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Vol. 13.

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No. 12.

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VOL. XIII.

TORONTO, ONT., DECEMBER 16, 1887.

No. 12.

THE LABOR COMMISSION AND THE MANUFACTURERS — MR. NICHOLLS' TESTIMONY.

THE Royal Labor Commission, appointed by the Dominion Government for the purpose of making enquiries into all subjects connected with Labor and its relations to Capital, were in session in Toronto a couple of weeks ago, and took the testimony of a large number of witnesses. The examinations covered a very wide range of subjects, and all classes of the community were requested to appear and enlighten the Commissioners on the subjects under discussion. Mr. Frederic Nicholls, Secretary of the Canadian Manufacturers' Association, was subpoenaed to appear and testify, and following is a comprehensive synopsis of his testimony.

Mr. Nicholls having been called before the Commission, and duly sworn, deposed in answer to questions asked him.

I have considerable knowledge of the manufacturing industries of Canada—have had good opportunities for gaining information concerning them. Have resided in Toronto about seven years, and have travelled in different parts of the country in visiting the various manufacturing industries. As a rule manufactured goods are not imported as largely from the United States, or from other foreign countries, now as they were some years ago. One very strong evidence to substantiate this conclusion is the fact that so many American manufacturers are establishing branches of their business in Canada, finding that, owing to the high protection we now enjoy, it is more profitable to establish such branches here than to continue to ship their products from the other side. I instance the Cortland Carriage Company, of New York State, who have recently made arrangements to start a very large factory at Brantford, the company having been given a bonus of \$20,000 by that city. There is also another large factory, a branch of the American concern, which was established two or three years ago in Gananoque. This was originally a Canadian concern, but was taken over and enlarged, and is now doing a very extensive business. There are many similar instances—in Toronto I mention the American Rattan Company. The Meriden Britannia Company, whose works are at Hamilton, was started as a branch of the Meriden Britannia Company, of Meriden, Connecticut. In Hamilton there is also the Canada Screw Company, which was originally started under the auspices of the American Screw Company, of Providence, Rhode Island. There is scarcely a town of any importance in this Province but has a branch of some American manufacturing concern established in it. My information is that the carriage making industry is radically different from what it used to be. Some years ago carriages were built in what were called carriage shops, that is,

the entire carriage would be made in one shop. Now they are made under the factory system, and generally when a carriage is built in a shop, the parts are obtained from the makers of the several parts. There are now special factories, one making a specialty of manufacturing bodies, another tops, another wheels, and so on. In many places carriage makers can buy the principal parts, put them together and market them. The Canadian manufacturer of carriages formerly suffered very much from the importations of cheap American carriages, the product of prison labor, the axles of nearly all of which were made in the prison at Jackson, Michigan, but since the prohibition of the importation of the products of prison labor, such importations are confiscated.

The question was asked, "We have had witnesses before us who have asked to have their names suppressed because they feared that their employers would resent their coming before us—do you think there is any coercion of their men by employers of labor?" *Answer*—I have no hesitation in saying that I think quite the contrary. There may be isolated instances, but I do not know of any manufacturing employers and I am acquainted with a great many who would coerce their employes for testifying before a commission of this kind. They are just as anxious for light to be thrown on the matters being investigated as the laboring men are. The Manufacturers' Association have been blamed and criticized in the press for fighting the passage of the Factory Act. Those who know anything about it are aware that there was not one word of truth in the accusation. The Manufacturers' Association never fought the Factory Act. When those Acts came before both the Dominion and the Ontario Governments—and both these will corroborate what I say—no effort was made in any shape by the Manufacturers' Association to prevent their passage. What the Association did do was to endeavor, when the Acts were to be put in force, to see that impartial men were appointed as Inspectors. I noticed in the papers several days ago that a witness—a laboring man—was afraid to give his name to the Commission, and I asked several manufacturers whom I happened to meet, whether they had any objections to their men testifying before the Commission, and in each case I was told that there was no objection whatever. I am quite sure if there is any branch of industry respecting which the Commission may desire the evidence of employes, the manufacturers are quite willing to have them testify.

Regarding the question as to whether the workman stands on an equality with the employer in the commercial transaction of selling his labor, Mr. Nicholls said that the law of supply and demand is quite as applicable to the question of labor as it is to any thing else. If there is a scarcity of labor, as there

is sometimes, employes hold a certain advantage; and if there is an overplus of workmen, the employer has the advantage. I was told while on a recent visit to a large foundry in Galt—one of the largest concerns in the country—that difficulty was experienced in getting workmen. They were willing to pay high wages if they could get the right class of men, but they could not be had. This is a case where the workman has the advantage. At certain seasons there may be a scarcity of work, and at other times there may be work in abundance.

Regarding the Ontario Employers' Liability Act, according to the letter of it, if a man is injured by machinery his redress lies in his own hands. Employers seem to think that the Act is a step in the direction of affording employes increased protection, and they are, in many cases, insuring their men at their own expense. There are now insurance companies organized for that purpose. I do not think that there are Employers' Liability Acts in force in provinces other than Ontario. Employes in other provinces can bring actions for damages under the common law, and recover, provided employer's negligence is proved. In Ontario, employers insure their men at their own proper expense, and agreements are not exacted from the men waiving their claims for damages. In cases of accident to workmen, where suit was brought to recover damages, the legal contest would be as between employe and employer, the insurance company, however, being the virtual defendants. Such insurance is not to be viewed in the light of employers insuring against their own contributory negligence. Recently, in Guelph, suit for damages was brought by employes, but the evidence showed that there was no negligence on the part of the employers and the plaintiffs were nonsuited, the Judge deciding that the negligence, if any, was on the part of the employe. In such insurance the employer simply insures his own risk. The question being asked as to what would be the situation where an accident had occurred from defective machinery, Mr. Nicholls stated that in such cases the matter would almost invariably have to go before the court, unless the employer agreed to pay. Often difference of opinion exists between employer and employe regarding the completeness and safety of machinery, and the question would probably be best settled and determined in courts of justice.

Question—Do you know whether there is usually a great deal of friction between employers and employes in Ontario? *Answer*—I do not think that usually there is any unusual amount—more than there is under similar conditions in the United States. I think there is less in Ontario than there. Except in times of excitement the relations between them are friendly and pleasant. In cases of disagreement attempts are frequently made at conciliation. Sometimes manufacturers go further than they think they are called upon to go to effect conciliation. It is a serious thing for a factory to be shut down for any considerable length of time, because competition is usually keen, and if they get out of the run of trade and cannot fill orders, such orders will inevitably go to competing concerns, and once one man gets another's custom he is likely to hold it. I don't know but what the present voluntary system of arbitration is as good as any other plan for settling disputes; I am not altogether in favour of Governmental arbitration. By "voluntary arbitration" I mean where the employer and employe agree on the arbitrators. Although arbitration is provided for in the Ontario Act, it has very rarely been called

into force. I think that with regard of all these questions of labor and capital, the legislation should be by the Dominion Parliament, or if it is not within the purview of that authority, steps should be taken, or arrangements made, to have similar acts made operative in all of the Provinces simultaneously. We now have an Ontario Factory Act, but there is also a Factory Act in the Province of Quebec, which, as far as my information goes, is not operative. Generally in the textile industries a great deal of child labour is employed. In Ontario mills such labor is forbidden by law; but it is largely used in Quebec, and, of course, Ontario manufacturers are at a disadvantage to that extent. I desire to emphasize the opinion that if the Employers' Liability Act and the Factory Act are not made Dominion measures, they should be created and enforced in all of the Provinces. Clause 28 of the Ontario Factory Act reads as follows: "Nothing in this Act contained shall authorize the said Board to establish a rate of wages or the price of labor for workshops which workmen shall in future be paid." I think it probable that this clause is one reason why the Act has never been operative. By it the arbitrators are divested of their power.

Within the past few years I have visited nearly every manufacturing center in Canada from Halifax to Sarnia. When I visit a factory I do not go only to the office, but through the whole establishment, and often talk with the employes, and my opinion is that their general condition in Western Ontario is far better than in Eastern sections. They get better wages, and I have knowledge of concerns who have moved from Ontario to Quebec in order to get cheaper labor. I have collected a great deal of information on the subject, and know that there has been great improvement in the condition of the mechanical classes within the past ten years. Wages increased steadily from say 1878 to 1882-83, but they are not much higher now. The maximum was reached in 1882, I think.

In reply to the question as to whether the products of factories has been increased in greater proportion than the number of hands employed, Mr. Nicholls suggested that the question involved information which could only be obtained through a Dominion Bureau of Statistics. No person could authoritatively answer such a question. We have no information—no data upon which we can now write or compile evidence since the last Dominion census. Such a bureau should cover wide ground—something similar to the American Statistical Bureau. If we had such a bureau there would not be so much over-production in some trades, with consequent depression and operatives thrown out of employment. Such over-production is caused more from ignorance of the consumptive requirements of the country than anything else, and such mistakes would not be so liable to occur if manufacturers were being constantly supplied with such important information as they are in the United States. The cotton manufacturers have an organization, born of the necessity here alluded to, formed after they had lost a great deal of money. If they had been supplied with this information from another source there would not have occurred over-production, depression and idleness of employes. They do for themselves, to a certain extent, what the Government ought to do for the community at large.

In considering the economy displayed in manufacturing goods and the economy displayed in distributing them, Mr. Nicholls said that the economy of production has been studied

so much and so long that production has been brought down more within the limits of a science, but the economy of distribution is only just commencing to be studied, and that there is yet room for much improvement. Canada is a young manufacturing country, and by way of illustration I might talk of the country as being one industry. When a man starts a new industry he does not think so much of putting his products on the market as he does about the most economical way of producing them as compared with his competitors. That is the first thing to which he devotes all his attention; but when he has gotten that successfully accomplished, he turns his attention to studying the economy of distribution. Our country, regarded in the light of a new industry, has gone into manufacturing much more largely within the last ten years than it ever did before, and into a much greater variety of industries. In engaging in these industries the first consideration is to produce goods as at low prices as American and English competitors offer them at. There may be a very wide margin between the cost price of some articles to the manufacturer, and a very narrow margin in others, and it is in these differences where the economy of distribution is most manifest. In cotton goods there is a very narrow margin, because the manufacturer sells directly to the wholesale trade, and this, in turn, to the retailer; and so it is simply a matter of selling in large quantities at small profits. With a sewing machine the case is different, because in making sales the great competition is in the canvassing. A canvasser may work hard ten hours or more a day for a week, and only sell two or three machines. The cost of putting such goods on the market is largely that of the time necessarily consumed by the canvassers. In country places a canvasser must have a horse and buggy, and drive perhaps for miles to houses that are already supplied with machines.

As between domestic and imported goods, the margin of profit is larger on such goods as can be imported with profit. Where goods are manufactured at home, the manufacturer is brought nearer to the consumer than if they were produced in a foreign country, and less money goes to the middle man.

INTIMIDATION OF WITNESSES.

THE Royal Labor Commission, appointed by the Dominion Government, was in session in Toronto a couple of weeks ago, seeking testimony on the matters with which it had been charged, and meeting with considerable opposition from those in whose interests it had been specially organized.

The appointment of this Commission was in response to a very general demand on the part of the laboring classes for its organization for the purpose of investigating the causes of the frequent clashing between employe and employer, resulting in strikes, lock-outs and other labor troubles. It was claimed that the laboring classes were being imposed upon, and that if such impositions could be "shown up" before a commission the Dominion Government would see the necessity of enacting laws for the protection of the oppressed.

When the Government were authorized to raise this commission, those who had demanded it were elated, but their joy was of short duration when they found that, although they were consulted as to the personnel of it, they were not to have

the naming of all the members thereof; and when it was further discovered that one or more of the gentlemen appointed happened to be distasteful to them, they suddenly lost interest in the matter and held aloof from the Commission. They declined either to give evidence themselves or to encourage laboring men to appear and relate the grievances which had so sorely afflicted them. They went further, and not only discouraged the presentation of such testimony, but circulated reports to the effect that the laboring classes were afraid to testify through the intimidation of their employers. Even before the Commission began their sittings here the Trades and Labor Council, according to the daily papers, passed a resolution against giving evidence so long as Commissioner Heakes remained a member of the Commission; and the labor bosses of Hamilton asked instructions from the Toronto council as to whether they should testify when the Commission held sittings in that city, seeing that Commissioner Freed, of that city, was distasteful to them.

In another page of this journal Mr. Frederic Nicholls, secretary of the Manufacturers' Association, in testifying before the Commission, shows that the manufacturers do not object to their employes appearing and communicating any facts that they may possess, or opinions that they may hold touching the matters in question, and it is evident that these professional labor agitators either have no real grievances, or refuse to disclose them because they were not allowed to pack the Commission appointed by the Government with their partisans. The "intimidation" of witnesses is not on the part of the employers of labor, but by the Trades and Labor Council and the jawsmiths connected therewith. Any poor, deuded, simple-minded laboring man or woman who might have the temerity to go before the Commission after having been notified that the Council and jawsmiths had decided that they should not do so, would regret it, and life would suddenly become very burdensome. A laboring man might really feel that he had cause to complain about something, and believe that a properly laid complaint would effect a reform in his favor, but the tyranny of this organization is such that he is obliged to keep his mouth closed.

FRONTIER SMUGGLING.

A CORRESPONDENT who signs himself "Business" writes us an interesting letter regarding the smuggling that is being carried on from Detroit into Canada in that vicinity. He shows that the practise is general, and that the family that doesn't smuggle is an exception. Probably nine out of every ten of the women who cross over to Detroit, he says, do so for the purpose of smuggling; that there is an almost continuous stream of smuggled goods coming over the Detroit river via the Canada Southern railroad, and that large quantities of dutiable merchandise are constantly being ferried over in small boats and landed at secluded and unfrequented places along the Canada shore. It is true there are customs officers stationed at Windsor, notwithstanding which the whole county of Essex is flooded with smuggled goods, to the dismay and discouragement of honest merchants, and to the grievous wrong of the Dominion treasury. It is charged that the customs detectives are of little or no use in preventing petty smuggling,—that they

make their positions profitable to themselves by only looking after those who attempt to import smuggled goods in large quantities, where their fees are correspondingly large, and that they wink at the bride's trousseau smuggling bag and its contraband contents as being of too petty a character to command their official attention.

It is easier and much better to prevent smuggling than it is to catch smugglers, and the only way to suppress this nefarious traffic is to enforce the laws most rigidly. Detroit is one of the most important inland points in the Dominion as regards trade between Canada and the United States. It is a city of about 225,000 inhabitants, and our correspondent estimates that at least \$500,000 of Canadian money is spent in that city each year. Aside from other advantages that Detroit possesses, it handicaps all neighboring Canadian towns and business centres through the facilities existing for smuggling merchandise from there into Canada; and the demand of Canadian merchants for commercial justice, through rigid enforcement of the laws, should be complied with.

No doubt those who are being benefited by the smuggling that is perpetrated so unblushingly would complain that the enforcement of the laws would be harsh, but all thieves make similar complaint; and there is probably no law on the statute book which is not open to objection when duly enforced. But this is no reason why it should not be executed. The enforcement of the Scott Act is decidedly distasteful to a great many, but that is no reason why it should be disregarded, and as long as it is a law it should be enforced. All laws imply more or less restriction of personal liberty, but until Anarchy takes the place of law such restrictions will prevail. If the customs officers are corrupt, or neglect or refuse to do their full duty, let them be discharged and others appointed; and if there are not enough officers to answer the purpose, appoint more. A woman with a bride's trousseau smuggling bag concealed about her person, containing dutiable articles, in attempting to evade the law and defraud the Government, should be dealt with in the same manner that a man should be dealt with under similar circumstances. When detected, let her person be searched and the "comfortable hiding place" made to disgorge. A few such examples would effectually deter modest women from engaging in such unlawful business, and immodest women should not complain. A vigorous enforcement of the law would probably be distasteful to some of the so-called "ladies" of Windsor, but it would certainly be to the advantage of Canadian merchants and the enrichment of the Dominion treasury.

SECURITY OF BANK CIRCULATION.

A recent bank failure in this city emphasizes the fact that the manufacturing and mercantile industries of the country require greater banking facilities than are now enjoyed. Many Canadian writers suggest that the Dominion Government alone should control and issue all the notes of the different banks, the circulation being based upon the evidence of the bonded indebtedness of the country, similar to the method observed in the United States. There, none but national banks are allowed to issue bank notes, and these are secured by deposits with the Government of United States bonds. The banks are

not even allowed to print their own notes, the necessary plates, paper, etc., being supplied by the Government. Under this arrangement the payment of all national bank notes is guaranteed by the Government, and no matter where the bank may be; how obscure and inaccessible its location; small its capital, and unknown its officers, its notes are always worth fully one hundred cents on the dollar from Maine to California. The name of the bank is of no consequence in commercial transactions, and if any bank should fail, or if every bank in the country should fail, their notes would be payable in full on presentation at the United States treasury.

As long as United States bonds were available for hypothecation as security for circulation of national bank notes, there seemed to be no lack of banking facilities in that country, but all of the bonds which have matured have been paid and cancelled, and as the process of cancellation is being carried on constantly, there is a consequent narrowing of the volume of securities available for this purpose, and this is one of several reasons for the existing stringency in financial circles there. The recent report of the Secretary of the Treasury shows that the volume of national bank notes in circulation has already decreased to less than \$332,000,000 against nearly \$400,000,000 gold coin, and \$63,000,000 standard silver dollars, the gold coin being nearly 30 per cent. of the total circulation of the country. The total coin and paper wealth in circulation, according to the Secretary's report, aggregates \$1,366,512,349, which includes gold and silver certificates, the coin to redeem which lies in the vaults of the treasury.

It is evident that Congress must provide some other method for securing national bank notes than by the hypothecation of Government bonds. Senator Farwell, of Illinois, a man of large financial experience, who was for many years one of the most successful merchants of Chicago, has formulated a bill which provides that instead of Government bonds the banks may deposit with the United States Treasurer any State or municipal bonds, or any first mortgage bonds of railroads in the United States upon which the interest has heretofore been promptly paid, and whose market or cash value is equal to or greater than their par value, bearing interest at a rate not less than 4 per cent. per annum. The purpose of the bill is to substitute other than Government bonds as security, though many would prefer to see all State and municipal bonds excluded. We do not think that the United States Government would ever repudiate any such obligations as might be assumed in such an arrangement, but the fact that several of the States, and a great many municipalities, have frequently defaulted in the payment of their bonded obligations would tend to depreciate the general stability of the security. Railroad bonds as security seems to be the most valuable and feasible feature of the proposition, but, of course, the Government would have to supervise and regulate the operations of the roads—nationalize them—before full confidence would be given to the scheme.

This question of security for bank circulation and the volume of it, is a most important one and will be studied with intense interest, not only in the United States but in Canada also.

The free traders felicitate themselves that President Cleveland opens the way to the demolition of the tariff system of the United States. But he doesn't.

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

WHAT'S the matter with Protection? Protection is all right.

MR. D. A. DUFFY, proprietor of the Maritime Brass and Iron Works, Moncton, N.B., writes us: "I like the appearance of the CANADIAN MANUFACTURER, and always find a great deal of valuable matter in it."

CANADIAN barley bids fair to have a boom this season, the crops in Iowa, Wisconsin and Minnesota, the principal barley-producing states, have fallen short. St. Louis alone will purchase about \$1,000,000 worth for brewing purposes.

The United States surplus is a mighty argument against Protection.—*Toronto Globe.*

THE United States surplus is a mighty argument against the United States Internal Revenue system. Protection is all right.

MR. ROBERT KERR, of Paisley, Scotland, has bought land in Fall River, Massachusetts, on which to erect a thread mill, employing 700 hands. If Protection is such a bad thing, why does Mr. Kerr leave free trade Scotland and erect a big mill in protected America?

FOR the first time since the re-construction of the Southern States there is not a single colored man in the House of Representatives of the United States Congress. The Democrats understand well how to have the colored vote cast the way they want it, or to suppress it, but the colored brother can't hold office.

MR. ABRAHAM S. HEWETT, Mayor of the city of New York, has been elected an honorary member of the British Iron and Steel Institute. The institute has but four other honorary members, the King of the Belgians, Professor P. R. Von Tunner, Professor Ackerman, of Stockholm, and Dr. Percy, of London. Mayor Hewett was nominated for membership by Sir Henry Bessemer.

A PRESS telegram from London states that President Cleveland's message has caused excitement in the Scotch pig iron market, and that prices for the article are advancing. This news is published in the Grit papers, but they do not comment upon it. Who pays the duty on pig iron—the maker or the consumer?

As a result of the shutting down of a textile mill in North Vassalboro', Me., about three hundred people have left town. The place is practically deserted, as this was the only business of the town. It is feared there will not be enough people left in the town to clear the roads during the winter. What bene-

fit would Commercial Union with North Vassalboro' be to Canadian textile manufacturers?

IN enumerating the most influential commercial journals published in Canada which have declared strongly against Commercial Union, and which fairly represent the opinions of the public on this subject, the *Belleville Intelligencer* names the CANADIAN MANUFACTURER. Our journalistic associates who agree with us are numerous, and their influence very wide.

THE oil region of Petrolen, Ont., is the great oil producing section of the Dominion. About \$2,500,000 are invested in the industry, and last year the value of the output of petroleum reached nearly that amount. There are no fewer than 3,200 wells, producing yearly about 600,000 barrels of crude. The output during last month was 112,000 bbls. of crude, said to be the largest in the history of the trade.

At a recent meeting of the Toronto Trades and Labor Council a letter was read from the Hamilton Central Labor Union stating that it was in a quandary as to members appearing before the Royal Labor Commission because of that Union's objection to Commissioner Freed, and of the Toronto Council to Commissioner Heakes. These exceedingly fastidious labor representatives would object to appearing for final judgment before the Almighty for a similar reason—because the judge was distasteful to them. Having no case they would rather stay out of court.

MR. JOHN G. CARLISLE as Speaker of the House of Representatives may be a great power in the American Congress, but Mr. Samuel J. Randall is a power behind the throne even greater than the throne itself. These gentlemen represent the two wings of the Democratic party on the tariff question. Mr. Carlisle is a free trader and Mr. Randall is a strong protectionist, but Mr. Carlisle knows that no financial measure can pass if antagonised by Mr. Randall, who is the real arbiter of the situation. American manufacturers need not fear being immediately swamped by the free admission of foreign goods.

THE Comptroller of the Currency, in his annual report to the Secretary of the Treasury, discussing the usury question, says:

"I make bold to say that in my judgment it would be a decided step towards emancipating industry from the trammels of antiquated notions of Governmental guidance to omit from this code all reference to usury, and leave only a provision fixing the rate of interest in the absence of special stipulation between lender and borrower. No one of experience can doubt that money would be cheaper and more accessible to all borrowers if there were no usury laws in force anywhere in the United States."

BRITISH COLUMBIA is likely soon to add shad to the riches of its fisheries, a variety to which its coasts have till recently been strangers. Eleven years ago 250,000 shad eggs were taken from Delaware river, hatched in California and deposited in the Sacramento river. So great has been the increase that shad, the produce of the fry so deposited, to the value of a million dollars was last year sold in the San Francisco market. The shad have now extended north in small numbers as far as

British Columbia, where a great increase may be expected. A movement is being made for placing shad fry in the Frazer river, B.C. It is certainly deserving the attention of the government.

IN a recent trial in a Toronto Court it was developed that about a year ago the telephone company demanded possession of a transmitter then in the store of Mr. W. R. Stewart, a druggist, on the ground that outsiders were allowed to use it. The druggist refused to surrender, and the telephone company cut the wires and replevined the instrument. Mr. Stewart took the matter into court, and all that was proved against him was that on two occasions he had allowed parties to call a cab, and once or twice summoned a doctor. The acting judge, Mr. James Haverson, took the ground that any person paying a rental for a telephone had a perfect right to let whom they choose use it, in spite of any rule of the company to the contrary.

The refusal of Tupper and Chamberlain to receive a delegation from the Commercial Union Club is quite in keeping with their whole attitude. Chamberlain wishes to give no influence to any but British and American opinions. Tupper is afraid Chamberlain may discover the true state of Canadian opinion. They are a pretty and an arbitrary pair to be entrusted with Canada's interests—*Toronto Globe*.

A COINCIDENCE. Just about the time that Mr. Goldwin Smith's Commercial Union Club determined to send a delegation to Washington to inform the Fisheries Commission of "the true state of Canadian opinion," the *Globe* published a special telegram from Washington to the effect that Secretary of State Bayard had given notice that no such delegations would be received.

THE recent Toronto Industrial Exhibition was a decided financial success. The receipts from all sources amounted to \$77,022.30, and the total expenditure to \$65,718, leaving a cash balance of \$11,304.15. The amount of the debt at the last annual meeting was \$19,695.77, which is now reduced to \$8,391.62. During the year the association expended on capital account the sum of \$12,203.16, and on construction account, \$4,418.32. As the cost of the Horticultural Hall and changes in connection therewith, amounting to \$2,552.60, is to be repaid by the city, the net expenditure on capital account is \$9,680.56. This amount, with \$11,304.15, the amount by which the bank debt is reduced, makes a total of \$20,984.71, which may be termed the net profits of this year's Exhibition.

WE have been shown the very elegant silver medals awarded by the Canadian Manufacturers' Association to the successful competitors in the different Art Schools of Ontario for artistic designs of various subjects. The obverse side represents a female with scroll and crayon discussing a drawing with a working artisan, beneath which is the legend "*Arte et Labore*." The reverse represents the Ontario Maple Leaf surrounded with the inscription "Canadian Manufacturers' Association," while engraved upon the periphery is the name of the successful competitor. These medals weigh over two ounces, the steel dies for which were engraved by Messrs. P. W. Ellis & Co., medalists and manufacturing jewelers, Toronto, who presented them to the Association. The pupils to whom

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these medals are awarded are Misses Mina Faircloth, of Toronto, and Narcissa Bullis, of Brockville, and Messrs. R. W. Crouch, and M. C. Edey, both of Ottawa.

The Chatham *Planet*, speaking of the large amount of American silver coin in circulation in that section of Canada, says that a considerable proportion of it is mutilated by being clipped and by having holes punched in them, and that such should be avoided "as the United States authorities have fixed a depreciated value upon them as follows: Silver dollars, seventy-five cents: half dollars, thirty-five cents: quarter dollar, eighteen cents, and dimes, five cents." Our contemporary is wrong in this. Mutilated coin of any sort is not current in the United States at any price, and is redeemable only at bullion value. We suppose the Detroiters and smugglers have been doing a snug little business buying depreciated coin in the United States and pushing it at face value in Canada.

THE wish of Mr. Goldwin Smith's Commercial Union party is about as comprehensive as that of the colored brother in North Carolina, who was recently called upon to pray for rain. Rain, like Professor Smith's Commercial Union, was greatly to be desired, and the colored brother said: "O Lord God, us poor niggers is perishing dis year; en' ef you don't gib us rain we will perish next year, too. So, good Lord, gib us rain. Don't gib us one of dese little slippery-slappies; but do, good Lord, gib us one ob dem gully-washers and trash-movers." The professor will not be satisfied with reciprocity in natural products only, for that would be only a little slippery-slappy; but he wants a Commercial Union gully-washer that will wash out our Canadian existence, and if he don't get it he will "perish dis year and next year, too."

THE next annual meeting of the British Iron and Steel Institute will be held in Pittsburgh, Pa., in September next. This is the most distinguished body of iron and steel manufacturers in the world, and the importance of the event here alluded to cannot be overestimated. The members will learn much from witnessing the methods in vogue in the great iron and steel making establishments in and around Pittsburgh, and they will have a great mass of interesting facts to communicate to their American hosts regarding their own methods. It is not too early now for Canadians to be making arrangements for inviting the members of the Institute to visit Canada also, and showing them what we have in the way of raw materials and facilities for the establishment and maintenance of extensive iron and steel industries in this country.

MR. JAMES M. SWANK, general manager of the American Iron and Steel Association, 261 South Fourth Street, Philadelphia, announces that the new edition of the "Directory to the Iron and Steel Works of the United States," which is now in press, will be ready for delivery about Christmas. Since the appearance of the last Directory in 1886, there has been great activity in building new furnaces, and rolling mills, and steel works in many States, and a new edition has become absolutely necessary. This Directory will be larger than any of its predecessors, and all the new and *bona fide* iron enterprises of the South, and of other sections, will be described in its pages; while "projected" iron enterprises of a wholly speculative

character will be carefully excluded. All who wish copies will be supplied promptly upon remitting \$3 for each copy ordered.

THE recent decision of the Supreme Court of the United States in the Kansas case, while being a boom for the Prohibitionists, throws a wet blanket over the free traders. The contention of these latter has been that the United States Congress should not do away with the internal revenue now taxed against tobacco, whisky and beer, on the ground that these articles are not necessary to the health or happiness of the people, their demagogical appeal being that the repeal of the internal revenue laws meant "free whisky." The Kansas legislature passed a law forbidding the manufacture or sale of spirituous and malt liquors within that State, and the constitutionality of that law has just been affirmed by the highest court in the land. The United States cannot authorize the whisky making or selling business in Kansas, or any where else where it is prohibited, and can only collect taxes on it where the States permit its existence.

THE extent to which the bonusing business has crazed some Ontario towns is surprising and ridiculous. We have shown elsewhere how Brantford votes thousands and thousands of dollars, and years and years of exemption from taxation, as inducements to outside bonus hunters to accept of her generosity, while her own business men who desire to enlarge their manufacturing establishments are refused on the ground that they are not strangers. The *Paris Review* tells of a man who is endeavoring to work the same game there. He wants \$5,000 in money and the usual tax exemption, in consideration for which he will start a \$12,000 or \$15,000 factory; and the *Oshawa Indicator*, recording the proceedings of the town council, shows that a bonus hunting concern, already established in business in another town, would kindly consent to move to Oshawa and manufacture shoe strings if a bonus of \$10,000 and the usual tax exemption is voted.

A FEW days ago the *Toronto Globe* stated that the great increase in drunkenness in this city last summer was largely due to the labor strikes and the idleness of so many laboring men. The article was brought to the attention of Alderman Baxter, presiding at the Police Court, who stated that he had acted as police magistrate during all the time that the strikes were in progress, and had complimented the strikers for their orderly conduct and great respect for law during the troubles. He said then that it was highly creditable to them, and he reiterated it now. He felt that they had behaved themselves wonderfully well, and he did not think that a single striker had been arrested. Men never behaved in a more orderly or lawful manner, and he fancied that if they were drinking they would have been arrested. Mr. Meyerfev, Police Court clerk, stated that not a single striker had been arrested while the troubles were in progress; and that the number of cases in the Police Court had increased since the strikes closed.

SECRETARY of the Treasury Fairchild in his report takes the ground that no material change should be made in regard of internal revenue taxation. He shows that to do away with the whole revenue from internal taxes would so diminish the revenues that it would be necessary either to lay duties on

articles of importation now free, or to suspend the sinking fund requirement and materially diminish other expenses of the Government. After making elaborate arguments in sustaining this position, discussing the means of disposing of the surplus fast accumulating in the treasury, the Secretary suggests the adoption of a system of deficit financing. He thinks that taxation should be diminished to such an extent that the annual revenues would be less for some years to come than the appropriations, so that the accumulated surplus could be used for ordinary expenses. We do not reconcile the two arguments. If it is desirable to reduce the receipts to an amount less than the necessary expenditures of the government, it could be accomplished by doing away with the revenue from internal taxes, and the tariff need not be touched at all.

The customs officer at St. Stephen, N.B., recently observed a boy of unusually stout proportions crossing Calais bridge. An examination revealed the fact that the lad had arrayed himself in numerous articles of wearing apparel, and in this ingenious manner was endeavoring to smuggle them over the border. On payment of three times the duty value of the clothes the lad was allowed to depart.—*St. Stephen, N.B. Courier.*

A few days ago a Windsor lady went to a Detroit store and selected a very handsome jacket, which, after purchasing, she secreted in a comfortable place. When she arrived at the Windsor house she was requested to step into the office of the landing waiters. When she left she was without the sack. It is said that the lady was detected in the store where she made her purchase.—*Windsor, Ont., Review.*

The mills of the gods grind slow, but they eventually arrive at destination. We are pleased to notice that the customs officers at St. Stephen and Windsor are waking up. Clothing manufacturers have some rights that even boys and "ladies" should respect. The Windsor bride's trousseau smuggling bag, which is carried in "a comfortable place" about the person, should be frequently and thoroughly investigated. Let the suspicious secret "comfortable places" about smuggling women be relentlessly explored and perhaps the "ladies" will become wearied of the amusement.

MR. JACOB Y. SHANTZ, of Berlin, Ont., is one of the largest manufacturers of buttons on the American continent, having extensive factories not only in Canada but in the United States also. The Commercial Unionists thought that it would be smart to claim Mr. Shantz as an adherent of their political party, and the Grit newspapers gave extensive circulation to a report to that effect. Mr. Shantz brands the report as a falsehood, and declares that he is strongly in favor of that National Policy which has made it possible for him to become a prosperous Canadian manufacturer. And well he may be. The trade in the United States is in a depressed condition, owing chiefly to the competition of prison labor in European button factories. There are some 2,000 convicts in one Austrian prison alone kept steadily employed in the manufacture of buttons, and there are some 1,000 free workmen in button factories in Newark, New Jersey, alone, out of employment because of the Austrian prison labor competition. The duty upon these prison-made buttons is very small, and although American workmen are thrown out of employment because of this competition, the free trade party of the United States desire to still further reduce the duty, or remove it entirely. Free workmen

in America are starving that convicts in Austrian prisons may be employed. Canadian laws forbid the importation of convict made buttons, but how could such importation be prevented under Commercial Union? Mr. Shantz and all other Canadian manufacturers see where the change would lead to, and what would be the inevitable result.

Discussing the methods proposed for reducing the American revenue, the *Toronto Globe* says: "The necessary reduction cannot be accomplished by freeing tobacco. It paid only \$19,676,731 last year, while the national income needs to be lowered by at least \$80,000,000." *The Globe errs in its figures.* For the fiscal year ending June 30 last, the total receipts from taxation against tobacco in its various forms were \$30,108,067; the tax on spirits being \$65,829,321, and on fermented liquors \$21,922,187. The receipts from taxation on these articles—tobacco and spirituous and fermented liquors—alone amounted to \$117,859,575. In the same issue of the *Globe* from which we quote appeared a telegram stating that a joint resolution had passed the Virginia House of Delegates by a vote of 90 to 1 requesting the United States Congress to repeal the entire internal revenue system of taxation. *This coming from an ultra Democratic State is indicative of the sentiments of the people of the South regarding the tariff question.* Within the past decade the Southern states have identified themselves with new manufacturing industries in which hundreds of millions of dollars have been invested, and they well know that the safety of these investments, and remuneration from them depends upon the perpetuity of the tariff. It is strange that intelligent newspapers should attempt to convey the impression that there is no other way open to reduce the revenue than by lowering or abrogating the duties upon imports. The revenues derived from the two sources above alluded to—tobacco and liquors—amount to more than one-third of all received by the government, and if the prayer of the State of Virginia be answered, and the entire internal revenue system of taxation be repealed, the expenditures of the government would considerably exceed the receipts. There may be some equalization and modification of the tariff made, but Mr. Cleveland and the free trade wing of his party will not be able to destroy the stepping stone by which the United States has reached the acme of prosperity.

At a recent meeting of the city council of Brantford, Ont., the Manufacturers Committee of that body reported that in the event of certain manufacturers now engaged in business in other towns establishing their industries in Brantford, they be exempt from taxation for ten years. They also reported in reference to the application of a carriage manufacturing firm who have been established in business in Brantford for a number of years for similar exemption from taxation, that inasmuch as the firm's business is not a new one, the application be not granted. This latter firm desired to considerably enlarge their business, and asked for only just such municipal encouragement in doing so as was being granted to hound-hunting strangers already comfortably in business in other places, but who proposed to move to Brantford and become active competitors of those already established there. But a few weeks ago Brantford voted a bonus of \$20,000 in hard cash, and valuable exemptions from taxation, etc.,

worth several thousand dollars more, to a carriage making concern doing a big business in the United States, and reputed to be worth a million dollars. There were some seven or more different carriage manufacturing concerns in that town at that time, all of whom joined in a strong protest to the city council against granting these phenomenally favorable advantages to the Yankee concern. They showed that they had long been established in business there; that they were all comparatively poor as compared with the millionaire new comer; that they had not been the recipients of any such municipal favors, that if such favors were to be awarded they should partake of them, and that as tax payers in the community the very money that was being so freely voted to the Yankee company, who were rich enough to establish themselves in business in Brantford without it, would have to be realized out of taxes which they would have to help pay. Under the previous conditions their lot was hard enough, but the proposition was to induce the location there of a large and rich concern who were to be their competitors in the carriage making business, and that they would have to pay their proportion of the "inducement" which would establish this competition. The later action of the Brantford city council is of similar character. Here are several parties who are already established in business in other places actually removing to Brantford to avail themselves of the generous liberality of the authorities, while a Brantford manufacturer who wants to enlarge and extend his business is refused the favor accorded to strangers, on the ground that his business is not a new one. Such things ought not so to be. It is an outrage on taxpayers generally, and specially on those who are already in similar business, and demoralizing to the whole country. We call upon the Dominion Government if it is within the purview of its authority, to place a limit on this system of municipal bonusing, or stop it altogether.

With their usual mendacity, the Commercial Union journals have been claiming Mr. Jacob T. Shantz, who operates the largest button factory on the continent in Berlin, as a Wimanite, and doubtless will continue so to enumerate him, in the face of his distinct repudiation of belonging to the masked annexation party. So, in Chatham, and on the stump in the County, they insist that the Chatham Manufacturing Company could hold its own in the event of competition with millionaire establishments in the same line in the States, and this in the face of a positive statement on the part of Mr. VanAllen, who certainly ought to be an authority, that Commercial Union would be ruin to this Chatham industry.—*Chatham Planet*.

MR. MARK H. IRISH, Toronto, has purchased the Canadian patent right to the Backus perfect combustion boiler furnace. The philosophy of this furnace is that by properly arranged air ducts at the front of the furnace a large volume of air is admitted which passes over the fire and under an arch constructed of fire brick which becomes intensely hot. The inflow of air becomes heated to a high degree, and, uniting with the carbon of the fuel, creates a clean flame. There is thus but little or no deposit of soot in the flues, or escape of smoke uncombusted carbon from the chimney. There are now two of these Backus furnaces in successful operation at the works of the Massey Manufacturing Co. and one in the Rossin House, Toronto, of which inspection is invited. Several others are about being placed in establishments in the city using large quantities of fuel, regarding the success of which we will speak at another time.

It would be a very dangerous thing to attempt to smuggle into Detroit, for the reason that their preventive system over there is far more effective than on this side. This arises from two causes. One is that the 300 or more policemen in the city do duty night and day along the river the whole length of the city. These help to detect and to deter smuggling from this side. Another cause is

that there are upwards of sixty customs officials in Detroit, besides several lady searchers, who are paid from \$800 to a \$1,000 a year each, for detecting and preventing smuggling. * * * * The six or seven Windsor policemen have enough to do of their own particular work without looking after smugglers. They are unable to render any service of this kind. The customs officials here may be efficient men, but there are too few of them. They cannot be at the ferry landing doing duty and at other places at one and the same time.—*Windsor, Ont. Clarion*.

FRONTIER SMUGGLING.

Editor Canadian Manufacturer.

I HAVE been pleased in perusing your remarks upon smuggling. The people in the interior have little idea of the amount of smuggling done not only at Windsor, but at all points within easy reach of Detroit. One of the local papers recently stated that probably nine out of every ten females who cross to Detroit do so for the purpose of smuggling, and that the ferry boats are often well filled with females. This statement is no exaggeration. The family that doesn't smuggle is an exception. Windsor women may visit Detroit to see acquaintances, but it can almost invariably be accepted as a fact that they go to smuggle. Windsor and suburbs contain a population of 10,000, and the fact that there are but two dry goods stores of importance in the town speaks volumes. But it is not Windsor alone that suffers. The whole county of Essex may be said to be flooded with smuggled goods, while Kent and adjoining counties have their share. It is a common persuasion hereabout that there is an almost continuous volume of smuggled goods coming over the Detroit river via the Canada Southern railroad. There are, besides, other ways of getting them across.

The present condition of things should not be allowed to continue, unless it is intended that protection shall become thoroughly discredited in this part of Canada. The trouble is, the Government have not gone the right way about suppressing the evil. They no doubt honestly believe they have done their duty in appointing special officers, who travel from place to place to detect smugglers. These detectives, however, are of little use for this purpose. They make their offices profitable, and pay scarcely any attention to what they are pleased to call "petty smuggling," which is the very thing that annoys and more than annoys the Canadian retail dealer. They pounce upon the man who smuggles by the thousand dollars' worth, and punish him to the full extent of the law, and in doing this they make a great deal of money for themselves, as they get a large proportion of the fine inflicted. The man who smuggles a suit of clothes or a pair of boots is not big enough game for them, and so he is allowed to continue breaking the law with impunity. On the principle that "an ounce of prevention is better than a pound of cure," such a change is needed in the detective department of the service as will tend to prevent and not encourage smuggling. If good, active and well-acquainted officers were instructed to watch Detroit stores, this petty smuggling would soon decrease. It is a delicate operation to search a woman who may have nothing concealed in her bustle, but if officers knew who purchased in Detroit stores, there need be no such mistakes, and the fair smugglers, finding that the arm of the law was sure and unerring, would soon begin to consider it wrong to smuggle.

The staff of customs officers at the Canada Southern, Detroit river crossing, ought to be doubled or trebled; and there should be officers to watch the river bank. It is subordinates who are wanted—intelligent and energetic men—and not indolent dudes. There ought also to be three or four lady searchers. In Detroit there is that number, and four or five times the number of male officers that there are on the Canadian side. Detroit is a large, thriving city of 220,000 inhabitants, and attracts Canadian trade from over a wide extent of territory. When it is considered that there is probably \$500,000 or more of good Canadian money spent in Detroit yearly, you may estimate what our merchants and trades people lose, and the eastern manufacturers and wholesale merchants lose also.

The Government should make every conceivable effort to have all the goods brought over from Detroit pay duty on coming into Canada, and afford us that protection which we have a right to expect under the National Policy. The matter is a serious one to business men in this part of the country, and ought not to be further neglected.

Be assured that the people on this side are just as honest as the people of Detroit. They smuggle but little in that city, because their tariff law is better executed than is ours. Their tariff law is carried out almost perfectly; ours, very imperfectly.

Essex Co., Ont

BUSINESS.

Manufacturing.

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

TARA, Ont., is to have a fifty barrel roller flour mill.

MR. JOHN READHEAD is building a saw mill at St. Arn's, near Lowville, Ont.

THE Globe Woolen Mills, Montreal, have got their new dye house into operation.

MESSRS. SCHNEIDER BROS., Morden, Man., are erecting a machine shop at that place.

THE Tara woolen mills, Tara, Ont., are now manufacturing a fine line of white and grey blankets.

MR. J. A. WHEPLEY, Greenwich, N.B., has re-engaged in the manufacture of skates.

NATURAL gas has been discovered in Gloucester, near Ottawa, and further explorations will be made.

MR. JAMES BURBANK, Hartley, Que., will operate a saw and planing mill in connection with his grist mill.

MR. E. W. CASE will build a woolen mill at Case, N.B., on the line of the Central Railway, in Kings county.

THE Montreal Cotton Company have acquired the woolen mill property adjoining their factory at Valleyfield, Que.

MR. CHARLES G. THOMPSON, Sherbrooke, Que., has been granted a patent on an improvement in bobbins and spools.

MESSRS. HULME & SCHENAU, Berlin, Ont., make a specialty of manufacturing children's shoes. This is a new concern.

MR. D. C. HORNER, West Shefford, Que., near Cowansville, has just completed and put in operation a fine roller flour mill.

THE works of the Ottawa Asphalt Block Company, Ottawa, were destroyed by fire Dec. 1st, involving a loss of about \$10,000.

THE Austin Manufacturing Company, of Brighton, offer to locate at Oshawa, Ont., provided a bonus of \$10,000 is given them.

MESSRS. DONALD, FRASER & McCURSON, late of Dunvegan, Que., will erect and operate a tannery at Vankleek Hill, Que.

MR. JAMES PENDER, St. John, N.B., manufacturer of nails, has recently made a shipment of horse-shoe nails to the United States.

THE Oshawa *Vindicator* informs its readers that it is selling the sermons published in its columns at "400 per cent less than cost." Cheap.

MESSRS. BEARDMORE & Co., Acton, Ont., are negotiating with the G.T.R. authorities to get a switch from the station to their tannery.

MESSRS. PHELPS BROS., Welland, Ont., have just completed a raceway from the Welland canal through their lumber mills at a cost of \$5,000.

MR. WM. RUSSELL, Guelph, Ont., has purchased the foundry plant of Mr. W. H. Mills, of that place, and will use it in connection with his business.

THE Chatham Manufacturing Company, Chatham, Ont., will have made by the close of this month two thousand of their Standard wagons during the year.

THE council of Three Rivers, it is understood, has offered a bonus of \$15,000 and an exemption from taxes to any manufacturer who will open a factory there.

THE Granby Rubber Company, Granby, Que., expect to re-start their works early in January. The new machinery is nearly all in place and ready for operation.

THE British-American Manufacturing, Mining, and Milling Company, Yarmouth, N.S., are now manufacturing the Wiswell crushing mill, for crushing quartz, ores, etc.

MESSRS. COOK & McKELVIE, Vancouver, B.C., will build a foundry and machine shop at that place. The city will exempt them from local taxation for a term of years.

THE Granby Rubber Company, Granby, Que., have made liberal provisions for the accommodation of the American workmen and their families who they are bringing over.

MR. JOHN GRAHAM, Montreal, is supplying the brick for the new Canadian Pacific depot in that city. Mr. Graham will increase the capacity of his works to 5,000,000 bricks a year.

MR. JONATHAN ELLIS, Port Dover, Ont., whose knitting mills were destroyed by fire in October last, expects to have his new mills finished and in operation not later than May first next.

THE Strathroy Manufacturing Co., Strathroy, Ont., has been incorporated with \$10,000 capital stock for the manufacture of staves, cradles, scythes, snaths, handles of all kinds, etc.

THE Montreal Terra Cotta Lumber Co. has been incorporated at Montreal with \$25,000 capital stock for the purpose of manufacturing fire proof wood, brick and other terra cotta materials.

MESSRS. PHILIP & SON, Hamilton, Ont., manufacturers of harness, etc., have recently made a magnificent and expensive set of double carriage harness, English style, for a gentleman in Detroit.

THE Treasury authorities at Washington have decided that dressed ship planking is entitled to free entry under the tariff provision for ship timber. This means additional work for Canadian lumber mills.

THE Montreal Woolen Mills Co. have put into their new Fisher mill a water wheel manufactured at Holyoke Mass. They are also putting in an equipment of Tatham mules and cards, made for them in England.

MR. JONATHAN ELLIS, Port Dover, Ont., whose woolen mills were recently destroyed by fire, will rebuild at a cost of \$50,000. A bonus of \$10,000 has been voted Mr. Ellis by the taxpayers of Port Dover to assist him in the enterprise.

It has been decided to have the new steel steamer for the Toronto-Hamilton route built in Glasgow at a cost of \$60,000. The boat will be ready by next May, and it is expected to make the trip in a little over two hours.

NATURAL gas was introduced under the boilers of the Huron House, Port Huron, a few days ago. The success of gas as fuel in Port Huron is complete, and over one hundred families have already contracted for having it put in.

THE Windsor Foundry Company, Windsor, N.S., recently shipped to Regina, in the North-West, a car load of all the styles of stoves made by them—the first car load of stoves ever sent to the North-West Territory from the Maritime Provinces.

MESSRS. STEVENS & Co., proprietors of the Moncton Knitting Works, Moncton, N.B., filled orders a few days ago for 814 dozen hose. They have enough orders booked to keep them busy for three months. They will increase their force.

MR. LOUIS SIMPSON, manager of the Nova Scotia Cotton Company, Halifax, N.S., has registered a new method of putting up warp yarn and twines, which he claims will be of great advantage and convenience to storekeepers and hand-loom weavers.

MR. WILLIAM MILLER, Superintendent of the Chatham Manufacturing Company, Chatham, Ont., and his wife celebrated the twenty-fifth anniversary of their wedding a few days ago. They were the recipients of many valuable souvenirs of the occasion.

MR. J. H. STILL, Tilbury Centre, Ont., manufacturer of broom, axe and fork handles, etc., gives employment to about 40 hands. He ships his products to all parts of Canada, and has recently filled orders for Liverpool, England, and Glasgow, Scotland.

MESSRS. JACKSON & Co., Peterboro', Ont., have just began the manufacture of organs and pianos in that city. This firm are said to be well acquainted with the business they have engaged in, having spent many years at it in different cities in England.

THE Oshawa *Vindicator* has recently been supplied with an Acme coal oil engine, manufactured by Messrs. John Gillies & Co., Carleton Place, Ont. It is as proud as a boy with red top boots, and says it can now do as fine job printing as any city concern.

THE Thorold Knitting Co., Thorold, Ont., has been incorporated with \$50,000 capital stock for the manufacture of all classes of cotton and woolen hosiery and underclothing for men's, women's and children's wear, and cottons and woolen fabrics of all kinds.

The rubber factory at Port Dalhousie was put up at auction the other day, but as the highest offer did not reach the reserve bid, no sale was effected. The highest bid was \$22,000, made by a Mr. Pearson, of Toronto, representing a rubber company of this city.

The large flour mill of Messrs. McMillan Bros., Winnipeg, was entirely destroyed by fire Dec. 8th. Loss about \$50,000. New machinery was placed in the mill a short time ago enlarging its capacity. It was with great difficulty that the firemen saved the surrounding elevators and buildings.

The Richardson gas well at Port Colborne, Ont., is now down 452 feet, at which depth a fine flow of gas was found and strong indications of petroleum. The well will be driven deeper. Service pipes from other wells in the place are being carried into houses and other places where the gas is utilized for fuel.

Messrs. Walter and Fred. Massey, of the Massey Manufacturing Company, Toronto, are making a voyage around the world. The object is business and pleasure combined. They sailed on the steamship Australia on the 22nd November for Auckland, New Zealand, where they expected to arrive on the 8th inst.

The American Watch Case Company, Toronto, are adding to their plant \$3,000 worth of new machinery, built specially for them in New York, to enable them to manufacture a new line of watch cases recently patented by them in Canada and the United States. Mr. W. K. McNaught is the manager of the works.

Messrs. Allan Bros' foundry, Carleton, N.B., with all the plant, machinery, book debts, etc., have been purchased by Mr. W. C. R. Allan, who announces that it will be operated in future under the name of "The Allan Iron Foundry and Machine Works." Mr. Walter H. Allan has been engaged as manager.

Messrs. Eitle & Sunday, Wellandport, Ont., manufacturers of carriage and wagon spokes, hubs, etc., will remove their works to Dunnville, Ont., early in January. They are now running overtime preparing for the change. They have recently contracted for the manufacture of 60,000 spokes for a Guelph carriage manufacturer.

A new use for stoves. A farmer in Puslinch, Ont., put a stove into his new cistern to dry it out before using it. In finishing the cistern he neglected to take out the stove, and now he does not know whether to break the cistern and save the stove, or break the stove to get it out, saving the cistern. He is in hot water about it.

A Norringwood, Maine, manufacturer recently awarded three prizes of \$5, \$2.50 and \$1 each to employes who had the finest looking plants in the windows near them. Each window is thus adorned, and the whole adds not only to the beauty of the room, but also to the contentment and subsequent better work of its occupants.

The Montreal Whitewear Manufactory, of which Messrs. Robert McNabb & Co., Montreal, are the proprietors, have begun on an extensive scale the manufacture of night dresses, chemises, skirts, drawers, corset covers, toilet jackets, wrappers, infants' robes, infants' night and day slips, children's dresses and outfits, and white-wear generally.

The J. C. McLaren Belting Company, Montreal, are requesting the attention of manufacturers of textile fabrics to the card clothing made by them. This clothing is set in leather, cotton, natural rubber, backing in iron, and patent tempered steel wire. This company are sole agents in the Dominion for Sykes' patent needle-pointed cards.

Mr. A. G. Lawson, of the Edison Electric Light Company, in negotiating with the authorities of Sherbrooke, Que., asking what inducements that city would offer him to establish workshops there for the manufacture of engines, dynamos, etc., states that he would expect to have a cash bonus of \$10,000 and exemption from taxation for ten years.

Messrs. Wm. Stahlshmidt & Co., Preston, Ont., manufacturers of office furniture and fittings, have recently shipped an elegant black walnut rotary office desk to the Pope of Rome. The metal parts of the desk are heavily gold plated, and it is a beautiful article of furniture. Messrs. Nicholls & Howland are the Toronto agents of Messrs. Stahlshmidt.

Mr. Wm. E. Slaker, late Secretary of the J. B. Armstrong Mfg. Co., Guelph, Ont., on severing his connection with that company after twelve years' service, was the recipient, a few days ago, of a valuable testimonial presented him by the company. It was a massive and valuable tea service. Mr. Slaker returns to his old home in Aberleau, Scotland.

Extensive works are to be built in Canada, probably at Sherbrooke, Que., for the manufacture of the Edison electric light

dynamos and lamps, which will give employment to about 100 men. The tools, machinery, etc., for these works are now being built in the United States, and will be ready to be placed in the new buildings as soon as they are ready to receive them.

Mr. S. S. Kimball, Montreal, has invented and is bringing out what is claimed to be a most ingenious, cheap and serviceable combination lock for a house or office door. It provides 1,500 chances to one against anyone hitting on the combination, and yet so simple that a child can open the door when he knows the combination. It can be supplied at about the price of an ordinary Yale door lock.

Mr. Isaac Rehow, of the Rising Sun Canning Co., Hamilton, claims to have started the first canning factory on this continent. It was in New York, in 1842. The fruit was put up in glass jars, in white sugar syrup. It was with difficulty that \$500 worth of goods was sold that year. The trade received its first impulse when the gold fever broke out, large quantities being shipped to California.

Mr. James Marshall, Hamilton, Ont., has started a works for the manufacture of a superior quality of hydraulic cement. This cement is used for foundations, cisterns, cellar floors, and in all other places where it is necessary to withstand the action of moisture. The rock of which it is made is scarce in Canada. Mr. Marshall employs ten hands at present, but will put on more as the industry grows.

The rubber boot and shoe manufacturers of Montreal have passed the following resolutions: (1) Not to sell at less than the price list. (2) To notify the members of the committee to be appointed for the purpose if any of the subscribing merchants infringe either of the above clauses. (3) That any member infringing either of the above clauses will be liable to a fine of \$20 for the first and \$50 for each subsequent offence.

Rope driving admits of application in many cases to old engines where it would be impossible to adopt belting. The width occupied by the ropes to drive, say 100 indicated horse power, would be nine inches, the width required by a belt to drive the same power would be about twelve inches, and when several belts have to drive off the same pulley, it is necessary to leave about three inches of space between the belts. This space is saved in the case of ropes.

Messrs. John Davidson and John Taylor, Guelph, Ont., have invented a non-explosive lamp. It is of ordinary size with a double cased cylinder and burner. The outside chamber or receptacle will contain an extinguishing or non-combustible fluid. When the lamp upsets, falls down or is in any other way rendered liable to explode, this fluid overflows the end of the wick or the top of the burner and drowns the flame. The invention is especially adapted for railway trains, but will prove valuable in private houses.

It is a curious effect of the customs laws that certain articles partly manufactured in the United States and imported into this country can be made to cost less here when finished than they would cost there. In parlor suites, for instance, our dealers, getting goods direct from Europe, can import the finished chair and sofa frames from Boston, if they wish, and, after paying the duties on them, and upholstering them here, still save enough on the plushes alone to sell them at Boston prices. *St. Stephen, N.B., Courier.*

The American Cigarette Co., Montreal, has just been organized for the purpose of carrying on the manufacture of cigarettes. The promoters of this company are the Kinney Tobacco Co. of New York, one of the largest manufacturers of cigarettes in the world, who have factories in New York, Richmond and Danville, Va., and who give employment to some 6,000 hands. The Montreal concern is in running order and giving employment to 75 skilled workmen, with an immediate prospect of business requiring a much larger number.

The Canadian Lumber Cutting Machine Co., of Toronto, which was recently organized with a capital stock of \$350,000, are erecting a mill at Belleville, Ont., in which will be placed the lumber cutting machinery the operation of which, in this city, was described in these pages in August last. The works will probably be in operation in February next, and the products will consist of box veneers, barrel staves, etc. It is the intention of the company to add several other machines when their Belleville works are fairly in operation.

The St. John Forwarding and Trade Promoting Company, St. John, N.B., are moving in the direction of building the necessary bridges by which connection will be had with Portland, and the establishment of locomotive and car works in their city, and other manufacturing enterprises, including iron smelting works. The company have already secured a valuable mine of Bessemer iron

on the Bay of Fundy, on the coast of Nova Scotia, from which the ore can easily be brought to St. John by water for the purpose of being smelted. Portland is a suburb of St. John.

The new duplex compound pumping engine of three million gallons capacity, built by Messrs. Kerr Bros., of Walkerville, and erected in Messrs. Hiram Walker & Sons' distillery for their purpose and for supplying the town of Walkerville, was recently set in operation with most gratifying results, it doing the work perfectly from the first revolution. Hydrants are placed all over the town, and Walkerville is possibly the only place of its size having this system of fire protection. The pumping engine is well worthy the inspection of those interested in water-works matters.

ALD. S. G. READ, chairman of the Manufacturing Committee, has received a letter from one of the firms now negotiating for settlement in this city, in which they express the opinion that the city of Brantford should be thankful to have such an able advocate. The firm in question want ten years exemption and the old farm and dairy buildings given to them at half the quoted price, the city to take a lien on it to the amount of the interest. If this is done they will guarantee employment to 40 hands, not less than 75 per cent. of them to be skilled mechanics. - *Brantford (Ont.) Courier*.

MR. GEORGE R. SMITH, who has for a number of years been mining engineer and superintendent of the mines of the Little Rapid Phosphate Mining Co., Buckingham, Que., has recently made an extended tour through all the mining districts of Canada, from Sudbury to Vancouver, B.C. Mr. Smith says that the indications for extensive mining operations being carried on in Canada next spring are very encouraging. Everywhere he visited machinery was being put into new mines, and in some cases very expensive and intricate machinery from the United States and England is being introduced.

THE cabinet and furniture factory of Mr. Philippe Valliere, Quebec, was destroyed by fire Dec. 4th, entailing a loss of over \$100,000. The works were well equipped with valuable machinery and tools, and there was a large lot of walnut and mahogany lumber, and some 30,000 chairs, all of which were destroyed. The extensive stores and showrooms adjoining, containing about \$200,000 worth of goods, were saved, but considerably damaged. Mr. Valliere, who is one of the wealthiest citizens of Quebec and does probably the largest business in his line there, will commence rebuilding his factory immediately.

The lumber mills of Messrs. H. F. Eaton & Sons, St. Stephen, N.B., known as the "Upper Mills," were destroyed by fire Dec. 5th. Loss about \$12,000. These are the mills about which there was a dispute as to which side of the river they were on. A few weeks since the United States customs officers seized some of the lumber manufactured there, contending it was from Canadian mills and liable to duty on going into the United States. The owners claimed that the mills were in Maine. It is probable that the mills will not be rebuilt unless it is decided that their site is on the Baring side of the boundary line.

RECENT developments in the Megantic Mining Company's mine, near Coleraine, Que., show enormous deposits of asbestos. Important heavy work has been done during the past season, innumerable veins of asbestos being exposed, ranging from $\frac{1}{4}$ to $1\frac{1}{2}$ inches thick. One exceptionally beautiful vein shows a width of three inches of remarkable finetexture. Work has been prosecuted vigorously in this mine, and its present state of development clearly entitles it to rank as one of the most valuable mines of the kind ever discovered in Canada. Work has been suspended for the winter but will be prosecuted with vigor in the spring.

THE Ontario Canoe Company's factory is making good progress in keeping up with orders. At the end of last season the stock was reduced to almost nothing, so great was the demand for the Peterborough canoes. Just now the employes are working on an order from Rotterdam, Holland. The order consists of thirty canoes of nearly every kind made in the factory—jumpers, longitudinal, folding, decked, sailing, etc. The consignment will be shipped in January. Prospects for the next season's trade are good. Letters from Victoria, B.C., and Halifax, N.S., and other places promise large orders in the spring. - *Peterborough Review*.

A LARGE contract for leather belting has been received by Messrs. Robin & Sadler, of Montreal and Toronto, to be used for driving the machinery of the Lake of the Woods mill at Keewatin. The mill is built upon a very large scale, its capacity being 1,000 logs per day, consequently a great many belts and several very large ones are required. From what we know of the above mentioned firm, we are confident that the work will be done well. - *Canadian Journal of Fabrics*. It is indeed news to learn that the Lake of the Woods mill at Keewatin is built to cut logs. Messrs. E. P. Allis & Co., Mil-

waukee, are building machinery for that mill which will enable it to turn out 1,000 blbs. of flour per day, as recently stated in these pages.

INFORMATION from Montreal is to the effect that a strong effort is being made to induce the Canadian Rubber Company of that city to join the proposed rubber combine, but it appears that the company is adverse to doing so. Mr. Scholes, of the company, as stated in a newspaper interview says that he had been approached by one of the retail men who asked him to enter into an agreement with the wholesale men so that they would refuse to sell to any retailers who would not keep up a certain price in rubbers. Mr. Scholes replied that his company would be no party to combines, and that they would take no hand in the matter. Their business would be carried on upon the same principles as heretofore.

AN important resort scheme is on foot by a company in Halifax for manufacturing the water at the Wilnot Spa Springs, with a capital of \$50,000, divided into 500 shares of \$100 per share, and to be called "The Wilnot Spa Springs Company, Limited." The new company intend developing this valuable property with the intention of making it a leading resort. They will put up machinery at the Springs which will cost about \$1,000, for the purpose of manufacturing and bottling the water for export. This water, after going through the process, is pronounced equal to the renowned springs of Germany, from which large quantities are exported yearly to most all parts of the world. - *Annapolis (N.S.) Spectator*.

PETERBORO, Ont., was recently considerably excited over the prospect of having an extensive saw and file works established there, but the scheme has come to naught. Five thousand dollars in stock had been subscribed, but the projectors wanted \$5,000 more. In discussing the matter at a recent meeting, Mayor Stevenson stated that he was opposed to bonus giving, but would be glad to see the works go on. Whittby had undertaken to give bonuses to a saddlery factory, a tannery and a shoddy factory, but a building without any business was the only thing the citizens got. After considerable discussion the meeting adjourned without the necessary \$5,000 additional stock being subscribed, and the scheme died a-bornin'.

MESSRS. CHUTE, HALL & Co., Yarmouth, N.S., are meeting with much success in the manufacture of parlor organs. Over 2,500 pieces of wood and metal are employed in the construction of one of their ordinary parlor organs. This includes nearly 900 pieces of wood of all shapes and sizes, 500 screws, 300 metal pins of various lengths, 80 springs, 30 brass hinges, and upwards of 700 pieces of metal for various purposes. To prevent rattling and to make the necessary parts air tight, about 700 pieces of felt, soft leather and rubber cloth are used. These organs were brought prominently into notice at the Colonial and Indian Exhibition, London, in 1886, where the fine organ exhibited by them was purchased by the Rt. Hon. Edward Stanhope, colonial secretary.

HERE is an additional illustration of the indefinite and valueless industrial item, as too often given by country exchanges. It is from the Oshawa, Ont., *Vindicator*: "The reeve has received a letter from the authorities of a large manufacturing company offering to start his business in Port Perry provided they receive a suitable bonus. They propose to employ fifty men, principally heads of families, with the prospect of further increasing the number employed." What, pray, is the name of the manufacturing company; where is it located; what does it propose to manufacture; how much of a bonus does it want; on what principles of justice to existing manufacturers in Port Perry should a bonus be granted? - *Cleveland, O., Iron Trade Review*.

As has already been intimated in the *Times*, The Hamilton Steamboat Company have abandoned the idea of building a wooden steamer here, and have given the order for one to be constructed at Glasgow, Scotland. It will be of steel, will cost \$60,000, and nothing will be left undone to make it first class in every way. It will be 160 feet long, 24 feet beam, with double decks, and an engine over 1,000 horse-power. A speed of fifteen miles an hour is guaranteed, and the distance between here and Toronto will be covered in about two hours. The new vessel will be completed towards the end of April, and she will start on her regular trips about the Queen's birthday. The president, Mr. Griffith, and the company are to be congratulated upon their enterprise. - *Hamilton Times*.

It was stated in the last issue of this journal that Mr. D. A. Duffy, proprietor of the Maritime Brass and Iron Works, Moncton, N.B., was negotiating for the acquirement of the works of the Peters Combination Lock Company, in that city. Mr. Duffy informs us that he purchased these works several months since, and has been running them on full time ever since, manufacturing

all kinds of builder's and shelf hardware in brass, bronze and iron. Mr. Duffy's "Angels of Commerce," as Rev. Sam Jones calls commercial travellers, or drummers, spread their white wings in all directions, and their success in selling goods is most satisfactory. Sales are made only to the wholesale trade, and the general outlook for business is so encouraging that it will soon be necessary for Mr. Duffy to largely increase the number of his employes.

At a recent meeting of the Brantford city council, according to the *Courier*, the Manufacturers' Committee of the council reported—1. That in the event of Messrs. Moore & McGarvin, trunk manufacturers, Acton; G. R. Holden, featherbone manufacturer, St. Thomas, and C. Jarvis, establishing industries in the city of Brantford for the manufacture of their various wares, they be exempt from taxation on their various businesses for the period of ten years from the time of beginning. 2. In reference to the communication of Messrs. Simpson & Co., carriage manufacturers, asking exemption from taxation, that inasmuch as the City Solicitors advise that this Council cannot grant exemption as the business is not a new one—but the extension of one already established your committee cannot recommend the granting of the application.

THE new pumping machinery for the Montreal water works is said to be the largest pumping plant ever constructed in America. The whole consists of eight centrifugal pumps having the discs balanced by the suction connection on both sides of the case, which makes it very useful for moving sewage or water containing sand or any foreign matter whatever. Four of the pumps have 15-inch and four 24-inch deliveries. Each of the 15-inch pumps will discharge 7,000 gallons per minute, 420,000 gallons per hour. The total capacity of the four 15-inch pumps is 40,320,000 gallons in the twenty-four hours. Each of the four 24-inch pumps will discharge 18,000 gallons per minute, and the total capacity of the four combined is 108,680,000 gallons in the twenty-four hours. The total capacity of both the 15 and 24-inch pumps is 148,940,000 gallons in twenty-four hours.

The Collingwood Rock Well Co., Collingwood, Ont., have been incorporated as a joint stock company, and will proceed to make borings, or test wells for the purpose of discovering oil, gas, salt or other natural products in that vicinity. According to Prof. Ryan, the strata underlying the town of Collingwood is Utica shale and Trenton limestone similar to that which underlies the town of Furlong, Ohio, where great natural gas wells have recently been discovered. The promoters of the enterprise are confident that they will find natural gas also. Should they be successful, the vast mineral wealth, consisting of iron and copper ore, on the north shores of Lake Huron, may be turned to good advantage, as at present these mines are lying idle for lack of coal or other fuel to develop them, the cost of transportation of the raw material being too much to allow of any profit.

DID He Intend Coming?—THE CANADIAN MANUFACTURER of the 2nd inst. says: "We have been informed by Mr. Thomas McDonald, late senior partner of Messrs McDonald, Kemp & Co., Toronto, that he has taken over the extensive buildings on Sherbourne street, this city, recently occupied by the Toronto Electric Light Co., and is fitting them up for his new business. He is now placing machinery for the manufacture of galvanized iron range boilers ranging in capacity from 30 to 100 gallons, galvanized iron scuttles and buckets, patent stove pipe elbows, fruit cans, liquid paint tins, Walter's patent metallic shingles and a number of American specialties. The works will probably be in full operation by January, and new lines of products will be added from time to time." It looks very much as if Oshawa had been made a cat's-paw for the purpose of bringing some person to time in Toronto. The above appears as if the ruse had succeeded.—*Oshawa Indicator*.

THE Canadian Pacific Railway Company intend doubling the capacity of their freight rolling stock, and propose building during the coming year 4,000 box cars and 200 locomotives. They are at present turning out five cars a day at their shops at Perth, but they find that their present capacity is entirely inadequate for the freight which is offering. In order to meet this emergency they will erect additional large shops in Montreal, near their Hochelaga station, which will give them a capacity of ten cars per day there. Then they intend to move all their car business from the Colborne street shops, which will be enlarged and equipped with additional machinery and used entirely for the locomotive works. The capacity of these locomotive works is now one locomotive a week, and it is the intention of the company to double this. The erection of these shops will involve a large outlay of money, and when they are completed and the machinery in position they will give permanent employ to 2,500 men.

A STATEMENT of the cost of building locomotives in the shops of the Canadian Pacific Railway Company, indicate that such work is done a good deal cheaper in Canada than in this country. The mechanical superintendent of the Canadian Pacific states that the cost of building an eight wheel road engine, American type, cylinders 17x24, drivers 62 inch, weight of engine in working order 87,000 pounds, at \$5,740, 10 per cent. being added to both material and labor. The superintendent of machinery of one of the principal Chicago roads furnishes us with the following figures as the result of his experience in recent locomotive building: A fifty ton Mogul engine cost, with 10 per cent. added, \$8,967; four eight wheel passenger engines, cylinders 17x24, driver 5 feet in diameter, weighing 42 tons, cost \$7,420 each; ten Mogul freight engines, cylinders 18x24, drivers 4 feet 8 inches, weighing 47 tons, cost \$7,349 each. Here is a remarkable difference in cost in favor of the Canadian road. It would be interesting to know why it exists.—*Railway Lg.*

WM. F. COCHRANE, whom the millers are not likely to forget as the central figure of the biggest patent litigation that has ever vexed the milling world, has again come to the surface as an inventor of mill machinery. If the reports of the Canadian papers (extracts from which are published elsewhere in this issue) are anywhere near correct, Mr. Cochrane ought to have a big thing. The *Hamilton Times* publishes a two column article descriptive of Mr. Cochrane's reduction machine and biographical of Mr. Cochrane himself. If the *Times* is even approximately correct, Mr. Cochrane will be able to recoup himself for the failure of his former venture in the domain of milling; but we fear the paper in question is a little too sanguine, too much like Col. Sellers. For instance, it estimates the number of double sets of roller mills now running at 500,000! It also figures out that these roller mills require 6,000,000 pulleys and 50,000,000 feet of belting, whereas, the Cochrane machines would do the work with 142,856 pulleys and 4,287,780 feet of belting. An invention need not be near so good a thing as that to realize a fortune for its inventor.—*American Miller*.

DURING the past six years the value of the products of the forest shipped to the United States out of Wallaceburg, Ont., was for fire wood, \$808,698; stove bolts, \$520,370; saw logs, \$636,633; pine lumber, \$205,098; oak lumber, \$20,483; railroad ties, \$63,201, and other products, such as hoops, staves, axe handles, etc., \$226,368, aggregating a grand total of exports from the Sydenham Valley of \$2,480,824. The local mills there furnish the cooperage stock for nearly the whole Dominion, and at least \$100,000 should be added to this, which would make the aggregate sum larger and place the yearly average about half a million dollars, or sufficient to buy 25,000 acres of timbered lands at the going price of \$20 per acre. This rate of depletion, while a source of money making for the present, is regarded with a jealous eye by those who see in the near future a complete dearth. Attempts have been made to check it by asking Parliament for the imposition of an export duty on elm logs. One thing is evident, that so long as the forests last, the farmers have a large source of income, in addition to their usual crops of wheat, oats, pork, fruit, etc., and the question suggests itself, Why not preserve it as far as possible, and reproduce it by systematic planting?

THE Dodge Wood Split Pulley Company, Toronto, have recently placed quite a number of very fine rope transmissions of power in some of the largest manufacturing establishments in this city and vicinity. Among these are three large drives for a 70 horse-power transmission for the new addition to the works of the Massey Manufacturing Company; an 80 h.p. for Mr. Joseph Simpson's knitting mills; a 60 h.p. for Mr. James Lochrie's rope works; a 50 h.p. for Messrs. J. P. Wagner & Co.'s new factory; eight drives aggregating 87 h.p. for the Barber & Ellis Co.; and a 35 h.p. for Messrs. T. Tushingham & Son, all of Toronto; a 50 h.p. for Messrs. Forbes & Co.'s woolen mills, Hespeler, Ont.; a 10 h.p. for the Auburn woolen mills, Peterboro', Ont., the shafting being at a right angle with the engine, three drives—one 80, one 50, and one 40 h.p. for Mr. George Easterbrook's saw and grist mills at Tweed, Ont.; one 30 h.p. for Messrs. Broadfoot & Box's furniture factory at Seaforth, Ont.; one 12 h.p. for the Polson Iron Works Company; and one 40 h.p. for the cracker factory of Messrs. Christie, Brown & Co., both of Toronto. By this it will be seen that the Dodge system of transmitting power by Manila ropes and grooved wood pulleys is becoming very popular.

ONE of the oldest if not the oldest glove manufacturer in Ontario was Mr. W. E. Parmenter, who retired from the business some years ago, disgusted with the treatment he received as a manufacturer. Mr. Parmenter started in Dundas between 1863 and 1864, and introduced the first sheepskin splitting machine used in the trade in Canada. The first two or three years of Mr. Parmenter's

experience were of a most cheering and inspiring kind. The American war was then on, and in addition to the home Canadian demand, dealers from the States came over and bought all they could lay their hands on. The calls of the army and of disbanded soldiers, and the high cost of manufacturing made prices high, and all the surplus stock of clothing, gloves and boots, etc., that could be obtained at the moment in Canada, were eagerly picked up. "In 1866," remarked Mr. Parmenter to our representative, "I made \$25,000 worth of gloves, which I had sold at a good round profit. But scarcely was the disbanded army supplied than the market became glutted with imported goods, and a leading Hamilton wholesale firm, whose name you know, turned round and threw back upon my hands goods which had been delivered, leaving me helpless. The firm had agreed to take my entire output when this happened, but I could get no satisfaction; and when I fell back upon the home market, I had to meet the prejudice against Canadian manufactured goods, which was very much worse at that time than now, and there was only a duty of 15 per cent. By this time, too, Mr. Hall in Brockville, and one or two others had started, making the surplus stock still greater. One Toronto wholesale house refused to buy at all, candidly avowing that they wished to crush me and my contemporaries out of existence. Through the policy of my bankers, and the other causes named, I was obliged to close up and left the business disgusted. Mr. Storey started about 1868, and he, Mr. Hall and others took the bull by the horns by going direct to the retail trade, and after a long struggle gained their feet." Only sheepskin and buck gloves were made then, kid being first made about 1868-70. In the Province of Quebec, the first manufacturer for the trade of whom we have any record was Mr. Balcer, of Three Rivers, who started in 1854.—*Journal of Fabrics.*

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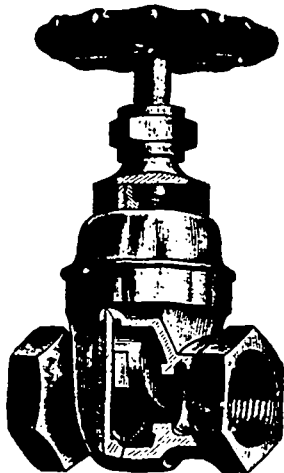
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NOTICE.

A NUMBER of School Sections in the Province of Manitoba will be offered for sale at public auction at the following places, on the undermentioned dates, viz:—

At Manitou on the 10th January, 1888; at Winnipeg on the 17th January, 1888, at Portage la Prairie on the 24th January, 1888, at Brandon on the 31st January, 1888; at Minnedosa on the 7th February, 1888.

In any case in which a settler on any quarter section of land included in the list referred to can prove to the satisfaction of the Commissioner of Dominion Lands that he was bona fide residing upon and cultivating the said quarter section, in ignorance of the law, on the 1st day of October, 1887, the purchaser of the quarter section, if he be other than the said settler, will be required to pay, for the benefit of the said settler, the value of the improvements thereon.

Lists of the lands to be sold, the upset price of each parcel, the terms of sale, and any other information which intending purchasers may desire to obtain may be had on application to the Secretary of the Department of the Interior, Ottawa; to the Commissioner of Dominion Lands, Winnipeg; or to any Agent of Dominion Lands in Manitoba or the North-West Territories.

A. M. BURGESS,
 Deputy of the Minister of the Interior.

No unauthorized insertion of this advertisement will be paid for.



MILITIA.

SEALED TENDERS, marked on the left hand corner of the envelope, "Tenders for Militia Store Supplies and Necessaries," addressed to the Honorable the Minister of Militia and Defence, will be received up to noon of Monday, 19th December

Printed forms of tenders, containing full particulars, may be obtained from the Department at Ottawa, and at the following Militia Stores, where also sealed patterns of all articles may be seen, viz:—The offices of the Superintendents of Stores at London, Toronto, Kingston, Montreal, Quebec, Halifax, N.S., and St. John, N.B.

No tender will be received unless made on printed forms furnished by the Department.

The material of all articles will be required to be of Canadian manufacture and of Canadian workmanship.

Each tender must be accompanied by an accepted Canadian bank cheque, for an amount equal to ten per cent. of the total value of the articles tendered for, which will be forfeited if the party making the tender declines to sign a contract when called upon to do so, or if he fails to complete the service contracted for. If the tender be not accepted, the cheque will be returned.

C. EUG. PANET, Colonel,
 Deputy of the Minister of Militia and Defence

OTTAWA, 25th November, 1887.

THE

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- Armstrong, J. A. & Co., Guelph, Ont., Carpets.
 Automatic Refrigerator Co., Ottawa, Ont., Hanrahan's Patent Automatic Refrigerators.
 Barnum, The Wire and Iron Works, Windsor, Ont., Wire Goods of all descriptions, Railing, Cresting, Fencing, etc., etc.
 Barber & Ellis Co., The, Toronto, Ont., Manufacturing and Wholesale Stationers, Account Books, Office Sundries, etc.
 Bertram, John & Sons, Dundas, Ont., Iron and Wood Working Machinery.
 Blake, George F., Manufacturing Co., Boston, Mass., Steam Power Pumping Machinery.
 Boeckh, Charles & Sons, Toronto, Ont., Brooms, Brushes, Woodenware, etc.
 Breithaupt & Co., Berlin, Ont., Leather.
 Brush, George, Eagle Foundry, Montreal, P.Q., Blake Stone Crusher.
 Hostwick, George F., Manufacturer in Canada of Amberg's Cabinet Letter Files.
 Baines, Geo. W., Montreal, National Water Purifier.
 Batten, John, Pittsburg, Pa., Automatic Fire Escape.
 Beatty, Wm. & Sons, Welland, Ont., Centrifugal Pumps and Contractors' Machinery.
 Clark Bros. & Co., Preston, Ont., Stoves and Furnaces.
 Cowan & Co., Galt, Ont., Wood Working Machinery, Engines and Boilers.
 Creelman Bros., Georgetown, Ont., World's Star Knitting Machinery.
 Crompton Corset Co., Toronto and Berlin, Ont., Corsets.
 Canadian Harness Co., Toronto, Harness and Saddlery.
 Ching, J. Lionel & Co., Sydney, N.S.W., "Dugong" Oil and Ointment, and "Dugong" Ivory Tusks and Hilds.
 Canada Screw Co., Hamilton, Ont., Wood Screws, Set Screws, Bolts, etc.
 Duperow Bros. & Co., Toronto, Varnishes, Japans, etc.
 Dalley, F. F. & Co., Hamilton, Ont., Extracts, Essences, Blacking, and Grocers' Sundries.
 Donald Produce Co., Norwich, Ont., Evaporated Fruits.
 Doty Engine Co., Toronto, Ont., Engines, Boilers, etc.
 Dominion Barb Wire Co., Montreal, P.Q. (C. A. Delisle Western representative), Barb Wire, Plain Wires and Wire Rope.
 Dovercourt Twine Mills, Toronto, Ont., Twines and Cordage.
 Dominion Starch Works, Walkerville, Ont., Corn Starch and Laundry Starch.
 Dominion Show Case Co., Toronto, Show Cases.
 Ellis & Kelghley, Toronto, Ont., Coffees, Spices.
 Elliot & Co., Toronto, Ont., Manufacturing and Wholesale Chemists and Druggists.
 Ellis, P. W. & Co., Toronto, Ont., Manufacturing and Wholesale Jewellers.
 Fenwick & Selater, Montreal, Que., Files and Mill Supplies.
 Finch, W. S. Toronto, Wood Filler and Preserver.
 Gate City Stone Filter Co., New York, Water Filters.
 Gillies, John & Co., Carleton Place, Ont., "Shipman's" Coal Oil Engines and Steam Launches.
 Globe Tobacco Co., Windsor, Ont., and Detroit, Mich., Tobaccos.
 Goodhue & Co., Danville, Que., Leather Belting and Laco Leather.
 Grand & Toy, Toronto, Ont., Tucker Automatic Letter and Document Files.
 Grand River Knitting Mills, Co., Paris, Ont., Smyrna Rugs and Knit Goods.
 Grape-sugar Refining Co., Walkerville, Ont., Syrups and Glucose.
 Gray, Wm. & Sons, Chatham, Ont., Carriages and Sleighs.
 Gillett, E. W., Toronto and Chicago, Yeast and Baking Powder.
 Gardner, W. H., Montreal (successor to H. H. Warren), Manufacturer of every description of Hammers.
 Gurney, The E. & C. Co., Hamilton and Toronto, Gravity Springless Locks, and Rotating Door Knob Furniture.
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 Hamilton Industrial Works Co., Hamilton, Ont., Wringers, Mangles, etc.
 Hart Emery Wheel Co., Hamilton, Ont., Emery Wheels and Emery Wheel Machinery.
 Hay, Peter, Galt, Ont., Machine Knives.
 Hearle, J. G., Montreal, Que., Toilet Soaps and Perfumery.
 Howland, H. S., Sons & Co., Toronto, Ont., Hardware Specialties.
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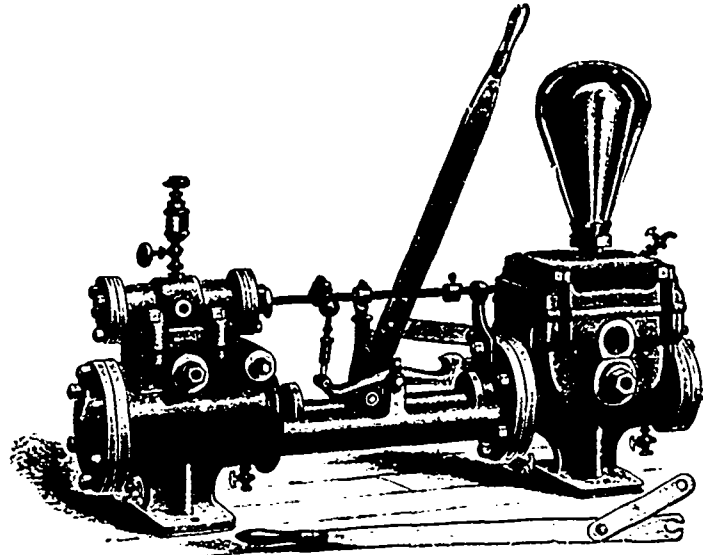
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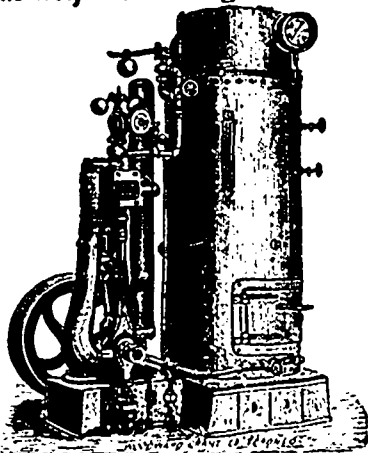
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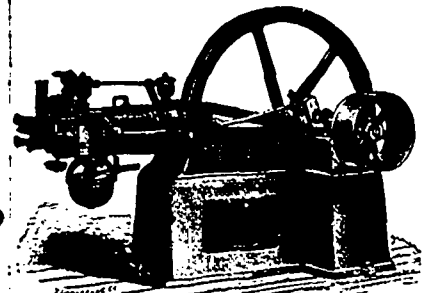
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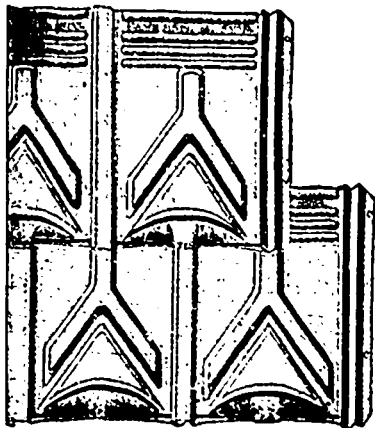
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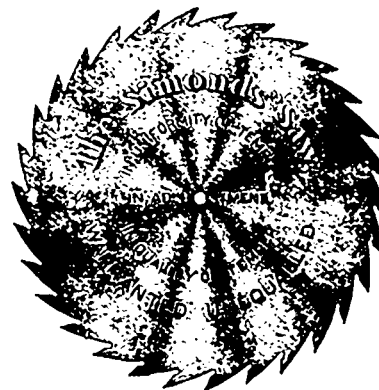
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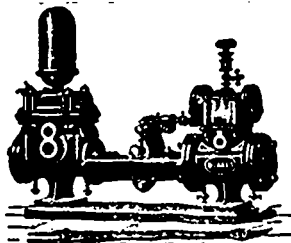
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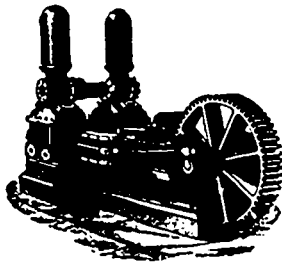
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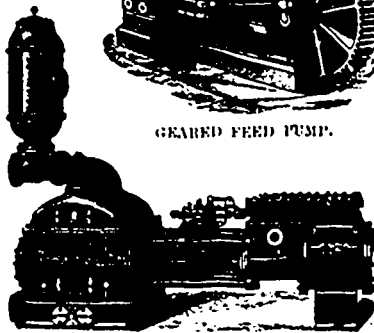
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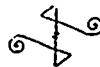
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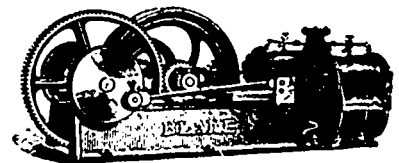
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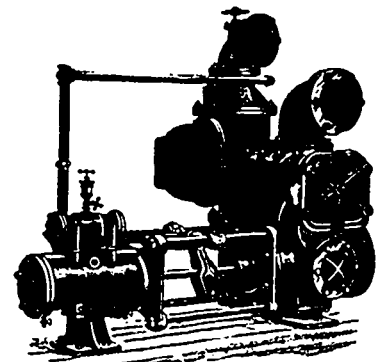
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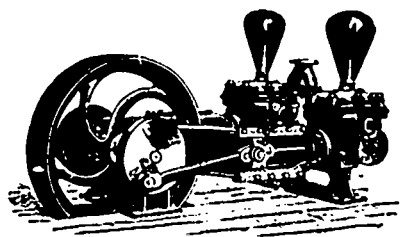
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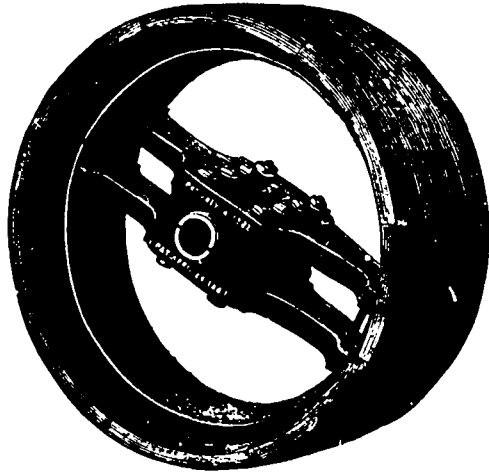


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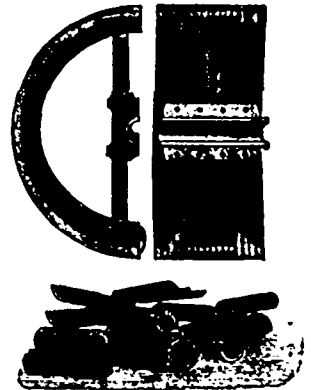
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Every pulley will fit 22 different sizes of shafting, and guaranteed to give from 30 to 60 per cent. more power from same belt and like tension than any iron or steel pulley. Every pulley a split pulley, 70 per cent. lighter than cast iron, and 50 per cent. lighter than wrought iron or steel. Strong enough for any power required. Made in any size from nine inches to sixteen feet diameter.



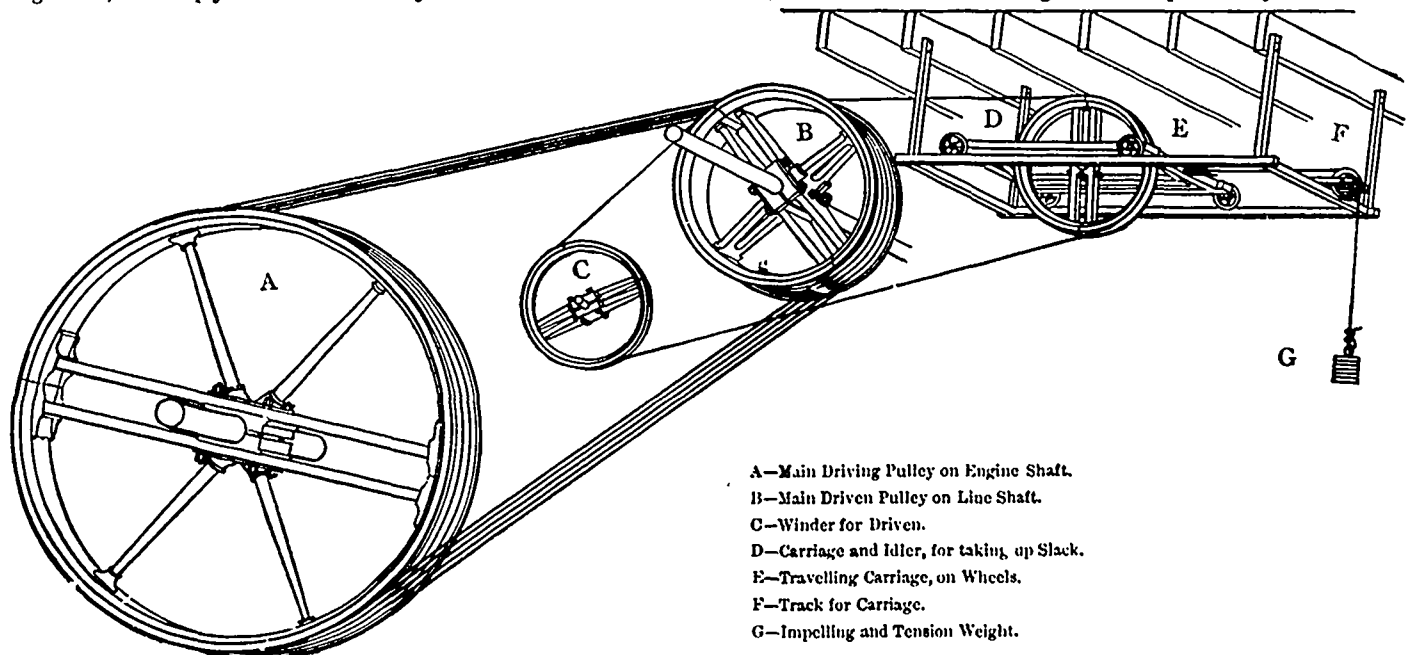
THE TRANSMISSION OF POWER BY ROPES AND THE DODGE PATENT WOOD PULLEYS.

The great advantage of Wood over Iron as a material for belt pulleys (or drums) to transmit power economically, has induced the DODGE WOOD SPLIT PULLEY CO., of Toronto, to introduce grooved hardwood pulleys for the special purpose of transmitting power by ropes (manilla tallow laid), and in this connection Mr. Dodge has taken out Canadian Letters Patent for a system of applying the ropes, adjusting the pulleys, and taking up slack, that is giving the most unqualified satisfaction.

This system of transmitting power by ropes is cheaper and superior to belts in many cases, such as where the driven shaft is at right angles with the driver, also where the drive is perpendicular, particularly when it is quarter twist and perpendicular; also where the driver and driven are

close together; also for long drives, such as across a street, or a stream, &c. For transmitting power from an engine to the line shaft this system is unequalled; steady all the time, not like a heavy belt, which is always more or less flapping, jerking and stretching, then slipping and losing power. It is safe to say that an engine hitched up by the Dodge Rope System will do 25 per cent. more work on the same consumption of fuel than the same engine would do with a belt. We have put up a number of the Dodge Patent Rope transmissions during the past year, all of which are in most successful and satisfactory operation, as certified by the testimonials published in our catalogue of well-known manufacturers who have them in use.

WITH OUR SYSTEM OF MANILLA ROPE TRANSMISSION is overcome the objection to Wire Rope (because of crystallizing) and gearing, (because of loss of friction) and shafting (because of the inability to get out of alignment, hence loss of power by friction), and a separate engine plant (because of its great expense); on the contrary, with the Manilla Rope System, under the Dodge patents, the power is transmitted with the same efficiency as though the shafts were close together, there being no loss of power by excessive tension, or bad alignment, but simply the friction of the journals to overcome at the carriers, which have a strain of weight of the rope to carry.

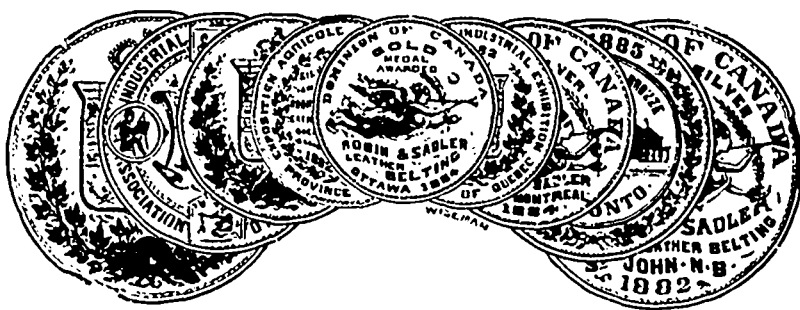
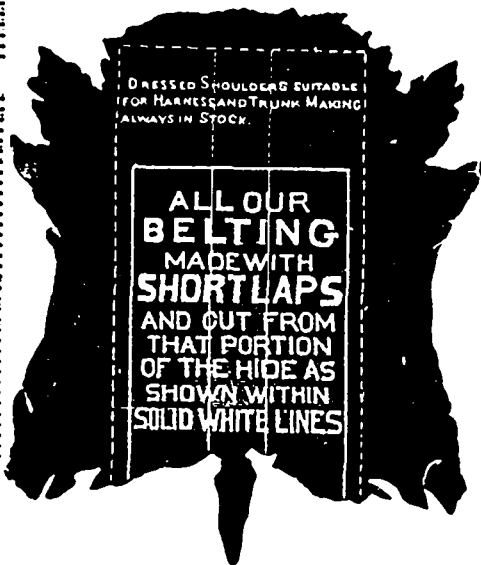


- A—Main Driving Pulley on Engine Shaft.
- B—Main Driven Pulley on Line Shaft.
- C—Winder for Driven.
- D—Carriage and Idler, for taking up Slack.
- E—Travelling Carriage, on Wheels.
- F—Track for Carriage.
- G—Impelling and Tension Weight.

The illustration, as shown above, is one of peculiar construction, and represents an engine transmitting its power to the line shafting by the Dodge Patent System of manilla ropes and grooved hardwood pulleys. Transmissions similar to the above are now in use at the works of the following well-known manufacturers in Toronto:—

A. R. Clark & Co., Leather and Glove Manufacturers, 50 H.P.; T. Tushingham & Son, Builders, 35 H.P.; J. R. Black, Carriage Works, 50 H.P.; Barber & Ellis Co., Stationers, 8 drives, 37 H.P.; Jas. Lochrie, Rope Manufacturer, 60 H.P.; J. P. Wagner & Co., Show Case and Keyboard Manufacturers, 50 H.P.; J. Taylor, Morse Soap Works, 60 H.P.; Joseph Simpson, Knitting Mills, 30 H.P.; and numerous others whose testimonials can be seen in our catalogue. Parties who are in want of anything in this line, or who are interested in the efficient and economical transmission of power, are cordially invited to call at our works and see the ropes and wood pulleys in operation, as we are driving our whole factory by this system. Send for Price List, Catalogue and Cypher Code, for ordering by telegraph, to

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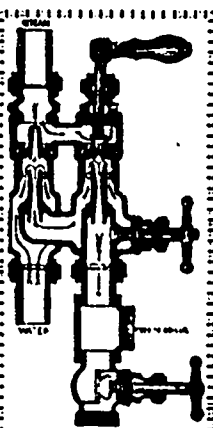
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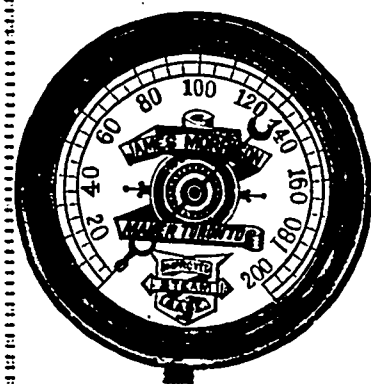
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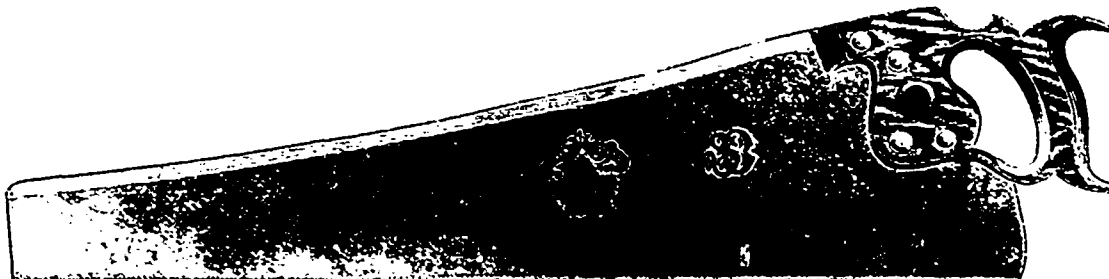
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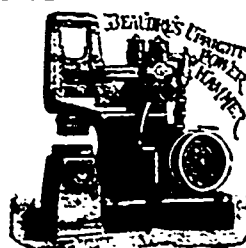


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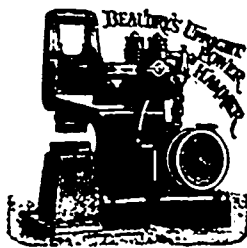


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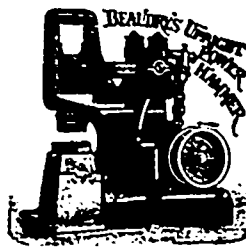
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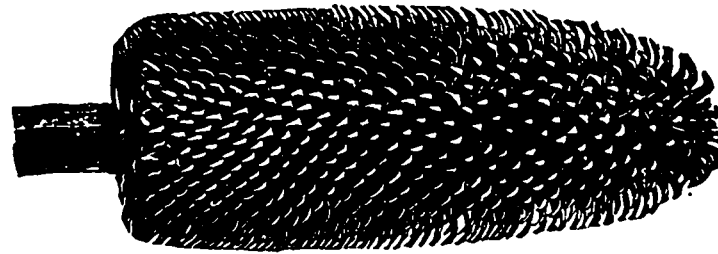
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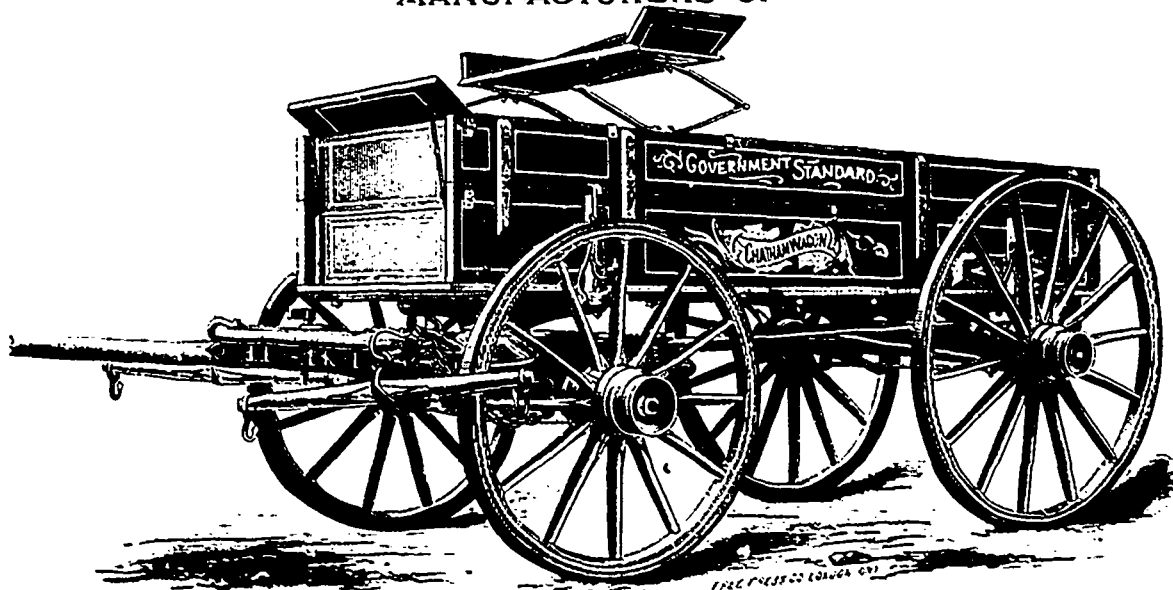
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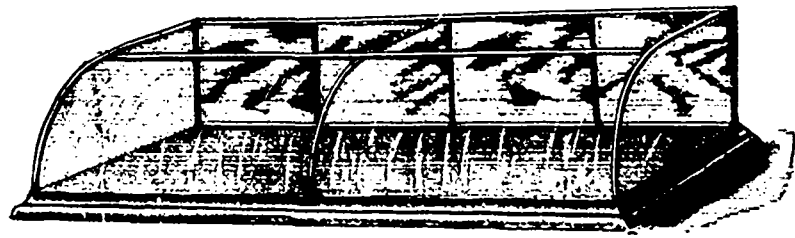
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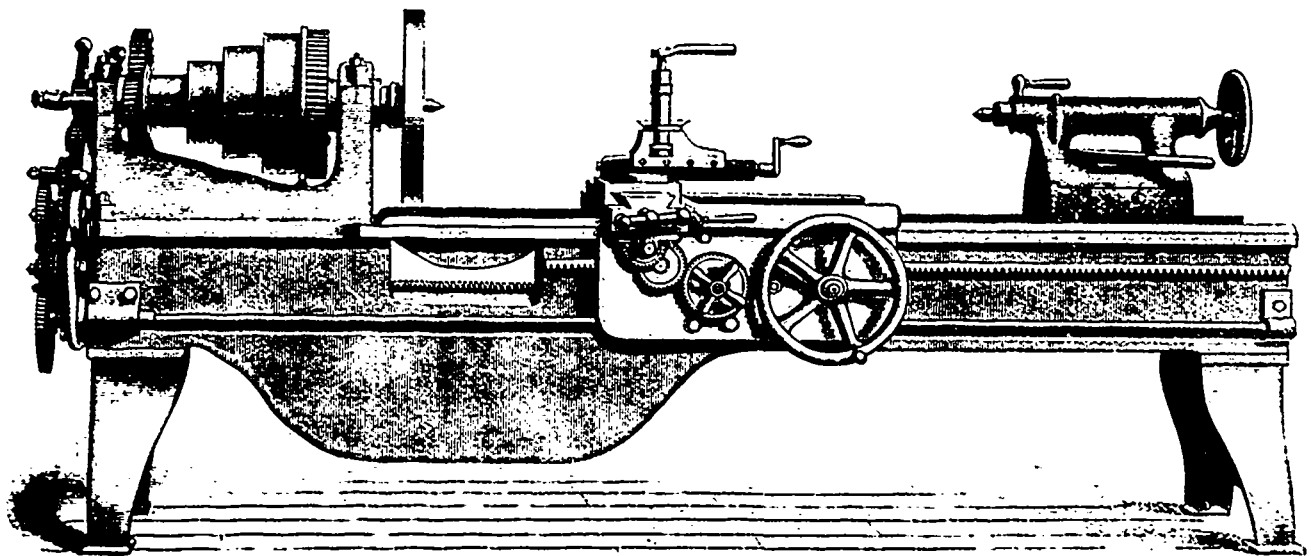
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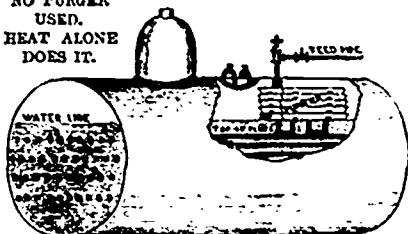
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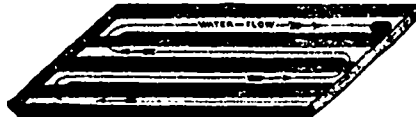
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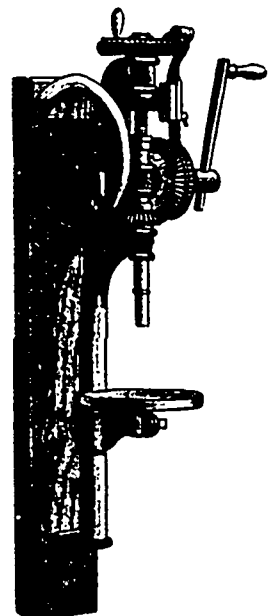
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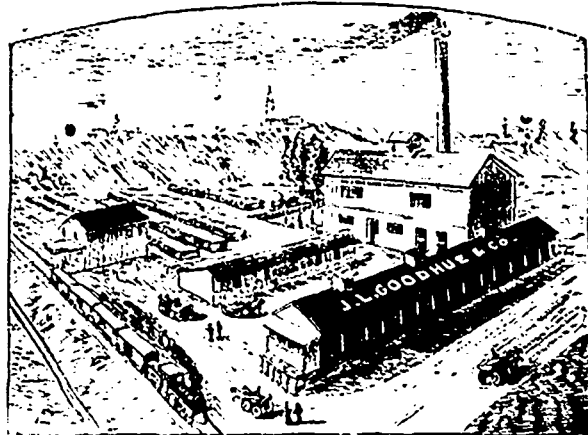
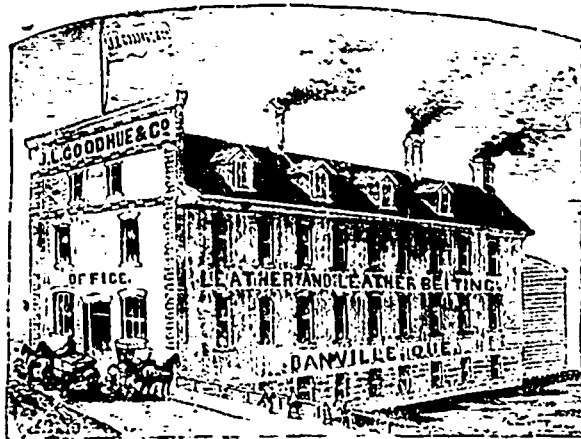
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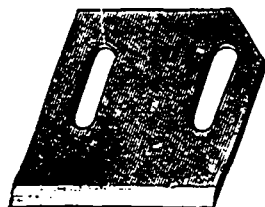


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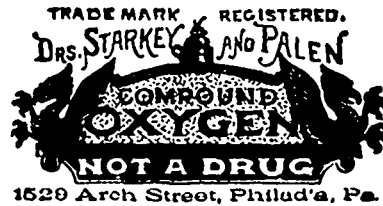
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"The Compound Oxygen Treatment," Drs. Starkey & Palen, No. 1529 Arch Street, Philadelphia, have been using for the last seventeen years, is a scientific adjustment of the elements of Oxygen and Nitrogen magnetized, and the compound is so condensed and made portable that it is sent all over the world.

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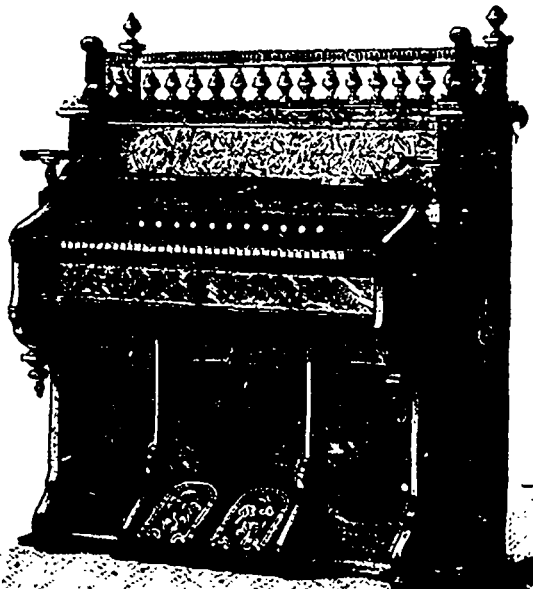
Hon. Wm. D. Kelley, Member of Congress, Philadelphia; Rev. Victor L. Conrad, Editor "Lutheran Observer," Philadelphia; Rev. Charles W. Cushing, D.D., Rochester, N.Y.; Hon. Wm. Penn Nixon, Editor "Inter-Ocean," Chicago, Ill.; Rev. A. W. Moore, Editor "The Centenary," Lancaster, S.C.; W. H. Worthington, Editor "New South," Birmingham, Ala.; Judge H. P. Vrooman, Quenemo, Kan.; Mrs. Mary A. Livermore, Melrose, Mass.; Judge R. S. Voornees, New York City. Mr. F. C. Knight, Philadelphia; Mr. Frank Siddall, Merchant, Philadelphia; Hon. W. W. Schuyler, Easton, Pa.; Edward L. Wilson, 833 Broadway, N.Y., Editor Philadelphia "Photographer"; Fidella M. Lyon, Waimea, Hawaii, Sandwich Islands; Alexander Ritchie, Inverness, Scotland; Mrs. Manuel V. Ortega, Fresnillo, Zacatecas, Mexico. Mrs. Emma Cooper, Uvilla, Spanish Honduras, Central America; J. C. bb, U.S. Vice-Consul, Casablanca, Morocco; M. V. Ashbrook, Red Bluff, Cal.; Ernest Turner, Nottingham, England; Jacob Ward, Bowral, New South Wales, and thousands of others in every part of the world.

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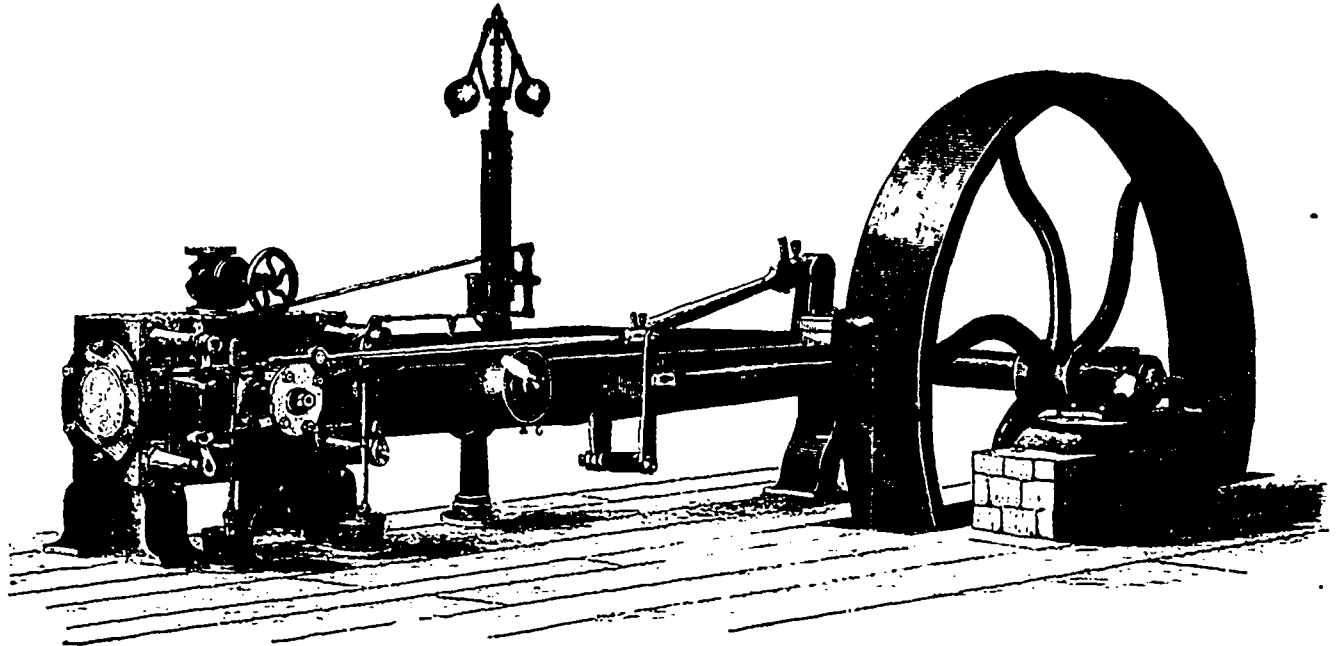
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Engine and Machine Works.



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Is the most perfect Cut-off Engine made. For Economy of Fuel, Regulating of Speed, Accessibility of all its Parts, it has many Imitators, but no Equals, and is Unsurpassed.

While many Engines of the same class have been invented, built, tried and abandoned, the Harris-Corliss has steadily gained in public favor, and is now

Without a Successful Rival.

PLEASE NOTICE SOME OF THE ADVANTAGES OF THE HARRIS-CORLISS ENGINE:

- 1st—**The Steam is admitted at Boiler pressure** to the piston by the main valve and is cut off at the same point, the load determining through the regulator, when the supply of steam shall be cut off. This is the only Engine that thus admits steam at full boiler pressure.
- 2nd—**The success of the Harris-Corliss Engine lies in the simplicity and precise action of the governing elements, the Governor is an independent mechanism, with no extraneous load, and free to instantly respond to all variations in the angular velocity of rotating parts.**
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- 4th—**Regularity of Speed** under varying loads of steam pressure.
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- 6th—**Stop Motion on Regulator** of Engine which effectually stops the Engine whenever the regulator by any means fails to perform its work, thus preventing the Engine from running away.
- 7th—**Having four Valves** either can be adjusted independently of the other with the greatest ease.
- 8th—**The increased amount** of power it develops.

We would draw special attention to our new and improved Adjustable Pillow Block, which is pronounced by all practical men who have seen it, to be the very best in Canada.

COWAN & CO.,

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Manufacturers of Engines, Boilers and Wood-Working Machinery—all kinds, new Patterns, highly finished.



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CONTRACTORS intending to tender for works of construction of the canal proposed to be formed on the Canadian side of the Sainte Mary's River, are hereby informed that tenders will be received about **JANUARY NEXT**, and that the most favorable time to examine the locality will be between the present time and the early part of November next.

When plans, specifications and other documents are prepared, due notice will be given. Contractors will then have an opportunity of examining them and be furnished with blank forms of tender, etc.

By order,
A. P. BRADLEY,
Secretary.

Department of Railways and Canals,
Ottawa, 24th August, 1887.

Maw & McFarlane DUNDAS, ONT.

IRON FOUNDERS, ENGINEERS AND MACHINISTS,

MANUFACTURERS OF

Drop Hammers,

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ALL CORRESPONDENCE SOLICITED.

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CHROMO ADVERTISING
CARDS and NOVELTIES

also do a Superior Class of Wood Engraving

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" CARPET WARP.
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Comprising the following First Class Clyde built, Full powered Iron Steamships

Ship Name	Tons
LAKE ONTARIO, Capt. Wm. Benson	5,300
LAKE SUPERIOR, Capt. Wm. Stewart	5,000
LAKE HURON, Capt. H. Campbell	4,100
LAKE WINNIPEG, Capt. M. L. Tremar	5,300
LAKE NEPIGON, Capt. P. D. Murray	2,300

WINTER ARRANGEMENTS.

The steamers of the Line will sail from LIVERPOOL for New York (calling at Boston) to land Canada through Cargo as follows:

Lake Superior	Thursday, Nov. 24
Lake Ontario	" Dec. 8
Lake Huron	" Jan. 22

FROM NEW YORK FOR LIVERPOOL DIRECT

Lake Superior	Thursday, Dec. 1
Lake Ontario	" " 29
Lake Huron	" Jan. 12

And fortnightly thereafter during the Winter season

These steamers are built in water-tight compartments, and of special strength for the North Atlantic trade.

In the passenger departments the most perfect provision has been made to ensure the comfort and convenience of all. In the Cabin the State rooms are large and airy. The Steerage is fitted with the most approved Patent Canvas Berths, and is fully ventilated and heated by steam.

An experienced Surgeon is carried by each steamer, also Stewardesses to attend to the wants of females and children.

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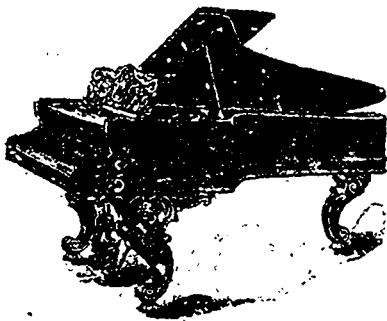
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- Bridge Rods and Bridge Rivets,
- Coach Screws and Skein Bolts,
- The Superb Carriage Bolt,
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- Best Elevator Bolts,
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- Black Iron Rivets,
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Warerooms, - 117 King St. West,
TORONTO.



**HART
Emery Wheel
COMPANY
(LIMITED),
Hamilton, Canada.**

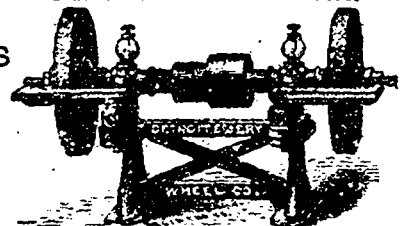
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**FOUNDRIES, MACHINE SHOPS,
SAW MILLS, & PLANING MILLS.**
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Also
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MANUFACTURERS OF

School, Office, Church and Lodge
Furniture.



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No. 50.

Send for Circulars and Price List. Name this
paper.

S. Lennard, Sons, & Bickford,

DUNDAS, ONT.,

PATENTERS OF THE "ELYSIAN" SEAMLESS HOSIERY,

Manufacturers of Plain and Fancy
Hosiery, Caps, Tugues, Sashes,
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14 TO 34 KING AND QUEEN STREETS, MONTREAL,

Maker of

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Insist on having the Genuine, and see
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JOINT INSURANCE

FOR PARTNERSHIPS

IMPORTANT TO MANUFACTURING FIRMS.

MEDLAND & JONES,

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Corner Adelaide and Victoria Streets,

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