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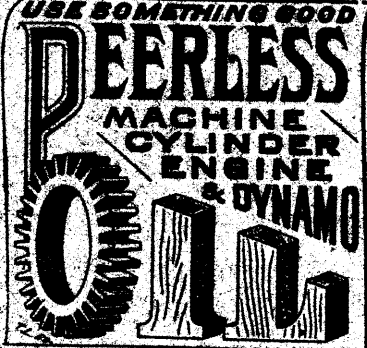
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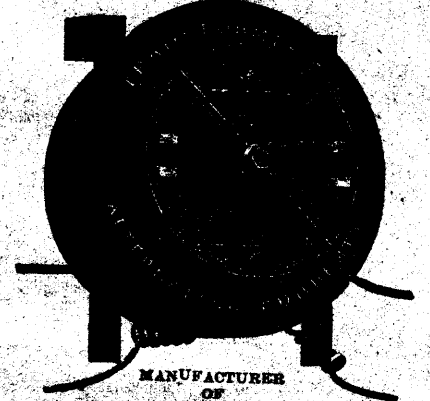
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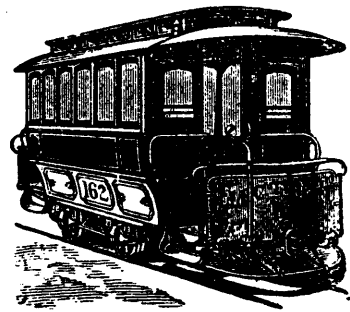
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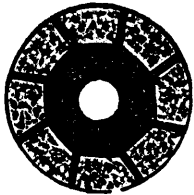
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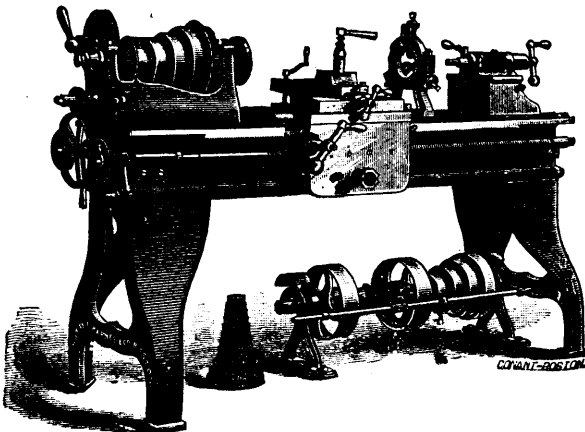
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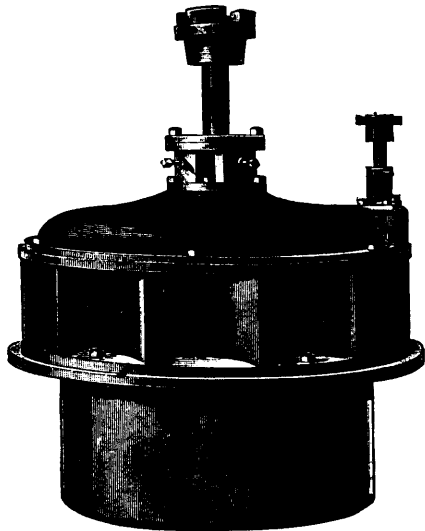
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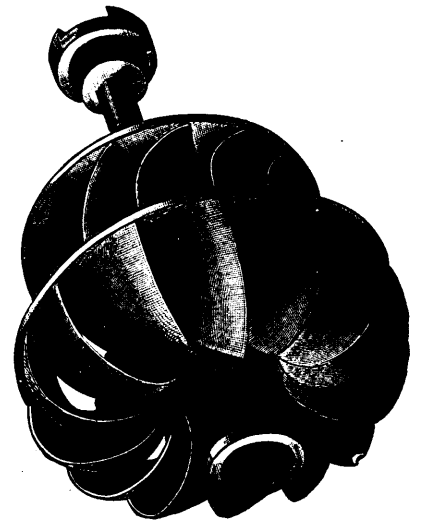
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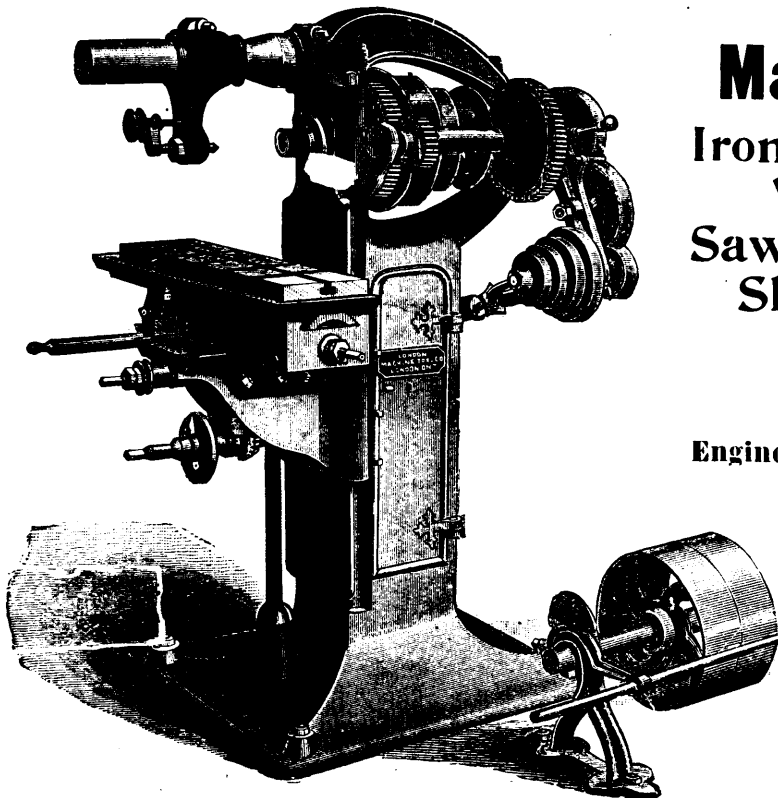
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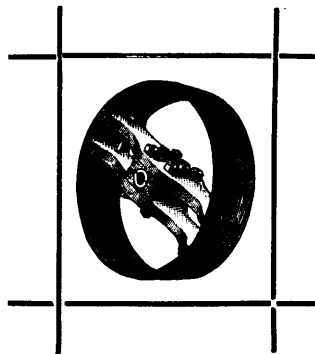
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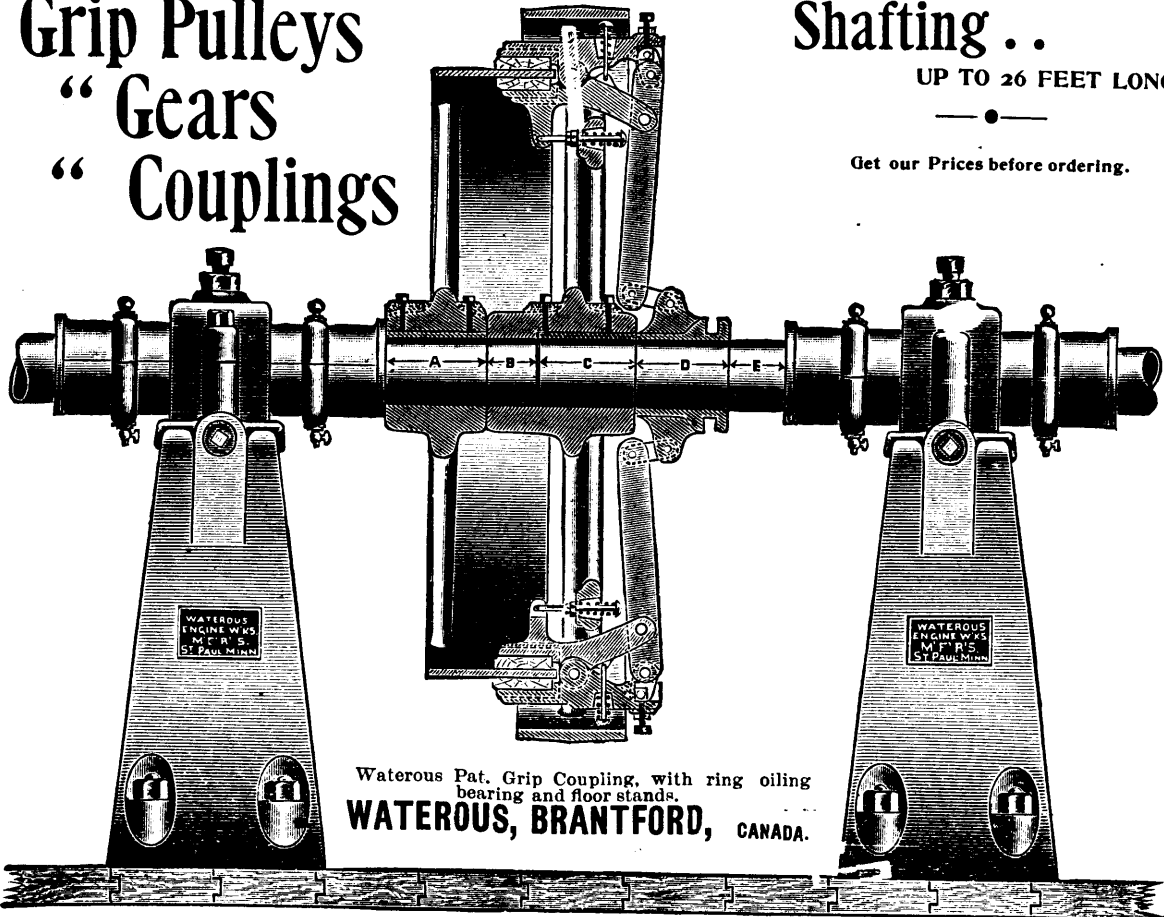
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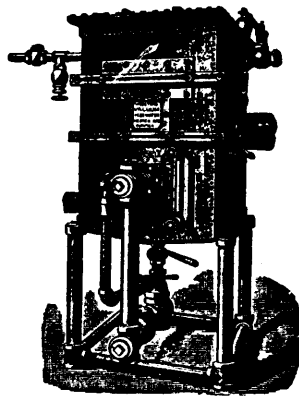
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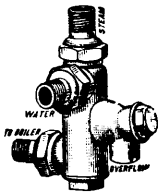


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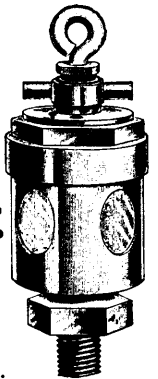
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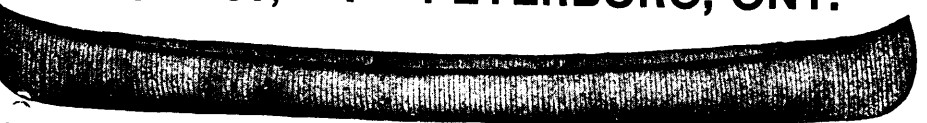
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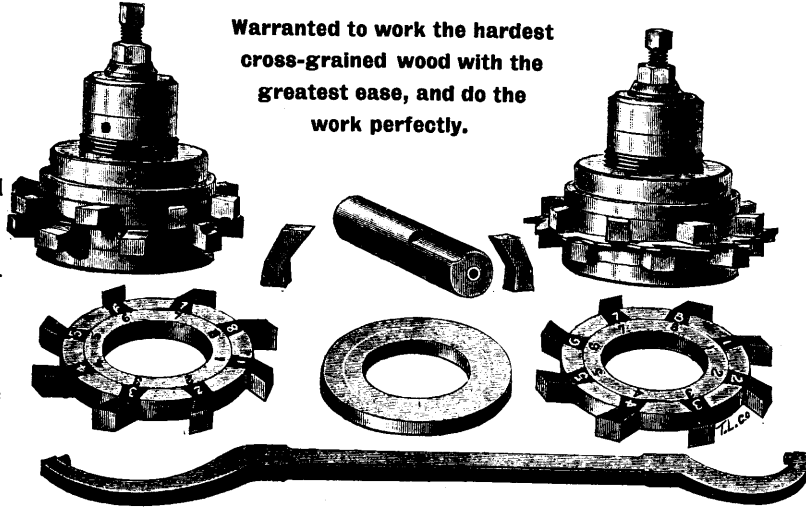
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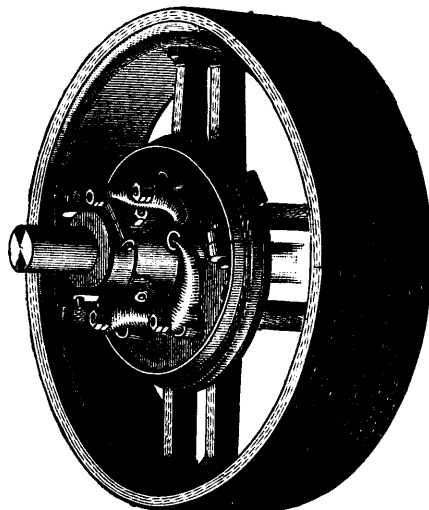
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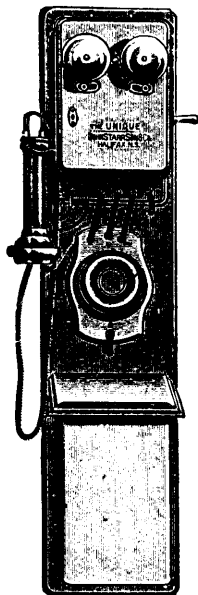
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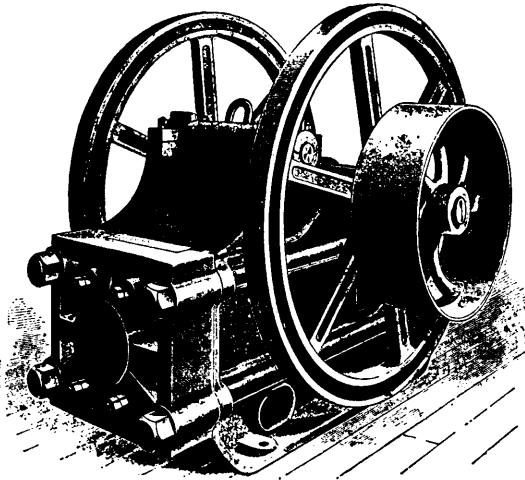
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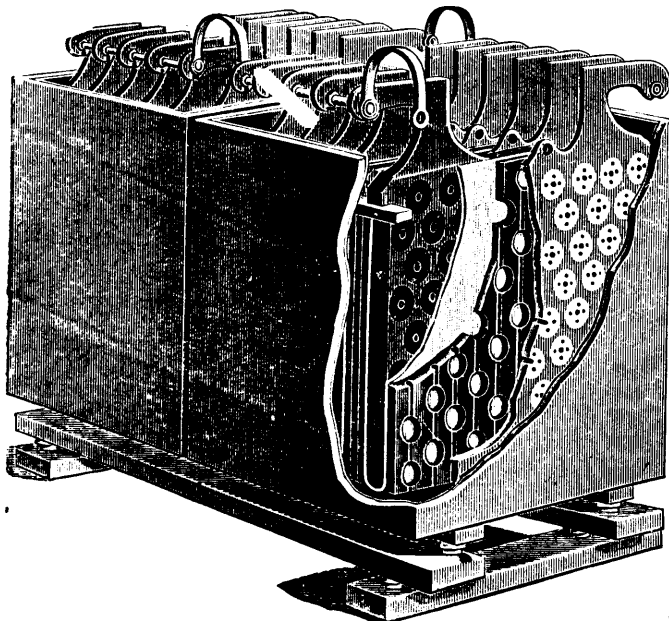
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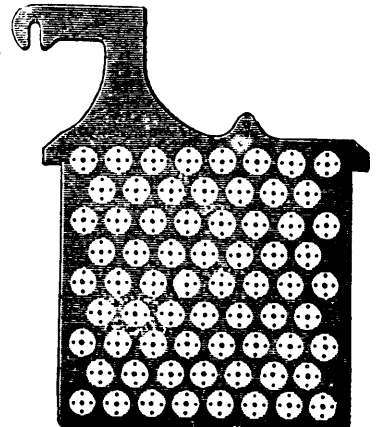
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CANADA'S GREAT FAIR.

As will be seen by reference to an attractive card in another page, Toronto's great Fair is billed to open at the old stand on September 2 and continue to the end of the following week. Mr. Hill, the manager, informs us that the event will be of greater importance than ever before. Since last September many important improvements have been made in the buildings and grounds, and what, ever since its inception years ago, has been the greatest Fair open the American Continent, will this year be greater than ever. Of course there will be innumerable attrac-

tions to amuse and entertain the hundreds of thousands of people who will be there; but what will be of special interest to manufacturers will be the increased facilities and accommodations prepared for their displays. All available spaces are rapidly being secured by wide-awake exhibitors, and no doubt they will be well rewarded by increased business for whatever trouble and expense they may be at in making their displays. Send to Mr. Hill for full particulars.

CANADIAN ENAMELED WARE.

We have recently had on exhibition in this office specimens of the steel enameled ware manufactured by the three Canadian concerns engaged in this business; also specimens of American and German ware of similar character; and from comparison of the Canadian with the foreign goods it is evident that the new Canadian industry can and does produce such goods of as substantial and attractive quality as those made abroad. In fact the Canadian goods are superior to the German and the equal of the American. The manufacture of steel enameled hollow ware, for culinary and other domestic purposes is a new department in Canada, and is a direct result and protegee of the National Policy. Heretofore such articles were usually constructed of tin plates, either pieced or stamped, and re-dipped; and existing Canadian works are well prepared to produce such goods of the very best quality to meet all demands of the trade. The enameled ware made in St. Louis is probably the best produced in the United States, but the high prices at which it was sold retarded its extended use in Canada; while the German ware, made with very cheap labor, and exceedingly cheap in quality, has for several years been flooding the Canadian market. Almost simultaneously three Canadian concerns determined to engage in the production of enameled ware:—The Kemp Manufacturing Company, Toronto; the Davidson Manufacturing Company, Montreal, and the McClary Manufacturing Company, London, Ont. All of these concerns were, and are now, large producers of tin ware. The introduction of the enamel ware industry was attended with many discouragements and difficulties. Those who possessed the secrets of the trade guarded them with jealous care, and those who were willing to impart them were autocrats who were exorbitant and unreasonable in their charges. And then the improvements in the furnaces and appliances were new, the more important of them patented, and the attendant cost very great. But these obstacles had to be met, for it was evident that if the very best methods were not used the cost of production would be too great; and in view of the competition from other countries if the goods could not be sold for as low or lower prices as those of foreign make no hope could be entertained of capturing the home market. But the home market has been captured; and it gives us much pleasure to state that although Canadian-made enameled ware may not at present be produced in as great variety as all other makers combined, yet the production of the three factories includes about all the most desirable styles; and whenever a purchaser desires an article of that character he can readily find it in the house furnishing stores, of Canadian make.

The free trade papers with parrot-like persistency en-

quire "Has the National Policy made you rich?" In respect of enameled ware the National Policy has certainly enriched Canada, in that it has established an industry that gives us articles essential in our household economy at prices that compare favourably with those of other countries, and that gives lucrative employment to hundreds of highly skilled Canadian workmen.

A BAD SLOPOVER.

Considerable interest has been aroused at the fact Mr. Wallace, the Controller of Customs, sending, as he had a lawful right to do, an expert to the United States to discover the fair market value in that country of certain lines of hardware that were being sent into Canada. Where an ad valorem duty is imposed upon an article, it is the duty of the Controller of Customs to satisfy himself that the invoice price at which the goods are imported is substantially the same as that at which they are sold in similar quantities in the country of production. The attention of the Controller had been specially directed to certain importations of scythes, the assertion being made that the goods had been undervalued; and to satisfy himself in the matter, and for the protection of the Government as well as honest importers, Mr. Wallace employed a gentleman of large experience as a manufacturer of scythes, to visit the manufacturing emporiums of the United States where such goods are made in large quantities, and discover the true market value in that country of such articles as were being exported from there into Canada. There was no question as to the technical knowledge of Mr. Hawthorne in the matter committed to him for investigation; but political enemies of the Government, have raised a denunciatory cry that because Mr. Hawthorne was connected in some capacity with the Welland Vale Manufacturing Co., of St. Catharines, Ont., who are manufacturers of scythes and other hardware, he was not the man for the occasion. He was objected to not because he was not a competent judge and expert in the business, but because, being connected with a Canadian concern in that line of business, he could not give an honest and unbiased opinion.

It may be said that importers who enter their goods at correct values have nothing whatever to fear from the Customs officers; but if, to save themselves the payment of as much duty as possible the goods are undervalued, it is the duty of the Customs officers to detect the fraud and to punish the offenders; and it is to the interest of honest importers, and to our manufacturers that this detection and punishment be accomplished. It is not surprising that Opposition politicians and newspapers should denounce the Controller of Customs in the matter, for such denunciations are their stock in trade; and it is to be observed that although Mr. Wallace and his agent, Mr. Hawthorne, have been so unsparingly abused, no charge has been successfully laid that any unfair thing has been done in the matter. It cannot be shown that Mr. Wallace exceeded his authority in sending Mr. Hawthorne to the United States to discover the market values there of scythes, and it cannot be shown that Mr. Hawthorne reported these values to be other than as he discovered them.

It is surprising, however, that a trade journal that professes to be run in the interest of the hardware trade of

Canada—our allusion is to Hardware of Toronto—should make most vindictive and unwarranted attacks not only upon the Controller of Customs and upon Mr. Hawthorne, but also upon the Welland Vale Manufacturing Co., its sneers extending to several other manufacturers whose names it does not mention. It tells us that Mr. Wallace made an egregious blunder; that as a successful business man it cannot be possible that association with his present confreres has robbed him of the mercantile sense he possessed in former days; that his ruling in the matter is iniquitous, and that the hardware trade in a certain city have expressed their intention of fighting the matter in the Exchequer Court to the bitter end. Regarding the Welland Vale Company and other Canadian manufacturers it says: "It has not yet come out how they worked the Government to secure the appointment of Mr. Hawthorne, but some of the trade say it was a part of a scheme in which several manufacturers were interested. By it they hoped to secure a complete monopoly of the trade by causing such valuations to be made as would effectually exclude foreign goods."

We have not yet observed that any hardware importing concerns have entered any suits in the Exchequer Court to have any rulings of Controller Wallace touching the undervaluation of imports of hardware declared null and void, nor to denounce his methods of obtaining information relating thereto. As we have stated, honest importers have nothing whatever to fear at the hands of the Customs officers. They know what the law is and they conscientiously observe it, and have no trouble in entering their imports, and therefore the journal alluded to cannot possibly be speaking for them. It looks, then, that if it is speaking for any importers whatever, if any such there be it is for those who desire to defraud the Government by undervaluing their imports. If such be the case Hardware is welcome to all the glory and all the gain it can capture in that direction.

Aside from the false insinuations Hardware makes regarding Mr. Wallace and his confreres in the Government, we must emphatically object to the malicious things it says regarding the Welland Vale Manufacturing Company, and the other manufacturers in the same line of business whose names it very wisely refrains from mentioning. The insinuations against them are as vile as false, and manufacturers generally will probably bear in mind the name and character of the journal that thus villifies them.

MEXICAN NATIONAL EXHIBITION.

The Mexican National Exhibition that is to be opened in the City of Mexico in April of next year, should possess much interest for Canadian manufacturers. It is to be observed that while the Mexican market is being exploited to a rapidly increasing extent year by year by enterprising Americans, Canadian manufacturers and merchants seem to take but little interest in this very advantageous opening for trade. The following general lines of manufactures, produced to good advantage in Canada, are not produced in Mexico, and of these our manufacturers would do well to make attractive displays there:—

Electrical and steam machinery, hardware and tools, plated ware and cutlery, agricultural implements, well-

bring apparatus and pumps, pianos and organs, railroad cars for passengers and freight, street cars, mining apparatus, wooden goods, paper, maps, slates, canned meats and preserves, etc.

In 1888-1889 Mexico received the following articles of import:—

Cotton goods from United States, England, France, Germany.....	\$ 7,534,089
Comestibles from United States, Spain, Italy..	4,893,706
Drugs, from United States, France, Germany	1,697,830
Woolen Goods, from France, England, United States, Germany.....	1,613,186
Iron and Steel ware from United States, England, Germany, France.....	1,510,310
Paper, from United States, Spain, France, Germany, Italy.....	1,352,143
Linen and Hemp Goods, from England, France	673,029
Hardware, from United States, Germany, France.....	658,854
Glass and porcelain from United States, France, Germany.....	607,727
Copper ware, from United States, France, Germany.....	593,167
Machines, from United States.....	539,582
Furs, from United States.....	414,100
Gold ware, silver ware, from United States...	320,844
Arms and munition, from United States.....	280,453
Carriages, from United States.....	213,796
Stone and earthen ware, from United States..	81,816
Led ware, tin ware, zinc ware, from United States.....	75,969

The value of the exports from Mexico for the financial year 1891 was more than \$63,000,000 and of the imports more than \$50,000,000. Of the exports for 1892 the United States received \$50,000,000, Great Britain \$15,000,000, France \$5,000,000, Germany \$4,000,000. There are more than 7,000 miles of railroad open to traffic. The telegraph lines have a total length of 38,000 miles. The postoffice receipts of the Mexican Government were in 1891-92 \$1,142,182. Mexico possesses a merchant navy of 1,268, vessels, and more than 30 excellent harbors.

The Federal Government of Mexico has liberally consented to admitting free of duties all materials and machinery to be used in the construction of any buildings on the Exposition grounds, while all goods and articles imported from abroad for the Exposition will be treated by the Mexican Government as imported "in bond" and import duties will have to be paid only in case of sale.

The exhibitors and concessionaires—those who sell foreign articles, or have hotels, restaurants, bar-rooms, theaters, circuses, and other shows in the foreign section, are to be exempt from all federal taxes.

The railway and steamship companies will carry exposition freight for considerably less than the regular tariff.

It is proposed to offer special premiums for the best model houses of different countries, said houses to be entirely constructed of material produced in the country which they represent.

Prizes will also be offered for large hotels which are to be erected on the American and European plans, an inducement which will certainly incite the competition of prominent architects and builders of different countries.

Concessions will be granted by special contract for the sale of souvenirs and novelties of every kind.

To encourage immigration the Mexican Government

has granted free introduction of constructing and repairing materials for tramways for a period of 30 years, it will give concessions for hotels free from taxes for a period of 10 years and will allow a free introduction of all furniture, crockery, glassware, etc., to be used in said hotels. It has promised to a Colonization Land Co., which is now being organized at Chicago, the special concessions of free introduction of houses, implements, etc., and the liberation from paying taxes for a period of 10 years.

There is no doubt, that Mexico's population will in the next future increase in the most surprising manner, and there will be a vast field for American enterprise and business speculation.

The visitors of the Exposition of 1896 will to a great extent consist of Spanish talking people. Mexico and Costa-Rica, Cuba and Guatemala, Honduras and Porto-Rico, the Argentine Republic and Brazil, Chile and Colombia, Paraguay and Peru, Ecuador and Venezuela will be represented by thousands of people, who will investigate and compare the exhibits of all nations and of all individual firms and who will form their opinions according to their experience. To exhibit in Mexico means to make a display of samples to all Latin-American States.

BOILER INSPECTION.

During the recent session of the Pennsylvania legislature the Boiler Manufacturers' Association of that state, urged the enactment of a law which provided for the appointment of a supervising inspector who should be a practical steam engineer, who had had charge of steam engines and boilers for not less than ten years. The duty of this inspector, assisted by a sufficient number of local inspectors, would be to inspect all boilers used or sold in the state, each boiler to be subjected to such hydrostatic pressure as would satisfy the inspectors that it was made of good and proper material. Every piece of boiler plate must be inspected and subjected to a tensile strain before being used in boiler construction. One clause of the bill stated that all engineers must be examined by the inspectors and licensed before being permitted to perform their duties in any establishment in the state. They must show a thorough understanding of the duties of an engineer, and must take oath that they will comply with all instructions and regulations.

The American Manufacturer tells us that this latter feature of the bill had been embodied in measures that had been presented years ago. At that time good reasons were given for the passage of such a bill, and these reasons are even more forcible to-day. Statistics are given showing that 52 per cent. of the boiler explosions which occurred in the United States during 1892 were in saw mills, rolling mills and mines. Under the marine laws, the man who takes charge of the engines on the smallest tug or tow-boat must undergo an examination, although there may not be more than half a dozen hands employed on the craft, while under the present local laws an incompetent engineer may get into a mill or manufacturing establishment and endanger the lives of hundreds. In these days when steam power plants are being rapidly extended, and boiler batteries growing larger, the need of competency and carefulness in their management is more imperative.

Of course we do not assume that competent and careful men are not preferred by employers even under the present law, but were all compelled to prove their efficiency, life and property in manufacturing concerns would be made more secure, as unworthy men could not possibly get in. One objection made to such a law some years ago was that it would result in a higher cost of labor, and that the men would be given a better opportunity to combine. This, however, is hardly a reasonable objection. The licensing of engineers would place them under greater responsibility, and there is nothing like responsibility to hold men in the right course.

TWO STANDARDS OF FREE TRADE.

The New York Press has been studying Sir Richard Cartwright's free trade speeches, and comparing them to the utterances of the tariff reformers of the United States. It says:—

Sir Richard Cartwright, who is now and then Premier of Canada, has been studying William M. Springer's and Grover Cleveland's speeches, and evidently thinks the revenue reform game can be made to win there as it did here. He therefore tells the Canadians in his speech at North Perth that under the protective policy which Canada has pursued for sixteen years, the Canadians have been taxed \$60,000,000 a year and more, "not counting in the sums which are partly paid into the public treasury and partly into the pockets of private manufacturers." Here is \$1,000,000,000 paid in sixteen years, according to Cartwright, not counting the sum "paid partly into the public treasury and partly into the pockets of private manufacturers." This is \$1,000 for the sixteen years or about \$60 a year for every Canadian family.

As there is no hint by Sir Richard that even a penny of this vast taxation goes out of the country, it follows that there must be an income to some portion of the people of Canada from protective tariffs equal to \$60 a year for the whole population of the country. Who gets this increased income? As the productive classes and protected industries embrace nearly everything the Canadians are doing, it would seem probable that as many receive these supposed taxes as paid them. If so, who is hurt? There are no Carnegies in Canada, no multi-millionaires. The woolen, cotton, iron, steel, wooden-ware, furniture and clothing factories employ small capitals, and their wages bill leaves only a small margin for dividend and hire of superintendence.

Moreover, Sir Richard Cartwright may not know that free trade orators in the United States come back from their summer tours in Canada under the impression that they have been basking in a land of pure delight where tariffs never reign. There is not a free trade stump in the United States from which the orator has not exhibited his woolen suit bought in Canada to prove how cheaply clothing can be produced in that country. The interval of sixteen years since Canada adopted Protection has not sufficed to bring that fact to the notice of the average American advocate of free trade.

If prices of Canadian manufactured products are so low that American traders will make their summer tour through Canada in order to buy them, what becomes of

Sir Richard's estimate that they are made so high by Protection that their increase in price amounts to a tax of \$60 a year to every Canadian family?

Why not call for an international conference between Canadian tariff reformers and United States tariff shriekers so as to prevent the two standards? If our American buyers of Canadian made suits are to be let loose, Cartwright must be chained up. If Cartwright is to go at large, free trade orators from the United States must suspend.

TRADE PROSPECTS.

The following is an extract from the address given by Mr. B. E. Walker, General Manager of the Canadian Bank of Commerce, at the recent annual meeting of the shareholders of that institution:—

"The activity of the last month or two would seem to indicate that the tide of trade is already rising, but we want many evidences, still lacking, before we are quite convinced of this. One of the most hopeful and significant of the changes between April and June is in the employment of labor. We learn from Bradstreets that in the United States 227 establishments, closed during the depression, opened up for work, that 53,400 wage-earners obtained work who were before idle, and that the wages of 178,000 employees were advanced. During this period about 36,000 employees joined various strikes and of these about 25,000 demanded higher wages, but on the whole there has not been serious trouble from that source. The next most significant change has been the improvement in both gross and net railroad earnings. This has already been experienced to a satisfactory degree, but if the tide has really turned a much greater increase will develop during the ensuing year. Excessive competition by railroads may be a very good thing for trade, but the other result in the shape of inadequate earnings is ruinous to the financial credit of all North America, and indirectly does far more harm than the benefit by competition to trade. There is some ground for hope that the era of free railroad building in the United States, that is, building under a general railroad act and without reference to public requirements, may be gradually checked. An act passed in 1892 in New York State, intended to prevent the paralleling of lines or the building of railroads in localities where they are not required in the public interest, has been in one case actually put into force.

Of less importance, because a less reliable index of the growth of actual trade in commodities, is the increase in clearing house exchanges. The activity of the last month or two is, of course, largely speculative, and speculative transactions where no commodities change hands often swell the clearings, so that real movements in commodities cannot be traced accurately. But bearing this in mind the improvement in the United States for the month of May, amounting to nearly 27 per cent. of an increase over the same month in 1894, the figures being only seven per cent. less than in 1893, is very gratifying. The increase for the same month in the five Canadian cities possessing clearing houses amounts to a little over ten per cent., a very satisfactory showing, as the percentage of loss from the high figures of 1893 was much less than in the United States.

When we turn to the prominent staples we cannot but be much encouraged. Wheat, which within a year touched the lowest recorded price in 250 years, is again comforting the farmer with the old charm of a dollar a bushel, an advance almost unprecedented for rapidity. Doubtless the pace has been too rapid, but there seems little reason to doubt that the new crop will be marketed at remunerative prices. Iron of all kinds had fallen a few months ago to an average of 54 per cent. of the prices of October, 1890, and had risen at the close of May to 59 per cent. It is still, however, so low, and the power of production so great, that the profit of the miners and iron manufacturers in the United States must be trifling in relation to the enormous investment of capital. Petroleum has settled back somewhat after its great advance, but the present price is stimulating production all over the world. Hides, leather, boots and shoes, and beef have all gone up together, and doubtless to some extent from the same cause. While the leather industries of all kinds sadly needed the aid of better prices, perhaps no advance is of so much importance to our province as that in the price of cattle. The past few years, what with British restrictions and low prices, have been hard on the Canadian grazier, and now that there has been a substantial recovery it is to be hoped that for the future we will have steadier and more adequate results. At the moment, however, prices have again receded somewhat. Still it is fair to presume that as horses have also lately shown a decided change for the better, and attempts are being made at raising better animals, we can count on profitable returns from cattle, pigs, sheep and horses, which means a great deal for Ontario.

While the advance has not been universal many other leading staples such as cotton, wool, etc., have participated in the change, and there can be little doubt, even if present values are not quite maintained, that the turn has come.

EDITORIAL NOTES.

The United States ship *Mohican*, which is now at Seattle, is expected to arrive here at the end of this week and will probably remain here about a fortnight. The object of her visit to this port is for the purpose of testing the anthracite coal, and it is understood that if the tests prove satisfactory, this coal will be largely used by the vessels of the United States navy on the Pacific coast.—Vancouver B. C., News Advertiser.

The Electric Storage Battery Company, of Philadelphia, have closed a contract for a storage battery plant in connection with the Sprague electric elevator system. The plant will be installed in the new public buildings of Minneapolis and will operate 12 elevators. This is a new field for the storage battery industry.

News comes from Quebec of the discovery of some large deposits of chrome iron ore near Coleraine, on the line of the Quebec Central Railway. The ore occurs in serpentine the same geological formation as the asbestos of Thetford and Coleraine is found in, and is reported to occur largely in surface deposits. If this is so, it ought to be mined, or rather quarried, very cheaply, and should find a ready market in the United States, whither the bulk of it will no

doubt be exported, as there is at present no home demand for it in Canada.—British Trade Journal.

On Thursday, at the Imperial Institute, South Kensington, Professor J. Long read a paper on "Our Food Supply; Can the Colonies Provide It?" Professor Long pointed out that if every additional occupier of a quarter section of land put one-half into wheat he provided for 220 men, whereas every couple of acres of prairie newly broken up for wheat provided for a family of five persons, and this, too, when the annual average was as low as 18 bushels. The whole of the foreign wheat imported into England could be produced in our colonies by 76,000 additional farmers each growing 18 bushels on 100 acres. Great as was the area thus defined, it meant but 12,500,000 acres—assuming that each farmer occupied a quarter section—out of the 200,000,000 acres still untouched in the northwest of Canada, apart from the illimitable area of wheat land in Australasia, which was larger than the United States and twenty-four times larger than the United Kingdom. It was shown, too, that while the people of the United Kingdom, Canada and Australasia, required annually 289,000,000 bushels of wheat for their sustenance, they produce on the average of 1891, 1892 and 1893 only 172,000,000 bushels, so that the entire American exports to us would be necessary to provide for the deficiency, as well as the Indian consignment, apart from the provision of seed.—Manchester Guardian.

The uses of electricity are increasing, and even the birds utilize it in their business of incubation, or at least make use of electrical appliances. The *Petrolea Advertiser* tells of a pair of guy birds in that town that built a nest in the globe of an electric lamp and raised therein a brood of six young ones.

The latest reports from Canada are not satisfactory reading for English manufacturers. It is stated that "boiler plate, tank plate, and sheet steel, until lately imported solely from England, is now imported from the United States, with almost as little exception;" that "galvanized iron is another article in which the imports from the United States continue to grow;" and that "iron pipes come from the United States in increasing quantities, several carloads coming in now almost daily." It looks, indeed, as if the Americans had captured our Canadian market, just as the Germans and the Belgians have captured the markets of India and our Australasian Colonies.—London Iron and Coal Trades Review.

The Massey Manufacturing Company, Toronto, is to put up an extensive addition to its premises and go largely into the manufacture of bicycles, the works to employ three or four hundred men. Heretofore bicycles have been imported into Canada in pieces, and put together here. But the Massey company will make the entire machine. Tally one more for the late, lamented, discredited, dead and gone N. P.—Hamilton Spectator.

It is announced that a linseed oil mill is shortly to be established at Sidney by Belgian capitalists, one of whom himself a skilled operator, is about to transfer his works to this province. Besides the making of linseed oil, oil-

cake, and other products, the manufacture of canvas for oil factories and cloth will be added to the mill, which, at the commencement, will employ 25 or 30 hands. While the supply of linseed will be imported to start with, there is a good opportunity here for our farmers to raise flax seed, which, it is said, would return from \$35 to \$40 per acre. It is further said that not alone the linen industry is to be set agoing here, but other enterprises allied to agriculture will also receive marked attention from the people of the continent of Europe. Besides an endeavor will be made to induce a good class of the working classes of Belgium to come and settle here. They are a very thrifty people and it is certain that any who come will be sure of abundant success.—Victoria, B. C., Commercial Journal.

The Toronto Railway Company have intimated a move that is proving very popular. They have fitted up a number of open motor cars and trailers that are beautifully ornamented with vari-colored incandescent lamps. These cars are available for private and excursion parties, and may be hired by the hour to make runs over any or all of the lines of the company in the city.

Several Guelph gentlemen have organized themselves into a gang of robbers, who, according to the Hamilton, Times, intend to grow rich by compelling the Canadian consumer to pay tribute to them. In other words rolling mills and puddling furnaces will soon be established in Guelph, and a compound condensing engine of 350 horsepower is now being constructed in Hamilton, to be used by the miscreants in their work of brigandage. This country seems to be going to the dogs quite rapidly.—Hamilton Spectator.

The delegation from the Manufacturers' Club which went to Harrisburg recently to protest against a bill that proposed to forbid women to labor in factories for a longer period than eight hours a day, made the point that the Legislature has no right to undertake to determine how long an adult woman may labor. The Legislature of Illinois, in 1893, passed a law containing a similar prohibition, and the Supreme Court of the State has just decided unanimously that the act is unconstitutional. The court holds that a woman is entitled to work as many hours in a day or in a week as may happen to suit her own convenience or interest; and that any act which attempts to abridge the freedom of contract between employer and workmen in a lawful occupation is unconstitutional. Thus the decision affects not only male, but female, laborers; and, whatever may be the consequences of the declaration of the court, no reasonable man can deny that it is based upon considerations of equity. The state may properly control, and impose limitations upon the labor of minor persons; but when it undertakes to deny to a grown person the right to sell his labor-power upon his own terms, it engages in intolerable interference with the personal liberty of free men and free women. Were the attempt made to subject to such restrictions professional men, store-keepers, and others who do not work for fixed wages, it would be fiercely resented and resisted; but the rights of these persons are not more sacred than, nor do they in any manner differ from, the rights of men and women who

work in humble positions in manufacturing establishments. There can be hardly any doubt that the Supreme Court of the United States would fully justify the decision of the Supreme Court of Illinois.—The (Philadelphia) Manufacturer.

Snide journalism seems to be prevalent in British Columbia as well as in Ontario, judging by the following item published in the Victoria, B.C., Commercial Journal:—

According to the proprietor of the Goldstream house, some people have a funny way of promoting the circulation of papers with which they are connected. It must be something of a new experience for hotel keepers to have customers contracting a bill, objecting to the moderate charges as extortionate, then professing to have no money and finally, to offer as the last and only alternative a year's subscription to a weekly periodical. This is decidedly a new policy. Is it the characteristic of the "new editor?"

The Massey-Harris Company are making rapid progress in the construction of their new bicycle factory in Toronto. It is announced that they will build a really first-class wheel which will be sold at a moderate price. It is to be supposed that as soon as this new industry has been well established the company will engage in the export business; and it is also to be supposed that as soon as that time arrives they will demand some such tariff favors of the government as they have already obtained affecting their agricultural implement business, coupled with a never-to-be-executed threat that if it is not complied with they will remove their works to the United States.

"Greater and better than ever," "Excelling all others," and "It draws like a magnet," are terms very appropriately applied to Toronto's Great Industrial Fair, the seventeenth of which will be held from the 2nd to the 14th of September next, and the Directors announce their determination to make this year's Fair eclipse all former ones. They have issued a very neatly gotten up prize list, a copy of which can be procured by anyone who so desires, by dropping a post card to Mr. J. H. Hill, the Manager, at Toronto. Already many applications have been received from manufacturers both in Canada and from abroad for space to exhibit their products, and present indications point to a greater and grander exhibition than any of the previous ones. Cheap excursions will as usual be run on all railroads, and this will undoubtedly be the most popular holiday outing of the year. Numerous new and interesting attractions will be provided. Almost everyone who claims to keep posted on the progress of our country goes to the Toronto Fair, which is generally admitted to be the best on this continent.

Heretofore it has been the practice of the advertising solicitors of Toronto daily newspapers, at the time of the Toronto Fair, to absolutely refrain from making any mention of any exhibit of any manufacturer who would not pay therefor at the rate of so much per line of such notice. All other attractions at the Fair received free notices, even the side shows and peanut stands, but the line was drawn at manufacturers' exhibits, and even the presence of the

most novel and instructive mechanisms on the grounds were studiously ignored unless the exhibitor allowed himself to be blackmailed into paying for notices of them. The fakirism was so general, and the application of it so unscrupulously applied that manufacturers felt that it was about the only way of becoming rid of the nuisance to pay their dollars without regard to whatever the papers might say about the exhibit. No manufacturer entertained an idea that he was benefited to the extent of one cent because of the notices that he might put up his dollars for; and no one ever supposed that the notices contained any candid criticism or description of the exhibits they alluded to. Under this pernicious system, where reputable exhibitors could not but feel that they were being blackmailed out of their money by the sharks of the press, other exhibitors took advantage of the situation and, knowing the venality of those with whom they had to deal, prepared just as much fulsome, overdrawn and incorrect notices of their exhibits as suited their purposes, all of which would be accepted and published in the Toronto daily papers for the money considerations paid. In fact this system allowed of what purported to be notices of exhibits of articles that were not even at the Fair. This journal has persistently fought to suppress this vicious system, and we sincerely hope that it will not be renewed at the forthcoming Fair.

Toronto's great Industrial Fair will be opened on September 2 prox., and without doubt the exhibits of our manufacturers will be finer, more attractive and more im-

portant than ever before. It costs much money and valuable time to make these exhibits, and without them the affair would be as stale, flat and unprofitable as the play of Hamlet with the character of Hamlet omitted. It is to be hoped, therefore, that the exhibitors of machinery, etc., will not be blackmailed and pestered and disgusted beyond endurance as heretofore by the advertising representatives of the Toronto daily papers. This is a good time for the papers to turn a new leaf and do their best to be decent. It is to be hoped, too, that exhibitors will not lend any countenance or encouragement to such newspaper fakirism as demands so much per line for any flatulent notices they may make.

Anent the question of the domestic production of carpet yarns, Messrs. Talbot, Cockroft & Harvey, manufacturers of body Brussels and Wilton carpet, Elora, Ont., inform us that they make in their own mills all the yarns they require in their business.

Mr. Foster says that the National Policy saved Canada from the depression which distressed the rest of the world. If protection saved Canada, why did it not save the United States, which, according to Mr. Foster, rejoices in the iniquity of a forty per cent. tariff?—Montreal Herald.

The United States was all right until Mr. Cleveland and the Democratic party came into power with a threat to adopt a fiscal system as closely approaching free trade as possible. The effect of that threat, and the efforts made to put it into execution, caused all the manufacturing industries of the country to become panic-stricken, the

1895.

THE LATEST INVENTION IN COAL SAVING APPLIANCES.

— “MICA” —

The well-known **Electrical Insulator** successfully adapted as an Insulator of **Steam** heat. **Enormous saving of fuel guaranteed** by the use of **Mica** boiler and steam pipe covering.

Patented 1894 and 1895.

Now being used with great success by The Toronto Street Railway Co., Niagara Navigation Co., Toronto Ferry Co., etc., etc. Has been tested and thoroughly examined by the highest authorities and pronounced the most effective in the market. Impervious to the extremes of heat or cold, damp or vibration. Made in any size mats in any shape. Can be applied and removed as often as desired without injury.

..... SOLE MANUFACTURERS

The Mica Boiler Covering Co. Ltd.,

2 BAY STREET, TORONTO.

panic extending as a matter of course in all directions, and involving all other industries. Fortunately the better sense of the people prevailed at the last election, and the next Congress will be in the control of the protectionists. It was this revulsion that restored confidence and, confident that protection was not to be destroyed, prosperity again began to smile upon the people.

Has the National Policy made you rich?—Toronto Globe.

The National Policy prevails in Canada.

It is estimated that in Great Britain, with its population of thirty-six millions, there are generally about seven hundred thousand men out of work. There are about eight hundred thousand paupers. Out of every thousand persons who die in merry England, over nine hundred die without leaving any property at all. About eight millions exist always on the borders of destitution. About twenty millions are poor. Yet England has had free trade for fifty years.—Review of Reviews.

The protective principle prevails in Canada. A correspondent of the Orillia, Ont., Packet, writing from London, Eng., says:—

Things are bad here. Everything comes from abroad. Cassels even are now issuing a book "Printed in Holland," and Bibles from the Oxford press have a little note, "Printed in Germany." It seems as if free trade, all very well in theory, practically is a failure unless everyone goes in for it. One protectionist country spoils the lot. I sincerely trust you will keep Mr. Cartwright out in Canada. When the ordinary Englishman gets up, he breakfasts on eggs from Holland, Danish butter, Vienna bread—made by German workmen, of American flour. For lunch he

has nice German, Dutch or American cheese, perhaps an Ostende rabbit, and for dinner Australian beef or mutton, potatoes from Holland, and greens from Jersey, and American canned fruits. In the meantime Essex farmers are going through the bankruptcy court at the rate of three hundred per year.

Does free trade give employment to British labor? It is impossible for the National Policy to produce a condition in Canada similar to that prevailing in Great Britain.

The Woodstock, Ont., Sentinel Review wants the Canadian Press Association to make a trip to Newfoundland to obtain information regarding that country in view of the fact that it may at no distant day become a part of this Dominion. The proposition is received by the Hamilton Spectator in the following style:—

The Canadian Press Association should go to Newfoundland by all means. It would be a pleasant trip during the warm season, and there is a lot to see, to eat, and to drink in the proposed new province. There are four newspaper offices in the island, and the Canadian cross-roads publishers might there get some valuable pointers about advertizing and job printing, to say nothing of the chance to learn whether Newfoundland admits Yankee baking powder and quack medicines free, that the island publishers may get money for advertizing the same. The association would probably allow the Central Press Association to send a qualified writer along with the boiler-platers' expedition to do what writing up might be considered necessary.

It is really cruel to poke fun at the C.P.A. in this style, and the Spectator may look out for a flaying in the next issue of the Printer and Publisher.



A REVIVAL OF TRADE.

NOW IS THE TIME to bring your business prominently before the people, and the best way to do so is to

— **EXHIBIT AT** —

Canada's Great Industrial Fair ... Toronto ...

September 2nd to 14th, 1895.

Early Applicants for Space Will Secure the Best Positions.

ALL ENTRIES CLOSE AUGUST 10th.

Visitors are coming from all parts of the continent.

This year's Fair will be greater than ever.

Excursions on all Railways in Canada and the Northern States

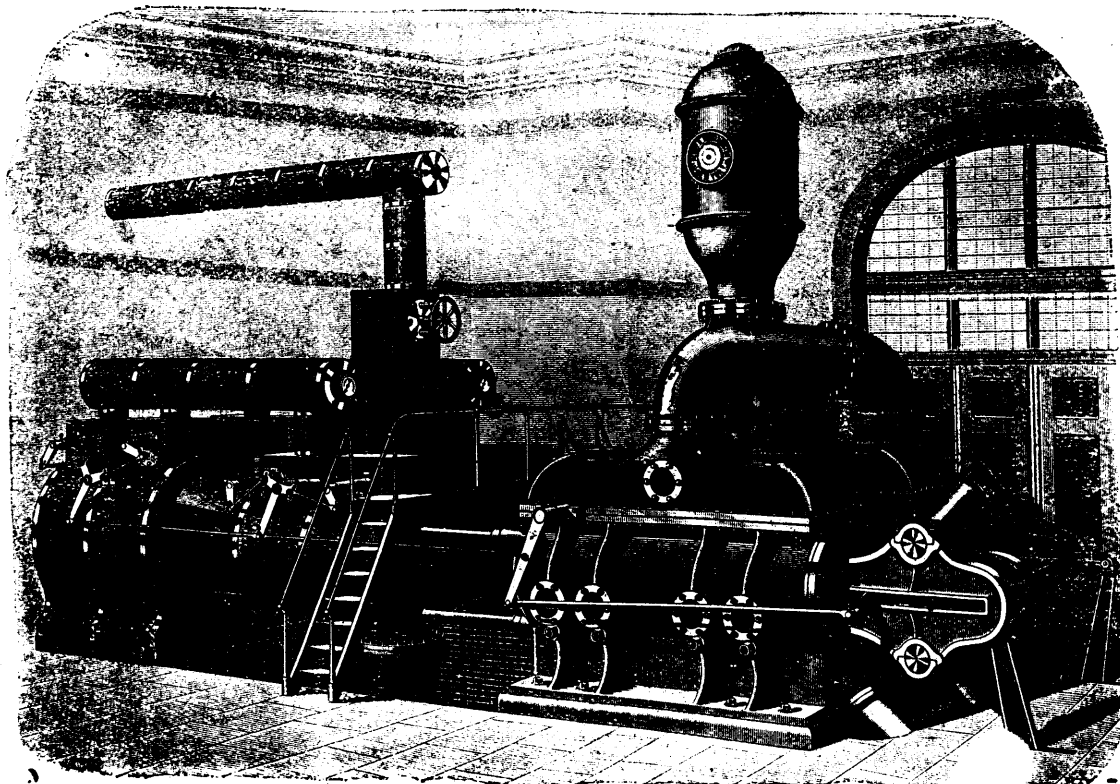
All Space Free. No Charge For Power.

For Prize Lists, Entry Forms and all information address,

J. J. Withrow,
President.

H. J. Hill,
Manager, Toronto

JOHN M^cDOUGALL, CALEDONIAN IRON WORKS, MONTREAL, QUEBEC.



General Agents
In Canada for
THE FAMOUS
Worthington
Pumps
Hydraulic
Machinery
Condensers and
Water Works
Supplies.

WORTHINGTON PUMPS ARE UNEQUALLED FOR EFFICIENCY AND ECONOMY

In our issue of June 21 ult. attention was directed to the fact that the Scientific Publishing Company, New York, had just issued The Mineral Industries, its Statistics, Technology and Trade from the earliest time to the close of 1893. It should have been there explained that that volume was published a year ago, and that the company were then about to place upon the market Vol. 111 for 1894, bringing the history of the industry absolutely up to date, and giving more information as to statistics and recent progress in mining methods all over the world than can be found in other publications. The work is certainly of indispensable value to whoever may be connected with the utilization of the world's mineral resources.

Outing for July is a delightful summer holiday number containing breezy, seasonable sketches of sport and travel, enriched, as Outing always is, by many fine illustrations. The contents are:—The Red Parasol, by Dorothy Blomfield; Bavarian Byways, by J. E. Rogers; Two Weeks With Newfoundland Salmon; My First Bicycle Tour, by Ernest Ingersoll; The Cruise of Two, by C. G. Rogers; With Rod and Reel on Nashotah Lake, by E. W. Chubb; A Ray from a Jack-Lantern, by Laura M. Smith; Acadian Rambles; Lenz's World Tour Awheel; A Tramp in the High Sierras, by H.P. Dyer; A Little Excursion Into Savagery, by Jas. Weir, Jr.; American Sailor Soldiers, by E. B. Mero; The Lake Yacht Racing Association, by F. S. Peer; Intercollegiate Athletics and Faculty Control, by Prof. E. L. Richards, and the usual editorials, poems, records, etc.

The third paper, dealing with the Dancer and Musician, in Herbert Spencer's series on Professional Institutions, appears in The Popular Science Monthly for July. This number contains also an occasional article by Mr. Spencer, under the title Mr. Balfour's Dialectics, in which he discusses the position of Balfour's Foundations of Belief as to things supernatural. Under the title The Bowels of the Earth, the latest views of geologists as to the condition and material of the inmost parts of our globe are given by Alfred C. Lane. Dr. C. F. Taylor writes on Climate and Health, showing that there are other things besides temperature to be considered in selecting a climate for an invalid. Prof. James Sully, in his Studies of Childhood, concludes the subject of Fear with a discussion of fear of animals and fear of the dark. In A Medical Study of the Jury System the way in which the unwholesome and confusing conditions of an ordinary jury trial interfere with sound judgment is pointed out by Dr. T. D. Crothers. The question Why Children Lie is discussed by Dr. Nathan Oppenheim, who sees a frequent cause in disorders of mind or body. In the Editor's Table a scientific view of Social Evolution is given. New York: D. Appleton & Company. Fifty cents a number, \$5 a year.

Scribner's Magazine for July contains Life at the Athletic Clubs, by Duncan Edwards, who was a famous college athlete and has retained a keen interest in every form of athletic sport. His article has the advantage of being written by one who has a personal knowledge of the clubs which he describes, in many large cities. The illustrations number nearly forty, and represent clubs from New York to San Francisco. Under the striking title The United States Will Pay, President Andrews reviews the financial policy of the United States from resumption, and discusses with great clearness the silver question as it confronted the country in 1873. Other topics in this interesting instalment of the history are the panic of 1873, the Granger movement and the Molly Maguires. It concludes with the great railway strikes in Pittsburgh and elsewhere in 1877.

Mica Boiler Covering.

Elsewhere will be found the advertisement of a new Canadian enterprise which bids fair to rapidly come to the front as an important industry. The Mica Boiler Covering Co. which was incorporated in February of the present year with headquarters at Toronto, was organized by a number of prominent Torontonians to acquire and work valuable patent rights granted for the manufacture of mica for boiler and steam pipe covering, cold storage insulations, fire-proof linings for safes, etc. Mica of course has long been recognized as among the most perfect of electrical insulators, if indeed it is not the best, but it is only now that it has been successfully adapted as an insulator of steam heat. Many attempts have been made to incorporate it with other non-conducting materials as a boiler covering, but it was only when it was used entirely by itself and unmixed with other foreign material that its extraordinary qualities were discovered. The covering as manufactured by the Mica Boiler Covering Co., and shown to us at their temporary premises at 2 Bay St. resembles a mat or mattress, 1½ inches thick with a lining on the inner side of galvanized wire netting and on the outer with canvas. The mica, in an infinite number of flakes or films as thin as tissue, is sewn through and through to the wire and canvas with stout brass wire stitches from four to five inches apart. When completed, these mats, which can be made of almost any size or shape, form a perfectly flexible fireproof jacket, which besides its wonderful non-conducting qualities possesses the very valuable characteristic of being easily applied and as easily and quickly removed without injury. Experts claim this latter to be a very valuable feature as it is often necessary to inspect

WM. & J. G. GREY

2 CHURCH ST., TORONTO, ONTARIO.

BUILDERS OF

Model Roller Flour Mills

OF ALL CAPACITIES.

MANUFACTURERS OF

High Grade Improved Flour Mill Machinery.

DEALERS IN

MILL FURNISHINGS AND SUPPLIES.

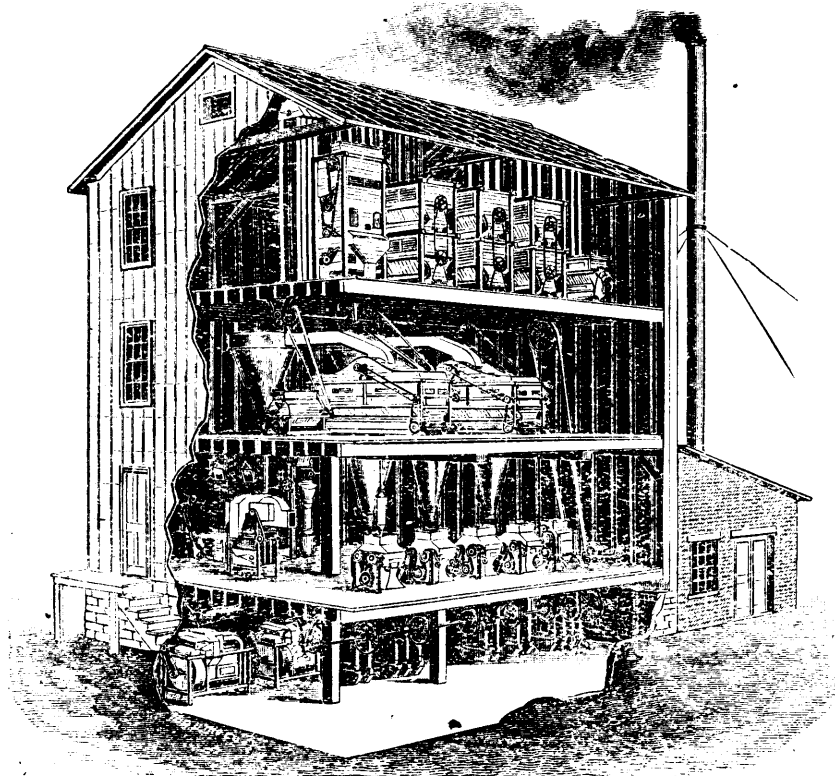
SOLE AGENTS FOR

GENUINE DUFOUR BOLTING CLOTHS.

Large and Varied Stock Ready for Immediate Shipment.

Rolls Elegantly Ground and Corrugated with Despatch.

ORDERS SOLICITED.



50 BBL. MODEL ROLLER MILL.

Incandescent Lamps - - -

Swan and Ediswan,

MANUFACTURED BY THE

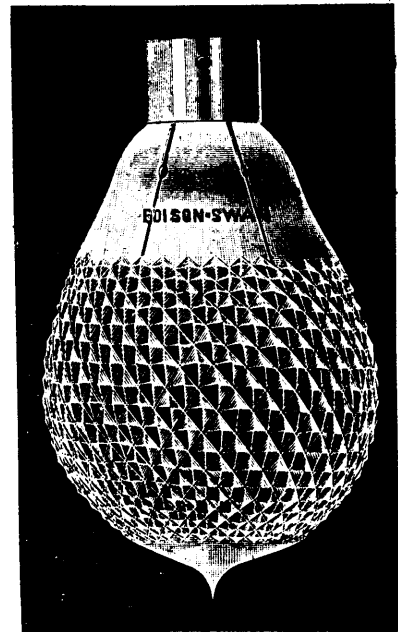
EDISON and SWAN

United Electric Light Co.

RUBBER COVERED WIRE,
WEATHER-PROOF WIRE,
MAGNET WIRE.

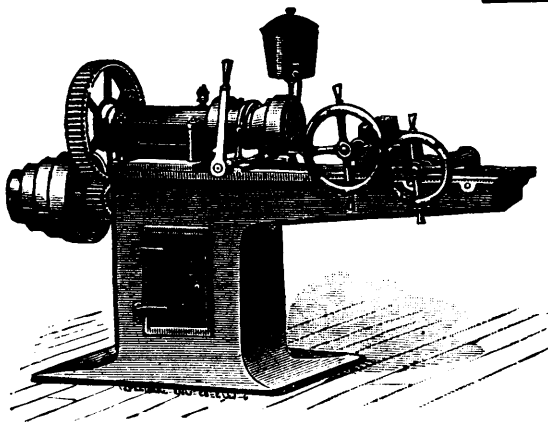
Electrical Supplies of Every Description.

JOHN FORMAN, 650 CRAIG STREET, MONTREAL.



CANADA TOOL WORKS,

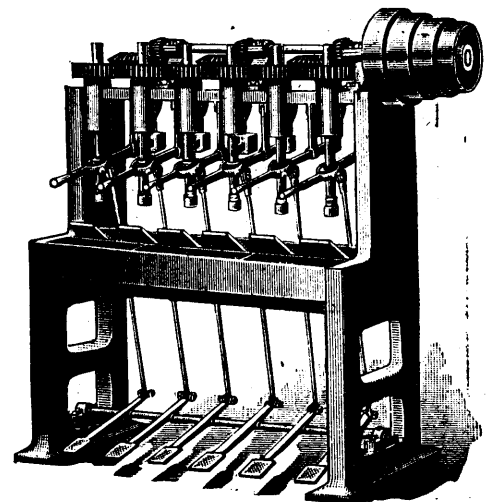
Dundas, JOHN BERTRAM & SONS, Ontario.



Bolt Cutters, double or single, to cut all sizes of threads from $\frac{1}{4}$ to 6 inches; also to tap nuts. The Acme Machine has no equal.

OUR MACHINE SHOP EQUIPMENTS are the largest in Canada. Special Tools for Electric Street Railways, Bicycle Factories and Agricultural Works. Correspondence Solicited

Acme Nut Tappers with 4 or 6 spindles, suitable for all classes of work and to tap square or hex nuts from $\frac{3}{8}$ to $1\frac{1}{2}$ inches diameter.



We are Manufacturing Agents for Canada.



the shell of the boiler or pipe, which in most cases cannot be done without destroying the covering and in no cases without considerable loss and difficulty.

The following reports on the non-conducting qualities of the new covering, made by such a well known authority as Mr. G.C. Robb, chief engineer of the Boiler Inspection and Insurance Co. of Canada, is important evidence of the value of the invention:

46 KING ST. W., TORONTO, 25th June, 1895.

The Manager Mica Boiler Covering Co., Toronto.

DEAR SIR,—The following is a result of a test made to-day of several boiler coverings. Five vessels of same dimensions and in as nearly as possible same circumstances had steam turned on and kept on for two hours, at pressure ranging from 55 lbs. to 60 lbs. per square inch.

The temperature of room was 90 degrees Fah.

The amount of water condensed was in:—

No. 1—Covered with wood and air space.....	5¼ lbs.
No. 2—“ mica boiler covering.....	3¼ “
No. 3—“ magnesia boiler covering.....	4¼ “
No. 4—“ asbestos cement.....	10¼ “
No. 5—No covering.....	21 “

Of the amount lost by having no covering:—

The wood covering saved.....	72.6 per cent.
The mica covering saved.....	84.5 “
The magnesia covering saved.....	79.75 “
The asbestos cement saved.....	51 “

The mica shows an absolute saving of 4.75 per cent. over the magnesia, and relatively is 23.5 per cent. better than magnesia; that is taking the magnesia as the standard, the mica covering will save 23.5 per cent. more than the magnesia covering.

Yours truly,

(Sgd.) GEO. C. ROBB, Chief Engineer,

The Boiler Inspection and Insurance Co. of Canada.

TORONTO, July 2, 1895.

Manager Mica Boiler Covering Co., Toronto.

DEAR SIR,—On the 27th June, 1895, tests were made of the non-conducting value of boiler coverings in the following manner and with the following results:

Five iron plate boilers were erected in a room and connected to steam pipe, and fitted with drain pipe, so that the amount of water condensed in each could be accurately determined.

Each boiler was of iron plate and all were of same dimensions and placed in same conditions. The surface exposed by each was 19 square feet. One was left bare, one was covered with asbestos

cement, one with magnesia, one with mica, and one with wood and an air space, as is usual on locomotives.

Steam was turned on and pressures kept up for 6 hours ranging from 55 lbs. to 75 lbs. The temperature of the air in the room averaged 93 degrees.

The water was drawn off and weighed at intervals and the following shows the amount of water taken from each per hour:

The uncovered boiler gave.....	12.54 lb. per hour
The asbestos cement cover.....	3.98 lb. “
The wood cover.....	2.83 lb. “
The magnesia cover.....	1.85 lb. “
The mica cover.....	1.39 lb. “

With one hundred square feet of surface and one hundred hours of time, the saving effected by the Mica Covering would be 5870 lb. weight of water in the form of steam; and allowing 8 lbs. of water evaporated per pound of coal, the saving in coal would be 733¾ lbs.

With a lower temperature in the room, and a higher steam pressure the saving would be even greater.

The Mica Covering was the best non-conductor of those tried.

Heat and dampness do not seem to affect it, and vibration cannot disintegrate it, or cause the material to change its position.

The Mica Covering can be removed without injury to it, and replaced as often as may be necessary.

Its non-conducting property, its durability, and its portability unite in making it the most effective and convenient boiler covering on the market.

Yours truly,

(Sgd.) GEO. C. ROBB, Chief Engineer,

The Boiler Inspection Insurance Co. of Canada.

“Magnesia,” “asbestos,” and wood lagging were selected to test with “mica” as being probably the best known coverings hitherto in use. Other materials used on steam pipes but not suitable for marine or locomotive work are used, but the Mica Co. considered it fairer to test those coverings with which it was likely to compete in all fields of work. The management already report most encouraging progress. The new covering has been tried with great success by such corporations as the Toronto Street Railway, Niagara Navigation Co. (steamers “Chicora” and “Cibola,”) Toronto Ferry Co., etc.

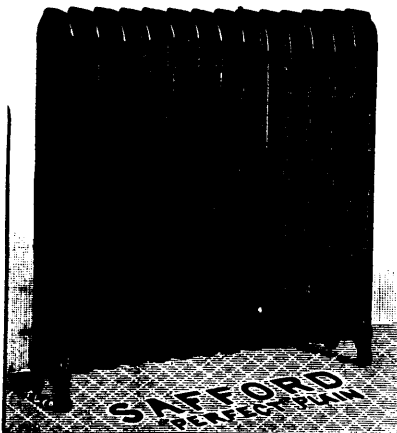
With regard to cost it is satisfactory to learn that under a new process, the sole rights of which are controlled by the Mica Boiler Covering Co., the scrap mica is manufactured at a price which will enable the covering to be sold at a figure well within the means of every steam user.

HEATING APPARATUS

Safford : Radiators

RECEIVED THE HIGHEST AWARDS :

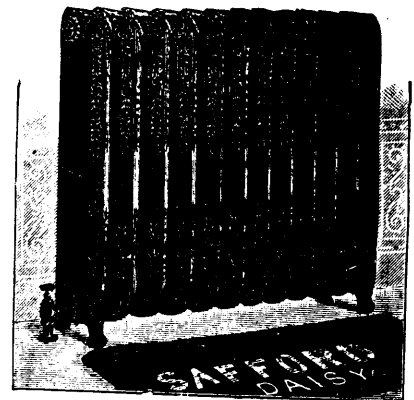
ANTWERP	(BELGIUM)	EXPOSITION	1894.
TORONTO	(ONTARIO)	EXHIBITION	1894.
OTTAWA	(ONTARIO)	EXHIBITION	1892.
SHERBROOKE	(QUEBEC)	EXHIBITION	1893.



ALL IRON.

Largest Radiator Manufacturers

Under the British Flag.



THE **TORONTO RADIATOR MFG. CO. LTD.**, Toronto, Ontario

ELECTRIC LIGHTING,



ELECTRIC POWER TRANSMISSION,



ELECTRIC TRAMWAYS.

AHEARN & SOPER, OTTAWA,
ONTARIO.

Electrical Engineers and Contractors.

Complete Electric Plants Installed.

Dealers in Electric Supplies, Transformers, Motors, Meters, Lamps, etc., etc.

The Packard Lamp.

WE are prepared to furnish you with the best LAMP in this market, the "PACKARD," at extremely low prices, and can prove our claims.

THE PACKARD TRANSFORMER.

It is impossible to burn out one of our Converters; and in efficiency and regulation they far excel all others.

WRITE US FOR QUOTATIONS.

The Packard Electric Co'y, Ltd.

ST. CATHARINES, ONTARIO.

LAURIE ENGINE CO. St. Catherine Street East, MONTREAL,
ENGINEERS AND CONTRACTORS

COMPLETE MOTIVE PLANTS, ETC.

IMPROVED **CORLISS ENGINES**

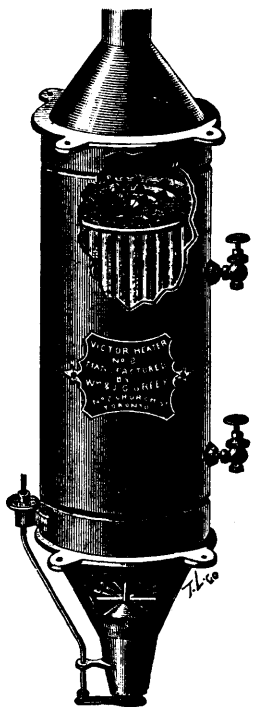
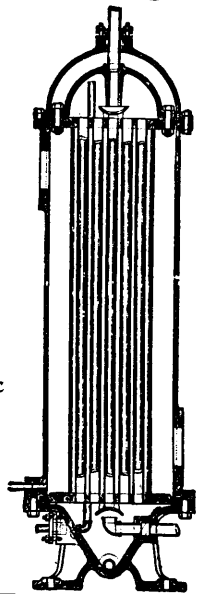
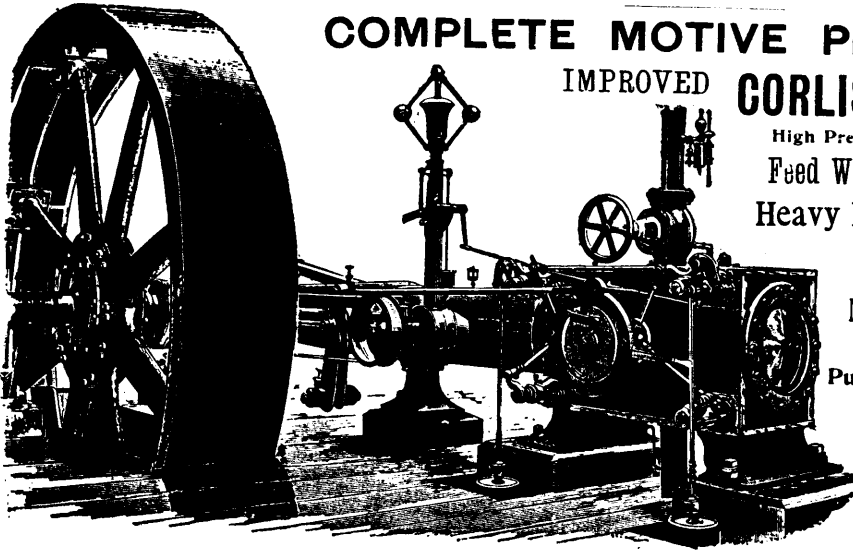
High Pressure, Condensing and Compound
Feed Water Heaters and Purifiers.
Heavy Fly-Wheels a Specialty.

Sole Agents in Prov. of Quebec for
NORTHEY CO. Ltd.

Manufacturers of all kinds of
**Pumps, Condensers and Hydraulic
Machinery.**

Sole Agents in Canada for the
HOLLY GRAVITY

RETURN SYSTEM.



**WM. & J. G.
GREEY,**
TORONTO,
ONTARIO.

Manufacture
**THE VICTOR
WHEAT
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The benefits
secured are

**WHITER
FLOUR,**

**UNIFORM
GRADES,**

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OFFALS,**

**BROADER
BRAN.**

FOUNDRY FACINGS

Ceylon Plumbago Foundry
Supplies, Fire Brick, Fire
Clay and Moulding Sand.

Canadian Agents for

COLLIAU CUPOLA FURNACE.

HAMILTON FACING MILL COMPANY,
Hamilton, Ontario.

**STEAM
TRAPS**

Pipe Machines
Buffing and Polishing Lathes
Strapping Machines
Shafting Hangers.

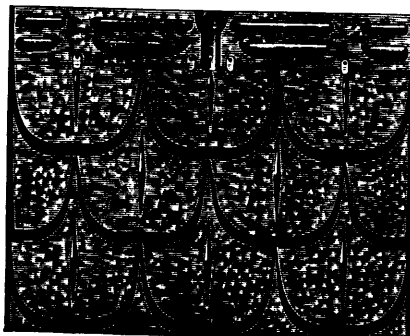
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MANUFACTURER,

73 to 81 Adelaide Street West,
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METAL ROOFING.

Those contemplating building the coming season would do well to send for our catalogue. Cheap as a wooden shingle. Will last a lifetime.

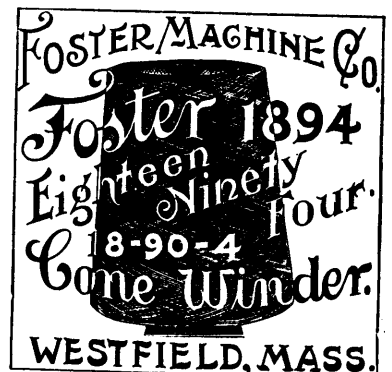


Guaranteed to be Water, Wind, Storm, Fire,
and Lightning Proof.
THE PEDLAR METAL ROOFING CO.
Office and Works, - OSHAWA, ONTARIO.
answering please mention this paper.

BARGAINS MACHINERY
—IN—
NEW & SECOND-HAND

23x60 inch Double Corliss Engine, with Condenser, 800 H. P.
16x32 inch Double Cummer Automatic Engine, 300 H. P.
20x30 inch Automatic Engine, 150 to 200 H. P.
16x32 inch Buckeye Automatic Engine, 150 H. P.
12x20 inch Automatic Engine, 75 H. P.
12x20 inch Automatic Engine, 75 H. P.
12x12 inch Ball Automatic Engine, 80 H. P.
12x15 inch Beck Automatic Engine, 80 H. P.
16x36 inch Allis Corliss Engine, 150 H. P.
12x24 inch Wetherill Corliss Engine, 50 H. P.
10x18 inch Buckeye Automatic Engine, 50 H. P.
Westinghouse Automatic Engine, 50 H. P.
94x12 inch Beck Automatic Engine, 60 H. P.
9x9 inch New York Safety Automatic Engine, 30 H. P.
9x12 inch Trenton Automatic Engine, 35 H. P.
Slide Valve Engines, Vertical and Horizontal, 200 to 300 H. P.
Hoisting Engines, 5 to 50 H. P.
Yacht and Marine Engines.
Boilers, all styles and sizes.
Planers, 24x6 inch, 30x6 inch, 36x9 inch, 72x25 inch, 72x34 inch.
Lathes, 14x6 inch, 16x6 inch, 20x10 inch, 24x20 inch, 28x30 inch, 36x14 inch, 36x16 inch.
24 inch, 36 inch, and 48 inch Drill Presses.
36 inch, 3 and 4 ft. Radial Drills.
Universal Index and Plain Milling Machine.
26 inch and 18 inch Lodge & Davis Turret Lathes.
Fox Lathes.
300, 600 and 3000 lbs. Steam Hammer.
Large stock of Steam and Centrifugal Pumps, feed water heaters, tanks.
4-foot Vacuum Fan.

FRANK TOOMEY,
131 NORTH THIRD STREET.
WAREHOUSES,
159 AND 161 CANAL STREET,
976 982 BEACH STREET
PHILADELPHIA.



ADVERTISE IN THE
Canadian Manufacturer.

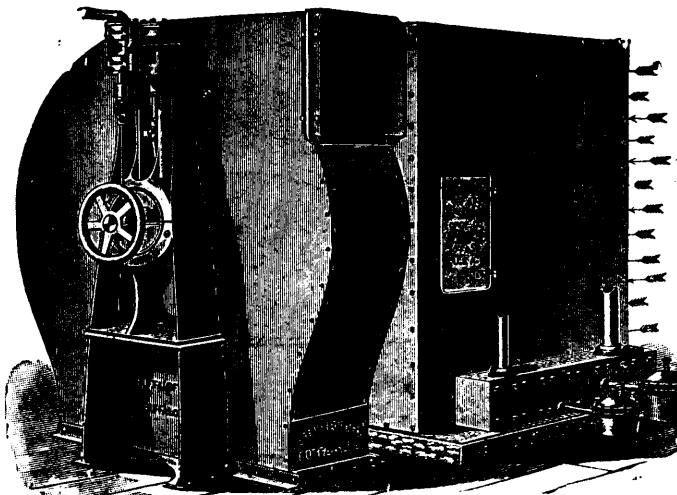
CAPTAINS OF INDUSTRY.

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

The Booth lumber mills at Burlington, Ont., are to be rebuilt.
 The Chatham Mfg. Co.'s drying kiln, Chatham, Ont., was destroyed by fire June 18.
 The Wheeler sawmill and gristmill, East Heretford, Ont., owned by J. Auberton were destroyed by fire, June 20.
 The Hamilton Change-Maker Co., Hamilton, Ont., has been incorporated with a capital stock of \$20,000 to manufacture change-making machines, cash registers, etc.
 The International Ice Manufacturing Co.'s premises at Vancouver, B. C., have been destroyed by fire; loss \$1,200.
 Messrs. Pontbriand and Frere, Sorel, Que., have been incorporated to manufacture engines, boilers, machinery, etc.
 The Globe Casket Co. of London, Ont., have enlarged their new premises, and have put in a new embossing machine.
 Purves' steam sawmill, Carleton, N.B., known as the old Stetson mill, was destroyed by fire June 21; loss about \$32,000.
 The Fulton Jewell Mfg. Co., Toronto, has been incorporated with a capital stock of \$5,000 to manufacture silverware, jewelry, etc.
 The J. C. McLaren Belting Co., Montreal, has been incorporated with a capital stock of \$99,000 to manufacture belting and general mill supplies.
 The Canadian Rubber Company, Montreal, are receiving large orders for their goods from Australia. Some three months ago the company received orders for some 30,000 pairs of rubber shoes. Since then orders have been received for 10,000 additional pairs. The goods are shipped over the C. P. R. via Vancouver and are landed at Sydney. From there they are distributed throughout the country. Orders are also being received from the same source for belting, hose, and packing. This is the first venture of this company in this direction. Heretofore England has received the lion's share of this trade, little or none of it coming to Canada.—Montreal Star.

Wm. Irving, Merrickville, Ont., will run a woolen mill at Sundridge, Ont.
 Messrs. F.C. Colwell & Co., wholesale confectionery manufacturers, have established a factory at St. John, N.B.
 James Randall, Meaford, Ont., will start another woolen mill at Manitowaning, Ont., but will continue to run the mill at Meaford.
 Castello's & McMorran's new cannery at Steveston, B. C., was destroyed by fire June 18. The owners have already started to rebuild.
 The White Pine Lumber Co., Toronto, are applying for incorporation with a capital stock of \$500,000 to manufacture logs, lumber, shingles, etc.
 The Heeson Rocking Grate-Bar Co., Toronto, has been incorporated with a capital stock of \$100,000 to manufacture rocking grate bars, etc.
 The George Gillies Co., Gananoque, Ont., has been incorporated with a capital stock of \$125,000 to manufacture drawn wire, wares of brass, iron, steel, etc.
 The American Tobacco Co. of Canada, Montreal, are applying for incorporation with a capital stock of \$1,000,000 to manufacture tobacco, smokers' supplies, etc.
 The Swansea Forging Co., Swansea, Ont., are applying for incorporation with a capital stock of \$100,000 to manufacture iron and steel, drop and carriage forgings, bolts, etc.
 Preparations are being made in the factory of the Ottawa Saw Manufacturing Company, Ottawa, Ont., for the making of band saws. This necessitates the acquirement of considerable new machinery specially for this purpose.
 The St. Croix Soap Mfg. Co., St. Stephen, N. B., find that the many extensions they have made to their buildings are not sufficient and they will erect another extension 22x30 feet, three storeys, in which they will extract crude glycerine from the spent lyes. They opened up trade with the West Indies last winter, and are now filling large repeat orders.
 Mr. H. D. Selleck, of New York, is negotiating with Mr. Matthew Lodge, Moncton, N. B., for the purchase of gypsum mining properties held by Mr. Lodge in Petitcodiac and Halifax county. It is proposed to operate these mines on a large scale if the quantity is forthcoming, of which there appears to be no doubt. It is estimated that about 30,000 tons of gypsum a year will be shipped from Petitcodiac to the United States via Moncton, going by water from here.—Moncton, N. B., Times.

Buffalo Lumber Dry Kilns



The Largest Drier in America is equipped with a "BUFFALO" Hot Blast Apparatus.

THE OWNERS ARE ENTHUSIASTIC

All Users of Buffalo Kilns write letters similar to this one
 "The Kiln answers every purpose to perfection; the Dry Rooms are run with exhaust steam at mere nothing in the way of cost, compared with the old way. Your arrangement is very simple and easily managed, besides being a money saver in operation. We are able, with the Kiln you sent us, to dry soft woods in three days, and hard woods in five days. That's good enough for anyone."—SMITH BROS., Sayre, Penn.

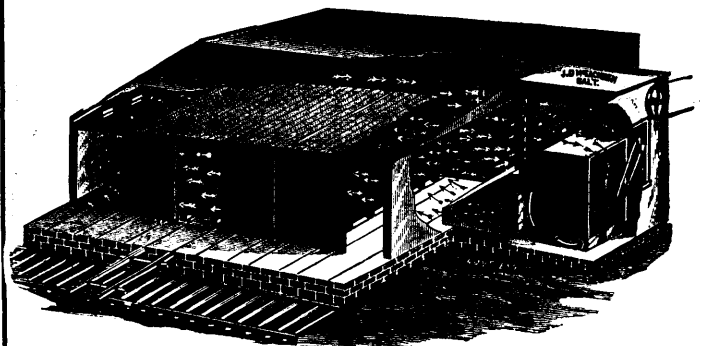
Send for Catalogue.

BUFFALO FORGE CO., Buffalo, N.Y., U.S.A.

SOLD IN
 TORONTO, ONT., BY H. W. PETRIE.
 BRANTFORD, ONT., BY CANADIAN MACHINERY & SUPPLY CO.
 MONTREAL, QUE., BY CANADA MACHINERY AGENCY.
 CHICAGO STORE, 22 and 24 WEST RANDOLPH STREET.

McEachren's System of Drying, Heating and Ventilating

Under Recent Patents.



CHEAP AND EFFECTIVE.

Highly approved of by practical men.

The following is a specimen of letters received from customers:

J. D. McEachren, Esq., Galt, Ont.

Ottawa, April 1, 1895.

Dear Sir,—Replying to your enquiry regarding Dry-Kiln purchased from you last summer, we beg to state that our lumber is stained hardwood, principally birch, which is put through a chemical process thereby rendering seasoning a very difficult operation. We tried to have it dried in the several styles of kilns used by factories in this district, all of which failed to take the moisture out of the core of the wood. In August last we put in one of your kilns with a capacity of 10 cars, or 30,000 feet and since that time have seasoned most satisfactorily about 200,000 feet. The boards come out free from checks and warps and we are now thoroughly convinced that it is the only dry-kiln in the market which fills the bill both as to efficiency and economy.

Yours truly,

McRae Bros. & Co.

For particulars address

MCEACHREN HEATING AND VENTILATING CO.,
 GALT, ONTARIO.

MILLERS, READ

The following letter from A. Moyer & Co., Palmerston, Ont. Our mills all start up the same way. No vexations and expensive delays. A few \$100 SAVED in the cost of putting in your mill is easily SPENT by sending out poor flour to your critical customers when starting up, injuring a reputation that will take months to re-establish.

Stratford Mill Building Co.,
Stratford, Ont.

Palmerston, Ont., June 16th, 1895.

Dear Sirs,--After running and thoroughly testing the 100 barrel mill that you re-modelled for me, I take pleasure in stating that you have completed the contract to my entire satisfaction. The quality of flour and yield is even better than I expected or your guarantee called for. The mill started off without a hitch, and the flour proved satisfactory from the start, and not a spout or a piece of cloth had to be changed. I shall be pleased to show anyone who is interested in modern milling our mill. Hoping that you will meet with the success you deserve, we are,

Yours truly, A. MOYER & CO.

The STRATFORD MILL BUILDING CO. Ltd., STRATFORD, ONT.

.. IMPORTANT ..
TO LIGHTING STATIONS.

OUR NEW

ALTERNATING CURRENT INDICATORS

Are now ready. Before purchasing elsewhere send for our New Catalogue, which contains the prices and description of the above instruments, and also a list and prices of other new instruments of our manufacture.

WHITNEY

ELECTRICAL INSTRUMENT CO.

Sherbrooke, P. Q., Canada.

Penacook, N. H., U. S.

.. AGENTS ..

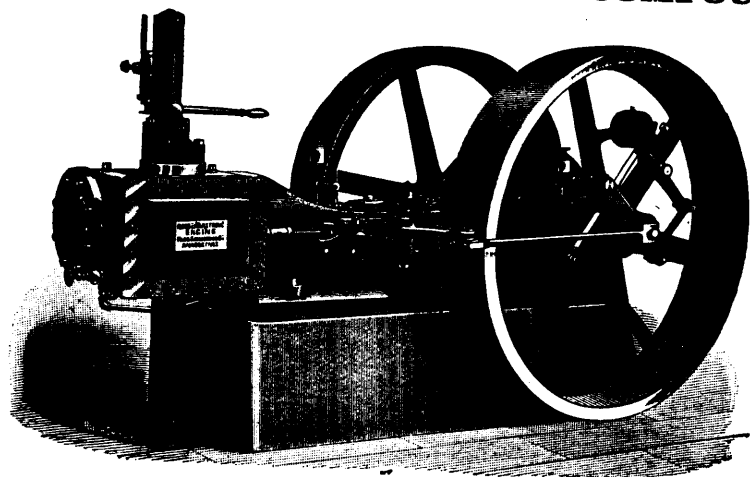
Henry F. Kellogg, General Selling Agent.

BOSTON, MASS., W. S. Hill.
BALTIMORE, M. D., The Poole Electric Co.
CHICAGO, ILL., Electric Appliances Co.
CINCINNATI, O., Nowotny Electric Co.
HALIFAX, N. S., John Starr, Son & Co. Ltd.
NEW YORK CITY, Geo. L. Colgate, 136 Liberty Street.
SAN FRANCISCO, CAL., California Electrical Works.
TORONTO, ONT., Toronto Electrical Works.

Robb--Armstrong

= = Automatic Engines

SIMPLE, TANDEM AND CROSS COMPOUND.



The following sizes ready for immediate delivery :

10, 15, 20, 30, 60, 80, 100, 125, 150 and 175 H.P.

Robb Engineering Co., Ltd., Amherst, N. S.

AGENTS:

The Canada Machinery Agency, 321 St. James Street, Montreal,
Wm. McKay, Seaforth, Ont., Travelling.

The Massey-Harris Co., Toronto, will erect an additional pattern shop at a cost of \$6,500.

The McCrea-Hanes Co., Toronto, are applying for incorporation with a capital stock of \$24,000 to manufacture inks, mucilage, shoe dressings, stove polishes, etc.

The Shippey Manufacturing Co., Benton Harbour, Mich., are arranging to establish a branch factory at St. Thomas, Ont., for the manufacture of odourless glue.

The Robb Engineering Co., Amherst, N.S., inform us that they have put in a 40 horse power Robb-Armstrong engine and Monarch Economic boiler in the new power house of the Amherst Boot and Shoe Mfg. Co., and have supplied a 60 horse power boiler to the Golden Lode Mining Co., Waverly, N.S., also a 30 horse power Robb-Armstrong engine and Monarch Economic boiler to the Victoria Granite Co., who are commencing operations at St. George, N.B.

The E. R. Burns Saw Co., Toronto, have sent us their new illustrated catalogue and price list of special silver steel and best selected cast steel saws, plastering trowels, straw knives, springs, etc., manufactured by them. We are informed that by their improved process the company are enabled to produce saws of an even temper throughout. All their saws are scientifically hammered, uniformly distributing the tension, so that the vim of the saw expands by centrifugal force produced by the speed of the saw. Besides full descriptions of the saws, etc., made by the company, the book contains many hints that would be found very interesting should the user find that his saw was giving him trouble.

The Reid Bros. Mfg. Co., Toronto, have sent us a copy of their new illustrated catalogue and price list having reference to the billiard tables, bowling alleys and other sporting goods and appliances manufactured by them. The Finest in the Land is the heading of the introductory article in the book, being an illustrated description of the home of the Toronto Athletic Club, the sporting furniture of which was made by this company. The catalogue and price list refers to ivory balls, billiard cues, billiard cloth, slate, cushions, tables, and how to set them up, and suggestions how to keep the cloth, bed and cushions in good order; also a description of the different billiard tables, bowling alleys, etc., manufactured by them and their necessary outfits. The book also contains the rules of American and English billiard games, including American, or four-ball game, balk line, pin pool, cushion carrom, three ball French carrom, American Pyramid, fifteen ball pool, rules of English billiards, life pool, etc. The company will be pleased to send this valuable book on application.

.....THE.....

Goldie & McCulloch Co.,

Limited,

Galt, Ontario,

MANUFACTURERS OF

**STEAM ENGINES,
BOILERS,
WATER WHEELS,**

Steam Engines, Boilers.
Water Wheels, Flouring and Saw Mill
Machinery, Wood Working Machinery,
Wool Machinery.

Fire and Burglar-Proof Safes, Vault
Doors.

Wood Rim Split Pulleys, Friction Pulleys,
Friction Clutch, Couplings., etc.

“Dumfries - Foundry,”

Galt, Ontario, Canada.

Messrs. Bunes Bros.' portable mill at Rockport, N.B., was destroyed by fire June 24; loss about \$10,000.

Manson Campbell's fanning mill factory, Chatham, Ont., was destroyed by fire June 24; loss about \$30,000. Mr. Campbell will rebuild immediately.

The Ontario Steam Logger Co., Toronto, has been incorporated with a capital stock of \$250,000 to manufacture snow traction engines for hauling sawlogs, timber, etc.

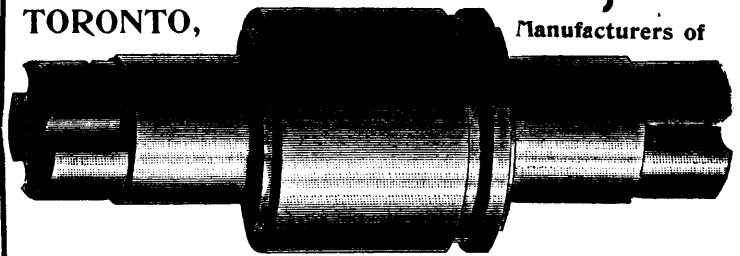
The Canadian Fibre Chamois Co., Montreal, are applying for incorporation with a capital stock of \$100,000 to acquire the business heretofore carried on by Messrs. John C. McLaughlin, Franklyn M. Copperthwaite, Chas. C. Gray and Fred H. Gray, and to manufacture fabrics, interlinings, etc.

The Windsor Foundry Co., Windsor, N.S., inform us that they have obtained the contract for building and equipping the 10 stamp mill for the Lumber Gold Mining Co., at Chester Basin. The building will be 36x46 and will be constructed on the latest and best style of mill buildings. The mortars are same as supplied to the Gilder Loch Mining Co., South Unisic, one of the best paying mines in Nova Scotia, and were designed by A.A. Hayward, manager for the above company. A Robb-Armstrong tandem compound engine will run the mill, and it is expected it will be in complete working order by 1st Sept.

WM. & J. C. GREEY,

TORONTO,

Manufacturers of



SUPERIOR CHILLED ROLLS.

FOR ALL PURPOSES.

Perfect Surface, Deep Chill, Hard, Tough, Durable,
Guaranteed Free From Flaw.

Have the Largest and Most Complete Plant for Grinding and
Corrugating Rolls in Canada.

ALSO
SPECIAL
AGENTS
FOR

EWART
LINK
CHAIN
BELTING.



WM. & J. C. GREEY

Carry full line of the

**LINK CHAIN
BELTING**

and ATTACHMENTS,

also manufacture any size of

SPROCKETS

FOR ANY CHAIN.

CANADIAN RUBBER CO., OF MONTREAL.

A. ALLAN, President.

F. SCHOLES, Managing Director.

J. C. GRAVEL, Secretary-Treasurer.

J. J. MCGILL, General Manager.

CAPITAL \$2,000,000.

Manufacturers of Superior Quality

RUBBER BELTING

Of following grades.

- "Extra Star," "Fine Para"
- "Extra Heavy Star"
- "Forsyth Patent" Seamless
- "C.R. Co. Stitched"



All kinds of RUBBER HOSE Made with our Patent Process Seamless Tube, including

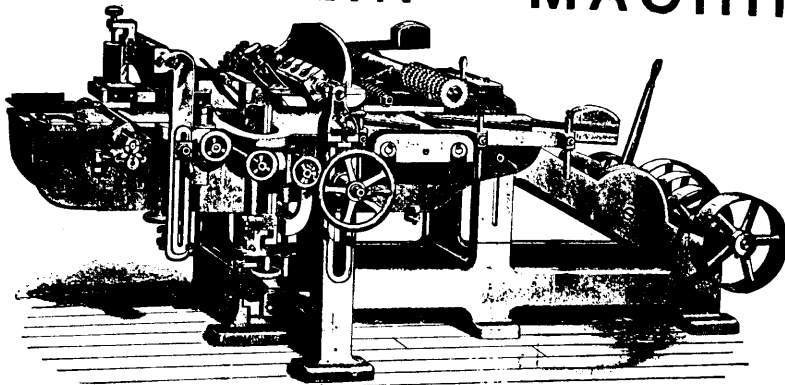
- Engine Hose, Hydrant Hose, Conducting Hose, Steam Hose, Suction Hose Galvanized Wire, Suction Hose Galvanized Smooth Bore, Suction Hose Hard Rubber, Rubber Valves, Gaskets, Packings, etc.

WESTERN BRANCH:

Cor. Front and Yonge Sts., TORONTO.

J. H. WALKER, Manager.

BERLIN - MACHINE - WORKS.



JACKSON, COCHRANE & CO.

Manufacturers of

Wood Working Machinery, Shafting, Pulleys, Etc.

REPAIRING AND CASTING

PROMPTLY ATTENDED TO.

BERLIN, - - - ONTARIO.

BRUNNER, MOND & CO., LTD., NORTHWICH, ENG.

MANUFACTURERS OF

PURE ALKALI

GUARANTEED 58 DEGREES.

and BLEACHING POWDER.

The Strongest and Purest Form of SODA ASH in the Market, and the Most Economical Form of SODA for the Manufacture of

SOAP, GLASS, PAPER, WOOD PULP AND COLORS,

als for PRINTERS AND BLEACHERS.



WINN & HOLLAND, Montreal

Sole Agents for the Dominion of Canada

HEMOLIN PATENTED

THE Cheapest Black-producing Dye for Wool on the Market. Has all the advantages of Logwood with none of its inconveniences. Can be Dyed in one Dip, or may be employed in Wool Dyeing as a self-color, or in combinations, wherever Logwood is used, by following practically the same recipes.

This is not a mixture, but a new product for which patents have been granted in U. S. A., Great Britain, Canada, Germany, France and Austria, and use in these countries has increased constantly since its introduction.

MANUFACTURED BY

Wm J. Matheson & Co., Limited, New York, U. S. A.

BRANCH HOUSES:---Boston, Providence, Philadelphia, Montreal.

Moffat & Co., Renfrew, Ont., are building a large addition to their wood-working establishment.

The Union Furniture Factory, Wingham, Ont., which was recently destroyed by fire, will be rebuilt on the old site.

The Windsor, B.C., cannery belonging to a London, Eng., firm on the Skeena river, has been destroyed by fire; loss about \$40,000. It will be rebuilt immediately.

The Chaudiere Machine & Foundry Co., Ottawa, are applying for incorporation with a capital stock of \$15,000 to carry on the business of founders, machinists, etc.

Messrs. Milord, Lalonde & Co., manufacturers of sash, doors, etc., Winnipeg, Man., have dissolved partnership. The business will be continued under the name of Milord & Co.

The Dominion Carriage & Wheel Mfg. Co., St. Therese de Blainville, Que., have been incorporated with a capital stock of \$150,000 to manufacture carriages, wheels, sewing machines, etc.

The LeBlanc Mfg. Co., (Ltd.), West Pubnico, N. S., are applying for incorporation with a capital stock of \$3,000, to acquire the business heretofore carried on by The LeBlanc Mfg. Co., and to manufacture doors, sashes, etc.

The Barrie & Allandale Electric Street Ry. Co., Barrie, Ont., are applying for incorporation with a capital stock of \$50,000 to construct lines of street railway by electricity etc., through Barrie, Allandale, Oro, Vespra and Innisfield, Ont., with the right to operate works for the production of electricity, etc.

Large shipments of coal are being made from the G. M. A. piers. The average daily shipment is 1,500 tons. In three days recently 4,600 tons were shipped. The company expects to greatly increase the shipments this season over any previous year. Never were there so many men employed in and about the mine as at the present time. —North Sidney Herald.

The Toronto Electric Motor Co., Toronto, have made important improvements to their works by the addition of new machinery, among which is a special boring mill, a large drill, and lathe specially adapted for the manufacture of electric machinery. Their shops are now very completely equipped. They inform us that they have supplied a 15 horse power motor to J.G. Gibson's Monumental works, Toronto, and three to the Fensom Elevator Co., Toronto, for whom they are making three more. They are also building a 25 horse power generator for the Victoria Electric Light Co., Lindsay, Ont., one for the Clinton Electric Light Co., Clinton, Ont., and two motors for McDonald Bros. Winnipeg, Man.

Capt. F. D. Walker, Victoria, B.C., will shortly commence the manufacture of bone fertilizer. The crusher will be operated by an electric motor.

Another valuable mine of chromic iron has been discovered in the mountains of Wolfestown, a few miles from Coleraine station on the Quebec Central railway.

The Milner Waggon Works, Chatham, Ont., are now in complete working order. The factory is at present a four storey building and new machinery of the most improved kind, have been added to it. The company boasts of having the largest and most powerful bedplaner ever used in Canada.

The Toronto Ferry Co. have had all their steam pipes in their power plant on the Island covered with the new mica boiler covering. They have also had the boiler of the steamer Thistle covered with the same material. The Mica Boiler Covering Co., 2 Bay St., Toronto, who are the manufacturers of this covering have also covered the boilers of the steamers S.S. Chicora, and S.S. Cibola, with the same material.

New and extensive fields for blowers and hot blast apparatus are constantly developing always taking the initiative. Special study of the problems incident thereto with tests are promptly begun by the Buffalo Forge Company, Buffalo, N. Y. and continued by their experts of long experience until an economical and reliable basis for calculating the proper application is established. A number of years ago, it became apparent to this Company that around every large brick plant a great deal of heat was being wasted. They are now introducing large numbers of steel plate fans of special construction to be used for drying purposes, which will utilize the heat from the burning kilns. They have large fans for such service in use at the yards of the May, Purington and Bonner Brick Co., Weber-Labahn Brick Co., Jefferson Brick Co., B.F. Weber, and other well-known houses of Chicago, and other large cities. Upon this improved apparatus The Buffalo Forge Company have obtained patents, and also upon the special arrangement and application for drawing heat from one kiln to another for cooling purposes. The Oakland Press Brick Co., Zanerville, O. speak as follows of an apparatus recently installed by this company:—"We wish to write and tell you how well pleased we are with your fan which we have had in use long enough to test its merits. It seems to work admirably, run with little or no expense, and does our work for our five kilns nicely. We want to try and use it for our dry house also for drying our brick, but as yet we have not made such arrangements. We use it for drawing the heat from one kiln to another and for cooling off our kilns. We will always be glad to recommend your fans as A No. 1.

THE ROYAL ELECTRIC COMPANY,

MONTREAL, QUE.

WESTERN OFFICE, TORONTO, ONT.

Are now prepared to receive orders for the justly celebrated

STANLEY TRANSFORMERS,

A MONEY MAKER FOR THE CENTRAL STATION.

None equal them. They increase station capacity. They diminish operating expenses.

ECONOMY. EFFICIENCY. REGULATION.

Also a full line of Electrical Apparatus.

ARC DYNAMOS,

RAILWAY GENERATORS,

ARC LAMPS,

RAILWAY MOTORS.

"S. K. C." Two Phase Alternating Generators and Motors.

Direct Current Generators and Motors. Switchboards, Instruments, Wire, Electrical Supplies.

Correspondence solicited for Electric Lighting, Railway, Manufacturing and Mining Work.
Isolated Plants. Central Stations. Long Distance Transmission
For Light and Power.

HAMILTON COTTON CO.

Hamilton, Ontario

DYERS, BLEACHERS

AND MANUFACTURERS OF

Warp Yarn, in Beam, Chain or Skein, White or Colored.
Single and Double Yarns, Cop Yarn, Single and
Double Hosiery Yarn in all Colors, including genuine
"Fast Black."

PAUL FRIND & CO., - TORONTO

Selling Agents for Beam Warpe

TORONTO CARPET MNFG. CO., Ltd.

TORONTO

Were awarded Gold Medals at the World's Columbian
Exhibition, Chicago, for their

INGRAIN

and --

"Imperatrix" Axminster **CARPETS**

SEVEN QUALITIES OF INGRAINS

Kensington Art Squares, Axminster Mats, Rugs,
Squares, Body Border and Stairs.

Esplanade and Jarvis Sts., - Toronto

ESTABLISHED 20 YEARS

A. KLIPSTIEN & CO.

122 PEARL ST., NEW YORK

**Anilines, Dyestuffs . . .
. . . and Chemicals**

of every variety, of the best quality and at
the lowest prices. Delivery made at New
York, Montreal or Hamilton.

WRIGHT & DALLYN

AGENTS

HAMILTON, ONT.

THE PAUL FRIND**Woolen Machinery Company, Ltd.**

.....TORONTO.....

Dealers in and Manufacturers of

WOOLEN MACHINERY. MILL SUPPLIES.

Specialties:

English H & T Steel Card Clothing.

Williams' Heddles, Shuttles, Reeds, Heddle-
frames, Loom Repairs.

DODGE WOOD SPLIT PULLEYS

Best Oak Tanned Belting and Lace Leather.

Cook's Albany Grease

5, 10, 25 lb. Cans.

**FRANKLIN CYLINDER,
ENGINE and DYNAMO OILS**

Rainbow Sheet and Gasket ;
Ring Spiral and Square Flax Packing.

WILLIAM C. WILSON, 24 Front St. East,
TORONTO.

WRITE TO THE

Paton Manufacturing Co'y

of SHERBROOKE, QUE., for

**WORSTED · KNITTING
AND FINGERING YARN**Montreal Office
409 Board of Trade Building.Toronto Office,
33 Melinda Street.**DOMINION SUSPENDER CO.**

Canada NIAGARA FALLS United States

Trade D Mark

The largest, oldest and most progressive Manufacturers of
Suspenders and all kinds of Elastic Goods.

Toronto Office :

E. Stovel, 45 Canada Life Bld'g

Montreal Office:

Phillip De Gruochy, 182 St. James Street.

AUBURN WOOLEN CO.....

PETERBOROUGH, ONT.

MANUFACTURERS OF

FANCY TWEEDS, ETC.

Selling Agents, D. MORRICE, SONS & CO., Montreal and Toronto

Penman Manufacturing Co., Ltd.

.... PARIS, ONT....

Manufacturers of...

**Hosiery, Shirts, Drawers
Glove Linings and Yarns**

Selling Agents: D. MORRICE, SONS & CO., Montreal and Toronto.

ROSAMOND WOOLEN CO.

... ALMONTE, ONT...

Fine Tweeds, Cassimeres and Fancy Worsted Suitings
and Trouserings.

FERGUSON & PATTINSON

PRESTON : : : ONT.

Manufacturers of.....

Fine and Medium TWEEDS.**Guelph Woolen Mill Co., Ltd.**

GUELPH - - - ONTARIO

Manufacturers of

UNDERWEAR, HOSE, WHEELING, FINGERING and WORSTED YARNS
EIDERDOWN FLANNEL, Etc.

Selling Agents: DONALD FRASER, MONTREAL : E. H. WALSH & Co., TORONTO

The Reid & Currie Iron Works, Westminster, B.C., have again resumed operations, with John Peck as manager.

The Davidson Mfg. Co., Montreal, manufacturers of pressed and pieced tinware, etc., have sent us an advertising sign of their business which they are just getting out for distribution to the trade, and which they inform us was designed, lithographed and embossed all in their own works. This beautiful article hangs in a conspicuous position in the office of the CANADIAN MANUFACTURER, and is much admired by all who see it.

The Kemp Mfg. Co., Toronto, whose extensive works are at the intersection of Gerrard and River streets, have purchased the balance of the block of land upon which their works are, and are actively engaged in enlarging the same, with special view to the manufacture of enamelled steel hollow ware. This concern have a model plant specially intended for this business which has been in operation a couple of years, and with which they have been experimenting in the production of enamelled ware, and having brought their products to a high degree of perfection, find their capacity too small to supply all the demands of the trade, hence the enlargement of their works. The concern will now occupy entirely a very large block of land, one of the very best locations in Toronto, and, when the improvements in process of construction are completed, the works will be one of the most efficient and best organized in Canada.

**THE JOHN ABELL
Engine and Machine Works Co., Ltd.,
TORONTO, ONTARIO.**

We Manufacture the
**IMPROVED EASTON SYSTEM OF
ELECTRICAL MACHINERY and the
GRAND ABELL AUTOMATIC ENGINES.**
World's Fair Medal for this Engine.

ROLLER MILLS, BOILERS, SAW MILLS.

**THE JOHN ABELL ENGINE AND MACHINE WORKS CO., LTD.,
TORONTO, - - - CANADA.**

Mr. Kendrew, Pond Mills, Ont., has rebuilt his saw mill which was recently destroyed by fire.

The Greenland Ice and Cold Storage Co., Toronto, are applying for incorporation with a capital stock of \$24,950 to manufacture ice dealers' supplies and to turnish cold storage.

Messrs. Talbot, Cockroft & Harvey, proprietors of the carpet mills at Elora, Ont., inform us that their factory is now well equipped with the best and most approved machinery for the production of body Brussels and Wilton carpets. They manufacture all their yarns. The patterns they are producing are new and beautiful, and are very popular. The concern is sufficiently well equipped to meet the requirements of the trade.

The Toronto Lithographing Co. have purchased the lot at the North-West intersection of King and Bathurst streets, and have begun the erection of a very large and most perfectly appointed building thereon for the purposes of their business. The new building will have a front of 53 feet on King street extending northward 200 feet on Bathurst street. It is the intention to make this the most complete lithographing establishment in Canada.

The Moerners Coal Mining Co., have purchased what they claim will probably develop into the largest coal producing field in the Pictou, N.S. region. This property has already been worked, and expert engineers are now at work and will be for some time, going over an area of some 20 square miles, making surveys and prospecting. According to the information in the possession of the company it is estimated that the coal in these measures cannot be mined or exhausted within the next 200 or 300 years. The company also contemplate a new departure in the supply of coal for domestic purposes to the leading cities of the Dominion. They will establish their own coal yards under their own management in Halifax, St. John, Quebec, Montreal, Toronto, and all other points where the demand will warrant.

The Jeffery mine, now owned by Boas and Greenshields, Richmond, Que., is being greatly improved, four light engines are being removed, and very large powerful machinery substituted. An immense five-story structure is being put up in which to manufacture the fibre; and a machine for crushing the rock instead of hand "cobbing"—there will be no refuse to make dumps of in future, as every part of the rock will be utilized. The 20,000 tons contract will keep the mine at work for two years; besides which the company intend doing their own asbestos material manufacturing. By the new mode of preparing the asbestos there will be a saving of 30 per cent. in the cost, and shortly there will be 500 men at work. At present there are just 300. The company are seeking a franchise from the village of Danville, Que., to run electric cars through the streets, from the mine to the depot.

I. Butler & Co.

Distillers of Benzole, Naptha,
and Manufacturers of
Carbolic Acid and Varnish.
303 Front St. East,
TORONTO.

Thompson & Co.

SHERBROOKE, QUE.

—Manufacturers of—

BOBBINS & SPOOLS

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**Woolen, Cotton &
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Extra Facilities for supplying New
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Agents for the Maritime Provinces.

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A new and improved method or process for the Manufacture of Crucible Cast Steel of any grade or quality, for all machine tools and other purposes. For terms and particulars Address: **PRACTICAL,**
Care of The Canadian Manufacturer, Toronto.

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**Consulting
Electrical Engineer.**

Electric Railways and Electric Light Construction Superintended.

18 Imperial Loan Building,
Toronto.

ALEX. P. MENDE & CO'Y,

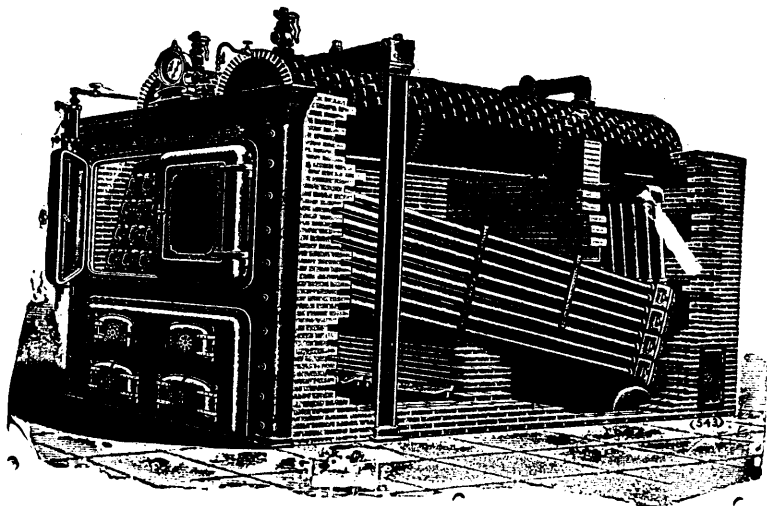
14 Water St., NEW YORK,
MANUFACTURING CHEMISTS.
FAST ONE DIP COLORS, BLACKS AND
CHEMICALS FOR

Dyeing and Printing of Cotton, Woolen, Mixed
Fibres, Etc., Etc. **SHADES MATCHED.**

German Finishing Paste, Cordage and
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Merino Softeners, Belt Dressing, Wool
and Cloth Scouring, etc., etc.

The Industrial Economizer Apparatus patented, for reclaiming the valuable products from waste waters. Apparatus in operation at our works. Patented June 26th, 1894.
This means a saving to you of thousands of dollars every year.

The Caldwell Standard Water Tube Boiler.



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Road Wagons, Buggies and
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Basement Window Guards.
Factory and Mill Window Guards.
School and Church Window Guards.
Store Front Guards.
Office Counter Railing.
Inside Fine Woven Blinds, Lettered or Plain.

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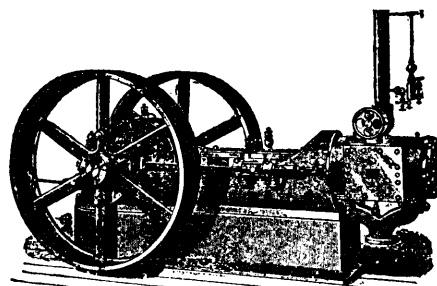
AUTOMATIC HIGH SPEED ENGINES

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ELECTRIC LIGHTING
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GENERAL FACTORY PURPOSES

Perfect Regulation and Highest Economy.

Steam Pumps
SHAFTING, PULLEYS

-AND-
General Machinery



Nie & Whitfield - HAMILTON, ONT.

The Alexandra Mining and Dredging Co., Vancouver, B.C., are applying for incorporation with a capital stock of \$3,000,000 to dredge for metals, and to smelt and refine gold, silver, copper, etc.

At a recent meeting of the Granby, Que., Council it was resolved that in consideration of the Empire Tobacco Company of Montreal locating at Granby, Que., a cash bonus of \$10,000 be paid them and that the village erect suitable buildings for their factories, not to exceed \$15,000. The by-law will be submitted to the rate payers at an early date and will undoubtedly pass.

Mr. J. S. Corbin, so well known to the disk harrow makers, has returned to the old home at Gouverneur, N. Y., after nine years spent in Canada. We understand Mr. Corbin closed out all of his interests to the Massey Harvester people and other parties there, and will remain in the States. We hope so, and also that Mr. Corbin will again become interested in manufacturing in this country. The old company was never so prosperous as when under the management of Mr. Corbin.—Farm Machinery.

CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office, from April 3 to April 29, 1895.

Information regarding any of these patents may be had on application as follows:—

- Fetherstonhaugh & Co., Bank of Commerce Building, Toronto.
 - Ridout & Maybee, 103 Bay street, Toronto.
 - A. Harvey, Central Chambers, Ottawa.
- Copies of American patents corresponding to Canadian patents

Mills For Sale.

A ONE SET WOOLLEN MILL in thriving town with population of 3,000—good local business. Established over 25 years. Brick building, water power, etc.

A CUSTOM WOOLLEN MILL in town with population of 2,800, in good farming locality. Building of concrete 60x50 feet with Grain Crushing Mill attached.

PRICES AWAY DOWN.—Terms to suit purchaser. Reason of selling, old age. For full particulars address,

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REQUIRING BUT LITTLE CAPITAL.

The Inventor of a very ingenious and novel **HASP LOCK** offers the Canadian Patent for sale at a reasonable price.

It has proven itself to be a great seller in the United States.

Hardware dealers generally handle this lock and railway and car companies are adopting it.

The cost of machinery and tools to manufacture it is light while the profits are large.

Full information as to the machinery and tool furnished if desired.

The closest investigation as to its merits invited.

Address **Wm. E. Deibert, Shamokin, Pa., U. S. A.**

FRICION BOARD FRICION BOARD FRICION BOARD

Manufactured by **Dominion Leather Board Co.,**

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Proprietors Sault Au Recollet Paper Mills.

ROOFING, SHEATHING AND FLOORING FELTS.

FIRSTBROOK BROS.

Mnfrs of Dovetail and Packing Boxes

Top-Pins, Side Blocks and Cross Arms. Wood Printers, Etc.
CIGAR BOXES, SHIPPING CASES.

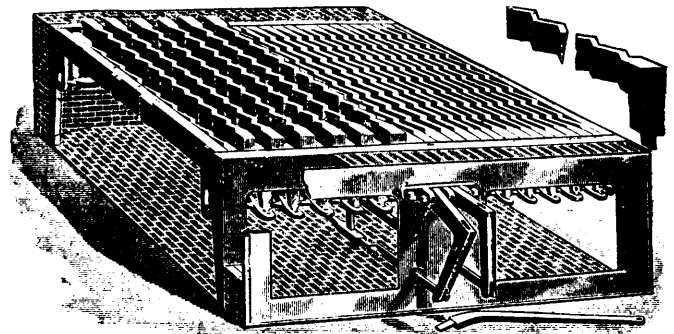
TORONTO ; ; ; ONT.

can be procured from either of these attorneys for the sum of twenty-five cents each.

- 48,593 Hot water heater, Thos. S. Bayles, Toronto, Ont.
- 48,594 Grain separator, Hezekiah Baily, and Wm. Gilson, Sheriden, Ore.
- 48,595 Steam boiler, Hy. Cullcutt, Ashburnham, Ont.
- 48,596 Mining machine, Benhard Yoch, Belleville, Ill.
- 48,597 Telephonic apparatus, Norval L Burchell, Washington City, Columbia.
- 48,598 Candle extinguisher, Danl. Curran, Indianapolis, Ind.
- 48,599 Holdback for thills, Peter S. Van Wagner, and Hy. P. Van Wagner, Stoney Creek, Ont.
- 48,600 Ore roasting furnace, Hy. Chapman, Oakland, Cal.
- 48,601 Drag saw, Jas. H. Blackman, Hartsville, Ill.
- 48,602 Apparatus for burning materials used in the manufacture for cement, etc., Jos. F. de Navarro, New York, N.Y.
- 48,603 Guide sheave for elevators, Jno. Fenson, Toronto.
- 48,604 Mechanical movement, Jeremiah Jacklin, Ottawa, Ont.
- 48,605 Axle nut, Orin Bagley, North Sutton, N.H.
- 48,606 Band cutter and feeder, Ed. Turnell, Elm Creek, Neb.
- 48,607 Plug and cord for telephone switch boards, The Bell Telephone Co. of Canada, Montreal, Que.

THE VOLCANIC PATENT SHAKING GRATE,

MANUFACTURED BY **The Gurney Foundry Co., Ltd., TORONTO.**



Toronto, June 17th, '95.

The Gurney Foundry Co., Toronto, Ont.:
Gentlemen,—With reference to the Volcanic Patent Shaking Grates, I am glad to say that I am well satisfied with the working of these Grates and am convinced that there is a very considerable saving of fuel by their use.

I have observed that the grates make a very clean, thin fire, and that the coal is almost completely consumed, leaving very little to fall in the ashpit. I have in use a second boiler with ordinary fixed grates, and can readily compare results. After a day's run there will be about 6 or 7 barrow loads of ashes and clinkers to be taken from under the ordinary bars, and under the Volcanic we only take out two barrow loads. There is a saving of 15 to 20 per cent. in fuel. Your grates consume a very large portion of the smoke. When putting on a fresh fire over the Volcanic grates there is only half as much smoke produced as compared with the other boiler having the ordinary grates.

Since putting in the "Vo'canic" we have no clinkers at all, and use common, uncleaned, slack coal. We only clean out the fire once a week. When shutting down at night, the dampers are closed to shut off the fire, and the next morning a few shavings thrown on top with a little fresh coal is all that is needed to start the fire. This alone adds materially to economy in coal consumption. My first impression, that it was a first class device, and the best I had ever seen, has been fully confirmed by the work the bars have done. I have no hesitation in recommending them as the best grate bars I have seen or used since I first entered the engine business eight years ago.

(Sgd.) **FRED W. BARRETT,**
Late of the Polson Iron Works Co.

THE GURNEY FOUNDRY CO., Ltd., TORONTO.

Are You Looking

FOR ANY KIND OF MACHINERY?

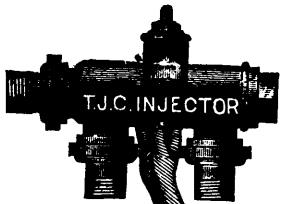
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- 1 HORIZONTAL BOILER 10' x 42".
- 1 NORTHEY STEAM PUMP 5" x 3" x 5".
- 1 NATIONAL HEATER No. 4.
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- SHAFTING, HANGERS and BELTING, All Sizes.

Full assortment of Iron and Wood Working Machinery always on hand.

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Competitors

Coal is money, why not save it by using the

T. J. C. INJECTOR

the most economical boiler feeder in the world.

20 per cent.

saved in coal over any other make. Absolutely automatic. Easily attached. Applicable to all kinds of boilers.

NOT EXPENSIVE.

Will outwear any other make and is simple in construction. It is easy to operate, and is the most powerful feeder in the world.



The T. J. C. Injector

is the best because you cannot possibly go wrong with it. With high or low steam the result is equally satisfactory.

It combines the utmost simplicity with perfect efficiency, and any boy can operate it.

PRICE LIST.

No.	PRICE.	HORSE POWER.
7	\$ 7 00	4 to 8
10	7 00	8 to 16
15	10 50	16 to 40
20	15 00	40 to 72
25	22 50	72 to 120
35	30 00	120 to 220
45	45 00	220 to 300

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Often Imitated, but Never Equalled

The handiest, simplest, and most efficient steam pump for general Mining, Quarrying, and Contractors' purposes.

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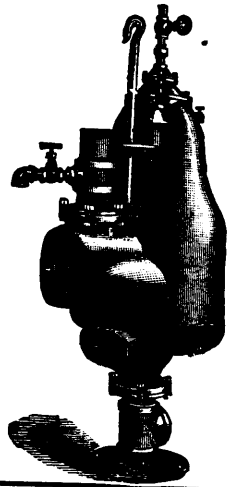
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All kinds of Pressure and Vacuum Gages used in the various arts.

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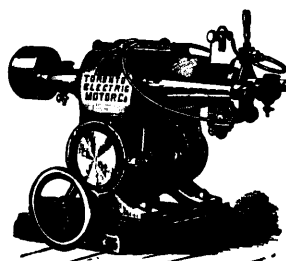
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- 48,610 Bracket for incandescent electric lights, Wilbur R. Hitchcock, Cornwall, Ont.
- 48,611 Seed drill, Wm. Stephenson, Morris, Man.
- 48,612 Band cutter and feeder, Hy. Wappalhorst, St. Charles, Mo.
- 48,613 Stock car, Jno. Mock, Detroit, Mich.
- 48,614 Stallion shield, Danl. G. Tenney, Newburyport, Mass.
- 48,615 Casing button, Geo. B. Shepard and Adrian D. Pope, Ogdensburg, N.Y.
- 48,616 Railway joint bridge, Chas. C. Wells, San Francisco, Cal.
- 48,617 Plate lifter, Geo. W. Best, Morristown, Vt.
- 48,618 Window blind, Wm. Hy. Elwell, Worcester, Mass.
- 48,619 Manufacture of sweaters, shirts, etc., Danl. H. McKay, Toronto.
- 48,620 Method of preserving timber, Jno. S. George, Newport, Ore.
- 48,621 Manufacture of boots and shoes, Justus W. French, Boston, Mass.
- 48,622 Bee hive, Eugene E. Wander, Hartford, Conn.
- 48,623 Cattle stall, feed rack and water tank, Danl. Murphy, and Chas. Tighe, Mount Forest, Ont.
- 48,624 Car-coupler, Thos. Gaskins, Arcadia, Florida.
- 48,625 Shade holding device, Ed. T. Burrows, Portland, Me.
- 48,626 Wheel barrow, Hy. Houldsworth, jr. York, Eng.
- 48,627 Logging hooks, Jno. M. Stewart, Vancouver, B. C.
- 48,628 Stair rod, Helen H. McBride, Grand Island, Neb.
- 48,629 Foot wear, Jas. H. McKechnie, Granby, Que.
- 48,630 Excavator, Jno. Oie, Marshall, Texas.
- 48,631 Draft attachment for vehicles, Garland B. St. John, Kalamazoo, Mich.
- 48,632 Electrical fuse box, Jas. W. Packard, Warren, O.
- 48,633 Fire extinguisher, Saml. M. Stevens, Manchester, N.H.
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- 48,636 Combination trunk, book case, and writing desk, Jno. J. Holm and Geo. H. Gohlke, Madison, Wis.
- 48,637 Sectional chimney, Wm. R. Wilson, and Merton J. Bell, Brule, Wis.
- 48,638 Edible compound fat, Frederick C. Laird, Milton L. Thackberry, Josephing A. Winter and Wm. H. Lee, Chicago, Ill.
- 48,639 Curry comb, The Spring Curry Comb Co., South Bend, Ind.
- 48,640 Stove pipe, Geo. B. Barclay, Joliet, Ill.
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- 48,647 Method of and machinery for making brushes, Maurice Hellwig, Brooklyn, N.Y.
- 48,648 Catch basin, Chas. H. Higgins, Cincinnati, O.
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- 48,650 Cable stop mechanism, Ed. Neil, Newark, N.J.
- 48,651 Slide holder for optical lanterns, Ashleigh Thorp, London, Eng.
- 48,652 Hose coupling, The Consolidated Car Heating Co., Albany, N.Y.
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 Are superior in many respects to most in the market. Made by
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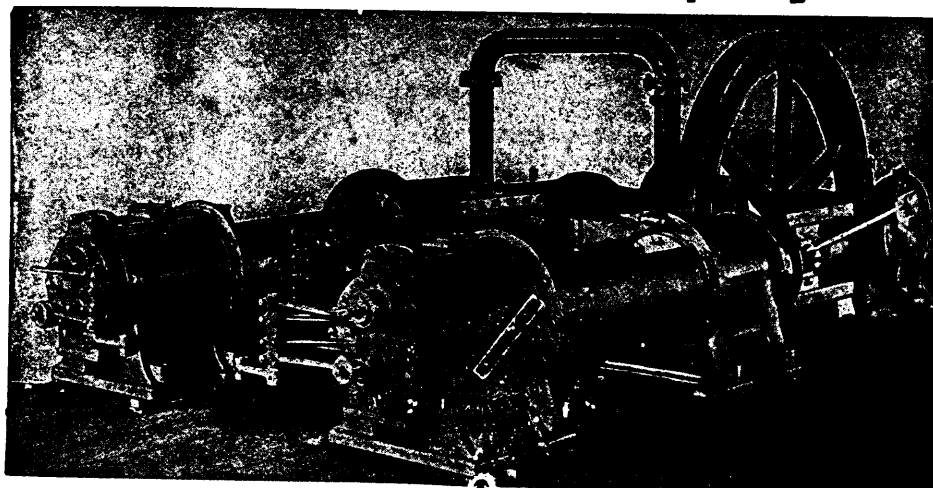
We have no opposition in prices on the following :—1 4 h p. Doty Engine and Boiler with all connections ; 1 18 h.p. Plain Horizontal Engine and 30 h.p. Boiler with all connections ; 1 12 h.p. Engine and Boiler on wheels.

The above have been thoroughly overhauled and are in fine condition. We also have a large stock of wood and iron working machines, new and second-hand ; also a large quantity of 1" Steam Pipe and Shafting; Bargains in all.

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Straight-Line and Duplex Air Compressors.



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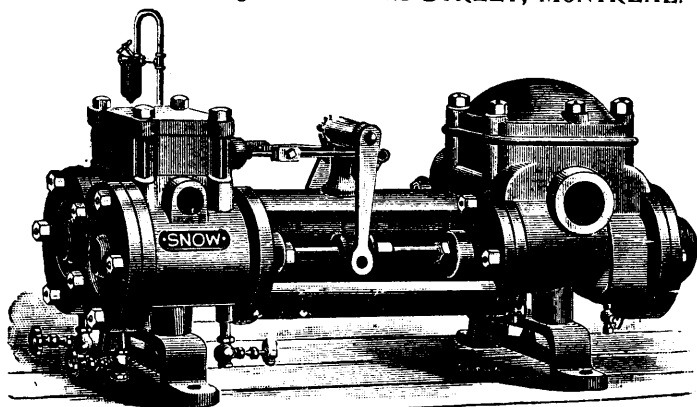
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For every service.

Iron Tools, Wood Working Machinery, Steam Engines, Boilers of every type, Saw Mill Machinery, Etc.

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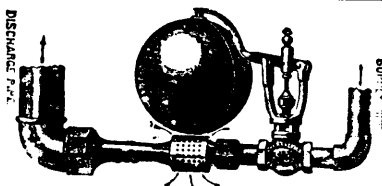
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Hackles, Gills and Wool Combs made and repaired; also Rope Makers' Pins, Picker Pins, Special Springs, Loom and Shuttle Springs, English Cast-Steel Wire, Cotton Banding and General Mill Furnishings.

Bloomfield Avenue and Morris Canal, - - - - - NEWARK, N. J.

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A NEW PATENT WIRE ROPE.

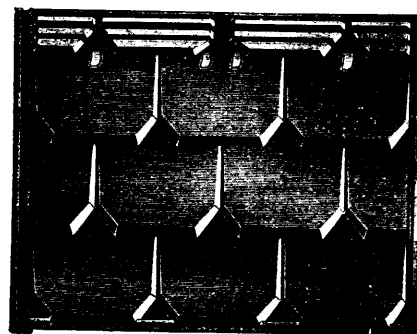


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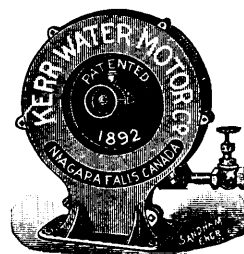


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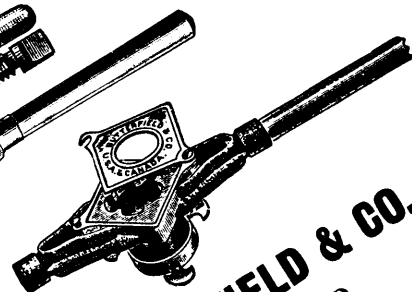
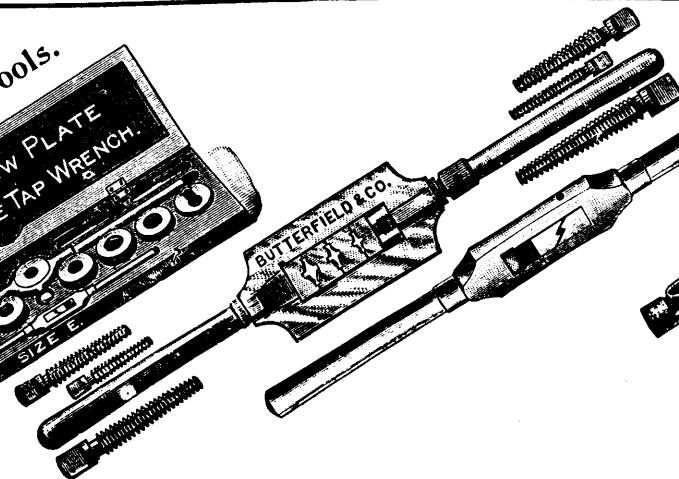


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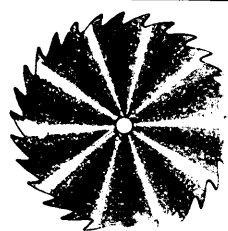
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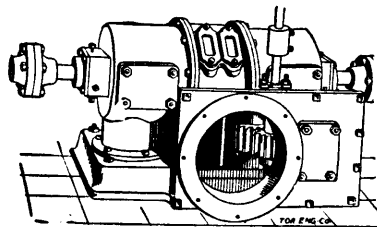
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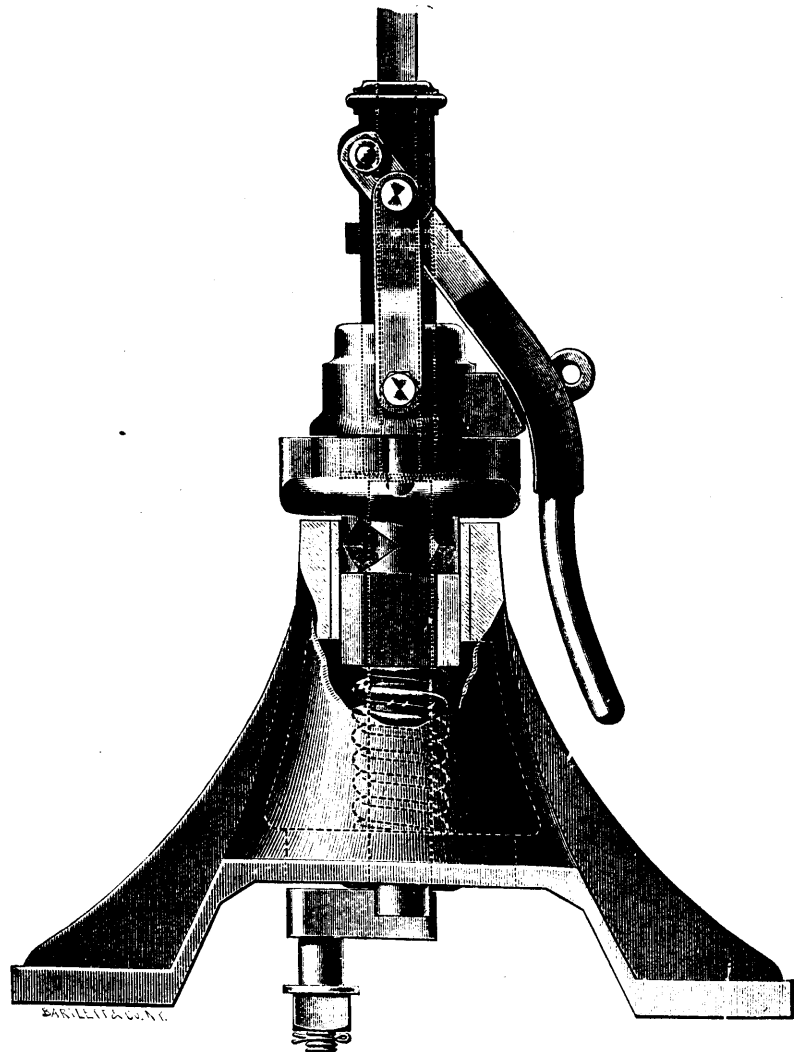


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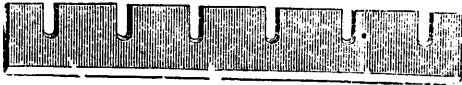
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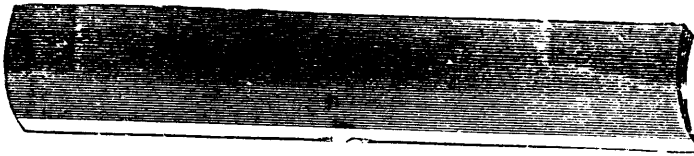
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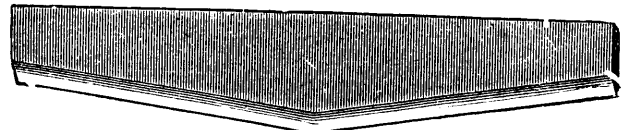
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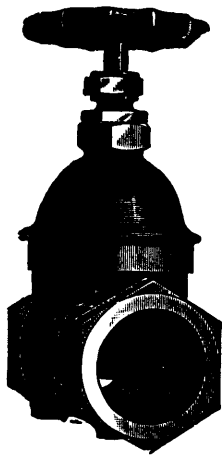
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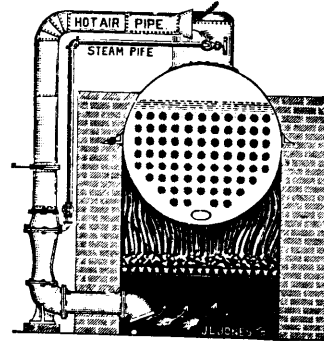
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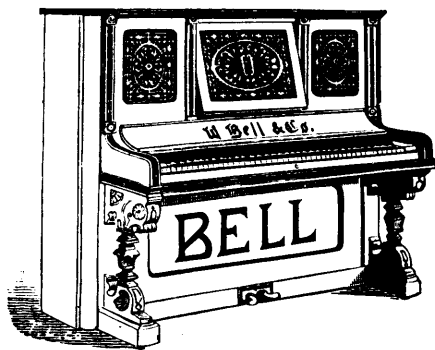
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 Any person directly interested in any Canadian manufacturing industry is eligible for membership.
 Manufacturers desiring to hold meetings for the promotion of their business, are invited to avail themselves of the Board Room of the Association for the purpose, which is offered to them free of charge.

J. J. CASSIDY, Secretary.



Manufacturers' Life Insurance Company.

Comparative Statement. Five Years' Record.

ASSETS.		1889.	1894.
Cash.....		\$ 6,179 44	\$ 39,210 03
Bonds and Mortgages.....		228,473 21	692,751 45
Other Assets.....		58,939 88	89,359 40
Total.....		\$293,592 53	\$821,320 88

LIABILITIES.		1889.	1894.
Reserve, and on acct. of Policyholders..	\$160,401 00		\$612,248 68
Other Liabilities.....	5,884 76		1,282 48
Net Surplus.....	Nil		50,469 72
Income.....	157,354 97		306,715 63
Expenditure, Total.....	147,158 37		153,493 37
Insurance in force.....	6,110,100 00		9,556,300 00

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Director.

GEO. A. STERLING, Secretary.

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