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VOL. 14.

TORONTO, MAY 4, 1888

No. 9.

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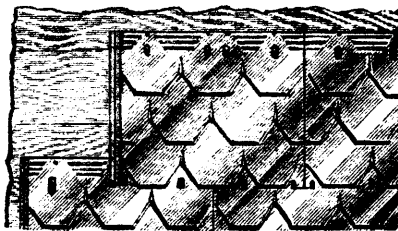
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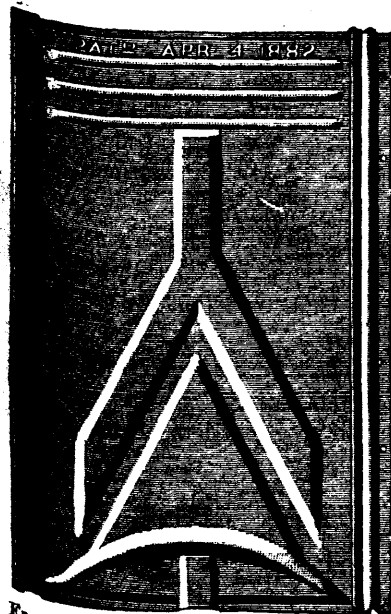
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As a medium for advertisements of machinery, steam appliances, mill and factory supplies, etc., it is unequalled, and our rates will be furnished on application.

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

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,
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THE INQUISITION.

This journal has frequently directed attention to the fact that certain labor organizations, especially those of the cigar-makers, make use of all the means at their command to force non-union cigar factories to acknowledge and admit unionism; to prevent dealers from selling other than blue label cigars, and consumers from smoking them. If they could drive all cigar manufacturers into employing only union workmen their end would be accomplished; but failing to do this in other ways they hope to reach that result by bringing about a condition whereby dealers will handle and smokers will buy only blue label cigars. This object is very apparent in the frequent "resolutions" passed by labor unions, calling on all the world and the rest of mankind to discourage the manufacture, sale, and use of all cigars that have not got the talismanic blue label attachment.

But there seems to be many men of many minds anent this question; and it is certain that there are some manufacturers who will contend to the bitter end against the insolent dictation of the unions; manage their business in their own way, and employ non-union labour if they see proper to do so. Some dealers there are who are willing to supply their customers with blue label cigars if they are required, and with non-label cigars if they want a better cigar at the same price; and there are many smokers who know little and care less about the merits attaching to the label question, and who buy their cigars upon their merits, and not because of a blue paper tag. In fact there are a great many smokers who know some-

thing, and care a great deal about the matter who would not buy a blue label cigar on any account.

Of course it is nonsense, and an evidence of weakness on the part of these unionists and their defenders to denounce those who do not enthusiastically endorse their views, as advocates of such outrageous oppression as has been recently brought to light in some cigar factories. As has been already shown in this journal, the way to correct such abuses is not by giving the Knights of Labor or labor unions the legislative or executive power to do so, for that would be extra-judicial, and a method unknown to our laws; but by amending existing laws, or making new ones, which will declare such doings misdemeanors, and provide adequate punishment for them. Such laws exist in Ontario, and if they do not exist elsewhere in Canada it remains for the voting population there to demand them, and see that their demands are complied with. But while this power resides with the people, it certainly does not and never should reside with the Knights of Labor or any other body or organization unknown to the laws.

But it is an imposition upon the public to lead or try to lead to the belief that all non-union cigar factories in places where there is no efficient factory act in force, practise, or allow brutality to their employees. In fact there are factories in such places where better order and decorum prevail than in most of the union factories in the same places; where better wages are paid; where the utmost cleanliness is observed; where the sexes are not allowed to mingle together indiscriminately; and where the greatest attention is given to sanitary conditions. And it is in the defence of the rights of the proprietors of such factories that we raise our voice. Our contention is that, having done all that could possibly be done in the direction indicated for the welfare, comfort, and morality of their employees—as much as in any, and probably more than in most of the union factories—they have a right to rule unionism out of their shops if they desire to do so; and that it is insolent dictation and outrageous oppression as far as they can make it, to prevent, or attempt to prevent these manufacturers from the enjoyment of their right to sell their goods unrestrictedly in the open market.

The jawsmiths and professional agitators of the labor unions, in denouncing those who employ non-union labor by allusions to the oppressions of child labor, but try to muddy the water the better to conceal the oppressions that they are constantly practising on any and all who do not conform to their views. Poor Mrs. Farr, of Hamilton, with her broken arm and her wailing little ones perishing with cold and hunger, is a living monument of the cruel and wicked oppression of trades-unionism.

THE HAMILTON CONSPIRACY CASE.

At a meeting of the Bricklayers' and Masons' Union, of Hamilton, Ont., held in that city April 19, the following resolution was said to have been passed:

"That this Bricklayers' and Masons' Union boycott the new city hall building, and that any member working on said building while the corporation retains Buscombe in the city's employ be fined fifty dollars."

Last week Mr. Edwin Buscombe caused the arrest of Wil-

William Mitchell and William Littlejohns, members of the Union, who were the mover and seconder of the resolution, on a charge of conspiracy. The preliminary hearing of the case was had in the police court in Hamilton on Saturday last, during which, and in consequence of certain evidence adduced, David R. Gibson, also a member of the Union, was also made a defendant and placed under arrest.

There were but two witnesses examined for the prosecution, John Watson and James Guthrie, both of whom had been members of the Union, and were present at the meeting at which the boycotting resolution was passed. John Watson testified as follows: "I am a stonemason and was a member of the Bricklayers' and Masons' Union until Thursday, April

26, when I sent in my resignation. I was present at a meeting of the union on the 19th, and know the defendants. They were also present at the meeting. The plaintiff is a mason, and the question about him was being discussed. Mitchell moved a resolution and Littlejohns seconded it, the purport of which was that no member of the union should work on the city hall or any other city work until Buscombe was discharged from employment. The resolution was carried, but some of the members did not vote for it. The yeas and nays were afterwards taken, and the resolution was affirmed. I was in good standing at the time. The question was then discussed as to whether any man going to work on a city job should be fined fifty dollars, but cannot say whether it was carried or not. David R. Gibson spoke in favor of the resolution; also a man named

Anderson. There were between forty and fifty members present. Smith was at the door and Richard Ailles was in the chair. Laing is financial secretary, and Muir is corresponding secretary. Gibson used to be president and is now on some of the committees. The name of the society is the Bricklayers' and Masons' Union. I came to the conclusion that there was no principle in the thing, and I would rather leave the union than lose my work. There are fines for breach of union rules."

On cross-examination Watson stated that at the meeting all the members of the union present declared that none of them would work for the city unless Buscombe was discharged. He was told that he could not work on the city hall job, and that he must be prepared for the consequences if he went to work

there. He stated that last fall there was some trouble of this same kind about Buscombe and he lost considerable time because of it. He lost five weeks' time, and he was determined he would lose no more time. He was then compelled by the union to leave the job he was working on, which did him no good but was intended to injure Buscombe.

James Guthrie, the other witness, swore that he was at the meeting on April 19, and confirmed what Watson had said. He also stated that D. R. Gibson made a speech in the union meeting, during which he said it was their duty to put Mr. Piggot, the city hall contractor, to all the inconvenience they could.

After the testimony was in brief arguments were made, and the magistrate decided that it was his duty to hold the defendants for their appearance at the assizes to answer a charge of conspiracy. He held that when two or three workmen conspired together to injure another workman, or to deprive him of the means of making his living, it constituted conspiracy in the eyes of the law.

The three defendants, William Mitchell, William Littlejohns and David R. Gibson, were then committed for trial at the assizes, bail being fixed at \$500 each in themselves, with two sureties each at \$250.

THE TORONTO ROLLING MILL COMPANY.

In our issue of November 18th last, we stated that the project of building rolling mills in this city was in process of realization. The matter has been under consideration ever since that time, and we

now take pleasure in announcing that it has materialized in the formation of the Toronto Rolling Mill Company, and that work is about being begun on what will be one of the most important industrial enterprises in Canada, certainly in Ontario.

The Ontario Bolt Company, of Toronto, of which Mr. James Worthington, is president, started operations in May, 1885, just about three years ago, having purchased the works at the Humber, near this city, under decree of court. This company has made its venture a success, and now its members are taking up this larger enterprise. They have been joined by some American gentlemen, experienced in rolling mill business, and the capital of the new company will be amply sufficient for all requirements. At first from 150 to 200 men will be employed,



BITING OFF HIS NOSE.

WHAT'S the matter Mike? you look sick.
O'Im starvin'. We're on a stroike, and o'I havn't et anything for days.
Why don't you go to work, then?
Work! and let the monopolists throive off me? o'I'll doi first.

but as business extends the number will be increased. The new works will be located adjoining the bolt works, which are just without the Western boundary of Toronto, on the shore of Lake Ontario, and where easy access is had by water. The site is already connected by a siding from the Grand Trunk Road, and the Canadian Pacific people give a positive assurance that they will make a connection with the works as soon as it is required.

The new works will make from the smallest to the largest sizes of round, square, flat, oval and other shapes of bar iron, and about one-half of the product will be rolled from hammered scrap blooms, most of which will be produced by charcoal knobbling process. It is estimated that the buildings for the works will cost \$6,000 and the machinery, including three trains of rolls, etc., for an output of 60 tons of finished iron per day, will cost about \$60,000.

Mr. C. E. Doolittle, of the Ontario Rolling Mill Company, of Hamilton, has been chosen president of the new concern, and it is expected that the work of constructing the plant will be pushed with sufficient vigor to ensure its going into operation next fall.

GASOLINE STOVES NOT DANGEROUS.

SOME two years ago when the fire insurance companies in New York and neighboring states were making just such a fight against the use of gasoline stoves there as Canadian companies are now doing here, two of the most prominent gentlemen in the State of New York engaged in the manufacture of the article—Messrs. John S. Perry, of Perry & Co., and Grange Sard, of Rathbone, Sard & Co.—prepared a paper which they submitted to the New York State Board of Underwriters, showing that the fire risk is no greater, but rather less, in dwellings where gasoline stoves are used, than in those where coal or wood stoves are used. Their paper exhibited statistics obtained from eighteen towns in several states, in which careful estimates placed the number of gasoline stoves in use at 27,475. During the twelve months over which the enquiries extended the fires and alarms of fire aggregated 3,261. Of the known causes 1,131 were directly connected with the use of coal or wood stoves. Of these causes 382 were defective flues, and 386 were chimneys burning out; sparks causing 197 fires; while but 47 fires were charged to gasoline stoves.

But these fires which were charged to the use of gasoline stoves never originated from "explosions" of them, for it is impossible for such stoves to explode. There is nothing about them that can explode—nothing to explode—and the fires alluded to could only have resulted from gross carelessness in handling the gasoline. This contention is corroborated by the declaration of the Chief of the Underwriters' Salvage Corps, at St. Louis, who testifies:—"I do not consider gasoline stoves a great source of danger, as they never explode. In the few cases where they do cause fires it is always from ignition."

In the paper of Messrs. Perry and Sard, above alluded to, they say:—"It should be understood that the use of gasoline stoves take the place of the ordinary coal or wood stoves. Thus for the six months that they are generally in use there is absolutely no risk from those fruitful sources of loss—defective flues, burning chimneys, sparks from chimneys, over-heated

and carelessly managed stoves, over-heated and defective stove pipes, and ash barrels. And it is for this reason we wish to show to this board that in the use of gasoline stoves for culinary purposes, in place of those in which wood or coal is used, the general risk is very largely decreased."

In the report of the Chief of the Fire Department of the city of Buffalo, New York, for the year ending June 30, 1885, some very significant facts are given regarding the use of gasoline stoves. Buffalo is a city of about twice the number of inhabitants as Toronto, and the number of gasoline stoves in use there is estimated at over 10,000. The following figures, taken from the report, relate only to the actual fires in which loss resulted:—Defective chimneys, thirty-six fires, loss, \$22,083; over-heated stoves, twenty-five fires, loss, \$14,517; lamp explosions, twenty fires, loss, \$6,247; lamp upset, one fire, loss, \$188,328; gas jet, one fire, loss, \$252,728; "gasoline explosions," two fires, loss, \$2,765.

It will be observed that there were two fires charged to "gasoline explosions" which resulted in a loss of only \$2,765, while two other fires, charged to "lamp upset" and "gas jet" resulted in a loss of \$441,056. In other words, for every dollar lost by so-called "gasoline explosions," one hundred and sixty dollars were lost by carelessness in the use of lamps and gas. In the two instances relating to gasoline, the gentleman at whose residence one of the fires occurred stated, one of them, that there was no explosion whatever, a small quantity of gasoline in the kitchen having become accidentally ignited, causing damage to the extent of twenty-five dollars only; and the other that the fire was caused by illuminating gas, and not gasoline.

PERPETUATING IGNORANCE.

THERE was a meeting of the trustees of the public schools of Toronto held in this city last week at which a remarkable spectacle was presented. According to a unanimous resolution passed at a recent meeting of the Toronto Trades and Labor Council, a deputation, which had been thus appointed, waited upon the school trustees, and Mr. W. H. Parr, president of the council and chairman of the committee, explained that they attended for the purpose of opposing a scheme said to be before the Board to institute a system of manual training in the public schools of the city. To such a scheme the Trades and Labor Council was totally opposed, as the inevitable result would be to increase the number of workmen. Mr. Henry Lloyd, of the Carpenters' Union, said his constituents looked on this subject as seriously affecting them. At present he knew of only three apprentices to the carpentering trade in Toronto, and if a number of boys were taught the use of carpenter's tools at school the result would be that they will go out as full-fledged but incompetent workmen. He also stated that he had to "confess with shame that the best class of workmen came from the Old Country, owing to the cessation of the apprentice system here."

Mr. H. A. E. Kent, chairman of the School Board, in replying stated that the trustees were not pledged to any particular scheme looking to the manual training of the school boys, but they were possessed of a strong desire to meet an evident public demand for their technical education. Mr. Hughes, school

inspector, said his aim was for a higher standard of education for the boys, and an opportunity for them to develop their mental powers and fit them for any trade they might desire to enter. After a general and informal conversation on the subject, chairman Kent assured the deputation that before the trustees decided on any particular course they would take care to see and consult the deputation.

We speak of this interview as "remarkable" inasmuch as the School Board should hesitate in "meeting an evident public demand" which the chairman of the board, Mr. Kent, knew to exist, on the demand of the Trades and Labor Council. We do not deny the right of this deputation of the council, or of any other number of citizens going before the School Board and making suggestions regarding the education of the public school children; but, considering the ridiculousness of the "reasons" given against the proposed scheme, it is even more than "remarkable" that the gentlemen of the School Board should have faltered in their evident duty, and solemnly promise not to again consider the matter, or to decide on any particular course without consultation with the Trades and Labor Council. Judging from their action it is to be supposed that the School Board stand more in fear of the displeasure of the labor agitators than they do of the opinion of the entire public, including the parents of the boys to whom they feel they should impart technical education. Mr. Lloyd might well "confess with shame" the existence of a system in this community brought about by the labor organizations, to one of which he belongs, whereby but three youths in the city of Toronto are learning the carpenter's trade; "the best class of workmen" being those coming here from the Old Country.

This action on the part of the Trades and Labor Council is not in the interest of Canada or of any living in Canada, including those who favor it; and the day is coming and cannot be far distant when trouble will result from this effort of the labor organizations to perpetuate ignorance and to prevent the youths of the country from acquiring a technical education that will fit and prepare them to take their proper positions in society. Probably many of the members of the Trades and Labor Council have sons who are fast approaching manhood, and who, under the tyrannical demands of the organization, can never be skilled mechanics, and can never rise above the lot of the common laborer. There are hundreds—probably thousands—of such boys in Toronto to-day, and but three of them, according to Mr. Lloyd, are learning to become carpenters. From whence, then, are the skilled workmen of the near future to come? Do these men love their children? Are all the skilled workmen in Canada except those who may now be embraced in the labor organizations to be brought from the Old Country? Are strangers from the Old Country to come in and take the bread from the mouths of young Canadians, not through any fault of theirs, but because their fathers would not allow them to learn trades? Will not these young men in the near future, when they are thrown upon their own resources, finding that they cannot obtain work because they were prevented from learning trades, rise up and curse those who thus wronged them? According to this tyranny, no matter how many sons a union workman may have he cannot place one of them at his trade, nor can he even teach it to them himself, if the allotted quota is filled.

And those who advocate this state of affairs are the ones to whom the Toronto Public School Board defer, giving assurances that before they decide on any particular course regarding the technical training of boys in the public schools, they will take care to see and consult.

THE BUDGET SPEECH.

SIR CHARLES TUPPER, the Dominion Finance Minister, laid his financial statement before the House of Commons last week. The paper is exceedingly interesting, but too long for entire reproduction in these pages, but we have excerpted the following particulars. * * He desired to show how far the tariff changes of 1887 had affected the Canadian iron industry. It was well-known to the House that at the outset much hostile criticism was provoked in England because our position at that time was not clearly understood, but owing to the explanations made, and owing to a fuller consideration of the Canadian fiscal policy adopted since 1879, hostile criticism has been greatly modified, and, generally speaking, that portion of the British press which dealt with these subjects, now viewed in a friendly spirit the efforts to develop on Canadian soil the stores of mineral wealth within our borders. Of course, although much has been done, yet sufficient time has so far not elapsed to demonstrate fully the effects of the new tariff. The Act having virtually come into operation at the beginning of the present fiscal year, the special provision for the admission of goods at the old rate of duty, up to the 30th June, was fully taken advantage of, and in many respects the requirements were to some extent anticipated. It might be further mentioned that the amount of capital required in the production of iron from the ore is so large that great developments cannot be expected in a short space of time. Time is the essence of a bargain, and capital is cautious and very slow to move in new fields of enterprise. Confidence in the permanency of our fiscal policy is a further requisite before capital can be invested in the development of the large works required to build up the iron industries.

To show how fully alive our neighbors are to the necessity of a permanent policy, he stated that in the Mills bill now before Congress, which embodied the policy of the Democratic party, the iron and steel duties are touched with a sparing hand; and the same thing is to be observed with regard to the measure introduced in the House of Representatives by Mr. Randall, whereby no material reduction in the duties on iron and steel is proposed. The course pursued in the revision of the tariff shows a fixed determination on the part of our neighbors to the south to continue an efficient measure of protection to that great industry.

In the production of iron and steel the United States beats every country in the world, having obtained this position after twenty-six years of uninterrupted protection. The changes under either of the proposed bills leave the iron and steel duties largely in excess of the present Canadian rates. * * Taking the whole importation of iron and steel and their manufactures in the United States, and entered for home consumption, for the year ended June 30th last, the average rate of customs duty was 41 per cent. ad valorem; and allowing \$1,000,000 for the reduction of duty proposed under the Mills' bill, the average rate of customs duty on the same importation would be 39 per cent. ad valorem. On the other hand the average rate of cus-

toms duty on iron and steel and their manufactures imported into Canada for home consumption for the year ended 30th June last was $17\frac{1}{4}$ per cent., and for the nine months ending 31st March, 1888, under the amended tariff, the average rate of duty on these articles had been $23\frac{1}{4}$ per cent. ad valorem. Comparing the United States customs tariff on all goods imported for home consumption with the Canadian tariff on similar imports, the trade returns show that for the year ended 30th June, 1887, the average rate on United States imports was $31\frac{1}{4}$ per cent. ad valorem, and the average rate on Canadian imports $21\frac{1}{4}$ per cent. ad valorem, or 10 per cent. below the average percentage in the United States. Comparing dutiable articles under the United States customs tariff with the same articles under the Canadian tariff, the trade returns for 1886-7 show the average duty on United States imports for home consumption to be 47 per cent. ad valorem against an average of $28\frac{3}{4}$ per cent. ad valorem on Canadian imports for the same period. Under the Mills' bill the average customs rate on dutiable articles, based on United States imports for home consumption for 1886-7 was estimated to be $43\frac{1}{2}$ per cent. ad valorem, whilst under the amended Canadian tariff for the nine months ended March 31, 1888, the average customs rates on dutiable articles entered for home consumption had been $31\frac{1}{4}$ per cent. ad valorem.

The action taken last year was endorsed by the representatives of the principal plate and bar rolling mills who expressed their satisfaction with the present tariff as a whole and with its working. * * Taking pig iron, the price in Canada was only from \$1 to \$1.25 per gross ton higher in December, 1886 than in February 1887, while the additional duty which took effect last July was \$2.24 per gross ton, indicating that the foreign maker, carriers and importers, etc., had made a concession of about \$1 to \$1.25 per ton to retain the trade. In other words the consumer paid only one-half the amount of duty contributed to the revenue. As to bar iron, the price was as follows: In February, 1887, \$1.60 to \$1.65 per 100 pounds; in December, 1887, \$1.85 to \$1.90 per 100 pounds, showing an advance of only 25 cents per 100 pounds, while the extra duty was 45 cents per 100 pounds. As to cast iron water pipes, the contract prices for the corporation of Montreal averaged as follows: For 1885, \$28.50 per gross ton; for 1886, \$26.21 $\frac{1}{2}$ per gross ton; for 1887, \$33.14 per gross ton; for 1888, only \$32.10 per gross ton, although the increase in duty had been \$8 per ton. The Montreal corporation water pipes for 1888, above referred to, had been contracted for and are to be made in Canada from Canadian ore. The increase of price over the average for 1885 and 1886 was thus about half the increase in duty.

There were 50 per cent. more men employed in Canadian rolling mills in 1887 than in any of the years 1884-5 or 6. At Montreal, Pillow, Hersey & Co. had converted themselves into a joint stock company with a capital of \$800,000; and the Canadian Pacific Railroad Company contemplated the erection during the present season of a shop for passenger car work, and when this was completed all of their rolling stock of every description would be made in this country. The company built 24 locomotives in 1886 and 24 in 1887, and they had not purchased any locomotives outside of Canada since October 1884, excepting two special ones for the mountain grade. All of

their freight cars for several years back have been built in Canada, and practically all of their passenger cars are now built in Canada, excepting some of the sleeping and dining cars. The Montreal Rolling Mills Company have added to the capacity of their bar and plate mills by running night and day. 1887 was the first year during which the bar mill was run at night, and last year they worked 10,000 tons of iron of all sorts, and used about 10,000 tons of fuel. They have recently put in an extensive wrought iron pipe plant embodying the latest improvement, which can turn out 6,000,000 feet of piping per annum, using up 4,000 tons of material to do so. The new pipe mill is running day and night. A German firm from Dusseldorf have decided, he was informed, to erect extensive works for the manufacture of wrought iron pipe and boiler tubes, which would be a new manufacture in this country. At Kingston important changes have taken place in the locomotive works, Messrs. Dubbs & Co., of Glasgow, one of the largest manufacturing firms of locomotives in Great Britain having invested in the Kingston locomotive works. They now manage and control them and have in view their operation on a larger scale.

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 at 10 Pearl Street.

FOR SALE.—The "Bridge Works" property on King Street West; the best location in Canada for manufacturing purposes; sidings connect with all railways. Apply at the Works, or to Wm. Redford & Co., Church St., Toronto.—Dominion Bridge Co. (Ltd.)

EDITORIAL NOTES.

If the members of the Bricklayers' and Masons' Union have decided not to work on the new City Hall because a non-union man is employed by the city, then it is likely that the City Hall will be built by non union labor.—*Hamilton Spectator*.

MR. EUGENE COSTE, mining engineer to the Geological Survey of Canada, has issued a compilation showing the mineral production of Canada in 1887, and the value thereof. The list embraces some forty-three different products, the aggregate value of which amounts to \$12,959,073.

AMERICAN manufacturers of lime have memorialized Congress against placing that article on the free list. They state that in 1883 the imports of Canadian lime into the port of New York amounted less than 5,000 casks, while in 1887 the quantity had increased to 138,000 casks, the estimates for 1888 being over 200,000 casks.

In speaking of the tyranny of organized labor we have on a couple of occasions attached the facts to one labor organization when they should have been attached to another labor organization. In other words we have used the term "Knights of Labor" when "labor union," or "Bricklayers' Union," should have been used. It is a difference without a distinction.

NOTWITHSTANDING the opposition of the Canadian Fire Underwriters' Association, and the *Monetary Times* also, the

manufacture of gasoline stoves in Canada, and of gasoline, too, goes on with considerable and increasing vigor. The people of Canada want these things and will have them. Inflexible, frozen and musty conservatism must yield to the logic of events or be made to stand aside.

We call the attention of the Canadian Fire Underwriters' Association to the fact that on April 24th, in the city of Hamilton, Ont., a building was set on fire by the explosion of a barrel of coal oil. At least such is the report telegraphed from that city. It was not a gasoline stove that exploded, nor even gasoline, but simply coal oil. The insurance companies embraced in the association place no restrictions upon the use of coal oil, but still explosions of it occur and destructive fires result.

THE business men of Paris, Ont., are feeling that a serious blow has been given to the prosperity of their town by the proposed removal of an extensive agricultural implement works to St. Mary's, Ont., which latter town has recently offered the factory people a bonus of some \$30,000 as an inducement to make the change. The bonusing business is bad, and should not be encouraged, particularly when used to induce the removal of an industry already established to another location. It does not create wealth, but destroys it. It costs money to move a factory.

THE aggregate losses by fire in the United States last year amounted to \$119,000,000, defective flues and the careless handling of coal oil being chargeable with more of the fires than all other accidental causes. As usual, the fires resulting from the use of gasoline stands low on the list, although there are hundreds of thousands of gasoline stoves in constant use in that country. Will the Canadian Fire Underwriters' Association, and our respected contemporary, the *Monetary Times*, assimilate and digest this item?

THE *Hamilton Spectator* says that if the Bricklayers' and Masons' Union there have decided that the members shall not be allowed to work on the new City Hall, because Buscombe is employed by the city building street drains, the City Hall will have to be built by non-union labor. Correct. The city authorities there, and the contractors, are awake to the fact that, if public or private buildings are to be erected in Hamilton, it must be by those who do not favor imposing fifty dollar fines on men because they work for a city which employs Buscombe. Buscombe will stay.

WHEN the father of the Father of his Country, in interrogating his hopeful Knight of Labor son, George, regarding a burning question affecting the consistency of his professions as a member of a labor organization, asked him if in cutting down the historical cherry tree he had boycotted Buscombe and the Hamilton City Hall, because Buscombe was not a member of the Bricklayers' Union, the truthful George became very indignant and said: "Father, I cannot tell a lie, a labor organization wouldn't do such a thing. Don't lay it on us, the other fellows did it."

THE question has been asked, How can Canadian cotton mills manufacture cotton fabrics for the Chinese market at 19

cents a pound, when they cannot sell for consumption at home for less than 23 cents? It is stated in reply that the goods for the China trade is made of very coarse yarn, which can be spun and woven very much quicker and easier than that for domestic use. Another feature of the business is that the transactions are for cash, while wholesale merchants who buy for the Canada trade require long credits, and to realize spot cash for the goods thus sold implies a discount which of itself is a good profit on the business.

IN a previous issue of this paper there appeared, in an article entitled "Wealthy Paupers," certain personal observations which might be held to reflect upon Mr. Stapleton Caldecott, president of the Young Men's Christian Association. It was not our intention, and we regret that Mr. Caldecott's name should have been used, even unintentionally, in any way that should lead him to suspect that we entertain other than feelings of the highest respect for him or the good work he is engaged in. We objected to the application for free water from the city as a matter of policy, but had no intention of imputing unworthy motives to those making the application.

WE have it on the authority of one of the largest manufacturing concerns in the country, that the production of gasoline in Canada is increasing of late with much more rapidity than the ordinary demand for the article in the arts and trades warrants. This, in connection with the other fact that the manufacture of gasoline stoves in Canada is a growing industry, indicates that as between paying double premiums to old foggy fire insurance companies or being deprived of the privilege of using gasoline stoves, the people of Canada will assume their own risks. Perhaps, however, there may already be some live non-association companies which accept gasoline risks without extra charge. If any such there be, they ought to let the fact be generally known.

THERE is no duty imposed upon tin in bars, blocks, or pigs imported into the United States. The quantity of such tin imported into that country last year amounted to 13,100 tons, valued at \$6,021,948. There is a duty of one cent a pound upon tin plates; and the quantity of such imported into the United States in 1887 amounted to 283,836 long tons, the duty upon which was \$6,367,926. Tin plates, or, properly speaking, tinned plates, are composed of thin sheets of iron coated with tin. One cent a pound duty upon this article is not sufficient protection to induce its manufacture in the United States, and manufacturers there claim that if the duty was raised to about two cents that country would produce all the tin plates required, which, as is shown, amounted last year to 283,836 tons. If this were done employment would be given to millions of capital and thousands of skilled workmen at home, and at the same time reduce the revenue to the extent of over \$6,000,000 a year.

RECENTLY a number of Canadians from Nova Scotia, who had gone to Boston and other New England ports to ship as crews for certain Yankee fishing vessels, have been sent back home by the customs officers, under authority of the United States law which forbids the importation of labor under contract. Of course the bluenoses threw up their contracts, but

they immediately returned by rail, without contract, as they had a right to do, and shipped on the vessels for which they were originally engaged. The law was made at the request of the labor element of the United States, which prohibits the immigration into that country of any persons under contract who may be skilled in any trade. But there is no law there prohibiting the immigration of those who are entirely ignorant of any trade. This Yankee cuteness is very much like a boomerang.

WHEN Mrs. Barry, the lecturer, was in this city a couple of weeks ago, telling the women folks how downtrodden and abused they were, and pointing to "organization" as the panacea for their ills, we respectfully drew her attention to a woman in Hamilton who, with her children, were suffering because of the tyranny of labor organization there. Mrs. Barry became very indignant that we should invite her to investigate the matter; and while vehemently denying the facts in the case, distributed a quantity of "withering contempt" and "bitter sarcasm" towards the writer of the invitation that was supposed to make the atmosphere look blue, and emit a sulphurous odor. During the ebullition of her righteous wrath she appointed a strong committee to still further investigate the matter, and the report of that committee consists chiefly in a tirade of vulgarity, brutal abuse and blackguardism, rounded off with threats of personal violence. We are sorry that Mrs. Barry fell into such company while in Toronto.

THE farmers in the Northwestern States are turning their attention from the cultivation of wheat, and will, this season, many of them, seed to other crops. For several years the wheat crops there have not been abundant, the price of the article has been steadily declining; and the farmers are learning that the land can be put to a more profitable use than in producing a grain which has been brought by the competition of cheap labor in India to a point where no profit exists in the business. They are discovering that the farmers in other parts of the country, particularly in those States that are eminent for their manufacturing industries, are fast becoming rich by producing crops that are in strong and steady demand in manufacturing centres. In other words, they have learned that their salvation lies in the diversity of their crops and their proximity to consuming markets. In Canada the exportation of farm products does not keep pace with the growth of the country, which is accounted for by the fact that manufacturing establishments are springing up in about every town and village in the land, and that the neighboring farmers find ready and remunerative sale at home for nearly all they can raise.

OUR esteemed contemporary, the *Trader*, speaking of the anti-bonus law, says:—"If two-thirds of the ratepayers in any municipality think it a good stroke of business to pay a factory to locate in their town, why should they be barred from doing so? It may be a good speculation or it may not, but however the venture turns out, they should certainly have the right to pronounce upon it themselves." The *Trader* does not distinguish between municipal rights and personal rights. If two-thirds of the ratepayers, or any other number of them, or

of any other citizens, think it a good stroke of business to bonus a factory, they most assuredly have the "right" to do so, regardless of any anti-bonus law; for they have the privilege of spending their own money as they please. But they possess no inherent right to vote away the money of the entire municipality, raised by taxes, for any such purpose; and to do so is the grossest communism. The paving of a street or the building of a highway bridge is for the public good, and the whole body of citizens have equal use of and benefit from them; but they have not such benefit from a bonused factory. The public benefit from such factory is only incidental and remote; the direct benefit is to those who own it.

MESSRS. THEO. H. EATON & SON, Detroit, Mich., have sent us a souvenir which contains beautifully executed photographic views of many of the most prominent and interesting buildings and places in that city. Accompanying the souvenir was a letter from Messrs. Eaton in which they say:—"We know of no better way of beginning our fiftieth year of consecutive business than by sending a cheque in payment in advance for one year for our advertisement in the CANADIAN MANUFACTURER. As this is the thirty-ninth year without removal in our present location, we have mailed you, with our compliments, 'A Souvenir of Detroit,' which contains a photo lithograph of the 'Old Dye Works Warehouse, established in 1838.' To find a business house who have carried on for thirty-nine years an active, prosperous business in one particular building, without fire accident, in this era of active, intelligent and unscrupulous competition, is, we imagine, unusual even in Canada, where you seem to have inherited so many good old English ideas and customs." The circumstance is indeed remarkable, and we offer our warmest congratulations. Messrs. Eaton are among the oldest patrons of this journal, and their kind words and act concerning us are exceedingly pleasant and refreshing.

THE recent decision in the United States Circuit Courts in Iowa, affecting the validity of what are known as the Washburn & Moen barb-wire patents, has had the effect of starting up quite a large number of barb-wire factories which decline to pay any royalty to the monopoly. Appeal has been taken to the Supreme Court of the United States, but the life of these patents has nearly run out, and it is likely that they will have expired by limitation before an opinion regarding them will be handed down. In view of this situation, the Washburn & Moen monopoly have reduced the royalty to licensees from fifteen cents per hundred pounds—\$3 a ton—to five cents per hundred, or \$1 a ton, on all wire made. At the time the Iowa decision was made there were but very few "moonshine," or unlicensed factories in existence, but there were a large number which were operating under license; and to prevent trouble with these, the monopoly granted the reduction of 66 $\frac{2}{3}$ per cent. alluded to. This concession, however, did not prevent some of the licensees from making wire, selling out their factories ostensibly to new companies, who are now manufacturing without license. Meanwhile the price of barb wire in the United States is very close to—sometimes less than—the cost of production. Canadian manufacturers of barb wire should study the situation.

To Mill-Owners, Manufacturers, and all who use Leather Belting.

IF YOU WANT BELTING

Which will Run Straight on the Pulleys;

Which is thoroughly well Stretched;

Which will Not Tear at the Lace Holes;

Which will give Complete Satisfaction;

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Special Belts for Electric Light Machinery;

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PHOENIX OIL, the only Perfect Belt Dressing.

SEND FOR CIRCULAR.

ALL OUR BELTING IS SOLD AT THE CANADIAN PRICE LIST.

PLEASE COMPARE BEFORE PURCHASING.

Send for Discounts and our Pamphlet on Belting.

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Pure Oak-Tanned Leather Belting.

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LEATHER,
SINGLE
OR
DOUBLE
THICKNESS.



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LENGTH,
OR
STRENGTH
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BELTS CUT FROM THE SOLID PART OF THE LEATHER ONLY,
AND ALL MADE WITH SHORT LAPS.

WRITE TO US FOR LIST AND DISCOUNTS BEFORE BUYING.

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11 JORDAN STREET,
TORONTO.

ONE of the greatest drawbacks to the mineral development of Canada has been that while innumerable deposits of valuable minerals and metals have been found, no system ever existed by which the bottom facts concerning them could be made known to possible investors without the expenditure of such large sums of money, and in such a desultory manner as to prevent general investment in that direction. Appreciating this fact a number of the most reliable gentlemen of this city have formed "The Mineral Development Company of Ontario, with \$200,000 capital, for the purpose of developing mining properties in Canada to a marketable point, and to place them for sale. The company will act as agents in examining, reporting on, and selling mines and mineral lands, and in placing specimens and information concerning them before manufacturers and capitalists. Last year there were 206 foreign and colonial mining companies brought out in England, with a capital of \$152,000,000. Of this sum Australia and New Zealand took \$37,000,000; Africa, \$23,000,000; North America, \$61,000,000; South America, \$13,000,000; Europe and Asia (about) \$17,000,000; Canada—through British Columbia—only received \$1,250,000, the rest of the Dominion got nothing, and its mineral wealth is not inferior to that of any of the above named countries. This shows that there is a good opening for a development company to act as a medium between prospectors and capitalists. Reference to their card to be found elsewhere in these pages will disclose the high character of the officers of this company, and where they do business.

IRON SMELTING IN TORONTO.

MR. S. D. MILLS, an experienced manufacturer of iron, has written the following letter, which explains itself:—

SIR,—Allow me, through the medium of your valuable paper, to lay before the public, and especially before those resident in Toronto, the following facts and figures in regard to what ought to be one of Canada's most prosperous industries.

The importations of iron into the Provinces of Ontario and Quebec for home consumption only for the fiscal year ending June 30, 1887, were as follows:—

	Ontario.		Quebec.	
	Tons.	Cwt.	Tons.	Cwt.
Of hoop and band iron.....	2,141	15	2,555	6
bar (hammered, etc).....	13,783	8	21,468	8
boiler plate.....	1,293	17	3,819	..
slabs, blooms, etc.....	578	13	25,186	16
structural iron.....	483	17	1,812	17
channel bar, etc.....	2,222	6	3,354	18
R.R. iron fish plates, etc..	739	17	6,925	6
sheet iron.....	571	12	1,220	26
steel ingots and bars.....	4,307	17	5,659	8
coke iron (pig).....	16,062	..	25,802	..
Total tons.....	42,184	18	97,808	15

These figures show the actual importations from Great Britain, the United States, Germany, Belgium, etc. They do not include Swedish iron, Russian sheet iron, stovepipe iron, charcoal iron for car wheels, nor any manufactures of iron such as nuts, bolts, small iron less than one-half inch diameter, castings of any kind or implements. So leaving out of account the steel ingots, we are importing about 38,000 tons into the Province of Ontario alone, every pound of which ought to be and can be manufactured profitably in Toronto, and our mine owners are meanwhile, with laudable energy, endeavoring to push the sale of Canadian iron ores in the United States, or, in other words, trying to sell the hide for sixpence in order that the consumer of iron may have the privilege of buying back the tail for a shilling.

It is a long lane that has no turning, and we may hope that this state of affairs will soon end. One of the greatest objections to the

establishment of a blast furnace has been removed, that is, the doubt about a market for the product. The figures given above show that the Province of Ontario alone would consume the output of two fair-sized furnaces, and the demand would increase with the supply, for a furnace located in Toronto could afford to sell iron \$4 per ton below present quotations and still have a handsome profit for the owners. Another objection is in a fair way of being removed, or rather its fallacy is being exposed, that is, the want of sufficient ore for the furnace. Evidence is now forthcoming that cannot be disputed, showing that our iron deposits are second to none on the continent. The results of the borings with the diamond drill at the Bedford mines north of Kingston have proved the existence of large bodies of ore, just as it had previously been predicted by competent geologists, and I am confident that similar results will be met with at the majority of our iron mines. I have to-day received a letter from that district stating that "there is sufficient confidence in the supply of ore in sight in these mines to induce the company to enter into a large contract if a good order could be had."

The third and last objection can also be met successfully. It is the absence or supposed absence of fuel. A glance at any railroad map of Canada and the States will show that Toronto is much nearer to the coal fields in the United States than is Chicago, where the most successful furnaces are located, and to-day coke from Connellsville could be laid down for furnace use in Toronto for less than \$4 per ton duty paid, and in event of an enterprise of this kind being established here it surely would not be too much to ask that a rebate in part or in full of this duty of 75 cents per ton, be granted by the Dominion Government.

The following figures give the outside cost of making pig iron in Toronto:—

COST PER TON OF COKE PIG IN TORONTO.

By 1 ton of coke at \$4.10.....	\$4 10
(This allows for a rise of 25c. per ton at Connellsville.)	
By 1 4-5 tons of ore at \$3.50.....	6 30
By lime for fluxing.....	50
By labor, office expenses, etc.....	2 00
By interest on \$150,000 capital, at 6 per cent, calculated on an output of 21,000 tons per year.....	44
Total cost of 1 ton pig.....	\$13 34
Present market value, \$20.50 to \$22.	

Yours, etc.,

SAMUEL D. MILLS.

Late of Martel Furnace, St. Ignace, Mich.

THE Kamloops, B.C., *Sentinel*, proposes to collect and forward to the Toronto Industrial Exhibition a collection of the grain roots, fruit, timber and other resources of British Columbia, and circulars have been issued inviting contributions for the exhibit.

IN 1887 there were 41,852 freight cars built at the different car shops in the United States. The last two years' production shows 6½ freight cars per mile of road in the whole country, and at this rate to keep pace with the new railroad construction 103,000 cars should have been built there last year. This is adduced as a reason for the scarcity of cars so much complained of.

MR. J. FITZGERALD, 24 East Fourth Street, New York City, has sent us "Nature Studies," which contains four highly interesting and instructive essays on scientific subjects, namely, "Flame," by Prof. Eaton Lowe; "Birds of Passage," by Dr. Robert Brown; "Snow," by G. C. Chisholm, F.L.S.; and "Caves," by James Dallas, F.L.S. An attractive variety of subjects certainly, and the essays are written in a style fitted to captivate the most listless reader. Price fifteen cents.

VOLUME IX of Alden's Cyclopaedia of Universal Literature, just received, is but further demonstrative evidence that the work is not only one of the most interesting series of volumes ever published, but as an educating and elevating influence for a home library, its value is beyond estimate in dollars and cents. And such handsome volumes as they are, at a price so marvellously low; 50 cents for cloth, 60 cents for half Morocco, with nine cents extra for postage. A specimen volume may be ordered with privilege of returning, if not wanted. The publisher sends free to any applicant an eighty-four page catalogue of his publications. John B. Alden, publisher, 393 Pearl Street, New York.

Manufacturing.

This department of the "Canadian Manufacturer" is considered of special value to our readers because of the information contained there in. 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 Hamilton, Ont., Rolling Mills are running night and day.

It is in contemplation to build water-works the coming summer in Lachute, Que.,

MESSRS. TIMEWELL & SON, Neepawa, Man., will build a grain elevator at that place.

MR. W. C. HARRISON, Norwood, Ont., is putting a 50x15 foot addition to his sash factory.

MESSRS. J. & F. ARMSTRONG, St. John, N.B., manufacture about 30,000 barrels of lime a year.

THE Norwood Foundry, Norwood, Ont., is being enlarged by a two-story 40x30 foot addition.

MESSRS. MEAKINS & SONS, Hamilton, Ont., are running their brush factory at its fullest capacity.

THE Hungerford Marble Company, Hungerford, Ont., has been incorporated with \$100,000 capital stock.

MR. J. A. CHRISTIE, Brandon, Man., will immediately commence the erection of a sawmill to cost \$10,000.

MESSRS. GEO. R. BATSON & Co., Campo Bello, N.B., will establish a lobster canning factory at Welshpool, near that place.

THE Doty Engine Company, Toronto, will build the engine and boiler for a large steam barge being built at Southampton, Ont.

THE Stormont Manufacturing Co., Cornwall, Ont., R. W. Turner manager, intend putting four new boilers in their mills this month.

MR. A. GARTSHORE, manufacture of cast iron pipes, Hamilton, Ont., has as many orders on hand as his present facilities can cope with.

MESSRS. BLINKHORN & SONS, Canning, N.S., manufacturers of edge tools, have capacity to turn out about 125 dozen axes per month.

THE Montreal Piano Company, Montreal, has been incorporated with \$50,000 capital stock, for the purpose of manufacturing pianos.

THE Hynes Terra Cotta and Brick Company, Toronto—recently Messrs. M. J. Hynes & Bros., has been incorporated with \$200,000 capital stock.

THE Ogilvie Milling Company intend to change their grain warehouse at Neepawa to an elevator of 40,000 bushels capacity before next harvest.

THE sawmill of Messrs. Troup Bros., at Sherkston, Ont., near Welland, was destroyed by fire April 21. Messrs. Troup will rebuild immediately.

THE St. Thomas Gas Company, St. Thomas, Ont., who were boring for natural gas a few days ago, struck a heavy flow of gas at the depth of ninety feet.

MR. D. J. McLAUGHLIN's lumber mills at Pollet River, N.B., was destroyed by fire April 11; loss about \$10,000. A new mill will be built immediately.

THE Erie Iron Works, St. Thomas, Ont., have arranged with Mr. Milne, of Essex Centre, Ont., for the sole right to manufacture his patent Essex Centre plow.

THE Gananoque Spring and Axle Co., Gananoque, Ont., who make a specialty of springs and axles, report large orders coming in, and business generally very good.

THE Heaps factory is now going along nicely. There are sixty-one hands employed—thirty-seven men and twenty-four boys and girls.—*Oshawa (Ont.) Vindicator.*

THE town of Orillia, Ont., has passed a by-law voting \$15,000 for the purpose of completing the electric light and water-works system now in course of construction there.

THE Standard Electric Light Company of Canada, Cookshire, Que., has been incorporated with \$25,000 capital stock, for the purpose of manufacturing electric apparatus.

THE by-law to grant a bonus of \$30,000 for the removal of the Maxwell Manufacturing Co.'s works from Paris, Ont., to St. Mary's was carried at the latter place by 404 majority.

MESSRS T. & E. B. WILSON, Peterboro', Ont., are building a new woollen mill at that place which is expected to be completed during this month. It will be 60x43 feet, three stories high.

THE Gutta Percha & Rubber Manufacturing Company of Toronto, have within the past two months sold over 12,000 feet of "Maltese Cross" and "Baker Fabric" fire hose.

It is understood that the Norton Manufacturing Company, of Chicago, has leased the Cuykendall canning factory in Hamilton, Ont., and will manufacture cans for other factories.

THE town of Oxford Mills, Ont., will grant a bonus of \$1000 and exemptions from taxation for ten years as an inducement to the Merrickville Hame Company to locate in that place.

THE Hopkins well at Port Colborne, Ont., was torpedoed a few days ago, and there is now an abundant supply of natural gas, sufficient, it is said, to run a large factory if applied as power.

THE Buckingham Pulp Company, Montreal, was organized a few days ago. Mr. J. L. McLellan was elected president, Mr. W. J. McKenzie, manager, and Mr. John Forman, secretary-treasurer.

MESSRS. J. & J. H. TITUS, Smithtown, N.B., are making extensive repairs to their mill. About twenty-five feet of an addition is being constructed for the purpose of putting in a lathing machine.

MESSRS. J. E. WOODWORTH & Co., George Morton, and McMillan & McBean, of Winnipeg, and the Lake of the Woods Milling Company, are all contemplating building elevators at Deloraine, Man.

MESSRS. WM. CLENDENNING & SON, Montreal, manufacturers of stoves, hotwater heaters, and general castings, have over three hundred hands employed, and melt upwards of thirty tons of iron daily.

MR. PETER CAMPBELL, Lachute, Que., who recently purchased the grist mills of Mr. J. Fish, of that place, has put in necessary machinery and is manufacturing rolled oats, turning out a splendid article.

MESSRS. HAMELIN & AYERS, Lachute, Que., contemplate building a mill for the manufacture of straw board and wrapping paper. The announcement made in our last issue regarding this firm was premature.

THE Dominion Mercantile Company, Waubaushene, Ont., has been incorporated with \$50,000 capital, the object being to acquire and carry on the business of the Georgian Bay Consolidated Lumber Company.

RECENTLY extensive deposits of moulding sand for foundry purposes were discovered at Copetown, Ont., near Hamilton, and large quantities of it are being shipped to Buffalo, and other places in the United States.

MR. J. FISH, Lachute, Que., has sold his grist mills to Mr. Peter Campbell for \$20,000, and his sawmills to Mr. John Campbell for \$8,000. There is talk of two new sawmills being built at Lachute the coming summer.

THE Oshawa Malleable Iron Company, Oshawa, Ont., are calling the attention of the trade through our advertising pages to their business. This is one of the oldest and most reliable concerns in the trade in Canada.

THE four-masted British ship Knight of St. Michael, of 2,221 tons burden, recently took on a load of lumber at Moodyville, B.C., for Melbourne, Australia, which consisted of 1,820,020 feet of rough lumber, valued at \$17,300.

THE extensive pulp mills which are about being erected at or near St. John, N.B., will involve the expenditure of probably \$800,000.

and will include the erection of brick cottages for the 200 or 300 workmen who will be employed.

MESSRS. FENWICK & SCLATER, Montreal, manufacturers of abestos steam pipes and boiler covering, railway, mill, and engineers' supplies, etc., are moving from Commissioner street into more commodious premises at 44 Foundling street.

MESSRS. BATTLE & SMITH, Thorold, Ont., have quite an establishment for manufacturing blacking, prepared paints, etc. The Japanese blacking manufactured by this firm has acquired a reputation that keeps them busy filling orders.

A six inch strata of merchantable mica has been discovered at Smithville, Ont., near Hamilton, which is reported as being beautifully clear and white. A shaft is being sunk at the "find" and the value of it will soon be known.

MR. JOHN DATE, Montreal, brass founder and coppersmith, is manufacturing a patent dry earth commode, for which he finds large demand. He also makes all kinds of diving apparatus. He is agent for Limbor's patent pneumatic bells.

THE Massey Manufacturing Company, Toronto, have within the past two years expended over \$2,000 in equipping and teaching a band of musicians—one of the best in the country—all the members of which are employed in their works.

MESSRS. R. GEMMILL & SON, proprietors of the Pike Falls Woolen Mills, near Perth, Ont., have secured the services of Mr. James Perritt as manager. Mr. Perritt leaves the Paton woolen mills, Sherbrooke, Que., to take the position.

THE William Hamilton Manufacturing Company, Peterboro', Ont., are now turning out what is claimed to be the largest sawmill carriages ever made in Canada. They are nine feet wide and are for a mill in Vancouver, British Columbia.

THE Hamilton Whip Co., Hamilton, Ont., report business as very good. Mr. Murphy, the manager, has just returned from a successful trip to Eastern Canada, and their travellers in the different parts of the country are booking good orders.

THE Jencks Machine Company, Sherbrooke, Que., are busy turning out some very fine machinery, included in which is a sixty-horse power steam engine for Mr. J. C. Tousegnault, city of Quebec, and machinery for a pulp mill at Scottstown, Que.

THE Hockelaga Cotton Co., Montreal, has one of the largest and most complete cotton mills in Canada. They employ over 1,400 hands, and are running full. They report trade very good, orders coming in fast, and are making heavy shipments.

MAJOR HARPER, Whitby, Ont., manufacturer of all kinds of wood-working machinery, has been running over-time for the last six months, with full staff of hands, which fact indicates good business. He makes a specialty of manufacturing dentists' chairs.

MR. JAMES WALKER, Hamilton, Ont., soap manufacturer and president of the Hamilton Iron Forging Company, is eighty-two years of age, but may be seen all day long in his office giving his personal attention to the many details of his business interests.

MR. WM. THORBURN, Almonte, Ont., manufacturer of fine wool flannels, in a business letter to us states, "I have no hesitation in saying that the CANADIAN MANUFACTURER should receive the support of every manufacturer in the Dominion." Many thanks.

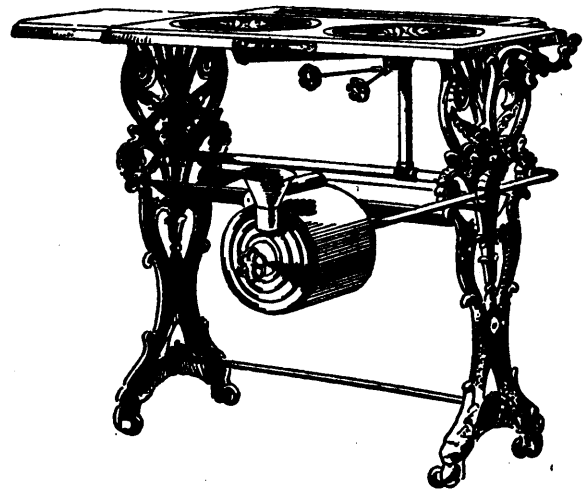
THE Canadian Cotton Co., Cornwall, Ont., are getting out some new lines of dyeing goods. This company claim that they manufacture the largest variety of dyed linings, cottonades, and ladies' dress goods made in Canada. They employ over seven hundred hands.

THE Barnum Wire Works Company, Windsor, Ont., are considering a proposition of a free site, coal at wholesale prices and free of dock charges, and the taking of a share of the stock; the consideration being the removal of the company's works to Walkerville, Ont.

A GENTLEMAN residing in New York, who holds a patent on stoves, is in communication with some Peterborough parties with the view of establishing a factory here for the manufacture of his stoves. He is willing to come if he can get \$30,000 stock taken here.—*Peterboro' (Ont.) Review.*

MESSRS. ISRAEL ENGLAND & SONS, Knowlton, Que., tanners and manufacturers of leather, etc., inform us that they are doing a large business in lace leather, loom and picket straps, etc., which articles are being generally used by manufacturers throughout the country with perfect satisfaction.

MONARCH VAPOR STOVES



(ALL SIZES.)

The manufacturers feel safe in saying that no means of summer cooking ever introduced has gained such a marvellous hold on the public favor. Though only a few years since first introduced, to-day they are felt to be a part of the family economy. So widespread has become the demand for these Stoves that it is claimed that over

ONE HUNDRED THOUSAND

Were sold in the United States during the past year.

They are especially servicable for summer use, doing the entire work of any ordinary cook stove, and with an absence of heat so desirable in hot weather.

These Stoves are very simple in operation and no more dangerous than an ordinary Lamp.

EVERY STOVE WARRANTED.

MADE BY

McCLARY MANF'G. CO'Y

London, Toronto, Montreal & Winnipeg.

THE Imperial Mineral Water Co., Hamilton, Ont., have probably the largest and best equipped factory of the kind in Canada. They make a wide range of goods, and the leading hotels, clubs, etc., are commencing to give them the preference over imported beverages, the quality being equally good.

At a recent meeting of the Richmond, Que., town council, it was resolved to offer Mr Cassils, of Montreal, a bonus of \$10,000 for the establishment of a boot and shoe factory there, with exemption from taxation, stipulating that he shall regularly employ seventy hands, and put up a building worth \$6,000.

MESSRS. DOBSON & BRODIE, Montreal, inform us that the saving in fuel with the appliances put in by them at the shops of the Canadian Pacific railroad in Montreal in September last amounts to twelve and a-half per cent; and in three boilers at the Montreal water-works to twenty tons of coal per month.

MR. H. W. PETRIE, Brantford, Ont., whose business card appears elsewhere, informs us that he has a large quantity of second-hand machinery for sale, which consists of engines, boilers, iron and wood working machinery, etc. It is in good order, and ready for immediate use. Descriptive catalogues sent on application.

THE D. F. Jones Manufacturing Co., Gananoque, Ont., are busy turning out shovels, spades, and scoops, for which there is a large demand. At present they are turning out fifty dozen of these goods a day. They intend erecting more extensive buildings this season, when their capacity will be increased to seventy or eighty dozen a day.

SOME time ago the city of Vancouver offered a bonus of \$25,000 for the erection of a smelter at that place, with a capacity of not less than forty tons per day. It is now understood that an English company will undertake the work of establishing the smelter, and a deposit of \$5,000 has been put up, as a guarantee of good faith.

MESSRS. BURROW, STEWART & MILNE, Hamilton, Ont., have purchased the works adjoining their own which were formerly occupied by Messrs. J. H. Killey & Co. This acquisition gives them a frontage on three streets, and will enable them to increase their facilities for manufacturing, more room having some time since become a necessity.

MESSRS. JAMES HALL & CO., Brockville, Ont., manufacturers of gloves, mitts, moccasins, etc., have recently received a large contract from the Government for gloves for the North-West mounted police. They have supplied the mounted police with gauntlets and mitts for years past. They also manufacture a very fine line of Dongola shoe uppers.

THE mills along the line of the old Welland canal were, until a few days ago, all shut down in consequence of the water having been let out of the canal. For the same reason St. Catharines, Merriton and Thorold were in darkness every night, as the electric lighting stations depend on the water supply for power, having no auxiliary steam power.

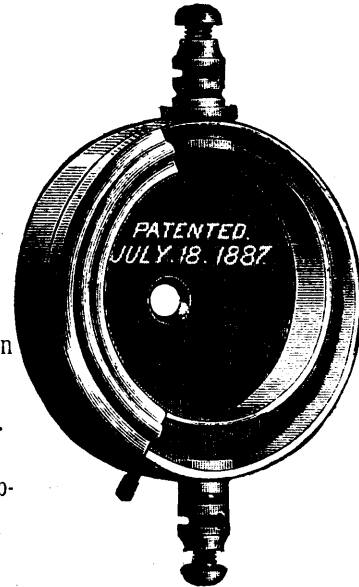
MESSRS. A. ROBB & SONS, Amherst, N.S., inform us that they have obtained the exclusive ownership of the patent of the "Monarch" inclined tubular steam boiler, and that they are prepared to manufacture the same in any desired size or style. They are also placing themselves in position to make all their own "Hercules" pattern steam engines.

MESSRS. J. J. DAVIDSON, J. D. HAY, AND BEVERLEY ROBINSON, of Toronto, are endeavoring to raise a company for the manufacture of scoria brick in this city. A quantity of these bricks are being imported from Scotland, and will be laid down on Yonge Street, near King, where the heavy traffic will demonstrate their value for the purpose indicated.

W. C. HIBBARD, MONTREAL,

MANUFACTURER OF

Campbell
Water-proof
Wires.
Annunciator
and
Office Wire.
Silk and Cotton
Covered
Magnet Wire.
Aerial and Sub-
marine Cables.



Superior
Water-proof
Tape.
Telephones.
Hotel & House
Annunciators.
Gas Lighting
Apparatus.
Burglar Alarms.

AUTOMATIC FIRE ALARM APPARATUS

And all Electrical Appliances and Supplies.

THE Montreal Show Case Co., Montreal, manufacturers of show cases, store and office fittings, etc., of which Mr. Jas. Millichamp is manager, are busy filling orders in every line of their business. They make a specialty of show cases in nickel, silver, ebonized and polished walnut, or any kind of hardwood, and are prepared to ship goods to any part of the Dominion.

THERE are seven works in Canada for the manufacture of railroad cars, and three works for the manufacture of locomotive engines. The combined capacity of these latter is about 100 engines a year. Of course the shops of the Grand Trunk and Canadian Pacific railroads are not included, but in them are built nearly all the engines and cars used on these two roads.

MR. J. H. STILL, who has conducted a handle factory at Tilbury Centre, Ont., desires to remove his business to St. Thomas, Ont., and asks that city to grant him a bonus of \$6,000, which will about cover the cost of removing. \$30,000 is invested in the business and should the bonus be forthcoming Mr. Still would guarantee to employ an average of forty hands for ten years.

THE Toronto Paper Co., Cornwall, Ont., are erecting new and extensive buildings for the manufacture of sulphide pulp, by the Rhettner-Kilner process, the first of the kind ever manufactured in America. This is a new department of the company, and will be under the supervision of Capt. Ellis, a practical chemist. They expect to commence operations early in May.

MR. R. R. YOUNGER, Gananoque, Ont., calls the attention of manufacturers and bookkeepers to his "Counting House Guide," which is a simple and practical treatise on book-keeping and the science of keeping accounts correctly. Written by an experienced accountant, it is clear and concise, and the principles taught in it are applicable to every-day business transactions.

THE Lake of the Woods Milling Company, whose elevator and mill at Keewatin, Man., which are claimed to be the finest in the Dominion, will soon be prepared to do a large milling business. The elevator has been completed for some time and it was confidently expected

ROMPTON '1888' WOOL COMBS.

ROMPTON LOOM WORKS.

WORCESTER, MASS. COTTON, WOOLEN, SILK, TAPE & CARPET LOOMS.

that the mill, which has a capacity of 1,250 barrels of flour per day, would be running by the end of April.

Messrs. R. C. JAMESON & Co., Montreal, manufacturers of varnishes and japans, methylated spirits, etc., call attention to their varnishes and japans, which they recommend as being equal to any made in America, and to their coach varnishes now being made similar to those of the best London manufacture. They are also importers of linseed oil, paints, colors, and naval stores.

Messrs. R. S. WILLIAMS & Co., manufacturers of pianos, who have recently been bonused by the town of Oshawa, as an inducement to move their works to that place from Toronto, will be paid the bonus of \$20,000 in ten annual instalments. The business now employs over 100 hands. The firm have secured the building of the late Joseph Hall Machine Works, Oshawa, which are to be considerably enlarged.

Messrs. McOUAT & McRAE, proprietors of the Victoria Foundry, Lachute, Que., manufactured the roller machinery recently placed in the mills of Mr. Peter Campbell, that place, for manufacturing rolled oats. This machinery gives splendid satisfaction, and is first-class in all respects. Messrs. McOuat & McRae manufacture stoves, plows, agricultural implements, etc., and do general foundry and machinists' work.

Messrs. AULD & WOODYATT, Guelph, Ont., proprietors of the Enterprise Manufacturing Works, are manufacturing the Morris typewriter, the sole right to do which in Canada they have obtained. The machine is described as being of very simple construction and operation, and requires but very little practice to enable the operator to write forty or fifty words per minute, much greater speed being attained by longer practice.

THE Prescott Emery Wheel Co., Prescott, Ont., are manufacturing two kinds of emery wheels, viz.: the Beaver and Crescent brands, both of which are of superior quality. They also make grinding and polishing machinery, belt strapping attachments, buffing lathes, improved key grinders, and an assortment of diamond tools. They have recently issued an illustrated catalogue and price list, which will be mailed on application.

THE Toronto Millstock and Metal Company, Toronto, are calling the attention of those whom it may concern to the fact that they are wholesale dealers in, and graders of scrap iron, old metals, cotton and woolen waste, woolen rags, paper stock, etc. Of course there are always accumulations of such stuff in and about all mills and factories, and the company here alluded to would be glad at any time to correspond with owners regarding the sale of the same.

THE machinery in the Campbellford paper mill was started on Monday morning and ran steadily until Thursday morning, seventy-four hours, without a break, and during that time there was made a sheet of building paper thirty miles long and thirty-two and a-half inches wide. The largest quantity turned out in one day of twenty-four hours, was 25,513 pounds, and the average last week was ten tons 869 pounds per day.—*Campbellford (Ont.) Herald.*

Messrs. HARRIS & Co., St. John, N.B., who have acquired the sole right to manufacture the Eastman heater cars in the Dominion, have just finished four cars for the Intercolonial railway. The heating apparatus was placed in them by the Eastman Car Heater Company, who say that the cars made in St. John surpass in some respects the cars made in the United States. Six more of these cars are now being finished in Messrs. Harris & Co.'s workshops.

THE Kingston, Ont., council have awarded contracts in connection with water-works extension in that city to the following:—Cast-iron pipe and special castings, Messrs. Gartshore, Hamilton; pig-lead, James Robertson, Montreal; hydrants and valves, Stevens & Burns, London. The city is to have the option of ordering the Ludlow hydrants, instead of the hydrants specified, if desired. It was decided to have the excavating and pipe-laying, at a cost of \$100,000, done by contract.

THE Whitby Agricultural Foundry, Whitby, Ont., which has been idle since March, 1887, when Patterson & Bro., in consolidating their works at Woodstock, closed up their branch business there, has been turned over to the Mowat Manufacturing Company, of Toronto, who will operate it with a capital stock of \$50,000. The president is Mr. Arthur Mowat, a son of the Ontario Premier. Besides a general line of farm machinery the company will make Clokey's centre cut mower.

Every Instrument **“ BELL ”** ESTABLISHED
Warranted. 25 Years.

UPRIGHT PIANOS **CABINET ORGANS**

We have just commenced the manufacture of Pianos—which contain all the best known practical improvements. In quality, the best that can be produced with first-class material and skilled labor.

Have a universal reputation as being strictly first-class, and are recommended by Highest Musical Authorities. In tone, design and workmanship unsurpassed.

SEND FOR CATALOGUE TO

W. BELL & CO. HEAD OFFICE AND FACTORIES, GUELPH, CANADA.
Branch Warerooms at Toronto, Hamilton, St. Thomas, Winnipeg, London, Eng. and Sydney, N.S.W.

MESSRS. MILLER BROS. & MITCHELL, Montreal, are just completing a large order for the St. Lawrence Sugar Refining Co. The work consists of thirty pieces of machinery, and will cost \$49,500. Amongst other orders recently filled by them is a two hundred and fifty pound Beaudry Upright Hammer, (to which attention is called in our advertising pages,) for B. J. Coghlen, Montreal. They have recently placed one of their largest and best steam elevators in the new premises of the Canada Jute Co., Montreal.

THE Permanent Exhibition of Manufactures, Toronto, recently issued a very beautiful chromo-lithographic view of the interior of their exchange, conveniently mounted as a hanger, and intended for office use and ornamentation. They have now had the same reproduced as an ordinary business card, in which the same points of excellence are observed as are seen in the larger affair, even to the minutest details and colors, and is indeed a very neat card. It was gotten up by the Toronto Lithograph Company, this city.

THE Gas Consumers' Benefit Company of Canada, Montreal, are engaged in the manufacture of the "Jackson Gas Burner," which they claim to be the greatest gas economizer ever invented. With this burner there is no need of a metre governor, as the pressure is controlled at the point of ignition instead of at the metre. They invite any one to make a free test trial on any premises. They are open to receive contracts for dwellings, stores, factories, churches, halls, etc. Mr. G. W. Gaden is the manager for the company.

THE Ball Electric Company, Toronto, manufacturers of electric apparatus for all purposes, call attention to the fact that the electric lighting of flour mills continues on the increase, and is being steadily reduced in cost. Time was when none but the more wealthy millers could afford an incandescent outfit, but now many find they can reduce expenses by putting them in their mills. The fire insurance companies call on all millers who are still enduring the semi-darkness and constant danger of kerosene lamps or gas-jets to bestir themselves and find out how safe and economical a thing the electric light now is.

THE patents for the new improvement in roller mills, owned by W. F. Cochrane and V. E. Fuller, have been capitalized in Escanaba, Mich., for \$400,000, one half of which sum goes to Mr. Cochrane and Mr. Fuller. At a meeting of the company held at Escanaba this week Messrs. Cochrane and Fuller were both elected to the board of directors, and subsequently Mr. Fuller was elected president, and Mr. Cochrane vice-president of the company. The largest stockholder is Hon. J. H. McDonald, a millionaire of Escanaba, who is also lieutenant-governor of the State of Michigan.—*Hamilton (Ont.) Spectator.*

THE Vancouver City Iron Works is now almost ready for operation. A number of different machines have been placed in position and the others are being put up as fast as they arrive. The cupola is already erected and is only waiting the arrival of fire brick from Nanaimo to be complete. A quantity of fine moulding sand has been discovered within a reasonable distance and all branches of casting will soon be done. It is the intention to erect a large wharf in connection with the works so that vessels will be able to load directly. It is expected that the works will be in full running order by May 1st.—*Vancouver, B.C., News.*

MR. COULTHARD, of Messrs. Coulthard, Scott & Co., said, in reply to a few remarks made by the editor of this paper at the council meeting last Wednesday, that his price for seeders was \$85, but if a farmer came to the shop they could buy one for \$45. The *Reformer* published the remark and there was such a rush for bargains that in a short time there was not a spare machine left on the premises, good or bad. Mr. Coulthard informs us that three machines were sold the same day. Most of the machines sold were second-hand, yet farmers are willing to pay \$45 for them as they are becoming well acquainted with the now famous Champion.—*Oshawa Vindicator.*

MESSRS. W. BELL & CO., Guelph, Ont., in a very attractive card to be seen elsewhere in these pages, announce that they have commenced the manufacture of pianos, and that the instruments embrace all the best known practical improvements, in quality the best that can be produced with first-class materials and skilled labor. This industry is in connection with the manufacture of the well known "Bell" organs, commenced twenty-five years ago, a history of which has been heretofore published in these pages. The head offices and factories of Messrs. W. Bell & Co. are at Guelph, Ont., branches of the business being established at Toronto, Hamilton, and St. Thomas, Ont., Winnipeg, Man., London, Eng., and Sydney, New South Wales.

TERRA COTTA FIREPROOFING

FOR USE IN NEW AND OLD BUILDINGS.

The best thing made. Endorsed by leading Architects
Absolutely Fireproof, and "brimfull" of other
good qualities. Address,

THE RATHBUN COMPANY,
DESERONTO, ONT.

TORONTO MILL STOCK & METAL CO.

Wholesale Dealers in and Graders of

SCRAP IRON, OLD METALS

PAPER STOCK,

WOOLEN RAGS,

COTTON AND WOOLEN WASTE,

ETC., ETC.

ESPLANADE, NEAR BAY ST.,

Telephone 1319. TORONTO, ONT.

YOUNGER'S COUNTING-HOUSE GUIDE.

Price 75 cts. at Bookstores, or from R. R. Younger, Gananoque, Ont.

"... Whole subject clearly though briefly explained without unnecessary verbiage, yet scientific enough to give points to the experienced accountant. . . ."—*Cosmopolitan Shorthand.*

MR. W. C. HIBBARD, Montreal, manufacturer of insulated wires, cables, instruments and electrical supplies, has sent us a circular in which is a letter written to him by a practical electric light inspector of that city, in which he says—"Some months ago I determined to give the Campbell wire a severe test, in the hope of being able to recommend it as a good wire for outside and exposed places. I made a test for leakage by keeping a couple of lengths immersed in water for twenty-two days, and at the end of that time I could get no evidence of leak through the insulation. I then made some sharp bends in the wire, but could not find that this opened the covering in the least. I suspended a sample vertically in a hot boiler room to test the running qualities of the insulation, for some samples of another wire which I had been strongly recommended to use were surrounded with an insulation which could—did—cook out, and I had no desire for further experience in that line. Your wire stood the test nobly. I am recommending your wire for out of door work, through damp cellars, laundry washrooms, kitchens and other moist places, and expect to see it put into a brewery where ammonia is used for manufacturing ice in the course of the season.

THE McClary Manufacturing Company, London, Ont., are making liberal use of the pages of this journal to set forth the merits of the "Monarch" vapor stoves manufactured by them. And they but voice the general sentiment prevailing in the United States where these stoves are in universal use in saying that no means of summer cooking ever introduced has gained such a marvellous hold on the public favor. Though only a few years' since they were first introduced they are now felt to be absolutely essential in every well regulated family. They are especially servicable for summer use, doing the entire work of the ordinary cook stove, and with the absence of heat so desirable in hot weather. The company have branch houses at Toronto, Montreal and Winnipeg, where these vapor stoves are on exhibition.

THE Metallic Roofing Company, Toronto, are calling attention through our advertising pages to the Montross patent metallic shingles and siding manufactured by them. It is claimed for this shingle that it makes a tighter roof than can be made with slate or wood, and at least equal to any other metallic shingle made. It is remarkable for the simple and easy manner in which it can be laid, contraction and expansion from cold and heat being fully provided against. It is adapted to all classes and styles of buildings, and specially for mills and factories. The Company inform us that last year they increased the capacity of their works to about double what it was before, but finding their business increasing so rapidly, and to enable them to meet the very large demand for their shingles and roofing, they have recently added new machinery by which they have quadrupled their capacity, and are now able to fill all orders promptly.

THE Gurney's & Ware Scale Co., Hamilton, Ont., have within the past year largely increased their facilities for manufacturing. New and improved machinery, to the value of seven or eight thousand dollars has been added, and their whole system of manufacturing has undergone reconstruction. Mr. J. P. Steadman, the manager, is an exceedingly energetic young man, and since he assumed the control the output has largely increased. At the present time they are already two months ahead of last year so far as the number of orders is concerned. A new scale which this firm are about putting on the market is sure to command a large sale, as it fills a long felt want of a portable scale which can be made large enough to admit of the weighing of cattle and other large bodies, but which, when the extension platforms are uncoupled, is no larger than an ordinary platform scale. A more detailed account of this invention will appear in a subsequent issue of this paper.

THE THERMOSTAT.

MR. W. C. HIBBARD, Montreal, is manufacturing a thermostat which has recently been thoroughly tested in Montreal, giving the utmost satisfaction. It is a device by means of which alarms are rung automatically in fire engine houses and wherever else desired immediately upon the occurrence of a fire. It consists of a shallow case, about 1 1/2 inches in diameter, in which is placed a Bourdon spring, insulated from the case. In the event of fire the spring expands, and when the temperature at which the instrument is set has been reached, the electric circuit is closed and the alarm goes out. The spring being insulated from the case, leaves but a small amount of metal to be heated before the alarm is sounded, thus making the thermostat one of the most sensitive of instruments. Indeed, so perfectly can they be regulated that they have been known to indicate a fire before a thermometer, but a few feet distant, had registered any change of temperature.

In practical use these thermostats are placed in every room, on every floor, on the ceiling, at a distance of about twenty feet apart, and are connected with an indicator, which shows the exact location of the fire. All thermostats are independent of each other, and an accident to one circuit does not affect the operation of the others. The simplicity and perfection of the system are such that any person of ordinary intelligence can readily keep them in working order without the services of an electrician. While a fire is in progress the alarm rings continuously, but as soon as the temperature lowers the alarm ceases, and the thermostat is ready for a second or third alarm. The records of insurance companies show that at least three-quarters of all fires occur at night or on Sunday when the operatives are absent. As the great object is to notify the fire department when a fire first originates, that it may be extinguished as speedily and with as little damage as possible, this system, acting as a faithful watchman, is invaluable. As an instance of the good work it has done, it is given as an actual fact that though this apparatus has been in operation for nearly four years in over 150 of the largest factories in the United States, there has not been in any of them one fire large enough to claim a loss upon.

TO LET, TWO FLATS, WITH POWER

APPLY TO

H. R. IVES & CO.,

QUEEN STREET, - - MONTREAL.

NAPANEE CEMENT CO'Y

(LIMITED),

NAPANEE MILLS, - ONTARIO.

MANUFACTURERS OF

HYDRAULIC CEMENT

PARTICULARLY ADAPTED FOR

*DAMS, SMOKE STACKS, FOUNDATIONS, CULVERTS,
CISTERNS, CELLARS, ETC.*

ENDORSED BY LEADING RAILWAYS AND CONTRACTORS.

A few days ago at the request of Mr. Hibbard the Fire Committee of the Montreal City Council, and Fire Chief Patton, witnessed a test of this automatic fire alarm, and after a thorough investigation of it they expressed their hearty appreciation of the system and its usefulness. The thermostats were placed throughout the building in which the test was made, at a distance of about twenty feet apart, and on holding a lighted lamp or candle under any of them, an alarm was immediately rung in the office, a figure on the indicator showing the room and floor from whence the alarm had been sent. A feature of the apparatus is that indicators showing the exact location of fires can be placed outside the building or in the fire stations. Thus if on the arrival of the firemen, it is shown that the fire is, say in a third story, no time need be lost in breaking open the doors on the first floor, which is often a work of considerable difficulty, but the men could raise their ladders to the third floor and proceed to extinguish the blaze without delay.

Chief Patton expressed the opinion that during the time of his connection with the Montreal Fire Brigade, had this system been in general use millions of dollars' worth of valuable property would have been preserved. He instanced the fire at the tannery of Messrs. Porter & Savage, where, though there was a watchman and an engineer on the premises, it was fully half an hour before an alarm was sent in to the brigade with a consequent loss of many thousands of dollars that might have been saved had an apparatus been in use to immediately give forth a signal of danger. The late fire on St. James' street was another instance where the flames were half way across the street before the alarm was sounded. The building was practically destroyed before the brigade knew there was a fire. These were only a couple out of the many hundreds of cases that he could adduce, of valuable property being destroyed through tardiness in sending in the alarm. The system had his unqualified approval. It is understood that the Fire Committee will give Mr. Hibbard the desired permission to put his annunciators in the fire station, and that they will give their formal approval of the system generally at their next meeting.

The PERMANENT EXHIBITION

OF MANUFACTURES

- AND -

COMMERCIAL EXCHANGE,

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

THE
MINERAL DEVELOPMENT CO.
 OF ONTARIO (Limited).

Capital, - - - \$200,000

**In 40,000 Shares of \$5 each, payable \$1 per share on application, and
 the balance as may be required for the Company's business.
 First issue limited to 10,000 Shares.**

PROVISIONAL DIRECTORS:

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SOLICITORS :

KINGSMILL, CATTANACH & SYMONS.

BANKERS :

IMPERIAL BANK OF CANADA.

SECRETARY : ALEX. RANKIN, 20 Toronto Street, TORONTO, ONT.

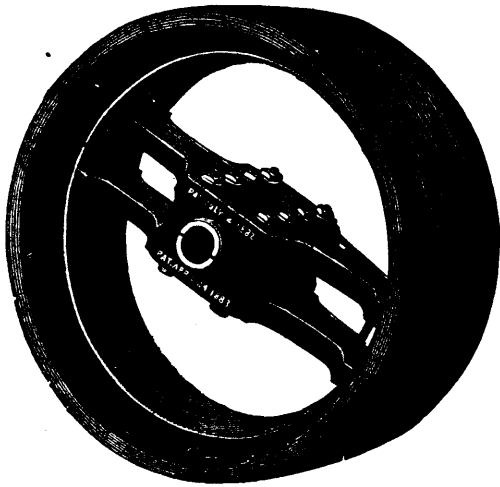
ABRIDGED PROSPECTUS.

1. This Company is being formed to develop mining properties of promise in Canada to a marketable point, and to place them for sale.
2. To act as agents in examining, reporting on and selling mines and mineral lands, and in placing specimens and information concerning them before manufacturers and capitalists.
3. It is not intended that the Company will do mining in the proper sense of the word. The operations will be confined to developing and selling.
4. The money expended on any property will be limited to a fixed sum, which will, in the opinion of the Directors, be sufficient to ascertain the value of the property.

Subscription list is now open at the Secretary's Office, from whom prospectus can be obtained. All cheques to be made payable to HENRY S. HOWLAND, ESQ.

ALEX. RANKIN, Secretary, 20 Toronto St., Toronto, Ont.

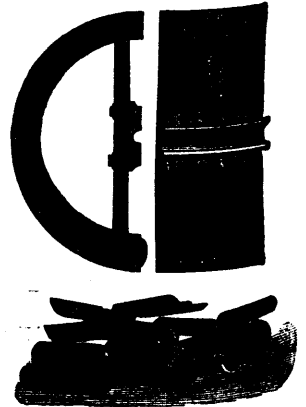
Dodge Patent Wood Separable or Split Pulleys.



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.



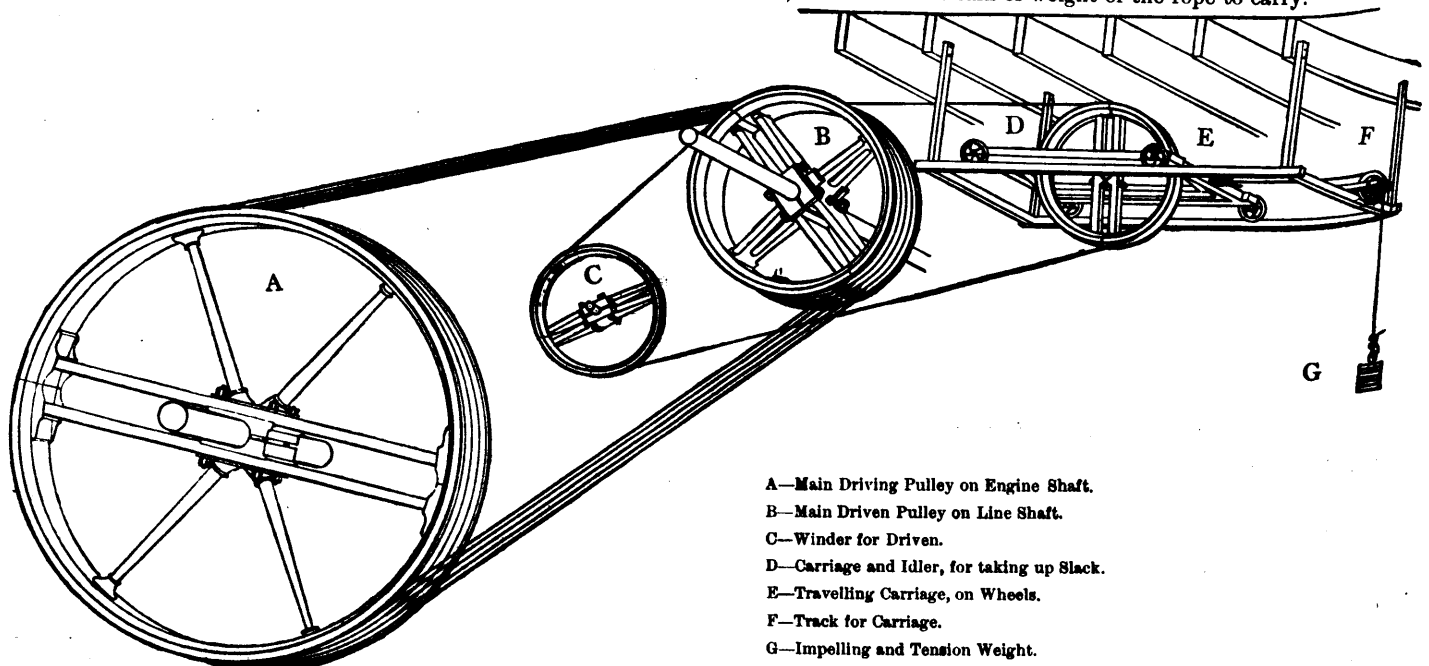
THE TRANSMISSION OF POWER BY ROPES AND THE DODGE PATENT WOOD PULLEYS.

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 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 20 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.



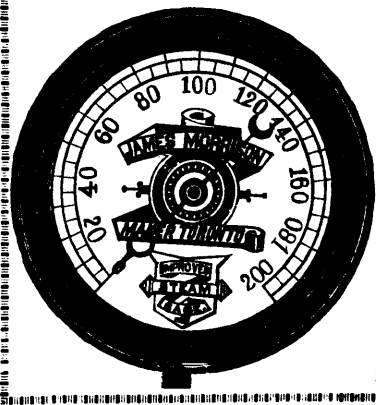
A—Main Driving Pulley on Engine Shaft.
B—Main Driven Pulley on Line Shaft.
C—Winder for Driven.
D—Carriage and Idler, for taking up Slack.
E—Travelling Carriage, on Wheels.
F—Track for Carriage.
G—Impelling and Tension Weight.

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. Tushingam & 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.

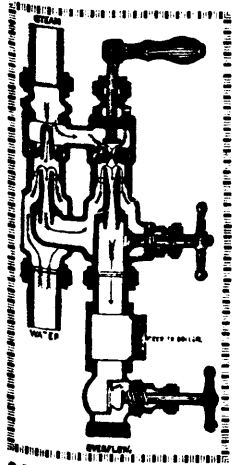


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Steamfitters' and
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75 & 77 ADELAIDE ST. WEST,
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SANITARY EARTHENWARE Now in Stock: Morrison's Washout Hopper
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IRON FOUNDERS, ENGINEERS AND MACHINISTS,
 MANUFACTURERS OF

Drop Hammers,
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CORRESPONDENCE SOLICITED.

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ORGANZINES, TRAMS,
 SPUN SILK YARNS,

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

Correspondence Solicited.



NOTICE.

The Select Committee to examine into etc, combinations said to exist with refer-
 ence 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 corres-
 pond 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,
 6th March, 1888.

House of Commons, Ottawa.

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

Canadian Leather,
Canadian Made,
Canadian Price List.

LEATHER BELTING

Thoroughly Stretched,
Carefully Made,
Runs Straight.

— 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.

By Royal



Letters Patent

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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.

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CANTLIE, EWAN & CO.

Genera 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.

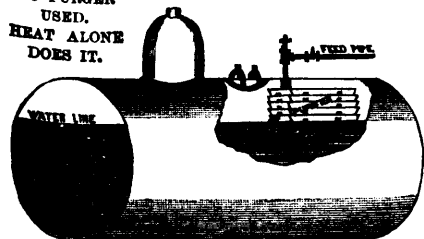
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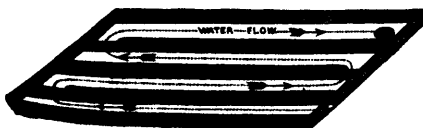
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PATENT BOILER WATER PURIFIER.

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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Canadian Rubber Co.

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RUBBER SHOES & FELT BOOTS,
Patent Pressed Double Strip Rubber Belting,

RUBBER
ENGINE,
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Mould Goods of Every Description.

LADIES' & GENTLEMEN'S TWEED and GOSSAMER CLOTHING

OUR RUBBER GARDEN HOSE IS THE
BEST IN THE MARKET.

J. H. WALKER, - Manager.

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.

To Manufacturers.

WE WILL ERECT A

SPLENDID NEW FACTORY

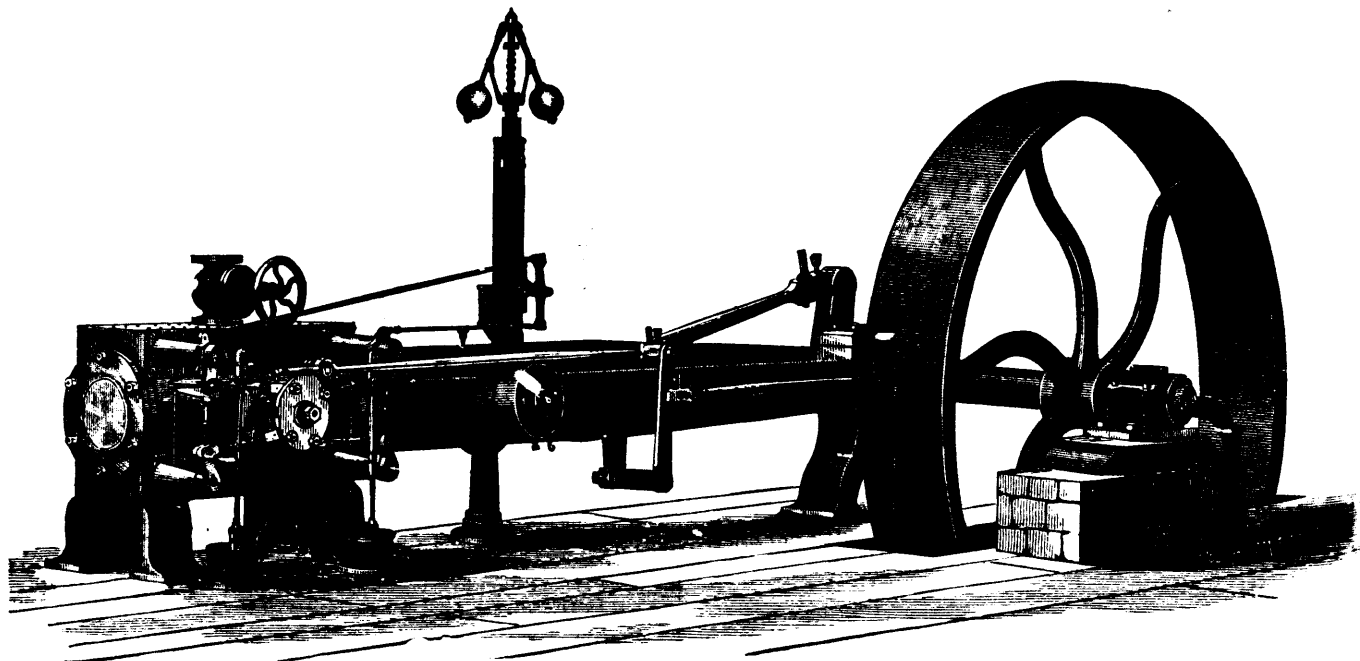
On BAY ST., below Front,

To suit a good tenant, or will let it in flats, and will supply steady power and heat.
Apply early.

DICK, RIDOUT & CO., 11 Front St. East,
TORONTO.

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 hereby 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

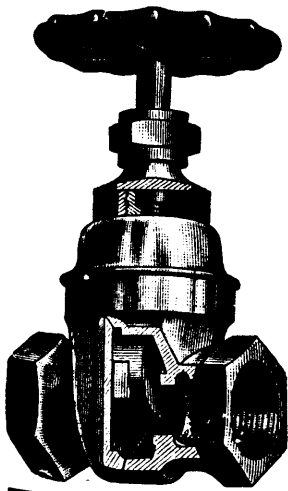
8th—The increased amount of power it develops.

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.



WEBER'S PATENT Straightway Valves

FOR
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
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FIRE PROTECTION.

BUILDINGS EQUIPPED

WITH

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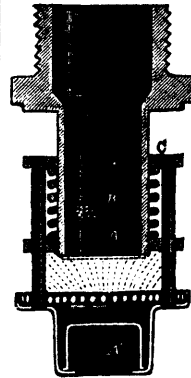
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MONTREAL BRASS WORKS,

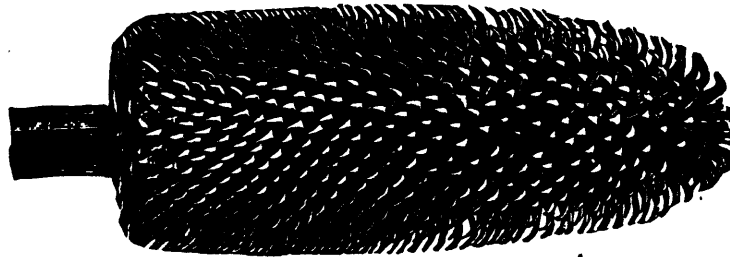
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Twines are GROWN, Cured and
Packed on OWN PREMISES.
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A. H. KELLOGG, Manager.



DEALERS LIST
AND
CROWER OF
AMERICAN Twines,
CLIPPED AND PACKED
TO ANY
DESIRED SIZE.

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

Correspondence Solicited.

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Samples sent by Mail upon Application

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ROCK ISLAND, P.Q.

MANUFACTURERS OF

UPRIGHT DRILLS

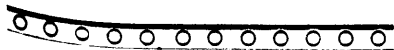
FOOT VISES and BOLT HEADERS.



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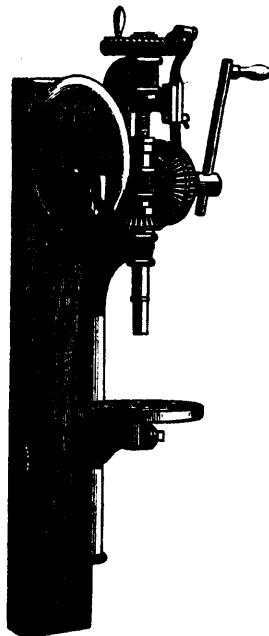
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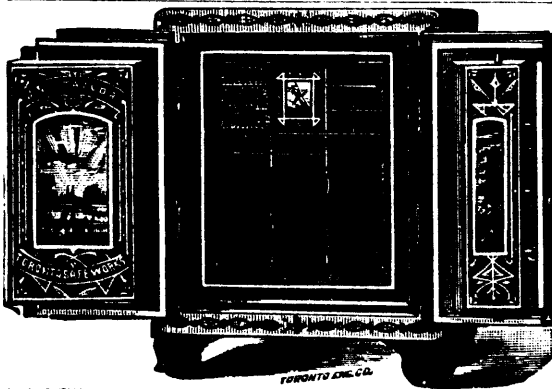
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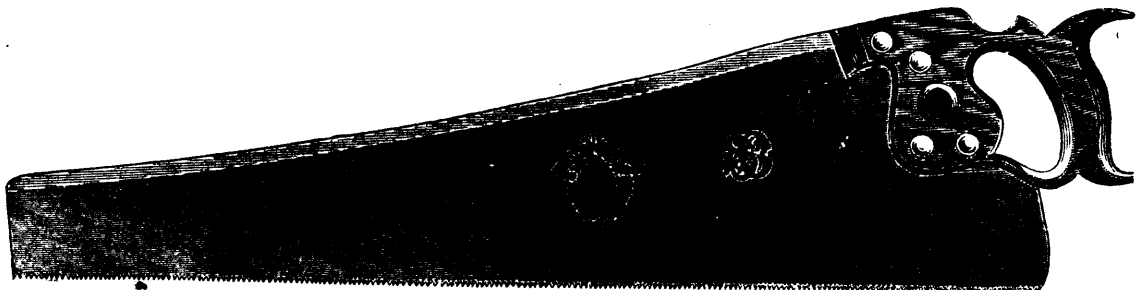
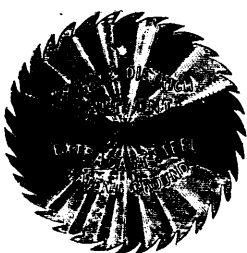
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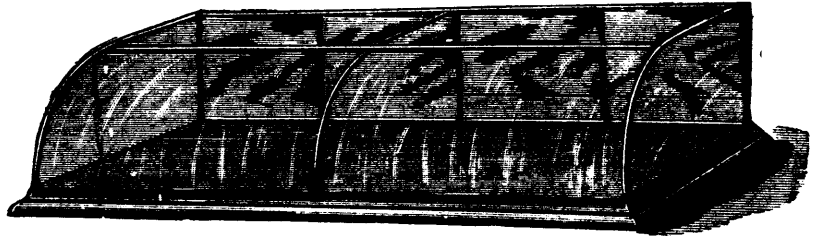
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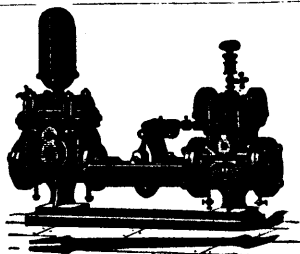
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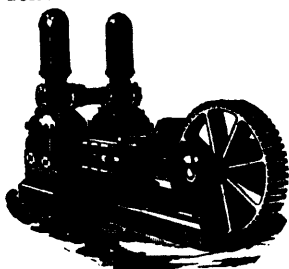
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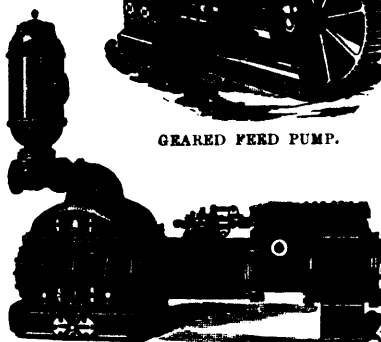
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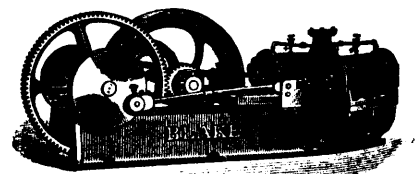


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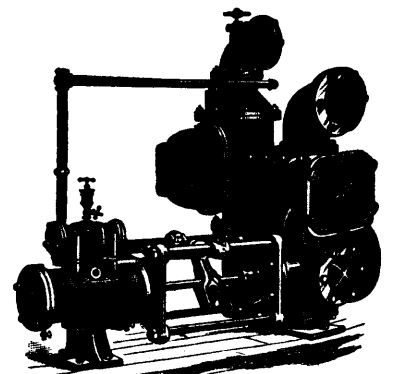
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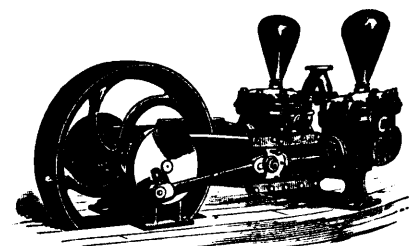
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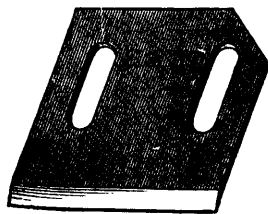
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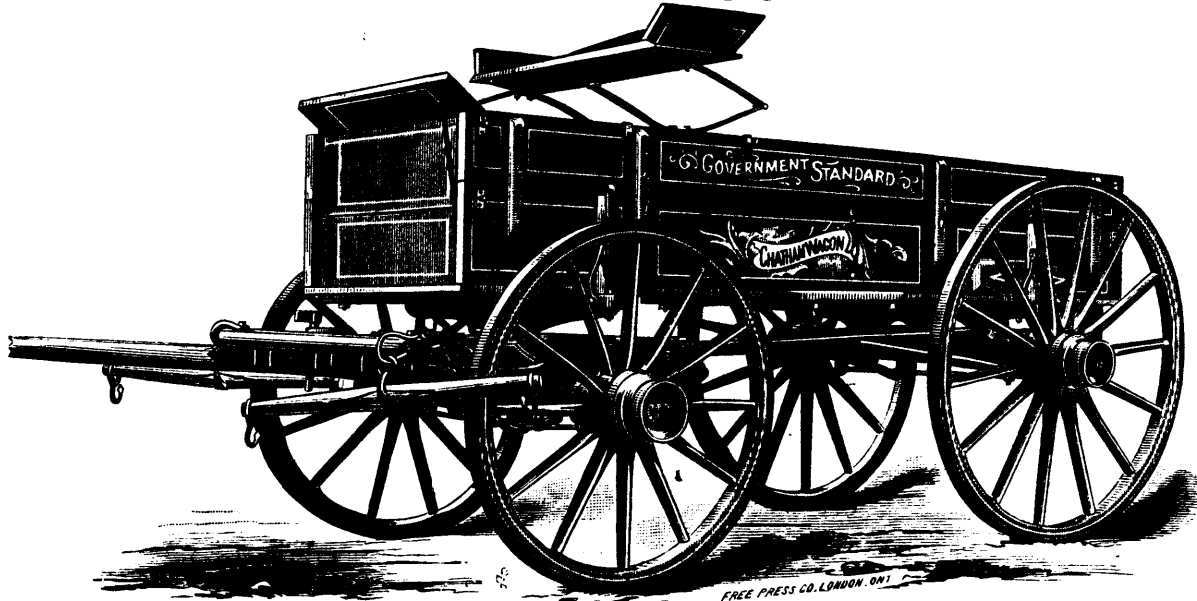
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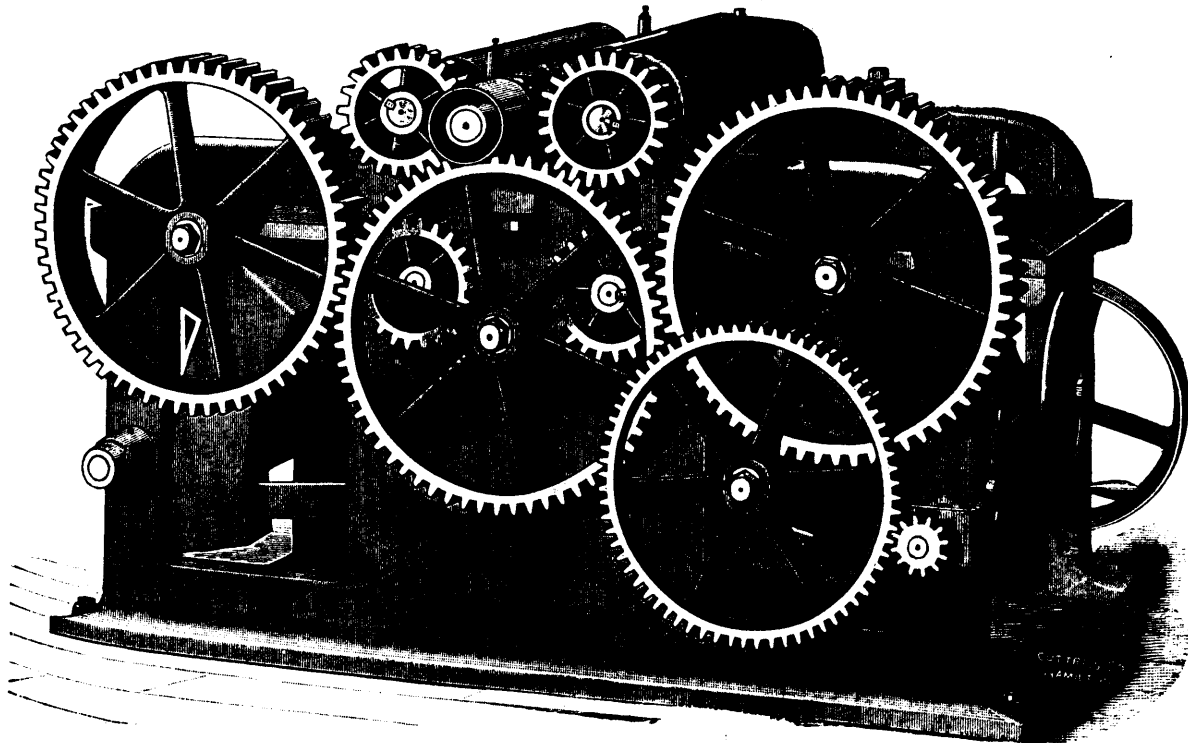
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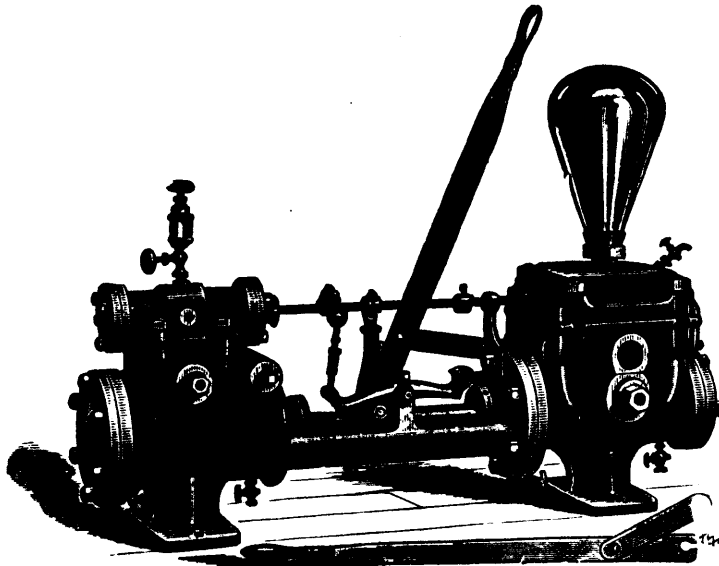
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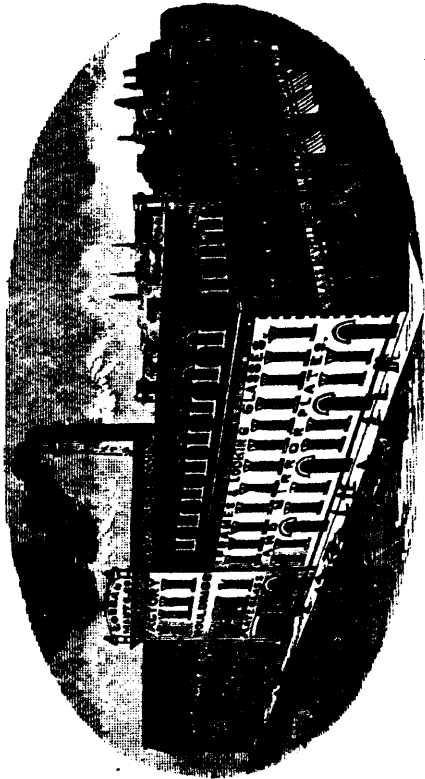
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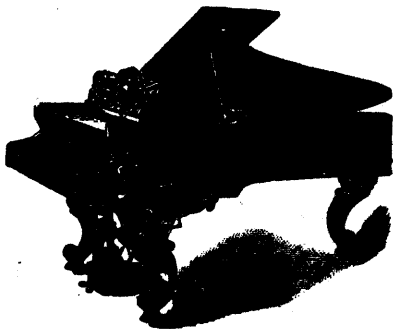
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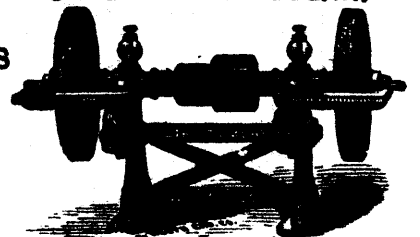
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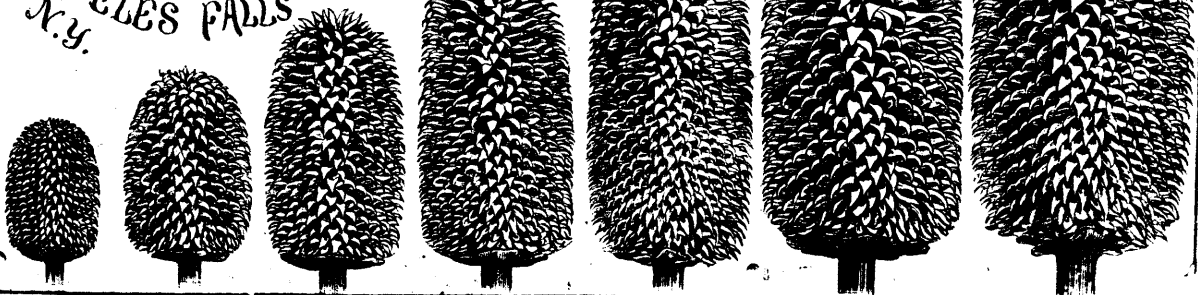
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