have been sold out by the sheriff. James Downs and J. S. Young, of Verden, Man., both general dealers, are embarrassed; and George McDonald, hotel keeper, Winnipeg, is unable to meet his liabilities.

Miss Francis Burn, milliner, of Tilsonburg, has assigned in trust to James Brayley & Co., of Toronto, with liabilities of about \$3,000, and assets \$1,800. Although the business has been conducted in Miss Burn's name, it was generally supposed to belong to her mother, who failed in August, 1881, and subsequently promised at twenty-five cents in the dollar.

Johnson & Atkinson, general storekeepers, of Caledonia, are endeavoring to settle with their creditors at thirty cents in the dollar. They carried on the same business at Carp for several years and purchased the stock of N. & T. Garand in September, 1881, who are the principal creditors at present—holding judgment against them of about \$5,000. Liabilities are \$18,000.

Hugh J. Jones & Co., dry goods dealers, of Brantford, have assigned in trust. About a year ago the concern obtained an extension of time spreading over twelve months and showed a surplus of \$11,000. The extension notes have been met, but some heavy bills are maturing which the firm find they are unable to take out of the way, and have taken their present course to make an arrangement to continue business.

In Brandon, Man., A. B. Ferrier, dealer in fruit, etc., is offering to compromise with his creditors, and T. D. McLean, jeweller, is being sued by several Ontario firms. McLean carried on business in Chesley for several years and left there with very little, if any, means. His credit in Ontario was very weak, but on reaching the prairie province the trade seemed to think that he had been used harshly while at Chesley and proceeded to sell him freely—the consequence, he has over-bought and is unable to retire his notes. Liabilities amount to \$6,000.

A. M. Foster & Co., of Montreal, had a meeting of their principal creditors on the 5th inst., and are, or were a few days ago, arranging an extension of four, eight, twelve and sixteen months, secured. A. M. Foster is also a partner in the firms Foster, Baillie & Co., dry goods commission, Montreal, and Foster, Davidson & Co., wholesale saddlery hardware, of Toronto. These two firms claim that they are not seriously affected by Foster's difficulties. The Montreal *Gazette* says that a settlement has actually been made on the basis of payment in full in three, six, nine and twelve months.

Messrs. Louis Lewis & Bro., cigar manufacturers, St. John street, Montreal, have failed. Liabilities are placed at \$25,000. A meeting of the creditors was held in the offices of Mr. Charles Walters, Corn Exchange, Mr. Craig, of the Exchange Bank, in the chair, when there were present Messrs. A. W. Smith, R. Heyneman, Goldstein, and many others. Mr. Walters was appointed to look into the affairs of the estate. Four seizures before judgment have been entered against the estate, one by the Federal Bank for \$9,000. Mr. A. Blumenthal, merchant tailor, St. Lawrence street has been forced to assign on account of difficulties of Lewis & Bro., being an endorser on their paper for some \$10,000.

A Halifax despatch of Tuesday's date says that the annual general meeting of the Nova Scotia Sugar Refinery (limited) was held there that morning. The Directors submitted the annual report, which on motion was received and confirmed. The report stated that since the commencement of working, on April 21st, the profits had been \$25,575, which had been used to reduce the previous deficit of \$42,101. The sales had been 73,000 barrels, against 37,000 for a part of the previous year. The ballot for the selection of directors took place, and resulted as follows:—President, Allison Smith; Directors, Michael Dwyer, Hon. Robt. Boak, Jas. J. Bremner, Jas. Thomson, T. E. Kenny, and M. S. Brookfield.

The Philadelphia *Commercial List* reports business extremely quiet, with the iron trade in a demoralized condition. *Bradstreet's* special despatches of last week reveal a quiet state of business. Everywhere there is manifest an uneasy tone respecting the outcome of the tariff legislation at Washington. Iron is quiet; there is a better feeling in pig, and plate and sheet are dull. Steel rails are a trifle lower. One-half the capacity of the American steel mills for 1883 has been contracted. Grain is restricted in export. Ocean freights are high for charters, and few or no vessels are offering. The speculation in the petroleum market is quiet and firm. The new wells in Forest County have ceased to influence prices. There were 276 failures in the United States reported to *Bradstreet's* during the past week, 13 less than in the preceding week, and 82 more than in the corresponding week of 1882, and 116 more than in the like week of 1881. Canada had 46 failures, an increase of 20.

Montreal advices give the following details concerning the success of Mr. George Stephen, President of the Canadian Pacific Company, in obtaining funds abroad for the completion of the road. The stock which the syndicate desired to place, amounting to about \$50,000,000, has been taken at a price, said to be 60, by four of the great London banking houses, and by certain Amsterdam bankers, who are anxious to obtain more stock. The authorized capital of the Canadian Pacific Company is \$100,000,000, but up to this time only \$15,000,000 have been issued, and that only to

the directors. The issue of the remaining \$85,000,000 is now in progress, and Mr. Angus, the vice-president, has been busy for some days in signing stock certificates. It is expected that over 35,000,000 of this stock will be taken by the directors, in order to retain a full control of the property, while the balance will go to the London and Amsterdam houses mentioned. The company has no bonds, and will issue none. The Canadian Government gave a subsidy of \$25,000,000 in cash, and 25,000,000 acres of land to the company, is constructing lines of road which will be turned over to the company free of cost to the latter, and has given a monopoly to the road for ten years which prohibits the building of parallel or competing lines during that time.—*New York Mail*.

The annual meeting of the Canada Sugar Refining Company took place at the office in Montreal, on Jan. 31, when the accounts of the past year were presented and the following office-bearers elected: Geo. A. Drummond, Peter Redpath, Hon. John Hamilton, Gilbert Scott, F. R. Redpath, and W. W. Watson, Secretary. A dividend of six per cent. for the year was declared. The report of the directors refers to the business of the year as extremely unsatisfactory, consequent on excessive production and resulting keen competition. They point out that the consumption in the Dominion for the average of the past five years is only 115,687,144 pounds, say 51,640 tons, and that this includes all classes of sugar for consumption, as well as syrups, &c., but not including molasses. This is equal to only 27 pounds per head per annum, about one-third of the consumption in Great Britain, accounted for, we presume, by the large use of maple sugar in the rural districts, especially in this province. For this business there are now no less than five refineries competing, the Canada Sugar Refinery and St. Lawrence in this city, the Nova Scotia and Atlantic at Halifax, the Moncton Sugar Refinery; and a considerable importation of raw sugar for consumption is also included in above total. These figures are taken from the Trade and Navigation Returns issued by Government. The capacity of the Canada Sugar Refinery is quite one-half of all the consumption of the Dominion.

BUSINESS REVIEW.

TORONTO, Thursday, Feb. 8th, 1883.

The "Ontario Stock Exchange" has been incorporated, and Toronto will now have two such institutions instead of one only. Among the promoters are Messrs. C. J. Campbell, Henry O'Hara, S. H. Janes, J. E. Thompson, C. K. Sayers, W. A. Forbes, William Fahey, A. Willis, D. M. McDonald, D. H. Allen, D. M. Defoe, and H. D. Strathy. The adhesion of a large membership is looked for; and a considerable extension of business is expected from the introduction of a new feature—the admission of brokers residing at a distance, who will be entitled to half the commission on the execution of their orders, and to whom connection with the Exchange will therefore be an object. An effort will be made to reduce the present high charges on transfers of stock between Toronto and Montreal. Concerning the new institution the *Globe* says:—"It is to be an open Board, where the unwary public, if they choose, can see that their interests are rigidly looked after. Its origin no doubt has grown out of the dissatisfaction given many times by some of our old brokers, and to the high commissions asked. There are some brokers, and old ones too, who "lose their heads" in an excited market, buying at the top and selling at the bottom prices. However, if tried and experienced men sometimes fail to give satisfaction, we can imagine what new men can do. Some brokers there are, it is said, who use the stock they hold for clients in hammering down the market, and it would be a good thing for the clients to know more of what is going on on 'Change. The majority of the Toronto Stock Exchange members naturally do not think highly of the new move, and state that an open Board will not be a success until the business grows to a much larger volume than at present. No one but members are allowed on the floor of the New York Exchange, and the gallery for the public is so high, and the noise so great, that the spectators become dazed. The new Stock Exchange however should have a show, and it will be time to be critical when the period for action arrives."

Cable reports of the January sales of furs held in London on January 22nd and 23rd have been received. At the Hudson Bay Company's sale, beaver, dark prime, sold 5 per cent. higher than last January, and pale beaver 15 per cent. lower than last January. Muskrat also declined 15 per cent. At C. W. Lampson's sale, beaver realized the same as at the Hudson Bay Company's sale the day previous. Muskrat was 7½ per cent. lower than last July, opossum 30 per cent. higher than last July, and squirrel 20 per cent. lower than last March.—*Montreal Gazette*

Last week Postmaster Palmer, of Chicago, received telegraphic orders from Washington forbidding the delivery of mail matter addressed to Fleming & Merriam, R. C. Kendall, Chas. J. Henry & Co., Cudworth & Co., and Bennett, Kolselman & Co., of that city. It is said that the mode of carrying on the business practised by these firms is to solicit by circular the investment of \$10, or more, for the purpose of grain or stock speculation, a peculiar feature of their plan being known as the Mutual Investment Club. Little or no return is made for money remitted to them. The extent of their operations may be understood from the fact that over \$75,000 have been received through the post-office for these firms within 20 days, and the express companies have delivered to them,

in the same time, nearly \$30,000. Beyond a small commission business transacted through the open Board none of these firms have any actual connection with the grain trade.

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The undersigned are prepared to receive and execute orders for furnishing the

"ARC" ELECTRIC LIGHT,

With MACHINES of 5-LIGHT CAPACITY and Upwards.

The Lights will be fitted as required by the Board of Fire Underwriters, and will be supplied for thirty days on trial. If not then approved as satisfactory they will be removed and no charge made.

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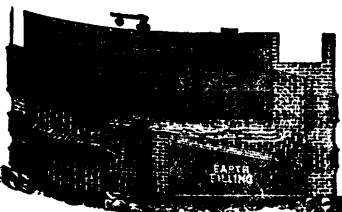
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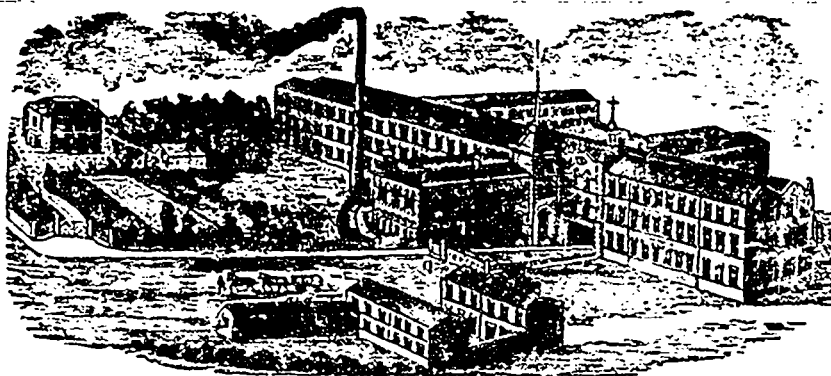
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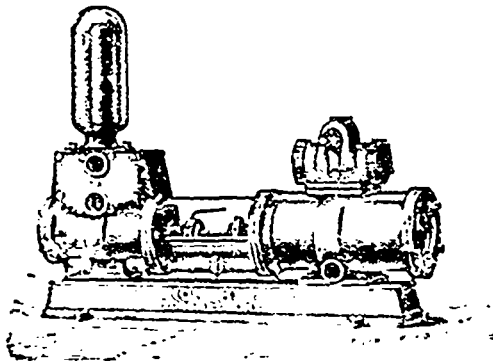
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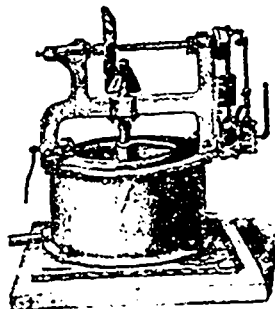
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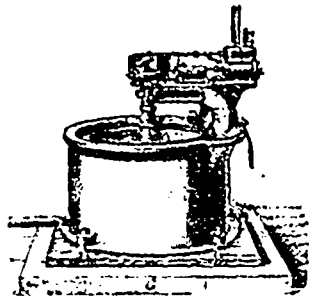
MACHINE A

MACHINE B

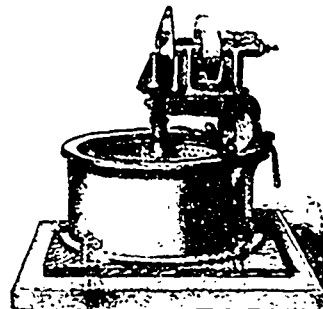
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Runs by Belt and Friction Cone suitable for water-power.

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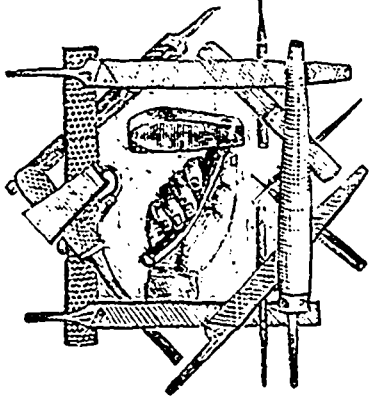
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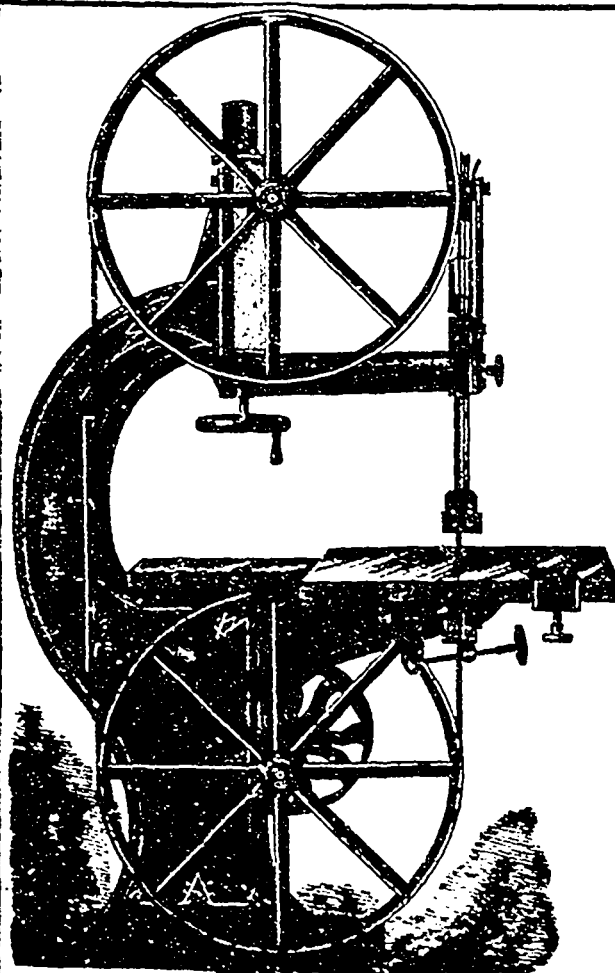
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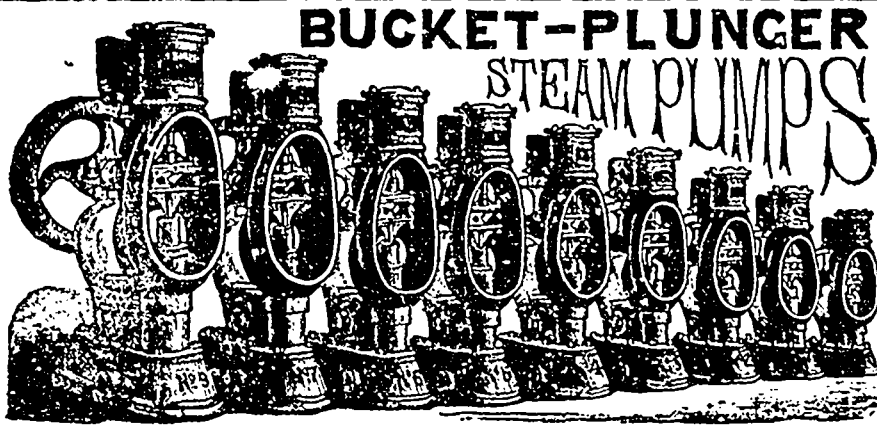


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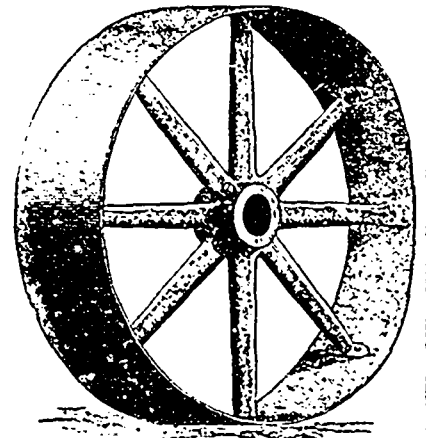
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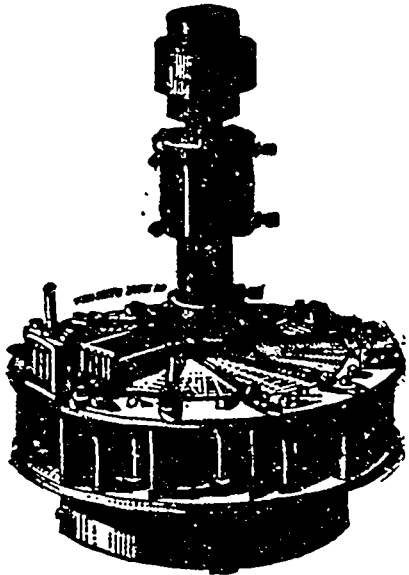
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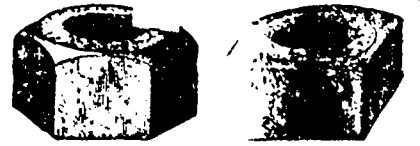
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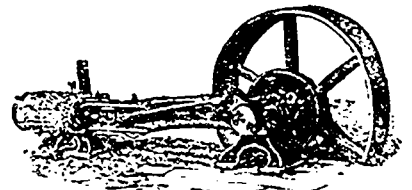
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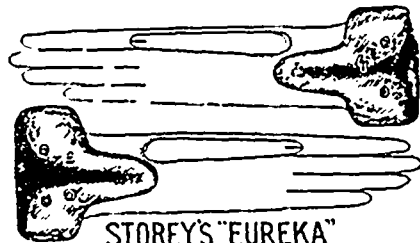
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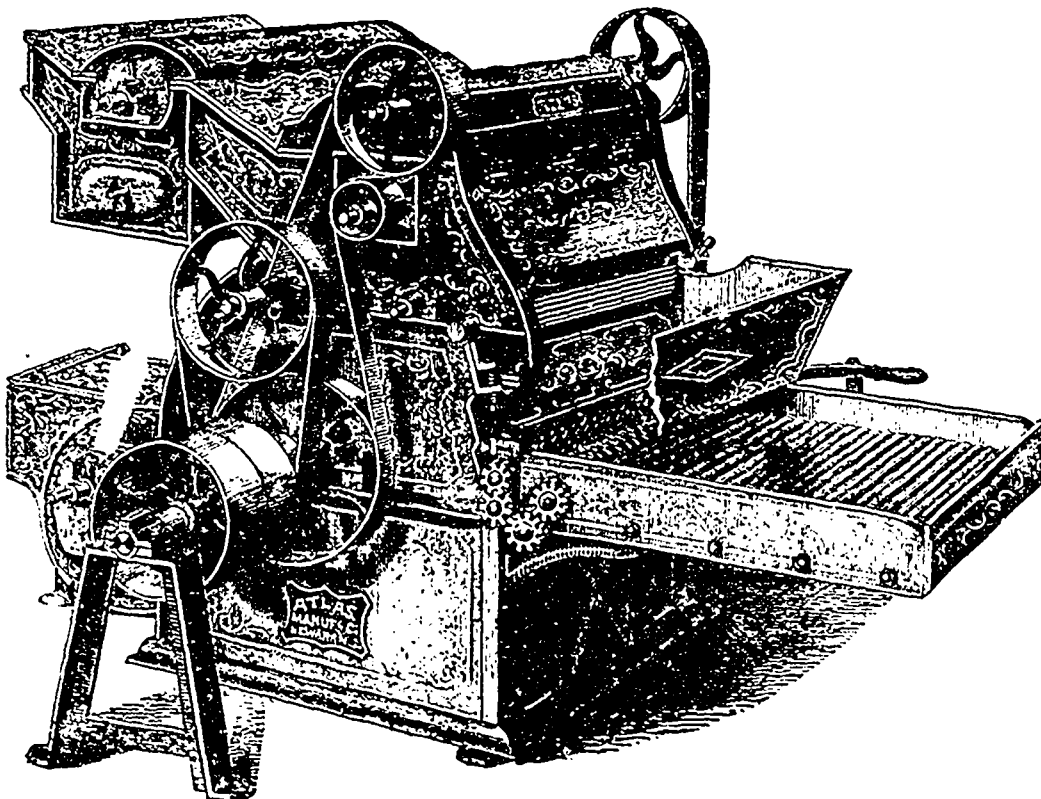
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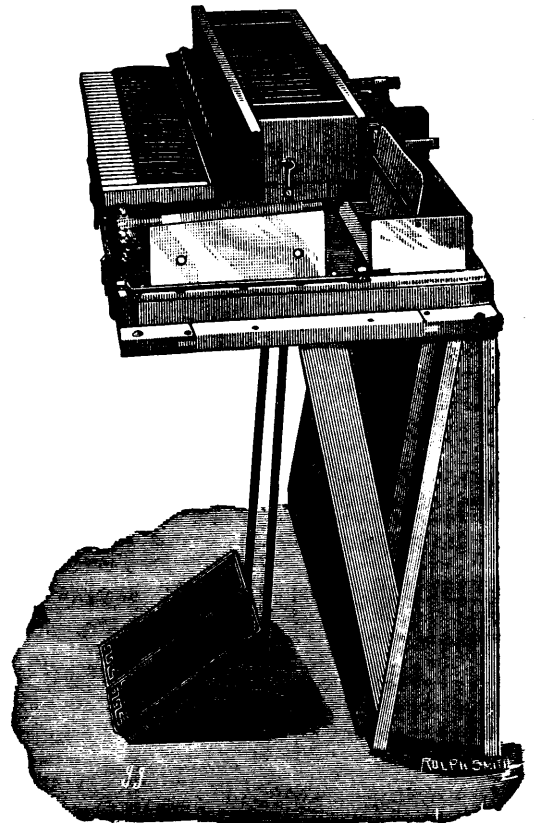
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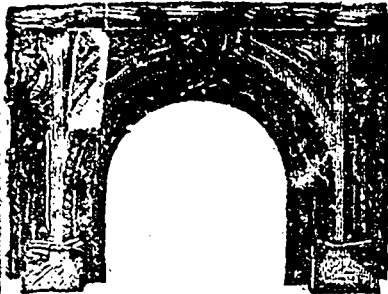
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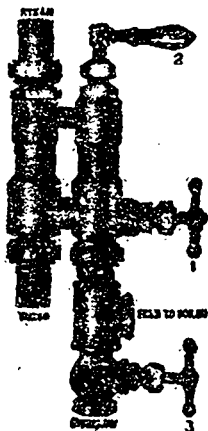
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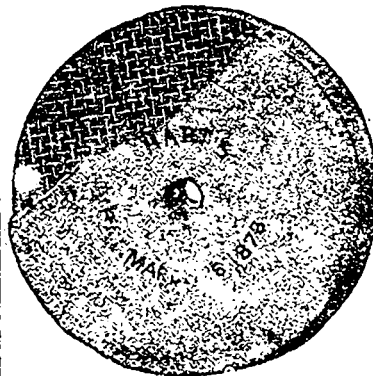
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