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THE CANADIAN MANUFACTURER

DEVOTED TO * THE MANUFACTURING & MINING INDUSTRIES, OF THE DOMINION. * AND INDUSTRIAL WORLD.

Vol. 14.

TORONTO, FEBRUARY 3, 1888.

No. 3.

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MR. FREDERIC NICHOLLS is Secretary of
The Canadian Manufacturers' Association,
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His Office is at the Publication Office of
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6 Wellington Street West, Toronto.

AUSTRALIAN TRADE.

In October last the editor of this journal addressed a letter to Mr. A. Woods, Agent of the Dominion Government in Australia, requesting information about that country as a market for Canadian manufactured products. A few days ago a reply was received from Mr. Woods, and the information he imparted was of such great and general interest, that it was thought better to give it the wider publicity by publication in the columns of the *Empire*, which reaches all classes of readers in the community, rather than in this journal, for which it was written. The letter was accordingly published in the *Empire* of February 1, and occupies nearly three columns of solid matter, and to which we ask those interested to refer. It is a plain, business-like statement of the possibilities of Canadian trade in that quarter of the world, and supplies precisely the information which Canadian manufacturers stand in need of; and the facts presented show not only how strong a grip England and Germany have upon the trade of Australia, but also the opportunities which Canadian manufacturers will no doubt be quick to avail themselves of. Mr. Woods is fully convinced that Canadians can compete successfully in many lines of manufactures now largely imported by the Australasian colonies, and that, with proper enterprise, assisted by the proposed Pacific line of steamers from Vancouver, a trade may be built up in that country second only to the home consumption.

Regarding some of the lines of goods in which Canadian

manufacturers are specially interested, Mr. Woods says that agricultural implements are for the most part imported from England, although the United States sends considerable, and the home production is quite extensive. The United States supply about all the axes used, and the quantity is very large. Boneless and other fish is a large item of imports, the prices of salmon being regulated by the values on the Pacific coast of the United States. Large quantities of barb wire are used, the supply being distributed between Canada, the United States, England and Germany. The importations of boots and shoes are very heavy, chiefly from England and Germany. There is a large and remunerative demand for cheap buggies and other wheeled vehicles, also for carriage woodware, nearly all of which latter is supplied from the United States. A good article of dry earth closets, well advertised, would meet with a large demand particularly in the cities of Melbourne, Victoria and Brisbane, where sewerage is an unsolved problem. The iron safes imported from England are inferior in style, finish and general excellence to those of Canadian make, and are too expensive for general use. India rubber and gutta-percha goods are extensively used, supplied chiefly from England, though the United States has been recently making some shipments. Mr. Woods says that there is a good opening in that country for an agency for a really first class quality of very cheap oil-skin goods. Lawn mowers from the United States are preferred to those of English make. The trade in organs is a growing one, Canadian organs being shown much favor, the trade being divided between Canada and the United States. Canadian office and school desks would compete more successfully with those from the United States if the prices were slightly reduced. The United States controls the trade in perambulators, and there is a large demand for a well made cheap article. England supplies the whole demand for paints and colors in oil. Silver-plated ware is imported from England, Germany and the United States. The sewing machine business is overdone, although extensive advertising would probably create trade. An English and an American manufacturer of scales have the call of the market, and it would require considerable tact and expenditure to introduce a new make. There is a large demand for small portable oil stoves, but little or none for the larger kinds; and the demand for large cook stoves is quite limited. There is a good demand for good saws, the trade now being divided between England and the United States. England and Germany now control the laundry starch trade; but attractive packages, well advertised, would sell readily. Canadian soaps have a good reputation and sell readily. Orders have been placed in Canada for extensive shipments of soap monthly, and a cable order was recently sent for a shipment to go by steam to Bremen, thence by steam to destination. German cigars glut the market and are cheaper than Canadian, and will probably hold their own against all America. There is a good trade done in cheap trunks and travelling bags, most of which are made in England and the United States. A superior article of wire mattresses would meet with good favor, but poor goods are not wanted at any price. Canadian horse shoe nails are largely used, and are equal to any on the market. Woodenware, generally, including washboards, clothes pins, brooms, etc., are in large demand but at comparatively low prices.

CANADA'S TRADE AND TRAFFIC.

The Dominion Trade and Navigation tables for the fiscal year ending June 30th, 1887, compiled from official returns, show a most satisfactory increase in the volume of trade of the Dominion, the total amount of exports being \$89,515,811 and imports \$112,892,236, showing an increase over last year of \$4,324,497 in the former and \$8,467,675 in the latter, a total increase of \$12,742,162, the largest increase in one year since 1882.

The aggregate trade of the Dominion by countries on the basis of goods entered for consumption and exported was as follows:

Great Britain	\$89,534.01
United States	82,767.26
France	2,405.00
Germany	3,672.96
Spain	481.28
Portugal	204.69
Italy	245.17
Holland	309.92
Belgium	927.58
Newfoundland	2,072.94
West Indies	4,057.59
South America	2,625.08
China and Japan	2,819.58
Switzerland	219.77
Other countries	2,841.91
Total	\$195,155.23

Amongst the most noticeable increases are Great Britain \$7,390,191, United States \$1,340,457, Germany \$164,164 (an increase of 5 per cent.), Belgium \$410,108 (an increase of nearly 80 per cent.), South America \$514,050 (an increase of nearly 25 per cent.), China and Japan \$323,881 (an increase of 13 per cent.), other countries \$478,899 (an increase of 20 per cent.) The only decreases of any account are France \$104,580, Portugal \$97,256 (32 per cent.), West Indies \$486,943 (about 9 per cent.).

The value of goods entered for consumption, and duty collected, by countries was:

Countries.	Consumption.	Duty.	Per Cent.
Great Britain	\$44,962,233	\$9,318,920	20
United States	45,107,166	7,299,592	16
France	2,073,470	699,840	34
Germany	3,225,449	1,190,267	37
Spain	409,269	176,449	43
Portugal	58,143	33,130	57
Italy	119,889	31,405	26
Holland	295,061	623,894	212
Belgium	703,851	166,445	23
Newfoundland	354,342	1,625	½
West Indies	1,942,182	968,496	50
South America	1,178,406	848,563	72
China and Japan	2,750,788	222,800	8
Switzerland	219,777	59,303	27
Other countries	2,209,902	828,687	33
Totals	\$105,629,428	\$22,469,706	

The average percentage of duty on the total value of goods entered for consumption, dutiable and free, was 21.64, which is 1.74 per cent. more than last year, and the highest average ever reached. The amount of duty per head of population, taking the population at 4,856,226, was \$4.63, which is 14 cents more than last year, and the highest ever reached with the exception of 1881 and 1882.

The value of merchandise exported from Canada amounted to \$89,515,000 against \$85,251,000 in the preceding year, the increase being chiefly in animals and their products, agricul-

tural products, and products of the forest. Of the total exports of nearly ninety millions of dollars about one half, say \$44,571,849, were sent to Great Britain, while but \$37,660,200 went to the United States. Of the products of the forest, while \$10,647,074 went to the United States, but \$9,856,144 went to Great Britain; but of animals and their products, while but \$7,571,583 went to the United States, considerably more than twice that amount, or \$16,815,877, went to Great Britain; and while \$8,043,192 of agricultural products went to the United States, nearly twice that amount, \$14,198,698, went to Great Britain. Of horned cattle, Great Britain took \$5,344,375, against only \$922,358 to the United States; and Great Britain took \$778,058 worth of Canadian butter, while the United States took only \$17,207 worth. Of cheese, Great Britain took \$7,509,013, and the United States only \$30,667; and similar disproportions prevail throughout the list of that class of products. The products which were sent in larger quantities to the United States than to Great Britain consisted chiefly of farm and live stock products, which were required to make good the deficiency in the home supply. The exports of products of the mines aggregated \$4,110,608, of which coal is credited with \$1,522,272; British Columbia mines furnishing \$1,137,618. The only items under the head of manufactures exported, exceeding \$100,000 in value, were:—Leather, \$440,616; furniture, \$243,894; organs, \$190,548; extract of hemlock bark, \$136,077; and ships, \$143,772. Although in some items of farm products the United States took more than was sent to Great Britain, yet the excesses the other way are noticeable, as, for instance, our exports of apples to Great Britain amounted to \$658,993, and to the United States, \$197,613; of oats the proportions were \$509,875 and \$12,210; of peas, \$2,026,670 and \$331,349; of wheat, \$7,357,403 and \$265,940; of flour, \$1,608,189 and \$20,776; of oatmeal, \$176,518 and \$3,850.

THE LABOR COMMISSION.

WHEN the Labor Commission were about to begin their arduous and exhaustive work of enquiring into all subjects connected with labor and its relation to capital, a circular was sent out in which it was announced that the Commission would be glad to hear evidence bearing on the subject, and inviting everybody who could throw any light on it to appear and do so. For the purpose of giving a better idea of what subjects were considered pertinent to these enquiries the circular contained a list among which was enumerated, "conspiracy laws and black lists," and "labor combinations," and authority was given the Commission to subpoena witnesses and power to compel attendance. One of the members of the Commission was Mr. A. T. Freed, of Hamilton, and the Commission held quite a number of sessions in that city. Mr. Freed is editor of the *Hamilton Spectator*, and is, or should be, aware of all important matters transpiring there having any bearing upon the questions which the Commission were appointed to consider; and being the editor of his own paper it was certainly to be expected that he would be more or less familiar with such matters when they found publicity through it.

Just previous to the first visit of the Commission to Hamilton, the *Spectator* contained accounts of the labor troubles

there in which the bricklayers had struck on the order of the Bricklayers' Union, and quit work on several important public buildings then in course of erection, because a non-union bricklayer named Buscombe was found at work building a sewer for the city. The affair was a dirty case of conspiracy and black-listing to drive Buscombe away from his job, the conspirators going so far as to appear before the city council and insolently "demand" the discharge of the man as the only terms on which work would be resumed on the city buildings. All the facts of the case were published in the *Spectator* from time to time as they transpired. Later, and while the Commission were actually in session in Hamilton, the *Spectator* published an item in which it was related that a poor woman, named Mrs. Farr, who had fallen upon the ice and broken her arm, totally incapacitating her from doing any work whatever, was the wife of an old man, a bricklayer, who had been debarred work, when work was plentiful, because he was not a union man. Mrs. Farr, meantime, had been the mainstay and support of the family through scrubbing, washing, and similar menial work, but being laid up with her broken arm, the family was in sad distress.

Mr. Freed was no doubt aware of this sad case, it having been brought to his attention through reading his own newspaper, and it might reasonably have been expected that the incidents transpiring under his own nose, and related in his own newspaper, and coming clearly within the scope of subjects which the Commission were appointed to investigate, would have prompted him to make some enquiries and take some steps looking to an investigation by the committee of the methods of the Hamilton labor unions by which honest, hard-working, willing men were driven away and deprived of work only because they were not members of some labor union.

The testimony taken before the Commission on frivolous and nonsensical subjects would fill several large volumes and be of no earthly practical value to any one in Canada; but when an opportunity was afforded of investigating some of the most painful outrages committed by organized labor, and to show the heartless tyranny of it against innocent and inoffensive men, only because they declined to connect themselves with such organizations, it was ignored and passed over unheeded. Organized labor in its power could bulldoze city officials and force objectionable men into want, beggary and distress, and then go before a Government Commission and insolently prate about the "oppression" of Labor by Capital; and brow-beaten Government Commissioners are seemingly afraid to investigate cases of outrageous oppression by organized labor practised under their very eyes. Shame!

EDITORIAL NOTES.

THE production of pig iron in the United States in 1887 aggregated 7,187,206 net tons against 6,365,328 tons in the previous year. Of this enormous production, Pennsylvania produced more than half, or 3,684,618 tons.

THE use of powdered coal for fuel has been successfully tested at the Chester Iron Works, at Chester, Pennsylvania. The experiment consisted in blowing the powdered coal into the furnace onto the fire. The combustion was perfect, both

ashes and smoke being entirely consumed. The process is said to effect a saving of from 40 to 50 per cent.

ABOUT all of the nut manufacturers in the United States or their representatives, were in convention in Pittsburgh, Pa., on January 20th, for the purpose of forming a pool or trust, otherwise called a "national association." It was agreed to advance prices, the plan being to impose a heavy penalty upon any member who might be caught breaking faith. They all do it.

WE observe that most of the new textile mills now being built are provided with automatic sprinklers for the extinguishment of incipient fires; and that many mills that were not thus provided, are making this important addition to their fire apparatus. This good work should go on until every mill and factory in Canada is fully equipped with some good and efficient system of automatic sprinklers.

SENATOR HOAR, of Massachusetts, has introduced into the United States Senate a resolution requesting the President to open negotiations with Great Britain and Canada with a view to constructing and opening a free ship canal from the Bay of Fundy to the Gulf of St. Lawrence at the joint expense of the countries interested. Such a canal would be of the greatest value to Canada, and it is to be hoped that arrangements may be made for its construction.

FORTY years ago neither France, Belgium nor Germany had any very important manufacturing industries; to-day the tall chimneys of their industrial establishments are almost innumerable. Fifty years ago the United States had no manufacturing industries whatever, but to-day, a population of sixty millions of Americans have all their wants supplied from the mills, factories and industrial establishments that have sprung into being there since that time.

THERE are said to be twenty-one important reaper, mower and binder manufacturers in the United States, nineteen of whom have organized a national association, the object of which is to curtail production, regulate prices, and arrange and maintain a uniform system of prices. In other words, the organization is in the nature of a "pool," or "trust." Prices of this class of goods are higher in the United States than in Canada, and the object of the combination is to advance them still higher.

ACCORDING to a statement made in the London *Economist* by Mr. William J. Harris, late a member of the Imperial Parliament from Devonshire, England, 14½ per cent. of the total value of the products of agriculture in that country is paid in taxes to the government. We call the attention of Canadian farmers to this fact. And yet the British Government allows the agricultural products of the whole world to be imported into the kingdom without contributing in the least to British taxation.

ROUMANIA has recently enacted a law providing that every person who will start and operate a factory or other industrial

establishment in that country, worth at least a thousand dollars, and give employment to an average of twenty-five hands for at least five months of the year, may erect his buildings on Crown lands, a lease of which will be given for ninety years. All such establishments are exempted from all taxation for fifteen years, and special freight rates will be given on all government railways. It is, moreover, enacted that all government and municipal orders are first to be offered to home factories.

THE *Toronto Mail* is publishing the views of a few Canadian manufacturers of strong Grit proclivities who favor Commercial Union. These gentlemen profess to believe that the manufacturing industries of Canada would not be injuriously affected by unrestricted competition from Yankee manufacturers. They are authorized to speak for themselves, of course, but no one puts much faith in their professions. If Commercial Union should suddenly appear to be imminent they would be quite as vociferous in denouncing it as anybody else. There is no particular harm to be done by their vain-glorious. Wind is cheap.

THE *Sherbrooke, Que., Gazette*, is publishing from time to time very interesting accounts of the growing mechanical industries of that and neighboring towns, and from which its readers are made aware of the existence of the industries alluded to, and the extent and value of them. It is an idea which we would be glad to see other papers adopt. Although the papers published in the smaller towns giving such information may not reach any vast number of readers, the CANADIAN MANUFACTURER takes pleasure in reproducing the facts, and thus a publicity is given to them that reaches all classes of the community who may be interested in them.

THE *Toronto Mail*, speaking of the tariff on imported books, quotes from the *New York Evening Post* as follows: "Publishers may wish to keep the tariff on imported books, but they are only middlemen, and their claims deserve no consideration. But the producers and consumers of books would prefer that the tax should be abolished." It is true that the author must in the first place write the book before the publisher can put it on the market, but when the copy goes into the hand of the printer the labor of the author has ceased; and the "producer" of millions of copies of the book is certainly not the author, who may be dead and gone in the meantime, but the publisher, who is certainly not a "middleman."

MESSERS. NICHOLLS & HOWLAND, proprietors of the Permanent Exhibition of Manufactures, 63 to 69 Front street west, Toronto, are distributing among their business friends a very attractive and beautiful lithograph, printed in four shades of brown, in which a number of different views of their establishment are shown, and from which a correct idea of the place may be had. This exhibition now embraces a very large and valuable variety of manufactures, and is one of the most instructive institutions in Toronto. It is spacious, well lighted and warmed, and polite and well-instructed attendants are always at hand to impart information to all visitors. It is open free to the public at all business hours.

THE *Ottawa Journal* has a queer way of measuring the value of certain Ontario officials. It says that if \$10,000 is too much for a lieutenant-governor, as some think it is, \$4,000 is too much for the mayor of Toronto, "a place which has less than one-tenth the population of the lieutenant-governor's province." The office of lieutenant-governor of Ontario is a sinecure, about the most important duties performed by him being to draw his salary and maintain the dignity of his office; and he has now even abandoned going down to open Parliament bedecked in gorgeous apparel and surrounded by a dazzling cortege; but the mayor of Toronto has to hustle all the time and earns every dollar of salary he receives.

UNTIL a few years ago, all the ice used for refrigerating purposes throughout the world, even in tropical countries, was obtained from frozen lakes and rivers, and the transportation and trade in the article gave employment to large numbers of people and fleets of vessels. Since the invention of ice-making machinery those countries where the lakes and rivers do not freeze are no longer necessarily dependent upon the north for their ice; and the manufacture of ice by artificial means has become an extensive and profitable business, and so has the manufacture of ice making machinery, large quantities of which find widespread use in nearly all warm countries. Canada possesses fine facilities for the production of such machinery, but we are not aware that any such is made here.

John Bull feasted this Christmas on American 'Norfolk' turkeys, in addition to the 'Roast Beef of Old England,' as interpreted by Chicago abattoirs. Fast steamships took hundreds of cases of prime American turkeys across the Atlantic, whence lightning express trains transported them to London. It is expected that similar transatlantic shipments will be made by every steamer leaving this port during the winter months. —*Australasian and South American*.

CANADA furnished much the largest part of the turkeys alluded to, if not all of them. There was one shipment alone of a train load of twenty cars of poultry gathered from farms in the vicinity of Ottawa that was sent by fast steamers to London, the shipments from other locations in Canada also being very heavy.

THE *Essex, Ont., Review*, tells of how a Canadian Customs official in that city detected "a couple of women" in the very act of smuggling in a lot of goods which they had just purchased in Detroit. It says that "the women were very angry but the official was inexorable, and the goods were confiscated." There are three rather remarkable things embraced in the transaction,—that the seizure should have been made at all, seeing the lax manner of Customs officials there in performing their duty; that the smugglers were only "women" instead of "ladies," as has usually been the case when smuggling was being done, and that these women should have been so careless as to have placed their smuggled goods in baskets instead of secreting them in their "smuggling bags," which, we have been told, are uniformly a part of the trousseau of every bride married in that country.

IN 1886 there were more than 8,000 Knights of Labor in good standing in Detroit, according to the *Evening Journal* of that city, while at this time there are only about 1,500,

some placing the estimate as low as 800. The *Hamilton Spectator* says that a similar decline is going on in that city; and the *Toronto World* learns that a similar falling off here is noticeable. All the assemblies show decreases, some to a very large extent. One assembly that had 600 members a year ago now numbers only sixty. This is a sample of others. Five months ago there were in this city fully 4,000 Knights of Labor. It is doubted now if there are 1,000. If the decrease goes on at the same rate in a short time the order will be extinct in the Queen City. Internal dissensions and dissatisfaction with the management of the order are alleged as causes of this remarkable decrease.

THE Toronto Press Club have decidedly the finest and most comfortable press club house in Canada or even the United States. But a few years ago the Toronto Press Club was organized in a small back room in this city, the accommodations of which were not sufficient to afford chairs to all the newspaper men who participated in the event, and there were not a very great multitude of them either. Years of checkered experience witnessed growing interest in the maintenance of the club, and considerable increase in the membership; and now it is on a sound financial basis, embraces a very large and influential portion of all the newspaper men and journalists in the city, and occupies a large, well-furnished and centrally located home of its own. The organization is a credit to Toronto, and exerts a happy effect on the whole community through the kindly feelings that exist among the members

AN American maker of alpaca, Mr. D. Levis Moore, shows in *The Manufacturer*, of Philadelphia, the following figures showing the wages paid by him and the wages paid in similar establishments in Bradford, England. These figures are commended to the attention of Canadian textile workers:

Bradford 1886:

Weavers' full average per week	.....	14s. 8d. or \$3 55
Twisters' " " " "	.....	28s. or 6 79
Loom fixers' " " " "	.....	32s. or 7 76
Yarn clerks' " " " "	.....	26s. or 6 31
Overlookers' " " " "	.....	26s. or 6 31

Philadelphia 1887:

Weavers' an average per week of	.....	\$ 7 00
Twisters' " " " "	.....	12 00
Loom fixers' " " " "	.....	15 00
Yarn clerks' " " " "	.....	10 00
Overlookers' " " " "	.....	12 00

THE *Montreal Herald* speaking of the proposition of the Kamper Syndicate to establish steel rail works in Canada provided the Dominion Government will protect the industry by levying a duty upon importations of steel rails, warns the country against granting such a concession, and points warningly to the steel rail "trust" which it says exists in the United States. It is true that the United States now imposes a duty of \$17 a ton on foreign rails; but it is also true that American steel rail manufacturers are ready and willing to fill all demands for the article at prices not exceeding \$32 per ton, while no foreign manufacturer can afford to lay them down in American ports, duty paid, for less than about \$40 per ton. Foreign rails cannot be laid down in New York,

duty free, for less than about \$25, which includes freight; so it will be seen that while the duty is \$17 per ton, the cost of American rails is only about \$9 per ton more than foreign rails.

In testimony taken before the labor commission in Hamilton, Mr. John McKenna, a broom-maker, stated that owing to the competition from prison labor, broom makers working full time can only make \$8 to \$10 per week. The convicts in the Central Prison are farmed out to contractors, and those employed in broom-making cost the contractors only about twenty-five cents per dozen brooms made, while with free labor the manufacturer has to pay about twenty-five cents per dozen to prepare to make brooms, and afterwards pays about forty-five cents a dozen to his workmen. The prison authorities supply the contractor with everything except tools—workshops, machinery, power, etc. It looks as though the Government, instead of punishing the prisoners for crimes committed, were deliberately using them to depress the value of free labor, and drive free laborers to the commission of crime, through poverty and distress. The system is wrong and vicious, and ought to be abandoned.

THE *British Iron and Steel Trades Journal*, announcing the purchase of German milling machinery for English flouring mills, says that such purchases are going on on a large scale, and that there are few towns which do not contain a flour mill erected entirely with foreign-made machines. "In Liverpool," says this paper, "there are ten large mills fitted with German machinery; in Glasgow, seven; while the largest manufacturers of German milling machinery advertise that they have erected in the United Kingdom during the past six years, machinery capable of making 12,000,000 sacks per annum, or one-third of the total quantity of flour necessary to meet the wants of the country." The British press and many public speakers are inclined to attribute this result, in most cases, to the effect of the protective laws that have been adopted of late by the German Government, and use it as one of their strongest arguments in favor of protection for British industries.

THE first annual report of the directors of the Manufacturers' Life Insurance Company of Toronto, of which Sir John A. Macdonald is president, is published elsewhere in these pages, and from which it will be seen that the company, although coming into existence and beginning work only in August last, has met with great and deserved prosperity. Within a period of only five months the value of insurances effected amounted to more than two millions five hundred thousand dollars, the premiums upon which amounted to \$62,000. There was \$261,000 worth of stock subscribed for, of which \$126,000 had been paid in. The expense incurred in organizing has been almost all provided for, and there is held as security for policy-holders \$662,249, made up of cash assets, \$168,069 and uncalled capital, \$494,180. These facts indicate that the Manufacturers' will find a sufficient field for its operations. In Mr. Carlile it has a managing director admittedly of the highest ability, and as it has organized a system of agencies covering the country, its progress in the future should be secured.

"DESPISE not the day of small things," finds application in ways that frequently lead to the establishment of important industries and the foundation of fortunes. The *Baltimore Sun*, alluding to the immense piles of waste tin from the can-making establishments in that city, that a few years ago used to glitter upon every dumping-ground, says that the first use of this waste was by a poor man, who obtained permission to set up a machine in a can shop in that city. Here he bought scraps for almost nothing, and cut out tin button stock. Afterward the stamps for shaping the button were introduced, and the man reaped a large fortune from his enterprise. The next use of tin scrap was for smelting. The tin at first refused to flow when subjected to the heat of the furnace. It was discovered that it would pay to cut the tin coating chemically, and that the sheet iron would then smelt and flow. Out of this grew the manufacture of sash weights, and few of them are now found that are not made from tin scrap. There are places in Canada where similar enterprise would be equally remunerative.

ANENT the barbarous laws allowing imprisonment for debt the *Montreal Herald* tells of a sad case occurring in that city. A young married man with a family rented a small house in which to live. He was a clerk on a small salary, and although he practised close economy, he gradually fell behind, until he owed for six months' rent. All the household effects were of not sufficient value to pay the indebtedness, and seeing no hope for the future the young man stated the facts to his landlord and asked indulgence, saying that he proposed to go out West and seek new occupation, leaving his wife and babes behind until he became settled. The landlord demanded the money or good security for it, neither of which could be had, and the poor fellow was sent to jail until the debt was paid. The little ones were sent to an asylum and the wife eked out a bare living by day's work, and this situation prevailed until friends in a foreign land, learning of the distress, relieved it. The circumstances are horrible and demand a change in the laws. Imprisonment for debt, except where fraud is permitted, should not be allowed in Canada. It is painful enough to be poor, but to be imprisoned because of poverty is a disgrace—not to the poor man—but to the laws that permit such things.

ONE of the largest stove manufacturing concerns in the United States, Messrs. Rathbone, Sard & Co., of Albany, New York, have proposed to their workmen to enter into a sort of co-operative arrangement for the ensuing year, which, if accepted and carried out, will be a preventive of strikes as far as this firm and their workmen are concerned. In their proposition the firm recite:—

"It is well known that in 1885 our employees suffered greatly from the effects of a prolonged strike. In 1886, also, strikes and lockouts effected considerable pecuniary loss to the men, and in 1887 we paid in wages \$70,000 less than in the preceding year, notwithstanding the fact that the men were working at an advance of about 10 per cent. over wages in previous years. Our proposal is that there shall be no reduction or advance in the wages paid last fall, which were acceptable to all the employees; there shall be no lockouts or strikes; no discrimination shall be made against any man because he is or is not a member of any organization, and all minorances shall be referred to a shop committee. Ten per cent. of

the wages of the men shall be retained until the end of the year to insure the fulfilment of this agreement. If the employees enter into a strike within that time the amount retained shall be forfeited by them, and if the firm make a lock-out they are to pay to each molder an amount equal to that portion of his wages held back."

ONE of the most remarkable contrasts shown in "parallel columns" reading was displayed in the editorial pages of the *Toronto Globe* a few days ago. There were two editorials of about equal length in adjoining columns. In one a deliberate effort was made to bewilder the people by raising the following "blue ruin" cry: "What with unemployed men, low wages, depreciated factory property, an increasing exodus, a disordered North west, disconnected Provinces, broken banks, embarrassed railway companies, the drain by taxation and the huge burden of Federal debt, Canada is in such a situation that immense business disasters might occur if the Liberal press were unpatriotic enough to imitate the Tory tactics of 1874-78"; while in the adjoining column in an article concerning "Canadian Credit," in which the fall in the yield of Canadian and other first class securities is contrasted, greatly to the credit of the Canadian Government, it being shown that the credit of Canada has, since 1869, risen more than that of any other colony, or of even England herself, the *Globe* says: "In the face of such facts it is idle for any one to preach despair to Canada. The country is well able to get along, and with good government may prosper exceedingly, even though the Commercial Union agitation come to naught."

MR. JOHN WATSON, of Ayr, Ont., is the head of a large concern there, who manufacture agricultural implements. Mr. William Ure, of Glasgow, Scotland, is a successful manufacturer of iron, and is also a near relative and friend of Mr. Watson. Mr. Ure traveled extensively through the United States and Canada last fall, and, on his return home, wrote a lengthy letter to Mr. Watson, reciting his impressions regarding the two countries. He spoke highly of the vim and enterprise displayed by the business people of the United States, but was specially struck with the apparent poverty of the farming classes there. He availed himself of every opportunity of inquiring into the condition of the American farmer, and his information was that farming was the poorest business in the States. What he saw in Canada, however, led him to a very different conclusion regarding the condition of Canadian farmers, who, he says, seemed to be more comfortable and prosperous in every way. The contrasts, generally, were, all of them, more favorable to Canada and Canadians than to the United States and the farming classes there, and Mr. Ure's letter has been widely published and very favorably received. A rather remarkable circumstance in connection with it is that the *Toronto Globe*, which has for so long been telling of the hopelessness and helplessness of Canadian farmers, prints the material points of Mr. Ure's letter.

SENATOR FRYE, of Maine, has offered a resolution in the United States Senate, instructing the Committee on Foreign Relations to have prepared a statement embracing the following points:—The various political organizations of the Dominion of Canada and its several provinces, including Newfoundland;

the treaties with the United States in regard to the Dominion and its several provinces; the commercial status established; the amount and value of commerce and trade between the United States and Canada; the amount and value of the transit rate on goods not subject to duty; the area and population of the Dominion of Canada and its provinces; the amount of their funded and floating debts; their revenues; their railroads, showing the mileage, cost, spare capital, funded and floating debts and the guarantees given to them by Great Britain or the Dominion; their canals, showing the size of the lock, the cost of the canals, the number of vessels navigating them and the average number of days that they are navigable; the dates for a series of years, of the opening and closing of navigation on the St. Lawrence, and as to subsidies paid to railroad and steamship companies. In speaking to the resolution Mr. Fry said that the information called for was exceedingly important and valuable. The necessity for it was apparent in view of the fact that serious commercial questions were liable to arise at any time between the United States and Canada.

THE public accounts of the Dominion up to the close of the fiscal year ending June 30, 1887, have been issued. The operations of the Government during the year resulted in the accretion of a small surplus amounting to \$96,832. Sir Charles Tupper in his last budget speech estimated that the year's operations would result in a deficit of about \$300,000, but the management of the finances has been such that a small surplus is gained. The total expenditures for the year amounted to \$35,685,161, against \$39,011,612 in the preceding year. There is a decrease in expenditure on the public debt amounting to nearly half a million dollars as compared with the previous year. The Administration of Justice cost \$50,000 less than in 1886; but Arts, Agriculture and Statistics required more money than in previous years. The revenue derived from taxation in 1887 reached \$28,687,001, or nearly three and a half millions in excess of the previous year. The bulk of this increase, three millions, was from Customs, the remainder being credited to Excise. The other principal items of income on account of the Consolidated Fund are interest on investments, and the revenue from the Post Office and Government Railways and Canals. The interest on investments yielded \$990,000, a decrease of over a million, due to the fact of the Canadian Pacific paying off their loan; Public Works, \$3,270,000, a gain of \$200,000; and the Postal Service, \$2,020,000, a gain of \$120,000.

WE recently mentioned the fact that a judge of the United States Court of Iowa had decided that the Glidden barb wire patents, owned by the Washburn & Moen Mfg. Company of Worcester, Mass., were invalid. With but few exceptions all the barb wire manufacturers in the United States are licensees of the Washburn & Moen Company, and pay them a royalty of fifteen cents for every hundred pounds of barb wire they make. These manufacturers, or some 222 of them, are associated together and form what is known as the Barb Wire Manufacturer's Association, their chief object being to limit production and to make and control prices. The Glidden invention is also patented in Canada, and barb wire is made

in this country to some extent. At a recent meeting of the American Association in Chicago, the price of barb wire in car load lots was advanced from \$3.15 to \$3.40 per hundred pounds, the reason assigned for doing which being that the foreign manufacturers of wire rods, from which the wire for manufacturing barb wire is made, had advanced their prices very materially. While there are a number of works in the United States devoted exclusively to the manufacture of wire rods, and perhaps a much larger number of mills engaged in producing wire suitable for the manufacture of barb wire, the importations of foreign made wire rods into that country amount to about 150,000 tons annually. The United States is the chief foreign market for both English and German wire rods, on which a duty of \$12. per ton is levied, but competition among the manufacturers has kept down the price until recently, when most of them went into a combination or "pool" and advanced prices about \$5 per ton.

THE labor commission were again in session in Hamilton last week, and while quite a lot of more or less valuable and interesting testimony was adduced, we failed to discover by the newspapers published there that any investigation or enquiry was made into the Buscombe matter, which received attention in these pages a few weeks ago, or the Farr matter, related in our last issue. It will be remembered that Buscombe was a poor brick-layer who earned his daily bread last summer by working on the street sewers in Hamilton, and who was not a member of the Bricklayers' Union, because of which facts the Bricklayers' Union of Hamilton refused to allow union men to work on any city work until Buscombe lost his job. The man Farr was also a non-union bricklayer, who, according to the *Spectator*, "was debarred work when work was plentiful because he was not a Union man." His wife supported the family as best she could by "scrubbing and washing," but met with the misfortune of falling on the ice and breaking her arm, resulting in much distress to the family, the case being "a sad one" as stated by the *Spectator*. The editor of the *Spectator* is a member of the labor commission and of course had knowledge of the circumstances here alluded to. The commission have power to subpoena and enforce the attendance of witnesses before them: and just such cases as these are clearly within the scope of the enquiries they were appointed to make. Here, then, was knowledge of important facts within the scope and purview of the enquiries which should be made; sitting of the commission in the very city where the circumstances occurred; power and authority to bring the witnesses before them, and plenty of time to make a thorough investigation. But strangely enough, no investigation was made or even attempted. We notice that labor union men found ready and frequent hearing, and that their views regarding the beneficent effects of trades unionism were duly recorded and reported. But nothing on the other side. Were the commission terrorized by the jawsmiths of the Unions? It looks so. They seem to have been afraid to invite even such humble laborers as Buscombe and Farr to appear before them for fear Mr. D. R. Gibson and some others of the leaders of the terrorists should be offended thereat. There is a great deal of humbuggery in the world, in which may be included the Labor Commission.

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

IF YOU WANT BELTING

Which will Run Straight on the Pulleys;

Which is thoroughly well Stretched;

Which will Not Tear at the Lace Holes;

Which will give Complete Satisfaction;

- SEND TO -

F. E. DIXON & CO.

MANUFACTURERS OF

Patent Lap-Joint, Star Rivet

Leather Belting

70 KING STREET EAST, TORONTO.

Special Belts for Electric Light Machinery;

Belting made from the very Best Canadian Leather;

Belting made from American "Genuine Oak Tanned Leather";

Rubber and Cotton Belting; Lace Leather;

PHENIX OIL, the only Perfect Belt Dressing.

SEND FOR CIRCULAR.

ALL OUR BELTING IS SOLD AT THE CANADIAN PRICE LIST.

PLEASE COMPARE BEFORE PURCHASING.

Send for Discounts and our Pamphlet on Belting.

**NEW LEATHER BELTING FACTORY,
11 JORDAN STREET.**

BELTS
MADE
FROM
THE
BEST
BARK-
TANNED
LEATHER,
SINGLE
OR
DOUBLE
THICKNESS.

**PRICES OF
Extra Quality Leather Belting,
TORONTO, JANUARY, 1888.**

1 Inch Belting... \$	10	24 Inch Belting... \$	54
1½	13	26	92
1¾	17	28	30
2	20	30	64
2½	23	32	00
3	26	34	35
3½	30	36	70
4	33	40	40
4½	36	44	10
5	43	48	80
5½	50		
6	56		
6½	63		
7	70		
7½	76		
8	83		
8½	90		
9	1 02		
9½	1 15		
10	1 29		
11	1 42		
12	1 55		
13	1 68		
14	1 82		
15	1 98		
16	2 14		
17	2 31		
18	2 49		
19	2 66		
20	2 84		
21	3 02		
22	3 20		
23	3 37		

ROUND BELT.

SOLID.

½ Inch Belting... \$	05
3-16	07
½	10
5-16	14
¾	18

TWIST.

½ Inch Belting... \$	06
3-16	10
½	14
5-16	18
¾	22
1	30
1¼	36
1½	46
1¾	60
2	72

Double Belts Double Price.

BELTS
MADE
ANY
WIDTH,
LENGTH,
OR
STRENGTH
REQUIRED.
SEWED,
RIVETED,
OR
PEGGED.

WRITE FOR DISCOUNTS.

PLEASE COMPARE BEFORE PURCHASING.

THE DISCOUNTS WE OFFER FROM OUR LIST REDUCE THE NET COST OF
OUR CANADIAN MANUFACTURE BELOW THAT OF
ANY OTHER MAKERS.

**GEO. F. HAWORTH & CO.,
TORONTO.**

Manufacturing.

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

MR. J. BOOTH, Lakefield, Ont., is building a new woolen mill at that place.

MR. E. W. CASE, Case, King's County, N.B., will build a new woolen mill.

THE Montreal Woolen Co., Montreal, are equipping their works with electric light.

MESSRS. LEITH BROS., Oak Lake, Man., will rebuild their recently destroyed saw mill.

DURING 1887 there were 1076 new buildings erected in Montreal, which cost \$4,793,178.

THE Massey Manufacturing Co., Toronto, will erect a large and commodious warehouse at Neepawa, Man.

MESSRS. HAMLIN & AYERS, Lachute, Que., have recently largely increased the capacity of their woolen mills.

IN sinking the Richardson gas well at Port Colborne, Ont., a fine vein of gas was struck at a depth of about 760 feet.

MR. J. T. SMITH, Southampton, near Amherst, N.S., is getting the machinery into his new woolen mill at that place.

THE Phoenix Coal Mining Company, Joggins, N.B., are raising some 180 tons of coal a day from their mines, employing 80 men.

MR. JOHN T. KERR, Iona Station, Ont., is building a saw mill which he expects to have completed and in operation at an early day.

MR. THOMAS WATERHOUSE, Palmerston, Ont., will build a new woolen mill. He has been awarded a bonus by the town to assist him.

THE Moncton Knitting Works, Moncton, N.B., are filling an order from a Halifax jobbing house for 400 dozen domestic wool hose.

THE Eastern Township's Dying Co., Sherbrook, Que., have just gone into business under the management of Mr. W. A. Hampshire.

A COMPANY is being formed at Richmond, Que., near Sherbrooke, to establish a knitting factory which will employ about fifty hands.

MR. C. E. PETTES, West Brome, Que., is doing a big business manufacturing an improved wood sap spout. He is crowded with orders.

THE large steam saw mill of the John Spry Lumber Company, Algoma, Ont., was totally destroyed by fire Jan. 12th. Loss about \$18,000.

MR. W. B. McALLISTER, Wilberforce, Ont., is driving work in the oil well he is boring at that place. This well is 14 miles from Pembroke.

MR. FREDOR BOAS, Morrisburg, Que., late of Montreal, will organize a company with \$250,000 or \$300,000 and build a large knitting mill.

THE Canadian Locomotive and Engine Co., Kingston, Ont., have commenced the construction of a new iron steamer which will be 108 feet long.

ALL the passenger trains on the New Brunswick Railroad are equipped with the Sewell system of car heating, which is proving very satisfactory.

MR. SAMUEL MADDIN, Sarnia, Ont., has organized a company in Port Huron with \$100,000 capital for the manufacture of agricultural implements.

THE Canadian Rubber Company, whose head offices are at Montreal, are applying for authority to increase their capital stock from \$1,000,000 to \$2,000,000.

MR. S. V. WILSON, Union, Ont., near St. Thomas, whose woolen mills were recently destroyed by fire, will rebuild upon the old site at a cost of about \$20,000.

MESSRS. NOWLANDS & Co., Galt, Ont., manufacturers of plush, have recently made some important additions to their works, among which is a large dye house.

IT is said that there is not a concern in Canada who manufacture church, school, or fire alarm bells. There is a large and increasing demand for this class of goods.

MESSRS. MILLER BRON & MITCHELL, Montreal, have recently put one of their freight elevators into the Magog Textile and Print Company's works at Magog, Que.

THE Rosamond Woolen Co., Almonte, Ont., are making considerable improvements to their mills, including new and improved apparatus in their dyeing department.

MR. JOSEPH BROOK, Simcoe, Ont., who recently lost his woolen mills by fire, is building an extensive brick factory, which he hopes to have finished within a few weeks.

THE Almonte Knitting Company, of Almonte, Ont., have added to their machinery one of Arthur Wrightson's balmoral frames for the manufacture of shirts and drawers.

MESSRS. J. F. MILLER & SON, Morrisburg, Ont., manufacturers of agricultural implements, are having inducements offered them to remove their works to St. Catherines, Ont.

THE fine Corliss steam engine built by Messrs. Inglis & Hunter, Toronto, for the Martin Manufacturing Co., Whitby, Ont., has been placed in position and works admirably.

MESSRS. ALEX. GARTSHORE & Co., Hamilton, Ont., iron founders, have been awarded the contract for furnishing about 800 tons of iron pipe for the St. Catherines water works.

MR. E. B. EDDY, Hull, Que, manufacturer of matches, has recently filled several large orders for matches to go to foreign markets, a part of which went to San Francisco, Cal.

MR. WILLIAM STEPHENSON, Morris, Man., has invented a straw-burning stove adapted to domestic use in Manitoba and the North-West, where other fuel is not plentiful and cheap.

MR. E. C. COLE, Moncton, N.B., has recently imported a button making machine of very simple construction, and which turns out the very best quality and finish of covered buttons.

MESSRS. W. HICKS & SON, Paris, Ont., who were recently in a rather tight place, financially, have found needed relief, and are in good shape to continue their carriage making business.

MR. THOMAS BRYAN, London, Ont., manufacturer of brushes, etc., has recently been awarded a large contract by the Dominion authorities for brushes, brooms, etc., for the Military Department.

THE Canadian Jute Co., Montreal, are erecting a large new factory building near that city, and expect to have it in readiness to receive the new machinery intended for it within a few weeks.

MR. BEGG, North Gravenhurst, Ont., has invented a machine for cutting matches, which has a capacity to produce 1,200,000 match splinters per day of ten hours. He has started a match factory.

MR. J. D. RONALD, Brussels, Ont., manufacturer of steam fire engines, etc., is building a system of waterworks for domestic use and fire protection for the town of Wiarton, Ont., on Georgian Bay.

THE Granby Rubber Co., Granby, Que., expect to begin work in their new works early in February. A large force of superior and experienced workmen from the United States are already on hand.

MESSRS. THOMPSON & Co., Sherbrook, Que., manufacturers of bobbins and spools of every description for woolen, cotton and rope mills, have been sending to their friends a beautiful 1888 calendar.

THE Calgary Lumber Co., Calgary, Man., are applying to have their letters patent extended to give them power to engage in the manufacture of bricks and tile, and mine for coal and other minerals.

MR. ROBERT DAVIS, Kingston, Ont., ship builder, has contracted with a fire-proof cement works in Montreal to freight 2000 tons of soapstone from Rideau Lake to that city during the coming season.

MR. J. D. RONALD, Brussels, Ont., has just received an order to build another steam fire engine for the Winnipeg, Man., fire department, similar to the one previously built by him and now in use in Winnipeg.

MR. J. W. CUTHBERTSON, Bothwell, Ont., proprietor of the Dominion Pump Works at that place, which were destroyed by fire January 29th, will rebuild immediately. His loss by the fire was about \$4,000.

MESSRS. JOHN GROSS & SONS, Welland, Ont., manufacturers of pumps, etc., have just placed a new steel boiler and Corliss steam engine in their works. The outfit was furnished by Messrs. Inglis & Hunter, Toronto.

THE Haverly Knitting Mill, Preston, Ont., will be operated the next season by the owners, but will not be started before the first of March. In the meantime some changes in the placing of the machinery will be made.

MESSRS. HOUSTON & HARDING, Montreal, manufacturers of dyed and wool stock, etc., whose works are at Cote St. Paul, near Montreal, have recently made considerable additions of machinery and appurtenances to their establishment.

ALEX. SMITH, a brickmaker near Cowal, Ont., while boring in his brickyard for water a few days ago, struck a fine flow of natural gas at a depth of 210 feet. He will utilize his "find" as fuel for his boilers, and also to burn his brick kilns.

MESSRS. R. DUNSMUIR & SONS, Wellington, B.C., proprietors of the Wellington collieries, during the month of December last shipped 17,773 tons of their coal to foreign ports and 6,192 tons for local and provincial trade—an aggregate of 23,965 tons.

THE Canadian Pacific Navigation Company have ordered the construction of a steel steamer to ply between Victoria and Vancouver, at a cost of some \$200,000. She will be built on the Clyde, and is expected to be running before the end of the year.

THE Laidlaw Manufacturing Company, Hamilton, Ont., since the extensive addition made to its premises, has launched out in many other branches besides stoves. It has been working right along in turning out brick machines, ranges, Star augers, etc.

THE N. S. Sugar Refinery paid its half-yearly dividend of 10 per cent. Saturday. The refinery has been in operation under the new arrangement eighteen months, and has paid during that time 12 per cent., or one per cent. per month.—*Halifax Recorder.*

MR. R. GILLIS, has taken out a patent for an improved school desk and seat, being the second patent on school furniture within two years. We understand that it is his intention to commence manufacturing on a large scale.—*Sydney, N.S., Advocate.*

MESSRS. J. GILLIES, SON & Co., Carleton Place, Ont., manufacturers of woolen goods, are sending out some of the finest tweeds, silken mixes and worsted on the market. Their factory is a substantial building four-and-a-half stories high, and is a four broad set mill.

MESSRS. R. & G. STRICKLAND, Lakefield, Ont., are building a large frame building on their raceway, to be occupied by Mr. Walter Strickland and Mr. R. Booth in the manufacturing of flannels. The factory, in full running capacity, will employ about sixty hands.

MESSRS. J. McLAUGHLIN'S SONS, Skaneateles Falls, New York, growers, merchants and exporters of American teasels, have appointed Mr. A. H. McKee, 210 St. James street, Montreal, their sole agent for Canada. Mr. McKee will furnish prices on application.

THE Eddy Manufacturing Co., Hull, Que., have gotten their new paper pail and household utensil factory into full operation. The sawdust from which the paper pulp used in this factory is manufactured, is obtained from the match factory operated by this concern, and is admirably adapted to the purpose.

BOOT FACTORY.—The proposal to start a boot and shoe factory in the city does not seem to be meeting with much success. A meeting was called at the Kerby House, January 12th., to open the stock books, but there was only a small attendance of citizens, and an adjournment was in order.—*Brantford Courier.*

THE E. C. Manufacturing Company, Essex Centre, Ont., are the successful tenderers for the construction of a machine for the Frontier Iron Works, Detroit. The machine is to be used for the manufacture of woven wire fencing to supply the Canadian trade. It will weigh about 10,000 pounds.—*Windsor Review.*

MESSRS. WEBSTER, NUTTER & Co., Sherbrooke, Que., are among the largest manufacturers of tobacco, cigars, etc., in the Eastern Townships of the Province. Their factory is a large four story building, in which employment is given to some 80 hands, their average daily production of cigars being about 9,000.

REPRESENTATIVES of fifteen galvanized iron firms from various parts of the United States met in Pittsburg a few days ago to con-

Millers' and Manufacturers' INSURANCE COMPANY.

STOCK AND MUTUAL.

OBJECTS.

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

METHODS.

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

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

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

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

W. H. HOWLAND, Vice-President. **JAMES GOLDIE,** President.
HUGH SCOTT, Managing Director.

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

consider the advisability of forming a national association to maintain prices. If it is found that foreign competition is jeopardizing the home industry, a decided reduction in prices will be made.

MR. H. R. ROBERTSON, the builder of the big timber raft at Joggins, N.B., which was lost at sea while being towed to New York, says that timber is now being cut in the woods for the proposed timber ship to be erected on the site of the old raft at Joggins, and that the work of building the ship will be begun in the early spring.

THE first thing in the shape of woolen manufactory in the western part of Ontario, was a carding mill, started by Israel Evans, at Chatham, in the county of Kent. It was erected in 1830, and the motive power was a horse. It was some years before it was enlarged into a mill for weaving, but it was the beginning of the industry in Chatham.

MESSRS. A. R. CLARKE & Co., Toronto, manufacturers of gloves, have gotten their factory equipped with a full complement of first class machines and machinery, which enables them to promptly meet all demands that may be made for their goods. They have recently brought out some new lines that are very fine and exceedingly attractive.

MESSRS. T. S. SIMMS & Co., St. John, N.B., manufacturers of brooms, brushes, etc., employ some 55 hands, and turn out 50 dozen brooms a day, besides brushes and other goods. During the past year they made considerable additions to their factory. Some \$30,000 a year is distributed by this firm for wages in their factory, and for materials worked up in it.

W. H. CHASE, who was boring a well for Messrs. Slade & Bukton, at Belle River, Ont., near Chatham, came in contact at eighty-one feet with water, gas, gravel and stones, which were thrown about seventy-five feet in the air, and a heavy cloud of fog was seen and felt three quarters of a mile away from the spout. The well is now flowing a large stream of clear good water.

MR. ALEX. GARTSHORE, Hamilton, Ont., proprietor of the Canada Pipe Foundry, furnished the iron water pipe for the recently constructed water works system of Belleville, Ill. There are more than 15 miles in length of these pipes, embracing 6714 pieces, the diameters of which vary from 4 inches to 16 inches, and the contract price paid for which was \$33 per ton.

THE Union Phosphate Company, of Ottawa, have just disposed of their Star Hill mines, one of the finest phosphate properties on the L'Ange, to a syndicate of London capitalists for \$500,000. This property covers about two thousand acres in the township of West Portland. The Union Company have heretofore expended about \$200,000 in the purchase of land and plant, construction of tramways, etc.

Mr. ISRAEL KINNEY, London, Ont., is having machinery built with which he will engage in the manufacture of fire proof lathing, invented and patented by him. It is claimed, that, with this style of lathing, buildings are rendered entirely fire proof. The machine will weigh some six or seven tons when completed, and it will be adapted to the manufacture of cresting and other ornamental iron work, grating, screens, etc.

THE E. & C. Gurney Co. are making several important changes in their stove foundry at Hamilton, Ont. In future all the coal ranges and square coal stoves will be made by the Toronto branch. The Hamilton branch will confine its business to the manufacture of furnaces, octagon self-feeders, wood stoves, gravity locks, etc. The change will in no wise affect the number of employes or the amount of work to be given out.

THE steamer being built by the Polson Iron Works Company, Toronto, for the passenger trade between Chatham, Ont., and Detroit, Mich., will be 125 feet long, 28 feet beam and 8 feet deep; will draw 7 feet of water, and have a speed of 16 miles an hour. She will be fitted with all modern appliances and conveniences, and handsomely decorated. She will have accommodations for 800 passengers, and her cost will be about \$25,000.

A FINE screw steamer, 120 feet in length, is being constructed by Mr. M. Simpson at Zealand's yard, foot of MacNab street. It is understood that she is to be run as a pleasure steamer between Toronto and the Humber. The new boat for the Hamilton Steamboat Company, which is being built in the Old Country, and which will be for the Beach-Hamilton-Toronto service, will be completed in April and will be here early in May.—*Hamilton Times*.

A PROJECT is on foot to request the Ontario Government to develop the water-power at the Sault Rapids by building a small canal and lease the sites thereon to manufacturers. A portion of

the islands belong to the Crown Land Department, and such a scheme offers it an opportunity to repay the District a part of the value of the timber limits which has been taken and expended in other sections of the province.—*Algoma Pioneer*.

Mr. W. JOHNSON, Montreal, owns or controls some exceptionally valuable deposits of mineral ochre near Three Rivers, Que. The ochre contains about 94 per cent of iron, and the mines are being developed to supply the home market. The annual importation of the article into Canada amounts to about a million pounds, and Mr. Johnson urges the Dominion Government to extend to his industry the benefit of the tariff.

THE H. W. Johns Manufacturing Company, New York City, are availing themselves of our pages to call attention to the asbestos plastic stove lining manufactured by them. They claim for it that this is one of the most desirable articles for the household ever produced. It is easily applied by any one at less than half the cost of brick linings, while it is far more durable. Only one-half the thickness of ordinary fire brick is required, leaving more space for fire. It is suitable for all kinds of stoves, ranges and furnaces.

MESSRS. DOBSON & BRODIE, Montreal, are patentees and manufacturers of the "Perfection Smoke Consumer and Fuel Economizer," which has been put to quite a number of severe practical tests, and which has given great satisfaction. The appliance is being used at the works of the Canadian Rubber Company, Montreal, where its effect is pronounced to be perfect, and it is to be attached to the boilers of some of the larger trans-Atlantic steamers, and to the locomotives on some of the railroads in Great Britain.

THE Canada Phosphate Mining Company, recently formed in London, Eng., and who purchased the mines and property of the Union Phosphate Mining Company, located at Buckingham near Ottawa, paid, it is said, \$400,000 for the property, and have \$100,000 with which to carry on operations. Mr. Millar, manager of the company, will purchase entire new machinery for the mine, which will enable the company to increase the present output 300 per cent. Mr. Millar has gone to Chicago to purchase this machinery.

Baldwin's Textile Designer, a practical monthly journal devoted to designing, weaving, carding, spinning and finishing textile fabrics, is a new advocate for favorable attention, particularly among manu-



ROBIN & SADLER,

MANUFACTURERS OF

Leather Belting

SEND FOR PRICE LISTS AND DISCOUNTS.

MONTREAL, 2518, 2520, 2522, Notre Dame St.

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Mill Owners in the West will find it to their advantage to order their BELTING from our Toronto House.

We guarantee their orders well and promptly filled, for we keep on hand all sizes from 2 to 16 inch, SINGLE AND DOUBLE; also: Lace Leather, Belt Hooks, Belt Punches, etc., etc.

facturers of textile fabrics, published at Brasher Falls, N.Y., the initial number of which has reached this office. The mechanical "get up" of the paper is excellent, and there is that about it which gives promise of its filling a wide sphere of usefulness in the channel in which its proprietors have chosen to launch their handsome barque.

THE *Canadian Architect and Builder* is a new monthly devoted to the interest of architects, civil and sanitary engineers, plumbers, decorators, builders, contractors and manufacturers of and dealers in building utensils and appliances. The first number contains full page illustrations of the Canada Life building now under way in Toronto, and of the new city hall in Hamilton, and such a variety of reading matter useful to Canadian architects and others as assures it a large measure of support. The publisher is Mr. C. H. Mortimer, 31 King street west, Toronto.

MESSRS. GEO. F. HAWORTH & Co., Toronto, are calling the attention of the trade and of users of belting to their price list, which is printed in their business card in another page of this paper. They inform us that the belts made in their factory are manufactured of the best oak-tanned leather, of either single or double thickness, of any width, length or strength required, and are either sewed, riveted or pegged as may be desired. They say that the discounts from the price list alluded to reduce the cost of their belting to figures which should demand investigation by all interested.

THE Toronto Lithographing Company, Toronto, whose card is displayed elsewhere in these pages, have just turned out a most beautiful and attractive lithograph for Messrs. Nicholls & Howland, proprietors of the Permanent Exhibition of Manufactures, this city, in which is shown several different views of the interior of the Exhibition Hall. The lithograph is printed on heavy white paper in four shades of brown, the design being very artistic and the mechanical execution perfect. It is mounted as a hanger, and is an ornament that will be attractive in any business office.

MESSRS. N. C. PETERSON & Sons, Sarnia, Ont., proprietors of the Sarnia Portable and Traction Engine Works, in November last commenced to sink a test well for gas on their premises. The well was sunk to the depth of about 700 feet, a good supply of gas having been struck at 335 feet. At a depth of 520 feet another flow of gas was struck, and at 685 feet a vein of very strong salt water was

encountered. The water was shut off, and the gas obtained in the well is conducted into their works, where it is used as fuel in their furnaces for making steam, and for other purposes.

MESSRS. JOHN BERTRAM & Sons, Dundas, Ont., manufacturers of woodworking machinery, etc., display in their advertising space in this paper a cut of the Whitney surfacer manufactured by them. The machine is made in two sizes—26 and 30 inches—and weighs about 4,500 pounds. It is specially adapted to working Canadian woods, and the attention of planing-mill men is directed to it. The Permanent Exhibition of Manufactures, of Messrs. Nicholls & Howland, 63 to 69 Front street west, and Polson Engine Company, 38 Yonge street, are Toronto agents for Messrs. Bertram & Sons.

THE bonus system is still flourishing. An implement manufacturer in Paris, who employs a hundred men, has been offered \$20,000 in cash, a free site, free water and exemption from taxation for ten years as an inducement to locate in St. Thomas. A larger offer from Stratford will secure the industry for that city. A manufacturer in Stratford has been invited to remove to St. Thomas, and he has replied that "any proposition made will receive consideration." A Morrisburg manufacturer is also in communication with St. Thomas; and the manufacturer of a patent frog is also negotiating with that city.—*Mail*.

THE Planet Spectacle Case Works, Chatham, Ont., is a new concern that has just gone into the manufacture of spectacle cases. This enterprise is an adjunct of the book-binding and paper box department of the Chatham *Planet*, and will give immediate employment to some 15 hands, the number to be increased as business may require. Mr. Richardson, of the *Planet*, is familiar with the business, and the new industry starts with large orders from optical instrument houses in New York city and other places. This is claimed to be the only spectacle case factory in Canada, and is a direct result of the N.P.

THE Nova Scotia Steel Company, New Glasgow, N.S., manufacturers of Siemens-Martin open hearth steel, have sent us their new catalogue, in which is illustrated and described the several lines of goods manufactured by them, and in which reference is made to axle and axle steel, angles, billets, bolt steel, tool steel, machinery steel, shafting, rail plate, soft steels, steel rails, plow beams and shapes, special sections, agricultural springs and rake teeth, etc. A large

C. C. CLEVELAND.

J. L. GOODHUE & CO.

G. F. CLEVELAND.

MANUFACTURERS OF

Canadian Leather,

Canadian Made,

Canadian Price List.

LEATHER BELTING

Thoroughly Stretched,

Carefully Made,

Runs Straight.

— AND —

**LACE LEATHER,
DANVILLE, - QUE.**

OUR BELTING IS MADE FROM

CANADIAN TANNED LEATHER

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

Canadian Manufacturers' should use Canadian Belting.

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

number of testimonials from some of the largest and best known manufacturers in Canada, who are customers of the company and constant users and consumers of their products are printed, and to which they invite attention.

Messrs. J. B. REED & SONS, Bridgetown, N.B., are large manufacturers of furniture, etc., their establishment being one of the finest in the maritime provinces. The workshops and engine rooms occupy a large four story building 132 feet in length, by 56 in breadth. The commodious warerooms and upholstering department occupy a building three stories in height, 75 feet long by 40 broad. About 32 workmen are constantly employed in the various departments of the business, and 22 families derive their support from this employment. About \$40,000 is annually expended for raw material and wages. The manufacture of parlor and bed-room furniture is a speciality of the firm, but a great deal of general cabinet work is also done.

Messrs. JOHN BERTRAM & SONS, Dundas, Ont., inform us that they now have in press a new and revised illustrated catalogue and price list which will embrace every article manufactured by them. The list will contain descriptions of machine tools and wood-working machinery of all sorts, among which are enumerated lathes, planers, drills, bolt cutters, punches and shears, boiler rolls, slotting, milling and cutting-off machines, shafting lathes, pulley, boring and turning and boring machines, wood planing and matching machines, molding, mortising and tenoning machines, band and scroll saws, wood turning lathes, complete sets of machinery for locomotive and car works, agricultural implement works, cabinet and furniture factories, etc.

The annual meeting of the shareholders of the Magog Textile and Print Co., was held at the office of the company, in Montreal, on January 18th. It was stated that the machinery for spinning and manufacturing print cloths was being erected in their mills as rapidly as possible, and it is confidently expected that a large portion of it will be put in operation within a few weeks, when the company will enter upon a new era of its existence and be largely independent of outside supplies, and satisfactory results are anticipated. The old board was unanimously elected, consisting of the following gentlemen:—J. K. Ward, Jas. G. Ross, R. G. Reid, W. Hobbs, A. H. Moore, John Macfarlane, Joel Leduc, Geo. R. Grant, C. C. Colby, M. P.

Not long ago comment was made upon the fact that the automatic sprinklers put up in a mill which took fire did not operate to advantage, and in another instance a test was made and it was found that the pipes had become clogged. It was then pointed out that the difficulty was caused by neglect, and that unless mill-owners tested their pipes properly from time to time they ought not to look for the advantage expected to be derived in time of need. Neglect of this kind ought not to be permitted, and as an additional precaution an inventor has just derived a means for helping to keep the pipes clear. We do not know how effective this may be in operation, but it serves to remind us that there is nothing about a mill which a manufacturer can afford to neglect or fail to inspect as regards its working and efficiency.

Messrs. J. L. GOODHUE & Co., Danville, Que., manufacturers of leather belting, lace leathers, etc., are calling the attention of the trade to the fact that their belting is made from Canadian tanned leather, which has been prepared in the most careful manner in their own tannery, expressly for the manufacture of their goods. They warrant it equal to any imported belting, either American or English, or to any made from imported American or English oak leather. They manufacture belting in all widths, single or double, and for any duty—saw mill, cotton mill, woolen mill, electric light machinery, etc. Specimens of the leather belting manufactured by Messrs. Goodhue & Co., are on view at the Permanent Exhibition of Manufactures of Messrs. Nicholls & Howland, 63 to 69 Front street West, Toronto.

The Sewell Safety Car Heater, is receiving a practical test on the New Brunswick railway, the first road in Canada that has adopted this system of heating. The heater was attached to the cars and locomotives in the company's shops at McAdam, N.B., the work being performed under the superintendence of representatives of the Sewell company. All the passenger locomotives have been equipped for some time, and a number of the passenger coaches as well, but it was not until recently that orders were given to de-equip trains fully equipped with the new system. Several passenger trains on the Maine Central are fitted with the same system, and reports from the management of the road speak highly of the patent. Two I. C. R. trains are also being equipped, one with the Sewell system and the other with the Martin system.

New Brunswick Cotton Mills

Saint John Cotton Mills,

WM. PARKS & SON, Ltd.

SAINT JOHN, N.B.

**Cotton Spinners, Bleachers, Dyers and
Manufacturers.**

Cotton Yarns, Nos. 5 to 10, White & Colored.

Cotton Carpet Warp, White & Colored.

Ball Knitting Cotton, in all numbers and colors.

Cotton Hosiery Yarn, suitable for manufacturers
of Hosiery.

Grey Cottons, in a variety of grades.

Fancy Wove Shirtings, in several grades and new
patterns.

Seersuckers, in Stripes and Fancy Checks.

Cottonades, in Plain, Mixed and Fancy Patterns.

AGENTS.

DUNCAN BELL, Montreal and Quebec.

WM. HEWETT, Toronto.

MR. JONATHAN ELLIS, of Port Dover, Ont., has his mill well under way, the roof being now on. He has just returned from the Eastern States, having made a trip to purchase machinery. His carding and spinning plant is of Davis & Furber's make, the cards being 48 inches all through, the mules being 288 spindles each. The size of the mill is 4 sets, and Mr. Ellis expects to have it in operation by the first of May; and having saved his samples he will be in the market with his competitors, but a little later in the season. The average dye-house of a mill is generally the least comfortable part of it to the workers therein, but this one is a notable exception. There is the usual opening in the roof to carry off the steam, but the hot-air drier in the room, heats the air in the room, so that the steam is not condensed; the air is clear, so that the men can work in comfort, and can see all over the room.

MORE triumph for the Killey pumping engines. The expert engineers who conducted the recent test will in their official report state that the average duty given by the engines during the forty-eight hours of continuous work was 114,758,000 foot-pounds for every 100 pounds of coal consumed. That is to say, the engines did nearly fifteen per cent. more work than was demanded by the specifications. The enormous duty of the Killey engines can be well understood only by comparison with the duty of other pumping engines. Eighty million foot-pounds is the highest point yet reached by any other engines in Canada. The best of the Toronto engines only reach sixty-five millions. There are probably not half a dozen engines in the United States which yield as high results as these Hamilton engines, designed and built right here in our own town. Once more—hurrah for Hamilton skill and industry!—*Hamilton Spectator.*

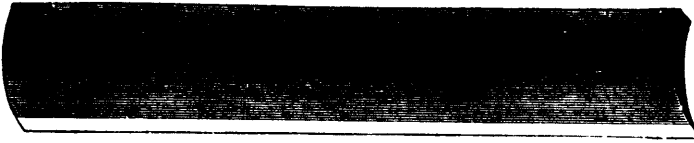
THE lumbermen at the Chaudiere are keeping abreast of the times in new and improved methods. Up to this season most of the lumber firms have been using in their mills a piece of machinery known as a "hog," which is a sort of cone shaped iron basin studded with sharp knives. This is situated beneath the saws, and the edgings and waste fall from the saws into it and are chopped into saw-dust by the knives, and fall through the small end of the cone into the river. By this system much lumber suitable for making lath and other small lumber is wasted. Messrs. J. R. Booth & Co. are doing away with this piece of machinery, and are constructing a large lath

GALT MACHINE KNIFE WORKS.

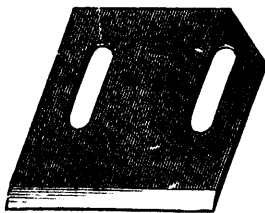
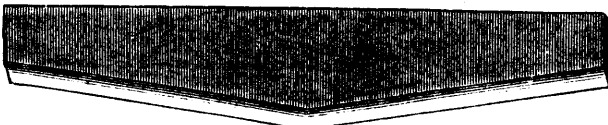
PLANING MACHINE
KNIVES.



STAVE CUTTER KNIVES.



STAVE JOINTER KNIVES.



MOULDING, TENONING,
MITREING,
SHINGLE JOINTER,

And other irregular shapes.

Cheese-box and Veneer, Paper Cutting, Leather Splitting and any special knife made to order. SEND FOR PRICE LIST. ALL WORK WARRANTED.

PETER HAY, - - - GALT ONT

mill adjoining the saw mill, as well as blasting a roadway underneath the mill so that the waste lumber may be carted to the lath mill, and there manufactured into lath. The other firms who have also adopted this idea are Messrs. Perley & Pattee, Hurdman & Co., G. A. Grier, and Gilmour & Co.—*Ottawa Journal*.

MR. S. DAVISON, 14 Colborne street, Toronto, Canadian agent in Toronto for Messrs. Dunbar, McMaster & Co., Gilford, Ireland, manufacturers of prize medal linen threads, has compiled and published "The Buyers' and Sellers' Hand Book" for computing profits from 5 per cent. to 40 per cent. on sums from 2 cents to \$10; also sterling exchange at 9½, and other tables of interest to merchants and others. Among these tables there are those of Belgian, French and Swiss francs; Spanish pesetas; Grecian drachmas and Italian livres, showing the customs value thereof; of marks of the German Empire, florins of Austria and of the Netherlands; kilogrammes, or kilos, of France; a comparative table of French and English measure, converting metres into yards and inches; interest tables, circumferences and area of circles, etc. The book is very nicely gotten up, of convenient size, and cannot but be of valuable assistance to the mercantile community, both in purchasing and marking the selling price on the goods.

THE Asbestos Mining and Manufacturing Company, Quebec, Que., of which Mr. Thos. Hamel is manager, are manufacturing several new lines of goods of which asbestos is the chief ingredient. Among these is an asbestos cartridge, a cylinder about 5 inches long and 3 inches diameter, encased in strong wire gauze, which, after having been immersed in coal oil for a few minutes may be put in a cook, parlor or bedroom stove and ignited, the burning oil affording sufficient heat for ordinary purposes. The cartridge is indestructible, the only expense being the coal oil, which is not very costly. They make an asbestos stove, an arrangement in which the asbestos is conveniently arranged in a gas stove, and which becomes red and glowing as soon as the gas is ignited. The stove is made in various styles and patterns, and is adapted to use in offices, residences, etc. They also manufacture asbestos steam pipe and boiler covering; asbestos safety fire proof boxes for keeping valuable papers etc.; asbestos felt carpet lining, screens, etc., asbestos mill boards, fire boards, etc.

THE following will afford an idea of the magnitude of the leading manufacturing industries of Moncton, N.B., and the number of hands employed in them:—Moncton Cotton Mills, employ 300 hands; Moncton Sugar Refinery, 125; Foster's steam flour and planing mill, 12; Lea's planing mill, 35; Rand & Co.'s planing mill, 15; Record Foundry and Machine Co., 48; Moncton Brass Works, 25; Mark's carriage factory, 20; Givan's steam laundry, 10; Givan's soda water factory, 3; Weir's machine shop, 25; Moncton Chemical and Soap Works, 10; McSweeney Bros., furniture upholsterers, 15; Cole, the clothier, 35; Ross, the tailor, 20; Moncton Times Steam Job Printing Office, 35; Moncton Transcript Steam Job Printing Office, 15; Metzler, painter, 25; Day, builder, 30; Moncton Knitting Works, 25; O'Neil & Crue, boots and shoes, 15; Hotel Brunswick, 30; Moncton Gas, Electric Light and Water Co., 25. There are a number of smaller concerns employing, probably, 200 more hands. In and about the Intercolonial Railway Works, in various capacities, are employed about 1,000 men.

MR. J. H. RUSSELL, St. John, N.B., has just completed two of his winged elevator plows—one for the New Brunswick road and one for the Northern and Western. The Intercolonial Railway, which used one of Mr. Russell's plows last year, and opened a part of the line that had been snowed up, and which could not be opened by any plow in the service, has given Mr. Russell several orders. The plows are being built in Harris & Co.'s establishment, at St. John. The forward end of the plow rests on a double bearing truckframe, in there are eight boxes, furnished 48 inches of journal bearings. These journal frames weigh 6,300 pounds and are capable of carrying 75 tons dead weight. The wheel base of the plow is 75 feet, and wheel base of forward truckframe, 3 feet 6 inches; the wheel base of the rear truck is 5 feet 8 inches; the full length of the plow is 36 feet and its width 10 feet; the distance from the rail to top of iron fender is 11 feet. Mr. Russell says the plow has been constructed to handle ten feet of snow. The centre sections are arranged with wings and elevators that can be extended by means of a double acting bevel gear, cleaning the road 16 feet wide. These winged elevators are so constructed as to lift all the snow and ice and throw it clear away from any possible obstructions to trains.

THE Moncton, N.B., *Times* prints the following list of the cotton mills in the Dominion, with their respective complements of spindles. The information, which it believes to be complete, was obtained from Mr. Frederic Nicholls, Secretary of the Manufacturers' Association, Toronto:—Ontario.—Craven Cotton Co., Brantford, 10,000 spindles; Canada Cotton Manufacturing Co., 40,000; Stormont Cotton Manufacturing Co., Cornwall, 26,000; Dundas Cotton Mills Co., 17,000; Hamilton Cotton Co., 6,000; Ontario Cotton Mills Co., Hamilton, 12,005; Kingston Cotton Manufacturing Co., 10,000; Lybster Cotton Co., Merritton, 12,000; Merritton Cotton Mills Co., Merritton, 13,000. Quebec.—Chambly Cotton Co., Chambly Canton, 7,000; Coaticook Cotton Co., Coaticook, 12,000; Magog Textile and Print Co., capacity to print 40,000 yds. per diem; Hochelaga Cotton Co., Montreal, 95,000; Hudson Cotton Mills, Montreal, 70,000; St. Ann's Spinning Co., Montreal, 25,000; Merchants' Manufacturing Co., St. Henri, Montreal, 25,000; Montreal Cotton Co., Valleyfield, 54,000. New Brunswick.—Gibson Cotton Mill, Marysville, 50,000; St. Croix Cotton Mill, Milltown, 37,000; Moncton Cotton Co., 11,000; W. Parks & Son, St. John, 15,000. Nova Scotia.—Nova Scotia Cotton Co., Halifax, 18,000; Windsor Cotton Co., 10,688.

AT the "spread" in connection with the sailing of the pioneer vessel of the St. John Trade and Forwarding Company, Mr. C. A. Everett was one of the speakers. He said he was following with interest the progress of the present attempt to work up an export trade with the West Indies. In three weeks he would have completed the fortieth year of his career as a manufacturer on his own account. His father in 1853 brought out the first steam engine used in a manufactory in this place. He purchased it in England at a time when the export of engines to the colonies was forbidden by law. The engine was seized and its owner escaped with a warning to the effect that the property would be confiscated and himself punished if he again undertook to carry out his design. Nevertheless the engine was bought, packed in hogheads in sections and entered at the customs as hardware. He had followed his father in manufacturing, and could report to-day that he had done more business as a manufacturer during the past three or four years than had been done in any like period during the 78 years of the history of the establishment. He had visited about all the workshops in the county, and was prepared to affirm that in the year 1887 more business was done in St. John industries and more paid out in wages than in any other year of the history of St. John.—*St. John, N.B., Sun*.

The Canadian Manufacturer

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MANUFACTURERS' LIFE INSURANCE COMPANY.

The first annual general meeting of the Manufacturers' Life Insurance Company was held in the Council Chamber, Board of Trade Rooms, Toronto, on Tuesday, 17th January, last.

The president, Right Hon. John A. Macdonald, occupied the chair, and Mr. J. B. Carlile, managing director, acted as secretary.

At the request of the chairman the report was read to the meeting by Mr. J. F. Ellis, one of the directors. It is as follows:—

REPORT.

"The directors have pleasure in announcing at this their first annual meeting, that the operations of the company during the five months of its history, have been of a most satisfactory character, having far exceeded in importance their most sanguine expectations.

"A year ago our company was not in existence. About that time our indefatigable managing director, Mr. Carlile, was beginning to think that there was room for another life insurance company in Canada, and with him, to think was to act, so that during the year just past, obstacles that seemed almost insurmountable have been overcome, and results accomplished which are usually only reached by years of steady application.

"Since then the charter has been obtained from the Dominion Parliament. Capital stock to the amount of \$621,000 has been subscribed; \$126,800 of which has been paid up. All the intricate forms incident to the organization and carrying on of the business of a life insurance company has been prepared; its plans have been in the main part devised; its tables of rates have been calculated, and among its schemes we find some hitherto adopted by no other company, but all bearing the endorsement of some of the ablest actuaries on the continent. Its agency department has been so far organized that it forms a complete net-work over the whole Dominion, only needing a slight revision to make it equal, in all respects, to the organizations which it has taken other companies years to build up. So rapidly, and so quietly has this all been accomplished, that the statements which are made here to-day are almost incredible. The company issued its first policy on the 19th day of August, 1887, leaving less than five months for active operations in procuring business.

"The best efforts of our valued staff of agents have been put forth in the meantime with results never before approached in the history of life insurance.

"On the 29th day of December the business aggregated the handsome sum of \$2,564,500, on which the annual premium is \$62,000. In closing our books on the date mentioned, we had in view the requirements of the insurance department, as we could have readily put on our books—had we chosen to keep them open until now—over \$3,000,000.

"Indeed, we can say that the insurances already written exceed that amount. We preferred, however, to close our books promptly, believing that nothing is gained by issuing policies up to the 1st of March in any one year, and crediting the business to the previous year.

"We have been called upon to pay one claim for \$7,000 under a policy on the life of our first agent, the late Andrew Wilson, in whom the company has lost one of its most efficient workers, and whose place it will be difficult to fill.

"Although it is an unusual course for new companies to pursue, we decided to submit our policies for valuation to an independent actuary, a gentleman of high character and undoubted ability, and his report is before you to-day in the company's general report, showing that a handsome surplus still remains, after providing for all our liabilities, including the statutory reserve on the policies, and in addition thereto a contingent fund. Of the large item for promoting the company, but \$3,855.73 remains unprovided for, which is a most satisfactory state of things, when it would not have been unprecedented had our capital stock been impaired at the end of the first year. We therefore congratulate the stockholders on the very satisfactory state of their account.

"The company received 1,035 applications for insurances, amounting to \$2,878,000, there were 915 for \$2,564,500, with annual premium amounting to \$62,000, which were accepted and issued, others amounting to \$119,500, upon 81 lives, have been declined, and applications for \$115,000 were in course of completion at the date of the report.

"The report would be incomplete did we not tender our thanks to the agents of the company everywhere, for their extraordinary efforts on behalf of the company, and also to the office staff, for whom no hours seemed to be too long; no work too heavy. All have borne their fair share in bringing about this most satisfactory state of things.

"All the directors retire, but are eligible for re-election.

"JOHN A. MACDONALD, President.

"GEORGE GOODERHAM, } Vice-Presidents."
"WILLIAM BELL, }

Sir John A. Macdonald moved the adoption of the report.

Mr. T. G. Blackstock, in seconding the motion, said that since the figures of the report had come before his observation as a member of the executive committee he had taken some pains to compare the position which the company occupied after five months' business with that of other Canadian companies of reputation and financial standing of which they were all, as Canadians, justly proud. He found that there was on the first day of January, of this year, as much business upon the books of the company as many Canadian life companies had after being years in the field. It was due to the policy-holders to say that the cheaper the institution could be run the more money there would be to divide among them in the shape of a reduction of premiums. The speaker knew that there was a very great difference between the conditions now existing in life insurance matters and those which existed forty years ago, when the Canada Life Insurance Company was incorporated.

At that time the only insurance offices in this country were branch offices of British companies. The persons who were insured at that time were the persons who presented themselves voluntarily at the offices of these companies and solicited insurance. At the present time this is not the way in which business is done. If a man makes up his mind that it is the wisest plan to insure his life he will not get down town before he will have presented to him a half-dozen different schemes of insurance. At the time the other companies were started, some sixteen or seventeen years ago, competition had become very keen. The American companies had also opened agencies in this country and entered into competition, but at the same time the competition was hardly what it is at the present time. It was really remarkable that the Manufacturers' Life Insurance Company had been able to make such progress during the five months which they had carried on business. It was, however, to be noted that according to the Government returns of the insurance business, the business was increasing with great rapidity and that the business of the Canadian companies exceeded that of the foreign companies, which showed that our people had increased confidence in the stability of our own institutions. He thought then, that, while seconding the adoption of the report, it was only fair to the policy-holders that he should refer for a moment to the schemes of life insurance which they had adopted. These schemes had all been worked out by their manager, Mr. Carlile.

The executive committee at once submitted the plans of insurance to two actuaries of the highest standing, and, having gone over them carefully, each gave a certificate endorsing these plans in glowing terms. He thought the financial statement was a most satisfactory showing of this company during the first five months of its existence. This justified the hope that their success would continue. With the same amount of attention to business which had been evidenced in the past, this company will occupy in a very short period as good a position as any company on this continent. It was only a matter of a little over forty-four years ago that the largest insurance company in the world commenced business. At that time its only capital was its first premium, and after struggling along for a number of years in a quiet sort of way, it eventually forged its way to the front, and to-day that company has assets to the extent of one hundred and sixteen millions of dollars. The Manufacturers' Life Insurance Company might before very long extend their business to the other side of the line and take a prominent position and become one of the best life insurance companies on this continent. He thought any remarks from any member of the executive would be imperfect which failed to emphasize the feeling, which they all had, of indebtedness to their general manager, Mr. J. B. Carlile. He had heard some people say, "There is only one Carlile, and we have lost him." At any rate, in season, and out of season, in favor or out of favor, Mr. Carlile's zeal had never flagged and his energy had never tired. Not only had he brought a vast amount of experience to the management of the affairs of this business, but he had succeeded in introducing a great deal of his own enthusiasm into his large body of agents, than whom, the speaker thought, there were none better throughout this country.

Addressing the chairman, the Rt. Hon. John A. Macdonald, the speaker said: "I desire also to express our obligations to you, considering the fact that in times past you have not been willing to give the weight of your name to incorporated enterprises, that you have done so in this instance, I think it must be a source of gratification to you to know that the good fortune which has seemed to follow you in other matters with which you have been identified has not failed you in this instance, and the affairs of this company and all concerned depend a great deal on you to-day. I can only express the hope that at some future time, I trust at some distant day, such as I have heard you allude to, when you leave this sphere of earthly labors for a higher sphere, when the people speak of your

great labors in this Dominion, they will not regard this as the least enterprise with which you have been connected."

The report was adopted unanimously.

Mr. E. M. Chadwick then moved a vote of thanks to the retiring directors, which was seconded by Mr. Clark and unanimously carried.

Mr. J. F. Ellis thanked the meeting on behalf of the directorate for the hearty manner in which they had passed the vote. Personally as a director, he had taken a very keen interest in the success of this new company. They all knew, of course, that the president, who had many public duties, could not give to the company that personal supervision that a president was usually expected to give, but at the same time, his advice and his personal popularity had been a tower of strength to the company in the conduct of business. The two vice-presidents, Mr. George Gooderham and Mr. Wm. Bell, had ably assisted the managing director in carrying on the daily details of the business; they had been always ready at his call for advice and assistance and he was sure that these two gentlemen, with their active and constant work, have done a great deal towards the success of this company. Of course, the success of a new enterprise depended in a great measure, if not almost entirely, on the manager. And they all agreed with what Mr. Blackstock had said of the energy and enthusiasm with which Mr. Carlile had entered upon the work and added to the success of this company. In fact he had infused that energy into every one who had anything to do with it. The company's staff of agents seemed to be alive. They worked with energy and will. Perhaps some of those present in looking over the report presented to-day, would notice that the expenses incurred in carrying on the business of the company had been put at \$28,708.68. Of this sum \$7,000 had been paid as a death claim. For comparison, perhaps, it would be well to see what the other companies had been doing in the way of expense. In the Government returns they would find that for every \$100 of new premiums received by the Canadian life companies last year the expense had been \$79. He thought this was an extraordinary comparison considering the expense incurred in promoting the new company. This showed how cheaply the business had been conducted when every one connected with the company had that object in view. In fact, one place where a great saving had been made, was in the amount of insurance effected at the head office. Out of the two and a half millions business, over half a million had been done from the head office, that of course they would quite well understand was through the personal efforts of Mr. Carlile, the managing director. They could all see what a wonderful difference this made upon current expenses. He did not think they could feel too proud of the position this company had now taken among the life insurance companies of Canada. He felt sure that they would prosper in a like manner in future.

Mr. Clarke then moved a vote of thanks to the medical directors of the company. In making this motion, he said he saw by the report, that out of 1,035 applications for insurance 81 had been declined, in addition to a large number deferred. They all knew the great responsibility which rested upon the medical gentlemen as part of the staff of an insurance company. The resolution was seconded by Mr. J. B. Armstrong, and carried.

Dr. J. F. W. Ross, in reply to the resolution, explained the grounds upon which these applications were refused. They were particular to secure the best medical examiners in the country, and some of these physicians were employed by the best companies doing business in Canada.

Mr. J. B. Armstrong moved a vote of thanks to the auditors of the company, Messrs. H. J. Hill and Edgar A. Wills. The motion was seconded by Mr. S. F. McKinnon.

Mr. H. J. Hill responded on behalf of the auditors. They had, he said, been most careful in auditing every item of the company's affairs. They had been somewhat exacting in their demands, but had been promptly met by the managing director, who gave every information, to the great satisfaction of the auditors. He thought it was due to the staff in Mr. Carlile's office, that they were a body of men that any company might be well proud of. In checking over the accounts in their books, notwithstanding the enormous amount of business which passed through the books during the past few months, the auditors did not find a mistake of a single cent. The office of the company had been visited at all hours of day and night, and the staff was on hand to keep abreast with their work. The speaker trusted that they had done their duty properly. He was sure that they had the desire and hoped they had the ability.

Mr. R. L. Patterson, in a humorous, yet stirring speech, moved a vote of thanks to the agents and inspectors of the company. As chairman of the agency committee he could say that the agents had done their duty, and they had done it well. He would like to see them continue with the company. They had made the prosperity

of the company an object, and, at the same time, the prosperity of the company meant their own prosperity. Their managing director, he might say, fully appreciated the services of the agents. Insurance agents, in his opinion, were much maligned individuals, because, in his belief, they were a benefit to mankind. He respected the life insurance agent; he respected him for his integrity and industry; for the manner in which he could talk up his own company, and lastly, he respected him also for his motives. Mr. R. Crean seconded the resolution, which was carried with applause.

Mr. J. D. Henderson replied on behalf of the agents. He thanked the shareholders, as well as the policy-holders, present for the enthusiastic way in which they had carried the resolutions just adopted. He desired to say in a few words, respecting this company with which he had been connected since it started. They had done a very large business in a very short time. He believed that had it not been for the energy of the managing director, they could not have met with such great success; but he was alive to the fact of the great benefit derived by the company, from the connection with it of the honorable gentleman who occupied the chair. He had to say in addition, that the people of Canada would not have had that confidence in the company which they now had were it not that the Right Honorable Premier of the Dominion was at its head. The people had confidence in such men as Sir John A. Macdonald, Geo. Gooderham, Wm. Bell, and other prominent officers of the company, and with such men at their head, the work of the agents had been made comparatively easy. The agents had no trouble whatever in getting good policies and very good premiums, and this was chiefly due to the confidence inspired by names referred to. On behalf of the agents he could say, that the company would receive as much energetic work as has been received in the past, and he only hoped that the company would have the same success in the future as they have had in the past.

Mr. J. F. Mathieson said that it was not in the capacity of an agent that he arose to address the meeting, but of a policy-holder. It was the name of Sir John A. Macdonald, the veteran statesman, who had received such numerous public honors, that was the strength and power of the company and consequently the task of the agent was quite an easy one. The managing director, Mr. Carlile, possessed a wonderful amount of magnetism and he had given his agents the same magnetic powers which he possessed. The company, they all knew, had already been established in the confidence of the Canadian people.

Mr. John Massey then moved a resolution expressing the gratification which policy-holders feel at the founding of the Manufacturers' Life Insurance Company. As a policy-holder, he could only say that he had found the policy of this company more liberal and satisfactory than any of the other policies which he had held. He felt sure that with this company they had the maximum of insurance for the minimum of premium. He believed the company would go on prospering from year to year, in the way Mr. Blackstock had spoken of, and soon become one of the leading insurance companies of Canada and one of which Canadians might well be proud.

Mr. Wm. Bell, one of the vice-presidents, then moved a vote of thanks to the policy-holders for their efforts in assisting the company. He said that if every policy-holder introduced into the company one new policy-holder during the ensuing year, it would maintain its successful position among the companies of Canada. The annual report just read showed the great extent to which policy-holders had appreciated the company. He hoped this confidence would be continued, and if so, the success of the enterprise was sure.

Mr. Alex. Manning seconded the resolution, which was unanimously adopted.

Mr. L. A. Morrison thanked the meeting on behalf of the policy-holders. He had heard of the proposed company before it became an incorporated body. The great point in favor of the Manufacturers' Life Insurance Company was that claims were paid without delay. Some companies paid over the money ninety days after the death had been proved to their satisfaction, but this company paid one large claim, to his knowledge, on the very day the proof arrived. He hoped to see the day when insurance would be better appreciated by the masses of the people, when larger policies would be taken, and when mechanics and clerks would carry from two to ten thousand dollars each upon their lives.

Mr. Frederic Nicholls then moved a vote of thanks to the office staff for the careful and enthusiastic manner in which they had performed their duties since the formation of the company.

Mr. Robert Crean seconded the motion, which was unanimously adopted. Mr. Martin, accountant, replied on behalf of the staff, stating that the staff would do all in their power to assist the president and directors to carry on the business of the company with as much success in the future as in the past. The election of directors for the ensuing year was then proceeded with.

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 Blake, George F., Manufacturing Co., Boston, Mass., Steam Power Pumping Machinery.
 Boeckh, Charles & Sons, Toronto, Ont., Brooms, Brushee, Woodenware, etc.
 Breithaup & Co., Berlin, Ont., Leather.
 Brush, George, Eagle Foundry, Montreal, P.Q., Blake Stone Crusher.
 Bostwick, George F., Manufacturer in Canada of Amberg's Cabinet Letter Files.
 Baines, Geo. W., Montreal, National Water Purifier.
 Batten, John, Pittsburg, Pa., Automatic Fire Escape.
 Beatty, Wm. & Sons, Welland, Ont., Centrifugal Pumps and Contractors' Machinery.
 Clare Bros. & Co., Preston, Ont., Stoves and Furnaces.
 Côte, Louis & Bros., St. Hyacinthe, P.Q., Boots and Shoes.
 Cowan & Co., Galt, Ont., Wood Working Machinery, Engines and Boilers.
 Cressman Bros., Georgetown, Ont., World's Star Knitting Machinery.
 Crompton Corset Co., Toronto and Berlin, Ont., Corsets.
 Canadian Harness Co., Toronto, Harness and Saddlery.
 Ching, J. Lionel & Co., Sydney, N.S.W., "Dugoug" Oil and Ointment, and "Dugoug" Ivory Tusks and Hide.
 Canada Screw Co., Hamilton, Ont., Wood Screws, Set Screws, Bolts, etc.
 Duperow Bros. & Co., Toronto, Varnishes, Japans, etc.
 Dailey, F. F. & Co., Hamilton, Ont., Extracts, Essences, Blacking, and Grocers' Sundries.
 Donald Produce Co., Norwich, Ont., Evaporated Fruits.
 Doty Engine Co., Toronto, Ont., Engines, Boilers, etc.
 Dominion Barb Wire Co., Montreal, P.Q. (C. A. DeLisle Western representative), Barb Wire, Plain Wires and Wire Rope.
 Dovernourt Twine Mills, Toronto, Ont., Twines and Cordage.
 Dominion Starch Works, Walkerville, Ont., Corn Starch and Laundry Starch.
 Dominion Show Case Co., Toronto, Show Cases.
 Ellis & Keighley, Toronto, Ont., Coffees, Spices.
 Elliot & Co., Toronto, Ont., Manufacturing and Wholesale Chemists and Druggists.
 Ellis, P. W. & Co., Toronto, Ont., Manufacturing and Wholesale Jewellers.
 Fenwick & Selater, Montreal, Que., Files and Mill Supplies.
 Finch, W. S. Toronto, Wood Filler and Preserver.
 Gate City Stone Filter Co., New York, Water Filters.
 Gillies, John & Co., Carleton Place, Ont., "Shipman's" Coal Oil Engines and Steam Launches.
 Globe Tobacco Co., Windsor, Ont., and Detroit, Mich., Tobaccos.
 Goodhue & Co., Danville, Que., Leather Belting and Lace Leather.
 Grand & Toy, Toronto, Ont., Tucker Automatic Letter and Document Files.
 Grand River Knitting Mills, Co., Paris, Ont., Smyrna Rugs and Knit Goods.
 Grape Sugar Refining Co., Walkerville, Ont., Syrups and Glucose.
 Gray, Wm. & Sons, Chatham, Ont., Carriages and Sleighs.
 Gillett, E. W., Toronto and Chicago, Yeast and Baking Powder.
 Gardner, W. R., Montreal (successor to H. H. Warren), Manufacturer of every description of Hammers.
 Gurney, The E. & C. Co., Hamilton and Toronto, Gravity Springless Locks, and Rotating Door Knob Furniture.
 Gurneys' & Ware Scale Co., Hamilton Ont., Platform and Counter Scales.
 Hudson Bros. (Limited), Sydney, N.S.W., Australian Timber and Cabinet Woods.
 Hamilton Industrial Works Co., Hamilton, Ont., Wringers, Mangles, etc.
 Hart Emery Wheel Co., Hamilton, Ont., Emery Wheels and Emery Wheel Machinery.
 Hay, Peter, Galt, Ont., Machine Knives.
 Hearle, J. G., Montreal, Que., Toilet Soaps and Perfumery.
 Howland, H. S., Sons & Co., Toronto, Ont., Hardware Specialties.
 Howland, H. S., Kleinburg, Ont., Flour.
 Hemming Bros., Toronto, Ont., Fancy Plush Goods and Jewellers' Cases.
 Herman, J. W., Toronto, Boiler Water Purifier.
 Hamilton Whip Co., Hamilton, Ont., Whips.
 Ives, H. R. & Co., Montreal, P.Q., Fencing, Cresting, Stoves and Hardware Novelties.
 Jardine, A. & Co., Toronto, Ont., Coffee, Spices, and Pure Gold Baking Powder.
 Jenkins & Co., Toronto, Ont., Bedding of all kinds.
 Keer, Maj. Gen'l, Toronto, Ont., Himalayan Teas.
 Kerr Bros., Walkerville, Ont., Water, Steam and Gas Valves of Improved Pattern.
 King, R. W. & Co., Georgetown, Ont., Power Knitting Machinery.
 Leslie, James, Montreal, Que., Woollen and Cotton Mill Supplies.
 McCaskill, D. A., & Co., Montreal, Que., Varnishes and Japans.
 Miller Bros. & Mitchell, Montreal, Que., Beaudry's Steam Power Hammer.
 Munderloh & Co., Montreal, Que., Watchmen's Clocks.
 Morris, A. W. & Bro., Montreal, Que., Cordage and Binder Twine.
 Morrison James, Toronto, Steamfitters' and Plumbers' Supplies.
 McLaren, The J. C. Belting Co., Montreal, Mill Supplies.
 Montgomery, L. B., Toronto, Mill Supplies.
 North, Wm. & Sons, Leeds, England, Teazels.
 Northey & Co., Toronto, Ont., Steam Pumping Machinery.
 Northumberland Paper Co., Campbellford, Ont., Straw Board and Tarrd Paper.
 Ontario Bolt Co., Toronto, Ont., Bolts, Nuts, Spikes, etc.
 Oshawa, Stove Co., Oshawa, Ont., Cooking and Heating Stoves.
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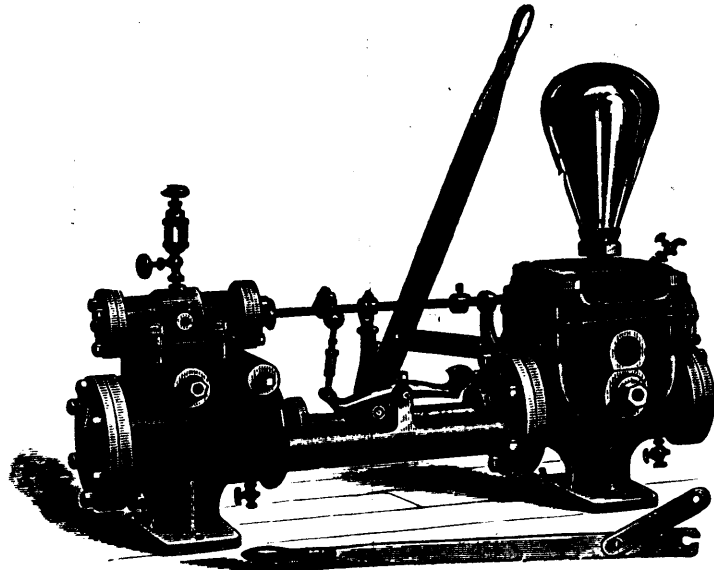
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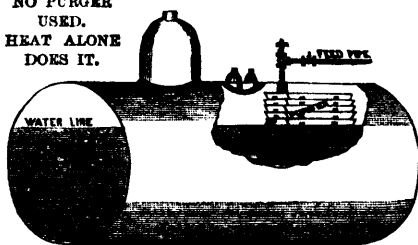
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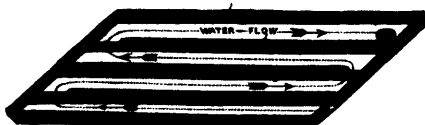
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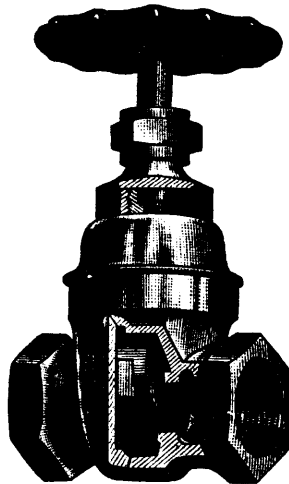
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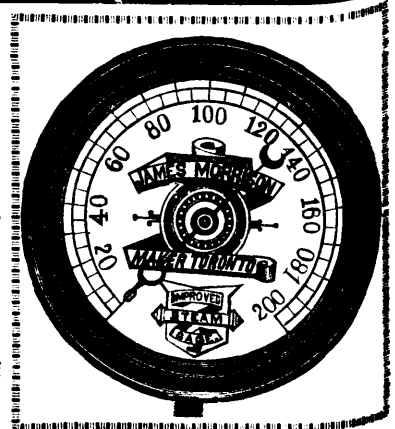
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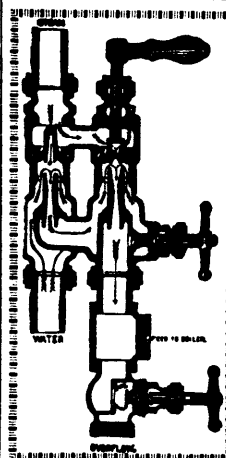
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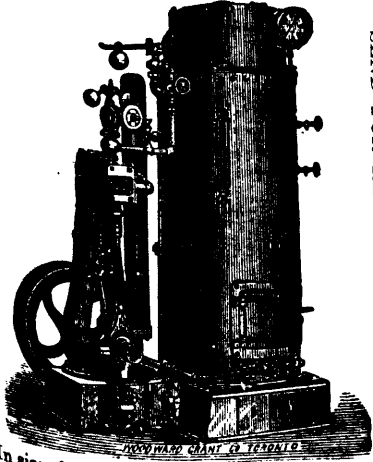
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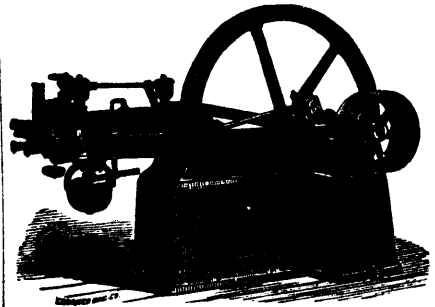
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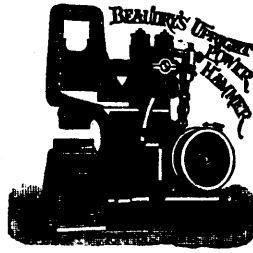
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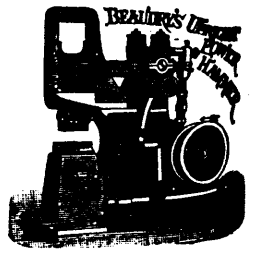
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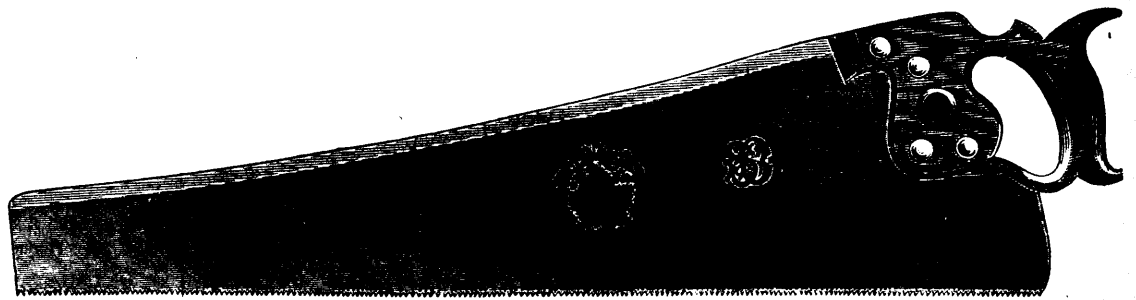
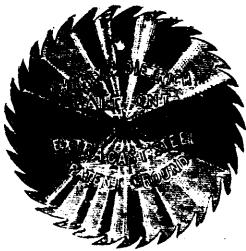
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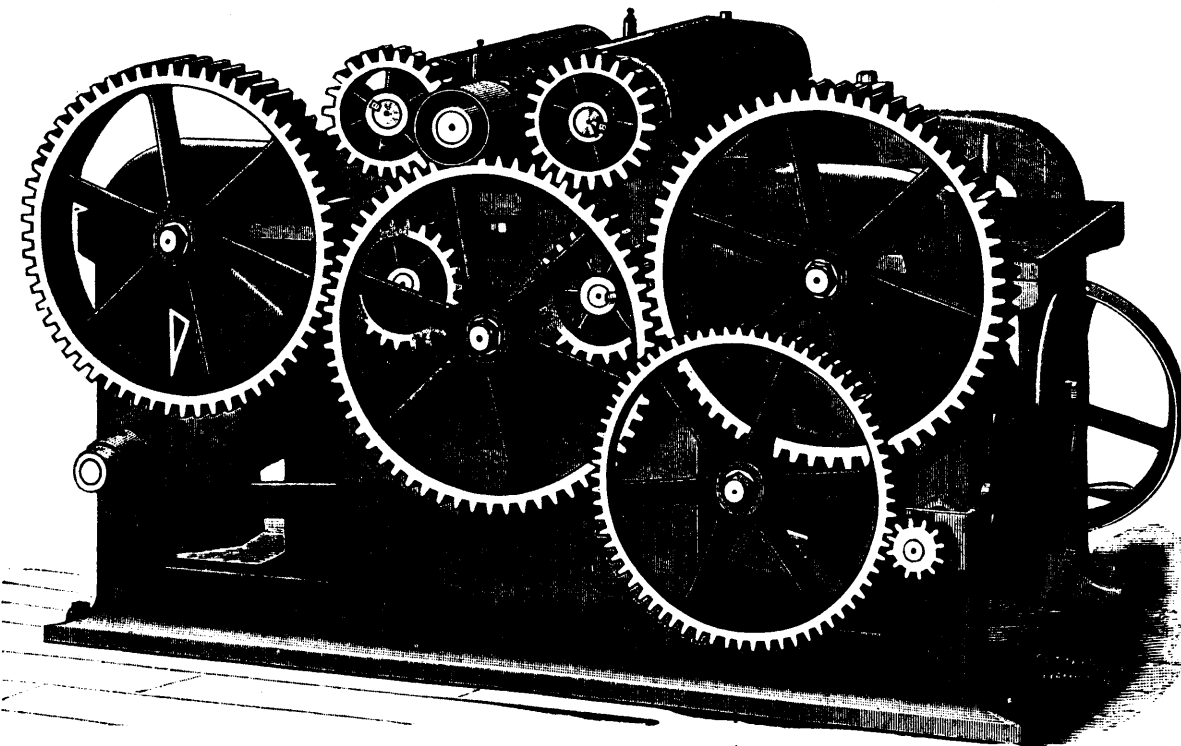
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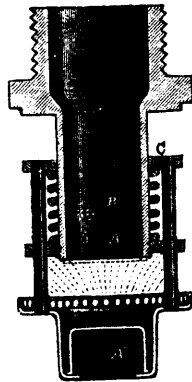
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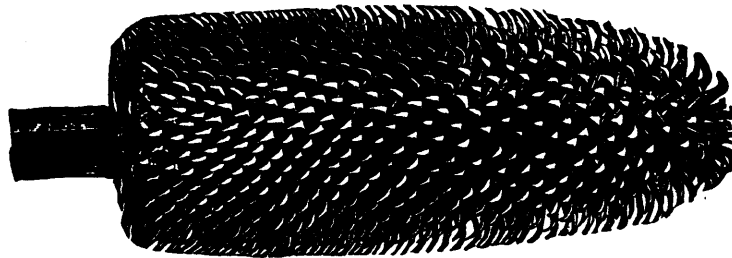
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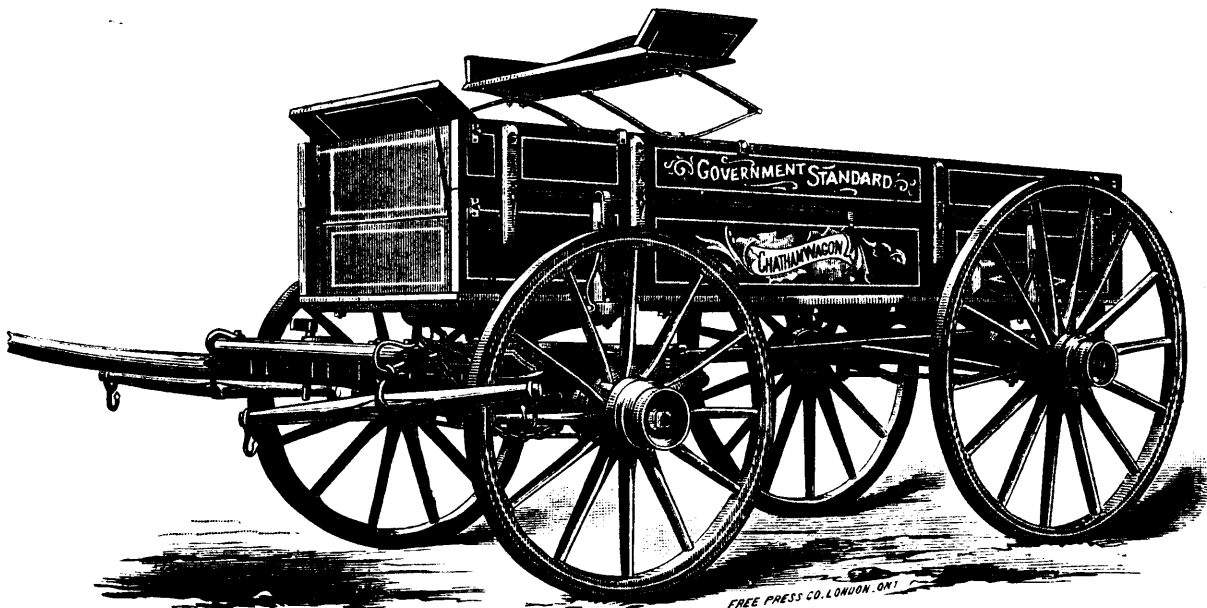
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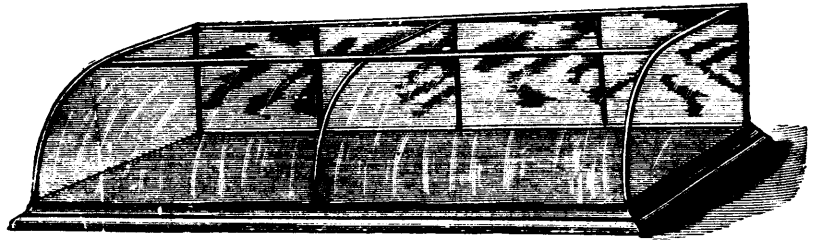
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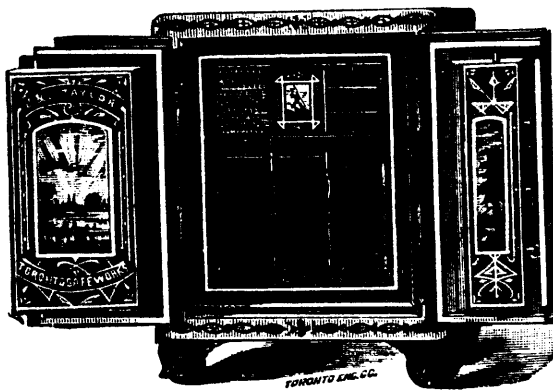
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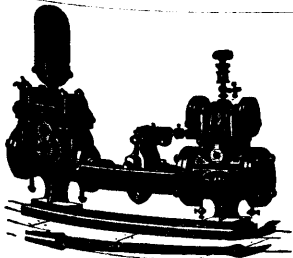
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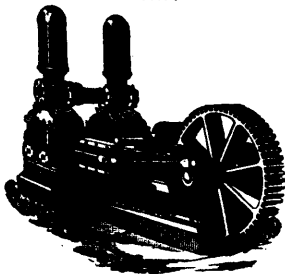
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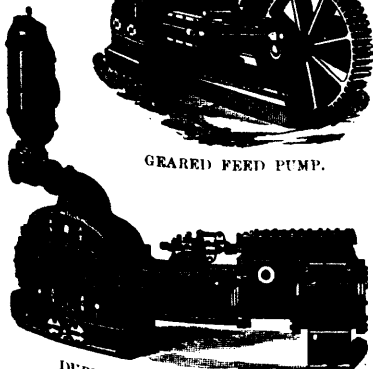
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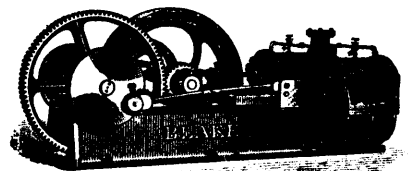
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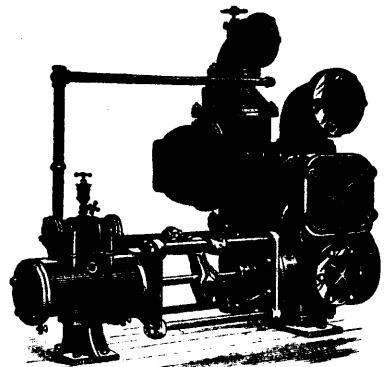
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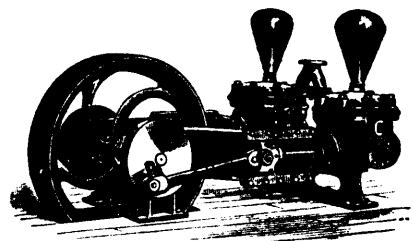
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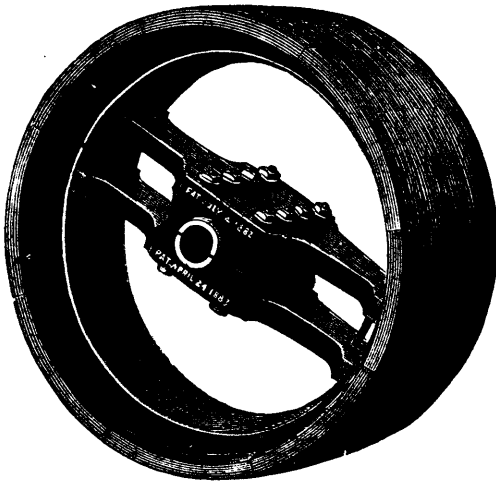


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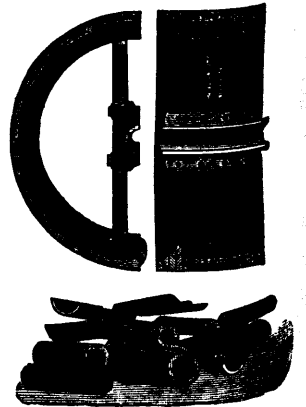
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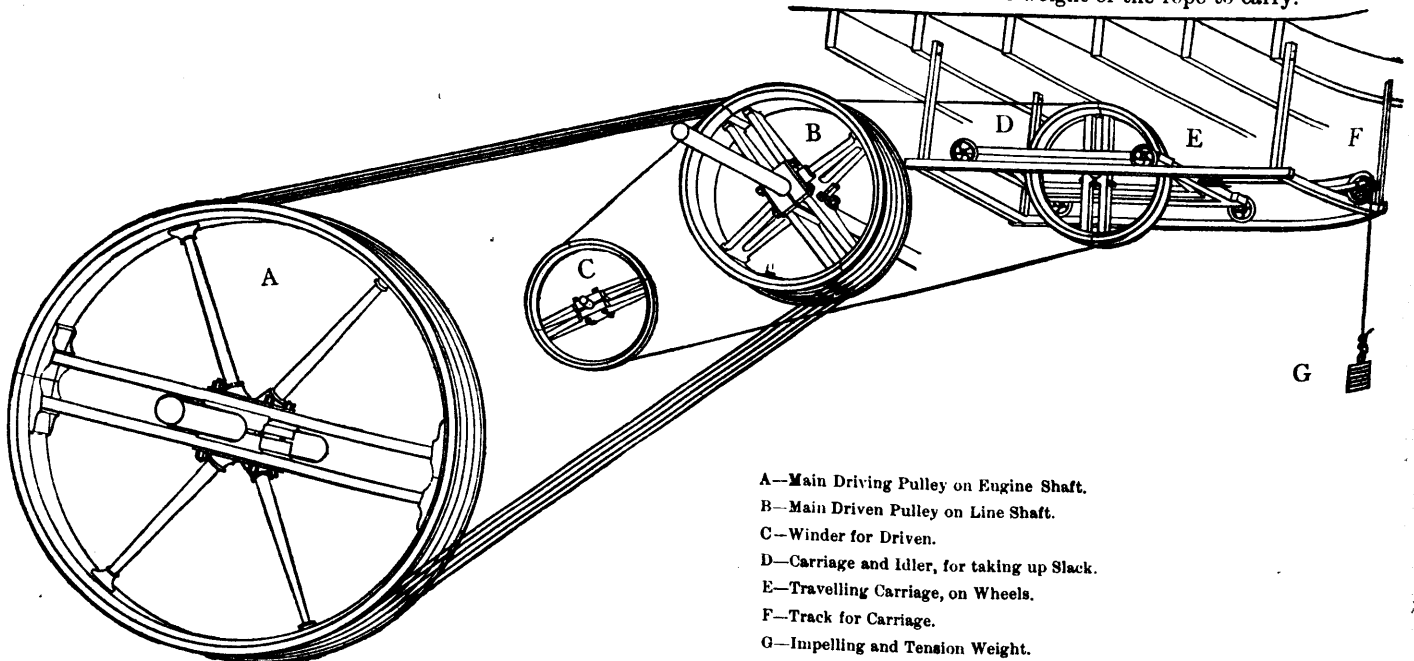
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This system of transmitting power by ropes is cheaper and superior to belts in many cases, such as where the driven shaft is at right angles with the driver, also where the drive is perpendicular, particularly when it is quarter twist and perpendicular;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

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

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



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

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

A. R. Clark & Co., Leather and Glove Manufacturers, 50 H.P.; T. Tushingham & Son, Builders, 35 H.P.; J. R. Black, Carriage Works, 50 H.P.; Barber & Ellis Co., Stationers, 8 drives, 87 H.P.; Jas. Lochrie, Rope Manufacturer, 60 H.P.; J. P. Wagner & Co., Show Case and Keyboard Manufacturers, 50 H.P.; J. Taylor, Morse Soap Works, 60 H.P.; Joseph Simpson, Knitting Mills, 80 H.P.; and numerous others whose testimonials can be seen in our catalogue. Parties who are in want of anything in this line, or who are interested in the efficient and economical transmission of power, are cordially invited to call at our works and see the ropes and wood pulleys in operation, as we are driving our whole factory by this system. Send for Price List, Catalogue and Cypher Code, for ordering by telegraph, to

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

MACHINE BRUSHES

All kinds, Made to Order.

Highest Quality of Work Guaranteed.

Send full particulars of Dimensions and Quality when ordering.

OLD ROLLERS OR BLOCKS RE-FILLED
WITH SPECIAL CARE.

CHAS. BOECKH & SONS,

MANUFACTURERS.

Office and Warerooms:

Factory:

80 YORK STREET. | 142 to 150 Adelaide St. West.
TORONTO, CANADA.



NOTICE.

A NUMBER of School Sections in the Province of Manitoba will be offered for sale at public auction at the following places, on the undermentioned dates, viz:—
At *Manitou* on the 10th January, 1888; at *Winnipeg* on the 17th January, 1888; at *Portage la Prairie* on the 24th January, 1888; at *Brandon* on the 31st January, 1888; at *Winnedosa* on the 7th February, 1888.

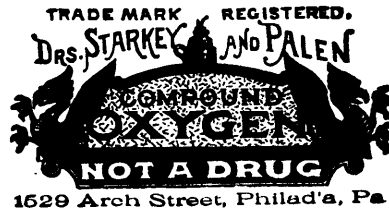
In any case in which a settler on any quarter section of land included in the list referred to can prove to the satisfaction of the Commissioner of Dominion Lands that he was *bona fide* residing upon and cultivating the said quarter section, in ignorance of the law, on the 1st day of October, 1887,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

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

A. M. BURGESS,

Deputy of the Minister of the Interior.

No unauthorized insertion of this advertisement will be paid for.



A Well Tried Treatment

FOR

Consumption, Asthma, Bronchitis, Dyspepsia, Catarrh, Hay Fever, Headache, Debility, Rheumatism, Neuralgia and all Chronic and Nervous Disorders.

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

DRS. STARKEY & PALEN have the liberty to refer to the following named well-known persons who have tried their Treatment:

Hon. Wm. D. Kelley, Member of Congress, Philadelphia; Rev. Victor L. Conrad, Editor "Lutheran Observer," Philadelphia; Rev. Charles W. Cushing, D.D., Rochester, N.Y.; Hon. Wm. Penn Nixon, Editor "Inter-Ocean," Chicago, Ill.; Rev. A. W. Moore, Editor "The Centenary," Lancaster, S.C.; W. H. Worthington, Editor "New South," Birmingham, Ala.; Judge H. P. Vrooman, Quenemo, Kan.; Mrs. Mary A. Livermore, Melrose, Mass.; Judge R. S. Voorhees, New York City; Mr. F. C. Knight, Philadelphia; Mr. Frank Siddall, Merchant, Philadelphia; Hon. W. W. Schuyler, Easton, Pa.; Edward L. Wilson, 333 Broadway, N.Y., Editor Philadelphia "Photographer"; Fidelity M. Lyon, Waimea, Hawaii, Sandwich Islands; Alexander Ritchie, Inverness, Scotland; Mrs. Manuel V. Ortega, Fresnillo, Zacatecas, Mexico; Mrs. Emma Cooper, Utiilla, Spanish Honduras, Central America; J. C. bb, U.S. Vice-Consul, Casablanca, Morocco; M. V. Ashbrook, Red Bluff, Cal.; Ernest Turner, Nottingham, England; Jacob Ward, Bowral, New South Wales, and thousands of others in every part of the world.

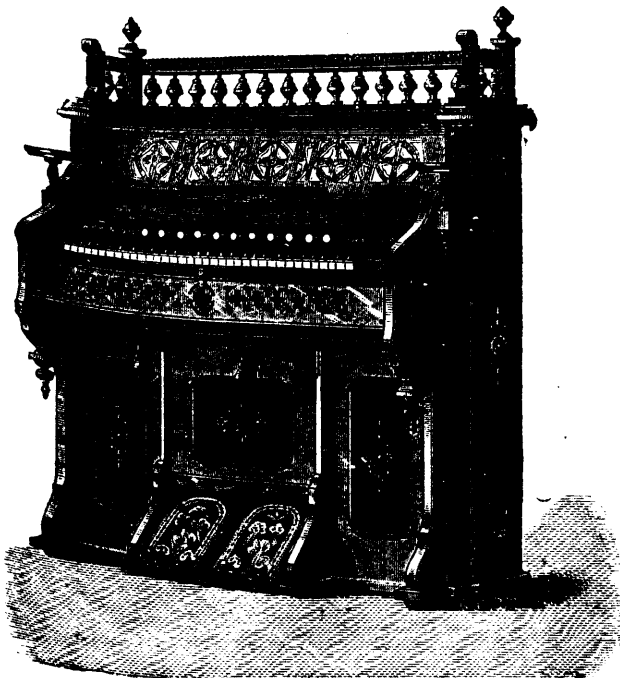
"Compound Oxygen—its Mode of Action and Results," is the title of a new brochure of two hundred pages, published by Drs. Starkey & Palen No. 1529 Arch St., Philadelphia, Pa., which gives to all inquirers full information as to this remarkable curative agent, and a record of several hundred surprising cures in a wide range of chronic cases—many of them after being abandoned to die by other physicians. Will be mailed free to any address on application by addressing

E. W. D. KING,

58 Church St., Toronto, Ont.

BELL ORGANS

FOR
Chapel,
Church,
Lodge,
Parlor.



ARE THE BEST

OUR Large Double and Single Manual Organs are the best in the Market, and Musicians should see them before buying elsewhere.

CATALOGUES
SENT ON APPLICATION

W. BELL & CO.,
GUELPH, CANADA.

Industrial and Trade DIRECTORY.

Acids and Aniline Dyes.

THEO. H. EATON & SON, Windsor, Ont.; Detroit, U.S.A.—Importers. Every Description **Pure Aniline Dyes** for Cotton and Woollen Manufacturers. **Dyed Samples** furnished on application. Address all correspondence to Head Office, Detroit, Mich.

Agricultural Implements.

A. S. WHITING MANUFACTURING CO., Cedar Dale, Ont.—Manufacturers of scythes, forks, hoes, etc.

WELLAND VALE MANUFACTURING CO.—Lock No. 2, St. Catharines, Ont., Canada—Manufacturers of axes, scythes, forks, hoes, rakes and edge tools.

Bobbins and Spools

THOMPSON & CO., Sherbrooke, P. Q.—Manufacturers of all kinds of Bobbins and Spools for Cotton and Woollen Mills—Special patterns made to order from sample.

Bridge Builders.

DOMINION BRIDGE CO. (Limited),—Shops at Toronto, Ontario, and Lachine, Quebec. Builders of Steel and Iron Railway and Highway Bridges.

Chemicals.

DOMINION DYEWOOD AND CHEMICAL CO., Toronto.—Importers and Manufacturers. Chemicals for Cotton, Woollen, Paper and Leather Manufacturers.

MCARTHUR, CORNEILLE & CO. (successors to John McArthur & Son), Montreal.—Offer at closest figures chemicals required by soap-boilers, oil refiners, paper-makers, and by manufacturers of woollens, cottons, leather, &c.

Cotton Mills.

HAMILTON COTTON MILLS CO., Hamilton.—Denims, tickings and yarns.

Dyes, Dyeing Drugs and Extracts.

THEO. H. EATON & SON, Windsor, Ont.; Detroit, U. S. A.—Carry full line of Pure Dyeing Drugs, Dye Woods and Extracts adapted for the requirements of Woollen and Cotton Manufacturers. **Paper Makers' Anilines** and Chemicals. Address the **Detroit Office**.

Dye Stuffs.

MCARTHUR, CORNEILLE & CO. (successors to John McArthur & Son), Montreal.—Supply of best quality at closest prices. Every description of coloring materials required by manufacturers of woollens, cottons, silks, paper, leather, &c. Are sole agents in Canada for the celebrated aniline dyes of A. Porrier, Paris.

LYMAN BROTHERS & CO., Nos. 71 and 73 Front Street East, Toronto—Dye Stuffs of all kinds for Woollen and Cotton Manufacturers; Warps, Shuttles, Bobbins, Card Clothing, etc., etc.

Dyewood and Dye Stuffs, Aniline Dyes.

DOMINION DYEWOOD AND CHEMICAL CO., Manufacturers.—Pure Dyewoods, Dyeing Drugs. Sole Agents. English, German, and French Aniline Dyes, for Woollen, Silk Paper, and Leather manufactures.

Edge Tools.

WELLAND VALE MANUFACTURING CO.—Lock No. 2, St. Catharines, Ontario, Canada.—Manufacturers of axes, scythes, forks, hoes, rakes and edge tools.

Emery Wheels.

HART EMERY WHEEL CO., Hamilton.—Manufacturers of every description of Emery Wheels and Emery Wheel machinery.

Gas Engines.

JOHN DOTY, Toronto.—Manufacturer in Canada of the new "Otto" silent gas engine, two, four, and seven horse power and larger.

Glove Manufacturers.

W. H. STOREY & SON, Acton, Ont.—Manufacturers of fine gloves and mitts in every variety and style.

Hoist and Elevator Manufacturers.

LEITCH & TURNBULL, Canada Elevator Works, cor. Queen and Peter Streets, Hamilton, Ont.—Patent Safety Hydraulic, Hand, and Power Elevators. Telephone connection.

Hubs, Spokes and Bent Goods.

F. W. HORE & SON, Hamilton, Ont.—Manufacturers of wheels, wheel material, shafts, poles, etc.

COWAN & CO., Galt.—Manufacturers of every description of wood working machinery.

H. R. IVES & CO., Montreal.—Hardware manufacturers and founders; iron ruling and ornamental iron work a specialty.

JOHN BERTRAM & SONS, Dundas.—Machine tools and wood working machinery. Toronto wareroom, 58 Yonge St. Agents—The Polson Iron Works Co.

Montreal wareroom, Craig St. Agents for Quebec—The Machinery Supply Association, Montreal.

THE OSHAWA MALLEABLE IRON CO., Oshawa, Ont.—Manufacturers of malleable iron castings, to order, for all kinds of Agricultural Implements and miscellaneous purposes.

SMITH'S FALLS MALLEABLE IRON WORKS, Smith's Falls, Ont.—Manufacturers to order of refined malleable iron castings from air furnace. Agricultural and other heavy castings a specialty. Carriage castings in stock.

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JOHN DOTY, Toronto.—Engines and boilers of every description and capacity, also shafting, pulleys, and hangers for factories.

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THE WHITMAN & BARNES MANUFACTURING CO., St. Catharines, Ont.—Manufacturers of mowing and reaping machine knives, sections, guard plates, cutting apparatus complete, spring keys and cutters, etc.

Knitting Mills.

S. LENNARD & SONS, Dundas.—Manufacturers of plain and fancy hosiery.

Manufacturers' Supplies.

E. JENCKES MANUFACTURING CO., Pawtucket, R. I.—Sole manufacturers of Hicks Improved U. S. Standard Ring Travellers. Belt hooks, gimlet pointed wire goods, spinning rings, cotton banding, twine, &c. Manufacturers' supplies. Leather belting and lace leather. Special agents for Jos. Noone's sons cloths.

Oils.

MCARTHUR, CORNEILLE & Co (successors to John McArthur & Son), Montreal.—Afford best value in pure olive and lard oils, also in all other leading lines of vegetable, animal, and mineral oils for factory use. Invite special attention to their celebrated crown diamond "engine" and "machinery" oils.

Paper Manufacturers.

WM. BARBER & BROS., Georgetown—Manufacturer of book and fine papers.

THE TORONTO PAPER MANUFACTURING CO., Cornwall, Ont.—Manufacturers of engine sized superfine papers, white and tinted book papers, blue and cream laid and wove foolscaps, account book, envelope and lithographic papers, etc., etc.

Saw Manufacturers.

R. H. SMITH & CO., St. Catharines.—Manufacturers of all kinds of saws, plastering trowels, straw knives, etc. Sole manufacturers for the Dominion of Canada of the celebrated "Simond's Saw."

Scythe Snaths.

THE DOMINION SNATH COMPANY, Sherbrooke, Que.—Manufacturers of Patent Swing Socket, and every variety of Scythe snath.

Tanners' and Wool Pullers' Supplies.

THEO. H. EATON & SON, Windsor, Ont.; Detroit, U.S.A.—Supply at lowest prices all Chemicals used by Tanners and Wool Pullers. Special Anilines for Sheep Skin Dyers, Wool Mat Manufacturers, etc., etc. Address correspondence to Head Office, Detroit, Mich.

Taps and Dies.

BUTTERFIELD & CO., Rock Island, P.Q.—Manufacturers of Taps, Dies, and all Screw Cutting Tools.—Telegraph Office, Derby Line, Vt.

Wire Works.

B. GREENING & CO., Hamilton, Ont.—Manufacturers of wire ropes, cloth and general wire workers.

TIMOTHY GREENING & SONS, Dundas, Ont.—Manufacturers of the strongest description of steel wire cloth, malt kiln floors and general wire weavers. Telephone connection.

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MUNN & CO., of the SCIENTIFIC AMERICAN, continue to act as Solicitors for Patents, Caveats, Trade Marks, Copyrights, for the United States, Canada, England, France, Germany, etc. Hand Book about Patents sent free. Thirty-seven years experience.

Patents obtained through MUNN & CO. are noticed in the SCIENTIFIC AMERICAN, the largest, best and most widely circulated scientific paper. \$3.00 a year. Weekly. Splendid engravings and interesting information. Specimen copy of the SCIENTIFIC AMERICAN sent free. Address MUNN & CO., SCIENTIFIC AMERICAN Office, 361 Broadway, New York.

TO ADVERTISERS!

For a check for \$20 we will print a ten-line advertisement in One Million issues of leading American News papers and complete the work within ten days. This is at the rate of only one-fifth of a cent a line, for 1,000,000 Circulation! The advertisement will appear in but a single issue of any paper, and consequently will be placed before One Million different newspaper purchasers;—or FIVE MILLION READERS, if it is true, as is sometimes stated, that every newspaper is looked at by five persons on an average. Ten lines will accommodate about 75 words. Address with copy of Adv. and check, or send 30 cents for Book of 272 pages. GEO. F. ROWELL & CO., 10 SPRUCE ST., NEW YORK.

We have just issued a new edition (the 188th) of our Book called "Newspaper Advertising." It has 272 pages, and among its contents may be named the following Lists and Catalogues of Newspapers:—

DAILY NEWSPAPERS IN NEW YORK CITY, with their Advertising Rates.

DAILY NEWSPAPERS IN CITIES HAVING more than 150,000 population, omitting all but the best.

DAILY NEWSPAPERS IN CITIES HAVING more than 20,000 population, omitting all but the best.

A SMALL LIST OF NEWSPAPERS IN which to advertise every section of the country; being a choice selection made up with great care, guided by long experience.

ONE NEWSPAPER IN A STATE. The best one for an advertiser to use if he will use but one.

BARGAINS IN ADVERTISING IN DAILY Newspapers in many principal cities and towns, a List which offers peculiar inducements to some advertisers.

LARGEST CIRCULATIONS. A complete list of all American papers issuing regularly more than 25,000 copies.

THE BEST LIST OF LOCAL NEWSPAPERS, covering every town of over 5,000 population and every important county seat.

SELECT LIST OF LOCAL NEWSPAPERS, in which advertisements are inserted at half price.

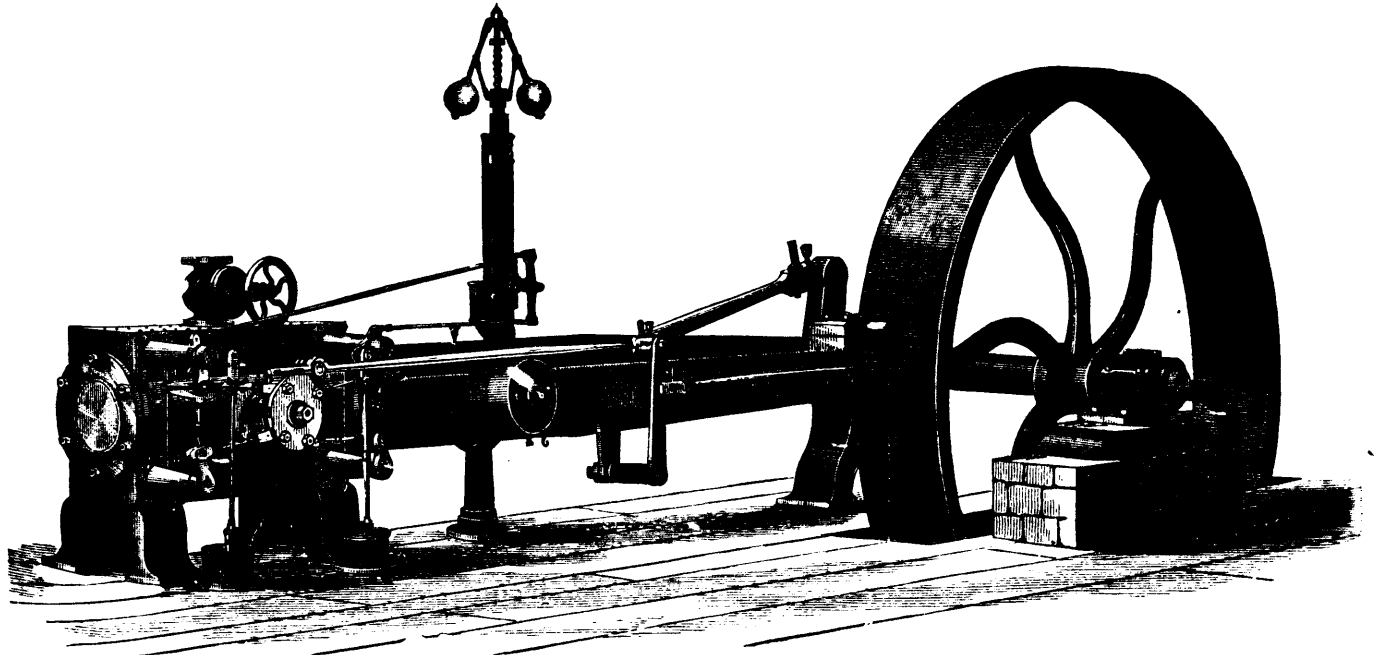
547 VILLAGE NEWSPAPERS in which advertisements are inserted for \$41.40 a line and appear in the whole lot—one half of all the American Weeklies.

Sent to any address for THIRTY CENTS.



THE GALT FOUNDRY,

Engine and Machine Works.



THE HARRIS-CORLISS STEAM ENGINE

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

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

Without a Successful Rival.

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

- 1st.—The Steam is admitted at Boiler pressure to the piston by the main valve and is cut off at the same point, the load determining through the regulator, when the supply of steam shall be cut off. This is the only Engine that thus limits steam at full boiler pressure.
- 2nd.—The success of the Harris-Corliss Engine lies in the simplicity and precise action of the governing elements; the Governor is an independent mechanism, with no extraneous load, and free to instantly respond to all variations in the angular velocity of rotating parts.
- 3rd.—No parts of the regulating medium enter the steam chest and thereby be out of sight of the engineer, and subject to the corrosive action of steam and the oil used for lubricating the valves and piston.
- 4th.—Regularity of Speed under varying loads of steam pressure.
- 5th.—Recessed Valve Seats which avoid the liability of wearing shoulders on them.
- 6th.—Stop Motion on Regulator of Engine which effectually stops the Engine whenever the regulator by any means fails to perform its work, thus preventing the Engine from running away.
- 7th.—Having four Valves either can be adjusted independently of the other with the greatest ease.
- 8th.—The increased amount of power it develops.

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

COWAN & CO.,

Galt, Ont., Canada.

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



Notice to Contractors.
SAULT SAINTE MARIE CANAL.

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

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

By order,

A. P. BRADLEY,
Secretary.

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

Maw & McFarlane
DUNDAS, ONT.

IRON FOUNDERS, ENGINEERS AND MACHINISTS,

MANUFACTURERS OF

Drop Hammers,
LIFTERS, DIE SINKERS AND PRESSES.

LET CORRESPONDENCE SOLICITED.

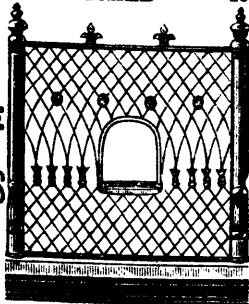
TORONTO LITHOGRAPHING CO.
Globe Building, Toronto

MAKE A SPECIALTY OF
Fine Color Work
CHROMO ADVERTISING
CARDS and NOVELTIES
also do a Superior Class of Wood Engraving

VICTORIA WIRE MILLS.

ESTABLISHED - 1859.

BANK
AND
OFFICE
Counter Railings
IN
Brass & Iron.



WIRE
Window Guards
AND
Fine Wire Blinds
FOR
Inside Windows.

MANUFACTURED BY

B. GREENING & CO., Hamilton, Ont.
Send for Catalogue.

HAMILTON
COTTON COMPANY,

MANUFACTURERS OF

THE STAR BRAND

COTTONADES, DENIMS, TICKINGS.

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

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

General Agents,—

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

BUTTERFIELD & CO.

ROCK ISLAND, P.Q.

MANUFACTURERS OF

UPRIGHT DRILLS

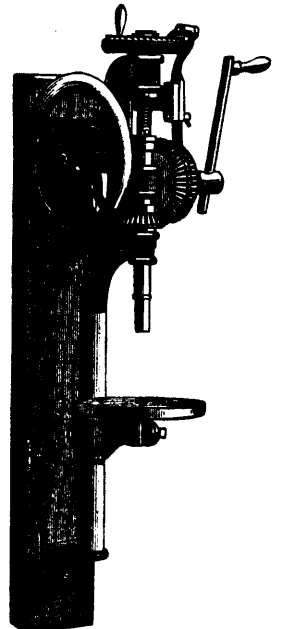
FOOT VISES and BOLT HEADERS.

STOCKS, DIES AND TAPS

FOR

Blacksmiths', Machinists', Carriage
Makers' and Gas-Fitters' Use.

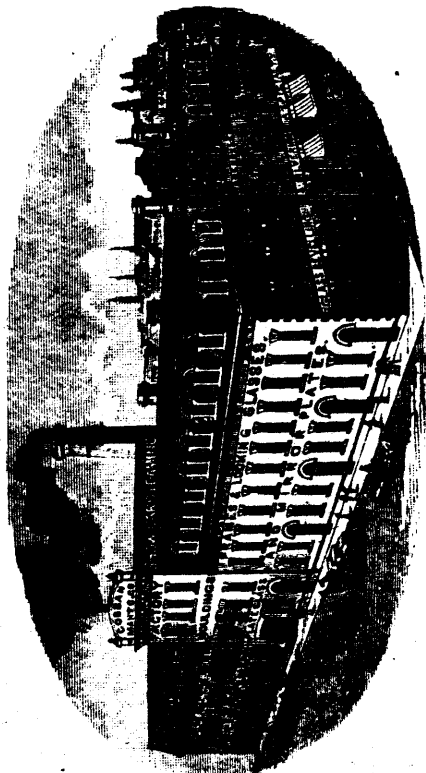
Send for New Illustrated Catalogue
And Price List.



NAME THIS PAPER.

Cobban Manufacturing Co'y

Factory & Head Office: Toronto.



Branch: 455 St. Paul Street, Montreal.

MANUFACTURERS OF
Mantles, Over Mantles and Mirrors in Finest Hardwoods. Mouldings, Picture
Frames and Looking Glasses. Mirror Plates: English, French, German,
Shocks. Plate Glass Beveling and Silvering a Specialty.

CLOSE PRICES. LIBERAL TERMS.

MONTREAL.

TORONTO.

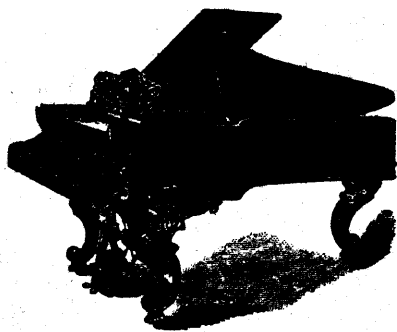
ONTARIO BOLT CO., TORONTO,

MANUFACTURE

- Threshing Machine Teeth,
- Machine Bolts,
- Bolt Ends and Blank Bolts,
- Bridge Rods and Bridge Rivets,
- Coach Screws and Skin Bolts,
- The Superb Carriage Bolt,
- The Frise Carriage Bolt,
- The Eclipse Carriage Bolt,
- The Frise Tire Bolt,
- The Eclipse Sleigh Shoe Bolt,
- The Frise Plough Bolt,
- Best Whiffletree Bolts,
- Best Shaft and Step Bolts,
- Best Eccentric Head Spring Bolts,
- Best Elevator Bolts,
- Best Norway Shackle Bolts,
- Best Railway Track Bolts,
- Black Iron Rivets,
- Boiler Rivets,
- Railway Spikes,
- Pressed Spikes,
- Hot Pressed Nuts,
- Bridge Bolts and Rag Bolts.

HEINTZMAN & CO.

MANUFACTURERS OF



**GRAND,
SQUARE,
AND UPRIGHT
PIANOFORTES.**

SEND FOR ILLUSTRATED CATALOGUE.

Warerooms, - 117 King St. West,
TORONTO.



**HART
Emery Wheel**

COMPANY
(LIMITED),

Hamilton, Canada.

MANUFACTURERS OF

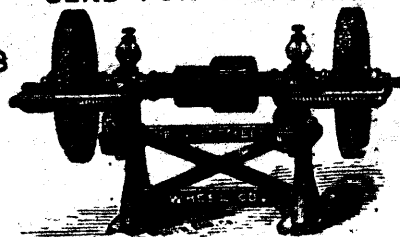
EMERY WHEELS

FOR

**FOUNDRIES, MACHINE SHOPS,
SAW MILLS, & PLANING MILLS.**
SEND FOR CIRCULAR.

Also
MANUFACTURERS
OF—

**EMERY WHEEL
MACHINERY.**



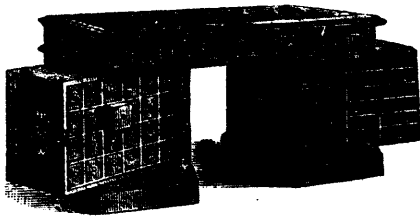
Illustrated Price List sent on Application.

W. STAHLSCHMIDT & CO.

PRESTON, ONT.

MANUFACTURERS OF

School, Office, Church and Lodge
Furniture.



ROTARY DESK

No. 50.

Send for Circulars and Price List. Name this paper.

S. Lennard, Sons, & Bickford,

DUNDAS, ONT.

PATENTEES OF THE "ELYSIAN" SEAMLESS HOSIERY,

Manufacturers of Plain and Fancy
Hosiery, Caps, Ties, Sashes,
etc., etc., etc.,

To the Wholesale Trade only.

Represented in Eastern Ontario, Que-
bec, Nova Scotia and New Brunswick,
by

F. W. NEWMAN & CO.,
21 Lemoine St., Montreal.

In Manitoba by

PEDDIE & CO.,
WINNIPEG, MANITOBA.

In Western Ontario by

S. LENNARD,
Senior Member of the Firm.

ESTABLISHED 1820.

EAGLE FOUNDRY.

GEORGE BRUSH,

14 TO 84 KING AND QUEEN STREETS, MONTREAL,

Maker of

STEAM ENGINES,
STEAM BOILERS,
HOISTING ENGINES,
STEAM PUMPS,
CIRCULAR SAW MILLS,
BARK MILLS,
SHINGLE MILLS,
ORE CRUSHERS,
MILL GEARING,
SHAFTING,
HANGERS AND
PULLEYS,
HAND AND POWER HOISTS FOR
WAREHOUSES, &c., &c.,
and Agent for

"Water's" Perfect Steam Engine Governor, and
"Heald & Sisco's" Centrifugal Pumps.



EVERY REPUTABLE DEALER KEEPS
THEM.

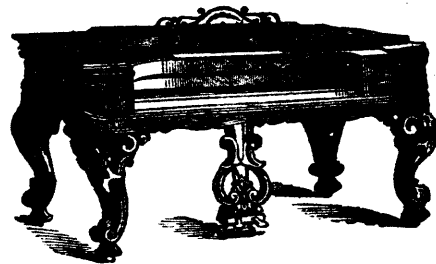
Insist on having the Genuine, and see
that they bear our name.

LANSDOWNE PIANO CO.

UPRIGHTS

AND

SQUARES



The Leading Canadian Pianos

STRICTLY FIRST CLASS. Correspondence Solicited

86 York St., Toronto.

Established 1872.

THE ACCIDENT

INSURANCE CO. OF NORTH AMERICA.

NEW FEATURE,

JOINT INSURANCE

FOR PARTNERSHIPS

IMPORTANT TO MANUFACTURING FIRMS.

MEDLAND & JONES,

GENERAL AGENTS,

Corner Adelaide and Victoria Streets,

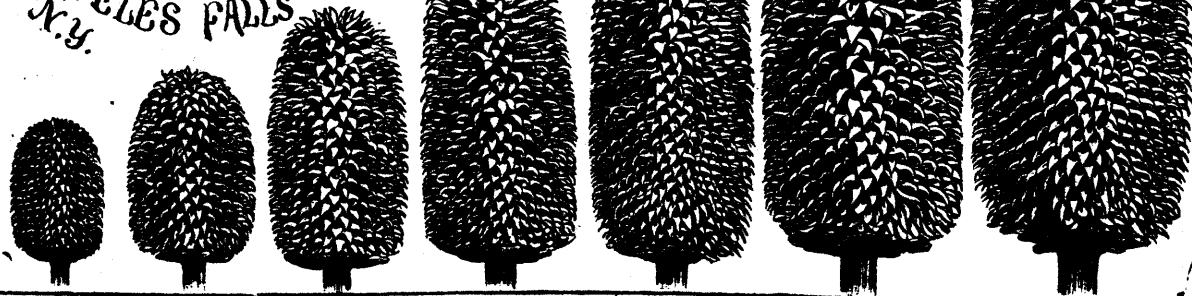
TORONTO.

J. M. LAUGHLIN'S SONS,

CROWERS
MERCHANTS,
AND EXPORTERS OF

SHARPE'S PATENT
N.Y.

AMERICAN TEASELS.



A. H. McKEE, SOLE AGENT FOR CANADA.

210 ST. JAMES STREET, MONTREAL.

LOWEST PRICES WILL BE FURNISHED ON APPLICATION.