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Vol. 14.

TORONTO, APRIL 6, 1888.

No. 7.

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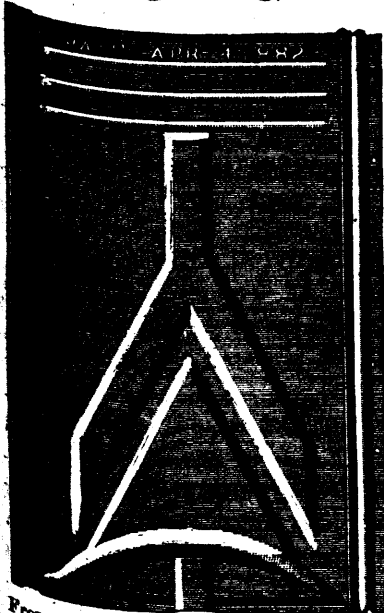
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Any association of manufacturers who may desire to hold meetings for organization or other purposes, are invited to avail themselves of the meeting room adjoining the office of the CANADIAN MANUFACTURER.

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

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

FIRE UNDERWRITING AND GASOLINE STOVES.

THE Canadian Fire Underwriters' Association held their fifth annual meeting in Toronto, beginning March 20th last, the gathering including, it was claimed, representatives of every company doing business in Canada but one, the chief agent of which was unavoidably absent. The officers of last year were re-elected to serve another term, of whom Mr. William Tatley, of Montreal, of the Royal Insurance Company, and Mr. S. C. Duncan-Clark, of Toronto, of the Lancashire Insurance Company, are vice-presidents of the Association. The meeting is said to have been a most harmonious one, although one matter was presented which caused a great deal of discussion—the treatment of risks where gasoline, or vapor stoves are in use. Reports of the meeting state that a request was made by a certain manufacturer for permission from the Association to use one such stove, the permission being vigorously contested, the conclusion reached by the meeting being that a double rate should be charged on buildings in which vapor stoves are used. Mr. J. J. Kenny, managing director of the Western Assurance Company, president of the Association, in his address congratulated the Association that “The assuring public are beginning to appreciate the system by which special hazards are rated on their merits, the assured getting his rates reduced whenever he makes any improvement in his risk with the view to lessen the fire hazard.”

As this Association embraces all, or nearly all, of the fire insurance companies doing business in Canada, in view of its action we submit that its methods of doing business should

be subjected to a close and exhaustive examination by Mr. Wallace's Parliamentary Committee on “combines,” with a view to showing that it is a combination having as an object the prevention of the use of gasoline or vapor stoves in Canada, failing in which they unreasonably and unjustly exact and demand double premiums on all who may use such stoves.

This journal has heretofore shown, and now reiterates the fact, that the use of vapor stoves does not create any extra hazardous risk; that they are no more dangerous than the ordinary coal and wood burning cook and heating stoves, and that all attempts to suppress and prevent their use is an infringement on the rights of the manufacturers who make them, the dealers who sell them, and the families and persons who use them; and in behalf of the trade generally we object to and protest against the action of the Canadian Fire Underwriter's Association in charging a double insurance rate on buildings in which vapor stoves are used.

The ridiculousness and inconsistency of this action is emphasized by the fact that many of the companies embraced in the Canadian Association also do business in the United States, and that they do not thus discriminate in taking risks in that country. But a few weeks ago—in December last, we think—the managers of the Southern department of the Royal Insurance Company, and the London and Lancashire Fire Insurance Company, of Liverpool, issued a circular to their local agents in the State of Texas in which they say:—“You are aware that whatever is used in civilized countries to produce heat and light is restricted by the Fire Underwriters, and you are aware that such restrictions are relaxed just as science and experience develop comparative safety in manipulating and using whatever thus attracts the attention or seeks the sanction of the fire companies. It has been so with coal, gas, petroleum, electricity, gasoline, and with whatever has come into use for light or heat. These are all dangerous except care be taken, but need not be if prudence be exercised. Gasoline stoves have so far been made so safe as to induce fire companies universally to approve their use in dwellings. There can be no reason for prohibiting in Texas what is allowed elsewhere, and you are hereby authorized to permit the use of gasoline stoves by your clients.”

By a remarkable concatenation of events, these two insurance companies who have, by their general agents in the United States, so distinctly declared that gasoline stoves are considered so safe, by themselves and fire insurance companies generally, as to “universally” approve of their use, declare by their Canadian agents that the use of gasoline stoves in Canada is to be discouraged by the charging of double rates; and that these Canadian agents, both of them, are the vice-presidents of the Canadian Fire Underwriters' Association. Surely it cannot be contended that the agents of these companies in the United States are acting injudiciously in thus declaring in favor of gasoline stoves, for there are millions of them in constant daily use there, and all insurance companies assume such risks. If, then, it is right and proper to assume such risks there, why is it not equally right and proper to assume similar risks in Canada? It would seem, then, that the Canadian agents of the Royal Insurance Company and the London and Lancashire Fire Insurance Company show much overzealousness and in endeavoring to suppress the use of gasoline stoves, and

are striking a heavy blow at the interests of their principals which have been perhaps unwisely committed to their care. If these companies court such business in the United States they surely do not wish to reject it in Canada.

The manufacture of gasoline stoves in Canada would long since have become a flourishing and lucrative industry if it had not been for the, we might say, criminally foolish warfare maintained against the use of the article by the fire insurance companies. This warfare has been carried on too long already, and we call a halt. Large capital stands ready to be invested in this business, giving employment to large numbers of skilled workmen, and producing an article that would conduce largely to the comfort of thousands of Canadian families. The insurance association must recede from their position—it is untenable.

PROSPEROUS FARMING.

SOME months ago Mr. Edward Atkinson stated in an address before the British Association for the Advancement of Science, that American farmers 1,500 miles away from American shipping ports could sell their wheat in English ports at about a dollar a bushel, and realize as much profit therefrom as they could fourteen or fifteen years ago when wheat there was worth \$1.50 per bushel. This condition was made possible by a reduction in the cost of production and transportation. The correctness of the fact was challenged on both sides of the water; and in defense Mr. Atkinson publishes an article in *Bradstreet's* in which he makes some statements that are of as much interest to Canada as to the United States. He shows that since 1873 the cost of transportation of grain from Chicago to New York has been reduced seven-tenths of a cent per ton per mile, while there is a still greater saving in hauling grain from the west to Chicago, the total saving in hauling grain 1,500 miles to New York being thirty-three cents per bushel. In 1876 the self-binder was successfully attached to the reaper; and now a hundred thousand self-binding reaping machines are sold each year for use on American farms. More than 30,000 tons of binder twine are required annually to bind the wheat crop. Each self-binding reaper has displaced the work of seven or eight men, who had previously followed each reaper to bind the sheaves by hand. The cost of binding by hand was five to six cents per bushel, while the cost of automatic binding by machinery, with twine, does not exceed one-and-a-half cents per bushel, including the cost of twine and repairs of the machinery. Since 1876 the price of the self-binding reapers has decreased from \$300 to \$350 each to an average at this time of about \$160—about fifty per cent. There has been nearly an equal gain to farmers in the use of improved planters, plows, etc., the exact measure of which cannot now be counted. Among these improved appliances may be enumerated the gang and riding plow; the disc harrow, and the barbed wire fence. Mr. Atkinson modifies his original assertion by saying that eighty-four cents a bushel now yields as good results to the American farmer, 1,500 miles from the seaboard, as \$1.50 did to 1873.

From the information he has received Mr. Atkinson concludes that Western farmers are not in the bankrupt condition they have been represented to be in. Returns from the books

of fifteen mortgage companies, covering 250,000 mortgages, aggregating \$234,600,000, averaging \$900 on each mortgage, show that 135,000 of these mortgages—considerably more than half—representing \$110,500,000, have been paid; the foreclosures not having been one per cent. in point of number. The rate of interest on money loaned to these farmers has steadily decreased; and Mr. Atkinson cites a feature of the situation, reported by some of the older land mortgage companies, to the effect that many of the farmers to whom money was lent at high rates of interest in the earlier periods of their history in Ohio, Indiana and Illinois, are now lending their surplus profits, derived from farming, at much lower rates to the new comers or pioneers of the wheat producing territory of Kansas, Nebraska, Minnesota, and Dakota. This is a remarkable showing, which is not approached by any other business representing equal investment.

Admitting that ill-managed farms are unprofitable; and that present conditions call for the closest economy, the conclusion forces itself that farming in America is a profitable business, in which Canadian farmers as well as those of the United States, participate.

We desire to direct special attention of Canadian farmers to one particular fact in the foregoing—that many of the farmers to whom money was lent at high rates of interest in the earlier periods of their history in Ohio, Indiana and Illinois—that is, before those States became celebrated for the number and extent of their manufacturing industries—are now lending their surplus profits, derived from farming, to the farmers of the non-manufacturing States of Kansas, Nebraska, Minnesota and Dakota. The larger the number of workshops and factories in a community, where large numbers of hands are employed, the more diversified are the crops of the farmers, and the greater the profit of farming.

TRANSIENT TRADERS.

THE authorities and people of the town of Dundas, Ont., have been wrestling with the question as to whether transient traders are of any benefit to a town in which they may temporarily locate. It seems that, from time to time of late, some vacant store in that town has been rented for a very brief term, into which some bankrupt stock of goods is introduced and a system of slaughtering of prices entered upon which carries consternation to the regular dealers. The argument is advanced that every person in the community is interested in preserving and encouraging all legitimate trade; that under free competition the consumer is protected against extortion by the dealer; that the reputation of those established in business is a guarantee of fair dealing, and that those who have honestly and persistently striven for a long time to establish themselves in legitimate business have a valid claim upon the community for reasonable support, and should not be sacrificed in the interest of strange transient traders.

It is unfortunate when a local dealer fails in business and his stock of goods is sold out by the sheriff to satisfy clamorous creditors. It is unfortunate for the other dealers particularly, and for the community generally; for in these days of close competition, the margin of profit to dealers is not large, and even under the most favorable circumstances, and without

the introduction of disturbing influences, it requires the best and most experienced management to enable the dealer to promptly meet all his financial obligations. But how can he do this when he discovers that a store adjoining his own, or immediately across the way, is loaded up with a bankrupt stock which is being sold out at much less than factory prices? The legitimate trader is taxed to support the local government; he is identified with the place; his home is there, and it is there he spends whatever it costs him to support himself and family; and it is he who gives more or less credit accommodation to his neighbors. But how can he do these things if the transient trader comes in with his bankrupt stock and paralyzes legitimate trade by a slaughtering of prices against which honest men cannot contend?

It is bad enough in the smaller towns when a local trader fails and his stock is sacrificed there; but it is not of this feature Dundas and other towns complain. It is no strange or unusual thing for dealers in all parts of the country to become embarrassed in business and make assignments. Their debts are usually owed to wholesale houses in the larger cities, and these creditors do not usually dispose of the assets piecemeal to local buyers, but *en bloc* in the cities. The buyers of these stocks of goods are usually professionals in the business—men who make a special business of buying such stocks at assignees' sales and slaughtering them wherever there seems to be a favorable opening—and they really have no interest whatever at stake in the town where they offer these goods for sale.

It is true that the buyers of these slaughtered goods may get them at prices considerably below what local dealers could possibly afford to sell at; but the competition of these transient traders is not legitimate trade, and in the long run the community is injured. By diverting trade from its regular channel a sacrifice sale in a town may be the cause of the failure of a local dealer who would otherwise have prospered; and it goes without the saying that the failure of a local dealer is more or less of a disaster to his town always. Dundas does what it can to protect its local dealers from the transient traders who may desire to sell their bankrupt stocks there by the imposition of a tax of four dollars a day.

The principle of the National Policy is applicable in such cases.

WEALTHY PAUPERS.

If one desires to observe a systematic and unremitting exhibition of impudent gall, attention is directed to the methods by which the Young Men's Christian Association, of Toronto, not only avoid the payment of taxes for the support of municipal government, but force, or attempt to force that government to extend to them still further favors. A few days ago at a meeting of the water-works committee of the City Council, Mr. Caldecott, President of the Y.M.C.A., appeared and asked for special rates for filling the swimming tank in the Association's new building in this city. He stated that it required 25,000 gallons of water to fill the bath, and that this should be changed daily. The Association have been paying for what water they use at the rate of thirty cents per thousand gallons—\$7.50 for each filling of the bath—and he wanted an arrangement by which the city's charge for water would not be more

than \$5 a week, which, he thought, was a reasonable figure. Unless some such terms could be had, he stated, the bath, which is the principle attraction, would become useless. At least four hundred young men had joined the Association attracted by this feature, but owing to the excessive cost of the water they would be deprived of the enjoyment of this luxury. Alderman Swait asked whether the fees charged by the Association for the use of the bath were not regulated to meet the expense. He stated that there were quite a large number of young men in Toronto who could not afford to join the Association on account of the large fees demanded. If the Association would allow all comers to bathe on the payment of a small fee—five or ten cents—he would not object to supplying the Association with water at the special rates requested. In answer to this it was stated that the fee is now so small that the working expenses of the bath are not met. Alderman Baxter pointed out that as aldermen they were representatives of all classes of the community. Projectors of baths, and charitable societies would immediately be petitioning for the same rates as the Y.M.C.A. enjoyed, and no end of trouble would result. Moreover, the Y.M.C.A. were exempted from ordinary taxes, and should at least pay for the water supplied them. The matter was referred to the superintendent of the water-works to investigate.

It was only a few months ago—in November, we think—that the elegant new building belonging to the Association, in which the swimming bath here alluded to is located, was formally opened. The building is one of the best of the sort in America, and was constructed with special reference to the uses to which it was to be put. Besides the auditorium, which can comfortably seat 1,300 persons, there is a gymnasium which is claimed to be the largest and best equipped on the continent; dressing-rooms, lockers, swimming, shower and private baths; reading, meeting and recitation rooms; offices, reception rooms, music rooms, parlors, lodge rooms, etc., all fitted and furnished in sumptuous and elegant style at a cost of about \$77,000 for ground and building alone. This whole establishment is exempt from all taxation, although there are several stores and places of business in it which yield large rentals; and the auditorium is constantly being rented for lectures, exhibitions, and semi-theatricals for large money considerations. The fees for membership in the Association is, we understand, two dollars a year for the privileges of the religious and semi-religious features of it, which do not include the privileges of the baths, gymnasium, etc.; and to enjoy these a further fee of five dollars a year is exacted. According to Mr. Caldecott, there are four hundred members of the Association who have paid five dollars each for the privilege of enjoying this bath; yet it seems that with the whole establishment paid for, no municipal taxes to pay, and a large income from rentals, the Association is in such a pauperized condition that two thousand dollars a year is not sufficient to maintain the bath; and unless the city gives them free water, the members of this pampered and favored Association "will be deprived of the enjoyment of this luxury" of bathing.

This whole business is but a feature of the bonusing craze that has of late so sorely afflicted Canada. It is born of impudence and a brazen effrontery that impels men to ask the community at large to do for them what they ought to do for them-

selves. Why, pray, should the Young Men's Christian Association be shown any more favors in the way of exemption from taxation, or have free water furnished them for their baths of oriental luxury than any other similar club or association? No citizen is allowed to take a bath in the swimming pool of this Association until he becomes a member thereof by the payment of two dollars, and the further payment of five dollars also; and membership can only be had after submission to a religious test. No one objects to the Association as such, nor to any of its rules and regulations, but objection is made to exempting the property of the Association from the payment of taxes, or to showing it any more or greater favor in any way than is shown to any other social club or to private individuals.

The public is frequently regaled *ad nauseam* with the preaching of such men as Mr. Caldecott regarding "honor," "honesty," "the duty the citizen owes to the state," etc., while at the same time their "honor" impels them to ask exemption from taxation for every foot of ground they may acquire for their so-called religious or quasi-religious purposes; their "honesty" impels them to lay the burden of protecting their property upon the community and contribute not one cent towards it themselves; and their idea of the duty they owe to the state consists in shirking all tax-paying obligations entirely.

The ordinary citizen, when he can afford to do so, enjoys his bath at home, and pays his water rates without objection. If he cannot afford bathing accommodations at home, he modifies his arrangement; but however it may be he takes his bath as best he can, and pays for it, too. But these pampered and fastidious club men of the Y.M.C.A., while they can afford to pay seven dollars a year for the privileges of their luxurious club house, want to beat the city out of the water they require to bathe in.

THE HOME MARKET.

THE Home Market Club of Boston is doing a most valuable work in advocating the protection of the home market for the benefit of home products; and at its recent banquet, notable speeches were made by Senator Sherman, and Representatives Goff and McKinley. These speeches are to be printed in pamphlet form, for distribution, and will prove a welcome addition to the literature on this subject. We quote an extract from the speech of Senator Sherman, which is an eloquent and comprehensive presentation of the "home market" idea and its overwhelming value, as compared with all others. He said:—

"I like the name of your club, for it is a name that describes your principles; it is a creed in itself,—home market for home productions. It has the flavor of patriotism. When you use the word 'home,' you do not mean your household, your business, not even Boston or Massachusetts; but your whole country from ocean to ocean, from Canada to the Gulf of Mexico. The market you refer to is the interchange of the products of sixty millions of people, the most free, intelligent, and prosperous on the globe, engaged not merely in manufactures, but in agriculture and commerce, and embracing almost every employment of civilized man. You use the phrase 'home market' to distinguish it from the foreign market; not to exclude the foreign market, but to emphasize your preference for

the home market as infinitely greater, more valuable, more productive than the foreign market.

"The home market deals with over eight thousand million dollars annually, in value of agricultural products, and six thousand million of manufactures. When you compare this home market of all the productions of our people with what is called the foreign market, the one is like a mountain, and the other is like a mole hill. You speak of your home market, simply to emphasize your preference for that market over the foreign market, and you look upon that market as the greatest, the grandest—yes, sixteen fold in magnitude, in property, in extent, and in importance, to what is called the foreign market in this country. While the home market deals with all the productions of our vast country, the foreign market deals with only fifteen hundred million dollars of exports and imports annually, and more than half of these are home products. This is not all: every part of the capital and labor employed in the productions of the home market is American labor and capital. These productions are by American farmers and workshops, and they are transported on American railroads, steamboats and wagons. They are exchanged for each other by American merchants, tradesmen and middlemen; and more than ninety per cent. of them is consumed by the American people. It is the home market that gives employment, life, strength, health, wealth, and comfort to the people of the United States. It is this home market that, you wish to foster, protect and diversify."

IRON ROOFING.

THE manufacture of iron roofing has been brought to such a high state of perfection that the article is fast supplanting slate for covering many classes of buildings. A commission which was appointed some time ago to examine into the condition of the United States Quartermaster's Depot at Jeffersonville, Ind. reported that the slate covering on the buildings was entirely worthless, and recommended that iron roofing be substituted. The buildings are in the shape of a hollow square, each side being over 800 feet long; and it was discovered that the slates, many of them, were cracked and broken, caused by the vibration of the roof and the action of the weather, continued repairs being necessary to keep the water out of the building. It required about one hundred tons of number 24 iron to cover the building, and it has been on long enough to demonstrate the fact that iron roofing is preferable to any other.

Regarding the manufacture of iron roofing, the committee mentioned the fact that for several years past, thoroughly reliable concerns are giving their close attention to the business, and that the processes of manufacture are such that the plates or "shingles" as they are called in the trade, can be easily and correctly applied by even inexperienced persons of ordinary intelligence. They have acquired great favor, too, with architects and builders, whose testimony is that they make probably the most reliable and perfect roof known; and for this reason, and because of their comparative inexpensiveness, they are coming into general use for covering both roof and sides of warehouses, depots, sheds, factories, foundries, barns, etc.

There are many different styles of iron roofing and siding

plates, some of which are really very ornamental; and there are many different modes of securing them to the underlying sheeting, so that the fastening is not exposed to the action of the weather, which might otherwise cause the plates to become disarranged or to fall off. Even where wooden covering for buildings, such as shingles, is cheap, iron roofing is rapidly supplanting it, one of its most desirable points being that it is fireproof.

THE SIXTY MILLION MARKET.

It is amusing to read in some of the Commercial Union papers what some few Canadian manufacturers say regarding their ability to "hold their own" in the 60,000,000 of people market to the south of us, if the tariff barriers were removed. In some exceptional cases Free Trade with the United States might not injuriously affect some certain lines of manufacture, such, for instance, as those which enjoy a higher protection than the N.P. was ever intended to give—those covered by patents. A patent affords a monopoly, and when it is operative in both countries of course the beneficiary of it could not be injured by the removal of the tariff barrier, and might be benefited. But some manufacturers of agricultural implements, who seem to take much pleasure in proclaiming that they would like to compete in the Yankee market, and allow Yankees to compete with them in the Canadian market, do not seem to bear in mind that overproduction in this line of manufactures is the characteristic of the business there; that implements are being sold at ruinously low prices; that a combine has been formed in which nearly every reputable manufacturer in the country is included, and that notwithstanding the fact that most thorough organization exists, both in making the goods and disposing of them, the cost of production being at the minimum, yet the trade is disorganized and demoralized, and manufacturers, agents and dealers are all proclaiming that there is absolutely no money in the business. We do not propose at this time to discuss the causes that led to this situation of affairs, but wish to call attention to it, and ask these Canadian manufacturers what they could possibly gain by becoming parties to it and involved in it? Over-production and competition have become so accentuated that even the restraints of pool agreements are not regarded, and prices are slaughtered whenever it is necessary to do so to effect sales. The manufacturers find that the better and more reliable class of implement agents and dealers are abandoning the business, because there is not only no money in it for them, but in many instances they cannot compete with unscrupulous competitors without losing money. Some dealers have sold implements so indiscriminately that they have thousands of dollars out, much of which it is hard or impossible to collect, and yet they have to make these debts good to the manufacturers, who had handed the goods over to the dealers at or below cost prices.

This is indeed an uninviting field for Canadian agricultural implement manufacturers to enter, although it may embrace a market of 60,000,000 of people. No wonder Yankee manufacturers are so desirous of acquiring the Canadian market, seeing that it is the only one within range of their vision which would offer any relief to their depressed trade, if they could only gain it.

BLUE LABELS.

THE stagnation in the cigar manufacturing business in Canada, particularly in Ontario, is attributed in large measure to the fact that in some factories in Quebec very cheap and in some instances non-union labor is employed. But it is not true that because of these features the products of factories where such labor is employed—the goods produced—are of inferior quality. Persistent efforts are constantly being made to drive all non-union labor into the labor organizations, a feature of which is the loud clamor against the use of cigars which are not packed in blue label boxes. Fortunately for the non-union manufacturers, the consumption of cigars is not confined to men who belong to labor organizations. The generality of smokers care nothing whatever whether a cigar box has a blue label pasted on it or not so long as they obtain an article that suits their taste. Manufacturers who paste blue labels on their boxes of cigars do so because they are compelled to, and the general opinion is that the presence of such labels implies that the cigars cost the manufacturers about three dollars a thousand more than similar cigars made by non-union labor. In other words the non-union manufacturer can either put this extra three dollars into his own pocket, or he can put better materials into his goods, and give the consumers the benefit of the saving. That this latter course prevails is evidenced by the fact that cigar dealers who care little for the special patronage of union men as such, do not carry blue label goods to any considerable extent, and do not offer them to their customers unless they are asked for, because, as they say, the cigars which have not got the blue label attachment are of superior quality. In other words a blue label cigar is not as good as a non-label cigar at the same price.

Ontario manufacturers would deceive themselves if they listened to the suggestion that their trade would be benefited if they were to form an alliance with the labor organizations for that purpose. Neither the blue label nor the labor organizations could help them in any way, but the tendency would be entirely in the other direction. Cigar smoking may have a mellowing effect upon a man's disposition, but not generally to the extent to cause him to pay his five cents for a poor cigar when he could get a better one for the same money. The labor organizations squirm under the fact that they cannot stamp out the use of non-label cigars, and many of the manufacturers are facing the problem whether they shall not drive trades unionism out of their factories if they wish to hold a better trade than any that trades unionism can bring them.

Trades unionism has not been able to prevent the use of cheap labor in Quebec cigar factories, and the laws of Ontario, not trades unionism, have been the means of modifying such labor in this province. It is a legitimate matter for the Dominion Government to take hold of, and it would be for the interests of manufacturers generally throughout Canada if that Government would pass laws regulating the matter. But neither blue labels or labor organizations will ever help the trade. They are financial millstones.

SPECIAL ADVERTISEMENTS.

To RENT.—Two large flats on Pearl St., Toronto (in rear of Mail building) well lighted, steam heated, and with available steam power up to 10 H. P. Apply No. 10 Pearl St.

BRITISH COLUMBIA.—An experienced business man, with a thorough knowledge of the hardware trade, is leaving for Brit-

ish Columbia about April 15th next, and would be glad to secure the agency for one or two first-class houses. Address W. F. ADAMS, 142 Lisgar Street, Toronto.

EDITORIAL NOTES.

A NEW political party has been born at Toronto.—*Exchange*. Yes, still-born.

ICE boats carrying a ton at a load have been kept busy during the past winter carrying freight between Thousand Island Park, in the St. Lawrence River, and Clayton, N.Y. The run is usually made in about a half-hour.

THE Mitchell Recorder says:—"The CANADIAN MANUFACTURER is the organ of the 'combines,' 'trusts,' and protected manufacturers generally." The Recorder either does not read its exchanges or does not understand the meaning of words and sentences plainly printed in the English language.

ASSISTANT-SECRETARY of the Treasury Maynard has informed the Collector of Customs at San Diego, Cal., that coal imported from Northwestern Canada for use by the Spreckels Sugar Refining Company, of San Francisco, is shown upon analysis to be anthracite coal, and as such is exempt from duty under the provisions of the free list.

It is morally certain that the scheme to refund at 2½ per cent the 3-per-cent securities representing the British national debt will be successful. This cannot help increasing the popularity, among English investors, of Canadian bonds of different descriptions, all of which bear higher interest than the new British securities.

THE CANADIAN MANUFACTURER notes from the *Review* the action of the Town Council in preparing the way for the utilization of the Lower River water-power with a view to encourage the establishment of new industries. This is a good advertisement for the town, and will show its enterprise in the very quarter it is most desirable to reach.—*Paris, Ont., Review*.

THE first act signed by George Washington, says the *Peoria Transcript*, was an act to levy duties and to protect and encourage manufactures. The last recommendation of the present President was to destroy manufactures. George Washington used a hatchet to cut down the cherry tree. Grover Cleveland uses a tomahawk to cut down American labor and destroy American nationality.

MR. JAMES GOLDIE, of Guelph, Ont., late vice-president of the Canadian Manufacturer's Association, has been elected president of the Ontario Cricket Association. Thus it is that, having attained the acme of human greatness—to be an officer of the Manufacturer's Association—like the lesser satellites about the sun do other honors flutter caressingly around the head of the great and good. Congratulations.

MR. STAPLETON CALDECOTT'S Free Trade League mass meeting, advertised so persistently and widely, was held last week

in one of the parlors of the Y.M.C.A. building, eight men and a boy constituting the entire assemblage, not counting the newspaper reporters. The *Globe* says, "The League is totally dissociated from party politics." Yea, verily. It is "dissociated" from any public interest whatever.

THE Peterborough *Review*, in commenting upon the *Mail's* report of the Commercial Union sentiments claimed to be existing among the manufacturers of that town, declares the report untruthful and misleading, and gives a long list of names of prominent manufacturers there who the *Mail* is invited to interview, and to report truthfully. And now the village newspapers, led by the *Hamilton Times*, will be likely to stand on their hind legs and howl.

THE petition which the manufacturers of New England have just sent to Congress on the tariff question conveys a lesson which the wise free trader will heed. These manufacturers declare that they know no economic distinction between raw materials of domestic production and finished products. This means that the woolen cloth-makers will not be won over to the support of the Mills bill by the inducement of free wool. The protectionist line remains unbroken.

MR. DANIEL McLAUGHLIN has erected a flag staff on his shop, in St. Stephen, N.B., from which waves, according to the *Courier*, the banner of St. George, "the most beautiful flag in all Christendom and the glory of Great Britain, under whose folds the meanest subject of her Majesty finds ample protection and enjoyment of liberty." Now if any of our Yankee friends can get up any more enthusiasm over their Star Spangled Spread Eagle flag, let them produce it.

THE enquiries of the Royal Labor Commission in St. John, N.B., develop the fact that the manufacturing industries there are in a healthy and flourishing condition, and that there are no complaints of labor of wrongs inflicted by employers. Testimony showed that markets in Canada were found for about all of the goods manufactured; that many lines of goods are superior in quality to similar goods made in the United States, and that in many lines Canadian products had entirely superceded importations from the United States.

THROUGH some inscrutable providence of the Almighty, some persons who are permitted to become editors (?) occupy a position as towards the editorial fraternity generally similar to that which scavengers, delvers in cess pools, and removers of night-soil hold towards those employed in the more refined and elevating pursuits of life. Ignorant of the most common instincts which actuate gentlemen, they seem to think that blackguardism is an unanswerable reply to arguments which their distorted intellects cannot comprehend.

IN testifying before the Labor Commission in St. John, N.B., Mr. T. S. Sims, manufacturer of brushes, stated that he suffered in his business by the competition of prison labor; and that if it were not for the freight charges from Toronto he could not compete with Ontario prison labor. We commend this testimony to the attention of all those who think that convicts

should be kept at manual trades which are remunerative, to help to bear the cost of maintaining the prisons. The manufacturing industries of the country must not be injured and depreciated by the competition of convict labor.

THE *Spectator* has always held that it would be a good thing to abolish the bonus system. At the same time we have also held that so long as the bonus system was permitted to exist, Hamilton would be very foolish if she did not take advantage of it to secure certain manufactories which could not be brought to this city without the giving of special privileges. —*Hamilton Spectator*. The high moral tone pervading this morceau is refreshing. It is wrong *per se* to give a bonus, but as long as the law allowed bonus-giving, why, of course, the *Spectator* thinks it would be "foolish" not to give bonuses.

MR. JOHN WANAMAKER, of Philadelphia, at a recent meeting in Philadelphia, said that it was estimated that there are 300,000 convicts in the United States, and that the value of their labor is \$72,000,000 per year. This injures free labor to the extent of \$40,000,000 to \$50,000,000. Mr. Wanamaker quoted John Mundell as saying that the shoe interest alone loses \$11,000,000 a year through the competition of convict labor. "Now that we are full of the Presidential question," he concluded, "let the party that seeks to win announce itself in its platform as plainly against prison labor, and put a stop to it now and forever."

THE merchants of Granby, Que., have decided to divide their business into separate lines. Heretofore each merchant has carried lines of about every description of goods that the public call for, which practice they say has a tendency to cause much cutting of prices and general depression of trade. Hereafter certain concerns will confine themselves to drygoods, groceries, boots and shoes, hardware, jewelry, etc., respectively assigned them, and not handle other lines. The intention of these villagers is good, no doubt, but the scheme will probably not work very satisfactorily; and as soon as some one of the merchants breaks through the agreement, the arrangement will go to everlasting smash.

DR. WILSON, M.P., is much astonished that two gallons of brandy were used last Christmas at the Kingston penitentiary in making plum pudding sauce for the convicts. The *Kingston Chronicle and News* says:—"The Minister of Justice with some natural diffidence admitted that he never made a plum pudding, but though the quantity of spirits used was not in excess of what was required to make the dish a success. Considering the large number of convicts we think no serious extravagance was committed. Christmas only comes once a year, and plum pudding without brandy sauce would prove but sorry fare." Why not send lecturers from the Prohibition party to the penitentiary? It would be a good place for some of them to go, Rev. Stonehouse, for instance.

THE recent United States supreme court decision in the Iowa prohibitory law cases settles two things. First, a man living in Iowa has no right to manufacture, sell, or give away spirits, beer, wine or cider, but a person living in Illinois or

Missouri or any other state may make these contraband articles and ship them to customers in Iowa, in any quantities and at all times—and the Iowa state authorities have no right to interfere. Second, an Iowa man cannot keep a saloon in that state, but if he will move over the line into Missouri, Illinois, Minnesota or Nebraska, he may open his saloon and ship drinks by rail to the teetotalers of Iowa—and it is nobody's business. The Iowa people never imagined that inter-state commerce was a term with so much meaning in it before.

A PRESS telegram from Kingston, Ont., a few days ago, informed us that a deputation of Knights of Labor engineers had gone to Ottawa to interview the Minister of Marine relative to having a fourth class of engineers licensed to operate small passenger steam yachts; and to also ask for restrictions against sail yachts carrying passengers. It is a remarkable fact that the average Knights of Labor delegate will sloop over every time when he has a chance to do so; and he never fails to make the chance. It may be all right for the Government to create a fourth class of engineers as suggested, but the modest fellows, while asking a favor for themselves, ask at the same time that equally meritorious men in a competing business be restricted from earning their living in that business.

CONVICTS are not sent to prison with a view of getting any work out of them whatever, but as punishment for crime committed. A prison is a penal institution, and the word "penal" signifies punishment. Punishment is the end aimed at when crime has been committed, and the more heinous the crime the more severe the punishment. It is claimed by some humanitarians that "punishment is the means employed to effect the moral reformation of criminals." Recently a man named Neil murdered a guard in the Central Prison in this city, and was hung to death for it as punishment. The punishment was as complete as though he had served a term in the penitentiary, but did it work the "moral reformation" of the murderer? Hardly, for that was not the object of the punishment.

THE great strike on the Chicago, Burlington and Quincy cost the company \$1,051,203 in the first twenty-four days of the trouble, and a loss of \$300,246 fell upon the Brotherhood of Locomotive Engineers and Firemen in the same time. The number of men who retired from work was 1,063 engineers and the same number of firemen. Computing the average pay of the engineers at \$4 per day, and of the firemen at \$3.25 per day, the direct loss to the men individually for the twenty-four days amounts to \$102,048 for engineers and \$57,402 for firemen, or a total of \$159,450. Each striker is on the pay-roll of the brotherhood, the amount paid to each man out of the treasury being estimated at the rate of \$40 per month. For the twenty-four days the amount paid to the 2,126 striker would total \$68,032.

DURING a discussion in Parliament a few days ago regarding the expense of maintaining Kingston penitentiary it was developed that two gallons of brandy were used in that institution last Christmas in making sauce for plum pudding for the convicts. It was argued that as Christmas came but once a

year plum pudding was a proper dish to place before the convicts; and that as plum pudding would be but an insipid dish without brandy sauce, it was no serious extravagance in using two gallons of brandy for the purpose. There are thousands of free people who never taste plum pudding, and who would feel glad to have a simpler and less expensive dessert for their christmas dinner, but Mr. Moylan's pets must be fed on plum pudding with brandy sauce. What are the convicts confined in the penitentiary for any way—for punishment, or what?

At the recent meeting in Cincinnati of the American Association of Stove Manufacturers, President Smyser, in arguing in favor of the consolidation of the stove interests in that country, and limiting the production of stoves, stated that the sales of stoves in 1887 amounted to \$33,000,000. There are in the United States about 315 legitimate stove manufacturers, and the average cost to each for patterns exceeds \$5,000 a year, or an aggregate of \$1,575,000. In discussing the points where retrenchments of expenses might be made by the consolidation, it was proposed to reduce this item to the extent of \$1,000,000 a year. Advertising was also to be reduced \$250,000, and traveling salesmen \$1,500,000. The abolition of branch houses would afford an additional saving of \$250,000 and other retrenchments would effect the saving of \$300,000, the aggregate amount to be saved to the manufacturers by the proposed combination being \$3,300,000, or ten per cent. on the estimated entire output.

THERE are nine letter envelope manufacturing concerns in the United States which produce an average of 140,000,000 envelopes a month. All of these concerns have "combined" into a pool, and each concern pays into the pool a tax of twenty cents a thousand on all the envelopes they make, which aggregates about \$336,000 a year. This money is used to buy out concerns that are not in the pool; to subsidize makers of envelope machinery, and to manipulate and control the trade generally. Recently members of the trust have issued circulars to stationers and other dealers in envelopes urging them to discourage the use of the stamped envelopes issued by the Government on the ground that "they tend to encourage monopoly and injure the trade of all stationers, dealers and printers in the country." This is very much like the devil preaching righteousness.

MR. ERASTUS WIMAN, in addressing the Commercial Club in Cincinnati, O., a few days ago, on the question of Commercial Union, said: "I came to undo the mistake made one hundred years ago when the Declaration of Independence should have covered the whole North American continent. The Boston Tea Party had a good effect upon England." Later on he said, speaking of the French Canadians: "The Speaker of the Canadian Parliament is the twenty-fourth child; show me the twenty fourth child of an American." And again: "I bring you the trade of half a continent." And later: "Just so sure as the Americans invite the Canadians to a free interchange under Commercial Union, just so sure will Canada accept. If England refuses to allow the measure, then we will say to the British Crown: We have no further use for you in North America."

LABOR through manufactures, agriculture and commerce creates the wealth or product of a country. Broadly speaking, this annual product is the sum to be divided between labor, capital, and government. *Chambers's Journal* and the *London Times*, both good British authorities, agree that of this product in Great Britain 56 per cent. goes to the laborer, 21 per cent. to the capitalist, and 23 per cent. to the government. In France 41 per cent. goes to the laborer, 36 per cent. to the capitalist, and 23 per cent. to the government. In the United States 72 per cent. goes to the laborer, 23 per cent. to the capitalist, and five per cent. to the government. What better evidence can be given of the fact that the system of protection to home labor and home markets causes higher wages, and gives to labor a larger proportion of the wealth it creates, than the British system of comparative free trade which the so-called revenue reformers are clamoring to have adopted?

NEARLY 200 woolen and worsted manufacturers and commission merchants, representing \$69,000,000 of capital and 33,000 sets of machinery, recently met in New York city and perfected the organization of the Woolen Goods Association, for the purpose of mutual protection in trade. The association are to have monthly meetings, and the next annual meeting is to be in January next. The secretary is to have the management of the headquarters, which are to be in New York city. He will be paid a salary, and is to collect information for the benefit of members in regard to trade in foreign and domestic markets. It was reported that the assistant secretary of the treasury had agreed to appoint an agent of the Government, without pay, to look after the frequent cases of under-valuation of imported woolen goods, and the manufacturers agreed to pay the salary of that official. The organization has already appropriated \$30,000 to pay the salary and expenses of the proposed officer for three years.

WHATEVER else may be said of the official action of the late Ontario Legislative Assembly, they certainly did a good thing in making a law restricting indiscriminate bonusing by municipalities. The intention in allowing such liberty was well meant, but the liberty degenerated into wild and ill-considered license, the abuse growing to such large proportions as to alarm the more Conservative element of the community; and the check imposed upon it is in response to a general demand by the people of the whole Province, irrespective of party. Hereafter no bonus can be voted without the affirmative vote of two thirds of all the ratepayers; and when there is any certain manufacturing business already in existence in a town, no bonus can be voted to any new similar business. Neither can a bonus be granted to secure the removal of an industry from one location to another; and the aggregate of bonuses voted by a municipality cannot exceed in amount ten per cent. of the current receipts thereof. Certain new sections of the country are exempted from the operations of the law, but the general effect will be to suppress the nuisance entirely.

IN a matter that recently came before the Common Pleas Court in this city, it appears that two cases that had been before the court and had been dismissed, had been improperly

brought in the High Court of Justice, and large costs incurred, where an inferior court would have had jurisdiction. In exercising a disciplinary power over solicitors, who are officers of the court, the Common Pleas judges directed that the solicitor who had brought the cases be cited to show cause why he should not pay the defendant's costs of the actions, instead of his clients, and why he should not be deprived of his own fees. The matter was finally dropped, but it is well to remember the incident. In these days there are many incompetent men practising law and pretending to be lawyers, who think more of earning fees for themselves than of their clients' interests; and as non-professional men who are obliged to appeal to the law to redress their grievances, have of necessity to trust implicitly to the advice of their solicitors, it is a good thing to bear in mind that when suits are improperly brought, and unnecessary expense incurred, the courts are ready to protect the innocent client and force the incompetent or dishonest solicitor to pay for the blunder.

THE Calais National Bank, of Calais, Me., is in trouble because it has been circulating the notes of the St. Stephen's Bank, of St. Stephens, N.B., which is just across the St. Croix river from Calais. The United States law in regard to the circulation of foreign notes by national banks provides a penalty of ten per cent. on all such notes paid out over the bank's counters. The attorney of the Calais bank says that the St. Stephen's notes circulate as freely in Calais as those of the Calais bank, and that the officers of the Calais bank had no idea that they had been committing any violation of the law. The effect of the enforcement of the law would be to make the Calais bank and the business men of Calais refuse to handle Dominion currency, and as the Calais bank had not a great amount of circulation this action would seriously embarrass merchants in that town. In order to obviate this the merchants would keep their deposits across the river and would cheque out and receive their money in Dominion currency, and pay their employees in that money, so that there would be as much Dominion money as ever circulated in Calais. The result of this would be to the advantage of the St. Stephen's bank and would hurt the Calais bank.

THE newspapers throughout the country are being filled with accounts of conflagrations and the destruction of property, at the same time telling of the inadequacy or entire absence of water supply and fire extinguishing apparatus. When fire occurs in these unprotected places the people run aimlessly about, or stand helplessly watching the destruction of their property. If houses are worth building they are worth preserving, and insurance companies are justified in declining risks upon such property when there is not some organized system by which fires may be generally drowned out in a few moments. Usually the owners of such property cannot afford to carry their own fire risks, and they should see to it that their municipal authorities provide some system of water-works by which emergencies may be met. Adequate pumping machinery is not expensive, and as an investment it would pay to erect such in every town and village, and keep it in readiness at all times; and the expence of it would be offset by the saving in the amounts of extra insurance paid, where insurances

can be effected. Frequently, as was the case in the Gravenhurst disaster last year, the loss by fire is much more than sufficient to establish an adequate system of water works.

THE outline of the plan of President Smyser, of the American Stove Association, for the formation of a stove trust, includes the formation of a corporation with absolute power vested in its officers by law. Each member should have his property taken by the company represented in shares and bonds. A Board of Assessments should have the power to fix and certify the value of all property turned into the consolidation. For real estate, patterns, stocks on hand and good will, the consolidation should issue its stock at par. The value of the good will should be determined by results obtained from the books of the owner, running through three years last past. Bonds for the value of the real estate should, in addition to its stock representation, be issued against the property and delivered to the members without any charge. These bonds should be made to run from one to ten years—one tenth of the bonds to be retired yearly from the profits of the consolidation. Each member would continue to conduct his manufacture and sale as heretofore, subject to the direction of the mother head as to terms and prices. No leading stove would lose its identity, or the former owner his position, if he merited it. Dividends would be made annually.

ACCORDING to the last annual report of Mr. Christie, provincial inspector of prisons, there was a decrease of crime in Ontario last year over the year before, leaving out Toronto. But there was such a large increase in the number of commitments in Toronto that the decrease was changed to an increase. Throughout the province, exclusive of Toronto, there was a decrease of 219 in commitments for crime; in Toronto there was an increase of 591; the net increase was therefore 372. The total number of commitments during the year was 11,017. 9,405 having been males and 1,612 females. More than a third of the prisoners—4,130—were committed for drunkenness. Of those convicted, 5,134 were Canadians, 2,397 were Irish, 1,901 were English, 723 were natives of the United States, 598 were Scotch, and 261 were from other countries. The religious denominations were thus represented: Roman Catholic, 3,927; English Church, 3,675; Presbyterian, 1,385; Methodist, 1,366; other denominations, 662. Of the prisoners, 3,995 were married, and 7,022 were single; 3,277 were temperate, and 7,740 intemperate; 2,481 could not read nor write. The total cost of maintaining the prisons last year was \$126,000.

SPEAKING of the adulteration with lead of the tin with which tin plates are coated, Mr. Jacob Reese, of Pittsburgh, Pa., says:—

"Last fall a tin trust was formed in Europe, that bought the stock of tin on the market, made contracts with the manufacturers and then put up the price of block tin from £100 on April 1, 1887, to £170 per ton on March 1, 1888, in London, which is an advance of 70 per cent. It is not generally known, but it is nevertheless true, that when tin goes up in price the tin plate manufacturers frequently mix lead with the tin and use the amalgam of tin and lead for casting the tin plate, because the lead is only five cents per pound, while the tin is 37½ cents per pound in London, where they buy their stock.

There is now great danger of the tin-plate makers using lead, which, when coming in contact with the acids of the fruit in our canned goods, will produce a deadly poison known as lead-poison, which, owing to the extent of the use of canned fruit, might prove more disastrous to the people than the yellow fever or the cholera. The canning business of the States has assumed such magnitude, not only for home consumption, but also in our export trade, that the danger of lead-poisoning calls for the consideration of Congress, and an inspector of tin and tin-plate should be appointed, whose duty would be to analyze all block-tin or tin-plate imported, and brand the pure tin, and also the lead-tin plate, so that only pure tin-plate should be used in the canning trade; while the lead-tin plate could be used for roofing and other purposes that would not endanger the public health."

THE Combines Committee, at Ottawa, were investigating the binding twine matter a few days ago, Mr. J. Connor, of Messrs. Connor & Sons, St. John, N.B., and Mr. H. A. Massey, of the Massey Manufacturing Company, Toronto, being before them. Messrs. Connor are manufacturers of binding twine, and in his testimony Mr. Connor showed that although the pure manilla, of which the twine is made, has recently advanced in price from £25 10s to £42 per ton, yet, owing to judicious purchases, the price of twine had been increased only about ten or twelve per cent. the increase in the cost of raw material being over sixty per cent. The tension of Canadian twine is some forty per cent. greater than that of American twine, which is largely adulterated with sisal, and a pound of Canadian twine is 675 feet in length as against 575 feet in the pound of American twine of equal tension. The present price of Canadian twine in quantities is \$11.56 net per hundred pounds. Mr. Massey is not a manufacturer of twine, but he informed the committee that his company propose to erect a factory for that purpose. His company are large manufacturers of twine binder harvest ing machines, and large dealers in the twine. He stated that he was in communication with a number of American manufacturers of binding twine, and that the best quotations he could obtain was \$11.52 per hundred pounds, which, with the duty added, would be increased to \$13.77, the Canadian article being not only of a superior quality to the American, but actually \$2.21 per hundred pounds cheaper.

The *Planet* does not favor bonusing, but it is a question whether a municipality should not have the right to exercise such a privilege if it so desires. It is almost equal to a law preventing a man from going into debt. Besides, legislation in Ontario of this nature, unless it become uniform throughout Canada, would give the other Provinces an advantage in inducing manufacturers to locate therein. On the other hand comes in the right of the present generation to tax a future one for an industry that may not succeed or be permanent.—*Chatham Planet*.

A MUNICIPALITY has no more "right" to invest municipal money in "bonusing" pauper manufacturing enterprises than it has to bonus private banks, bar-rooms, groceries, or any other enterprise where the person engaging in such business lacks sufficient money of his own to carry it on. It is forcing the whole people of the municipality to become quasi-partners in private enterprise. If a municipality have the "right" to grant bonuses, private parties have equal "right" to demand them; and these "rights" being admitted, it will not do to

draw any distinctive line separating those who may and those who may not be bonused. If it is right to bonus a factory, it is equally right to bonus a butcher shop, a lawyer, a physician, a grocery or a saloon. If it is right to offer a bonus to a new enterprise as an inducement to locate in a town, it is equally right to bonus any enterprise already established there; and the already established enterprises have even a stronger claim for such bonus if charity is to begin at home, as it should do.

THIRTY of the paper mill owners in the United States who are members of the Western Paper Manufacturers' Association, held a meeting in Chicago recently, to act upon a proposition made by Mr. H. E. Mead, of Dayton, O., to buy the entire annual product of all the mills in the association. Mr. Mead is said to be backed by large capital, and offered to buy at an appraised value the gross product of the mills for one year, valued at from \$3,000,000 to \$5,000,000. Mr. Mead presented contracts stipulating that sales were to be made to no one else. This proposition was only one of several plans that were devised to either obtain a market for the entire product at low rates, or to reduce production and obtain gratifying profits on what was sold. The papermen of the United States make a universal complaint of overproduction and lack of market at low prices. Mr. Mead's scheme was abandoned for one to lessen production by a close combination of the mills controlled by a directory or pool. The design is to give the directors power to shut down any or all mills signing the agreement. "Inch money," at the rate of \$3 per inch for each machine in use, is to be collected in advance from each manufacturer. The commands of directors are to be enforced by fines from the "inch money." This is the general outline of the plan. There are seventy paper mills west of the Allegheny Mountains, ninety per cent. of which, as represented by the production, must join in the agreement to make it binding.

DURING the past winter quite a large number of teamsters have been given employment by the Toronto city authorities working on the King street subway. It was an unpropitious time for doing such work, and it would have been to the interest of the city to have deferred it until the frost was out of the ground and the weather suitable for such work. But these teamsters, who are all poor men, had no employment whatever, and as a kindness to them they were put on the job, for which they were paid two dollars per day each. These men were members of the Knights of Labor, and belonged to Assembly Number 6563. A few days ago Mr. Richard Smith, walking delegate of that assembly, heading a deputation of Knights, appeared before the Board of Public Works and demanded that the pay of these teamsters be increased to \$2.50 per day. Alderman Baxter asked Mr. Smith if he considered that it would have been in the interests of these men if they had had to remain idle during the time they have been at work at slightly lowered wages, when they could get no employment elsewhere? The work was given to them in a humane spirit in order to keep them from starving, as was represented by them. Mr. Smith said, "If we allow this thing to go on we will have a fight in the summer to get our wages;" to which

Alderman Baxter replied, "If you don't like the work, give it up. This is our thanks." Alderman Jones asked whether it was the Knights of Labor or the city authorities who were running the job. It was in very bad taste for the Knights of Labor to send a deputation there to find fault with them for doing their best for poor men who were out of work. On being informed that there was no cause for complaint, Mr. Smith remarked, "Are we to be cut off in this way? This is a nice way of doing business;" and withdrew with his deputation. As a result of the matter the teamsters struck and quit work, and operations on the subway have been suspended, the pick and shovel brigade who had been employed in connection with the teamsters being thrown out of their job. Comment on the incident is not necessary. The Knights of Labor organization as a friend (?) to workingmen is a wonderful institution.

THE cigar manufacturers of the United States are exercised over the question whether they shall favor the abolition of the internal revenue tax on cigars. It is said that the leading firms favor the retention of a nominal tax—say \$3 on the thousand cigars—on the ground that, if the tax was done away with entirely, many new concerns, with but small capital, would embark in the business. It is further urged that the labor unions would lose control over the cigar makers if the business was not confined to regularly licensed factories. In other words, the making of cigars is a monopoly in which the workmen themselves have a share; while, if the tax were to be removed, the manufacture would be thrown open to individuals who could carry it on at their own homes, or in combinations, as they might choose. The present arrangement seems to be one in which both the manufacturers and the labor unions are agreed as to the system of production; which system is evidently against the best interests of the workmen who manufacture the cigars, and of the public, who consume them. Of course the manufacturers want to confine the production to as few factories as possible, thus keeping the control of the trade in their own hands; and the trades unions want to keep all cigar makers within the pale of their organizations. With the manufacture of cigars made free to any who might choose to engage in it, any skilful cigar maker could establish a factory of his own without regard of the combinations of the large concerns; and he would be in a position to divide with the consuming public the difference in cost between what he could produce at and the price demanded by the large factories. A change in the system of manufacturing cigars would tend in the direction of freeing the public from the tyranny of the Cigarmakers' International Union, which seeks to restrict the consumption of cigars to only those which bear the "blue label" of the union; and which, it is said, command an average of \$3 per thousand more than otherwise equal goods without such label. The free manufacture of cigars, therefore, means that the difference to the consumer from the present arrangement would be about \$6 per thousand—\$3 revenue tax and \$3 blue label tax.

MESSRS. S. R. G. PENSON & Co., Toronto, have sent us a copy of their new commercial and railroad map of the Province of Ontario, extending from Montreal to Lake of the Woods, compiled from the most recent surveys and plans in the possession of the Government. On it is shown all the railroads and stations, together with the proposed railroads; also all postoffices, telegraph stations, harbors,

rivers, canals, steamboat routes, lighthouses, etc. No pains seem to have been spared to make this map thoroughly complete and accurate, and it cannot but be valuable for commercial, educational and travelling purposes. It is beautifully lithographed and printed in ruled tints, size 4 feet by 3 feet, mounted on cloth with rollers; price \$3.00.

WE have received a copy of "Younger's Counting House Guide," published by Wm. Briggs, King Street East, Toronto. The style and arrangement are clear and instructive, and the whole is illustrated by examples sufficient to impress the principles underlying the correct record of all business transactions, without beclouding such principles with unnecessary and confusing details. This work is particularly suitable for manufacturers' bookkeeping. It lifts the study of what is usually an uninviting subject to the level of an agreeable and thoroughly practical mastery of principles, thus enabling the student to deal with any class of business transactions, as they arise, without embarrassment. There are also much reliable information, suggestions, and original tables, alike useful to the student and practical accountant. The author is well known as a clever and experienced accountant.

As an illustration of the benefits of large manufacturing enterprises on the country surrounding their location, the extensive works built up by the Remingtons, at Ilion, N. Y., is a good example. Some time since the Remingtons failed, and at a recent meeting of the creditors, steps were taken to continue the operation of the works, as not only the life of a town of five thousand inhabitants depended upon it, but the continued prosperity of the surrounding country. One of the speakers at the creditor's meeting said: "Have you ever stopped to think why land in this vicinity is worth \$100 to \$200 an acre, while land which will produce a better crop can be bought for \$4 to \$5 an acre in the West? It is because the products of the land here have a market among us." This is as much an argument for the development of manufacturing enterprises as it is for their protection.—*Stoves and Hardware.*

IN Olean, N. Y., where an increase of twenty-five per cent. in population has been provided for within the last three months by additions to its manufacturing industries, through the organized efforts of a Board of Trade, the capitalists have inaugurated a novel movement which not only aids materially in the growth of the place, but gives such advantages to the laboring men that the chances for strikes and kindred troubles are reduced to a minimum. Any manufacturer locating in Olean is guaranteed homes for his employees built after their own plans, and supplied to them at actual value, the tenants paying thereon the rental price of from \$5 to \$8 per month. Thus is left with the laborer the option of owning his own home, or of paying rent, the terms in either instance being the same, save in the matter of interest upon the unpaid portion in case of purchase. This the capitalist takes as his profit upon the transaction. In the one instance the man who buys has his home paid for in a few years; in the other the tenant pays in the same time nearly as much and does not own a shingle. In Olean the laboring classes are not slow to see the advantage of buying; the manufacturer sees the advantage of steady and reliable labor thus afforded, and the resident capitalist a sure prevention of strikes and safe investment of his money. The example of the moneyed men of Olean is worthy the emulation of those in other towns whose growth is retarded by the too conservative policy of capital.

THE free trade journals are moved to modify their estimate of President Cleveland's awful wisdom. At first his manifesto was looked upon as simply the most awe-inspiring aggregation of wisdom ever dashed off by the pen of man. It was a terrible thing, almost deadly in its immense concentration of facts, and it was feared that a perusal of it would dizzy nine-tenths of the ordinary minds in America. That sorrowful apprehension is fast disappearing, and it is quite commonly conceded, even by the free traders, that American intelligence will be able to bear the strain so inconsiderately thrust upon it. About the wisest thing in the whole paper was the paragraph on wool. Mr. Cleveland had it all figured up that the increased cost on wool and woollens per year to the individual consumer, by virtue of the tariff robbery, would reach \$36. This looked well enough until a mightier than Cleveland came along and demonstrated that the annual consumption of wool per capita in the United States, for all purposes, does not average seven pounds, and could not possibly be enhanced in price by the tariff as much as seventy cents for each individual. Cleveland's wool story will take rank with the story (which has already passed into a chestnut) about the farmer's boots. The free trade orator had torn the air at considerable length to convince him that he might have bought his boots for \$2.50 less but for the tariff. This passed the farmer's understanding because of the fact that his boots had only cost \$2, robbery tariff and all.

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Which is thoroughly well Stretched;

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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.

THE Montreal Porous Earthenware Company, Montreal, are applying for incorporation.

MESSRS. MAJOR & BERB, Vancouver, B.C., are about building extensive shops for the manufacture of steam boilers.

MR. GEORGE BELL, Bridgeworth, Ont., is building a steam planing and lumber mill, and carriage and wagon factory.

THE new shops of the C.P.R. at Vancouver, B.C., now nearly completed, will give steady employment to about 400 hands.

HALL'S brick planing and sawmill at New Hamburg, Ont., was destroyed by fire March 16, involving a loss of about \$15,000.

MESSRS. J. J. HAMILTON, George Brownell and others will form a \$30,000 stock company at Neepawa, Man., and build a 150-barrel flourmill.

THE Southern Alberta Milling Company, Macleod, Alberta, has been formed with \$16,000 capital stock and will build a flourmill at that place.

MR. JAMES LANG, Dominion City, Man., will build a small roller flour mill if the municipality will bonus him \$2,500 worth. He will probably get it.

MESSRS. GOLDIE & McCULLOCH, Galt, Ont., have recently shipped a forty-horse power engine and boiler to the new shops of the C.P.R. at Vancouver, B.C.

MESSRS. H. R. IVES & Co., Montreal, are offering for sale a steam engine, boiler, fly-wheel, heater, etc., which are more fully described in our advertising pages.

EXTENSIVE deposits of anthracite coal have been discovered at Kamloops, B.C., and tests made at the C.P.R. shops show it to be of a very superior quality.

MR. W. C. CALDWELL, Lanark, Ont., who owns and operates a lumber mill and flour mill, will add the necessary machinery for manufacturing rolled oatmeal.

THE Craven Cotton Mills, Brantford, Ont., have recently sold 500 bales of their cotton goods, which are to be shipped to Shanghai, China, via Vancouver, B.C.

MR. SAMUEL GLASS, London, Ont., has bought the real estate, machinery, plant, etc., of the London Crockery Manufacturing Company for the sum of \$21,500.

THE Osborne-Killey Manufacturing Company, Hamilton, Ont., have secured the contracts for constructing water-works machinery for the towns of Aurora and Paisley, Ont.

MR. WHITELAW, of Woodstock, Ont., has become the proprietor of the projected flouring mill at McGregor, Man., and will immediately complete the construction of the same.

MESSRS. A. ROBB & Co., Amherst, N.B., a few days ago shipped a car load of machinery to Albert, N.B., in which was included a Hercules steam engine and a Monarch boiler.

MR. F. W. GALBRAITH, Bethany, Ont., had his saw, shingle and planing mill, and sash and door factory destroyed by fire March 11. Loss about \$3,000. The works will be rebuilt.

MESSRS. ERB & ABRAMS, Apohaqui, N.B., include in their manufacturing works a sawmill, a gristmill, a machine-shop and a factory for the manufacture of sashes, doors, etc.

MR. KINLEYSIDE, of London, Ont., will graciously consent to be induced to start a bakery in St. Thomas, Ont., employing a dozen or twenty hands if the usual bonus be granted him.

MR. ADAM ISBISTER, Petrolia, Ont., is in receipt of a cable order from Australia for a full set of drilling tools, casing and other requirements to the value of about \$9,000, for an oil well prospecting company in that country.

THE Gutta Percha and Rubber Manufacturing Company, Toronto, have been awarded the contract for supplying the fire department of Hamilton, Ont., with 2,000 feet of cotton hose.

MR. T. C. McILROY, of the Toronto Rubber Company, has been awarded the contract for supplying the fire department of Welland, Ont., with 500 feet of Eureka Paragon cotton hose.

THE Byam Manufacturing Company of Canada, Toronto, will be incorporated with \$30,000 capital stock for the manufacture of house furnishings, builders' supplies and hardware specialties.

THE authorities of Paris, Ont., have exempted from taxation the building and plant of the new knitting factory of Mr. W. E. Adams in that town for ten years, and granted him free water also.

MESSRS. A. HARRIS, SON & Co., Brantford, Ont., manufacturers of agricultural implements, are rapidly accumulating the necessary materials there for the erection of their new and extensive works.

MESSRS. BLEAKNEY & JONAH, Elgin, N.B., are a new firm who have recently bought out the plant and business of the Elgin Manufacturing Company, that town, manufacturers of lumber, woodenware, etc.

MESSRS. HESS BROS., Listowel, Ont., furniture manufacturers, are filling a \$9,000 order from the C.P.R., for supplying the furniture, etc., for their summer hotel, now being built at Vancouver, British Columbia.

THE locomotive department of the works of the C.P.R., at Montreal, is being operated to its utmost capacity, over 500 hands being employed. It is stated that these works are to be considerably enlarged at an early day.

THE Chatham Manufacturing Co., Chatham, Ont., are operating their binder, reaper and mower department to its full capacity. We learn that the demand for these implements is unusually large this season from all parts of the country.

CARLETON PLACE, Ont., cuts at its two sawmills between sixty and seventy million feet of lumber a year, and its woolen factories make seven or eight thousand yards of goods a week. About twenty-five carloads of freight per day is sent out.

MESSRS. WHITTIER & AYLWARD, Victoria, B. C., have begun the manufacture of Whittier's anti-friction sock, for which patents have been applied for both in Canada and the United States. This sock in the nature of a surgical appliance.

MESSRS. LEITCH & TURNBULL, Hamilton, Ont., are constructing one of their best first-class passenger elevators to go into the new stores of Messrs. McLaren & Co., St. Catharines. It will embody all the latest safety appliances and conveniences.

MR. JAMES PENDER, St. Johns, N.B., manufacturer of horseshoe nails, etc., finds sale for two-thirds of his products in Canada, the balance going to Ireland, Australia, Newfoundland and South America. His foreign trade is rapidly increasing.

MESSRS. GOLDIE & McCULLOCH, Galt, Ont., have finished and shipped to destination the large steam engine built for the new organ factory of Messrs. Wm. Bell & Co., Guelph. A description of this engine has heretofore been given in these pages.

MESSRS. WHEELER & DIXON, Paris, Ont., manufacturers of knitting machine needles, have associated Mr. George Davison with them in their business. Mr. Davison has been for some years associated with the Penman Manufacturing Company, of Paris.

MESSRS. GEMMELL & FAIRGRIEVE, woolen manufacturers, Port Elmsley, Ont., have dissolved partnership, Mr. Fairgrieve retiring from the business. In a short time he intends visiting Scotland, where he was born, and which he left for Canada twenty-six years ago.

MR. E. B. EDDY, Hull, Que., has contracted to ship a large consignment of his newly invented washboards to Australia. His staff of pail and tub makers are turning out on an average four hundred per day, and he intends having a night and day gang at work in a few days.

THE regular annual meeting of the Canada Paper Company was held in Montreal, March 13, and the following officers were elected: Messrs. Thomas Logan, President; John Macfarlane, Vice-president and General Manager, and John G. Young, Secretary-treasurer.

THE Aylesford Corn Packing Company, Bridgetown, N.S., of which Mr. W. Chute is manager, is in a prosperous condition. Last year the pack amounted to some 45,000 cans, and contracts for the coming year have already been made, aggregating 72,000 cans, or 30,000 cases.

MEAFORD, Ont., offers superior inducements for the establishment of a marine railway and shipyard. Suitable timber for shipbuilding is plentiful and convenient, and labor cheap. The place also offers good facilities and opportunities for a fruit and vegetable canning establishment.

MESSRS. ROBERT WOON & CO., Oshawa, Ont., are a new concern who are engaging extensively in the manufacture of general and agricultural machinery. Mr. Woon was for many years connected with the Joseph Hall Machine Works, of Oshawa, and is well and favorably known.

THE property formerly known as the Peters Combination Lock Works, Moncton, N. B., was sold a few days ago, Mr. H. T. Stevens being the purchaser for himself and associates. The price paid, \$8,100, is about the same as was paid for the property by Mr. Duffy a few months ago.

THE Cortland Wagon Co., Cortland, N. Y., who were recently granted a bonus of \$40,000 and exemption from taxation by the town of Brantford, Ont., as an inducement to establish a branch of their works in that place, were to have begun the construction of their Brantford works this week.

THE Canadian Lumber Cutting Company, of Toronto, whose works are at Belleville, Ont., have been incorporated with a capital stock of \$350,000. An account of the operations of the process of lumber cutting used by this company was described at length in these pages several months ago.

THE North-West Aerated Water Company has bought the plant formerly owned by McFarlane, at Winnipeg, Man., and will manufacture soda water, ginger ale, syrups, essences, cordials, etc. Mr. T. Richardson will be the local manager. The machinery and appliances are of the latest pattern.

MESSRS. BOOTH & CO., Lakefield, Ont., who proposed building a flannel mill at that place, have erected the necessary buildings, but find that they require financial assistance to the extent of \$6,000 to enable them to buy the machinery. They are applying to the Lakefield municipality for the necessary aid.

THE old firm of Messrs. John McPherson & Co., Hamilton, Ont., manufacturers of boots and shoes, has been dissolved by the withdrawal of Mr. Richard H. Green, and a new firm has been formed under the same name, composed of Messrs. James A., William J., and George G. McPherson, all of whom are brothers.

PRESENT indications point to the discovery of a large and valuable anthracite coal mine at Kamloops. The *Victoria Colonist* says that several tests of the mineral have been made at the C.P.R. shops at Kamloops with most encouraging indications. Work will be commenced on a twenty-foot shaft at once. The vein is about five feet wide.

GREAT excitement has been raised in Smithville, Ont., by the discovery of coal two miles north of that place. Specimens were brought in which appeared to be equal to the best Lehigh. It is expected that a twelve-foot shaft will immediately be put down. The thickness of the seam is not known, as they have not drilled through it yet.

MESSRS. MCLACHLIN BROS., of Arnprior, Ont., are making extensive additions and improvements to their sawmill equipment. A new building, 28x156 feet will be erected and fitted with a pair of twin circular saws and two large gang saws. The new mill will be of the same capacity as the one now in use, the power being supplied to both mills by the engine in the old mill.

THE Martin Saddlery Hardware Manufacturing Co., Whitby, Ont., having complied with the terms of the bonus offered them by that town, have been paid \$10,000, which they are to have the use of for ten years without interest. There already have more than the required number of hands employed, and the staff is being increased as fast as the machinery can be put in the buildings.

THE C.P.R. will erect another mammoth grain elevator at Fort William, Man., adjoining the one they already have there, the power to operate which will be supplied from the old elevator. The company will also erect extensive workshops at that place; and the erection of buildings here alluded to will involve the expenditure of large sums of money and the employment of much labor.

MR. W. E. ADAMS, of the late firm of Messrs. Adams, Hackland & Co., Paris, Ont., who has recently started a new knitting mill in that town, and who has been granted exemption from taxes thereon for a term of years, is one of the pioneer knit goods manufacturers in Canada, having started what is said to be the first knitting mill in Ontario in 1857, at Belleville, where he made shirts, drawers, and hosiery.

MR. M. WARREN, who has been employed for over twenty years in the Joseph Hall Machine Works, and has been foreman of the machine department of that establishment for the past thirteen years, leaves this week to take charge of the exhibit of Messrs. J. Gillies & Co., of Carleton Place, Ont., manufacturers of coal oil engines, etc., at the Permanent Exhibition of Manufactures, Toronto.—*Oshawa Vindicator*.

MESSRS. BURROWS, STEWART & MILNE, stove and malleable iron founders, Hamilton, Ont., have purchased from the Howard estate the property on the corner of Hughson and Cannon Streets, in rear of their present premises. An old one-story stone edifice, which was once used as a nail factory, stands on the property. It is probable the present owners will tear this down and erect a handsome new building on the site.—*Spectator*.

THE people of Oshawa are making a dead set on the Williams piano factory and are determined to get it removed there. The other day the Mayor of the town was in Toronto and waited on Mr. Williams, and on behalf of the corporation offered to build a factory for the Messrs. Williams in Oshawa and give them sufficient land provided they moved their factory there. It is said Mr. Williams is seriously entertaining the offer.—*World*.

THE Canadian Rubber Company, corner of Front and Yonge Streets, Toronto, of which Mr. J. H. Walker is manager, are calling the attention of the trade to the special lines of rubber goods manufactured by them. Among these are included patent pressed double strip belting; engine, hydrant, suction, steam, brewers' and fire hose; valves, car springs, steam packing, wringer rolls, carriage cloths, blankets, stopples, rubber shoes and boots, tweed and gossamer clothing, garden hose, etc.

THE work on the new C.P.R. shops is being pushed forward, and the foundations for several of the machines are already erected. The boilers and furnaces are being built and the engine erected. The latter is 40-horse power. The round house and turntable are completed and occupied. At the works the scene is a busy one, and gives the visitor a good idea of the enormous sums of money the C.P.R. is expending in Vancouver, and the immense benefit the shops will be to the city, employing as they will 300 or 400 men steadily.—*Vancouver (B.C.) News*.

THE rubber works are steadily increasing the number of hands, and are at present turning out about 200 pairs of rubbers a day, besides large quantities of coats. Our cigar factory is receiving orders from one end of the Dominion to the other, a large order coming in from Victoria, B.C., the other day. They are at present running 120 hands, and making money.—*Covansville (Que.) Observer*. Will our valued contemporary please observe that these items would be of much greater interest if the names of the proprietors of the factories were given. Probably those living in the vicinity might possess the knowledge, but the general public do not. Please be explicit.

THE Simonds Rolling Machine Company, of Fitchburg, Mass., manufacturers of rolled forged specialties, machine handles and ballances, balls for anti-friction bearings, spindles, axles, boot calks, etc., have established an office in Montreal with a view, as we learn, to forming a company and establishing works in Canada. The Simonds rolling machine is a recent invention of most remarkable character, by which certain lines of steel and iron goods can be produced with wonderful rapidity and at comparatively small cost, and far superior, it is claimed, to any products of the drop-forging process. Screw-bolts and similar articles shown seem to be quite as perfect as any made by machine tools.

THE Hastings sawmill is being run to its utmost capacity in order to complete the contract of loading three ships which now lie at the wharf, and to supply the large local demand which they are receiving. There are employed in the mill alone over one hundred men, while a great many more are engaged in their extensive lumber camps in different parts of the province. They run two 60-inch circular saws, one 42-inch edger, and one gang of twenty-six saws which, cut 85,000 feet of lumber per day. They have two planers, each of which will plane about 15,000 feet of flooring per day; a picket machine which saws 30,000 feet; a picket-header which can turn out four different styles of pickets, and a lath machine capable of cutting over 30,000 lath per day.—*Vancouver (B.C.) Herald*.

PHOSPHATE mining promises to be prosecuted with unusual vigor during the coming season, especially in Sydenham. Mr. J. Sloan is making preparations for mining a large amount, having some fine shows uncovered. He will employ 100 hands. Work on the Fort-ton property has been carried on during the winter with very satisfactory results, about 200 tons having been hauled to Kingston. A

large amount of wood was put in by contract for consumption during the season. The prospects for a large output are good. As depth is attained the vein widens. At present there is a vein thirteen feet wide of the purest green ore. Mr. T. B. Cook, Harrow-smith, and Mr. G. Clerihew, Kingston, are opening up a mine on the Roushorn property. The indications are good, the ore taken out being of a very fine quality.—*Napanee (Ont.) Beaver.*

THE Ontario Silver Company, Thorold, Ont., have sent us their illustrated price list of silver-plated table ware—spoons, forks, knives, etc., manufactured by them. In a notice to the trade they say regarding their silver-plated and Victoria silver table ware, that they are the sole manufacturers of this ware in Canada; that they guarantee the base of their goods to be of a certain quality and material; that the goods are weighed before and after plating, to ensure the correctness of their guarantee, and that their ware is burnished by hand. "Victoria Silver" is described as being a high grade metal compound, in color nearly approaching sterling silver, susceptible of a high polish, extremely durable, and difficult to oxidize in ordinary every day use. The illustrations represent articles that are very neat and beautiful, the patterns showing high artistic taste.

MESSRS. A. HARRIS, SON & Co., Brantford, Ont., are calling the attention of manufacturers seeking commodious accommodation to their plant in that city, which they are offering for sale; their intention being to build new shops on a very large scale. The factory which they offer is a substantially-built three-story and basement brick building, 180x40 feet, with moulding shop, 96x54; blacksmith shop, 60x30, and suitable buildings for engines and boilers. The factory is heated by steam, and the offices are nicely fitted up. The motive power consists of two boilers, sixty-horse power each, and a seventy-horse power steam engine; and there is a complete equipment of shafting, all of which are offered with or without the premises. There are two large warehouses, stables, etc., on the premises, and a railroad switch connects with the main track.

ANOTHER big timber ship is being built at the Joggins, Cumberland county, by James D. Leary. It will be about 650 feet long, 100 feet longer than the raft which was built last year. It will be built in the general way as the raft, only the ends will be sharpened and will be bulkheaded to resist the action of the waves. The raft will be shiprigged, with six large masts and will need no tugs. A large gang of men have been at work for several weeks under the supervision of H. R. Robertson, who built the raft, hauling the huge timbers, which are being chained together into one giant bundle. The timbers are by far the largest that have ever been shipped from Nova Scotia. The work is about half completed, and the monster will be ready to launch some time in July or August. The cost of the construction will be nearly half as much again as that of the other raft.—*Moncton (N.B.) Times.*

A FINE new wooden steamer for Toronto Bay is under construction in the Robertson shipyard, Hamilton. It is being built by Mr. Melancton Simpson, the well-known shipbuilder, and will be commanded by himself when launched. It is built of white oak, and the following are the dimensions;—Length, 131 feet; breadth, 25½ feet; depth of hold, 9 feet. It will be fitted with 400-horse power compound engines, built at the Beckett Engine Works there, and when completed will carry about 800 passengers. The managers of Lorne Park are negotiating to have her run between that place and Toronto. She will be called the Macassa, the Indian name of Hamilton Bay, and will be completed about May 24. The Macassa is the thirteenth steamer Mr. Simpson has built. As the name is claimed by him, it will be necessary for the Hamilton Navigation Company to select a new designation for their steel steamer now being built at Glasgow.

THE Wainwright Manufacturing Company, whose works are at Medford, Mass., and offices in Boston, have presented us with their illustrated catalogue having reference to the corrugated tubing, expansion joints, feed water heaters, condensers, filters and radiators manufactured by them. Regarding their corrugated tube exhaust feed water heater, we are informed that there are now in use so large a number as to represent 30,000 horse power, the list of references including the names of a large number of users who are of the most reliable and trustworthy character, some of whom are known to all our readers, by their business cards in these pages and a large number of testimonials are given concerning it. Reference is made to the Wainwright filter for water-works, rectifiers, breweries, paper mills, dye works, etc.; and the other lines of goods above alluded to are fully illustrated and described. Mr. F. H. Lovejoy, of this company, is representing their interests in Canada.

FOR SALE.

HORIZONTAL ENGINE

CYLINDER 14 in. x 30 in.

Made by G. BRUSH, complete with Judson Governor, Out-off Valve, Patent Metallic Packing, Pulley Fly-Wheel 8 ft. 0 in. x 18 in., Hot Water Heater, etc. Also

TUBULAR BOILER 14 feet x 5 feet.

Can be seen working for a short time until replaced by larger Engine.

H. R. IVES & CO., Queen St., Montreal

THE E. B. Eddy Manufacturing Company, Hull, Que., near Ottawa, have gotten their new indurated wood pulp factory into operation, and are turning out large quantities of pails, tubs, etc.—the only establishment of the kind, we believe, in Canada. The buildings are as near fireproof as is possible, the walls and ceilings being stone and iron and the floors brick. Altogether there are five bakehouses, capable of holding an immense amount of ware. In the near future there will be a number more moulds made, and the articles manufactured will be of all kinds and descriptions. It is claimed for this ware that it is better suited for this class of goods than wood, iron, tin or anything else. No hoops are needed, the ware is light, absolutely seamless, impervious to liquids, tasteless and odorless; it is indestructible and moulded in one piece from wood fibre, which is hardened by a process that can't be beaten. It neither shrinks nor swells, and cannot leak, water-soak or rust; there are no hoops to rust off, and, being seamless, the bottoms cannot drop out. It is proof against hot or cold water, kerosene, benzine and naphtha. The company at present are making all kinds of pails, spittoons, measures, water-coolers, milkpans, and many other things, and in a short time will be prepared to make anything.

MESSRS. CHARLES BOECKH & SONS, Toronto, whose general offices and salesrooms are at 80 York street, are the proprietors of what is probably the largest, best arranged and most thoroughly equipped factory in Canada—at 142 to 150 Adelaide Street, where they carry on the manufacture of machine and other brushes, brooms, etc., in all branches. This factory is of brick, five stories high, and covers an area of 100x40 feet. The power used in the works is derived from a 40-horse power steam engine, the machinery is all of the latest and most approved styles, and constant employment is given to over 100 hands. The goods manufactured by this firm are well known and in large demand, not only throughout the Dominion, but in all quarters of the world as well; which latter fact is attributable to the fine display Messrs. Boeckh & Sons made at the Indian and Colonial Exhibition in London, in 1886, where they were awarded a medal and diploma. They also exhibit medals and diplomas which have been awarded them at exhibitions at Philadelphia, in 1876; Sydney, N.S.W., in 1877; Paris, in 1878; Antwerp, in 1885, and at all the Toronto Exhibitions of recent years, besides from smaller exhibitions of less note. Their York street offices and warerooms are central, and well adapted for their business, where is to be seen a grand display of the firm's specialties—brushes, brooms and woodenware of every description—baskets, butterware, carpet sweepers, chopping trays, clothes horses, lines and pins, ladders, matches, mops, pails, swings, shovels, racks, tubs, twine, whisks, measures, spoons, etc.

MESSRS. ROBERT MITCHELL & Co., Montreal, manufacturers of steam fitters', plumbers' and gas-fitters' supplies, brass goods, etc., have moved into their new and commodious factory, recently built for the greater convenience of their large and rapidly extending business. The works embrace a four-story brick building, 175x50 feet, a brass foundry 56x50 feet, and a tin and copper works and gas metre department, 116x50 feet, in all of which about 300 hands are employed at this time, but which number will soon be considerably increased. The tin, copper and gas metre department is where the manufacture of fire extinguishers is carried on. The manufacture of gas metres has lately been introduced at very considerable expense, and ingenious machinery has been specially made so as to reduce the cost of manufacture as much as possible. Hitherto no such goods have been made in this coun-

By Royal



Letters Patent

THE PERFECTION
SMOKE CONSUMER
 — AND —
FUEL ECONOMIZER

FOR ALL HORIZONTAL BOILERS.

AT PRESENT BEING APPLIED TO FLUED BOILERS.

PRICE IN MONTREAL, \$100 PER FURNACE.

AT MONTREAL WATER WORKS; C. P. R., SHOPS; AND
 CANADIAN RUBBER WORKS.

BOILERS SET AND TRAVELS CONVERTED TO NEW SYSTEM.

CORRESPONDENCE INVITED.

DOBSON & BRODIE,

169 St. James St., Montreal.

try. The first and second floors of the main building are used for the finishing of the various articles, and for the putting together and manufacture of the almost innumerable styles of gasaliers, hall lamps, gas brackets, for the making of injectors of different patterns, and valves, guages, cocks, faucets, etc. The boiler and engine are in the basement, and are bricked off from the rest of the building. The various doors throughout the building are made fireproof. Automatic fire extinguishers have been placed throughout; hose and hydrants are on every floor, and at every available point are placed water buckets, so that the provisions against fire are most complete. This new factory is a model one.

THE Valley Iron Works, Williamsport, Pa., have sent us their new illustrated catalogue having reference to the Valley Automatic Cut-off Steam Engine manufactured by them. In mentioning the advantages to be derived from the use of high speed automatic engines, to which class the Valley engine belongs, the axiom, "In speed there is power," is advanced, to show that a high speed engine can be made to occupy less space in proportion to the power developed. Greatly reducing the cost per horse power, as compared with the heavy slow running engine, and more especially on engines of large powers, saves considerable floor space. It also permits of a better equalization in sizes of pulleys, where the line shaft runs at a high rate of speed, giving better contact surface for belts and preserving the life of same. The wheels are lighter, resulting in a corresponding reduction of friction for a given horse power developed. The percentage of variation in speed is also less. The different styles of Valley engines are beautifully illustrated and described, showing the different purposes for which they are specially adapted, exhaustive particulars regarding their construction and operation being given. Very useful tables of the power of different sizes of engines and of sizes of steam and exhaust pipe required for them are given. The company also manufacture every variety of horizontal and upright tubular and portable steam boilers; and a set of rules for the management and care of steam boilers, as adopted by the Hartford Steam Boiler Inspection and Insurance Company is also given. The company will furnish further particulars on application.

THERE was a good deal of speculation indulged in last fall as to the place where the Canada Lumber Company, Messrs. McLaren, Edwards & Co., would locate their mills. Some were of the

opinion the Carlton Place mill, in which the former owner of the lumbering district, Mr. Peter McLaren, did his sawing, and which, with the site, was only leased to him, would be abandoned, and that Ottawa, or some other point would be selected. But the company bought out the Carlton Place site, and are now actively engaged in enlarging, remodelling and refitting the mill. The William Hamilton Manufacturing Company, of Peterborough, are making the principal machinery for the mill. The following is a description of the improvements:—The frame of the mill be 140 x 60 feet. A single circular saw six feet in diameter, and a twin circular five feet in diameter for the purpose of slabbing or sliding the logs, will be placed in it. There is one four feet six inch stock gang saw. There will be two improved double edgers and one set of butting saws. The lumber from the gang to the butting saw table is moved automatically on live rollers and transfer chains. Although as large a number of men as formerly will be required to attend the mill, both within and without, yet a much smaller number will be necessary on the sawing floor. The mill, when completed, will be one of the finest in the country, as all well-tried modern improvements are being put into it, and the people of Carleton Place are justly proud of the prospect, as other important industries at that point are contemplated by this enterprising and energetic company.—*Ottawa Journal.*

MR. E. LESLIE, of Orangeville, Ont., is the inventor of a rotary snow plow that is in high favor with all railroad men who have witnessed its operations clearing the railroads of snow after the recent fearful blizzards. Speaking of its operations, a correspondent of the St. Paul, Minn., *Globe* says:—The train consisted of the plow, two locomotives, a dead engine taken out of a drift, and Superintendent Root's private car. The plow consists of an immense boiler and machinery built upon low double trucks, all framed over in a substantial and becoming manner, being ten feet square in front into which heavy iron frame is adjusted a wheel or disc, covering the surface, except the four corners shaped much like the fan of a windmill, which, when at work, revolves at right angles to the line of movement with tremendous velocity, cutting its way through the hard-packed and frozen drift at the rate of six or eight miles an hour, and sifting the snow back into the body of the square frame on to a heavy steel fan, revolving with equal force. It is thrown from here out through the spout in a large volume, as above stated. This disc fan and spout may be turned to work to either side, according to the direction of the wind. There is an engine on either side of the boiler, each having a capacity of 200-horse power, wholly to run the disc and fan, all built in the most substantial manner. In addition to this there is the flanger, located at the bottom, which takes up the snow between the rails, leaving the track perfectly clear. The tender carries 4,000 gallons of water and from twelve to fourteen tons of coal, enough, it is estimated, to last a week, and at present requires two locomotives to push it forward and hold it up to its work. Superintendent Root was greatly taken up with the machine, saying they had lifted 655 miles of blockade since Tuesday, it being then Friday afternoon. Under ordinary circumstances and the old methods it would have taken a week to have opened the road between Fergus and Wahpeton, which was done in four and a-half hours.

THE NEW WORKS OF THE CANADA SCREW COMPANY,
 HAMILTON, ONT.

"You may congratulate yourselves, gentlemen, upon the fact that you have the finest equipped factory in the Dominion of Canada."

The above remarks were made by a representative of the CANADIAN MANUFACTURER immediately after a careful and critical inspection of the new works of the Canada Screw Company, in Hamilton, and although it is admitted that a heavy responsibility is assumed in fathering such a sweeping assertion, personal observation will attest that injustice is done to no one. We have many fine industrial establishments in Canada, which are alike a credit to the owners and to the country, but it must be borne in mind that they have labored under the disadvantage of intermittent expansion, by which it is meant that our sturdiest industries have, in nearly every instance, commenced on a comparatively small scale and have been under the necessity of meeting the constant call for increased facilities by the erection of an addition here and an extension there, until in many cases economy of production has been jeopardized for the purpose of quickly securing, what at first, perhaps, was intended to be only temporary relief, but which having answered its purpose, is allowed to remain.

With the Canada Screw Company's new works the case has been far different. Having decided on a permanent location, they have had

the great advantages of long experience of the special requirements of their business, and ample capital to enable them to utilize this experience in a practical manner. That the company were courageous enough to venture such a heavy outlay speaks volumes in behalf of their appreciation of the future prosperity and progress of this Canada of ours, and as an argument in favor of the maintenance of the National Policy, their investment is unsurpassed.

The commencement of wood screw manufacturing in Canada dates back to 1866, when a company, principally composed of Hamilton capitalists, was formed for this purpose, the works being located in Dundas. The venture was not successful, however, and resulted in serious loss to the promoters, who ten years later sold out to a new company, who immediately consigned the machinery which had been in use to the scrap heap, and replaced it at great cost with such as fulfilled all modern requirements. Under the new management the works were kept in operation until the National Policy tariff of 1879 came into force, when the company was compelled to close its works for a period of nearly two years. The apparent anomaly of increased protection resulting in the cessation of the industry is explained by the fact that foreign manufacturers anticipated the customs changes and flooded the country with immense stocks of wood screws; and it was only after two years of constant consumption that this surplus was sufficiently reduced to enable our home industry to give employment to our own artizans. At this time it was the open boast of the European manufacturers that they would hold the Canadian market even had they to sell for years below the cost of production. They made a determined effort to fulfil their threat,

but they were opposed by men of equal determination. The battle for existence was a long and a bitter one, but in the end resulted in victory for Canadian development and self-reliance. For years the Canadian company was called together only to face deficits of annually increasing amounts. Many men would have retired from the struggle, but "tis the coward in the conflict gives up at first defeat," and acting up to this motto they held out against the enemy, and the cessation of hostilities found them in possession of the field of battle. As a consequence, an industry of great vitality is saved to Canada, and to-day it is pointed to with pride by the people of the city which has been so fortunate as to secure its location in their midst.

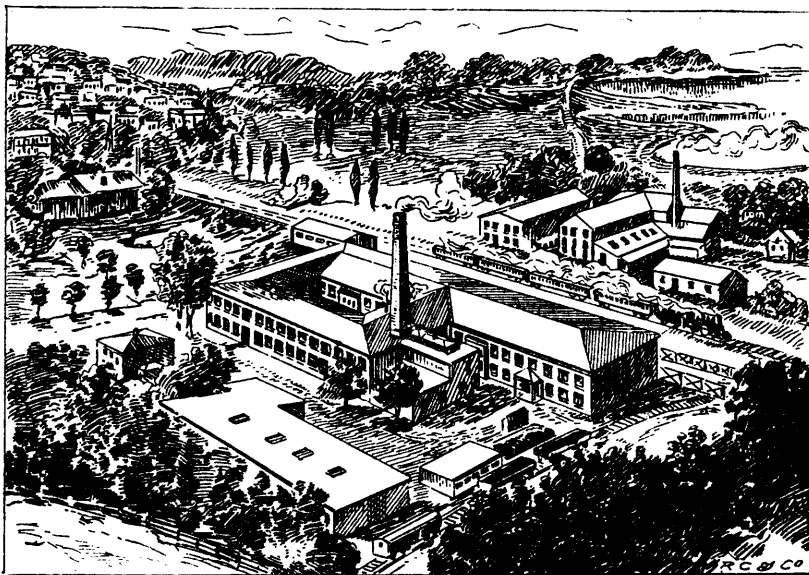
What a different tale would have to be told had our Free Trade friends the opportunity to shape our fiscal policy. With less protection the busy whirr of countless wheels would here be stilled, and the hundred and fifty intelligent and contented workpeople would have here no home; but aliens in race and strangers to our interests would reap the benefit of what is now preserved for our own use. Who can doubt the wisdom of our tariff legislation when such grand results are thereby secured, and secured without injury to the consumer; for even with last year's additional protection to this industry no advantage has been taken of what our Free Trade friends are never tired of calling the opportunity to fleece the public. Prices remain the same, but our market is secure against the efforts of foreigners to slaughter goods at or below cost until such time as, having swept away home productions, they can combine and charge whatever price they, in their immoderation, may think sufficient to recoup them for their previous loss.

Since the date of re-opening the Dundas works in 1881, the progress of the industry has been steady but sure, and the increased measure of protection afforded by the tariff resolutions of 1887, referred to above, has warranted the great cost of the magnificent new buildings of which the company have recently taken possession; and in order that our readers may know who they are who have shown such faith in our future national prosperity by devoting their means and their energy towards strengthening our industrial independence, the following list is given of the officers of the company:— Clark Thurston, president; Cyrus A. Birge, vice-president; J. H. Tilden, secretary, and Matthew Leggatt, Chas. Gurney, Hugh

Moore, John Tilden, Edwin Angell, Jas. S. Phetteplace, and B. W. Evans, directors.

It was during the spring of 1887 that it first became a necessity to provide increased facilities commensurate with the increased demand, and the question which agitated the minds of those interested was whether to extend the Dundas buildings or erect a new factory. The decision being in favor of the latter course plans were prepared on such a scale as would meet every requirement, and the present site was chosen on account of the excellence of the facilities for shipping and receiving goods, either by rail or water. All the preliminary details having been satisfactorily arranged, ground was first broken on the 17th day of July, 1887, and the work of construction was from that time pushed ahead with so much energy and vigor that, incredible as it may seem, the whole premises, comprising 70,000 feet of floor space, were ready for occupation in January last. This is a feat which has few equals in building annals, and was only accomplished by the untiring energy of Messrs. Thurston and Birge, aided by the superintending architect, Mr. Wilm Knox. The buildings are of the most modern construction, being long, wide and exceptionally well lighted, the area of glass being nearly 66 per cent. of the entire wall surface. The location is on two acres of ground at the intersection of South and Wellington Streets, and is distant about a mile and a quarter from the City Hall. The Grand Trunk R.R. passes immediately in front of the principal elevation, and a side track extends across the property, enabling goods to be received and shipped with but one handling. The main building is two storeys high with a frontage of 304

feet on south street and 150 feet on Wellington st., with a parallel wing of 220x45 feet. In addition to the factory building an extensive storehouse, 162x50 feet, has been erected, and in this is kept the iron wire rods of which raw material 2,000 tons is carried in stock. The timbers throughout the buildings are very heavy; the upper floor has a sustaining capacity of 1,000 lbs. to the square foot, and the ground floor is formed of a solid mass of concrete covered with asphalt and sheeted with hard pine flooring, affording a firm foundation at any point for the heaviest machinery. The motive power of these works is unique and of the latest practice, the engine being a 200 h. p. tandem of compound, non-conden-



CANADA SCREW COMPANY'S WORKS, HAMILTON, ONT.

ing construction. The boilers are known as the Porcupine type, all parts being of extremely small diameter; and as every part is exposed to the fire the results are economy of fuel, quick steaming, and capacity for carrying a very high pressure of steam, the working pressure being 140 lbs. to the square inch.

The shafting throughout is supplied with self-adjusting and lubricating hangers, and is of small diameters running at high speed, thus securing the minimum of weight and consequent friction.

Safety from loss by fire is secured by a thorough equipment of the Grinnell automatic sprinkler pipes with an aggregate number of 700 sprinkler heads, which are all connected with the city water mains; and in order to make assurance doubly sure an auxiliary steam pump, connected with a tank capable of holding 30,000 gallons, is provided to maintain the pressure in the event of accidental lowering of the pressure of the city service.

Heating is accomplished by utilizing exhaust steam from the engine carried through pipes of large area, which allow only a minimum of back pressure. Perfect ventilation is secured through the arrangement of the windows, which are all provided with upper transoms. The sanitary arrangements are of a very superior class and are in advance of anything of the kind usually provided. The closets have an ample water supply, and are light, clean and well ventilated; and the lavatories and cloak rooms add greatly to the comfort and contentment of the employes. The excellence of these features is particularly emphasized, as the company recognized that in order to secure the highest class of help it was desirable to show consideration of their requirements, especially where

a number of women are employed, and the results bear out this theory, as a class of female help has been secured who ordinarily are unwilling to work in factories.

The offices are located in the centre of the principal elevation on South street, and the entrance for the workpeople, of whom 150 are given employment, is adjacent, the stairway over which they pass being built of solid concrete. The main office is 30x30 feet: presents a fine appearance, and is equipped with all the latest labor saving devices. On the north side is an extensive fire-proof vault 26x8 feet, in which is kept all books of account, valuable drawings of machinery, etc.; and on the west side is the Vice-President's private office, which is handsomely furnished, and impresses the visitor with a sense of stability and comfort. At this stage it may be well to explain that the finished products of the factory are all produced from iron wire rods, which are the raw material of this industry. The first process is drawing the rods into wire of suitable sizes, and each successive process employs a large number of various machines so nearly automatic in their operation that a comparatively small number of hands are required to tend them, although 450 machines in all have to be utilized. From all the foregoing it may be assumed that the eulogistic comments upon the construction and equipment of the premises, of which an endeavor has been made to fairly describe, were not over colored; and although notes taken at the time are not nearly written up they cannot be condensed into sufficient small compass to appear within the limits of an ordinary newspaper article. Having come to this conclusion, a motion to adjourn is now in order, although as a question of privilege a few interesting reminiscences are recounted of those whose individuality has caused the name of the Canada Screw Company to stand as high as it does to-day in the estimation of the business community.

Clark Thurston, President of the Canada Screw Company, Hamilton, is also Vice-President of the American Screw Company, of Providence, R. I. With the latter company he has been connected since the close of the American civil war, in which contest he played a not unimportant part, first as an officer of infantry, and later as an officer of naval engineers, detailed for special torpedo service on the James River; during which service he had the honor of being the first of the naval force to enter Richmond after its evacuation by the Con-

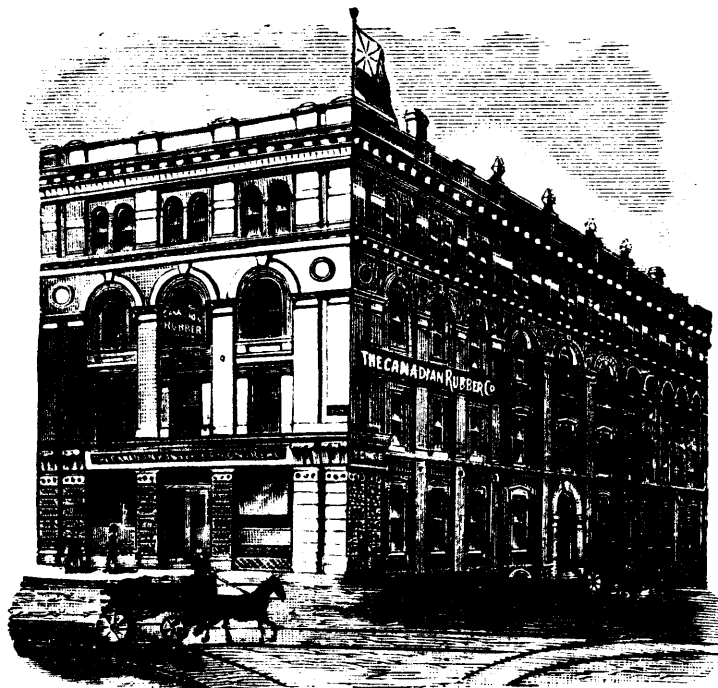
federate troops. This adventure reads almost like a romance. On the night of the evacuation Mr. Thurston was on duty in one of the torpedo caves which lined the banks of the river, and his attention was rivetted by the blowing up of a confederate ram at Fort Darling. Surmising the full import of this occurrence he, along with a brother officer, left his station for the purpose of notifying the Admiral of the fleet, but so exposed was the situation that a crawl of half-a-mile on hands and knees was necessitated. After reporting to the Admiral, who was incredulous at the news, they procured a skiff and a negro boatman, and started up the river for Richmond, paying but little attention, in their enthusiasm, to the fact that the river was alive with floating torpedoes. Providence was kind however, and they finally arrived at Richmond at three o'clock in the morning, but having proceeded without orders they were subsequently rewarded by being placed under arrest for two weeks by the Admiral, who was not so kind as Providence had been in seeing them safe from harm. As before stated, at the close of the war Mr. Thurston connected himself with the screw manufacturing industry, and the present works are largely the result of his accumulated experience, and he claims that they are the equal in equipment of any screw-making plant in the world. In private life Mr. Thurston is a kindly man to meet, and although unostentatious in demeanor impresses one as being a man of parts, and a born leader of men.

Cyrus A. Birge, Vice-President, is a native Canadian, who is proud of his country, and of whom his country may in turn be proud. Previous to his connection with the Canada Screw Company, he held a responsible position in the offices of the Great Western Railway, which were then located in Hamilton, but in 1882 he severed his connection with that corporation and associated himself with the enterprise with which he is now so intimately connected. By his own force of character he has risen to his present position as the second officer of the company, and resident manager. To his efforts are largely due the confidence displayed by the trade throughout the Dominion in their dealings with the company, and this implicit reliance is based upon honorable dealing and the high reputation the company enjoys for the quality of its productions. Mr. Birge is well known, and wherever known is appreciated for his many excellent qualities of head and heart.

THE CANADIAN RUBBER COMPANY.

The accompanying illustration is of the Toronto offices and warehouse of the Canadian Rubber Company, located at the intersection of Yonge and Front Streets, of which Mr. J. H. Walker is manager. The building is of pressed brick with cut stone trimmings, and is one of the most substantial and ornamental in that business section of Toronto. It fronts 40 feet on Front Street and extends back 180 feet on Yonge Street, and contains four flats. The offices, which are on the main floor, are commodious, well lighted and finely furnished, the private office of Mr. Walker being exceedingly cosy and comfortable. The show rooms are also on this floor, in which are displayed samples and specimens of the many different lines of goods manufactured by the company. The receiving and shipping department is in the basement, which, owing to the conformation of the ground, is entirely above ground at the southern end, and admitting of teams being driven up to the door. A tramway extends from this door the entire length of the building, and connects with an elevator, which admits of goods being taken to and from all of the upper floors. This elevator is equipped with all necessary safety appliances, including automatic sliding doors which open on the approach of the car, and close immediately when the car has passed. The arrangement of the upper floors has been made with special reference to the different classes of goods kept in them, the great length of the

building admitting of the rubber hose being kept stretched to the full length of the sections, an arrangement by which creases and unseemly wrinkles are avoided. Series of immense lockers, or cases, with doors, admit of sufficient quantities of goods of all the smaller varieties being kept in stock, convenient for the packers in filling orders; and the aggregate value of the stock carried in the building frequently amounts to as much as \$200,000. This branch of the company's business is intended to supply all the demands for their goods in the most expeditious manner arising in the central, northern and western portions of Ontario, and all places to the westward. The factory of the company where these goods are made—in Montreal—gives employment to from 800 to 1000 hands, the yearly output being valued at about \$2,000,000. The products of this factory include rubber shoes, felt boots, belting, steam packing, engine, hydrant, auction and fire hose, rubber, cotton and linen seamless woven hose, car springs, and all kinds of rubber goods. The capital stock of the company has recently been increased from \$1,000,000 to \$2,000,000, and additions are now being made to the works at Montreal which will enable the company to manufacture about twice as much goods as they do now. The manufacture of rubber goods is one of the most important industries in



Canada, and this is probably the largest concern engaged in it. Mr. Walker, the manager of the Toronto business, is one of the most energetic and successful business men of the city; and since he assumed his present position the business of his company has increased with remarkable and gratifying strides.

The PERMANENT EXHIBITION OF MANUFACTURES

- AND -

COMMERCIAL EXCHANGE,

63, 65, 67 and 69 Front Street West,
TORONTO, CANADA.

OPEN FREE TO THE PUBLIC

We are special agents for leading manufacturers of Mill Machinery, Mill Supplies, Belting, Hose, Packing, etc., and will be glad to quote prices and discount to intending purchasers.
Samples of the following lines may be seen in our Permanent Exhibition :—

Wood Working Machinery,

Circular Saws, Mill Saws, etc.,

Saw Grinders, Gummers, Files, etc.,

Belting, Hose, Packing, etc.

Steam Pumps, Power Pumps, Centrifugal Pumps, etc.,

Valves, Steam and Water Gauges, Emery Wheels,

Machine Knives, Platform Scales, etc., etc., etc.

The Permanent Exhibition of Manufacturers
AND COMMERCIAL EXCHANGE,
NICHOLLS & HOWLAND.

To Manufacturers.

Owing to increased business we have decided to build New Workshops on a very large scale, and we now offer for sale our present Factory, situated very conveniently in the

CITY OF BRANTFORD.

The factory proper is substantially built of white brick, three stories high and basement; size, 180 x 40; moulding shop, 96 x 54; blacksmith shop, 30 x 60; also suitable buildings for engines and boilers; two boilers, 60 h. p. each; engine, 70 h. p.; factory heated by steam; offices nicely fitted up.

There are also in connection with the premises two large warehouses and stables, also convenient switch. There is no more complete establishment in the Dominion, and the whole will be sold cheap, as it has become entirely too small for our business.

The premises are suitable for any kind of manufacturing business requiring power.

Will be sold either with or without engine, boilers and shafting. Apply to

A. HARRIS, SON & CO. (Limited),
Brantford, Ontario, Canada.



TENDERS.

SEALED TENDERS, marked "For Mounted Police Provisions and Light Supplies," and addressed to the Honourable the President of the Privy Council, Ottawa, will be received up to noon on Tuesday, 15th May, 1888.

Printed forms of tenders, containing full information as to the articles and approximate quantities required, may be had on application at any of the Mounted Police Posts in the North-West, or at the office of the undersigned.

No tender will be received unless made on such printed forms.

The lowest or any tender not necessarily accepted.

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 declines to enter into 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.

No payment will be made to newspapers inserting this advertisement without authority having been first obtained.

FRED WHITE,
 Comptroller, N. W. M. Police.

Ottawa, March 20th, 1888.



NOTICE.

The Select Committee to examine into etc., combinations said to exist with reference to the purchase and sale, or manufacture and sale in Canada, of any Foreign or Canadian Products, hereby invite all parties aggrieved by such combinations to correspond at once with the undersigned, giving the names of witnesses who are likely to give material evidence on the subject, and to furnish such information and data as may enable the Committee to judge of the testimony offered.

Address
 N. C. WALLACE, M.P.,
 (Chairman Com.)
 House of Commons, Ottawa.

House of Commons,
 6th March, 1888.

CANADIAN RUBBER CO.

COR. FRONT & YONGE STS., TORONTO.

MANUFACTURERS OF

Rubber Shoes and Felt Boots, PATENT PRESSED Double Strip Rubber Belting.

RUBBER, ENGINE,

HYDRANT, SUCTION,

STEAM, BREWERS'

AND

FIRE HOSE.

HORSE CLOTHING.

STEAM PACKING.



RUBBER VALVES,

CAR SPRINGS,

WRINGER ROLLS,

CARRIAGE CLOTHS,

BLANKETS,

STOPPLES, ETC.

Mould Goods of every description.

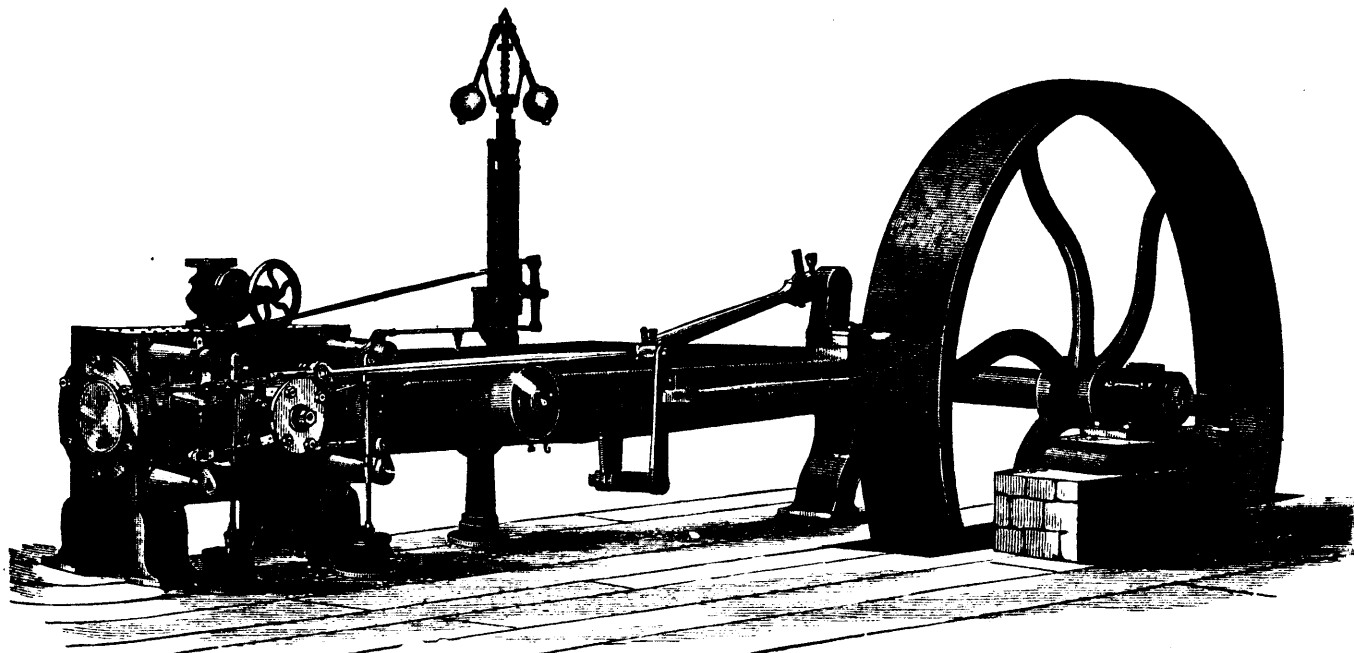
LADIES' AND GENTLEMEN'S TWEED AND GOSSAMER CLOTHING.

OUR RUBBER GARDEN HOSE IS THE BEST IN THE MARKET.

J. H. WALKER, - - - Manager.

THE GALT FOUNDRY,

Engine and Machine Works.



THE HARRIS-CORLISS STEAM ENGINE

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:

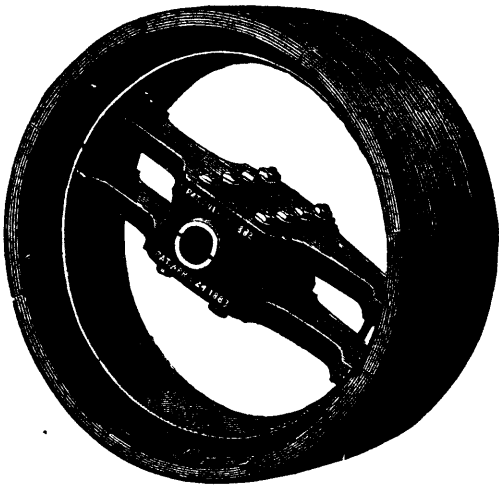
- 1st—The Steam is admitted at Boiler pressure to the piston by the main valve and is cut off at the same point, the load determining through the regulator, when the supply of steam shall be cut off. This is the only Engine that thus admits steam at full boiler pressure.
- 2nd—The success of the Harris-Corliss 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.
- 3rd—No parts of the regulating medium enter the steam chest and thereby be out of sight of the engineer, and subject to the corrosive action of steam and the oil used for lubricating the valves and piston.
- 4th—Regularity of Speed under varying loads of steam pressure
- 5th—Recessed Valve Seats which avoid the liability of wearing shoulders on them
- 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.,
Galt, Ont., Canada.

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

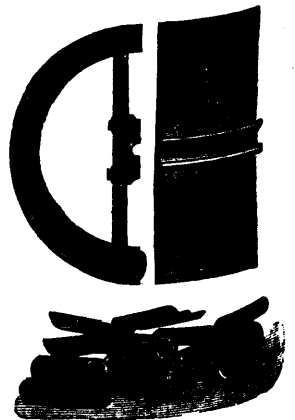
Dodge Patent Wood Separable or Split Pulleys.



Best Belt Surface, Lightest, Strongest, Best
Balanced and Most Convenient
Pulley in the World.

With our Patent Bushing System

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.



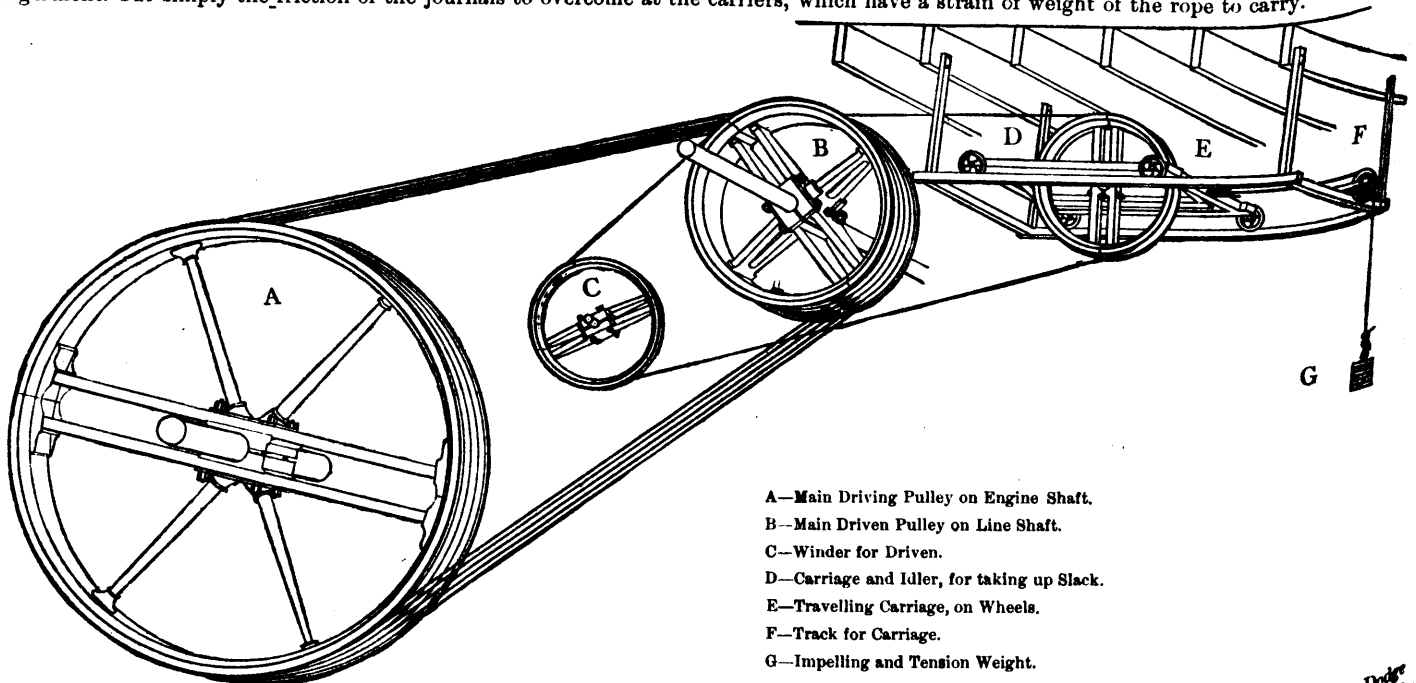
THE TRANSMISSION OF POWER BY ROPES AND THE DODGE PATENT WOOD PULLEYS.

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, etc. 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 liability 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.



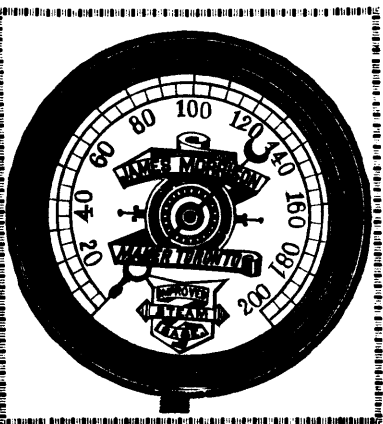
A—Main Driving Pulley on Engine Shaft.
B—Main Driven Pulley on Line Shaft.
C—Winder for Driven.
D—Carriage and Idler, for taking up Slack.
E—Travelling Carriage, on Wheels.
F—Track for Carriage.
G—Impelling and Tension Weight.

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, 87 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, 80 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

THE DODGE WOOD SPLIT PULLEY CO., 89 ADELAIDE ST. W., TORONTO.

Crown Water Closet.
 Inodoro Water Closet.
 Perfect Water Closet.
 Jenning's Valve Closet.
 Demarest Valve Closet.
 Alexander Valve Closet.
 A full stock of Washbasins,
 Urinals, etc.
 Also, complete stock of Wrought
 Iron Pipe and Fittings.
 Brass and Iron Valves.
 Plumbers' and Steamfitters
 Brass Work.
 Rubber Hose, Belting, Pack-
 ing, etc.
 Sole Canadian representative of
 the Celebrated Hancock In-
 spirator.

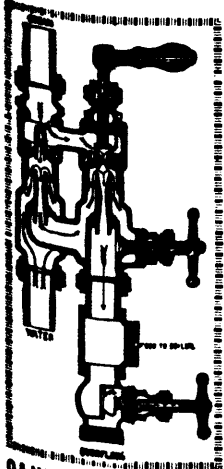


JAMES MORRISON,

IMPORTER AND MANUFACTURER
 OF

Steamfitters' and
 Plumbers' Supplies

75 & 77 ADELAIDE ST. WEST,
 TORONTO.



SANITARY EARTHENWARE Now in Stock: Morrison's Washout Hopper
 National Water Closet.

Maw & McFarlane
DUNDAS, ONT.

IRON FOUNDERS, ENGINEERS AND MACHINISTS,
 MANUFACTURERS OF

Drop Hammers,
 LIFTERS, DIE SINKERS AND PRESSES.

CORRESPONDENCE SOLICITED.

BELDING, PAUL & CO.
SILK MANUFACTURERS
MONTREAL.

ORGANZINES, TRAMS,
 SPUN SILK YARNS,

And all Threads for Manufacturing Pur-
 poses made to order.

Correspondence Solicited.

THE WELLINGTON MILLS
LONDON

GENUINE EMERY

Oakey's Flexible Twilled Emery Cloth.
 Oakey's Flint Paper and Glass Paper.
 Oakey's Emery Paper, Black Lead, &c., &c.

PRIZE MEDAL AND HIGHEST AWARD, PHILADELPHIA, 1876.
 For Superiority of Quality, Skilful Manufacture, Sharpness,
 Durability, and Uniformity of Grain.

Manufacturers: JOHN OAKEY & SONS, Wellington Mills,
 WESTMINSTER BRIDGE ROAD, LONDON, ENGLAND.

Enquiries should be addressed to

JOHN FORMAN, 467, ST. PAUL ST., MONTREAL.

TORONTO LITHOGRAPHING CO.

Globe Building, Toronto

MAKE A SPECIALTY OF
Fine Color Work

CHROMO ADVERTISING

CARDS and NOVELTIES

also do a Superior Class of Wood Engraving

WHAT OUR CUSTOMERS THINK OF THE

BEAUDRY UPRIGHT CUSHIONED POWER HAMMER.

Office of FROTHINGHAM & WORKMAN, Iron Merchants,

MONTREAL, February 3rd, 1888.

MESSRS. MILLER BROS. & MITCHELL.

GENTLEMEN,—Your enquiry of the 30th ult. as to my opinion of the BEAUDRY UPRIGHT
 POWER HAMMER, 125 lbs. Head, purchased from you about a year ago, to hand. Would say, it
 has given perfect satisfaction, and during my experience I have seen nothing to equal it for our work.

Yours truly,

JOSEPH DUNN,

Manager St. Paul Shovel Works.

Can be seen at Permanent Exhibition of Manufactures in Toronto.

MILLER BROS. & MITCHELL, Sole Makers for Canada, MONTREAL

TO USERS OF LEATHER BELTING

SOME PERTINENT SUGGESTIONS.

FIRST { We tan our own Leather especially for Belting.
 { We have increased our trade threefold during the last few years.
 { We sell our Belting according to a list that is 25% to 30% lower than the American list, which some sell by in Canada.

BUT { We have heard some consumers who are N.P. manufacturers say that they cannot get good Belting made in Canada.

NOW { **WE HAVE CUSTOMERS** { To whom we have sold 3,000 to 40,000 Dollars worth of Belting.
 { **AMONG THE** { One firm alone buying from us last year to the amount of \$10,000 for their Mill.
 { **BEST MILLS IN CANADA.**

CAN YOU { **HARMONIZE THESE FACTS WITH** { 1st. That our PRICES are RIGHT?
 { **ANY OTHER THEORY THAN** { 2nd. That our LEATHER is GOOD?
 { 3rd. That our BELTS are WELL MADE?

IF NOT { Send us a Sample Order and see if we cannot please you.

ROBIN & SADLER,
MANUFACTURERS,

129 Bay St., TORONTO.

Notre Dame St., MONTREAL.

C. C. CLEVELAND.

J. L. GOODHUE & CO.

G. F. CLEVELAND.

MANUFACTURERS OF

LEATHER BELTING

— AND —

LACE LEATHER, DANVILLE, - QUE.

OUR BELTING IS MADE FROM

CANADIAN TANNED LEATHER

Tanned in the most careful manner expressly for Belting in our own Tannery. We warrant it equal to any imported, either American or English, or any made from imported American or English Oak Leather. All widths, single or double, for any duty, Saw Mills, Cotton Mills, Woollen Mills, Electric Light, etc., etc.

Canadian Manufacturers should use Canadian Belting.

Specimens of these goods are to be seen at the Permanent Exhibition of Manufactures, 63 to 69 Front Street West, Toronto.

Canadian Leather,
Canadian Made,
Canadian Price List.

Thoroughly Stretched,
Carefully Made,
Runs Straight.



BUTTERFIELD & CO.

ROCK ISLAND, P.Q.

MANUFACTURERS OF

PIPETAPS, REAMERS

Pipe Stocks and Dies, Tongs, Cutters, Vises,
and Labor-Saving Tools for Blacksmiths',
Carriage Makers', Machinists'
and Gasfitters' Use.

Send for Illustrated Catalogue, 1887.

NAME THIS PAPER.

CANTLIE, EWAN & CO.

General Merchants and Manufacturers' Agents.

BLEACHED SHIRTINGS,
GREY SHEETINGS, TICKINGS,
WHITE, GREY AND COLORED BLANKETS,
FINE AND MEDIUM TWEEDS, KNITTED GOODS,
PLAIN AND FANCY FLANNEL,
LOW TWEEDS, ETOFFES, ETC.

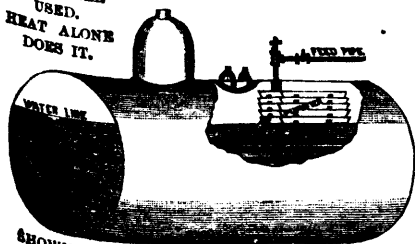
Wholesale Trade Only Supplied.

15 VICTORIA SQUARE,
MONTREAL.

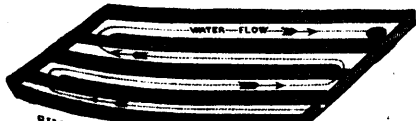
20 WELLINGTON ST. E.
TORONTO.

PATENT BOILER WATER PURIFIER.

NO PURGER
USED.
HEAT ALONE
DOES IT.



SHOWING POSITION OF PURIFIER IN BOILER.



SHOWING ONE OF THE PANS OF PURIFIER.

THIS PURIFIER ENTIRELY PREVENTS THE FORMATION OF SCALE UPON SHELL AND FLUES OF ANY BOILER IN WHICH IT IS USED. ALL IMPURITIES ARE EXTRACTED FROM THE WATER BEFORE IT REACHES THE WATER LINE, AND ARE DEPOSITED IN THE PANS OF THE PURIFIER.

THESE PANS CAN BE REMOVED, CLEANED AND REPLACED WITH VERY LITTLE TROUBLE, AND IN A VERY SHORT TIME, WITHOUT EMPTYING THE BOILER OF HOT WATER, WHICH MEANS A SAVING OF TIME, LABOR AND FUEL.

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Authorized Capital and other Assets over
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Manufacturers' Accident Insurance Company

ISSUE ALL KINDS OF LIFE AND ACCIDENT POLICIES
AT THE LOWEST POSSIBLE RATES.

Special advantages are given Manufacturers to indemnify themselves against the

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GEORGE GOODERHAM, Esq.

WILLIAM BELL, Esq.

VICE-PRESIDENTS.

J. B. CARLISLE,

Managing Director.

38 KING STREET EAST
TORONTO, ONT.

Millers' and Manufacturers' INSURANCE COMPANY.

STOCK AND MUTUAL.

OBJECTS.

1. To prevent by all possible means the occurrence of avoidable fires.
2. To obviate heavy losses from the fires that are unavoidable by the nature of the work done in mills and factories.
3. To reduce the cost of insurance to the lowest point consistent with the safe conduct of the business.

METHODS.

All risks will be inspected by a competent officer of the company, who will make such suggestions as to improvements required for safety against fires, as may be for the mutual interests of all concerned.

Much dependence will be placed upon the obligation of members to keep up such a system of discipline, order, and cleanliness in the premises insured as will conduce to safety.

As no agents are employed and the company deals only with the principals of the establishments insured by it, conditions and exceptions which are so apt to mislead the insured and promote controversy and litigation in the settlement of losses will thus be avoided.

The most perfect method of insurance must, in the nature of things, be one in which the self-interest of the insured and the underwriters are identical, and this has been the object aimed at by the organizers of this company.

W. H. HOWLAND,

Vice-President.

JAMES GOLDIE,

President.

HUGH SCOTT, Managing Director.

Applicants for Insurance and other information desired, please address MILLERS' AND MANUFACTURERS' INSURANCE COMPANY No. 24 Church Street, Toronto.

The Canadian Manufacturer

IS THE OLDEST TRADE JOURNAL PUBLISHED IN CANADA,

And is the only paper in the Dominion published entirely in the

INTERESTS OF CANADIAN MANUFACTURERS.

All the various manufacturing industries of Canada are represented in its columns, and it is and always has been the fearless and consistent advocate of those reforms indispensable to the success of home manufacturing industries.

AS REGARDS THE INTERESTS TO WHICH IT IS DEVOTED, IT IS THE

Best Advertising Medium in Canada.

ITS ADVERTISING RATES ARE REASONABLE.

Specimen Copies, with Rate Card, will be sent Free, on application.

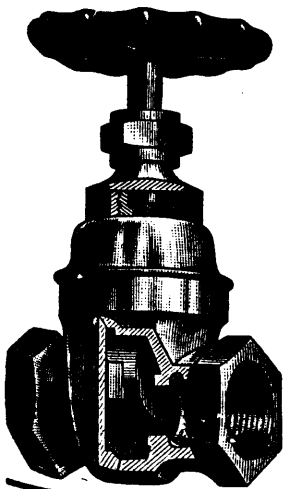
Send \$2 and receive it twice a month, postage paid, for one year.

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CANADIAN MANUFACTURER,

6 WELLINGTON STREET WEST

TORONTO, ONTARIO, CANADA.



WEBER'S PATENT Straightway Valves

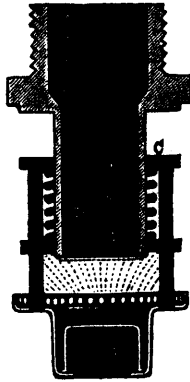
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STEAM, WATER AND GAS,
BEST VALUE IN THE MARKET.

KERR BROS.
Walkerville, Ont.

Sole right to manufacture in the Dominion.
Send for Price Lists.

Also manufacturers of COMPOUND MARINE
AND STATIONARY ENGINES.

FIRE PROTECTION.



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WITH

AUTOMATIC SPRINKLERS

BY

ROBERT MITCHELL & CO.

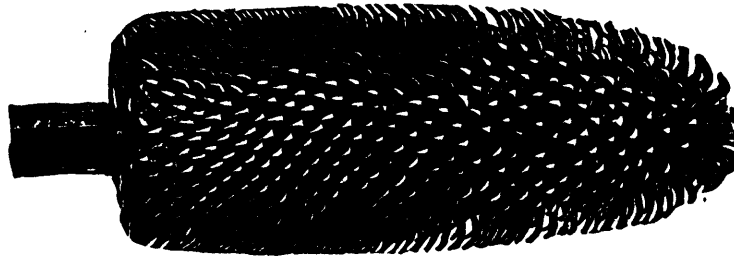
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Write for estimates.

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THOMAS C. KELLOGG, SKANEATELES N.Y., U.S.A.,

Teasels are Grown, Cured and
Packed on our PREMISES.
New York Office,
100 & 102 Beade Street
A. H. KELLOGG, Manager.



DEALERS WANT
AND
CROWD OF
AMERICAN TEASELS.
CLIPPED AND PACKED
TO ANY
DESIRED SIZE.

T. H. EATON & SON, Windsor, Ont., and Detroit, Mich., Agents for Ontario.

Correspondence Solicited.

WRITE FOR PRICE LIST NO. 71.

Samples sent by Mail upon Application

HAMILTON COTTON COMPANY,

MANUFACTURERS OF

THE STAR BRAND

COTTONADES, DENIMS, TICKINGS.

- Star Brand—BEAM WARP.
- ” HOSIERY YARN
- ” BUNDLE YARN.
- ” CARPET WARP.
- ” BALLED KNITTING YARN.

First Prize, Silver Medals, for Beam Warps and Denims
Toronto, 1881.

General Agents,—

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204 MCGILL STREET, MONTREAL.
22 & 24 COLBORNE ST. TORONTO.

WM. LAURIE & CO.

MANUFACTURERS OF

SPOOLS AND BOBBINS

OF ALL SIZES AND PATTERNS,

FOR COTTON AND LINEN THREAD, MACHINE TWIST, SEWING
SILK, AND FOR COTTON, WOOLEN AND SILK

MANUFACTURERS.

LOUISEVILLE, P.Q.

We respectfully solicit your patronage and guarantee our work to be first-class.

To Users of Glue.

WE are manufacturing a reliable GLUE, and
can supply a limited number of consumers
only. We guarantee our glues to be made
from selected stock, and to be of the same
uniform quality. Glues not as represented,
or not proving satisfactory, returnable at
our expense.

JAMES HAY & CO.
WOODSTOCK, ONT.

ST. CATHARINES SAW WORKS.



R. H. SMITH & CO.,
ST. CATHARINES, ONT.,
Sole Proprietors, in Canada, of the
"Simonds" Saws
AT GREATLY REDUCED PRICES

All our Goods are manufactured by the "Simonds" process. Our Circular Saws are unequalled. We manufacture the Genuine Hanlan, Lance Tooth, Diamond, New Improved Champion, and all other kinds of Cross-Cut Saws. Our Hand Saws are the best in the market, and as cheap as the cheapest. Ask your Hardware Dealer for the St. Catharines make of Saws.

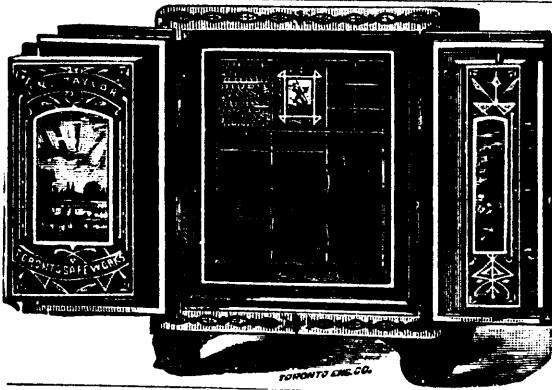
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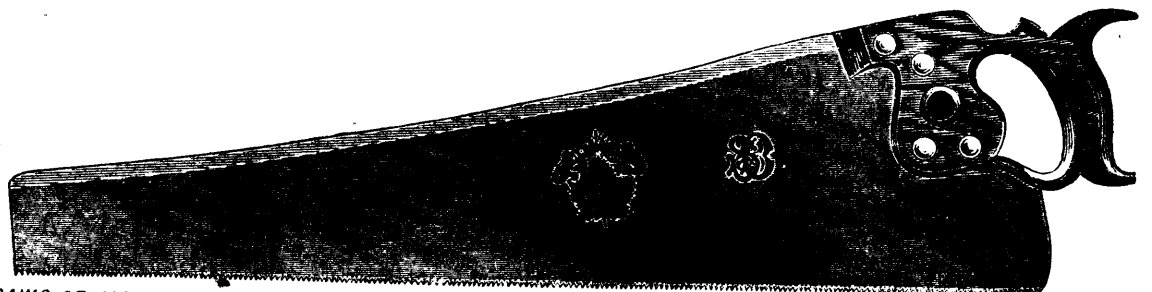
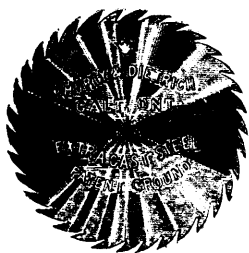
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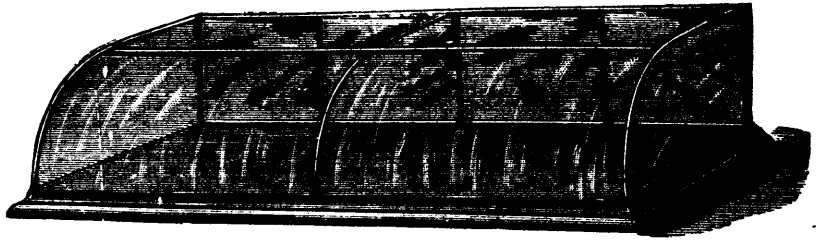
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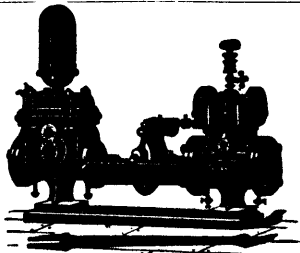
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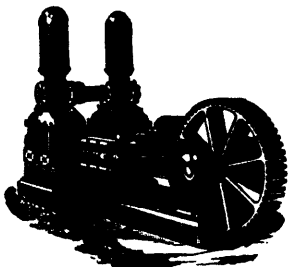
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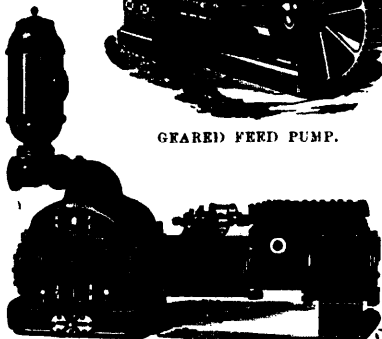
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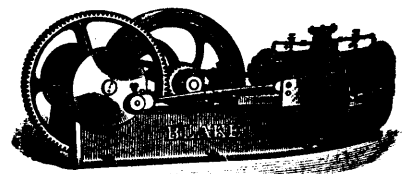


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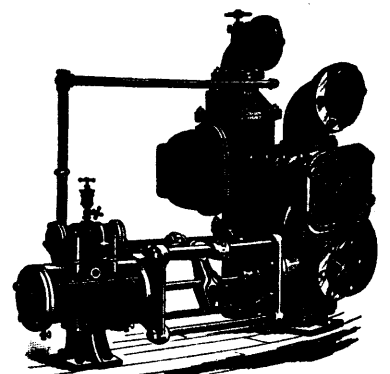
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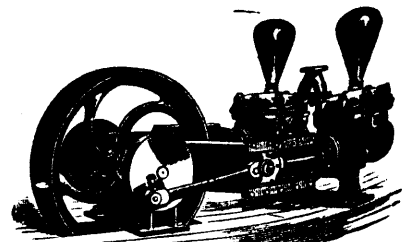
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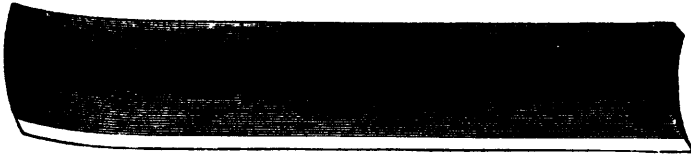
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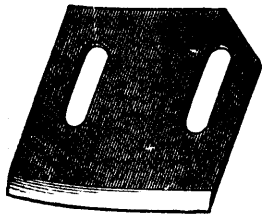
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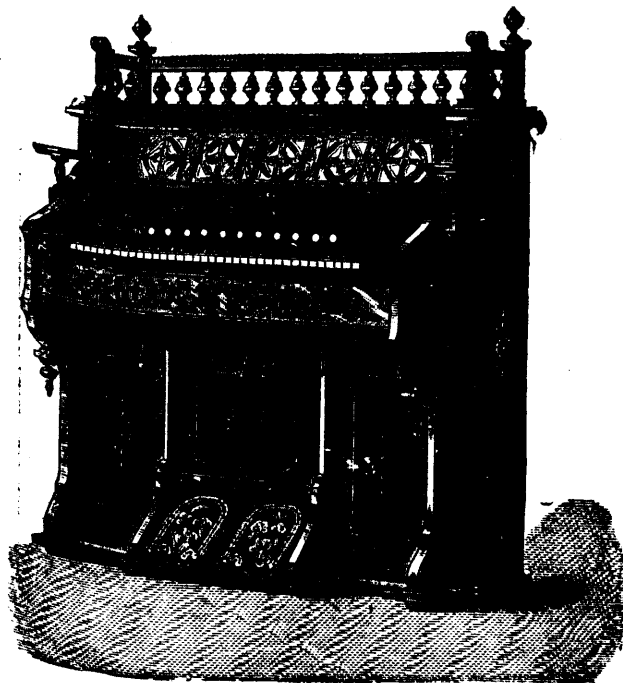
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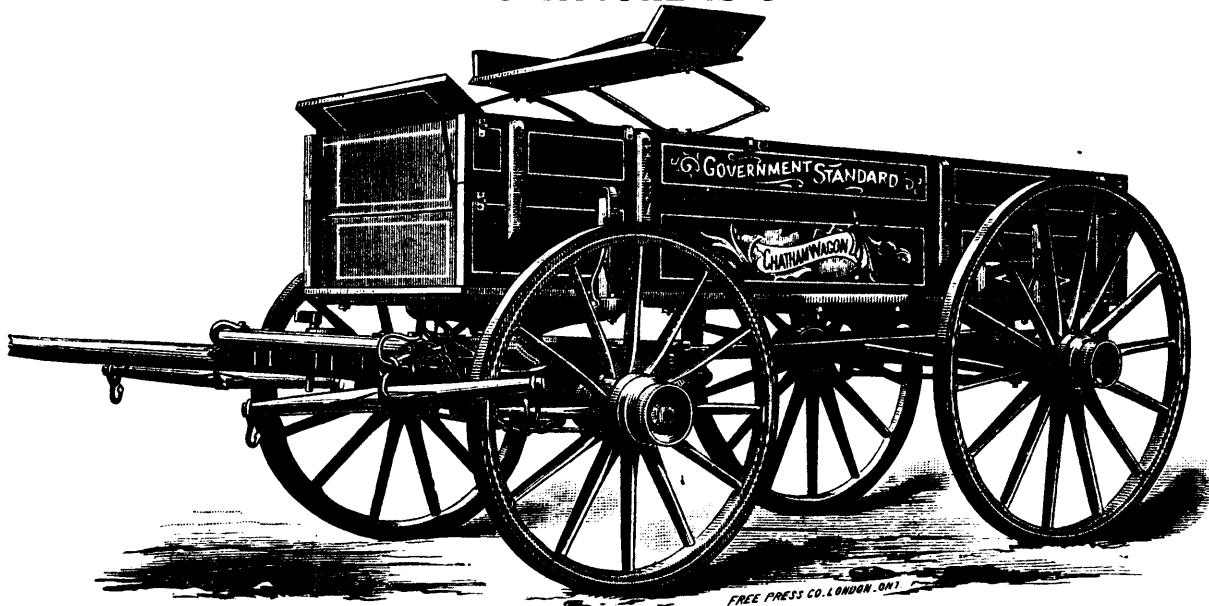
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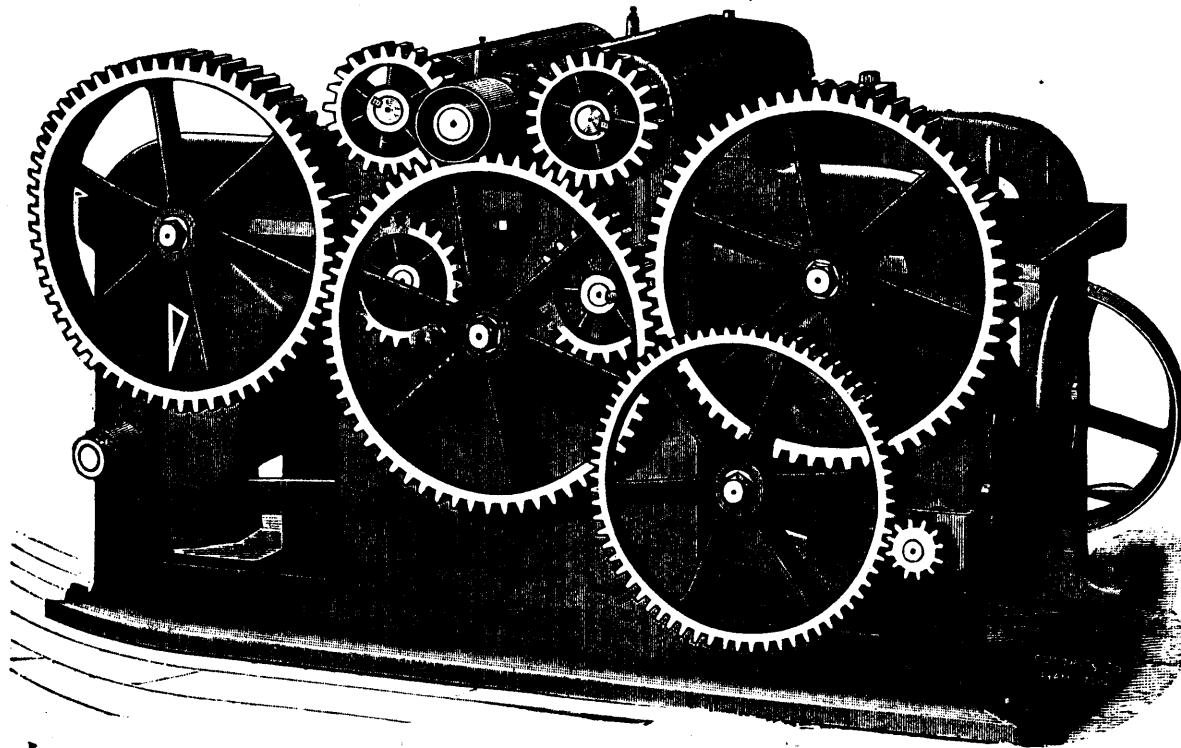
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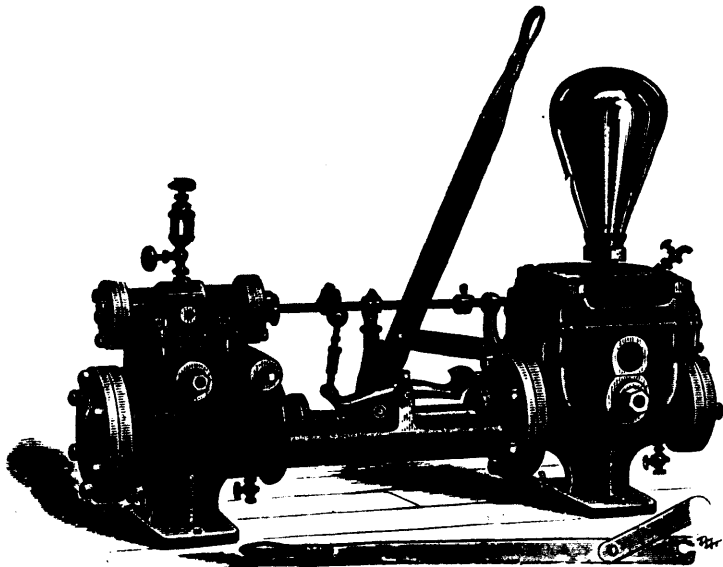
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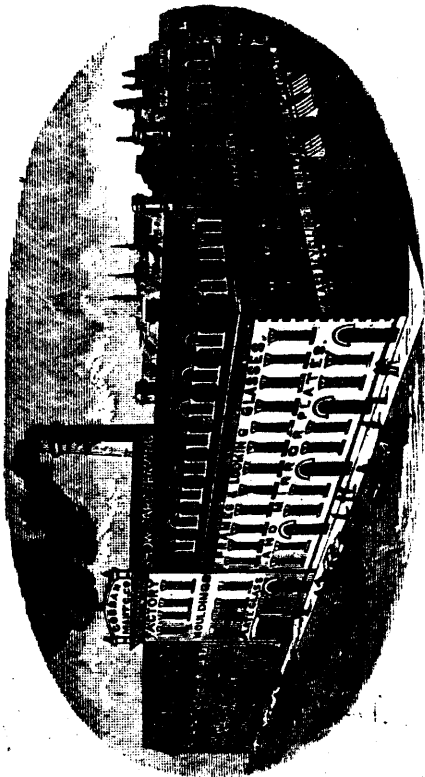
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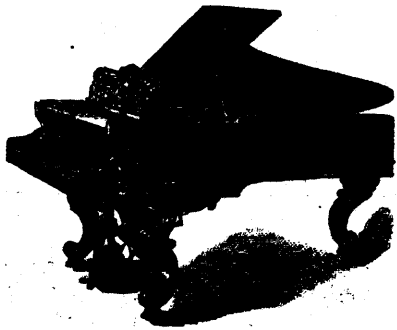
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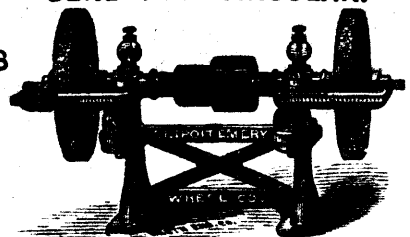
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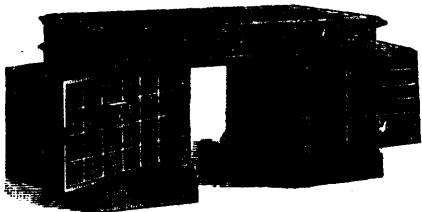
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