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CANADIAN MANUFACTURER
AND INDUSTRIAL WORLD
DEVOTED TO THE MANUFACTURING INTEREST OF THE DOMINION

Vol. 40.

TORONTO, APRIL 6, 1900.

No. 7.

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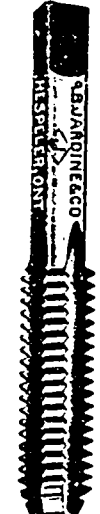
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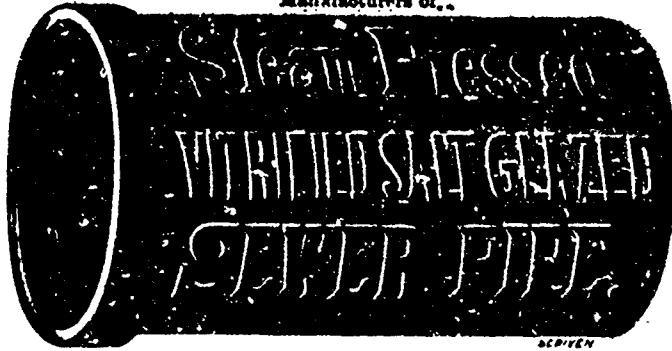
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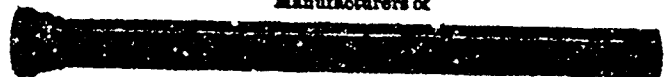
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We manufacture all grades of oils, greases, soap, kerosene, wood stocks, leather and tanners' oils, fuel gas, machinery, and boiler oils, etc. And solicit opportunity to compete against any oil on the market. Write for prices and samples.

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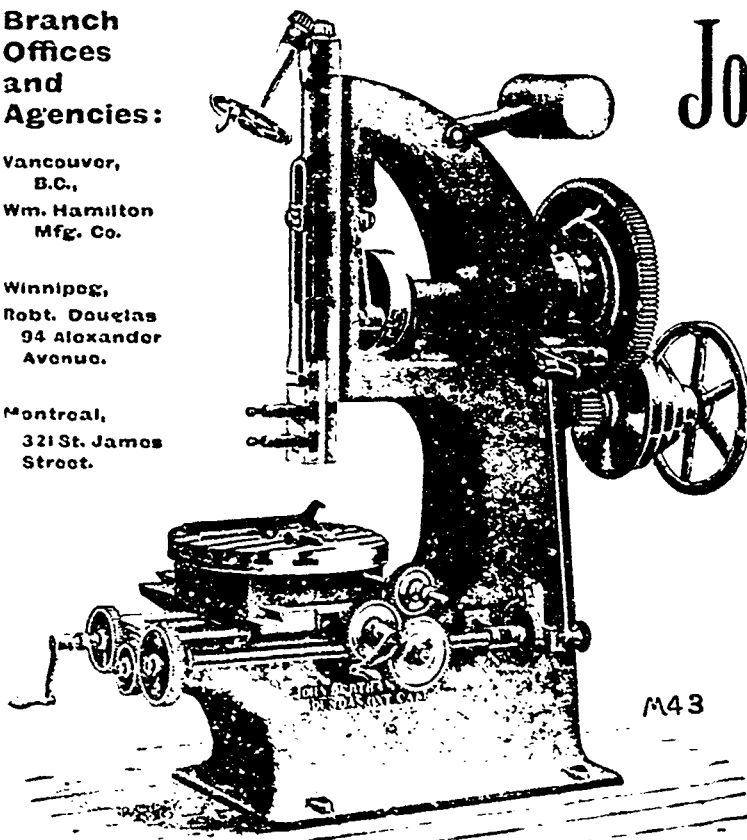
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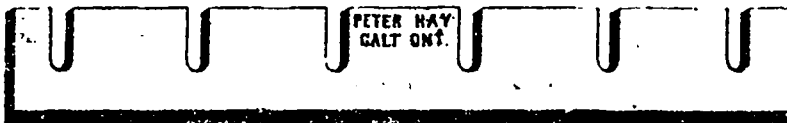
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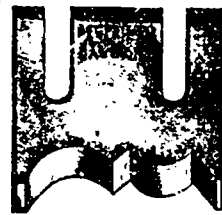
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THE BEST EQUIPPED BOILER AND ENGINE WORKS IN CANADA.

We Manufacture— **STEEL BOILERS**

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 STEEL STEAM VESSELS OF EVERY DESCRIPTION. STEAM YACHTS AND LAUNCHES.

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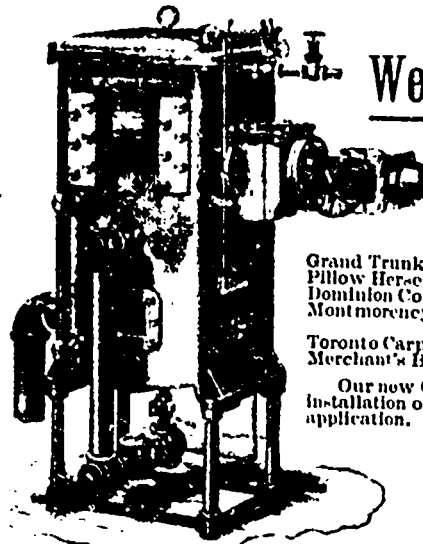
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Mfrs. of Set, Cap and Special
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Toronto Carpet Co., Toronto, Ont.	(1)	400 "
Merchant's Bank of Canada, Montreal	(1)	150 "

Our new Catalogue explains the saving to be effected by the
installation of the "Webster" Heater, and will be mailed free on
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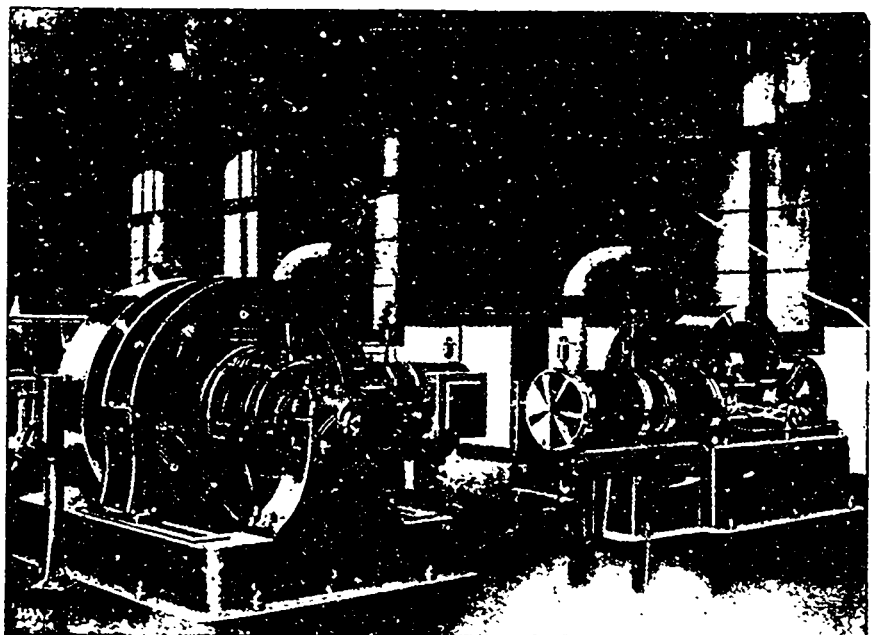
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Anilines, Dyestuffs & Chemicals

DELIVERY MADE AT NEW YORK, MONTREAL OR HAMILTON.

WRIGHT & DALLYN, AGENTS,
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These engines are installed in the power house of the electric
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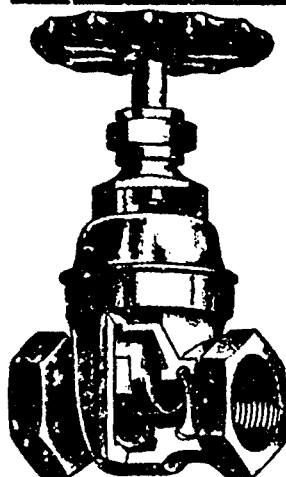
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For
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EVERY VALVE TESTED.

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Sole Manufacturers for Canada. Send for
Price List.

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Oakey's Flexible Twilled Emery Cloth.
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Prize Medal and Highest Award Philadelphia, 1876, for Superiority
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"FOR ALL DUTIES"

We invite enquiries from engineers in need of any description of Pumping Machinery. We manufacture over five hundred varieties and sizes of Steam and Power Pumps for stationary and marine purposes. We will be pleased to furnish plans and specifications for any special types. Our Catalogue, giving a good idea of our standard patterns, sent free to all enquirers.

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To anyone requiring a compact, thoroughly reliable engine, especially suited for users of intermittent power, we recommend our Gas and Gasoline Engine. We shall be glad to furnish estimates for Gas or Gasoline operated pumps, electric light plants, etc., etc. Explanatory Booklet free on request.

Northey Mfg. Co., Limited, 1000 KING ST. SUBWAY, **Toronto, Ont.**

THE ATLANTIC REFINING CO.

TORONTO, ONTARIO

MANUFACTURERS
AND IMPORTERS
OF ILLUMINATING
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OILS, GREASES
and SPECIALTIES

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We Stock a Large Variety of SHADES
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FOR FACTORY AND OFFICE.

Imperial Lamps and Helios Upton Enclosed Arcs Give BEST LIGHT with LEAST CURRENT
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Write us about Lighting
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ESTABLISHED IN 1880.

PUBLISHED ON THE FIRST AND THIRD FRIDAYS OF EACH MONTH

SUBSCRIPTIONS:

CANADA AND UNITED STATES, - \$1.00 PER YEAR.
ALL OTHER COUNTRIES IN POSTAL UNION, EIGHT SHILLINGS
STERLING PER YEAR, INCLUDING POSTAGE.

The Canadian Manufacturer Publishing Co., Limited.

McKinnon Building, Cor. Melinda and Jordan Sts., Toronto.

Cable address: "CANAMAN." Western Union Telegraphic Code used.

J. J. CASSIDY, Editor and Manager

FRANK B. WHITE COMPANY

The Fisher Building, CHICAGO. 130 Nassau St., NEW YORK.
Represent the Advertising Department of THE CANADIAN
MANUFACTURER in the United States.

NOTICE TO MANUFACTURERS.

For a number of years the offices and conveniences contained therein of THE CANADIAN MANUFACTURER have been at the disposal of manufacturers who might desire their use for holding meetings, conferences, etc., and that without any cost to them whatever. We take pleasure in again announcing this fact, and in assuring our friends that our offices are always open to them, either day or evenings, for the purposes indicated.

PREFERENTIAL TRADE AND THE MANUFACTURERS—A SYMPOSIUM.

In the Dominion House of Commons on March 23rd, Hon. W. S. Fielding, Minister of Finance, gave notice that he would move the following resolution in Committee of Ways and Means:—

That it is expedient that the existing laws respecting customs duties shall be so amended that on and after the first day of July, 1900, the reduction of duties under the "British Preferential Tariff," set forth in section 7, of chapter 37, of the acts of 1898, shall be one-third instead of one-fourth as therein provided, and that the duties to be levied, collected and paid on articles entitled to the benefits of such preferential tariff shall be two-thirds of the duty imposed on like articles under the provisions of schedule A to the customs tariff, 1897, as amended.

About the middle of February a report gained wide circulation to the effect that the Government contemplated increasing the tariff preference accorded to British goods coming into Canada, whereupon THE CANADIAN MANUFACTURER put itself into communication with a large number of manufacturers, nearly all of them members of the Canadian Manufacturers' Association, asking their views in the matter. The circular stated that a number of manufacturers were becoming uneasy over the report that there was a probability of the Dominion Government making a still further reduction in duties than the present 25 per cent. in favor of Great Britain, their opinion being that to do so would be exceedingly injurious to their interests—that they were fairly well satisfied with the tariff as it now is, and that it would be unfortunate to disturb the existing status.

This letter brought a large number of replies from manufacturers in all parts of the country engaged in nearly every important line of industry, the gist of which is here reproduced, the great differences of opinion expressed upon the subject being most remarkable. Following are extracts from some of the replies:—

"As far as we are concerned such a measure would simply put us out of business."

"We are not in favor of any reduction on any lines that we are interested in, as it is all we can do to keep foreigners out of the market."

"We were under the impression that the Government intended letting well enough alone. We now have our business regulated to existing circumstances, and would consider it a great blunder to make any material changes at present. Business is prospering and wages have been increased, if not by actual advances, by steady work which gives employes larger incomes than before. We would not support any changes at present, nor do we want any increase, but simply desire to allow matters to stand as they are."

"It would be a disastrous blow to many interests, certainly to ours, if the preferential tariff is still further augmented. If the rumor should take definite shape, the Association should memorialize the Government protesting against a change which would certainly be against the manufacturing interests of the country."

"Any further reduction in duties than the present 25 per cent. in favor of Great Britain would be very injurious to Canadian manufacturers."

"We would regret exceedingly if the Dominion Government made any further reduction of duties on machinery in favor of Great Britain, as it would greatly cripple the manufacturers. While we have a most kindly feeling for the Mother Country it would be impossible, with few exceptions, for Canadian manufacturers to compete with their small plants with those of Great Britain, which are much larger, and we sincerely trust that the Government will not undertake such a rash act."

"We feel very strongly that the present reduction of duty of 25 per cent. in favor of Great Britain is as far as Canada ought to go. It is very evident that if the duties are to be changed at all it should be raised against the products of the United States."

"Should any further reduction be made on goods imported from Great Britain it would be very injurious to us. We are satisfied with the present rate and cannot understand why the Government should change it. It would simply mean closing our principal department. You could not do better than to disabuse the minds of those who are seeking a reduction that it would be a benefit to the country."

"We are decidedly in favor of our Government maintaining at least the present tariff with respect to imports from Great Britain. We are certainly not in favor of any reduction."

"We do not think that the Government should open the matter at the present time."

"We take exception to the statement that our manufacturers are fairly well satisfied with the tariff as it now exists. We are entirely opposed to the system of preferential trade and of gradually reducing the protection we enjoy as between Canada and Great Britain or any other country. We urge

that those who represent Canadian manufacturers will strongly protest against any change in the tariff."

"We are in entire sympathy with the tariff preference to Great Britain, and would favor a further reduction upon British goods, as we feel that we would be willing to sacrifice whatever effect this would have on our business for the further cementing of the British Empire. We would be in favor of a higher tariff against American goods, as in times of depression we feel very seriously the effect of their using Canada as a dumping ground."

"We are of the opinion that the Dominion Government would be benefitting the majority of the manufacturers by a further reduction in duties on British goods. We would like to see free trade between the two countries."

"If a further reduction of duties be made in favor of Great Britain it would not hurt us nor any of the large army in this country at work in the various lines similar to ours. On the contrary, we are of the opinion that a reasonable reduction on British materials would help us and many other of the more important industries in Canada. Most of our more important industries are well fixed and prosperous. As far as we have discussed the present tariff with other manufacturers, including those of every shade of politics, the opinion is general that the tariff as it now stands is better than ever before for nine-tenths of all the manufacturers of the country."

"We are not sure that a further reduction in duties in favor of Great Britain would be directly opposed to our interests, as our products do not come in competition with British manufactures to any great extent, while on the other hand we use materials made in Great Britain. We are in favor of protection to our manufacturers and opposed to the reduction of duties, and would rather not see any disturbance of the tariff."

THE INDUSTRIAL EXHIBITION ASSOCIATION.

The Industrial Exhibition Association of Toronto, was incorporated by Act of the Ontario Legislature on March 11, 1879, under which an organization was had which included twenty different bodies with sixty representatives. Since then additions have been made so that at this time there are ninety-four members representing thirty-five bodies. The associations, societies, etc., embraced in the Industrial Exhibition Association, and the numbers of their representatives are as follows:—Toronto City Council, 14 members; Toronto Electoral District Society, 12; Ontario Bee-keepers' Association, 1; Ontario Society of Artists, 2; Lumbermen's Association, 2; Educational Department of Ontario, 2; Ontario Poultry Association, 2; Commercial Travellers' Association, 3; Dominion Millers' Association, 1; Toronto Horticultural Society, 2; Toronto Board of Trade, 3; York County Council, 3; Canadian Manufacturers' Association, 5; Toronto Poultry Association, 2; Toronto Natural History Society, 2; Canadian Institute, 2; Ontario College of Pharmacy, 2; Ontario Veterinary Association, 2; Ontario Fruit Growers' Association, 2; Butter and Cheese Association of East Ontario, 1; Butter and Cheese Association of West Ontario, 2; Clydesdale Association of Canada, 2; Shire Horse Association, 1; Hackney Horse Association, 1; Canadian Horse Breeders' Association, 2; Dominion Short Horn Breeders' Association, 2; Dominion Holstein Breeders' Asso-

ciation, 2; Dominion Ayrshire Breeders' Association, 2; Canadian Jersey Breeders' Association, 2; Hereford Breeders' Association, 1; Dominion Sheep Breeders' Association, 2; Dominion Swine Breeders' Association, 2; Toronto Gardeners' and Florists' Association, 2; Dominion Draft Horse Breeders' Association, 2; Dominion Cattle Breeders' Association, 2; Toronto Educational Association, 2. Total, 94.

This distribution gives 3 members to the agricultural and allied industries; municipal, educational and similar interests are represented by 25 members, and manufacturing and commercial interests by 14 members.

There are at present 19 members of the Board of Directors, distributed as follows:—Toronto City Council, 2; Toronto Electoral District Society, 5; Toronto Horticultural Society, 1; Toronto Board of Trade, 2; Canadian Manufacturers' Association, 3; Toronto Poultry Association, 1; Ontario Veterinary Association, 1; Ontario Fruit Growers' Association, 1; Shire Horse Breeders' Association, 1; Dominion Short Horn Breeders' Association, 1; Gardeners and Florists' Association, 1. Total, 19.

This distribution gives 12 members to the agricultural and allied industries; to municipal interests, 2 members, and to manufacturing and commercial interests, 5 members.

In the opinion of Mr. Thorn, who is one of the representatives of the Canadian Manufacturers' Association, there should be a new deal in the selection of directors which should apportion them as follows:—Toronto City Council, 5; Canadian Manufacturers Association, 5; the agricultural and stock breeding industries, 5; the Ontario Society of Artists, 1; the Fruit Growers, 1; Gardeners and Florists, 1; the Natural History Society, 1; and the Toronto Trades and Labor Council, 1. Total 20.

A BAD OUTLOOK.

The Mail and Empire publishes a most lugubrious editorial calling attention to the outrageous taxes about being imposed upon the taxpayers of Toronto. "Upwards of twenty-two mills on the dollar," it says, "is the astounding rate that will have to be levied to raise the portion of the revenue that is this year to be raked off the general assessment. It is time that some voice should be raised in the name of the public to forbid the City Council starting out on this scale of confiscation." This augurs badly for the vote of \$160,000 that the directors of the Industrial Exhibition Association and their friends hope to obtain from the city of Toronto to enable the construction of additional buildings and the rejuvenation of the old ones upon the Fair Grounds in anticipation of the four weeks of solid enjoyment they hope to present to the public next year. The management of the Exhibition is in incompetent hands, according to Mr. J. O. Thorn, who has investigated the matter in the interests of the Canadian Manufacturers' Association, and who tells us that unless some radical changes are made and a great deal of money spent upon necessary improvements, a very large number of manufacturers who have heretofore exhibited their products there will hereafter be among the missing. What is to be done? We are face to face with an imperative demand that the fossils on the Board of Directors shall, some of them, give way for live men who will manage the business on different principles than have prevailed for some years past, and we are told that unless large sums of money are spent as indicated,

the Fair will stand discredited with, Mr. Thora says, perhaps ninety per cent. of the manufacturers of agricultural machinery and some kindred lines. Dependence is had upon the City Council to supply the money needed, and now The Mail and Empire is telling us that the property of the ratepayers is being confiscated by the taxes about being imposed. Under the circumstances the outlook is not encouraging for the passage of a by-law to raise \$160,000 this year for the Industrial Exhibition.

NEW ONTARIO.

The importance to Canadian manufacturers generally and to those of Ontario, particularly, of the efforts that are being made to develop what is known as "New Ontario" does not receive the consideration it deserves. As heretofore alluded to in these pages, Premier Ross has declared it to be a prominent feature of his Government's policy, the encouraging of the opening up to civilization of the millions of acres of rich agricultural and mineral lands included in that section of the Province of Ontario lying north and west of Lake Superior, and he will no doubt make his word good by granting liberal bonuses towards the building of railroads, highway roads, bridges, etc., looking to the development of the country. New Ontario, as the region is called, contains about 120,000,000 acres of land. The whole province of Ontario contains about 12,000,000 acres under cultivation. To supply the wants of the people who live in the sections in which these cultivated lands lie, requires the investment of hundreds of millions of capital in manufacturing enterprises, and the employment of thousands of skilled workmen and artisans. What would it mean to the country, the opening up of only ten per cent. of the available agricultural lands of New Ontario. What would it mean to our manufacturers to supply the demands that would exist from the very beginning in opening up these lands? In every step of the development the products of our manufacturing and industrial establishments would be in demand, and it would be found that even at our very doors a market existed more valuable than any that could be found in more distant places. Mr. Ross has the perspicacity of the true statesmen in opening a door to our manufacturers for the disposal of their products at home.

On a recent occasion a large and influential delegation waited upon the Government asking that a land grant be made in aid of the construction of the Algoma Central Railway, to be run from Sault Ste. Marie to Missanabie, a point on the Canadian Pacific Railway about 200 miles from the "Soo," including a branch to Michipicoten. The promoters undertake, if the land grant is made, to employ some 5,000 hands along the line of the road, not only in its construction but also in some of the many industries in which they are interested. This railway is one of the many enterprises which certain capitalists, among whom is Mr. F. H. Clergue, have in contemplation, and who expect to make expenditures on investments in the near future amounting to perhaps \$15,000,000. These are the parties who are now erecting smelting works at Sault Ste. Marie for the refining of nickel, etc., and who will also probably build mills for the production of steel rails, structural shapes, etc.

Another enterprise in which our manufacturers are interested is the construction of the Thunder Bay, Nipigon and

St. Joe railway, to extend from Port Arthur, the head of navigation on Lake Superior, to Lake Nipigon, a distance of eighty miles, thence to Lake St. Joseph, where there are immense beds of lignite, and on to the Albany river.

If proper conditions are imposed there is no reason why the Ontario Government should not make the grants of land requested. If the roads are not built the title to the lands would remain in the Government. If the roads are built the lands would be thrown open to settlers on very easy terms. If the roads are built and immigrants flow thitherward, their wants must be supplied. The building of railroads, the settling of lands, the mining of ores and other minerals, the development of water power, the conversion of spruce forests into paper, and a thousand other things, all imply investment of capital and employment of skilled labor in manufacturing enterprises.

The prospects of our manufacturers are bright for supplying the present and prospective wants of New Ontario.

THE ASSOCIATION'S CATECHISM.

The Canadian Manufacturers' Association sent out a circular letter a few days ago to a number of its members propounding a number of questions having reference to preferential trade, asking expressions of opinion thereon. Following is a copy of the circular:

TORONTO, March 31, 1900.

DEAR SIR:—The Canadian Manufacturers' Association, realizing the very great importance of all tariff changes to the manufacturers in Canada, desires to obtain as full and accurate information as possible respecting the probable effects of the proposed extension of the preference on British goods coming into Canada from 25 per cent. to 33½ per cent.

To you, as a manufacturer, this letter is addressed, to ascertain what are your views as to the probable effect on your particular business, of the proposed changes.

In order to give this information some uniformity, certain leading questions have been drawn up, and if you feel interested in question, kindly answer these questions as concisely and accurately as possible, and return your reply at least not later than April 5th, as no time should now be lost.

- 1st.—What line of goods do you manufacture?
- 2nd.—How many men do you employ?
- 3rd.—How has the twenty-five per cent. preference tariff affected your business?
- 4th.—How do you think the proposed increase to 33½ per cent. will affect your business?
- 5th.—Do you find that in your line of business foreign goods coming into Canada get the benefit of the preference intended for British goods only?
- 6th.—Do you consider that the requirement that twenty-five per cent. of the labor expended in the manufacture of an article shall be British in order to entitle it to the preferential tariff, is satisfactory? If not, what proportion do you think should be required?
- 7th.—How would you view any proposition to extend the benefit of such a preferential tariff to the United States?
- 8th.—Would you be in favor of urging upon the Government the advisability of not dealing with the tariff every year, but of only revising it at certain stated intervals?
- 9th.—Have you any other points of interest?

The Canadian Manufacturers' Association is approaching these questions upon strictly non-political lines, looking solely to safeguard the manufacturing industries of Canada, and your opinion and criticism are most cordially invited.

EDITORIAL NOTES.

The Canadian Manufacturers' Association indulged in a banquet a few days ago at which about forty persons were present, including a number of invited guests who were not manufacturers. Some interesting addresses were made, in one of which Mr. Rolland complimented the Association on having at last awakened to their interests; and in another Mr. Pattinson stated that nearly all the changes which had been heretofore made in the tariff were on the advice and suggestions of the Association.

It is announced that a general meeting of the Canadian Manufacturers' Association will be held in a few days to obtain a consensus of opinion of the members respecting the increase of the tariff preference towards British goods. In another page THE CANADIAN MANUFACTURER presents a symposium of such views which may be of interest to the Association and to manufacturers generally. In fact, several days before the meeting was announced, the correspondence was offered to the Tariff Committee for the information of the Association. Without doubt some of our manufacturing industries will be hit very hard by the increased preference, notably the woolen and other textiles, and also linseed oil, while some others will be benefitted. It would be well, however, for the Association to inform the Government of the views of its members regarding the matter.

We notice that the Retail Merchants' Association, of Toronto, imported a so-called "Senator" from Chicago to help them denounce The T. Eaton Co., one of the largest manufacturing concerns in Canada, because they operate a departmental store; and we also notice that the same Association are doing all in their power to influence the Ontario Legislature to enact just such an infamous law as that recently declared unconstitutional by the Supreme Court of the State of Missouri, but we do not notice that either the Parliamentary Committee or the Trade and Industry Committee of the Canadian Manufacturers' Association, or even the Association itself, is doing anything to counteract a move that to a certain extent injuriously affects many of the manufacturing industries of the country.

Referring to the increasing value of spruce limits in connection with the paper industry, the Premier of Quebec recently stated that spruce limits which sold for \$8 per mile in 1892 brought \$150 a mile when sold by the Government last year. In the Province of Quebec thirty million acres of timber limits have been licensed, while it is estimated that there are still unlicensed 100,000,000 acres in the old part of Quebec and 70,000,000 acres in the new part recently added to the province. And most of this is timbered with black spruce, the most valuable of all woods for pulp and paper purposes. We do not know how Ontario's spruce limits compare with those of Quebec, but they are very extensive. Canada possesses without doubt a greater supply of the raw material of the paper manufacturer than any other country in the world. And as yet the Dominion Government has done nothing to take advantage of our unique position. A sound protective policy would soon cause Canada to become not only the greatest pulp producing but the greatest paper producing country in the world.—The World.

The bill in equity filed by Henry C. Frick against Andrew Carnegie and the Carnegie Steel Co., Limited, recited that the business from 1892 to 1900 was enormously profitable, growing by leaps and jumps from year to year, until, in 1899, the firm actually made on low-priced contracts, in net profits, after paying expenses of all kinds, \$21,000,000. In November, 1899, Carnegie estimated the net profits for 1900 at \$40,000,000, and Frick then estimated them at \$42,500,000. Carnegie valued the entire property at over \$250,000,000, and avowed his ability in ordinary prosperous times to sell the property on the London market for £100,000,000, or \$500,000,000. In May, 1899, Carnegie actually received in cash and still keeps \$1,170,000, given him as a mere bonus for his ninety days' option to sell his 58½ per cent. interest in this steel company for \$157,950,000. Frick's six per cent. on that basis would be worth \$16,238,000.

Assistant-Secretary Spaulding, of the United States Treasury Department, has announced that he would not decide the question of the dutiability of electricity brought into the United States from Canada. He admitted that he did not feel justified in taking up the matter at this time, and it is probable that the question will never be passed upon. Several weeks ago persons in Buffalo directed an enquiry to the Treasury Department asking if the Ontario Power Company at Niagara Falls, Ont., should not be required to pay duty on the electric current generated on the Canadian side, transmitted across the border, and sold for light and power to consumers in the United States. Several years ago, when Mr. Tichenor was Assistant Secretary of the Treasury, an enquiry was received from a party asking if a duty would be levied on electricity in case he should establish a plant in Canada, and sell it to consumers in the State of New York. He was told that no duty would or could be collected, and Assistant-Secretary Spaulding now decides that he can find no reason for reversing that decision.

The special spring number of the Architect and Builder, which has just been issued, contains a number of fine engravings, showing the dining room and upper corridor of the Royal Hotel at Hamilton, besides giving several excellent views of the interior of Mr. W. S. Andrew's residence, Rosedale. The most striking feature of the issue is the fine display of designs and illustrations to be found on the special page devoted to the use of the members of the Architects' Eighteenth Club.

Among the more prominent features of the April Scribner's Magazine are:—Mr. H. J. Whigham, who is following the Modder River column contributes an account of the "British defeat at Magersfontein." This brings the narrative up to the time when Gen. Lord Roberts took command of the column. Mr. Whigham has had good fortune with his photographs taken on the field of battle, a number of which appear in this article. Governor Roosevelt continues his monograph on "Oliver Cromwell," with an account of the Irish and Scotch wars. The end of this campaign was the supreme military triumph of Cromwell, and the last time he had to lead an army in the field. The illustrations show a number of the battlefields as they appear to-day.

Rudyard Kipling is going to tell of "The Beginning of the Armadillos" in the May Ladies' Home Journal. Of course, Mr. Kipling brings to bear an irresistibly funny, but withal a highly ingenious philosophy in describing the peculiarities of the armadillo. He evidently found enjoyment in writing these stories—he calls them "Just So" stories—for he has interwoven more inimitable humor into his account of the way by which the armadillos came into being, and the others of the series, than in anything else that has come from his versatile pen.

Mr. James M. Swank has compiled a complete list of the consolidations of iron and steel companies which have taken place in the United States since January 1, 1898, a copy of which he has

THE CANADIAN MANUFACTURER

ESTABLISHED IN 1880.

Devoted to the Development of Canadian Trade,
Foreign and Domestic.

THE INTERNATIONAL BUREAU OF COMMERCE

... OF CANADA ...

In connection with The Canadian Manufacturer, works to attain this end.

Any inquiry addressed to THE CANADIAN MANUFACTURER will result in placing the writer, if he so desires, in communication with Manufacturers, Buyers or Sellers of any sort of merchandise in Canada or any other country.

Merchants, Importers, Exporters, Boards of Trade, Chambers of Commerce and Commercial Organizations in any part of the world are invited to make full use of the facilities afforded by THE CANADIAN MANUFACTURER whenever they may desire information about any article produced in Canada, Tariff Law, Customs Regulations, Routes of Transportation, etc.

We especially request Canadian manufacturers to send us lists of the different lines of goods produced by them so that we may address to them special letters of inquiry as soon as information is received by us.

WE DESIRE NAMES AND ADDRESSES:

Of parties dealing in ground glass and flint sand used by manufacturers of sand paper.

Of manufacturers of machinery for making closet seats

We have information, principally from buyers, that is valuable to manufacturers who desire to increase their trade in the British and foreign markets, that will be furnished on application. If you find any item in this list which is changed every issue, that you are interested in, write to us. If you see an item that does not interest you but would be of value to some friend, kindly inform him or us.

AUSTRALIA.

Bicycles,
Builders' Hardware,
Household Hardware,
Machinists' Tools,
Engineers' Supplies,
Dairy Appliances.

Paints,
Varnish,
Patent Medicines,
Photographic Supplies,
Stationers' Sundries,
Kitchen Utensils.

AUSTRIA.

Bar Iron and Steel.

[Pig Iron.

BRAZIL.

Stoves for Office and Parlor use. [Surgical Instruments.

BRITISH NORTH BORNEO.

Axes,
Axe Handles,
House Furnishing Articles,
Harness,
Fancy Goods,
Confectionery,
Drugs.

India Rubber Goods,
Glassware and Crockery,
Watches,
Graphophones,
Rope and Twine,
Provisions.

BELGIUM.

Machine Tools,
Machinery for Mines and Quarries,
Machinists' Tools.

Dry Wood Pulp,
Cellulose,
Wove and Laid Writing Paper.

CHINA.

Builders' Hardware,
Pig and Bar Iron,
Cotton Goods (2),
Engines and Boilers (2),
Electrical Machinery & Supplies (2),
Machinery, all kinds,
Doors, Sash and Blinds,
Metal-working Machinery,
Factory Fittings,
Boiler,
Bicycles (2),
Rubber Shoes,
Pumps, all kinds,
Watches and Clocks,
Graphophones,
Writing Paper and Envelopes,
Leather Binding,
Electric Light Fixtures.

Milling Machinery,
Cutlery,
Paints,
Varnish,
Oils,
Wood working Machinery,
Mining Machinery,
Printers' Machinery,
Windmills,
Corrugated Iron,
Blankets and Woollens,
Umbrellas and Canes,
Rubber Clothing,
Trunks and Travellers' Requisites,
Watches and Clocks,
Shoe Leathers,
Paper for Printing, Wrapping and Writing.

DENMARK.

Gas and Oil Engines,
Bicycle Steel,
Machines for making Organ Reed Boards,
Excelsior-making Machinery.

Whitewood in Boards,
Delivery Wagons,
Corn Oils,
Lubricating Oils.

ECUADOR.

Ropes and Twine,
Cotton Goods.

Stationery,
Hosiery and Underwear.

FRANCE (Colonial).

Gents' Furnishings and Haberdashery Lines.

GERMANY.

Bar Iron and Steel,
Wire and Cut Nails,
Cereals,
Leather.

Fertilizers,
Tanners' Chemicals,
Watches.

GREAT BRITAIN.

Wood-working Machinery, all kinds (2),
Canned Fruits,
Canned Goods (2),
Bottled Goods (2),
Confectionery, both bulk & fancy (3),
Hams, Bacon and Lard (2),
Canned Meats (2),
Cheese (2),
Butter,
Tobacco,
Grains (crushed) for Poultry,
Glucose (3),
Farma Glue,
Dry Goods' Notions,
Doors, Sash, Blinds,
Mouldings, Mantels,
Stair Work,
Building Materials,
Rolled Oats and Oatmeal.

Peas,
Farina (potato flour),
Flour,
Salmon,
Wood Pulp Boards,
Card Boards and Papers,
Corn Oil,
Acetate of Lime,
Cotton Duck,
Corn Starch,
Dowels-birch—2 and larger,
Mouldings, for Picture Frames,
Chair Parts, birch and oak,
Oats,
Groceries,
Bicycles,
Electrical Machinery,
Office Supplies,
Printing and Wrapping Papers,
Electrical Instruments.

JAPAN.

Mining Machinery.

[General Government Supplies.

MEXICO.

Machinery for Making Tin Cans suitable for packing Meats and Lard.

NORWAY.

Sewing Machines,
Bicycles,
Typewriters.

[Radiators,
Elevators.

RUSSIA.

Boots and Shoes,
Leather,
House Furniture,
Groceries,
Matches,
Metallic and Glass Products.

Flour,
Photographic Materials,
Edge Tools,
Mechanics' Tools,
Stoves,
Hollow-ware.

SOUTH AFRICA.

Drugs.

[Patent Medicines.

SWEDEN.

Agricultural Implements,
Bacon.

[Sole Leather.

TURKEY.

Cotton Goods.

[Calicos.

Preserve this Bulletin for Reference—it will not be Duplicated.

If You want Information, Ask for It.

Address, THE CANADIAN MANUFACTURER, Toronto, Canada.

sent us. The list is confined to the consolidations which embrace the ownership of blast furnaces, rolling mills, steel works, tinplate works and auxiliary industries. It forms a supplement to the last edition of the directory to the Iron and Steel Works of the United States, which appeared in 1898, a copy of which is presumed to be in the hands of every enterprising iron and steel manufacturer. The supplement contains an authorized description of the organization of each of the consolidations mentioned in its pages, giving its capitalization, list of officers, general office address, and list of properties owned or operated by it, with the names of previous owners of iron and steel works. The name and the character of every plant are fully stated. For detailed information concerning the plants mentioned and their products reference is given to the page or pages in the Directory in which they are fully described. Iron ore mines, coal mines, coke ovens, railroads, and lake vessels owned by the consolidated companies are also given in sufficient detail. The supplement is printed and bound in uniform style with the Directory. In every respect it forms a valuable desk companion to that work. To add to its value as a convenient reference it has been interleaved with fine writing paper, affording facilities for such memoranda as the owner of the volume may at any time desire to make. The price of the Supplement is \$2 per copy.

In the Methodist Magazine and Review for April Sir John Bourinot concludes his admirable series of four well-illustrated articles on "Canada during the Victorian Era." An illustrated scientific article, by Professor Dionne, on the "Beginning and Probable Age of the Niagara Gorge," will be read with much interest. The war is fully treated in illustration and context, including a striking article on "The South African Conspiracy Against British Rule," by Canon Wirgham, of Grahamstown. A strongly written Canadian story, "From the Hills of Algoma," by Maude Pettit, begins well. A striking Easter character is given this number by pictures, poems, Easter stories, legends of the Saviour, and Easter readings. Toronto. William Briggs. \$2.00 a year.

Outing, which has passed into the hands of a strong company of enthusiastic sportsmen, comes to us in April in a handsome new cover. The new pilot, Caspar Whitney, takes his readers through fresh routes, but the port is the one he has ever steered for: Sport for its own sake, and the purity of it; and travel and adventure that make for a nation's virility. Such results follow from "Racquets and Tennis," which Eustace H. Miles discusses; from "Trailing the Sea-Bat" as did Dr. Holder; from following "The Wake of the Bird Lover," "Trouting in Shadow Brook," "Hunting the Big Horn in the Colorado Desert," "Overhauling Your Own Yacht," "Automobiling for Recreation;" on "Forest Preserves," from Gifford Puchot, Chief Forester of the United States.

OPPORTUNITIES FOR CANADIAN TRADE.

The following enquiries have been received at the office of the High Commissioner of Canada in London, England.

NOTE—Those who may wish to correspond with any of these enquiries can obtain the names and addresses by applying to THE CANADIAN MANUFACTURER, Toronto. No charge for giving information. When writing refer to the numerals opposite the enquiries.

170. A merchant in Cape Town asks to be referred to Canadian exporters of timber, cereals, dairy produce, etc.

171. Enquiry has been received from a Glasgow firm for names of producers or exporters of wood meal (wood powder) from Canada.

172. A Strassburg (Germany) firm enquire for names of reliable Canadian shippers of hay and compressed forage and apples.

173. A large furniture firm at Antwerp, importing different kinds of hardwood lumber, would like to be placed in communication with a Canadian house.

174. Enquiry is made for names of a few Canadian manufacturers who may desire to appoint a representative for Great Britain by a person who has had experience in the metal and hardware business.

175. The publishers of an Imperial Exporters' Guide and Directory desire to have the names of engineers and officials concerned in the importation into Canada of materials for government works, the object in publishing such information being to bring buyers into direct contact with the manufacturer.

176. A Glasgow merchant has asked to be referred to Canadian houses desiring to appoint a buyer in the British market.

177. An agent in Toronto desires to know of some English firms who wish to be represented in that city.

178. A Canadian firm is anxious to secure the services of an agent in Great Britain who will work on a commission basis for the purpose of introducing a line of patented screwless door knobs and locks.

179. A Canadian firm manufacturing plumbers' and steam-fitters' supplies, consisting of brass globes, angle and check valves, gate valves, brass tops, etc., are desirous of opening up a trade in England in these classes of goods.

180. A firm of spirit merchants in Holland desire to appoint a responsible agent in Canada for the sale of their goods.

181. Another enquiry has been received for names of packers of fruit pulps (raspberry, black currant, gooseberry) and tomatoes.

182. Canadian butter and cheese shippers selling their goods on this side on commission are invited by a Glasgow firm to consign direct.

183. Broom handles, hoe handles, and shovel handles are required in basswood and white pine, and Canadian shippers are requested to quote prices per carload.

184. Enquiry has again been made respecting the demand for hop poles from the Maritime Provinces of Canada.

185. Enquiry is made for the names of a few houses in the dry goods trade who desire representation in Canada.

186. A Canadian gentleman interested in developing a property in Ontario, desires to negotiate with any firm who would join him in the pressing and sale of moss litter of which large quantities are available on the estate.

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CAPTAINS OF INDUSTRY.

The following items of information, which are classified under the title "Captains of Industry," relate to matters that are of special interest to every advertiser on these pages, and to every concern in Canada interested in any manufacturing industry whatever, this interest extending to supply houses also.

If a new manufacturing enterprise of any kind is being started, or an electric lighting plant instituted, or an electric railroad, or a telephone, or a telegraph line is being constructed; or a saw mill, a woolen, cotton, or knitting mill; or if any industrial establishment has been destroyed by fire with a probability of its being rebuilt, our friends should understand that possibly there may be something in the event for them. Do you catch on to the idea?

The starting of any such concern means a demand for some sort of machines, machinery, or supplies, such as steam engines and boilers, shafting, pulleys, bolting, lubricants, machinery supplies, wood or iron working machinery, ventilating and drying apparatus; pumps, valves, packing, dynamos, motors, wire, arc and incandescent lamps and an infinite variety of electrical supplies, chemicals, acids, alkalies, etc. It is well worth the while of every reader of the Canadian Manufacturer to closely inspect all items under the head of Captains of Industry.

The C. P. R. will erect a new station at McAdam Junction, N.B., to cost \$30,000.

Preston, Ont., will issue debentures for \$4,000, to loan the Mineral Springs Furniture Co., of that place.

An electric plant will be established in the town of Wheatley, Ont.

The McCormick Harvesting Co., Winnipeg, Man., will erect a large warehouse.

W. Forest, Atwood, Ont., will erect a large planing mill at that place.

It has been decided to sell Knox Church, Toronto, to the Robert Simpson Co., Toronto, for \$160,000. The firm will erect a large building on the site.

The C. P. R. will erect a new elevator for clearing purposes at Fort William, Ont., with a capacity of 1,000,000 bushels.

A large factory will be erected at Rock Island, Que., by the Lay Whip Co.

The ratopayers of Prescott, Ont., have voted favoring a by-law to issue debentures to bonus the Imperial Starch Co.

The National Cycle Co., which will erect an enormous factory at Hamilton, Ont., will require an electric plant to provide 1,500 incandescent lights.

A bank building will be erected at Granby, Que., by the Eastern Townships Bank.

Telfer Bros., Collingwood, Ont., will enlarge their premises and add new machinery.

The Canada Envelope Co., Montreal, has applied for incorporation with a capital

stock of \$25,000, to manufacture envelopes, etc. The applicants include G. C. Wilcocks, R. W. Elliott, both of Montreal, and Arthur Wilcocks, of Richmond, Que.

The Hall Lumber Co., Detroit, Mich., will erect a wood-working factory at Sarnia, Ont.

Mr. Kemp, of the Kemp Mfg. Co., Toronto, makers of stamped tinware, etc., recently purchased the tin box factory and plant of E. Guilbault, Winnipeg, Man.

The name of the Henderson Bicycle Co., has been changed to that of the Goderich Engine & Bicycle Co.

The Dry Dock & Wrecking Co., Collingwood, Ont., has been changed to the Ship Building, Dry Dock & Wrecking Co.

The Romington Standard Typewriting Co., Toronto, has been incorporated with a capital stock of \$30,000, to manufacture typewriting machines. The provisional directors include H. H. Benedict, New York, A. F. Lobb and W. M. Whitehead, both of Toronto.

Oshawa, Ont., will issue debentures for the construction of waterworks and sewerage systems.

The Baldwin Iron Steel Co., Ottawa, has been incorporated with a capital stock of \$40,000, to manufacture engines, tools, electric plants, etc. The provisional directors include G. G. Roe, J. H. Gervan, and William Edwards, all of Ottawa.

The Canadian General Electric Co., Toronto, will erect a large brick and steel building. Tenders are invited for the work.

The Electrical Maintenance and Construction Co., Toronto, has been incorporated with a capital stock of \$50,000, to acquire the business of the Electrical Maintenance & Construction Co. The provisional directors include P. H. Patriarche, H. L. Dunn and P. D. Bell, all of Toronto.

The Woltz Mfg. Co., Toronto, has been incorporated with a capital stock of \$40,000, to manufacture room mouldings, picture frames, etc. The provisional directors include George Woltz, T. I. Seburn and J. H. Eyer, all of Toronto.

K Ludloff, a German geologist who, since last summer, has been living in Cariboo, B.C., in the interests of Russians, who wish to replant the fir forest of Latonia from British Columbia cones, has made a discovery of great importance. Herr Ludloff is in the camp on Woodpecker Island, on the Fraser River, a considerable distance above Quesnelle, where he has been collecting seeds. While doing so he is said to have discovered extensive deposits of gold-bearing conglomerate, intersected by veins of quartz bearing gold and iron pyrites, similar to the gold in the Transvaal. He has also found deposits of red hematite bearing free gold. This find is in the Upper Fraser Valley, about twenty or thirty miles south of Fort George.

Through its local agency in Buffalo, N.Y., the Westinghouse Electric Mfg. Co., of Pittsburg, Pa., has received a big contract for work in process of construction at Shawinigan Falls, Que. The Pittsburg Reduction Co., of Niagara Falls, N.Y., is building a plant there with a capacity of 5,000 horse power for the manufacture of aluminum, and has awarded to the Westinghouse Company a contract for four generators of 1,250 horse power each. The Shawinigan Water & Power Co., has contracted with the Westinghouse Company for two generators of 5,000 horse power each, to be used in the manufacture of electric power for its customers. Other contracts in connection with these industries will be let to the Westinghouse people later.

The Victoria Paper Box Co., Toronto, has been incorporated with a capital stock of \$20,000, to manufacture paper boxes. The provisional directors include A. E. Gazlay and A. E. Rea, both of Toronto.

The Lake Deschennes Milling Co., Hull, Que., will erect a new flour mill near Sturgeon Falls, Ont.

INGERSOLL-SERGEANT Rock Drills

FOR MINES, TUNNELS AND QUARRIES

PISTON INLET Air Compressors

STRAIGHT LINE
 DUPLEX and
 COMPOUND.

FOR ALL DUTIES.

... COMPLETE MINE EQUIPMENT ...

JAMES COOPER MANUF'G CO., Limited, - 299 St. James St., Montreal.

Other Offices - - - ROSSLAND, B.C. RAT PORTAGE, ONT. HALIFAX, N.S.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

Mr. Thomas Willson, of St. Catharines, Ont., and Mr. Sutherland, have started the construction of large carbide works at Chicoutimi, which will employ from 200 to 300 hands. It is estimated that some \$2,000,000 capital will be employed in the works.

Turnbull and Russell, elevator builders, will erect a four storey brick factory in Toronto, in which they will instal now and up-to-date machinery.

Messrs. A. E. Breckles and H. Matthews, pipe organ builders, Woodstock, Ont., have decided to erect a factory in Toronto.

Sir William Van Horne and James Hutchison, of Montreal, B. F. Pearson and Chas. H. Cahon, of Halifax, and other Canadian capitalists interested in the Demarara Electric Co., have gone into another similar but larger enterprise. Mr. Cahon, who has spent some months in the south, says that after inspecting the progress of the work in Georgetown he went to Trinidad and obtained an exclusive franchise to operate electric railways and furnish electric light and power to the city of Port of Spain and the suburbs to the distance of five miles. The necessary legislation is now about through the Legislature, and operations will begin at once. The capital of the Trinidad Company will be \$1,000,000.

The Academy of Music, Quebec, Que., was recently destroyed by fire. Loss about \$80,000.

Sadler & Haworth, the leather bolting manufacturers of Montreal and Toronto, have just completed a mammoth leather belt for the Ogilvie Milling Co., at Winnipeg, Manitoba. This belt is the largest ever made in Canada. Its width is seventy-two inches; its length is 115 feet; its thickness is three-ply, and its weight 2,250 pounds. The same firm also recently furnished two 48-inch three-ply belts for the Standard Electric Co., Montreal; a 38-inch belt for the London Light Co., and several wide three-ply belts for saw mill use in the north. This is certainly a growing time.

W. R. Johnson & Co., Toronto, will erect a large warehouse five storeys high and estimated to cost over \$75,000.

The McLachlan Electric & Gasoline Motor Co., Toronto, claim to have perfected a gasoline engine that runs without vibration, thus saving twenty-five per cent. in power. It can be run from 100 to 1,000 revolutions per minute, as smoothly as an electric motor, thus making it invaluable

for carriages, boats, busses, drays, railways and in fact for anything where power is required at a minimum cost. The engine may be seen in operation at the works at 94 Adelaide street west, Toronto.

H. B. Meech, a Boston man, has been looking over North Sydney, N.S., in quest of a suitable site for a large copper smelting works, which are to cost about \$150,000.

Mr. J. A. Culverwell, electrical and hydraulic engineer, well known in those circles in Toronto and Ontario, has been appointed managing director of The Central Ontario Power Co., whose head offices are at Peterborough, Ont. This company are the owners of the Burleigh Falls power transmission system, located near Peterborough, the president of the company being Hon. Richard Harcourt, and the vice-president F. A. Hall, Esq., of Perth, Ont., who, with Hon. Senator Peter McLaren and Mr. Culverwell, are the chief directors. Mr. Culverwell has already assumed the duties of his position with headquarters at Peterborough, and is to be congratulated upon obtaining the important position he now holds. His company will soon be in a position to offer very cheap power to manufacturers, and Peterborough bids fair to become an active rival with Hamilton as an important manufacturing centre.

Kirkpatrick & Co., Nelson, B.C., will erect a \$35,000 block in that town.

The Malted Cereals Co., will build a factory in Montreal.

The Rat Portage Lumber Co., will erect a large saw mill at Winnipeg, Man.

A flour mill is being erected at Yorkton, N.W.T., by John J. Smith.

Leslie & Wilson will erect a flour mill at Saskatoon, Man.

The Georgian Bay District in Ontario has suddenly assumed very large proportions as a lumber producer, and the output this year will nearly double that of any previous year. This is owing to the fact that the Ontario Act prohibiting the exportation of logs has resulted in the transfer of Michigan lumber mills to the Georgian Bay District. The estimated lumber output of the Georgian Bay mills for 1900 is 480,000,000 feet. These figures were obtained from well-informed lumbermen on the ground, and are believed to be conservative. It is expected that fully 100,000,000 feet of lumber manufactured in the Georgian Bay District will be imported to the Saginaw

river, Michigan, during the coming season. Mershon & Co., of Saginaw, have bought 20,000,000 feet of logs of the Arthur Hill Co., which will be manufactured at Midland, Ont., and the lumber brought across the lake to Saginaw. Scheutee & Co., have bought 5,000,000 feet to be manufactured in Canada, and a number of other Saginaw lumbermen have made or will make purchases of lumber in that district.

Canadian Typewriter Exchange, 45 Adelaide street east, Toronto, inform us that they have taken over the business of Mr. Chas. E. Archbald, in typewriters of all makes, repairs, rentals, supplies, card index system and duplicators, which will be carried on at the old address. They have been appointed sole agents for Canada for Mr. A. P. Little's celebrated "Cobweb" and "Satin Finish" Carbon and his Brilliant Ribbons can be had for all makes of typewriters.

The Canadian Pacific Railway Co. will erect at Winnipeg, Man., a combined station, tram shed and hotel to cost about \$800,000.

Canadian Motors, Toronto, has been incorporated with a capital stock of \$90,000, to manufacture motors, engines, batteries, appliances, etc., connected with electricity, gas, light, heat and power. The directors are J. T. Smith, J. D. Wright, P. J. Dwan, W. A. Bradshaw and T. A. Rowan.

Messrs. Price Bros. & Co., of Quebec, who have sawmills at Amqui, Metan, Metis, and Trois Pistoles, are about to erect a large mill at Rimouski, where they will saw deals for the European market and ship the side board and laths to the United States when the price will warrant it.

United States Consul Goding, at Newcastle, N.S.W., writes to his government that through the efforts of his office buggies manufactured in the United States have been introduced into that country. By the outgoing mail there were ordered six different styles of buggies. The orders are each accompanied by a draft for the amounts. What are our Canadian manufacturers doing towards capturing the Australian market for their goods?

Mr. Mark Workman, Montreal, clothing manufacturer, has received an order from the British War office for 30,000 grey freize army overcoats, 20,000 khaki sergo jackets and 20,000 khaki sergo trousers. These goods are for the use of the British army in South Africa, and are to be ready for shipment within three months.

JOHN HANCOCK BLDG., BOSTON, November 6, 1899.

N. ENG. BRANCH CLING-SURFACE MFG. CO.

We have been using Cling-Surface for seven months and are now running our dynamo and other belts slack. We take pleasure in saying that Cling-Surface is giving the best satisfaction. JAMES STACKHOUSE, SUPT.

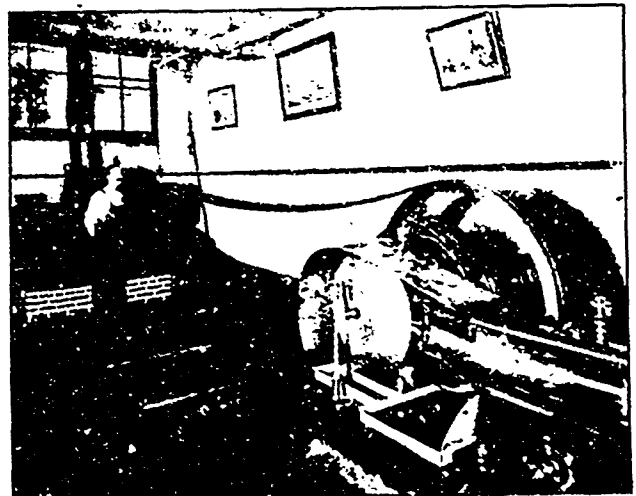
Cling-Surface Does These Four Things :

- 1.—STOPS SLIPPING.
- 2.—INCREASES POWER.
- 3.—RELIEVES INITIAL TENSION.
- 4.—PRESERVES THE BELT.

If it fails to do these you Pay Us Nothing.

CLING-SURFACE MFG. CO.

N. Eng. and E. Can. Branch: 120-126 Virginia Street,
170 Summer St., Boston. BUFFALO, N.Y.
New York Branch: Chicago Branch:
253 Broadway. 225 Dearborn St.



When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

The E. B. Eddy Co., Hull, Que., has issued the following circular.—Until the South African War is ended we shall voluntarily tax ourselves half a cent on every gross of boxes of sulphur matches we sell from February 1, 1900, and will pay over the amount so raised to the Canadian Patriotic Fund on behalf of the Canadian Volunteers at the front or to help those whom any of them may have left behind at home who may be in need of help or comforts.

A gas generator in the works of the Liatowl, Ont., Gas & Electric Light Works exploded March 22, wrecking the building and doing damage to the extent of several thousand dollars.

The Western Peat Fuel Co., Chatham, Ont., has been incorporated with a capital stock of \$100,000 to manufacture peat fuel. The provisional directors include Archibald Bell, S. A. King, John Piggott, Matthew Wilson and W. D. Samson.

The Parkhill Basket Mfg. Co., Parkhill, Ont., contemplate moving to Owen Sound, and are asking that town for a loan of \$5,000. In return, they agree to invest \$10,000 in site, plant and factory.

The Stuart-Arbutnot Machinery Co., Winnipeg, Man., has been incorporated with a capital of \$49,000.

The packing house of Crawford & McGavey, Montreal, was damaged by fire April 3rd, to the extent of about \$10,000.

Mr. J. A. Auld, M.P.P., of Essex, Ont., states that there are now twenty-five factories in that section handling Canadian tobacco leaf. This means, he says, that \$600,000 a year, that used to go to the United States, now finds its way into the pockets of Canadian farmers. The consumption of the home

grown weed is growing rapidly, and last year it amounted to 9,000,000 pounds or nearly one third of the entire amount of tobacco consumed.

The capital stock of the Montreal Rolling Mills Co., has been increased to \$750,000, the new capital to be expended in enlarging buildings and placing new equipments.

The Lake of the Woods Milling Co., of Winnipeg, has recently filled an order from the War Office for 25,000 sacks, equal to fifty carloads, of its highest grade flour, for shipment to South Africa. The company has also received an order for a considerable quantity of its best patent from a commercial house in Durban, Natal, to be shipped via New York. The Lake of the Woods Milling Company has been shipping flour to South Africa in smaller quantities for some time, and has an established trade there.

A representative of the Nova Scotia Steel Co., was in Pittsburg a few days ago to secure bids on the construction of a large steel pier, storage pockets, and a lateral railway to reach the mines of the company at Wabana, Bell Island, Newfoundland. The Riter-Conley Mfg. Co., which is filling a \$6,000,000 contract for an affiliated concern, the Dominion Iron and Steel Co., is expected to take a large share of the work. The Pittsburgh Commercial Gazette says that it is stated that the Nova Scotia Co., has contracted with steel concerns of the Pittsburgh district to deliver 190,000 tons of ore this year.

The Consolidated Cloak Co., Toronto, has been incorporated with a capital stock of \$100,000, to manufacture clothing, etc. The provisional directors are W. S. Alley, James McLenaghan and S. R. Parsons.

The Walkerville Match Co., Walkerville, Ont., has been incorporated with a capital stock of \$100,000, to manufacture matches. The provision directors are C. J. Anderson, Peter Stemin, Alfred Lovett, George Everson and W. A. Carlson.

The Frost Wire Fence Co., Welland, Ont., has been incorporated with a capital stock of \$40,000, to manufacture wire fences, gates, etc. The provisional directors are M. H. Frost, James Brown, and H. L. Frost.

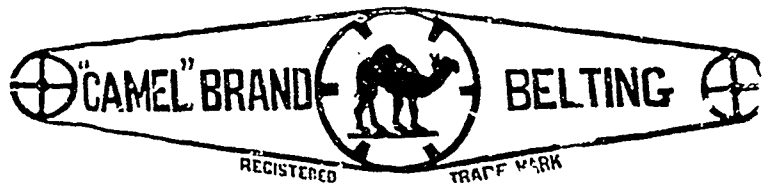
The Ontario Seed and Grain Separator Co., Guelph, Ont., has been incorporated with a capital stock of \$40,000, to manufacture seed and grain separators, agricultural implements, etc. The provisional directors are James Hower, H. H. O. Stull, Thomas Davidson, W. E. Buckingham and A. J. McPherson.

The Hamilton, Ont., Cash Register Co., of which the Hamilton Brass Mfg. Co., were proprietors, have sold out their cash register business to the American National Register Co., of Dayton, Ohio, who, it is understood, will erect a large factory in Hamilton, in which to manufacture registers for the Canadian market. The building will be 150x50 feet three stories high, thoroughly equipped with best machinery, and employment will be given to some 200 hands. The Hamilton Brass Mfg. Co., will hereafter confine themselves to the production of the lines of brass goods, etc., previously made by them.

Application has been made for letters patent by the Imperial Cotton Co., of Hamilton, Ont. Among the directors of the new concern, which is to have a capital of \$750,000, are W. D. Long, J. M. Young and Alfred Morgan of that city, and C. T. Grantham, of Yarmouth, N.S., besides a number of Toronto capitalists.

W. A. FLEMING & CO.

MILL SUPPLIES **CAMEL BRAND BELTING**
HOSE of all kinds
DRIVING ROPE
BELTING of all kinds 57 St. Francois-Xavier St., Montreal.



The Stratford Mill Building Co.,

STRATFORD, - - - - ONTARIO.

Manufacturers
of....

STEEL BOILERS—all Sizes,
THE BROWN AUTOMATIC ENGINE,
FLOUR MILL MACHINERY, CORN MILL MACHINERY
GRAIN CHOPPERS OF ALL KINDS.

We keep a Full Stock of Chain, Leather and Cotton Belting, Sprockets, Pulleys and Iron Work of all kinds.
We have one of the Most Complete Boiler Plant in Canada.

Write for Prices.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

There are men moving about the country all the time looking for unprotected mechanical devices which they can patent by swearing that they are the inventors, says Locomotive Engineering. The ordinary procedure is to quietly take out the patent and remain quiet for a few years. Then, some day, the patentee or his agents visit a shop where the device is in use—perhaps the place where it was invented. Then he puts in a claim for royalty, and fiery indignation is excited. The man who invented the thing protests that the claim is a fraud, but he cannot tell just the exact date on which the invention was applied to practical use. The legal department makes inquiries and finds that a successful defence is so uncertain that they advise a settlement instead of a lawsuit, and so the rogue and thief secures possession of all his ill-gotten gains. It is as bad as picking a man's pocket, but it is not so risky. This is no fancy or over-drawn picture. It is the history of thousands of frauds that have been put upon railroad companies. There is only one remedy for this evil, and that is for the inventor to protect every such invention by a patent.

If the invention is of sufficient value to warrant its use, it is certainly worth the small outlay necessary to procure a patent. How often do you hear men say about a patented device that some one is making a fortune out of.—"Why I thought of that years ago, but did not consider it of sufficient importance to procure a patent." But the other man did, and so the money goes to him who had the courage to risk his money.

The Ship Mfg. Co., Clarksburg, Ont., has recently engaged in the manufacture of butchers' meat skowers, made of hard maple wood. The machinery is new and up-to-date in every respect, and the output is very large, most of which goes to the British and foreign markets.

A very important discovery of talc has been made just outside of the village of Madoc, Ont. Talc is magnesia silicate and enters into the manufacture of paper. Mr. Robbins has leased the property and is shipping the article to Newark, N.J., where he is in competition with the best French talc makers. An examination has been made by Professor Miller, who reports that

the sample is excellent and the supply inexhaustible.

Messrs. Moyers & Gordon, representing the Catarqui Iron Smelting Co., have made the following offer to Kingston, Ont. The company would put up a smelting works plant worth \$225,000, with a capacity to smelt from 100 to 200 tons of iron ore daily; they would employ from 100 to 200 hands; they would transfer their offices, etc., here; they would pay from \$100,000 to \$150,000 yearly in salaries. In return, they asked from the city a free site, exemption from taxation and a bonus of \$4,000 yearly for fifteen years, which would be about equal to \$35,000 cash bonus now.

William Marlton, shipbuilder, Goderich, Ont., has under construction three tugs for delivery at the opening of navigation. One for N. Dymont, of Barrie, to be used for towing on the Georgian Bay, one for the Dominion Fish Co., and the other for Purvis Bros., of Gore Bay, Ont. A large light draft tug has been shipped to Manitoba in sections for fishing purposes on the inland lakes.

**THE
CUMMER
DRYERS.**

FOR
Mechanically Drying Everything

THE F. D. CUMMER & SON CO.,

HUNDREDS IN OPERATION.

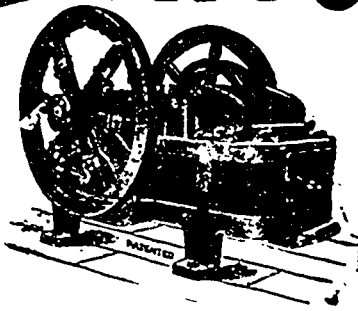
CLEVELAND, OHIO.

THE ONLY

FINE CRUSHER

DOES THE WORK OF

CRUSHER AND
ROLLS
COMBINED.



FOR

QUARTZ AND
ORES.

ROLL JAW CRUSHER.

Send for Circular. STURTEVANT MILL COMPANY, Boston, Mass.

Shafting—Hangers—Pulleys

FRICION CLUTCH PULLEYS AND COUPLINGS

Rope Transmission of Power.

HANDSOME ILLUSTRATED CATALOGUE ON APPLICATION.

DODGE MANUFACTURING CO. OF TORONTO, Limited, - - TORONTO.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

One of the best proofs of the prosperity and growth of our Canadian manufacturing industries, is the fact, that American manufacturers of fine tool steels, knowing that tool steel in some form or other is used in all manufacturing establishments, are now competing more than ever with the Mother Country for this trade; and there are quite a number of both English and American firms that are now carrying large stocks of fine tool steel in our cities. One of these is the Carpenter Tool Steel Co., of Reading, Pa., already well known to the trade. This is the company who manufacture the Carpenter armor-piercing projectile, is considered by many experts to be the best projectile made. The Laurio Engine Co., of Montreal, who have been using this steel for the past two years or more, and know its merits, have concluded to put in a stock of the different grades of steel made by the Carpenter Company, consisting of air-hardened commonly known as self-hardened steel, also oil and water tempering steels, at their warerooms 321 St. James street, Montreal. The claims made for Carpenter's fine grades of tool steel are, that they will last longer without re-grinding, increase the output of machines twenty to forty per cent., and those who are using the steel say that it will do what the Carpenter people claim for it. We congratulate the Carpenter people in being able to secure the Laurio Engine Co., to handle their fine grades of tool steel.

The Montreal Rolling Mills issued the following circular to their customers on the day their works were destroyed:—Dear Sir, —We regret to inform you that we had a fire to-day in our rolling mills which will

disable us in this department only for a short time. We are pleased to be able to state that all our other departments will be running as usual Monday morning, and that our stocks of finished goods are not damaged in any way. We would take this opportunity of thanking our friends for the patronage with which we have been favored, and ask those who have any uncompleted contracts with us for bar iron or steel to be a little patient, as we intend to fill all our orders with the least possible delay.

Messrs. A. R. Woodyat & Co., manufacturers of lawn mowers, builders' hardware, etc., Guelph, Ont., have taken over the large factory building recently occupied by the Guelph Woolen Co., that city, which is being remodelled and adapted to the purposes of their business, and which will more than double their capacity for production. The engine, boilers, etc., being placed in the new works were supplied by the Goldie & McCulloch Co., of Galt, Ont.

The new tannery works of Messrs. James Robson & Sons, Oshawa, Ont., are being equipped with an outfit of machinery, tools, etc., manufactured for them by the Vaughan Machine Co., Peabody, Mass., included in which are belt knife splitting machine, whitening machine, pendulum staking machine, fleshing and unhairing machine, Vaughan rotary leather press, Union splitting machine, Vaughan heavy jack, bark mill, brushing machine, Vaughan rotary leach, etc.

The American Machinery & Trading Co., have established a main office in Bowling Green Building New York city, with branch offices in the largest cities in the United States, also in all foreign coun-

tries, with a large corps of travelling salesmen and correspondents, buyers of machinery, hardware, etc. throughout the world. They solicit exclusive agencies and special prices from manufacturers of all kinds of machinery in this country, with a view to handling same to the best advantage on account of the great facilities that they have for placing orders. Mill owners, contractors and purchasing agents of power and electric light plants, and any requiring machinery of any character whatever, are requested to correspond with this company.

The magnitude of the business done between the United States and Canada in lambs and poultry is not realized by those not immediately connected with it. During the months of September, October and November there were shipped from Canada 112,000 lambs, making altogether 560 carloads. These lambs were worth on the average \$2.50 apiece, and the total value was therefore about \$270,000. There was paid in duties on these lambs to the United States Government \$90,000. These lambs come from all over Canada. As regards poultry there were 8,000 to 10,000 live geese shipped to the United States for feeding purposes. There have been seen at Sabrovois, in the Province of Quebec, as many as 11,500 live geese and 5,000 live ducks at one time, and it takes 125 bushels of grain a day to feed them. The firm of S. H. Jones, at Sabrovois, has had at one time as many as 25,000 geese and 15,000 ducks. —S. S. Johnson, United States Commercial Agent at Stanbridge, Que.

E. Simpson & Co., will erect a flour mill at Moose Jaw, Man.

John R. Barber, President.

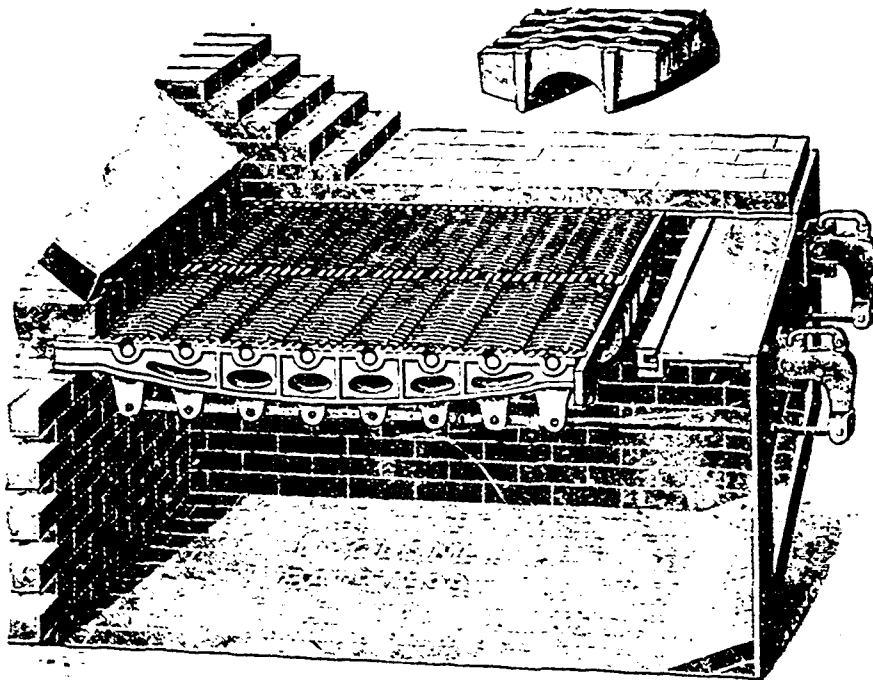
Geo. E. Challes, Sec.-Treas.

Henry Truesdell, Bus. Man.

THE CYCLONE GRATE BAR

Economy of Fuel and Increased Boiler Efficiency Guaranteed.

Our shows construction of the Grate. No alteration of Plant necessary.



**Simplicity,
Durability,
Economy.**

Burns the Cheapest Fuel with the Best Results.

A BOY CAN OPERATE IT.

Send for Descriptive Circulars and Testimonials.

COPY OF TESTIMONIALS.

TORONTO JUNCTION, ONT.
Jan 20 1900.

THE CYCLONE GRATE BAR CO.
(Limited) Toronto

GENTLEMEN. — We take much pleasure in giving you our testimonial re Grate Bars. The set you put in for us is giving us perfect satisfaction. They are very convenient to operate, have ample air space, and are very economical regarding fuel.

To every intending purchaser we would advise to adopt the Cyclone Grate Bar in preference to any other kind.

Wishing you every success.

We are, yours truly,

“WATT & WATSON.”

Manufactured by...

Cyclone Grate Bar Co., Limited,

Office: 10 KING STREET WEST,
TORONTO, CAN.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

The Wm. A. Marsh Co., Quebec, Que., has applied for incorporation with a capital stock of \$200,000, to manufacture leather, canvass, trunks, valises, etc. The provisional directors include W. A. Marsh, E. C. Fry and Robert Stanley, all of that city.

A sash and door factory will be erected at Stratford, Ont., by Ruston Bros.

The Rathbun Co., Deseronto, Ont., will erect a large sawmill at Bancroft, Ont.

Extensive additions and improvements are to be made in the Ogilvie Milling Co's mill at Winnipeg this spring. About twenty-five cars of machinery are now ready for installation. The capacity of the mill will be increased to 3,000 barrels a day. One of the features will be a new power plant which, it is said, will be one of the finest in North America.

D. Moore now controls the flour mill at Qu'Appelle, Assa., which has been idle for several years. He has overhauled and rearranged the entire mill, discarding the old machinery and putting in an up-to-date plant of 125 barrels' daily capacity. The municipality of South Qu'Appelle gave a bonus of \$5,000 and tax exemption for twenty years.

A. Wren & Co's foundry at Forest, Ont., was destroyed by fire March 29th. Loss about \$5,000.

The Chicoutimi Pulp Co., Chicoutimi, Que., will erect a large addition to both building and plant.

Mr. W. J. Whyte, Canadian General Manager for Messrs. Lloyd, of London, Eng., proprietors of The Daily Chronicle and Lloyds' News, was in Toronto a few days ago. Messrs. Lloyd have purchased the property of the Sturgeon Falls Paper Co., in toto, and Mr. Whyte is on his way to Sturgeon Falls to initiate operations there. Mr. W. C. Johnson of the Hydraulic Power Co., Niagara Falls, has been appointed engineer, and the works at Sturgeon Falls are to be remodelled on a thoroughly up-to-date scale. This will somewhat delay the date when it is hoped to begin the manufacture of paper. Messrs. Lloyd, in addition to being newspaper proprietors, are the largest paper makers in England, and this departure of theirs in Canada will be watched with the greatest interest in the old country as well as in the United States. They propose to develop the Sturgeon Falls property to its fullest capacity. Many of the English paper-

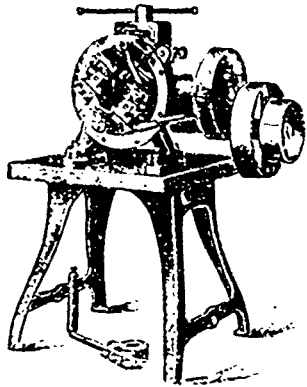
makers are coming to Canada this summer to view pulpwood, and the hope is expressed that Messrs. Lloyds' venture will prove so successful as to induce a further investment of capital in the paper-making business in the Dominion.

Cheap power in small shops is more easily obtainable now than ever before in the history of industry. We have gas and gasoline engines, electric motors, etc., that are not above the purchasing power of the average manufacturer or mechanic. The small engine has a future in this line, as it can be used in all manners of ways for running a lathe or a drill, a saw, a grindstone or an emery wheel. It is its variety of uses as well as its cheap maintenance and cost, that recommends it to all where an auxiliary to hard work is needed. In this sense it may prolong the life of many small concerns that are threatened with the fate of Jonah, in these days of shop-swallowing whales.—The Age of Steel.

The large grist mill at Comber, Ont., owned by R. J. Lund was recently destroyed by fire. Loss about \$12,000.

Morrison Bros' grist mill at Chatham, Ont., was recently destroyed by fire. Loss about \$1,000.

THE BEST PIPE THREADING and CUTTING-OFF MACHINES



No. 00 Machine, Power Attachment.

ARE MADE BY THE **ARMSTRONG MFG. CO.**

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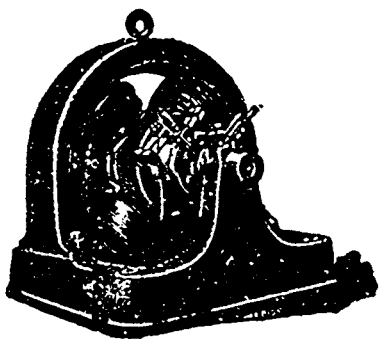
And **WATER, GAS and STEAM FITTERS' TOOLS.**

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Bar Iron, Steel,
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MACHINIST TOOLS,
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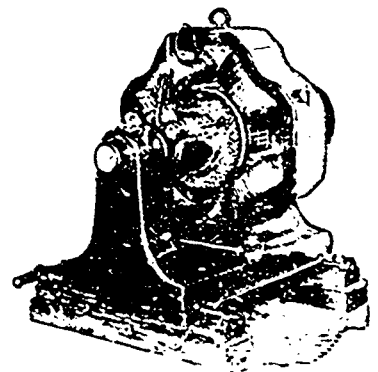
STILLSON & TRIMO

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MULTIPOLAR MOTORS & DYNAMOS

And Direct Connected Plants
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When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

The Canadian Rubber Co., Montreal and Toronto, are in receipt of a letter from The E. B. Eddy Co., Hull, Que., in which they say:—"Answering your recent enquiry, we have used your 'Para' Belting with satisfaction wherever a good rubber belting is required about our works, the unique and varied nature of which gives good opportunity for a hard test, and although we have used various makes of other brands rubber belting, we are free to say that the 'Para' made by you is the most satisfactory and economical of use though the first cost is sometimes somewhat higher than we can get other so-called 'just as good' brands."

The Cling Surface Mfg. Co., Buffalo, N.Y., are in receipt of a letter from the Horne Electric Light & Power Co., Elkhart, Ind, in which they say:—"Gentlemen:—Replying to yours of recent date regarding the "Cling-Surface" we purchased from you, we beg to say that we have Cling-Surface in a double 24-inch belt on an 84-inch driver and 26-inch driven pulley with 27 feet centres. Before we used Cling-surface we had to run the belt tight as a fiddle string, but now to one not understanding the situation, the belt looks as if it was going to leave the pulleys every minute. I had hard work to induce my engineers to

leave the slack in as the load came on but they let it alone now and never have a "hot-box" which was frequent before. I may add that the belt is transmitting fully 300 h.p.

Messrs. A. Nanz & Co., 127 Duane street, New York city, are agents in the United States and Canada for Hahn's Time Detector for watchmen, an ingenious and unique time-recording machine. It is in the form of a watch carried by the watchman and operated by from six to eighteen keys, according to the number of stations. At each station a key is kept chained, and by inserting it into the watch and giving it a slight turn a record is made of the time of the visit to the station. Proper provision is made to guard against fraud on the part of the watchmen. The device is now very extensively used in manufacturing and mercantile establishments.

Street Commissioner Jones, of Toronto, has perfected a pneumatic street sweeper, the plans of which he will submit to the Board of Control. His idea is to have a traction engine fitted up with a broom, and the steam could be used in laying the dust. The sweeper is intended for the asphalt pavements, and would do away with the flushing of the streets.

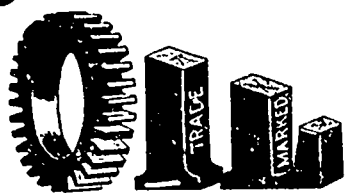
The Montreal iron mills have a distinct edge over their American competitors in one point and that is in the purchase of scrap iron. These Canadian mills are importing shiploads of old rails, wrecked plantation machinery and miscellaneous scrap iron from Cuba, and are making arrangements for extensive shipments of scrap from the British West Indies. As this material enters Canada free they save \$4 per ton duty.—American Artisan.

The Town Council of Pictou, N.S., has before the Legislature a bill to authorize it to borrow \$20,000 to acquire a site for the Copper Crown Mining Co. That company have already expended \$100,000, and propose to continue erecting additional furnaces until they have a capacity of 500 tons per day. Mines are being worked in connection with the company at Wentworth and Wallace River, Cumberland, New Annand, Colchester and Lansdowne.

"Capitol" Cylinder

"RENOVN"
ENGINE

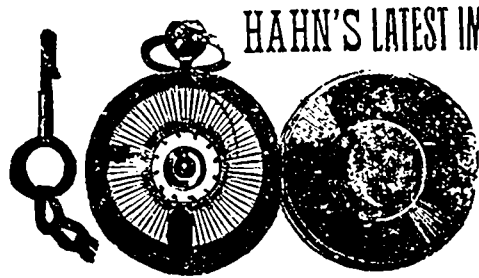
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RELIABLE WELL-KNOWN BRANDS.
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THE...
QUEEN CITY OIL CO.

SAMUEL ROGERS, President. TORONTO, CANADA.

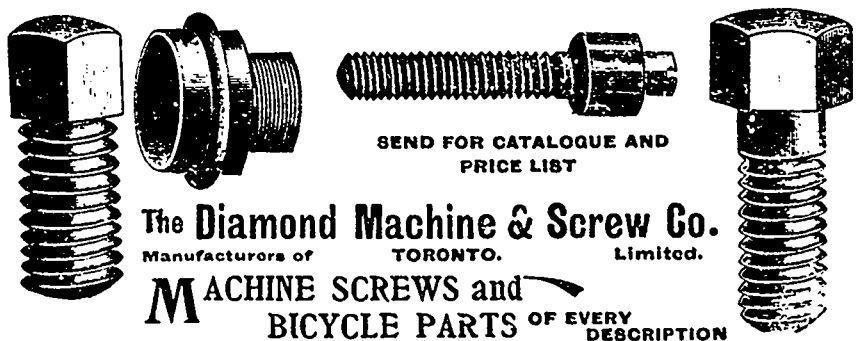


HAHN'S LATEST IMPROVED WATCHMAN'S TIME DETECTOR

This Clock is adapted for six or twelve stations, and the keys are all different, ranging from 1 to 6, and 1 to 12, instead of as in the old style Time Detectors, which mark either by holes or an impression on the dial, being the same for all stations.
For Circulars, prices and further information address—

A. NANZ & CO., Room No. 45, Graham Building, 127 Duane St. NEW YORK

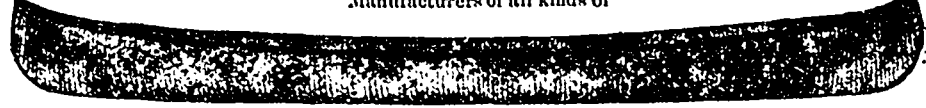
This Clock received the First Prize at World's Fair.



SEND FOR CATALOGUE AND PRICE LIST

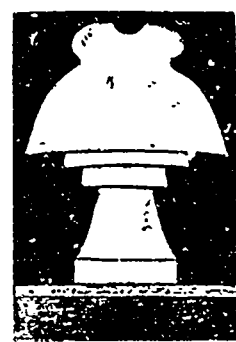
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Manufacturers of TORONTO. Limited.
MACHINE SCREWS and BICYCLE PARTS OF EVERY DESCRIPTION

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CANOE AND SKIFFS Canoes for Paddling, Sailing, Rowing and Prospecting. Skiffs for Rowing and Sailing.
A FULL STOCK OF PADDLES, OARS, FITTINGS, ETC.
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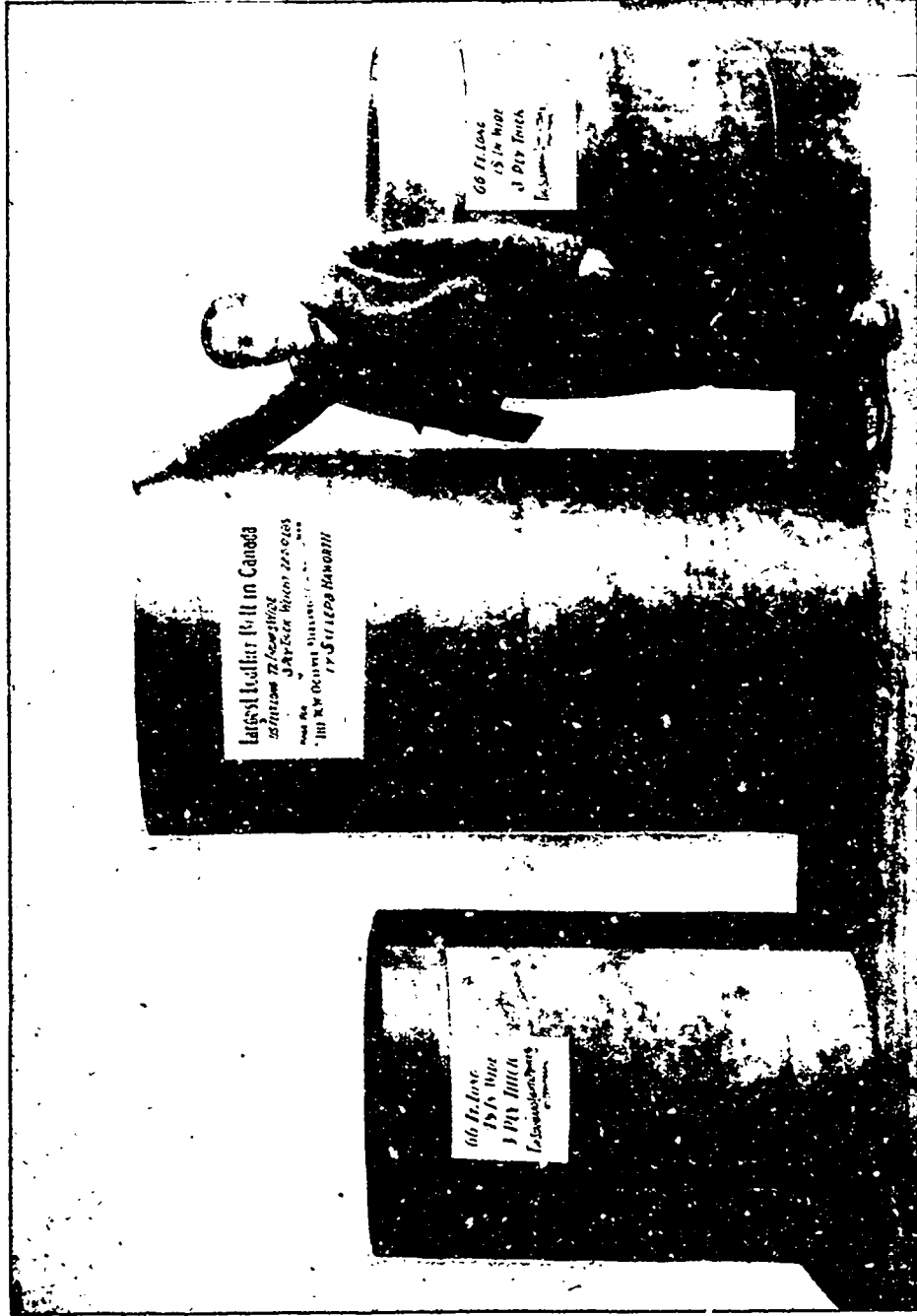
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SADLER & HAWORTH,

MANUFACTURERS.

72 INCHES
 WIDE
 3 PLY THICK
 115 FEET LONG

THE
 LARGEST
 LEATHER
 BELT
 EVER MADE
 IN
 CANADA.



BELTS
 FOR EVERY
 KIND
 OF WORK,
 ANY
 WIDTH,
 LENGTH
 OR
 STRENGTH
 REQUIRED.

MONTREAL and TORONTO.

The Shawinigan Water & Power Co., whose works for the delivery of power for manufacturing at Shawinigan Falls, Que., will be completed early this summer, announce that they are now prepared to contract for power to be delivered in Montreal early in 1901. The transmission line will be a little less than eighty miles in length, and will run along the Great Northern Railway, which is now being completed, and which runs in a direct line west from Shawinigan Falls to Joliette, Que. From this point the transmission line will run in an air line to the end of the Island of Montreal, coming into the City of Montreal by the most direct available route. The loss in the eighty-mile transmission will be reduced to a minimum by the adoption of the modern and most improved method of electrical transmission.

Mayor Jarvis and other delegates on behalf of Fort William, Ont., have returned home, having succeeded in having the Ontario Legislature ratify the agreement with the Ogilvies regarding the proposed mill and elevator, also agreements with the Mattawa Mining Co. for the proposed blast furnace and copper refinery. In Ottawa they were assured that the public buildings

for the postoffice and custom house will soon be built in Fort William, and that considerable dredging would be done in the Kaministiquia River this year.

The Elkhorn Roller Mill Co. Elkhorn, Man., will erect an elevator in connection with their mill.

The shareholders of the Preston & Berlin Street Railway Co., met in Preston recently and elected the following officers:— John Paterson, president; Martin M. Todd, vice-president; and C. R. Hanuing, secretary-treasurer. It is well understood that the syndicate has an option on the Galt, Preston, and Hespeler road, and as a result of to-day's meeting the company will also make arrangements at once to build the line between Preston and Berlin in the spring, thus making a through connection from Galt to Preston and on to Berlin and Waterloo. This will give a continuous line of about fifteen miles in length; it will also afford to the residents of Berlin a C. P. R. connection at Galt, and as the road will carry freight as well as passengers, the new facilities thus afforded will be of much importance. The Cataract Power Co., is believed to be behind the enterprise, the ultimate outcome of which will probably be a

connecting line from Hamilton to meet the new local system outlined in the plans now under way.

Mr. J. G. Pichor, architectural sculptor of 82 Walker avenue, St. Henri, Que., has finished a beautiful chair for the Speaker of the House of Commons. The custom of each new Speaker being presented with a new chair has been followed in the case of the Hon. Mr. Bain. It is stated that this is the first time since Confederation that one of these chairs has been made here, and those who have seen the work congratulate Mr. Pichor very much upon the success which has crowned his efforts. It is of solid oak, and in bold relief stands the Dominion coat of arms. The upper part of the chair is of gothic design, and on each side are pillar-like decorations, resembling the posts of a church pulpit. On the arms are the heads of lions, and there is an appropriate profusion of maple leaf decorations. The upholstering is of green plush to correspond with the furnishings of the House of Commons.

The tannery and hide drying establishment of J. B. Sumner at Victoria, B.C., was recently destroyed by fire. Loss about \$10,000.

THE BEST IS NONE TOO GOOD

The largest machinery builders in Canada and United States use our Babbitt Metal.
 Is this not sufficient proof of its superiority over other anti-friction metals?
 If the largest users are satisfied with our Babbitt Metals, why should it not suit you?
 We can furnish you with numbers of testimonials.

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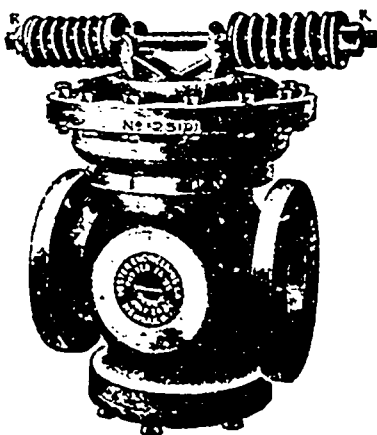
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BABBITT METALS
SOLDER
TYPE METALS

COLUMBIA
PHOSPHOR TIN
AND ALL OTHER
WHITE METALS

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*Automatically Control the Delivery Pressure of
Steam, Gas, Air or Water, regardless of Variation in Initial Pressure.*

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THE FAIRBANKS COMPANY,

749 CRAIG STREET, MONTREAL

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

Mr. Archibald Blue director of the Ontario Bureau of Mines, is in receipt of a letter from Mr. George Edwards, of Bridgport, Conn., saying that the corundum lands which he controls in Eastern Ontario would be at once developed. Mr. Edwards is the chief figure in the syndicate organized last summer by Mr. B. A. C. Craig, of Toronto. He states that organization has been completed, and that orders have been given for the erection of a building and equipment on the York branch, a tributary of the Madawaska, in the township of Raglan, and on which corundum has been discovered. The contract of the syndicate with the Ontario Government calls for the erection of works with a capacity of one hundred tons per day. The corundum rock on this basis, providing the mill runs 300 days in the year, should produce 4,500 tons of pure corundum per annum. The syndicate has a bona fide offer from one of the largest emery wheel manufacturers in the United States to take 3,000 tons annually if it has a monopoly of the Canadian product. The syndicate has refused this offer, because it has offers from Germany, England, and the United States to take all its product. Already emery wheels have been manufactured from the corundum on the York branch by the Prescott Emery Wheel Co., the Hart Emery Wheel Co., of Hamilton, and half a dozen firms in the United States, and will be exhibited at Paris.

One of the largest belts for machinery that has ever been produced was recently finished by the Gutta Percha & Rubber Mfg. Co., of Toronto. The belt was of rubber, and measured 3,529 feet in length, over two-thirds of a mile. Its weight was nine tons. This mammoth belt was made for the grain elevator of the Intercolonial Railway at St. John, N.B., and is

now in use there. Another immense main drive belt fifty-eight inches wide, and 338 feet long, with a weight of two and one half tons, was recently completed for one of the Canadian Pacific Railway elevators at Fort William by the same company. Rubber belting has been proved to be much superior to any other kind for grain elevators, and with the erection of many new elevators in the near future it is possible that many more belts of equal size will be required. That Canada should not only use but manufacture the largest belt of this kind in the world is an indication of the country's progress and the importance of the concern manufacturing it. That this is the growing time is shown by the fact that the Gutta Percha & Rubber Mfg. Co., has enlarged its factory to three times its original size during the past couple of years.—Mining Record.

THE BRITISH AMERICA FURNITURE COMPANY.

The prospectus of the British American Furniture Co. announces that that concern has a share capital of \$3,000,000, divided into 30,000 shares of \$100 each as follows:—Seven per cent., preference cumulative stock, 20,000 shares, \$2,000,000; common stock, 10,000 shares, \$1,000,000. The head office of the company will be situated in Toronto, their bankers will be the Merchants Bank, and their solicitors Messrs. Blake Lash & Cassels.

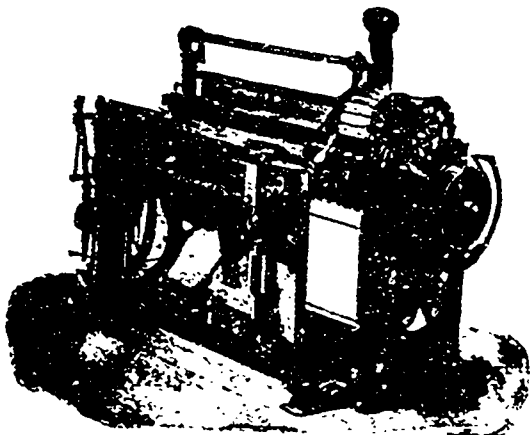
The following are the names of the companies whose plants have been taken over by the British American Furniture Co. American Rattan Co., Walkerton. The Anthes Mfg. Co., Berlin. Thos. Bell & Son, Wingham. Broadfoot & Box Furniture Co., Seaforth.

Burr Bros., Guolph.
Button & Fessant, Wingham.
The Chesley Chair Co., Chesley.
The Furniture Manufacturers' Exporting Co. of Ontario, Berlin, Ont., and Liverpool, Eng.

The Hobbs Mfg. Co., London, Ont.
Lewis Hahn, New Hamburg, Ont.
The Hill Chair Co., Warton, Ont.
Krug Bros. & Co., Chesley.
The Knechtel Furniture Co., Hanover.
George McLagan, Stratford.
Joseph Orr, Stratford.
Schaefer, Koller & Co., Waterloo.
Snyder, Roos & Co., Waterloo.
Siemon & Bros. Mfg. Co., Warton.
The Simpson Co., Berlin.
The Union Furniture Co., Wingham.
Watson & Malcolm, Kincardine.
William Young, Warton.
Zoellner & Co., Mount Forest.

The combined companies employ about seventeen hundred hands. The amount of their sales in 1897 was \$1,029,179.85; in 1898 it was \$1,320,774.05, and for the first nine and a half months of 1899, \$1,139,477.14, showing a constantly increasing business. They manufacture about sixty-five per cent, of the total sales of household furniture in the Dominion. The company will commence business without any bonded or floating indebtedness, and with but \$80,000 of mortgage debt, a portion of which is non-interest bearing, being bonus loans by municipalities. The management of the company and the superintendence of the various factories will be in the hands of experienced manufacturers, who have been identified with the furniture trade in the past and have made a success of the business.

The names of the men who have consented to act as directors are as follows: W. R. Hobbs, London; Daniel Knechtel,



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There is only one Profitable Plan—BUY NORTHROP LOOMS

**With them the Future is Assured.
They are no Experiment.**

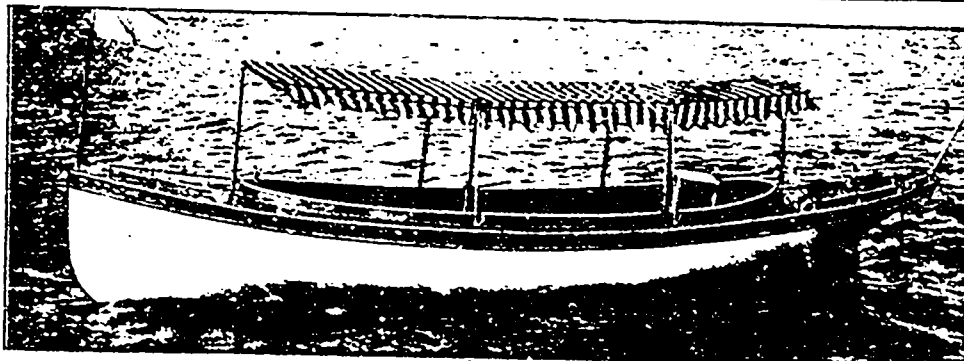
Thousands have been running in the United States, and a large number are now in Canada. Sales steadily on the increase.

“The Mills that refuse their opportunities will find their future utility serving as picturesque ruins in the landscape.”

**We also Manufacture the Best Warper at present
Known—also Spoolers.**

Write for particulars and quotations. Address

The NORTHROP LOOM CO. OF CANADA, Ltd.
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**Gasoline and Steam
Launches**

The latest styles. Ask for prices.

Dean's Canoes
are known the world over

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Hanover; Simon Snyder, Waterloo; Hon. Samuel Morner, Berlin; Andrew Malcolm, M.L.A., Kincardine; Henry Cargill, M. P., Cargill; R. E. Truax, M.L.A., Walkerton; Thomas Bell, Wingham; J. S. Anthes, Berlin; John H. Broadfoot, Seaford; Myron W. Burr, Guelph; Lewis Hahn, New Hamburg; Christian Hill, Warton; William Krug, Chesley; J. S. Knechtel, Hanover; Joseph Orr, Stratford; Henry Shaeffer, Waterloo; J. C. Siemon, Warton; F. E. Coombe, Liverpool, Eng.; E. F. R. Zoellner, Mount Forest; William Button, Wingham; John Krug, Chesley; T. S. Hobbs, Toronto, and J. R. Shaw, Toronto.

One million dollars of seven per cent. preference "cumulative" stock at par has been placed on the market, and applications for it will be received at any office of the Merchants' Bank, or by Messrs. R. Wilson-Smith, Meldrum & Co., financial agents, Montreal.

COAL DISCOVERY IN QUEBEC.

A mineral discovery which may lead to important results has been made in the Laurentian mountains. This is the unearthing of a seam of coal on the land of the Shawinigan Water & Power Co.

Quite by accident and while working upon excavations on the St. Maurice river, the find was made. The cuttings necessary to form the headrace are extensive, and in sections a depth of 125 feet has been reached, measured from the top of the cliffs above. It was while upon this work that traces of coal were found. The sand was discovered to be thickly impregnated with coal dust, which in some untold age had

managed to break away from the present body and drift down. Later, in the work of excavating for the headrace, a seam of coal was stumbled upon. This was tried in the furnaces and found to burn well. The strata bearing the coal is some forty or fifty feet below the surface, and its extent remains to be seen. It is thought, however, that the main coal body is located perhaps a mile up the river from the place where the present discoveries have been made.

In appearance, the coal has all the properties of anthracite, and is not unlike the Pennsylvania article, the difference being that it has more polish and is far more brittle. Experts who have seen the specimens pronounce it not unlike some of the Nova Scotia product.

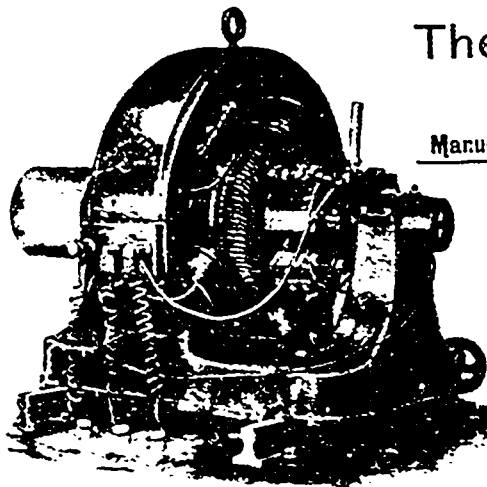
The surrounding formation is, of course, entirely different from that in the anthracite regions of Pennsylvania. The shale and slate which surround the coal measures of the Keystone State are entirely lacking. Geologists have always maintained that no minerals existed in the Laurentian mountains, and that those granite hills contained nothing more valuable than the iron-like stone of which they were formed.

THE SMART-EBY MACHINE CO.

The Smart-Eby Machine Co., Hamilton, Ont., manufacturers of horizontal and vertical steam engines, gas and gasoline engines, boilers, impulse and overshot water wheels, Rogers' patent shaking and dumping grate bars, steam and power pumps, steam, hand power and electric cranes, etc., inform us that their shop is exceedingly busy, and that they now have in their order book the following contracts: Twelve electro

reduction baths, two mixing machines, 6 ft. x 12 ft.; ten steel tanks, twelve foot diameter x 10 ft.; one 30,000 pounds travelling crane, one eighty h.p. boiler fitted with Rogers' patent shaking and dumping grate bars; 350 ft. steel shafting with hangers, etc., all for the Hoopfuor Refining Co. One 50,000 pound travelling crane, and 800 rain proof pulley blocks for the Hamilton Electric Light & Cataract Power Co. Two alligator shears, each directly connected to its own engine, one 7 1/2 x 4 1/2 x 10 outside packed boiler feed pump, ten steel charging barges, one ladle heater, for the Hamilton Steel & Iron Co. Two travelling radial drills with twenty foot arms for the Hamilton Bridge Works Co. One ten h.p. high speed vertical engine, one twenty h.p. boiler with Rogers' patent shaking and dumping grate bars, with shafting, pulleys, etc. for the City Hospital laundry. One seventy five ton ice machine and one 5 1/2 x 4 1/2 x 7 duplex pump for Mr. Henry Kuntz. One end bending machine for bending extra heavy bob runners, and one stack bender for bending wagon shafts, for Messrs. F. W. Hore's Sons. One eight can drying machine for the Guelph Carpet Mills Co. One double disk sander for the Ontario Box Co. One internally fired boiler for Messrs. Smith & Baker, Dundas.

The Maritime Milling Co., whose mill at New Glasgow, N.S., was burned recently, has been looking for a site for 150-barrel mill at St. John, N.B. Under their new charter, with capital stock of \$1,000,000, they propose to build three mills, one at New Glasgow, one at Halifax and one at St. John.



The Jones & Moore Electric Co.,

Manufacturers and Contractors

All Work Fully Guaranteed

ELECTRIC LIGHT and POWER PLANTS a Specialty

A Few Second-Hand A 1 Machines For Sale Cheap

20 and 22 ADELAIDE STREET WEST TORONTO

T. H. & A. H. DRYDEN

Manufacturers of and Dealers in

FLOUR, SPIGE AND

OATMEAL MACHINERY

Grain Elevators Portable Mills
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Pulleys, Sprockets
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MACHINES MADE TO ORDER

All kinds of Repairing Promptly Attended to

Warehouse Elevator Works Electric or Steam.
TORONTO

The Yeakley Vacuum Hammer.

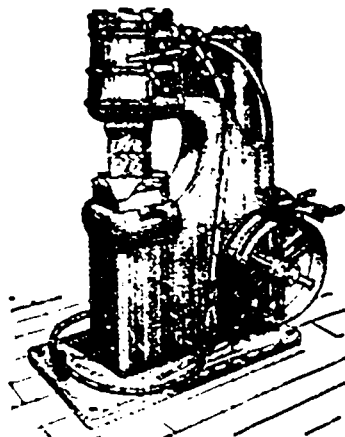
Canadian Patent November 9, 1877.

Is now Manufactured and for Sale by the undersigned Sole Proprietors of the Canadian Patent:

George Brush

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Dominion Oil Cloth Co.

Manufacturers of

OIL-CLOTHS of Every Description

Floor Oil-Cloth, Table Oil-Cloth, Carriage Oil-Cloth.

Enamelled Oil-Cloth, Stair Oil-Cloth, etc.

Office and Works

Cor. St. Catharine and Parthenais Sts
MONTREAL, QUE.

THE BARD ADJUSTABLE BUSHING.

The accompanying illustration shows the Bard adjustable bushing, a new appliance for use with die-stocks of all sizes.

The bushing is fitted with three hardened jaws which are moved to and from the centre by means of a cam plate, and by fastening the plate with the thumb screw the jaws are firmly held in any desired position. The bushing is made to fit any die-stock in place of the common ring bushing, and adjusts to all sizes of pipes or bolts.

The adjustable jaws always make a perfect centre for the pipe and fitting closely around the pipe, insure a cutting a straight thread. This is a decided improvement over the old bushings. Of course, when necessary, a crooked or drunken thread may be cut with this bushing as easily as with the old ring bushings.

When once attached to the die-stock it may always remain there, being adjustable to any size of pipe or bolts that the stock will thread. It thus does away with the necessity of carrying a number of loose

and delay is overcome by the adjustable bushing which is fitted to every size.

Bushing No. 3 is made for use either with or without a leader screw according to the stock in which they are to be used.

For old die stocks, where a leader screw or

The adjustable bushing always guides the pipe perfectly to the centre and insure a straight thread, it may always be left in the stock and is adjustable to any size pipe or bolts that the stock will thread. This bushing always fits the pipe closely.

The Bard bushing is manufactured by the Armstrong Mfg. Co., of Bridgeport, Conn., who will send full details and prices upon application.



follower is necessary, No. 3 bushings are made (taking up to two-inch) combined with a leading screw, all in one tool. This is an especially useful, practical and valuable addition to an old style two-inch die-stock, using solid dies.

PAPER AND ALUMINIUM IN QUEBEC.

United States Commercial Agent, F. S. S. Johnson, at Stanbridge, Que., writing to his Government of certain manufacturing industries in Quebec says -

The Shawinigan Water & Power Co., with headquarters in Montreal, is negotiating with foreign syndicates for the building of three large paper mills. The erection of at least one of these was decided upon several weeks ago, and the Government's new policy in regard to pulp wood, which is all in favor of the Canadian manufacturer, makes the erection of the two others a certainty. The company, in less

CHARLES F. CLARK, President.

JARED CHITTENDEN, Treasurer.

ESTABLISHED 1849.

BRADSTREET'S

Capital and Surplus, \$1,500,000.

Offices Throughout the Civilized World.

EXECUTIVE OFFICES, - - 346 and 348 BROADWAY, New York City, U.S.A.

THE BRADSTREET COMPANY gathers information that reflects the financial condition and the controlling circumstances of every seeker of mercantile credit. Its business may be defined as of the merchant, by the merchant, for the merchant. In procuring, verifying, and promulgating information no effort is spared, and no reasonable expense considered too great that the results may justify its claim as an authority on all matters affecting commercial affairs and mercantile credit. Its offices and connections have been steadily extended, and it furnishes information concerning mercantile persons throughout the civilized world. Subscriptions are based on the service furnished, and are available only by reputable wholesale, jobbing and manufacturing concerns and by respectable and worthy financial, fiduciary and business corporations. Specific terms may be obtained by addressing the Company at any of its offices.

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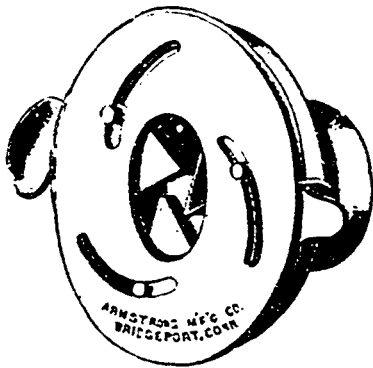
Vancouver " - Cor. Hastings and Hamilton Sts.

London " - 365 Richmond Street.

Victoria " - Board of Trade Building.

THOMAS C. IRVING,

General Manager Western Canada, - - TORONTO.



rings bushings with each stock, and saves all the time lost in hunting for, and changing the bushing for each different size of pipe or bolt.

In threading short nipples with this bushing, it is never necessary to file down the coupling of the nipple holder, as it is with the ordinary bushing. All this trouble

VANDUZEN'S STEAM-JET PUMPS
 Fully guaranteed. Especially serviceable for elevating or forcing sandy or muddy water from Mines, Quarries, Wells, Excavations, etc. Simple, portable, cheap. Requires no skill or attention. In sizes ranging from \$7 to \$75.
 Send for Catalogue No. 62.
 E. W. VANDUZEN, Cincinnati, O.

THE SMART-EBY MACHINE CO., LIMITED

Steam and Gas Engines, Pumping Machinery, General Machinery.

193 BARTON STREET EAST HAMILTON, ONT.

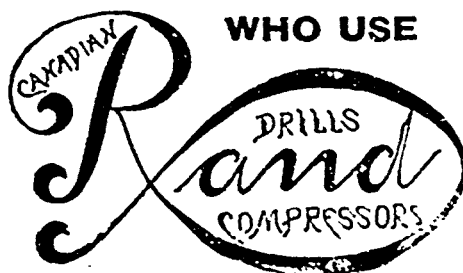
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A Few Mines



WHO USE

BRITISH COLUMBIA :

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- War Eagle Mine.
- Old Ironsides Mine.
- Centre Star Mine.
- Crown Point Mine.
- Knob Hill Mine.

CANADIAN RAND DRILL COMPANY, Montreal

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than a year, has built a prosperous village of 1,500 people where no one had ever dreamed of settling, and within another twelve months Shawinigan Falls will be a thriving town of 5,000 people, while Three Rivers, a few miles below, has added a large cotton mill to its industry.

The construction work on the power house of the Pittsburg Reduction Co., is also progressing most satisfactorily, the total number of men now employed being 1,400, besides 150 carters. The Pittsburg Co., which controls the manufacture of aluminium in America, recently equipped the Chicago Electric Street Railway with aluminium wires, and the Manhattan Elevated Railway of New York, the motive power of which is being changed from steam to electricity, has also voted to use aluminium instead of copper in its wires, the metal to be furnished by the Pittsburg company. Aluminium, a few years ago, cost as much as \$12 a pound; but through the reduction process this figure has been grad-

ually lowered to thirty-two cents, with the result that it is now taking the place of other metals and even of wood in the manufacture of hundreds of articles of everyday use.

GROWING TIME AT THE "SOO."

Mr. F. H. Clergue recently made a proposal to the Town Council of Sault Ste. Marie, Ont. for a new agreement to take the place of the one now in force between his company and the town. He wants the assessment for the manufacturing concerns that are to be run by the company's water-power system fixed so that the contribution of these manufactories to the town's revenues shall be not more than \$5,000 per annum for the next thirty years, this to be in lieu of all municipal taxes.

He and his associates, he says, will build the following:—Alkali and chemical works, a sulphite pulp mill, smelting and reduction works, a second water-power canal and

power house, a large machine shop, the terminus of the Algoma Central Railway. On these works, exclusive of the expenditure on the railway, \$1,000,000 will be laid out. Five hundred men are now employed in the works in which Mr. Clergue is interested, and this number will be increased to 2,500. All the new works will be commenced within three months from the time of the ratification by the Legislature of any agreement entered into with the town, and the works will be completed and in operation three years after that date.

The sulphite mill is to have a capacity of at least thirty-five tons per day. It is to be completed within a year, thus raising the company's pulp output, to 145 tons per day. The smelting and reductive works are to have means of treating 500 tons of ore per day. Forty thousand horsepower will be developed by the new power canal.

The Cataract Power Co., has commenced work on the construction of another line for transmitting power from Decow Falls, near St. Catharines, Ont. to Hamilton. It will have twice the capacity of the present line, and when it is completed the plant at the transmitting station at Hamilton will have to be enlarged.

In the High Court of Justice.

QUEEN'S BENCH DIVISION.

MR. JUSTICE BRUCE.—Wilson Brothers Bobbin Co., Limited, and Herbert William Wilson v. Wilson & Co. Barnsley, Limited, Saturday, January 27th, 1900. A PERPETUAL INJUNCTION was this day granted against the Defendants, restraining them, their servants and agents, from infringing the Letters Patent No. 5559, of the year 1895, for "Improvements in means for strengthening and protecting tubes and bobbins used in the preparation and spinning of fibrous materials." And it was ordered that the Defendants should pay to the Plaintiffs damages, to be ascertained on enquiry, and costs. The Judge also certified to the validity of the Plaintiffs' patent.

The above has reference to the Patent CORNHOLME Shield, with "beaded" or "rolled" edge, for fastening.



THE O. K. ROTARY WASHER

Has revolving steel ball gearing, making it almost noiseless; thus superior to others. Wheel continues one direction, the stirrer in both directions. Lid closes tight. No escape of steam.

WORKED BY HAND OR BELT.
(Patented in Canada June 13, 1899.)

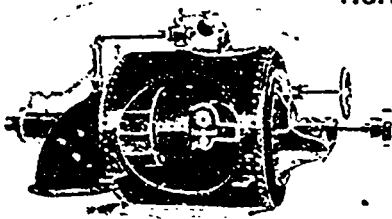
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Horizontal Setting, with Quarter Turn Elbow.



Where the nature or the location will permit its use this type has many advantages. It is very suitable for direct connection to dynamos, and many are in operation in this class of service.

Notice how complete and compact this arrangement is, and how easily it may be installed. Can you use anything of this kind? Your inquiries will receive prompt attention.

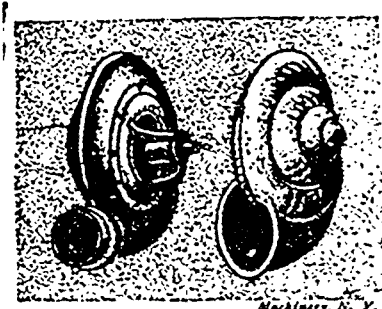
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The JENCKES MACHINE CO.,
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ROTARY FAN.

In a recent issue of Machinery Mr. W. H. Sargent makes a novel comparison between the shape of certain well known mechanical devices and that of familiar natural objects. "Take for example," he says, "a rotary fan or blower and one is so struck with the resemblance to a snail shell as to warrant the belief that the designer was familiar with such shells and has recognized the suitability of the design as a guard to cover delicate and easily injured parts.



Machinery, N. Y.

There could hardly be greater contrast than between the swiftly revolving fan and the slow moving snail, yet it is difficult to resist the impression that the shell had somehow unconsciously influenced the mind of the designer. This resemblance is shown in the illustration."

Notwithstanding this startling resemblance, it is however to be questioned whether Mr. B. F. Sturtevant, who was the originator of this type of fan blower, was in the least degree so influenced in perfecting his designs.

BUSY RAILWAY SHOPS.

The Grand Trunk Railway shops at Point St. Charles, near Montreal, have been one of the busiest parts of this great railway system during the year 1899. Full time has been the rule, and a large number of engines and cars have been turned out, as well as repairs having been done to hundreds of cars. In the car shops the fol-

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lowing rolling stock has been built and put in operation during 1899: Two magnificent composite cafe-parlor cars, composed of drawing-room, seating twelve persons, a dining-room to accommodate the same number, buffet and smoking rooms, with large and commodious separate toilet-rooms for ladies and gentlemen. These cars are part of the fast day expresses running between Montreal and Toronto, and since their inauguration have been very much appreciated. Luncheon is served in the dining compartment any time during the day, thus obviating the necessity of passengers leaving the train for refreshments while en route between the two cities, and enabling the Grand Trunk to save a considerable amount of time in the run, the distance now being made in a little over eight hours.

Seven first-class modern coaches of the 800 series were built and are running over different parts of the system. These coaches have been praised by all who have seen or travelled in them, and they are the finest

first-class cars on the continent, being made without regard to cost and with every detail throughout for the comfort and ease of the travelling public. In addition to these two composite second-class and baggage cars were also built and added to the rolling stock.

Other cars turned out of the Montreal shops were 230 box, 200 flat, 153 coal, (all of a capacity of 30,000 tons), and fifty cinder cars.

On the middle division two of the latest and most approved dining cars replaced those of a more ancient pattern, and these cars are the admiration of the most fastidious. They are beautifully fitted throughout and the interior decorations are of hand some design without any gaudy effect. Meals are served on these cars a la carte.

Among the repairs that have been done in the Point St. Charles shops, the following are of interest: 916 passenger cars and 4,572 freight cars; 3,240 freight cars were equipped with M.C.B. automatic couplers and Westinghouse air brakes. All the new pas-

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Does it when made by the

"SAFETY"

220 MACHINES IN OPERATION AND NO ACCIDENTS
SPEAKS VOLUMES.

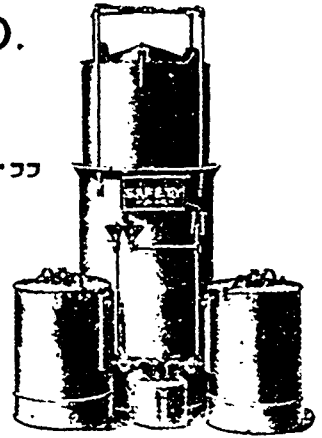
SIMPLICITY-SAFETY-ECONOMY the Leading Features.

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THE SAFETY LIGHT AND HEAT CO.,

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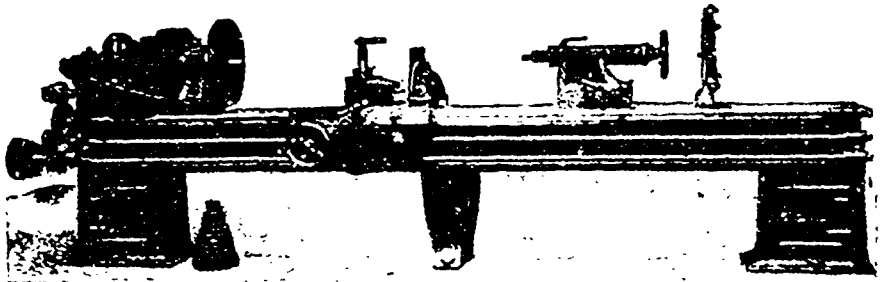
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Special Castings and all kinds of

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songer equipment is fitted with Pullman wide vestibule, standard company's platforms and bulling arrangements. They are also complete with all the latest conveniences and safety appliances known to modern ingenuity.

From the motive power shops situated at Point St. Charles, the following engines were built and placed in service: six ten-wheel large passenger locomotives, six eight-wheel large mogul locomotives for hauling freight, and ten locomotives of smaller type. In addition to these the Grand Trunk purchased from the Baldwin Locomotive Works ten compound consolidation freight engines, which are now in operation on the different divisions of the system.

At the present time the motive power shops are in the throes of a busy season, and hundreds of men are to be seen working on

the twenty-four large mogul locomotives which are now in course of construction.

THE CANADIAN STEEL CO.

A meeting of the organizers of the Canadian Steel Co., the incorporation of which, with \$18,000,000 capital, \$3,000,000 preferred, is now pending in the Canadian Parliament, was held in New York a few days ago. At this meeting details of the organization were agreed upon, although the formal organization cannot be effected until the charter has been actually issued, which it is expected will be done soon. The plant of the company will be at Welland, Ont., where a 1,500 acre site has been obtained. This is at the mouth of the Welland canal, where it is said Lake Superior ores can be laid down as cheap as at

Cleveland or Buffalo. The company proposes to enter into practically all departments of the iron and steel business. Among those interested are several capitalists from New York and other cities of the United States, and Canadian capital is also concerned. A feature of the charter is that it will permit the company to make contracts for electric power with the Hamilton and Lake Erie Power Co., specifically, or with other companies. It is claimed that power can be furnished in this way at about one-fifth the cost of steam power in Pittsburg. This is the company of which Mr. Pow, of Welland, is the promoter

The Montreal Rolling Mills, Montreal, were badly damaged by fire recently. Loss about \$100,000.

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EXHAUST FANS**

For removal of refuse from Wood-Working
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Made of Galvanized Steel All Sizes for Fans
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Estimates cheerfully given for Complete Installations of Fans,
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Mordant produces a black on
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Black for fastness,
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A MIRACULOUS BOILER,

"Whenever I think of a boiler I saw over in Texas the other day," said an insurance inspector just back from a trip through the Lone Star state, "I feel an icy creeping about the roots of my hair. I found it on a hillside in a country town, but I am by no means certain that it is still there. In fact, I wouldn't even bet on the hill being in the same place. The boiler was extremely old. It looked as if it might belong to the glacial period, and was totally devoid of indicators, gauges, or anything else to show the head of steam or quantity of water. The proprietor was a placid German, who told me he filled it every morning with a bucket. I asked him how he estimated the pressure, and he replied that he occasionally let off a little steam, and if it 'looked blue' he ceased to poke the fire. After I heard that explanation I hastily retired to the other side of the town, and didn't breathe easier until the train pulled out. The old boiler has been rocking along for the last ten years, and its presence on earth each consecutive day of that period is a full-blown, 18 karat miracle. It is a capital illustration of the deep depravity of inanimate things. If it was located in the heart of the city, where it could blow up a hundred or so human beings at one fell swoop, it would explode in less than five minutes by the watch. Out there, where the best it can do would be to mix up the Dutchman and the hill, it evidently doesn't consider the results worth the exertion. I think it must be waiting for a Sunday-school picnic."—New Orleans Picayune.

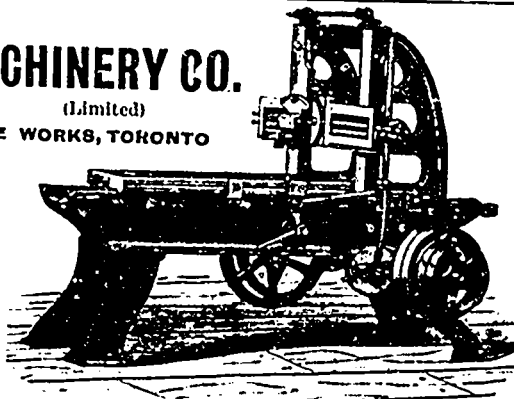
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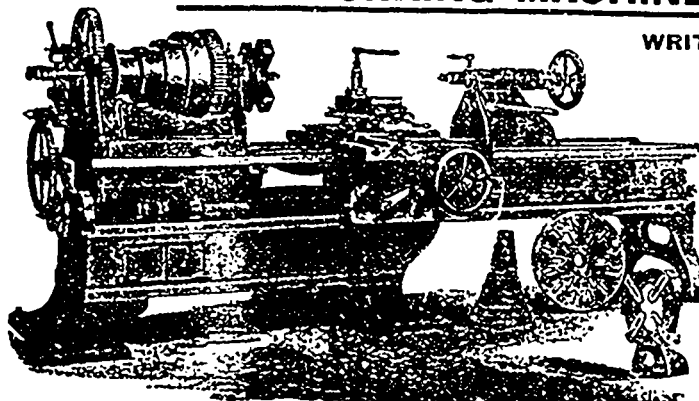
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Wood-working Machinery,
Engines, Boilers,
Motors, Water Wheels,
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IRON WORKING MACHINERY.



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MONTREAL

Send for Circulars Referring to this Advt.

THE CANADA FOUNDRY COMPANY.

The Canada Foundry Co., is the name of a concern recently incorporated, the prosperity of which would mean much to the City of Toronto. This company is the successor to the St. Lawrence Foundry Co. The capital behind the old company was \$100,000, while that which is backing the new venture is ten times that amount. With the additional money comes an added strain of new blood. The extra capital means so much added energy. What the concern has accomplished will be augmented ten times.

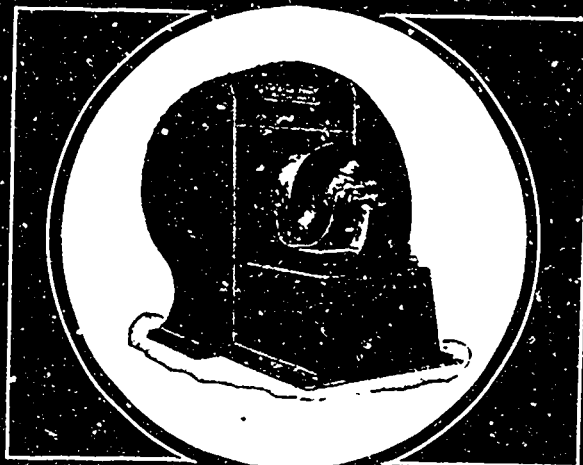
To extend the operations carried on by the St. Lawrence Foundry Co., it was found necessary to augment the capital stock, and in adding to the capital of the company a number of new men were added to the list of directors. These gentlemen have created for themselves enviable positions in the world of commerce. All are at the top of their respective professions and are noted throughout the country for their business ability and financial standing.

W. D. Matthews, the president of the new company, has an enviable position in Toronto. His connection with the grain trade has been one that has led to success after success. The vice-president is Frederic Nicholls, of the General Electric Co., and the list of directors embraces W. R. Brock, the well-known wholesale merchant; William Hendrie, of Hamilton; E. B. Osler, M.P., Toronto; Sir William Van Horn, H. S. Holt, president of the Montreal Gas Co., and W. S. Winslow, of Winslow Brothers, Chicago. The managing director of the company is T. W. Horn, of the Luxfer Prism Co., Toronto. L. E. Hinkley, of Toronto, is superintendent, A. Oakley is secretary and H. J. Hamilton is chief of the sales department.

The company has its back unlimited resources. Nothing that offers profitable business will be neglected, and any kind of work that can be brought to the city will be undertaken. The field offered is a broad one, and to meet the demand the works of the old company will be extended and improved. At the present time the foundry and smith shop embrace an area of 360 feet square. This ground will be added to until the works extend over a much larger tract. The men now employed number 125 to 200, and twice this number will be employed as soon as the new works are completed.

The company will devote its attention to the manufacture of

**STURTEVANT
ELECTRIC FANS**



*In 100 types and sizes.
Special designs for requirements.
We build both fan and motor.
Send for Bulletin H.*

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architectural iron, water works supplies, railway supplies, ornamental iron and general jobbing. In the architectural line a full supply of beams, columns, castings and fire escapes will be kept in stock. In water works supplies all kinds of pipes, specials, hydrants and valves will be made, and special attention will be paid to the manufacture of brake shoes, frogs, switches and other castings essential in railway construction. Attention will also be paid to the manufacture of ornamental iron, such as grills, fences and railings. The office and works are situated at 262 and 278 Front street east.

CANADA AT THE PARIS EXPOSITION.

Canada will have 1,697 exhibits at the Paris Exposition this year, valued at about \$200,000. This is a smaller number than was sent to the Chicago Exhibition in 1893, but Mr. Wm. D. Scott, one of the Commissioners, says the quality of the exhibits is far superior to those sent to Chicago.

The exhibits include horticulture, agriculture, minerals, timbers—all natural products—manufactures and the Government's exhibits of fish and game.

Commissioner Scott, speaking of the Dominion's exhibits, said: "We have endeavored as far as possible to keep it purely commercial. We have never had anything like the mineral exhibit before. It has been prepared under the supervision of Dr. G. M. Dawson, director of the Geological Survey, and that should be a sufficient guarantee of its excellence. The territory covered by the specimens extends from the Yukon to Cape Breton and Nova Scotia. The British Columbia Government has a particularly fine display of minerals, including 100 specimens of free gold from 100 different creeks, some from Athl.

"The exhibits from the Yukon consist of placer gold and fine photos illustrating the method used in getting the yellow metal. Many of these photos have been enlarged and made into transparencies.

"The timber exhibit was prepared by Mr. J. M. Macoun, assistant Dominion naturalist, and comprises specimens of all kinds

of Canadian woods from the Atlantic to the Pacific—from a shoe peg to a sawlog.

"Another very important display will be made in the horticulture and agriculture departments. Canada, from ocean to ocean, is shown by her fruits and other products. Three thousand bottles of fruit in solution will be shown in the early stages of the exhibition, and during the season it is intended to send fruit over in cold storage to let visitors see it as it grows.

"There are 2,500 varieties of apples alone grown in Canada, so that gives an idea of the variety which can be exhibited. A large quantity of winter apples and pears are in cold storage in Montreal, now ready to be sent to the fair.

"A fountain throwing wheat will be in operation in the agriculture department, and the wheat will be taken from Manitoba and the Territories, and will illustrate the hard varieties grown in the Canadian west. The fountain will be worked by electricity. Other grains will be shown. The whole exhibit has been prepared by Dr. Saunders, director of Experimental Farms.

"Prof. J. W. Robertson has had charge of the food products exhibits, and these include cold storage plants shown in operation with all varieties of foods in cold storage.

"Fish and fruit will be shown in blocks of ice. The ice will be made from distilled water at the fair, and should be one of the best attractions at the fair.

"The game and fish exhibit will be very complete, and will show everything that swims, runs or flies in Canada. Some particularly large lobsters will be among the exhibits.

"Every line in manufactures will be well represented and among the exhibits will be agricultural implements, bicycles, carriages, waggons, iron working machinery, heating appliances, edge tools, etc. Textiles of different kinds will be exhibited, and some shoe-making machinery will be shown in operation. Everything a man needs in the line of wearing apparel is made in Canada, and will be shown at the fair.

"The Canadian Commission has opened offices at No. 10 Rue de Rome, where Canadian visitors can have their mail addressed and can get information upon their arrival.

"Canada has been allotted 50,000 feet of

space, and 30,000 of that is in the British Colonial building—the balance is alongside Great Britain in the main building. All the colonies are together in the Trocadero Gardens.

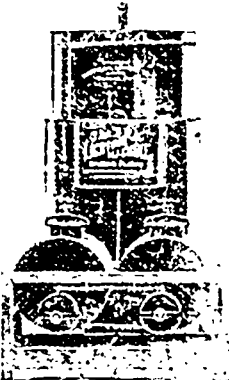
"A great deal of pains has been taken to get the best quality, and while the space is smaller than we had at Chicago the exhibits are much better."

NOVA SCOTIA IRON & STEEL COMPANY.

Upward of two years ago an act was passed by the Nova Scotia Legislature incorporating the Nova Scotia Iron & Steel Co., with a capital of \$1,000,000, the applicants for incorporation were members of the Nova Scotia Steel Co., and others associated with them. It was generally thought that the newly formed company would establish iron and steel works at Sydney, Louisburg, or some other shipping point in Cape Breton; and that they would take over the works of the Nova Scotia Steel Co. It was also regarded as possible that leading interests in the Dominion Coal Co., would join the new Nova Scotia Iron & Steel Co. But eventually another and larger corporation, the Dominion Iron & Steel Co. were evolved from the Dominion Coal Co. The Dominion Iron & Steel Co. did not take in the Nova Scotia Steel Co.'s Works at Trenton and Ferrona, but they purchased part of the Newfoundland ore deposits owned by the Nova Scotia Steel Co. But still the powers granted by the Legislature to the Nova Scotia Iron & Steel Co., are not to go unused. A bill has received its second reading in the Nova Scotia Legislative Council, the object of which bill is to amend the act incorporating the Nova Scotia Iron & Steel Co., one of the amendments being to increase the capital stock from their present limit of \$1,000,000 to one of \$20,000,000. Hon. Mr. Armstrong, who introduced the measure, said that the works at Trenton and Ferrona would be continued, and that large coal and iron developments would be carried out in Cape Breton. It was an open secret, he said, that the company had purchased the works of the old

Sun Lighting Machine.

ACETYLENE GAS.



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Perfection
in
Lighting.

At the Minimum of Cost.

Suitable for any place where Artificial Light is required. Dwellings, Stores, Churches, Factories, Hotels, Street Lighting, etc.

Write for Catalogue.

THE
Acetylene Lighting Co.
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T. WEST.
TORONTO

MAKE Gas or Gasoline Engines from 1 h.p. to 6 h.p.
Stationary or Marine and Electric Motors from 1/2 h.p. up.
Motor Carriages for Pleasure or Business.

One cent spent for a postal
will bring you any information
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MAKERS OF

Lamps and Transformers

Sole Agents for SCHEEFFER RECORDING WATT METERS
ST. CATHARINES, ONT.

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Sydney mines belonging to the General Mining Association. It was significant, he added, that when this bill went through the Legislature, and when the Nova Scotia Iron & Steel Co., were about to carry to a conclusion their intentions, the old General Mining Association, which had done business in the Province for three-quarters of a century, would go out of existence. Its old Sydney colliery and the large important submarine coal areas contiguous will be worked by the Nova Scotia Iron & Steel Co. The areas at Point Aconi and the Island of Boulardorie are to be opened up. These mines belong to the northern limit of the greatest coal fields in the Province.—The Iron Age.

A CHIMNEY THAT HAD OUTLIVED ITS USEFULNESS.

The recent enlargement of the works of the B. F. Sturtevant Co. at Jamaica Plain, Mass., necessitated the removal of the boiler plant to a new location and the abandonment of the existing chimney. Instead of building another chimney a Sturtevant engine-driven fan with watercooled bearings was installed above the battery of boilers, thereby occupying no valuable floor space. The fan operates on the induced system; the gases pass directly to it from the uptake and are discharged through a short stack extending just through the roof of the boiler house. There is absolutely no smoke. The engine speed is automatically controlled so that a very slight drop in steam pressure greatly increases the intensity of the draft. The steam pressure is thus maintained absolutely constant.

With the chimney it was necessary to burn Cumberland coal costing \$3.65 per ton. Now it is possible to utilize clear yard screenings costing only \$2.00 per ton. Comparative tests, made under the direction of Prof. Peter Schwamb showed an evaporation of 10.1 pounds of water from and at 212° per pound of Cumberland, and 9.28 pounds per pound of a half-and-half mixture of Cumberland and screenings costing

\$2.825 per ton. On this basis, and under the test conditions of coal consumption, the annual fuel expense would be—

Cumberland	\$5,020
Mixture	4,995
Saving	\$934

The fuel cost of operating the fan is practically nothing, for the exhaust steam from the fan engine is utilized for heating. The fuel saving in a single year is greater than the first cost of the mechanical draft plan. This cost was less than half that of a chimney. In a large plant with forced draft it need not exceed one-sixth that of a chimney.

A combustion rate of 21.45 pounds of coal per square foot of grate per hour was maintained, and the horsepower was increased 103 per cent. above the rating, with an evaporation of 10.75 pounds of water from and at 212° per pound of combustible and a temperature at the fan inlet of 389.5°. Had the size of the plant warranted the use of an economizer, this waste heat might have been utilized without impairing the draft. In fact the draft would have been improved.

After two years continuous use of the fan

without perceptible depreciation the absolute uselessness of the chimney became so evident that it was recently taken down for the sake of the bricks it contained, and the passerby now queries as to the method of draft production employed in a large manufactory without a chimney.

THIS SMOKE PIPE

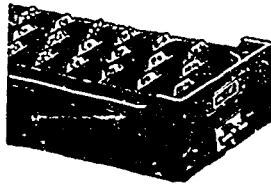
Serves to discharge the gases just above the roof and only thirty-one feet above the boiler-room floor. There is no smoke and no trouble whatever from the gases discharged at this low level.

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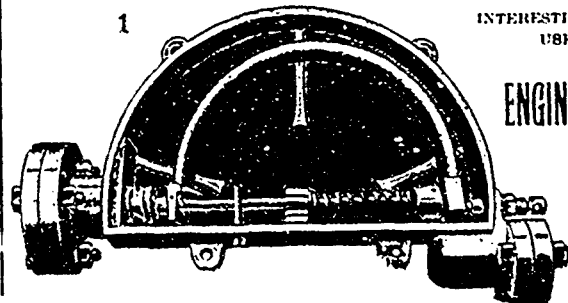
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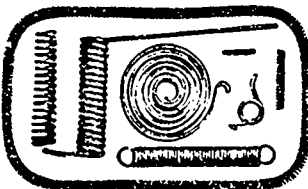
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TRADE WITH TRINIDAD.

The offer of the Dominion Government for a free interchange of products with Trinidad is under consideration by the Legislature of that Island. The announcement in Minister Fielding's budget speech has resulted in a scramble by Opposition members for statistics of the island.

Trinidad is the most southerly of the West Indian islands, and is quite close to the north coast of the continent of South America, Venezuela being only seven miles distant. The island is about fifty-five miles in length by forty in breadth, with an area of 1,750 square miles, and an estimated population of 300,000, of which Mr. Fielding said about one-third were negroes and one-third East Indian coolies. The island was discovered by Columbus in 1498, was colonized in 1588 by the Spaniards, and capitulated to the British under Abercrombie in 1797. The capital and port of entry is Port of Spain, with a population of about 50,000. Trinidad is a Crown colony, with a Governor appointed by the Home Government. He is advised by the Executive Council of seven official members and a legislative council of nine official and eleven unofficial members, all nominated. About 58,000 acres are under sugar cane, 105,000 acres under cocoa and coffee.

Trinidad is well known for its pitch lake of asphalt, which is 110 acres in extent, and is leased to an English company. During the year 1898 100,208 tons of asphalt were exported.

The chief exports of Trinidad in 1898 were: Sugar, 113,696,421 pounds, rum, 86,513 gallons, molasses, 660,535 gallons, bitters, 33,089 gallons, and cocoa, 21,340,960 pounds.

The exports of the island in 1898 were valued at £2,310,130 and the imports at £2,283,054. The directions in which the staples of the island, sugar, molasses, rum, cocoa, coconuts, asphalt and bitters, principally went were: Great Britain, £498,722; United States, £664,077; France, £257,940; Canada, £21,645. The imports from the United Kingdom were valued at £796,359, from Canada, £73,053, United States, £496,160; Venezuela, £574,613.

The principal imports of the island consisted of Flour, £152,797; rice, £104,146; hardware, £129,132; butter, £39,897; coal, coke, and fish, £66,818; malt liquor, meats, £72,789; coal oil, livestock, £64,160; lumber, £41,216; textile manufactures, £315,622; soap, fresh vegetables, wine, etc.

It will be seen from the aggregate trade figures that the United States has acquired a firm footing on the island. There is a possibility, however, of Trinidad turning to Canada for relief from her impending fate. The Governor, in his last annual report to the home authorities, says:

The ultimate fate of the sugar industry in Trinidad will depend almost altogether on the measures taken by the Imperial Government to abolish or counteract the bounties given by foreign powers. It is probable that five years hence, Louisiana, Hawaii, Cuba and the Philippines will be able to supply the consumption of the United States. The West Indies will then be driven to compete in England with bounty fed sugar.

On the island there are 600 miles of telegraph and eighty four miles of railway, thirty-two steamers from Europe arrive at the island every month, and four from Canada and the United States.

THRESHING MACHINERY.

The John Abell Engine & Machine Works Co., Toronto, have sent in their new "Cock o' the North" illustrated catalogue and price list having reference to the numerous lines of agricultural and farm machinery manufactured by them. One of the most interesting features of the book is a very fine half tone portrait of Mr. John Abell, the founder of the business, opposite which is the following statement which explains itself: "We have much pleasure in presenting with this catalogue a recent portrait of Mr. John Abell, our honored and beloved President and General Manager, the founder of the great business whose products are so favorably and widely known."

As this book will be placed in the hands of many new customers, we may repeat for their benefit what we said in our last large catalogue, namely, that

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Mr. Abell had the pleasure of receiving from the hand of Her Royal Highness, the Princess Louise, in the Senate Chamber, Ottawa, a silver medal, and has had the satisfaction of seeing his engines win thirteen gold medals, being all the gold medals offered for competition in Canada, besides winning silver and bronze medals, and securing many diplomas both at home and abroad.

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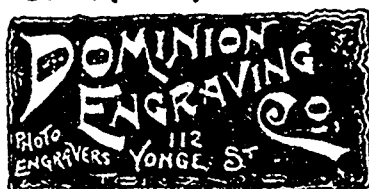
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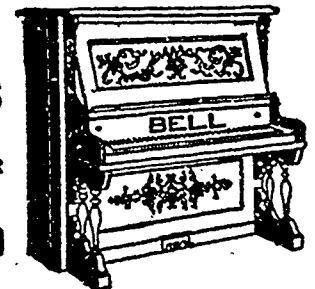
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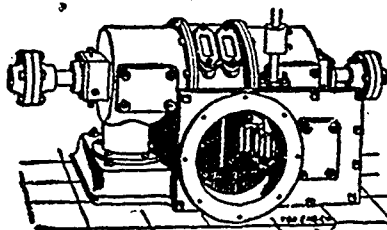
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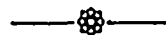
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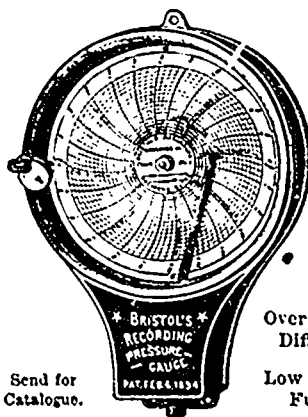
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