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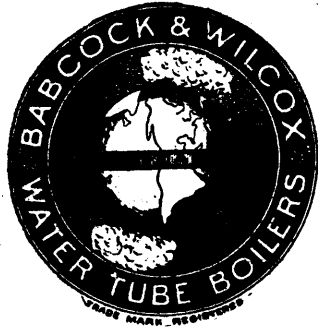
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Vol. 42. TORONTO, MARCH 1, 1901. No. 5.



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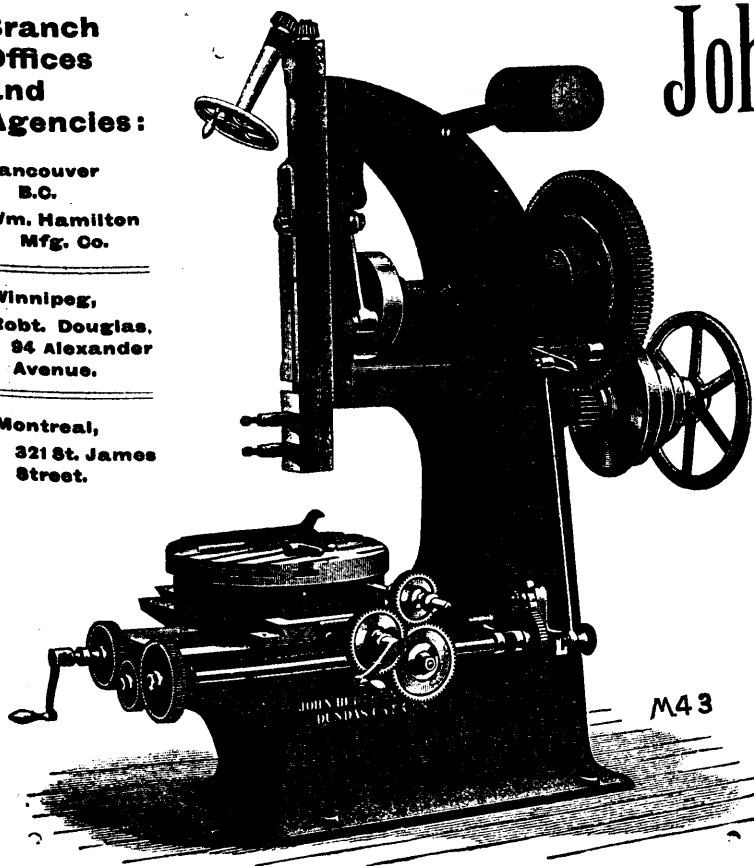
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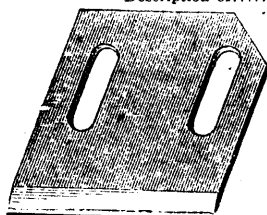
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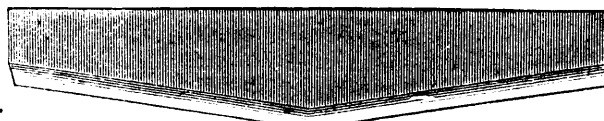
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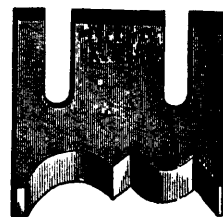


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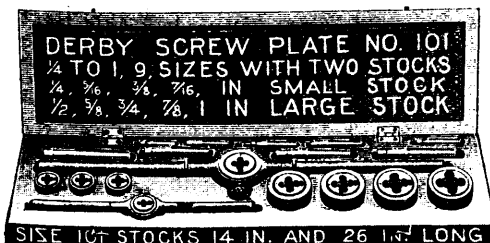
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STEAM YACHTS AND LAUNCHES.

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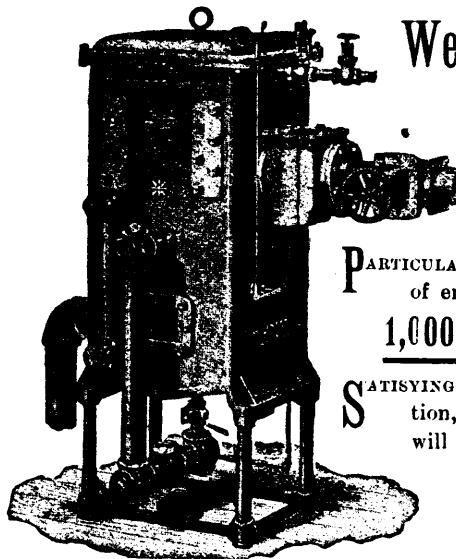
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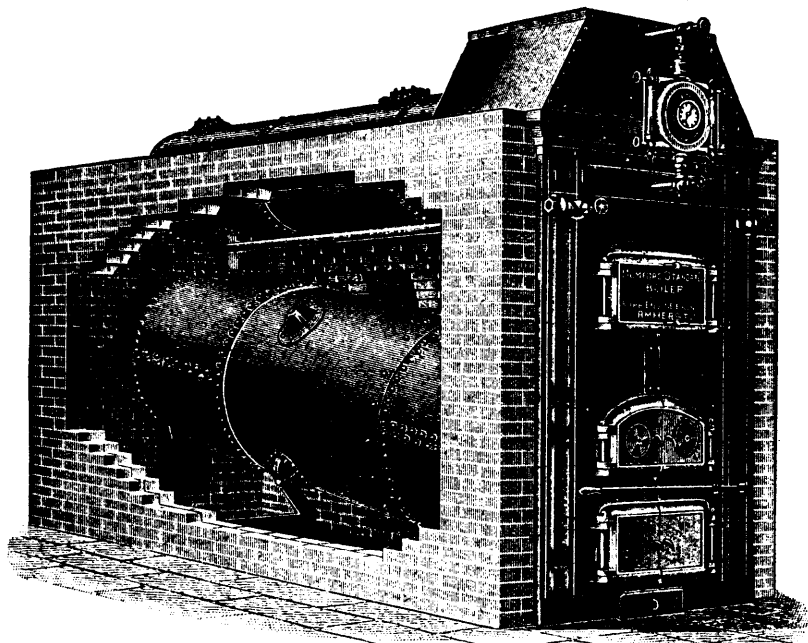
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DELIVERY MADE AT NEW YORK, MONTREAL OR HAMILTON.

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Is built for brick casing, or with sheet steel case, as desired by purchaser. Uses 10 to 25  
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**PATENT WOOD SPLIT PULLEYS**

WITH INTERCHANGEABLE BUSHING SYSTEM.

*Standard of Excellence Everywhere.*

**OVER 2,000,000 IN DAILY USE**

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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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## Reflectors, Shades, Lamps

We Stock a Large Variety of SHADES  
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**ALUMINUM, MIRROR, CELLULOID, PAPER, PORCELAIN,**  
**FOR FACTORY AND OFFICE.**

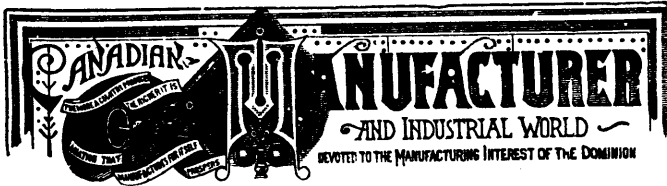
**Imperial Lamps and Helios Upton Enclosed Arcs** Give **BEST LIGHT** with **LEAST CURRENT**

**ELBRIDGE Sparking Dynamos, SAMSON Batteries and IMPERIAL Salts, for Gas or Oil Engines.**

Write us about Lighting  
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 Cable address: "CANAMAN." Western Union Telegraphic Code used.

**MESSRS. DAVISON & CO.,**

164 Federal Street, - Boston, Mass.  
 AGENTS FOR UNITED STATES.

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J. J. CASSIDEY, - - - Editor and Manager.

**PROVINCIAL CONTROL OF RAILWAYS.**

The financial statement made by Premier Ross to the Legislature on February 21, was of more than usual interest and significance, as it embodied a proposition in favor of the construction by the government of a railroad from North Bay for the opening up of the Temiscaming country in place of the usual plan of subsidizing a private corporation to undertake the work. Mr. Ross did not absolutely commit the administration to this method, still less did he declare in favor of any general system of Provincial railway ownership, but the tone of his speech indicated very clearly that he fully realized the necessity of safeguarding the interests of the public against the flagrant abuses of monopoly rule, and considered that the surest and easiest way to accomplish this end in regard to New Ontario is the retention of the control of the highways in the hands of the people's representatives. As to whether this course will be finally pursued is a matter which altogether depends upon the measure of public support accorded the proposal.

There is perhaps no important question upon which public opinion has crystalized more rapidly than that of the public ownership of railways, and the reception of Premier Ross' timely suggestion has thus far been so favorable that there is little doubt that he will carry it into effect with the fullest measure of popular approval. There are especially strong reasons why the road which is to be constructed into the richest portion of New Ontario, which will afford the incoming population an outlet for their products, should be under public control. The geographical situation and character of the country, and more than all, its position with regard to rival business centres and competing lines of traffic, render the question of vital importance to the commercial and manufacturing interests of Ontario. Recent developments in railway management sufficiently show the danger which menaces the trade of this country at the hands of great railway corpora-

tions by the diversion of traffic from Canadian ports to Portland and Boston. The trade of the undeveloped regions of New Ontario is naturally tributary to Toronto and the western peninsula of the Province and it is of the first importance that ample safeguards should be thrown around any scheme involving the building of the road with public money, to prevent the diversion of the traffic into other channels.

It is no less desirable to secure cheap transportation rates and prevent the extortion so generally practised by railway corporations.

When a subsidy is granted at so much a mile, the invariable tendency is to construct as large a mileage as possible in order to secure the Government subsidy, and to sell the bonds of the company, most charters giving them power to issue bonds in the proportion of \$20,000 per mile. Hence the road is pushed through rapidly; often greatly in advance of public requirements, and population strung out sparsely in small settlements instead of the country being peopled compactly and consecutively. Under Government construction the work need be pursued no faster and no farther than required, letting settlement advance gradually and fill up the surrounding country. The plan of concentrating settlement instead of letting the homesteads be too widely scattered is specially desirable in connection with an area through which the Temiscaming Railway will pass, covering a distance of fifty miles embraced within the limit of the Temagami Forest Reserve. This is covered with the largest body of pine timber remaining in the Province. The presence of any considerable number of settlers on the running of a railway through this region, without extraordinary precautions such as no private corporation has hitherto taken, would in all probability result in its destruction by fire at an early date. Both the construction of the road and the distribution of settlements ought to be under direct Government management if this calamity is to be avoided.

Roads built in order to claim subsidies and sell bonds in advance of the legitimate demands of traffic, entail heavy freight and passenger rates. The management fix the rates sufficiently high to cover the interest on bonds, sold generally at a heavy discount, as well as on the Government subsidy, and in addition they figure on paying a dividend on their common stock. Until this point is reached, all expostulations as to the extortionate figures charged are met by the answer that the line does not pay, and that therefore they cannot reduce them. Under Government ownership all that the road would require to earn above running expenses would be the actual cost of construction. It is estimated that the Temiscaming Road could be built to James Bay at a cost of \$15,000 per mile; the sum voted by the Dominion Government, to the original holders of the charter covering a considerable portion of the route is \$3,200. Deducting this from the estimated cost of construction would leave \$11,800 per mile as the amount on which interest would have to be paid out of the receipts, as against a bond issue of \$20,000 per mile and possible dividends under the system of private management.

The enormous public heritage to be developed in New Ontario, including at least 16,000,000 acres of agricultural areas, immense pine and spruce forests, and great mineral and peat fuel resources, should be utilized in accord with some general plan on which the country could be settled

steadily and systematically, and the various industries established with an eye to the good of the whole people and the consideration of each interest involved. The work should be undertaken, as was pointed out by the Premier, for the benefit of the Province of Ontario, instead of allowing our trade to pass into the hands of others. In pointing out the manner in which this can be accomplished, and directing the public attention to the magnitude of the issues involved, Mr. Ross has given an additional evidence of the statesmanship and foresight which has characterized his administration, and we trust that in this notable new departure his hands will be strengthened by the support of the industrial and mercantile interests of Ontario irrespective of party affiliations.

#### CANADIAN MANUFACTURERS AND DEPARTMENTAL STORES.

Mr. W. B. Rogers, president of the Retail Merchants' Association of Canada, makes strong objection to THE CANADIAN MANUFACTURER's criticism upon the methods of his association in endeavoring to injure the business of one of the largest manufacturing concerns in Canada because, in connection with their other business, they operate a departmental store. Mr. Rogers writes a letter to some of the Toronto daily newspapers in which he says:—

If the editor of THE CANADIAN MANUFACTURER is more interested in departmental store manufacturers than in one-line manufacturers, many of whom advertise in and support his paper, then it would be well for the retailers and manufacturers to thoroughly understand his position.

The cause of the pain in Mr. Rogers' diaphragm was occasioned by a remark made in these pages to the effect that the T. Eaton Company were considering the removal of their manufacturing plant from Toronto because of the persistent and idiotic fight the Retail Merchants' Association were making upon them because they operate a departmental store.

Of course it affords us pleasure to again define our position in this matter. It is not the policy of this journal to array itself either for or against departmental stores, as such, nor do we advocate any class of manufacturers doing so; and whatever we may say is said from the standpoint of a correct journalistic representation of the interests of manufacturers as we view it. Without reference to any other business in which Mr. Eaton may be engaged he is a manufacturer who has invested large capital in plant and machinery in the production of a certain description of goods, in doing which he gives employment to a large number of men and women, boys and girls. We are not considering the question of how he disposes of them; and in our opinion the man or association who attempts to injure that business is not acting in the best interest of the community. So, too, Mr. Rogers is a manufacturer engaged in the production of a certain description of goods and as such he is a valuable integer in the community, and no man or influence should endeavor to injure his business except, incidentally of course, through fair and legitimate competition, resulting in the survival of the fittest. Mr. Eaton operates a store in which he sells a large variety of articles, among which may be enumerated furniture. He is not a manufacturer of furniture, but a purchaser of it. Mr. Rogers is a manufacturer of furniture, such as Mr. Eaton sells, and he is also a retailer of furniture as Mr. Eaton is.

There are many other manufacturers of furniture besides Mr. Rogers; and if some of these can afford to sell their products to Mr. Eaton at prices which enables him to dispose of them to the people who wish to buy, and at prices at which Mr. Rogers cannot or does not wish to compete, it is only a question of time as to the survival of the fittest. A nimble sixpence is better than a slow shilling, and if consumers who have occasion to purchase furniture can obtain it for less money from Mr. Eaton than from Mr. Rogers, why should they not be allowed to do so? The manufacturer who makes furniture which Mr. Eaton sells from his store is a consumer of raw materials and an employer of labor the same as Mr. Rogers, and why should Mr. Rogers object to the competition of his brother manufacturers? Mr. Eaton sells numerous lines of goods, but as far as our knowledge goes he is a manufacturer of but one line, and we have the same interest in his success as a one-line manufacturer as we have in Mr. Rogers' success as a one-line manufacturer. Mr. Eaton has never patronized this journal by advertising in it, neither has Mr. Rogers, but we enjoy the patronage of many other manufacturers, some of whom confine their products to only one line, while others engage in the production of several lines, and these understand our position on the question under consideration quite as fully as Mr. Rogers could wish.

#### FLYING OFF THE HANDLE.

In a previous issue of this journal was discussed the possibility of the removal of the manufacturing department of the T. Eaton Company from Toronto to another city, the idea being advanced that the dissatisfaction of the Company had its inception in the fight made upon it by the Retail Merchants' Association because it operates a departmental store. It was also mentioned that an aggressive fighter against the Eaton Company was Mr. E. M. Trowern, secretary of the Merchants' Association, who was, at the time alluded to, an employe of the Canadian Manufacturers' Association, and that while he was taking pay from that Association he was spending time and energy in endeavoring to destroy the business of one of the largest manufacturing concerns in Canada.

Several of the Toronto daily papers thought the article to be of sufficient interest to be reproduced in their columns, whereupon Mr. W. B. Rogers, president of the Retail Merchants' Association, addressed letters to them in defence of Mr. Trowern, in which, lacking just cause of complaint, he finds relief in making statements which vary very widely from the important element of accuracy.

No man knows better than Mr. Rogers, who was a member of the executive committee, that Mr. Trowern was never secretary of the Canadian Manufacturers' Association. His accomplishment as "a well posted man on association work" was not challenged, and his connection with the Association was only as an employe whose duty it was to canvas for new members for it. Other men before his time and since labored with better success than he met with, and even at this time the Association is employing several persons in thus obtaining new members. There was no intimation in our article that Mr. Trowern was doing the work of one association without the knowledge of the other, a point at which our criticism was aimed being that the gentlemen of the execu-

tive committee who employed him to solicit manufacturers who were non-members to join the Association, were well aware that he was at that very time actively engaged in behalf of Mr. Rogers' Retail Merchants' Association, in fighting a large and important manufacturing concern—that at the very time he was taking pay for canvassing for new members for the Manufacturers' Association, he was spending time and energy in endeavoring to destroy the business of one of the largest manufacturing concerns in Canada. This was well known to the executive committee of the Association, of which Mr. Rogers was a member, and his intimation that Mr. Trowern was at the time secretary of the Association, which he was not, accentuates a condition that reflected as little credit upon the individual as upon those who stultified themselves in employing him. This questionable condition, when it became generally known, resulted in the severance of the tie that required a solatium of a month's salary to even things up, which Mr. Rogers imagined to be an honorarium and testimonial for services rendered.

#### THE OLD GUARD.

The February issue of *Industrial Canada* informs us that during the previous month Mr. H. J. Dale, representing the Canadian Manufacturers' Association, had called upon a number of manufacturers in Vancouver and Victoria, B.C., with the result that several of them in that province had sent in their application for membership. "The result of this will be," says the organ, "that the manufacturers will now have the benefit of an Association whose interests are as extensive as the country itself, and the deliverances of its committees will henceforth carry much greater weight and influence."

The *Victoria Colonist* of February 12, informs us that Mr. Dale was there in that city as a special representative of the Association, his mission to the Coast being to place before the manufacturers there the advantages to be derived by becoming members of the Association. Speaking to a representative of the *Colonist*, Mr. Dale said that although the Association had been in active existence for twenty years it was only recently that it had made its importance felt. It is the work of the legislative committee, he said, to watch every measure introduced into Parliament, to carefully consider the possible effect on the manufacturing industries, and when necessary bring influence to bear on the Government to have the bill so framed that it may not conflict with the interests of any group of members of the Association. The tariff committee is entrusted with the task of securing variations in the tariff that will tend to benefit both the manufacturer and the consumer; and as the Association is strong, numerically, and represents large capital, it is enabled to bring strong pressure to bear upon the Government, and secure concessions that individual manufacturers, and even a combination of all those engaged in one line of business, could not hope for. Mr. Dale reported that the task assigned him in British Columbia had been an easy one. All the important manufacturing concerns had joined the Association, and the principle object of his visit to the province had been accomplished, which was to secure the co-operation of the lumbering interests in securing the re-imposition of the

duty on lumber, which will be one of the Association's strongest efforts during the present session of Parliament.

We suppose that Mr. Dale's little speeches and arguments were prepared for him before he left Toronto, and that he was saying just what he was instructed to say, but it is this sort of twaddle that is nauseating in the extreme. The policy of the present management seems to be to ignore all that the Association had effected during the twenty-five years of its previous existence in the interest of Canadian manufacturing industries; not to remember that for a quarter of a century the influence and work of the Association was a most potent factor in shaping the fiscal policy of the country, a policy which even a changed Government declined to abandon. It is not surprising that Mr. Dale should ignore the past services of the Association, confining his remarks to telling that the manufacturers will now—under the present regime—have the benefit of an association whose influence has now become as extensive as the country itself, and how the deliverances of its committees will henceforth carry much greater weight and influence than when the Old Guard was on deck. It was a beautiful tribute to the Old Guard when Mr. Dale told the British Columbia manufacturers that it was only recently the Association had made its importance felt; when he told them that now every measure introduced into Parliament received the most careful consideration; that now the tariff committee could secure variations in the tariff which would benefit the members; that now the Association is enabled to bring such strong pressure to bear upon the Government as to secure such concessions as might be demanded, and to promise the lumbermen that the duty on Yankee lumber would now be re-imposed—that it would be one of the strongest efforts of the Association to effect this through its strong pull with the Government. It is not surprising, we say, that Mr. Dale should babble such stuff when he has access to *Industrial Canada*.

Who were the boys of the old brigade? Who composed the Old Guard? Here are the names of some of them:

William Bell, James Worthington, Joseph Simpson, James Watson, George Booth, Robert MacGregor, W. H. Storey, J. S. Larke, Henry Bickford, R. W. Elliot, J. B. Armstrong, Adam Warnock, Wm. Chaplin, John Taylor, James Kendrey, F. J. Philips, Emil Boeckh, Thomas Cowan, Samuel May, Frederic Nicholls, James Goldie, Edward Gurney, J. A. Pillow, Bennett Rosamond, George Pattinson, M. B. Perine, B. Greening, G. W. Sadler, J. R. Barber, Robert Mitchell, Louis Cote, Wm. Christie, W. F. Cowan, William Harty, Wm. E. Sanford, John Bertram, W. H. Law, Geo. E. Drummond, John Penman, John Hewton, A. E. Kemp, John Cowan, A. W. Brodie, John Ferguson, J. O. Thorne, T. H. Smallman, J. M. Taylor, Henry Stroud, James Warnock, H. J. Bird, J. T. Smith, John Calder, J. A. Cantlie, George Clare, A. W. Morris, David Morrice, Robert McCullough, C. D. Warren, James Hay, D. F. Jones, John McClary, R. W. Henniker, D. W. Robb, William Thoburn, E. C. Walker, S. T. Willett.

#### THE PROPERTY OF THE PEOPLE.

A large and representative meeting was held in Toronto a few days ago under the auspices of the Single Tax Association, to listen to an address from Hon. T. L. Johnson, of Cleveland, his subject being "The Effect of Taxation on

Material Prosperity." Mr. Robert Kilgour, a prominent citizen of Toronto largely interested in banking and manufacturing enterprises, presided, surrounded by a number of other influential gentlemen.

Mr. Johnson laid down the general principle that it was the land and not property that should bear the burden of taxation. He argued for the workingman, saying that when he put up a home he made the property around more valuable, and under the present system of taxation he was paying more than his share. If land was taxed every vacant lot owner would lose, "and he is the man we are after," said Mr. Johnson. "When you abolish taxation on improvements and put it on land, you do not pay men a premium to do things we do not want them to do.

"This system of land owning is a cause of poverty, of drunkenness and crime. It is this system that shuts the door and makes it appear that God has put more people on earth than earth can support.

"Under a natural system a man should make a good living in six hours a day, and no man will need to work at starvation wages.

"I believe the best way to get on in life is to help others.

"Tax stocks and bonds? Not a bit! You have value for them because you have ownership in property somewhere, which is already taxed. You wouldn't put a tax on a man's house and lot and also on the deed, would you? I would not tax the capital of a bank, but I would tax the ground the bank occupies.

A questioner arose:—"How about the companies who own valuable public franchises, but who own very little land?"

The answer was emphatic. "All public franchises should be the property of the people. They should own and operate every monopoly in the land. Till they do the franchise value is the land value, and should be taxed to the utmost. That is, the strip of street they pass through should be taxed up to the value of the franchise.

"If you can put into effect a single tax and make it impossible for men to hold land idle, works will multiply, wages will rise, and we will not witness the sight of able-bodied men begging another man for a job."

This sentence, and the arguments that backed it up, were enthusiastically received, and when Mr. Johnson left the hall he received what to him must have been a gratifying ovation.

#### AN OPPRESSIVE LAW.

The Mail and Empire publishes an editorial having reference to the Act passed about a year ago by the Ontario Legislature, and since gone into effect, respecting the licensing of extra-provincial corporations, in which it quotes the opinion entertained by the London, Eng., Daily Express regarding it. The Act makes it obligatory upon any commercial corporation doing business in Ontario other than those incorporated by the Ontario Government, to obtain a license from the Government to do business in the province, neglect to do which subjects the offender to heavy fine. The cost of the license is regulated by the amount of the capital stock of the company, ranging upward from twenty-five dollars. The Act is no respecter of sources from which

authority is derived for corporations to exist, but applies not only to American concerns desiring to do business in Ontario, but to every other country including the British Kingdom and to every other province in the Dominion. The English journal describes the Act as "anything but reciprocity," stamps its operation as an "official theft," and declares that the applicant for a license under it has to submit his affairs to an "inquisitorial" examination. These terms are expressive of strong indignation at an Act that never should have been passed.

The Act bears with great severity upon manufacturers who come under the operation of it, particularly those doing business in the city of Toronto, our information being that more than a hundred corporations engaged in manufacturing in this city are affected by it, and that many of these are members of the Canadian Manufacturers' Association. We were informed in the December issue of Industrial Canada that the Association had appointed a committee to report as to what action should be taken by the manufacturers in this connection, but if any such report has been made it has not been published, nor have the manufacturers been invited to co-operate with the Association in an endeavor to have repealed a most obnoxious and oppressive law.

We quite agree with the Mail and Empire that "the Act ought never to have been passed. Every company authorized to do business in any other province of Canada, every company trading under the authority of a Dominion law, every company having a British charter, should be permitted to trade here free. Ontario's action is likely to promote retaliation, and instead of a free movement of trade throughout the Dominion there will tend to be commercial non-intercourse among the provinces."

#### EDITORIAL NOTES.

Only one town in Ontario is illuminated with acetylene gas. This is Bradford, which has a population of 1,000. The light is eminently satisfactory, and it is supplied at a cheaper rate than coal gas could possibly be sold for under similar conditions. Niagara Falls is an ideal location for a carbide factory. If electric current were available there, Ontario might have the biggest carbide plant in the world. There is a world-wide market for carbide, and the country that can produce it the cheapest is the one that will command the business. No country has better facilities for the carbide industry than Canada. It is a thousand pities that the Ontario Government is so dilatory in developing the electric resources of Niagara Falls.—The Toronto World.

The reason why Canada does not possess a carbide industry with sufficient capacity to supply the home demand, and energy to do it, is because the patent under which the article is made is in the hands of a few men who have become rich through their monopoly.

Industrial Canada states that inquiry had been received, (presumably at the office of the Canadian Manufacturers' Association), from a large house in England, buying for Australian trade, for names of Canadian makers of boots and shoes, to be shipped direct to Australia, and that "any information will be gladly furnished through the office of the Association." Why not send the large house in England a copy of the Canadian Trade Index? On reference to it we discover the name of only one Canadian maker of boots and

shoes, but the Buyers' Guide of Canada gives the names and addresses of forty of the leading manufacturers and shippers of such goods.

Hon. G. W. Ross, Premier of Ontario, in his budget speech, outlined the Government's programme of legislation for the present session. Without committing himself to the project, he threw out the suggestion that a railway, 160 miles in length, from North Bay to Temiscaming, to open up the latter district, might be built with public funds. He also announced that the Government would bring down bills to encourage beet sugar production, to improve the public highways by an expenditure of \$1,000,000 in ten years, to abolish toll roads, to encourage the dressed beef industry, and to promote technical education.

How well we all remember the day when the free-traders mounted to the housetops and shouted long and loud that the tariff was a tax upon the consumer. Perhaps they really believed what they said at the time. Perhaps some of them really believe it now. If any do they should turn their attention to current events in China, where the Chinese Government is urging that it be allowed to increase the customs duties, and the representatives of the Powers are declining to entertain such a proposition on the ground that it would be a hardship to the foreign producers, and that the latter would have to pay the money thus raised by China for indemnity purposes. Even the representative of free-trade England takes this view of it. In other words, it is everywhere admitted that the foreign producer, not the consumer, pays the tax.—Troy, N. Y., Times.

Our Toronto correspondent, referring to the recent increase in attention that is given to the pulp wood and paper mill interests in Canada, emphasizes the need of the Dominion for more American capital. Canadians are beginning to seriously consider the almost limitless resources of their country in localities that have as yet been scarcely explored. It will undoubtedly take a vast amount of money to develop these sections and to advantageously utilize enormous natural resources that there exist. Undoubtedly there is an abundance of American capital ready for just such investments, providing they seem to offer a reasonable opportunity for profit. The intimate commercial and industrial relations between the Dominion and the United States are likely to be more and more strengthened by the alliances that must come from the large employment of American capital in that part of the continent.—The Paper Mill.

Canada welcomes capital, come from where it may. When it is invested here it immediately becomes Canadian capital.

At the recent meeting of the British Empire League in Canada, held in Ottawa, a letter was read from Hon. G. W. Ross, Premier of Ontario, in which he took strong ground in favor of preferential trade within the British Empire against the rest of the world. He said: "The largest question which is likely to be very soon within the arena of Imperial politics is preferential trade within the Empire. In my opinion, the time is near at hand for extending the area of preferential trade, and including within its scope the whole Empire. Our trade with the other colonies is growing steadily. We are already in a position to supply many of them with classes of goods which they now purchase from foreign

countries. If all the colonies would enter into a federation for trade with each other and with the United Kingdom, as against the world, they would be brought more closely together commercially and politically; and if this were followed up by preferential trade on the part of the United Kingdom with the colonies against the world, our hold of the British markets would be strengthened, and a great impetus given to all our industries." This has the ring of the true metal.

The publishers, Messrs. Allman & Son, 67 New Oxford St., W.C., London, Eng., have sent us a copy of "The Metric System in Theory and Practice," by S. Jackson, M.A., with an introduction by J. E. Dowson, chairman of the executive committee of the British Decimal Association. Crown 8 vo., cloth, price one shilling—with answers,  $\frac{1}{6}$ . The table of contents includes (1) description of the metric system; (2) arithmetical operations; (3) calculations of prices; the system in practical detail as regards length, area, volume, capacity, weight and measurement; and the system having reference to decimal coinages, the proposed British decimal coinage, the calculation of prices, and the conversion of foreign coinages, weights and measures. Regarding this valuable little book the London Chamber of Commerce Journal says: "A clear and concise treatment of the principles of the metric system, with ample examples and carefully graduated practical exercises, illustrating beyond doubt the advantages that would accrue to commerce by the adoption of such a system. The work throughout is carefully compiled and well produced. We can confidently recommend this book equally to the notice of all teachers, pupils and students desirous of understanding the principles and application of the metric system."

The German Government have arranged for efficient steamship service between that country and South African ports, to be maintained for fifteen years, for which very liberal subsidies are to be paid. One item included in the convention goes about as far in the way of protection as the most ardent McKinleyite could wish for, and is as follows:

The new steamers must be constructed and fitted out in German yards, and German materials as far as possible are to be employed; plans are to be submitted for the approval of the Imperial Chancellor; the supply of coals is to be from German sources when the ships are in the German, Dutch or Belgian ports named; provisions to be supplied from German sources; no agreements can be made with foreign governments concerning the carriage of mails, etc., without the sanction of the Imperial Chancellor; the Chancellor is authorized to prevent the import by these vessels into German, Dutch and Belgian ports of all agricultural products which compete with similar products of German agriculture, with the exception of tobacco, beeswax, skins, hides and wool; German goods, or those destined for Germany, or goods from or to German protectorates, are to be forwarded before foreign goods destined for foreign places, if their shipments are notified to the company at the same time; employees as well as agents in foreign places must be German subjects.

At Brussels, Belgium, on December 13, last, the International Conference for the Protection of Industrial Property adopted the following resolutions:

First.—The period of exclusive rights, previously fixed at six months for patents and three months for industrial

designs, models, and trade marks, is extended to a year for the first named and four months for the second named.

Second.—Countries signing the convention enjoy reciprocally the protection accorded by each country to its citizens against unfair competition.

Third.—Patents cannot lapse because they are not put in circulation, except after a minimum delay of three years, dating from the first application in countries where the patent is allowed, and in cases in which the conditions of the patent do not justify causes of inaction.

The unjust discrimination in freight rates practised by the Canadian trunk lines of railway against Canadian commerce in favor of American shippers, has worked more strongly to the disadvantage of Canada than any high customs tariff could ever do, and should the Government refuse to allow the preferential tariff rebate to British goods entering the country through a foreign country, the remedy would be incomplete and to a large extent ineffective. Circumstances frequently exist where even the imposition of the full duty on British goods would not prevent their importation through the port of New York, and many importers in Ontario and Manitoba would deem it a hardship to be forced to pay full duty when importers in Quebec and the Maritime Provinces enjoyed the rebate. The only effective remedy for the evils complained of is the Government ownership or control of the railroads.

The executive committee of the Canadian Manufacturers' Association have appointed the following additional representatives to the Toronto Industrial Exhibition Association: Messrs. Octavius Newcombe, of Newcombe Piano Co., Toronto; James Tudhope, of Tudhope Carriage Co., Orillia, Ont.; T. L. Moffatt, of Moffatt Stove Co., Weston, Ont.; John Tilden, of Gurney-Tilden Co., Hamilton, Ont.; F. B. Fetherstonhaugh, patent solicitor, Toronto; R. B. Andrew, of Bell Organ and Piano Co., Guelph, Ont., and J. N. Shensone, of Canada Cycle and Motor Co., Toronto.

At a recent meeting of the executive committee of the Canadian Manufacturers' Association a discussion arose over the reported intention of the Grand Trunk and Canadian Pacific Railways to sidetrack Montreal, Quebec, Halifax and St. John, both summer and winter, as far as they could do so, in favor of Portland, Maine, and Boston, Mass. Considering the fact that the Dominion Government has contributed very largely towards the construction and maintenance of these roads, it would be an outrage upon the whole country should the threat be put into execution, and every effort should be made to frustrate it. The committee were of the opinion that a counter move should be made by the Dominion Government by refusing to allow the preferential tariff rebate in favor of British goods unless imported directly into a Canadian port. The Government should take the proposed action very promptly and it should also obtain a controlling interest in both roads by purchase of a majority of stock.

The Council of the Toronto Board of Trade has taken up the matter of drop-letter postage in cities and towns and will endeavor to induce the Government to reduce such postage to one cent.

The American Iron and Steel Association has received from the manufacturers complete statistics of the production of all kinds of pig iron in the United States in 1900, which, compared with the production of three previous years, was as follows:—

1897 .....	9,652,680 tons.
1898 .....	11,773,934 "
1899 .....	13,620,703 "
1900 .....	13,789,242 "

The production in the second half of 1899 and the first half of 1900 aggregated 14,974,105 tons, or almost 15,000,000 tons; against which there was a decline of production in the second half of 1900 as compared with the first half of 1,495,896 tons. The production of Bessemer pig in 1900 was 7,943,452 tons, against 8,202,778 tons in 1899; of basic pig in 1900, all made with coke or mixed anthracite and coke was 1,072,376 tons, against 985,033 tons in 1899; of spiegel-eisen and ferromanganese in 1900 was 257,977 tons, against 219,768 tons in 1899, and of charcoal pig in 1900 was 339,874 tons, against 284,766 tons in 1899.

A meeting of the executive committee of the Canadian Electrical Association to make preliminary arrangements for the annual convention at Ottawa was held at Montreal a few days ago when it was decided that the dates of the convention should be June 19, 20 and 21. A committee was appointed to arrange for papers and topics for discussion, and a strong local committee was nominated to make the necessary arrangements for the meeting which gives promise of being a most successful one. A number of new members were elected at this executive meeting.

The indications at this writing are that Congress will disappoint the reasonable expectation of the taxpayers of the country by neglecting to make any large changes in the revenue act. That law, for two or three years, has been piling up a surplus of seventy or eighty million dollars in the treasury. From the treasury this unneeded money is sent to New York, where bankers lend it out at a profit to their customers. Thus we have the very curious condition that the government takes from the people earnings which it does not want, and permits favored individuals to find advantage in lending this money to the people who gave it and own it. The legal right of Congress to do such a thing is clear enough, but the moral right is more than questionable. The people paid the taxes cheerfully when the exigency of war presented itself; but they have a natural and creditable unwillingness to continue paying them long after the war has ended. The responsibility for maintaining this heavy and useless burden rests of course with the predominant political party, and that party solemnly pledged itself in its platform to take the burden off. The remarkable victory won by it at the polls is not therefore, warrant for the enlarged expenditure upon which some public men seem to have their minds set, but is rather in the nature of a command that the taxes shall be repealed. Two or three years ago there was much outcry because the country had "a billion dollar Congress." Now the plain promise is that Congress at this one session will expend almost as much as that Congress of unfavored memory expended in two sessions. The truth is that the presence of a large surplus offers a temptation to promote projects for using the public money which could find no support were no surplus in existence, and this temptation members of Congress find difficulty in resisting. The Ship Subsidy bill, for example, has its only hope in the surplus; but we incline to believe that the adoption of that measure will not be regarded by the nation with approval while taxation presses so severely upon industry.—The Textile Record.

## 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, belt-ing, 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, alkalis, 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 "Extra C" quality double thirty-six inch leather belt, which recently started up the Shawinigan Water & Power Co's Mills, was supplied by D. K. McLaren, Montreal, who informs us that he imports only the Genuine English Oak Tanned Strap Butts—the quality called for by the Shawinigan Water & Power Co.

The McKinnon Dash & Hardware Co., St. Catharines, Ont., and the Niagara Falls Metal Works Co., Niagara Falls, Ont., have amalgamated and formed a joint stock company under the name of the McKinnon Dash & Metal Works Co., with a capital of \$400,000, and head office at St. Catharines. The question has not yet been decided which plant will be closed, since they have decided to concentrate in one of the two places. At the St. Catharines plant the pay-roll averages annually \$25,000, and is giving employment to about sixty hands. In Niagara Falls the pay-roll is \$30,000 annually, expended among upwards of seventy-five hands. It is proposed, when the amalgamation takes place, to increase the number of employees to 150, which will bring the pay-roll to about \$60,000.

The Ingersoll Metallic Mfg. Co., Ingersoll, Ont., has been incorporated with a capital stock of \$20,000. The provisional directors include G. H. Clark, P. H. Forman and William Toull, all of Ingersoll.

The Canada Woolen Mills at Lambton, Ont., which were burned a few days ago, will not be rebuilt in that place, the company having decided to build in Hespeler, Ont.

The Guelph, Ont., Heading & Stave factory has again resumed operations. This

factory was wiped out by fire last fall. The new premises are considerably larger than those destroyed, and afford good facilities for the manufacture of heading, hoops, and all kinds of building material. The cost of re-fitting and rebuilding the new mill was \$4,000.

The Argentine Peat Syndicate, Guelph, Ont., has been incorporated with a capital stock of \$60,000. The provisional directors include E. P. Hawkins and G. B. Morris, both of Guelph, and A. D. Campbell, Buenos Aires, Argentine Republic, South America.

The green glass house of the Sydenham Glass Co's plant at Wallaceburg, Ont., was destroyed by fire February 19, loss heavy. Fortunately all the adjoining buildings were saved. The company will rebuild at once, as the producers and tanks are not seriously damaged. It is expected they will be in operation again in two or three weeks.

The new clock now being erected in the tower of the new city hall of Toronto, is arousing a great deal of curiosity in the minds of the citizens generally, inasmuch as it is the largest thing of its kind in the Dominion, if not in America. The works of the clock reached Toronto early in January by special freight from Boston, and ever since then a gang of expert workmen have been engaged in putting it in place, a task of no small difficulty when it is understood that the working parts of this clock might easily be taken for those of some large steam engine and the segments of the steel dial frame for the trusses of some steel bridge. To give our readers some idea of the size and weight of the parts of this gigantic clock, it

might be interesting to mention that the west dial framework is now in place, ready for the glass, and the north one well under way to completion. The dials will be twenty feet in diameter, and the frames weigh six tons each. The plate glass for the dials, which will be ground, is half an inch thick. The clock is constructed on the plan of Lord Grimthorpe's double, three-legged gravity escapement, with Gillett & Johnson's patent remountour. The palettes are jewelled in polished sapphires, so that there will be no wearing out and no friction. The pendulum is 14 feet 8 inches long, with a "Bob" weighing 450 pounds. The pinions are cut out of solid steel, hardened and polished. The pendulum will swing independently of the clock, being detached in that way to avoid unnecessary friction, and to insure regularity, as well as to provide against mishaps. The hands are made of copper, backed with gun metal. They are elliptical, made in cross sections, hollow and thoroughly braced inside. The "shank" portion is fitted with a bronze centrepiece, with tapering octagon shaft. They are counterpoised inside to keep the proper balance, and the whole machinery is run on gun metal friction rolls. As to the dial, the "hour" strokes are 12 inches wide, the "minute" strokes 6 inches. The hour hand is 5 feet 6 inches long, and the minute hand 9 feet 6 inches. The dial frame is bolted together in 5-minute sections, making 12 sections in all. The clock will be wound by an electric motor.—The Trader.

The Aylmer Iron Works Co., Aylmer, Ont., has been incorporated with a capital stock of \$30,000, to manufacture pumps, scales, etc. The provisional directors include E. C. Jenkins, H. A. Ambridge, and L. L. Sheldon, all of Aylmer.

The Ontario Farmers' Cordage Co., Brantford, Ont., has been incorporated with a capital stock of \$100,000, to manufacture rope, twine, cordage, etc. The provisional directors include S. G. Kitchen, South Dumfries, Ont., Frederick Chalcraft, Brantford, Ont., and C. L. Messiecar, Scotland, Ont.

Messrs. A. Black & Co., Winnipeg, Man., will erect a new banking house and office building for the Merchant's Bank at that place, which will be eight storeys high, 85x70 feet and cost about \$225,000. The new building will be fireproof and modern throughout.

A new industry—a Canadian branch of Thos. Meyers & Son Cattle Spice Works—has been started at St. Catharines, Ont., with the intention to manufacture for the Canadian and export trade.

## 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.O. RAT PORTAGE, ONT. HALIFAX, N.S.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.



The St. Lawrence Lloyds, Montreal, have applied for incorporation with a capital stock of \$5,000,000 to carry on a business of inland navigation and transportation insurance, and to own and navigate on the lakes and rivers of Canada ice-breakers and wreck-relieving steamers, and to carry on the usual business of a wrecking company. The applicants include F. H. Clergue, E. V. Clergue, both of Sault Ste. Marie, Ont., F. S. Lewis, Philadelphia, Pa., and Geo. E. Drummond, Montreal.

The Quebec Pulp & Paper Co., Indian Lorette, near Quebec city, has been incorporated with a capital stock of \$350,000. The solicitors are Hon. Chas. Fitzpatrick and Hon. Mr. Parent. The company will begin business with a ground wood pulp mill with a daily capacity of thirty tons. They propose to start a sulphite pulp mill of 75 or 100 tons daily. Then a fifty ton paper mill will follow. The site is an extremely favorable one. Shipping facilities are excellent. Power has been developed on a large scale by the Jacques Cartier Power Co., and it is probably from the new works of that concern that the necessary energy and water will be obtained.

Mr. George Johnson, the Dominion statistician has compiled some interesting figures regarding the thirty-four electric railways of

Canada. During the year ended December 31, 1899, he says, 630 miles of track were used and the total number of miles run by cars was 29,646,847. Passengers carried numbered 104,033,659, which was equal to carrying every man, woman, and child in the Dominion twenty times. Compared with the previous year, the number of passengers increased nearly 9,500,000 and the number of miles run over 1,000,000. The amount of paid-up capital invested in electric railways is \$21,700,000.

The N. L. Piper Railway Supply Co., Toronto, successor to the well-known firm of Noah L. Piper & Son, has invented an electric attachment for its standard switch lamps. These patent switch lamps have been adopted as standards by all the principal railways in Canada, and by using the new attachments the same lamps can be converted so as to use incandescent lights, and should anything go wrong with the current or plant, can be instantly changed back to coal oil. This is a distinct advantage over a lamp fitted for electric light only, and will appeal to all practical railway men as being the only reliable way to have them fitted. Incandescent lighting of railway yards has proved very satisfactory, and no doubt in the near future will come into general use. Having switch lamps constructed so that it is not necessary to depend

entirely on the electric light should remove all objections to its adoption. The Piper semaphore and order board signals are very easily changed to use electric lights, and owing to their construction are perfectly weather proof.

The Dominion Government are having a new steel ferry-boat built at Newcastle-on-Tyne, England, to take the place of the old one at the Straits of Canso, made necessary by the increasing business on the Intercolonial Railway. She will cost \$250,000, will be of 2,000 h.p. and will be able to carry a locomotive and four cars each trip.

Messrs. Davis & Son, Kingston, Ont., are building a new steamer for J. A. Roys, Cornwall, Ont., to ply between Cornwall and Massena, N.Y. She is to be 112 feet long and 21 feet beam, with Clyde boilers and compound engines. She is to be ready in June next. She will be a day excursion boat of a speed of fourteen miles per hour.

The McClary Mfg. Co., London, Ont., have recently made some extensive alterations to their works. Owing to the large increase of trade, a new building has been added for stock and japanning; the machinists have been moved into a larger room; the press room, tin and enamel shops have been extended. Work in the enamel department is very busy, with expectations of its becoming more so.

# Transfer Ornaments, AMERICAN MADE.

TRADE MARKS, DECORATIONS, NAME PLATES, ETC.

Guaranteed Quality.

## For HARDWARE, BICYCLES, VEHICLES, POTTERY, FURNITURE, etc.

Sketches and samples submitted free of charge. Being American manufacturers enables us to make prompt delivery. Write us

# THE MEYERCORD CO., Inc., CHAMBER OF COMMERCE, - CHICAGO,

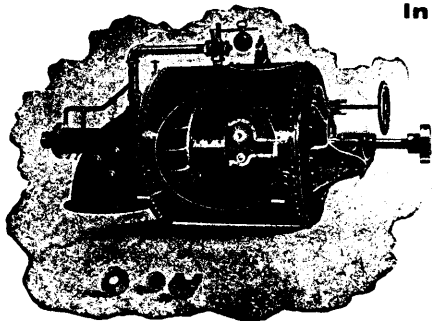
—MAIN OFFICE—

Canadian Travelling Representative,  
CHAS. H. JAGGER, Hamilton, Ont.

Largest Makers in the World of Guaranteed Decalcomania Transfers.

## THE Crocker Patent Turbine

In Horizontal Setting, with Quarter Turn Elbow.



Where the nature of 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.

WATER POWERS examined and  
Reports made. Estimates  
submitted for Complete Equip-  
ments. . . . .

### The JENCKES MACHINE CO.,

42 Lansdowne St., Sherbrooke, Que.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

The keel has been laid and work is now in progress at the Collingwood, Ont., shipyard, on what will be one of the finest passenger and freight steamers on the Great Lakes. The vessel is being built for the Sarnia and Duluth route, and in size and appointments will be larger and finer than the Manitoba. The length of the new steamer will be 325 feet, beam 43 feet, molded depth 27 feet. Her engine will be a triple expansion and steam is to be furnished by four boilers. The speed of the craft is to be fifteen miles an hour loaded, and seventeen to eighteen miles light. This is the first keel laid in the new shipyard and it is expected the vessel will be completed by the first of next September.

There has recently been installed in Liverpool, N.S., an electric marine railway of a novel character. The electrical equipment was supplied by the Royal Electric Co., Montreal, and installed by the Maritime Electric Co., Halifax, N.S. The equipment consists of a 30-h.p. induction motor, the motor shaft being geared to a heavy worm shaft and wheel. The worm wheel shaft carries a pinion wheel which gears into another large wheel, on the shaft of which is placed a heavy sprocket wheel. Over this sprocket wheel a heavy two-inch chain meshes into heavy sprocket teeth. This chain hauls the vessel up on a cradle over a track projecting out into the River Mersey to a distance of 500 feet, on a grade of one-half inch to the foot. The track and cradle are built of heavy pine timbers. On Friday, January 11, the first vessel was hauled up and lowered again, all the apparatus and gear working well. It is interesting to note that Liverpool possessed

the first marine railway in the Maritime Provinces, the motive power used being horses. It formerly took from four to five hours to haul up a vessel, whereas the same work is now performed in twenty minutes. The present railway is the first one in America, and probably the first of its kind in the world operated electrically.

The Newcombe Piano Co., Toronto, will build an addition to their factory early this spring. It will have a fifty-three-foot frontage five storeys high, and will enable the output of the factory fifty per cent.

Hon. J. Israel Tarte, Minister of Public Works, has taken the first step towards the fulfilment of his pledge that within three years, if his views prevailed with the Government, a ship channel 450 feet wide and thirty feet deep will be provided between Montreal and Quebec. Last week Mr. F. B. Polson, of the Polson Iron Works, Toronto, signed a contract to deliver to the Government by the middle of August next, a hydraulic dredge, combining all the latest improvements, which will be used for dredging the channel through Lake St. Peter. It will cost \$250,000 complete, and will be the largest machine of the kind in North America. It will be of the barge type and built wholly of steel. It will be 160 feet in length, 12½ feet deep and 40 feet beam. The pump will have a thirty-six-inch suction pipe, and will be driven by 1,200 h.p. triple expansion engines. The dredge will be equipped with four boilers of the locomotive type, 25 feet long and 72 inches in diameter, with a working pressure of 160 pounds. It will have four times the capacity of the big hydraulic dredge which the Polsons lately completed and shipped to

the Pacific coast. It is a matter for much congratulation that a Canadian firm has secured this important work. The Polson works at present give employment to 300 men, and this number will be increased by 200 in order to meet the requirements of the present contract. The time allowed for the completion of the contract is very limited, and in order to carry out the order night and day shifts will be employed.

The Newell & Higel Co., Toronto, have issued a very handsome folder announcing the amalgamation of the Otto Higel Co., and Augustus Newell & Co. In an introduction the fact is set forth that the new company will keep pace with the progress of the new century. On the back these two mottos are given: "He who knows, and knows he knows, is wise—follow him." "Those who play, and know they play a Newell & Higel action, know they are the best." The circular announces that the businesses carried on by Augustus Newell & Co., and the Otto Higel Co., have been amalgamated. The organ supply department, as carried on by Augustus Newell & Co., will, until further notice, be continued at 29 and 31 Hayter street, and the piano supply department, as carried on by the Otto Higel Co., will be continued at the corner of King street and Mowat avenue. A new and commodious factory will soon be erected to unite the two industries under one roof and to accommodate the larger increase of business.

The production of aluminum in commercial quantities throughout the world is confined to the following concerns:—The Pittsburg Reduction Co., Niagara Falls; the Cowes Electric Smelting & Aluminum Co.,

# W. A. FLEMING & CO.,

771 CRAIG STREET, - - MONTREAL.

**THE STRONGEST AND MOST DURABLE**



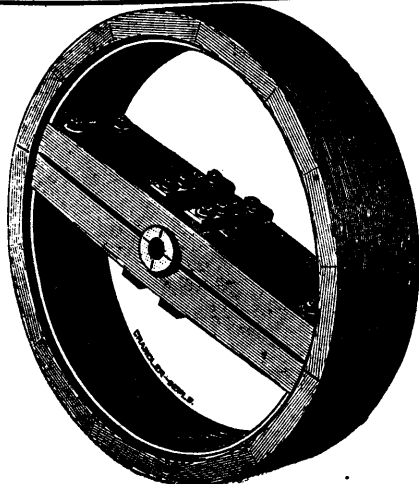
NOT AFFECTED BY DAMPNESS, HEAT OR STEAM  
 MOST DURABLE THE BEST FOR MAIN DRIVES

**"REDDAWAY"**

**BALATA BELTING**

STRONG, DURABLE AND NOT AFFECTED BY DAMPNESS.

WRITE FOR SAMPLES AND PRICES



**"The Reeves"** A HIGH GRADE  
 Wood-Split **PULLEY**  
 BUILT HONESTLY  
 BUILT RIGHT

It Does the Work. No Trouble. No Worry.

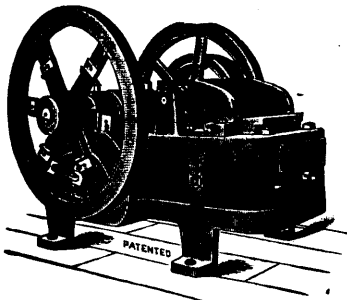
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**REEVES PULLEY MANUFACTURING CO., Limited**

14 Pearl Street, - Toronto, Ont.

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ROLL JAW CRUSHER.



**Crushes**  
Large Rock  
to  
**4 inch.**

Send for Circular.

**STURTEVANT MILL CO.,**  
104 Clayton St.  
Boston, - Mass.

Niagara Falls; the British Aluminum Co., at Foyers, Scotland; the Aluminum Industrie Actien Gesellschaft, at Neuhausen, Switzerland; the Societe Electrometallurgique Francaise, at La Praz, Savoy; the Societe Industrielle de l'Aluminum, at St. Michel, Savoy. This year will also see put into operation a new plant of the Pittsburg Reduction Co., on the St. Lawrence River, Canada, and two new plants of the Neuhausen Co., one on the Rhine at Rheinfelden, Germany, the other at Lend-Gastein near Salzburg, in Austria. The establishments already in operation have capacity of 34,000 h.p., capable of producing 7,000 tons of aluminum a year; with the additions referred to, the totals will be 47,000 h.p. and 10,000 tons annual capacity.

Last week in the House of Commons Sir Hibbert Tupper asked if the Government had paid any attention to the efforts being made at Halifax to establish the iron and steel industry, to see how the Government could encourage that industry by having the next large ship required by the Government on that coast built in Canada. Sir Louis Davies replied that he had given the matter a good deal of consideration, and two months ago had a report on the subject from his officers. He appreciated fully the great importance of lending all the Government aid possible to the initiation of that great industry. So far as the Government was concerned, and his department especially, it would be his earnest desire to do what he could to further the initiation of that great industry. He had made a report to his colleagues on the subject, and suggested the desirability, when tenders were being called, of calling for tenders in the Dominion for the construction of these ships. Although his report had not yet been officially adopted, his colleagues viewed the suggestion very favorably, and he thought the conclusion would be to call for tenders for the construction of

these ships in Canada. By these ships he meant both the Newfield and the Druid, which was worn out and useless, and would be replaced by another ship of the same name. It was his intention to call for tenders in Canada, and even if it did cost a few thousands more, in his opinion they should do so to help on this great national industry. Sir Hibbert Tupper expressed delight at this determination. The country would give the Government credit for whatever they did to aid in the development of the industry.

Mr. J. L. Richardson, 88 Bay street, Toronto, representing D. K. McLaren, Montreal, manufacturer of genuine oak tanned leather belting, informs us that he has just secured an order from the Niagara Falls, Ont. Electric Light Co., for an 18-inch double oak tanned belt for their power plant. Mr. Richardson says that although his bid was higher than others he captured the order because of the supreme quality of the article he offered.

The Canadian Music and Trades Journal, Toronto, announces that its publishers, in order to bring the manufactures of its advertisers directly under the notice of musical instrument importers in likely foreign markets, will send copies of it for several ensuing months to every important dealer in musical merchandise in India, Ceylon and the Straits Settlements, Aden and Perim, Bahrein Islands, British Borneo, Cyprus, Hong Kong, Ascension Island, Basutoland, Bechuanaland, Cape of Good Hope, British East Africa, Mauritius, Natal, St. Helena, Egypt, West African Colonies, the late South African Republics, Zanzibar, Zululand, Bermudas, Falkland Islands, British Guiana, British Honduras, Newfoundland and Labrador, West Indies, Bahamas, Barbados, Jamaica, Leeward Islands, Trinidad, Windward Islands, British New Guinea, New South Wales, New Zealand, Queensland, South Australia, Tasmania, Victoria, West-

ern Australia and the Pacific Islands, South America and Mexico.

A sawmill will be erected by Wm. Hoard, at Barwick, Ont.

In 1898-9 the iron bounties reached \$280,109. Last year, according to the Auditor-General's report, we gave \$312,777 as bounties on iron and steel. The distribution was as follows:—

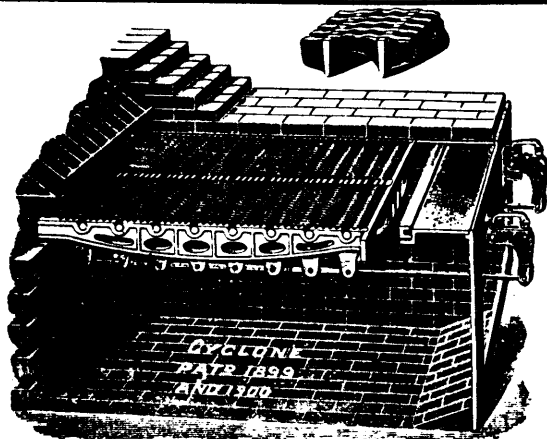
Radnor Forges, Three Rivers..	\$18,234 92
Deseronto Iron Co.....	27,026 00
Hamilton Blast Co.....	107,009 04
John McDougall & Co.....	5,485 07
Nova Scotia Steel Co.....	73,162 22
Mineral Products Co.....	7,378 24
Ontario Rolling Mills.....	1,200 50
Hamilton Steel & Iron Co.....	8,920 00
Nova Scotia Steel Co.....	64,360 00

The bounty paid is \$3 a ton on pig iron from Canadian ore, and \$2 on pig iron from foreign ore; \$3 a ton for puddled bar made from pig iron made in Canada, and \$3 a ton for steel ingots made from Canadian pig iron.

The Labor Gazette for February contains articles on the following subjects:—The copper and nickel industries in Canada; settlement of machinists' strike under Canadian conciliation act; the Toronto printers' agreement; opportunities offered settlers in Canada; the arbitration award; concerning the boot and shoe industry in Quebec; legislation for the protection of employees in mines; Government contracts for the month of January; enforcement of alien labor act; trade disputes of the month of January; wages and hours in the cigarmaking trade in Canada; shops regulation act; recent legal decisions affecting labor.

A factory will be erected at Wallaceburg, Ont., by the Wolverine Sugar Co., Benton Harbor, Mich.

The Ontario Wind Engine & Pump Co., Toronto, are erecting a four-storey addition to their factory.



USE CYCLONE GRATE BARS AND PRODUCE

**CHEAPER STEAM**

No individual consumer can regulate the price of coal, but you can regulate the amount of coal burned for a given power by installing **Grate Bars** that will produce **perfect combustion**. Write us for particulars.

**E. J. PHILIP, Manager,**

404 TEMPLE BUILDING, - - TORONTO, ONT.

PHONE 8682

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**ECONOMY**

**SMOKELESSNESS**

# The Jones Underfeed Stoker

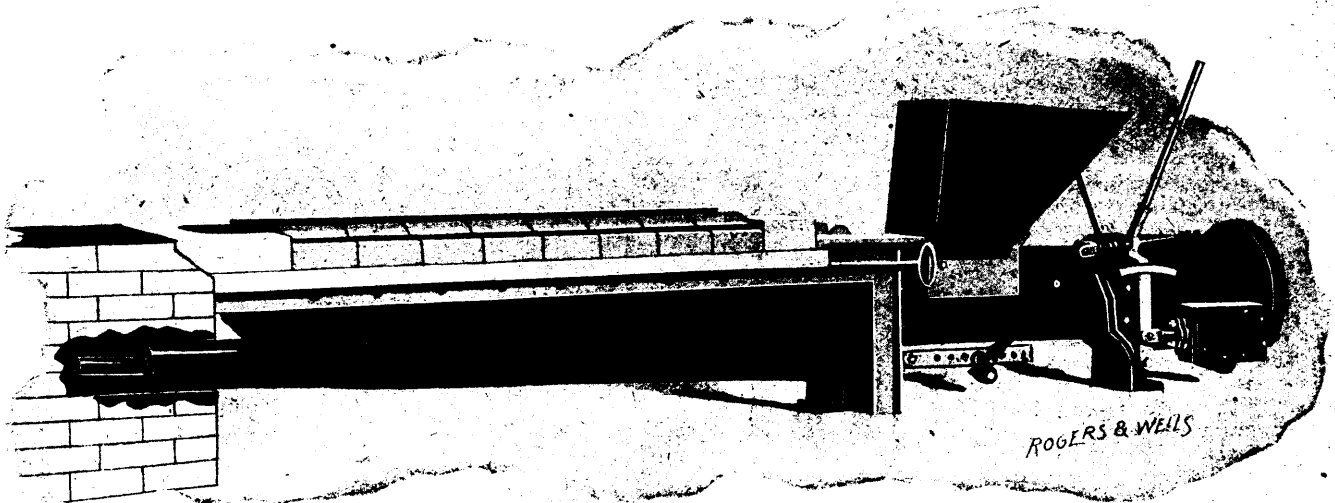
**CAPACITY**

**SIMPLICITY**

Will Burn any Kind of Coal.  
Better Results from Screenings than by any other system from most expensive Coal

*No Repairs*

*A Saving in Boilers*



**PLANTS EQUIPPED FREE OF COST  
CAPACITY NEARLY DOUBLED**

**ECONOMY 10 to 50 %**

**Average Saving Nearly \$1,000 per annum, per Stoker**

**A SAMPLE RECENT LETTER—**

**THE TORONTO RAILWAY COMPANY**  
The Manager General Engineering Co., Toronto.

Toronto, December 10, 1900.

**JONES UNDERFEED STOKERS**

Dear Sir,—I am in receipt of your letter of the 5th inst., which closes the contract for the installation of four additional Jones Underfeed Stokers for the two new marine boilers which are now being constructed for our main power station. Would you please lose as little time as possible in getting these stokers installed.

The Stokers previously installed by you at this station, of which there are sixteen, I may say continue to give every satisfaction.  
Yours truly,  
E. H. KEATING, Manager.

**SEND FOR CATALOGUE**

## THE UNDERFEED STOKER CO., Limited

(THE GENERAL ENGINEERING CO.)

**National Trust Building, 20 King St. E., Toronto**

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# THE CUMMER DRYERS.

## FOR Mechanically Drying Everything

THE F. D. CUMMER & SON CO.,

HUNDREDS IN OPERATION.

CLEVELAND, OHIO.

The St. Paul Land & Hydraulic Co., Montreal, has applied for incorporation with a capital stock of \$150,000, to develop hydraulic power, etc. The applicants include W. R. Miller, D. C. S. Miller and J. H. Wallace, all of Montreal.

The Lemisonata Lumber Co., Notre Dame du Lac, Que., has applied for incorporation with a capital stock of \$50,000, to erect saw and shingle mills, etc. The applicants include W. H. Gray, Boston, Mass.; James Hayes, Notre Dame du Lac, Que., and S. C. Riou, Fraserville, Que.

We are in receipt of a very ingenious device called the "Dodge Calculator," issued by Dodge Mfg. Co., Toronto. It is not only a novelty but is also an instrument of considerable value and assistance to all mechanics, foreman, superintendents, etc., whose duty it is to figure up speeds of pulleys, gears, etc. We are informed that the Calculator is one illustration of the many uses to which the slide rule principle may be applied. The company will be pleased to mail the Calculator free, for the asking.

The Canadian Export Lumber Co., Toronto, has been incorporated with a capital stock of \$225,000. The provisional directors include D. D. Christie, Guelph, Ont.; F. N. Tennant, Toronto, and Donald Ferguson, London, Ont.

The McDonnell Rolling Mills Co., Toronto, has been incorporated with a capital stock of \$200,000, to manufacture iron and steel rails, sheet iron, wrought iron pipe, etc. The provisional directors include Richard McDonnell and Richard McDonnell, Jr., both of Toronto.

The New York Journal of Commerce says:—For many years Canadians cherished a dream of a railroad from Winnipeg to Hudson Bay, and steamships from a port of the bay to Europe, almost exclusively for

the transportation of wheat. A beginning was once made on the road, though few persons believed that hauling Manitoban export wheat would supply it with remunerative traffic. Twice within recent years the bay has been explored by Government vessels, but only to disclose the fact that navigation was impossible most of the year and subject to great delays and dangers during the rest. But recently a railroad of most substantial construction has been begun to connect Sault Ste. Marie with Hudson Bay, and the capital behind it is said to be chiefly American, and the road will not depend upon export wheat for its business. When only fifteen miles of it was built it began to have a good business hauling timber. Hauling pulpwood is to be a great part of its business, and was the main inspiration for its undertaking, but as the road traverses hundreds of miles of virgin forest a very large general lumber traffic is expected. There are said to be vast deposits of iron and copper along the line of the road, a bed of gypsum eight miles long is spoken of, and the ambitious plans of its promoters contemplate a summer resort hotel on the shores of Hudson Bay, with unrivalled advantages for hunting, fishing and fine scenery.

The annual report of the Dominion Department of Fisheries shows that no less than 70,863 men were last year earning their living by exploiting Canadian waters, using 5,506,760 fathoms of nets and other fishing gear, representing a capital of \$10,000,000. Nearly 1,200 schooners and tugs manned by 8,970 sailors, as well as 70,893 other fishermen, using over 33,000 boats, found occupation in this vast industry. The lobster plant alone is estimated at \$1,334,180, comprising 858 canneries, dispersed on the seaboard of the Maritime Provinces. No less than 18,708 persons found employment in this branch of the fishing industry, using over 1,360,000 traps. The

salmon preserving industry in British Columbia, comprising 69 canneries, and representing a capital of \$1,380,000 gives employment to 18,977 hands. The amount of capital invested in the fisheries last year exceeded that of the year previous by \$289,743, and 719 more men were engaged in the industry. The total value of the catch of fish in Canada for the year amounts to \$21,891,706, being an increase of about \$2,250,000 over the preceding year.

The Copeland-Chatterson Co., Toronto, has been incorporated with a capital stock of \$125,000, to manufacture perpetual ledgers, office furniture, stationery, etc. The provisional directors include R. J. Copeland, A. E. Chatterson and R. R. M. Copeland, all of Toronto.

The National Portland Cement Co., Toronto, has been incorporated with a capital stock of \$1,000,000, to manufacture Portland cement, bricks, paints, etc. The provisional directors include W. F. Cowham, Jackson, Mich.; P. W. Stanhope, Toronto, and R. H. McWilliams, Owen Sound, Ont.

The Dominion Steele Whiffle-Tree Co., Leamington, Ont., has been incorporated with a capital stock of \$3,500. The provisional directors include W. H. Spillman, W. T. Cade and W. H. Settingington, all of Leamington.

James Sparring's sash and door factory at Meaford, Ont., was destroyed by fire February 17. Loss about \$6,000.

A portion of the Sydenham Glass Works, Wallaceburg, Ont., was destroyed by fire February 20. Loss about \$20,000.

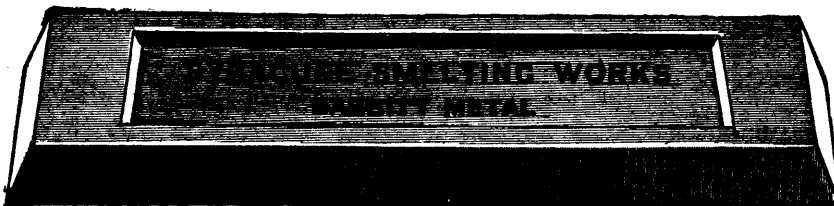
The Rodney Gas & Water Co., Rodney, Ont., has been incorporated with a capital stock of \$10,000. The provisional directors include S. B. Morris, N. S. Lusty and E. A. Hugill, all of Rodney.

## 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.

Importers and Dealers in

PIG TIN, ANTIMONY  
INGOT COPPER  
ALUMINUM  
NICKEL, BISMUTH  
IRON AND STEEL  
SCRAP



Manufacturers of

BABBITT METALS, SOLDER  
TYPE METALS  
COLUMBIA PHOSPHOR TIN  
AND  
ALL OTHER WHITE METAL MIXTURES

## SYRACUSE SMELTING WORKS

WILLIAM AND ST. THOMAS STREETS, - - MONTREAL

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

SYRACUSE

BABBITT

BEATS  
THEM ALL

A party of prospectors who have been boring for oil at Ramsay's Corners, near Ottawa, have struck a pressure of gas, salt water, oil and petroleum. When the strike was made a stream shot forty feet into the air and continued for some time. It is expected that oil may be reached any time.

The Canadian Locomotive Co., Kingston, Ont., has been incorporated with a capital stock of \$500,000. The following officers have been elected:—President, Hon. Wm. Harty; Vice-President, M. J. Haney, Toronto; Managing Director, C. Birmingham of Pittsburg, Pa.; Secretary, J. J. Harty, Kingston; Treasurer, J. H. Birkett, Kingston, and Superintendent, H. Tandy, Kingston.

The National Portland Cement Co., Jackson, Mich., with a capital stock of \$1,000,000, will establish a branch plant at Durham, Ont. W. F. Cowham, Managing Director, says there is sufficient raw material to furnish an output of 5,000 barrels a day for 200 years.

The Welland Vale Mfg. Co., St. Catharines, Ont., has been incorporated with a capital stock of \$450,000, to manufacture axes, tools, saws, etc. The provisional directors include Wm. Chaplin, J. D. Chaplin and J. C. Notman, all of St. Catharines.

Messrs. J. E. Botsford and F. D. Jenks of Port Huron, Mich., will erect a steel elevator of 1,000,000 bushels capacity at Sarnia, Ont.

The Elmira Agricultural Works Co., Elmira, Ont., has been incorporated with a

capital stock of \$40,000, to manufacture agricultural implements, etc. The provisional directors include S. S. Snider, Waterloo, Ont.; S. Laschniger, S. W. Ratz and J. S. Weichel, all of Elmira.

The rate-payers of Paris, Ont., have voted on a by-law to purchase the electric light plant owned by Mr. W. H. Meldrum. The negotiations are for a site having a frontage of sixty-four feet, 100 horse water power, and all the machinery used in connection with the lighting. The price to be paid is \$15,000.

Plans are being perfected for the proposed purchase of the Ronald Steam Fire Engine Works, Brussels, Ont., with a view to bringing the factory to London, Ont. It is proposed to capitalize the company at \$50,000. They will manufacture fire alarm boxes, fire ladders, steam rollers, water meters, etc.

The Canadian Pacific Railway has awarded the contract for the construction of the new bridge over the Red River at Winnipeg, Man., to cost \$60,000, to the Dominion Bridge Co., Montreal.

The Canadian Feather & Mattress Co., Toronto, has been incorporated with a capital stock of \$25,000, to manufacture mattresses, feather and down goods, etc. The provisional directors include Martin Love, W. H. Smith and C. W. Stephens, all of Toronto.

The Grand Trunk Railway Co. is building a station at Trenton, Ont., to cost over \$10,000.

The Dominion Coal Co. will transfer its head office from Boston, Mass., to Montreal.

The Bertram Engine Works Co., Toronto, are building a sister steamer to the Ottawa for J. R. Booth, Ottawa. The principal dimensions are as follows: Length over all, 257 feet; beam, 43 feet; depth, 25 feet 6 inches. She will carry 70,000 bushels of grain on a canal draught of 14 feet. On the upper lakes, where she can load deeper, she will carry 105,000 bushels. She will be built entirely of steel even to her cabins.

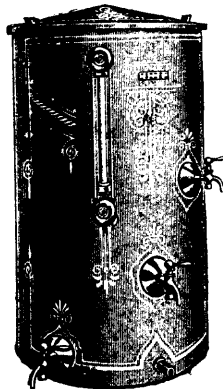
The Sandwich, Ont., council will be asked to take some action for providing a drydock at Sandwich, regarded as the most available place for the erection of a drydock along the Canadian side of the Detroit river. A fleet of ten European vessels is expected to ply the Great Lakes this coming season, and some of the Windsor business men believe that complete repair accommodation should be provided for them.

The Buffalo Forge Co. have sent us a series of four folders, illustrating in a general way their mechanical induced draft, forced draft, down draft forges and high speed engines. They do not of course aim to the pretensions of a catalogue, but are merely intended primarily to display by means of engravings some of the types of apparatus which the company manufacture. The illustrations are supplemented by a small amount of reading matter rendered as concise as possible. They are of a size which admits placing within an envelope for mailing purposes, as they are designed for wide-spread scattering.

The Canada Steam Carriage Co., Port Dover, Ont., has been granted a bonus of \$10,000.

## CUBA IS UP-TO-DATE

The Havana Electric Street Railway Co., of Havana, Cuba, are equipping their new Power House with the best most modern machinery. Two 150 gal.



## CROSS OIL FILTERS

Were installed. You can't get away from the popularity, the practicability, the true merit of our Oil Filters.

Can't we send further particulars?

**The BURT MFG. CO.**  
Akron, Ohio, U.S.A.

Largest Mfrs. of Oil Filters in the World.

## The Same Old Story

Johnstown, Pa., December 21, 1900.

The Burt Mfg. Co., Akron, Ohio.

Gentlemen,—Replying to yours of the 19th. We have your 20 inch. Exhaust Head in operation, and are pleased to say that it is entirely satisfactory.

Yours truly,

The Johnstown Passenger Railway Co.  
S. E. YOUNG, General Manager.

## The Burt Exhaust Head



Is always the same satisfactory Exhaust Head. The simplest, best, most efficient. You'll be perfectly satisfied when you have used it.

Shall we send Catalogue?

**The Burt Mfg. Co.,**  
AKRON, OHIO, U.S.A.  
Largest Mfrs. of Oil Filters in the World.

The Philip Carey Mfg. Co., Lockland, Ohio, have sent us an illustrated, descriptive catalogue having reference to the Carey's standard asbestos—magnesia steam pipe and boiler coverings, magnesia flexible cement roofing, etc. We are informed that these coverings are absolutely fire proof and thorough non-conductors of heat; confine the heat to the pipes, and prevent its loss through radiation; prevent the condensation of steam, obviate the necessity of excessive firing; largely reduce the amount of fuel necessary to operate the plant; outlast the surfaces to which they are applied, and the continued saving each year becomes an annual dividend of at least one hundred per cent. upon their original cost. The little book, which can be had on application as above, contains a fund of useful information to all steam users.

The American Ship Building Co., Duluth, Minn., will erect a ship building plant at Halifax, N.S. The municipality has agreed to a bonus of \$2 a ton on every ship built for ten years, and \$1 for the succeeding ten.

The Kinleith Paper Co. recently established at St. Catharines, Ont., inform us that their mills are now in full swing and ready to give all orders that come their way their best attention. Mr. Finlay, the manager, knows all about paper.

"The Passing of Smokeville" is the title of a handsome little booklet handed to us by Mr. R. H. Buckner, Toronto, agent for the Smoke Prevention Co. of America, whose head office is at 66 Broadway, New York. It treats of smoke—its causes and prevention, shows the excellent manner in which, with the use of the Company's automatic smoke preventor and fuel economizer, the evil of the smoke nuisance can be over-

come; demonstrates that a larger percentage of fuel may be saved, with consequent cheaper production of steam, etc.; and there are numerous photo-engravings of large fuel-using establishments, abounding in smoke without the use of the apparatus, and devoid of it with the apparatus in operation.

The Raney's Specialty Mfg. Co., Kingston, Ont., writes us that they are now installing heavier machinery, and going into the manufacture of all kind of marine engines, marine pop safety valves, diamond and right and left steering gears, steam and hand power capstans, windlasses, etc.

The Montreal Cotton Co., at its annual meeting held on February 12, decided to increase its capital from \$2,000,000 to \$4,000,000, of which some \$500,000 will be required almost immediately to meet the expenses incurred in the erection of the new mill at Valleyfield, Que. The following gentlemen were elected directors:—Messrs. A. F. Gault, Charles Garth, Jacques

Grenier, Hon. J. K. Ward, R. R. Stevenson, S. H. Ewing and Samuel Finley. At a subsequent meeting Mr. Gault was elected president, and Mr. Garth, vice-president.

Mr. H. Sapery, manager of the Syracuse Smelting Works, Montreal, has gone to California to spend the balance of the winter, and will on his return trip visit the principal business points in British Columbia and Manitoba, as he has an extensive trade in these sections. The company inform us that since the advent of the new year, business has been very brisk, and the demand good for their Babbit metal and solder, block tin, etc.

The Burt Mfg. Co., Akron, Ohio, were recently favored by an order for two 150 gallon Cross Oil Filters to equip the new modern power house of the Havana Street Railway Co., Havana, Cuba. As only the best, most modern machinery was selected, this is a strong endorsement in favor of their filter.

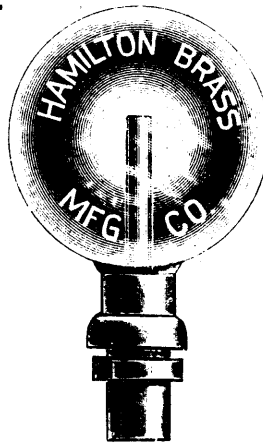
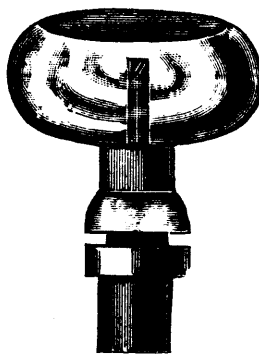
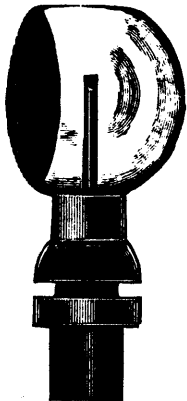
## Schoellkopf, Hartford & Hanna Co., BUFFALO, N.Y.

**Aniline Colors,** *Manufacturers of*  
**Dyestuffs, Chemicals**

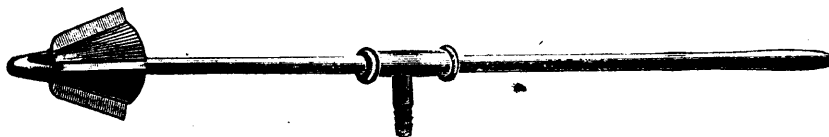
NEW YORK, BOSTON, PHILADELPHIA, PROVIDENCE, CHICAGO,  
MILWAUKEE, CINCINNATI, KANSAS CITY, NEENAH, WATERTOWN.

# Improved Needle Lubricators

On a PATENT PNEUMATIC and SELF-ACTING PRINCIPLE,  
IN GLASS



## IMPROVED STEAM TUBE CLEANER



### THE CLEANER THAT CLEANS CLEAN

No Moisture

No Scale

Saves Cost Quickly

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

### INSTRUCTIONS for FITTING and ADVANTAGES

The Lubricators being carefully fitted by enlarging the oil hole to fit the plug part of stopper, or otherwise by reducing the plugs to fit existing oil holes, the needle must be perfectly round, smooth and clean, so as to work freely in the tube, the flatted end reaching about half-way up the inside of Lubricator, while the other end rests on the shaft or axle, will produce the following results, viz:—

- 1st. Free working of the machinery by perfect lubrication.
- 2nd. A saving of more than 75 per cent. in oil.
- 3rd. Corresponding economy in steam-power and coals.
- 4th. Cleanliness, and consequent saving in labor, engineers' stores, etc.

ALL OUR LUBRICATORS ARE FITTED WITH BRASS TUBES  
WRITE FOR PRICES TO

**The Hamilton Brass  
Mfg. Co., Limited,**

HAMILTON, ONT.

**PORT ARTHUR, ONT.**

For some time a scheme to develop power from Kakabeka Falls, near Port Arthur, has been pending, says a correspondent of The Paper Mill. The town passed a by-law, which was sanctioned by the ratepayers, ratifying an agreement that had been entered into by the City Council with Edward S. Jenison, whereby the town agreed to take a specified quantity of the water and power, delivered by means of a canal which Mr. Jenison proposed to construct. Since that agreement was thus entered into the scheme has hung fire, Mr. Jenison presumably having difficulty to get the requisite capital for his undertaking.

His efforts in this direction have lately been accelerated by the appearance of a rival in the field, who proposes to develop a scheme from the Current River as a source of energy. Mr. Jenison's endeavors have apparently taken the form of trying to induce manufacturers to come to Port Arthur and lease power from him. If he could get a sufficient number of contracts of this kind, he would doubtless have no difficulty in securing the money necessary to build his canal, his power-house, and install the necessary equipment.

It is now reported that his labors are likely to be crowned with success. He has been negotiating with an American syndicate to establish a giant pulp mill at Port Arthur. Who is at the head of this syndicate Mr. Jenison has not yet communicated to the public, but it is said to consist of strong men. At present, it is further reported, the syndicate has its agents and bush-rangers in the Province of Quebec, looking over some properties there. Mr.

Jenison has an arrangement with the syndicate in accordance with which its estimators are to go to Port Arthur some time between now and spring in order to make a survey of pulp wood resources in the vicinity of Hudson Bay, with a view to locating there if everything is satisfactory. It is said that this syndicate would require a minimum of 15,000 h.p. and that the plant when in full operation would grind up 1,250 cords of pulp wood per day, or three times as much as the large mill at the Sault.

Mr. Jenison was in Baltimore a few days ago attending a meeting of his own syndicate, the one, that is, which has undertaken to construct the power canal. From there he returned to Port Arthur to appropriate the last three pieces of land over the seventeen miles covered by his charter. If he secures this big pulp mill, he need not concern himself about any other industries. It will take all the power he has to spare after carrying out his contract with the town.

Port Arthur should be a capital place for a mill, as not only would it be served by the Ontario and Rainy River line, which runs through a pulp wood region, but also it would be brought into connection with the northern pulp wood limits, by means of the Port Arthur and Wabijour Railway for which a charter exists.

**IRON PRODUCTION IN ONTARIO.**

With the beginning of the new century Canada starts in earnest on its career as an iron-producing country. True it is, we have made iron in Canada for several years, but the output has been quite insignificant.

During the past two years we have been making preparations to engage in the industry on a large scale, and the first year of the new century will witness a wonderful increase in our output of pig iron. By the end of the present year Canada will be producing more than enough iron to supply the domestic consumption, and even before 1902 we will be seeking foreign markets for our surplus. In view of the coming importance of the iron industry in this country the Governments interested ought to publish

**Bellhouse, Dillon & Co.**

30 ST. FRANCOIS XAVIER ST.,  
MONTREAL

♦♦♦

**Hematine**

**Crystals,**

**Logwood**

**Extracts**

For Cotton, Wool and Silk.

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**THE WEST INDIES CHEMICAL WORKS. Ltd.**

Spanish Town, Jamaica

Toronto Office—

JAMES HAYWOOD, Agt., 30 Wellington St. E.

**Laurie Engine Company**

**MACHINERY SUPPLY HOUSE**

321 ST. JAMES STREET, - - MONTREAL

MANUFACTURERS AND DEALERS

IN ALL KINDS OF

**Machinery, Engines, Boilers**

ETC.

MONTREAL AGENTS FOR

**Austin Separators**  
**Ballantine & Co., Wood**  
**Working Machinery**  
**Barber's Improved Turbines**  
**Carpenter Tool Steel**  
**Curtis' Pipe Threading**  
**Machines**



**Dodge Wood Split Pulleys**  
**Duval's Metallic Packing**  
**Lambeth Cotton Rope**  
**Prescott Emery Wheel Co.**  
**Skinner Chucks**  
**Spooner's Copperine**

... ESTIMATES GIVEN AND DRAWINGS FURNISHED FOR ALL MECHANICAL WORK ...

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.



regularly statistics of the output of ore and of pig iron. These reports should be issued quarterly or monthly. They would be of great service in advertising Canada in her new capacity as an iron country. We hope to be able to open the eyes of the world in regard to our iron resources during the next year or two. We cannot begin the publication of these statistics too soon, so as to let the world know that Canada will very soon be in a position to supply Great Britain and Europe with iron as well as with pulp paper and timber.

It is highly satisfactory to know that this province is going to play an important part in the iron industry. At the present moment there are three furnaces in operation in Ontario, one each at Deseronto, Hamilton and Midland. The latter was opened only a couple of months ago. During last year,

with two furnaces in operation, the production of iron ore in Ontario was about 65,000 tons. During the first half of the year 1900 there were mined in Ontario only 9,680 tons of iron ore. During the last half the production of Ontario ore was about 80,000 tons, of which 70,000 tons was the output of the Helen mine, Michipicoten. While it was necessary to import two-thirds of the ore smelted in Ontario during the first six months of last year, practically the whole amount used during the last six months was obtained in Ontario. It is no longer necessary to depend on the United States for our iron ore. We have three furnaces in operation, another extensive one will be ready by July at Sault Ste. Marie, and a fifth will probably be in operation at Collingwood by the first of next year. Ontario will supply the ore for all these furnaces. Ontario

alone will soon be able to supply the Canadian iron market, to say nothing of the output of the furnaces at Sydney, which promises to be among the biggest producers on the continent.

Ontario has unlimited resources in iron ore. The districts in which iron is being mined in Ontario include the Hastings country, Michipicoten and the Mattawan district, a few miles west of Port Arthur. Ore is being produced in these localities at the present time, and the Atikokan iron range, twenty miles in extent, will be opened up in a year or two on the completion of the Ontario and Rainy River Railway. It will be seen that Ontario is bountifully supplied with iron ore. The mines in the districts referred to are very extensive, and from the present outlook the question of ore supplies will not enter into the problem of iron production in Ontario.

The situation of the iron industry in Ontario is, briefly, this:

We have three furnaces in operation. The Sault Ste. Marie plant will be running in a few months and the Collingwood one in about a year.

We have practically ceased importing United States ore and henceforth we will rely entirely on the product of our own mines.

The people of Ontario do not yet realize the significance of these facts. When the iron industry gets in full swing in Ontario it ought to add a million to our population. This it promises to do within a decade.—The Toronto World.

#### THE PULP WOOD RESOURCES OF LABRADOR.

In his report to the Dominion Geological Survey, Mr. Low, the explorer of the southern part of the Labrador peninsula, speaks of the forests there and of their frequent destruction by fire. He shows that spruce is to be found as far north as the Hamilton River on the east and to the great Baleine River on the west side. Even in the highest latitudes of the peninsula there are found trees two feet in diameter three feet from the ground. There are immense prospects there for the pulp industry, especially in the neighborhood of the Hamilton River and the St. Lawrence.

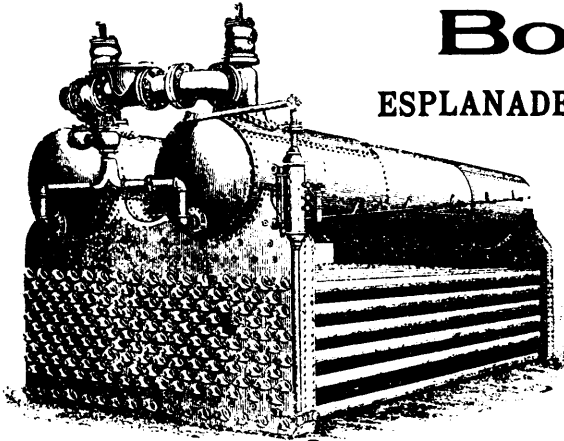
Unfortunately, these forests are destroyed in parts by the fires that are started by Indians, and are in danger of disappearing entirely if energetic measures are not taken to put an end to the devastations. Mr. Low says that at least half the forests of the interior have been entirely destroyed by fire during the last twenty-five or thirty years. These fires are of annual occurrence and last often throughout the whole summer, destroying thousands of square miles of timber to the south of the height of land.

The regions so devastated remain bare and barren many years, particularly about the north limits of the forest, and the second growth of black spruce never produces trees so good and so large as those of the primitive forest.

Messrs. Smith Bros., manufacturers of "Hold-Fast" sticky fly paper, London, Ont., write us they obtain enough "pointers" regarding their business out of each number of THE CANADIAN MANUFACTURER to pay them for their year's subscription. They hold fast to our paper with the pertinacity with which flies hold fast to their paper.

## The Canadian Heine Safety Boiler Co.

JOHN J. MAIN,  
MANAGER.



ESPLANADE (Opp. Sherbourne St.)

TORONTO

HIGH-CLASS

### Water Tube Steam Boilers..

FOR ALL PRESSURES  
DUTIES AND FUEL

From 75 to 600 H.P. Each

#### REFERENCES:

N.B.—We do not make small Boilers

The Toronto Electric Light Co., Limited; The T. Eaton Co., Limited; The Massey-Harris Co., Limited; The Gutta Percha Rubber & Mfg. Co.; The Wilson Publishing Co., Limited; Sunlight Soap Co., Dominion Radiator Co., Central Prison, Foresters' Temple, Toronto City Hall, Canada Biscuit Co., Confederation Life Co. (all of Toronto, where Boilers may be seen working), also Orillia Asylum, Orillia, Ont., and LaPresse Publishing Co., Montreal.

ESTABLISHED 1823.

Telegrams:—"WILSONS, CORNHOLME."—A.B.C. Code Used.

## WILSON BROS. BOBBIN CO. (LIMITED)

CORNHOLME MILLS, TODMORDEN, ENGLAND.

### BOBBIN AND SHUTTLE MANUFACTURERS.

FORTY PRIZE MEDALS AWARDED.

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LARGEST BOBBIN MAKERS IN THE WORLD—(Over 1,400 Workmen).

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ATLAS BOBBIN WORKS, GARSTON, LIVERPOOL.

OFFICE AND SHOWROOMS:

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# COAL JAS. H. MILNES & CO. COKE

WHOLESALE DEALERS IN  
**Best Grades of STEAM COALS.**  
**Best Grades of BLACKSMITHS COALS.**  
**Best Grades of FOUNDRY COKES.**  
 Shipments made direct from Mines to any point in Canada. Write for quotations.  
**Head Office: 78 QUEEN ST. EAST, TORONTO. Docks: Esplanade, Foot of Yonge.**

## LARGE CHARCOAL FURNACES AT THE SAULT.

An important addition to the charcoal iron works of the country will be made at once at Sault Ste. Marie, where F. H. Clergue and associates are at work on their great industrial enterprises. For some time experiments have been under way at the Sault with reference to charcoal making and charcoal iron manufacture, and the experts there have come to the conclusion that the present limit of size to charcoal blast furnaces is unnecessarily low, and that the fragile character of the fuel has had less to do with the small size of these furnaces than have other facts, among them the scarcity of proper fuel and the facts that the charcoal furnaces built since the enlargement of coke furnaces began have been very few, and that branch of the iron industry has not kept pace with its neighbor.

Now there need be no borrowing of trouble at the Sault over the fuel question, for the new Algoma Central Railway, a branch of the associated industries there, is building north and will tap 5,000,000 acres of timber lands—largely spruce, pine and hemlock—but containing 1,000 square miles or more of the finest hardwood forests—oak, elm, hard maple, etc. This will serve to give fuel in abundance.

Plans are being drawn for two charcoal furnaces to go up at the Sault to be very much larger than anything yet erected or

contemplated, to approximate in capacity some of the newer coke furnaces of the United States. The erection of these furnaces has been fully decided upon and will proceed with the dispatch that is a marked characteristic of the work of Mr. Clergue and his associates. They will be located on the Canadian side of the river, about a mile northwest of the head of the company's pulp mills and canal, and near where its Bessemer and openhearth steel plants are now going up.

In the decision to erect these furnaces several considerations had a place. They will absorb a portion of the company's Michipicoten ore and in so far aid in giving it a home market, independence, and the profits of the entire enterprise, something that appears in the fashion of the present. They will enable the company to take fuller advantage of the Canadian bonuses, will permit it as well to utilize its own raw materials in timber and will give its electrical works at the Sault more material upon which to work, for the saving of by-products is to be carried to an extent not yet reached in any completed charcoal works in the world. Much of this will be by the use of new processes and original methods, either their own invention, or for which the exclusive rights have been purchased from others within the past year or two. One of the more important of these inventions was bought in Europe nearly two years ago for a ridiculously small sum. These new char-

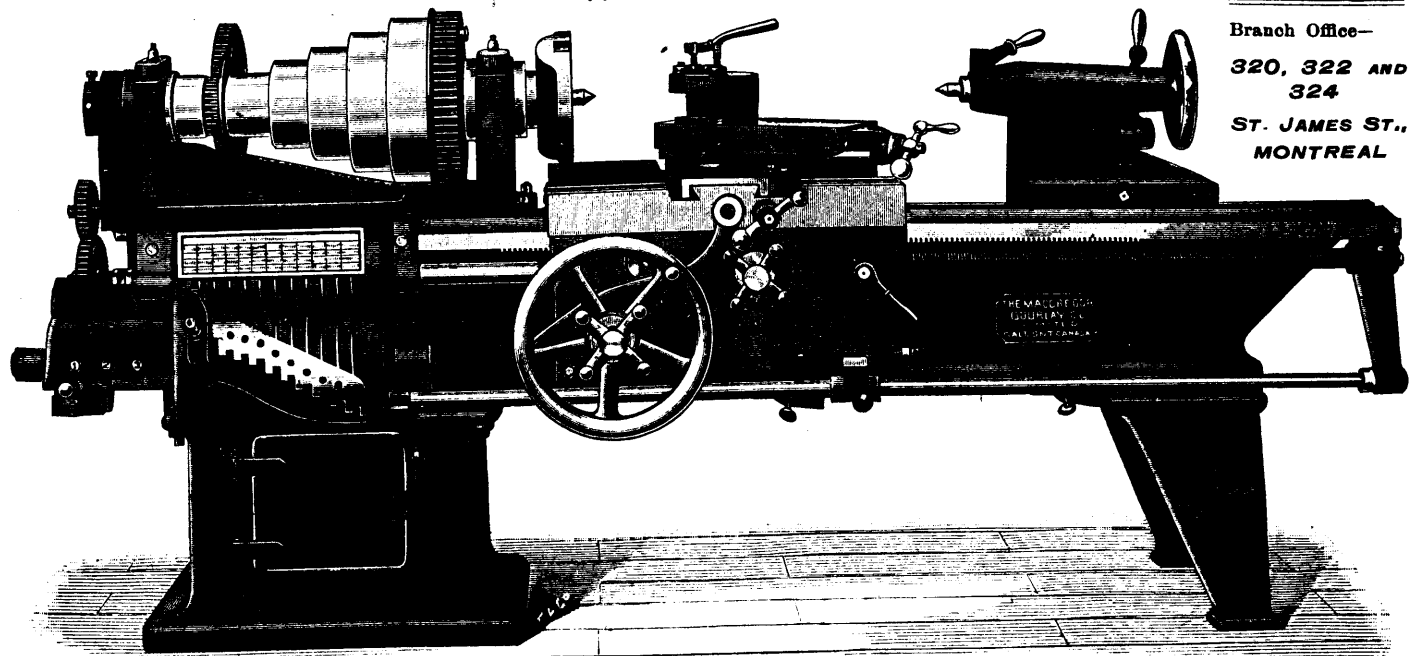
coal furnaces, taken in connection with that to be built at Marquette by the Cleveland-Cliffs Iron Co., and which is to be of from 150 to 175 tons daily capacity, and in connection with some projects for additional charcoal iron works at other points on Lake Superior that may shortly develop, indicate a marked trend in metallurgical conditions whose future will be interesting to follow.

There are now at the Sault some 200 car-loads of machinery, etc., for the Bessemer plant the Clergue interests will construct, and the erection of the machinery has begun. The walls of the massive buildings of the steel works are now rising and the steel structures will soon go up. These latter are to be erected by the Riter-Conley Co. The buildings as a whole will be of the banded sandstone castellated construction characteristic of every structure yet built at the Sault by this company.

A large force of men is at work at the Helen mine, Michipicoten, taking out ore for spring shipment and the output of the year is expected to reach 3,000 tons of crushed ore daily. By Mr. Clergue's recent association with the Midland furnace and the Collingwood steel project, together with the Sault furnaces, a very considerable share of the output of the Michipicoten district will find its disposition at new works in Canada.

Mr. Clergue has just returned from Europe and has been received with a greater demonstration than ever greeted him before.

**THE A. R. WILLIAMS MACHINERY CO., Limited,** Head Office—**SOHO MACHINE WORKS, TORONTO**  
 Manufacturers, Importers and Dealers in **High-Class Iron Tools, Wood-Working Machinery, Engines, Boilers, Motors, Water Wheels,**  
**GENERAL MACHINERY AND SUPPLIES.**  
 We are the Exclusive Agents of  
**The McCREGOR-COURLAY CO., Limited, Galt, Ont., IRON-WORKING MACHINERY.** [Write to us for Prices.] Send for Circulars, Referring to this Advt.



Branch Office—  
**320, 322 AND 324**  
**ST. JAMES ST., MONTREAL**

**THE BOURNE-FULLER CO.****IRON, STEEL**

AND

**PIG IRON****CLEVELAND, OHIO, U.S.A.****Shipping Tags.****Invoice Tags.****DUPLICATING BOOKS**

HEAD OFFICE:

**AUTOMATIC CHECK BOOK COMPANY**

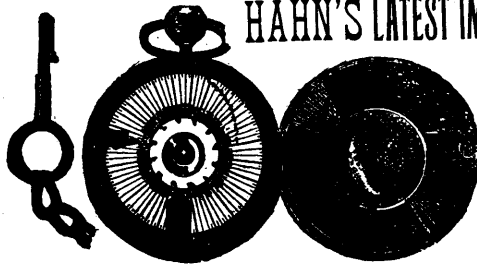
46 &amp; 48 Richmond St. W., Toronto.

We are the largest manufacturers of Shipping Tags in Canada. We make all the standard sizes and a great variety of special sizes.

Branch Office: 260 St. James St., MONTREAL

**COLD PRESSED NUTS.**

(Finished, Semi-Finished, etc.)

**Machine Screws and Special Milled Work.****The Diamond Machine and Screw Co., Limited, - Toronto.****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. NANS & CO.,** Room No. 45, Graham Building, 127 Duane St. **NEW YORK**

This Clock received the First Prize at World's Fair

**Zanzibar Anti-Rust Paint****For** — **ROOFS OF ALL KINDS  
STRUCTURAL IRON WORK  
BRIDGES, ELEVATORS, Etc.****A Paint** that will not Blister, Crack, or Peel off  
**A Paint** that is Rust, Water, and Spark Proof.  
**A Paint** that is GUARANTEED.**A PAINT THAT YOU WANT**

Agencies in all parts of Canada; if none in your vicinity write us direct for prices and samples.

WE ARE SOLE MANUFACTURERS

**GARFIELD OIL COMPANY**

BRANCH:

**WINDSOR, ONT.**

GENERAL OFFICES:

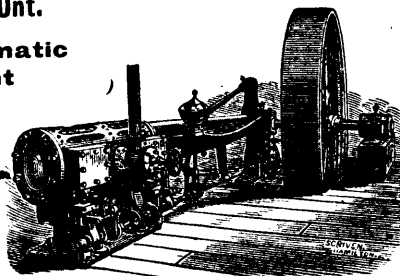
**CLEVELAND, O., U.S.A.****THE SMART-EBY MACHINE CO.**

LIMITED,

191 Barton Street East, Hamilton, Ont.

**High Speed Engines, Brown Automatic  
Engines, Boilers, Rogers' Patent****Shaking and Dumping Grate Bars,  
Pumping Machinery,****Electric and Hand Power Travelling  
Cranes, Shafting, Pulleys,  
General Machinery, Etc.**

Western Office—419 Hasting St., Vancouver, B.C.



He states that the four ships of the Algoma Central Steamship Co. that took Carnegie steel to England in the fall had a successful voyage and are now profitably employed. They will be on the lakes in May accompanied by some of the additional ships that are now under way at English yards for the same fleet. Mr. Cergue is somewhat disappointed at the results attained by the work so far done in the Canadian channels to the sea, but expects to see it continued till the expected depths are reached clear to tide water.—Iron Trade Review.

**NEW DYESTUFFS.**

**Rhoduline Heliotrope B.**—This is a new color of the series of Rhoduline basic dyes. It dyes cotton which has been previously mordanted with tannic acid and tartar emetic. Using two to three per cent. of dyestuff, it gives nice reddish violet shades, which are bright and have a good fastness to light. Using small quantities of dyestuff, fine bluish heliotrope shades can be got. On mercerised cotton the shades are fine and bright. Rhoduline Heliotrope B dyes both silk and wool in very fine and brilliant shades of heliotrope to violet. In calico printing Rhoduline Heliotrope B can be used alone with a tannic mordant with good effect, good bright heliotrope to violet shades being obtained. These have a good degree of fastness to light and washing. As it is not discharged by either tin crystals or zinc dust, it may be used to produce colored discharge effects on clothes dyed with direct dyes.

**Benzo Fast Scarlet G.S.**—This is a sister dyestuff to the Benzo Fast Scarlet 4 B.S., which has been previously noticed in these columns. It dyes cotton direct from baths containing Glauber's salt and soda, when it gives with three to four per cent. of dyestuff fine and bright scarlet shades, and with one-half to one per cent. good pink tints. These shades are quite fast to acids and alkalies, resist washing and soaping and stand light very well. Like its sister dyestuff, it represents a marked advance on the older Benzo Purpurines and Congo Reds. It can be used in dyeing half wool (union) fabrics, wool, silk and half-silk goods. It can be discharged with tin crystals and zinc dust, and so either white or colored discharges can be produced on it.

**Benzo Fast Blue B.N.**—This is the latest addition to the direct blues and is comparable with the older brand, Benzo Fast Blue B., which was brought out some time ago. It dyes good bright blue shades from baths of Glauber's salt and soda, the dye going on to the fibre very well. The shades are very fast to light, and in this respect the blue takes high rank. The blues stand soaping and washing very well and are quite fast to acids and alkalies, very useful properties. The blue can be discharged with either tin crystals or zinc dust, and so either white or colored effects can be produced on it.

Samples, instruction circulars and any of the above new shade cards mailed gratis to interested dyers by the Dominion Dyewood & Chemical Co., Toronto, Canada, sole agents in Canada for the Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany.

The Polson Iron Works, Toronto, will furnish the engines and boilers for the Dominion steamers to be built on the Pacific coast for the fishery protective service.

When writing to Advertisers kindly mention **THE CANADIAN MANUFACTURER.**

**A DEVICE VALUABLE TO STEAM USERS.**

We desire to direct the attention of those interested in steam power to the newly applied principle involved in the Keller combination feed water heater, purifier, condenser and hot air blast device as shown in the business card of Mr. J. L. Legein in this page. It will be noticed in the illustration that there are three chambers, the upper is where the exhaust steam enters, and in which there are super heating pipes, the plate, upon which they rest being shortened a few inches at each end in order to allow the exhaust to pass to the middle chamber, which is the hot air and condensing department, in which the feed water is sprayed. The lower is the settling and pump chamber, which is the most important factor in any heater and purifier. This tank is large enough and so constructed that all impurities will lodge in it, and prevent it from passing into the boiler. As the exhaust comes in the upper chamber it passes over the superheating pipes, thence down into the middle department over the cold air tubes, circumventing the baffle plates, and the steam being turned so often, heats the feed water as it is sprayed from the pipe to a boiling temperature. Through the medium of a blower a blast of air is forced through and out of the tubes. At the same time these most desirable results are being obtained, the cold air is driven in the tubes to promote condensation, and has become heated to 160 degrees before passing out. This dry, hot air is more valuable than the hot water going into the the boiler, as it is the utilization of a part of the forces of the exhaust hitherto wasted. It can be

used not only under the grate as a forced draft, but for drying pulp in pulp and paper mills, drying lumber, fruit, wool, meat in packing factories, heating buildings, drying brick, tobacco, in laundry work, or for any purpose where hot air can be used.

This device is being very largely used in industrial and other establishments in the United States, and is also obtaining great favor in Canada. It is in successful operation in the works of the E. B. Eddy Co., at Hull, Que. Several additional ones having been ordered.

Mr. Legein, who is representing the Keller Syndicate in Canada, has his office at the Rossin House, Toronto, where he will be pleased to receive orders, give all information and answer all enquiries.

**AIDS TO NAVIGATION.**

The extended coast line of Canada, and numerous bays, inlets, rivers, lakes, harbors and other navigable waters require a large number of buoys, which are maintained at an average cost of \$55,000 per annum. For the fiscal year ending June 30 last, the service cost \$66,980.48. The cost of this service is increased in years when new contracts are given for steel signals and other coast buoys.

The total number of light stations, light-ships and fog alarm stations in the Dominion on June 30, 1900, was 693, and lights shown 869; the number of steel whistles and fog-horns, bells and guns 88; the number of light-keepers and engineers of fog alarms with masters of light-ships was 693.

During the past fiscal year the expenditure for maintenance of lighthouse and coast service amounted to \$456,254.48; construc-

tion, \$60,239.92; total for maintenance and construction \$516,494.40; while for the previous year the expenditure for the light-house and coast service, including construction was \$537,457.56; showing a decrease of expenditure for the year ending June 30 last, of \$20,963.16.

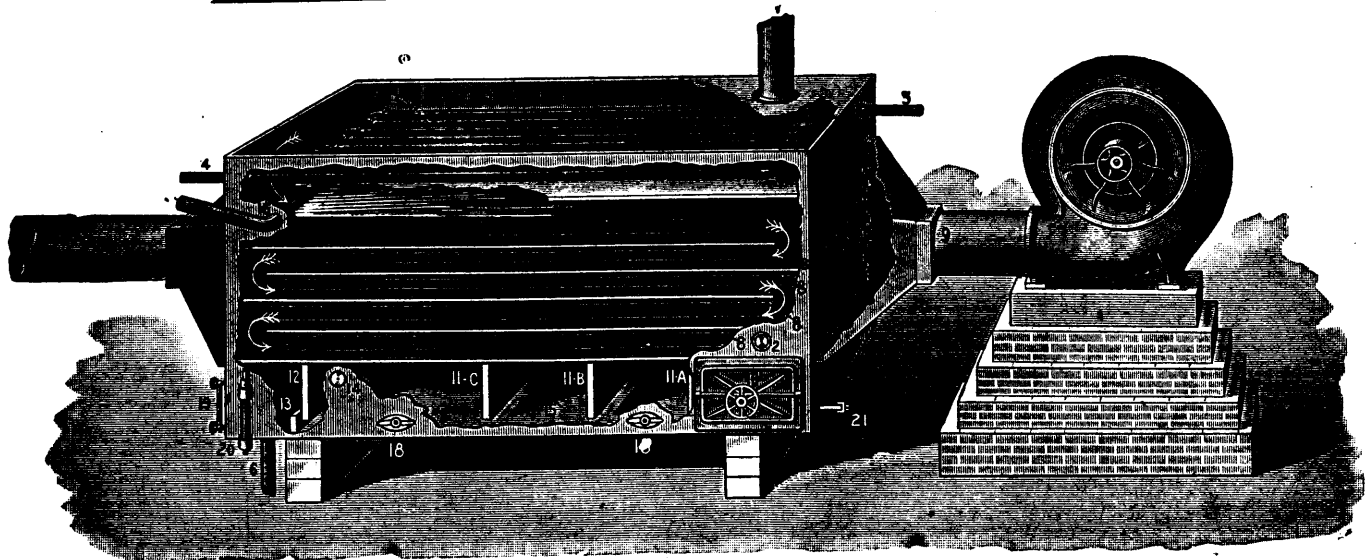
There are now about 330 districts, including harbor, bays, rivers, and lakes buoyed with over 3,000 buoys.

**THE OUTFLOW FROM LAKE SUPERIOR.**

In five years, says Mr. Clergue, manager of the Lake Superior Power Co., we will be running through fish trains from Hudson Bay to Chicago. In five years, too, the company will have absorbed all the outflow of Lake Superior, except what was needed for vessels. One canal to give 20,000 horse-power is now in operation, another to give 50,000 horse-power is almost completed, on the Michigan side of the river. Of the total power, 40,000 horse-power has been leased for a long term of years, to the Union Carbide Co., and the United Alkali Co. The former is now using a great power at Niagara, for the manufacture of carbide of calcium. The Sault power will cost it, perhaps, a third of what it pays to Niagara, and yet the development concern will, in twenty-five years get back all the original cost, as well as an annual interest. Some 10,000 horse-power on the Michigan side, will be used in the reduction of copper from that state, and for other natural uses. A few weeks ago, work was begun on the Canadian side of the river, on a second canal, that is to develop 40,000

# Exhaust Steam "Bridled" at Last!

**BUILT ON SCIENTIFIC PRINCIPLES. A NEW DEPARTURE**



**KELLER'S NEW FEED WATER HEATER, PURIFIER, CONDENSER, AND HOT AIR BLAST DEVICE COMBINED**

FOR FULL INFORMATION REGARDING THIS DEVICE, APPLY TO **J. L. LEGEIN, Rossin House, TORONTO**

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horse-power more. It is estimated that this will take all the power of the river. The Michigan canal is to be furnished with 320 turbine wheels, each four harnessed to one great single-phase dynamo, the whole to generate 50,000 horse-power. The contracts for wheels and generators have been made, and the canal is being pushed with 1,000 men, and all the steam and compressed air appliances that can be assembled. It is a cutting two and a half miles long, two hundred feet wide, and twenty-two feet deep, through the heart of the city, and much of it in solid rock. The sides are cut by air channelers from the solid rock ledge, and the waste material is used in erecting the great buildings. There will be a power house 1,380 feet long, 100 feet wide and 106 feet high. This canal and power plant will have cost, when done, \$2,750,000. The second Canadian canal will cost nearly as much.

#### SHIPBUILDING IN NOVA SCOTIA.

At the recent annual meeting of the Halifax Board of Trade the shipbuilding project was discussed. The president outlined the view arrived at by the Board's committee that was appointed to confer with a committee of the City Council on the subject. Aid according to results, he said, was the idea of the Board, and the one its committee would favor. As a matter of fact this was the stand taken by the Board's committee at the conference with the City Council's committee. The spokesman of that committee had said at the conference that the Board of Trade members had had a talk on the matter and were practically agreed that the city

must receive a return from any assistance rendered the projected shipyards, and that private enterprise should not be interfered with. They thought the best form of assistance a subsidy per ton for completed shipping ready for sea for a specified number of years. It would not be advisable for the undertaking to be absolutely free of taxation. Under existing legislation the new industry could be relieved of assessment on personal property and pay one per cent. on real estate instead. There were objections to offering a free site, that the city did not know what sort of a site was required and the company might select a very costly site. His confreres did not think the city should mix up in a private enterprise by taking stock.

This principle received a good deal of support, but mainly from the Board of Trade conferees, the Council's conferees inclining to the idea that an annual bonus should be paid irrespective of the output of the works. Thus Alderman Musgrave would have the city pay \$10,000 a year for twenty years. One member of the Board of Trade committee proposed \$2 a ton on completed ships for five years, and \$1 per ton for a further period of five years, the total subsidy in any one year not to exceed \$20,000. In support of this liberal proposition it was pointed out that St. John is working energetically to get the yards. Nothing was decided. Later the following resolution was passed by the Board of Trade:

"Whereas, the council of the Board has appointed six gentlemen to act jointly with the committee of the City Council to give effect to said City Council's resolution; and whereas, in the opinion of this Board the

establishment of the shipbuilding industry at the port of Halifax would be of the highest advantage, not only to the city but to the Province of Nova Scotia; therefore,

"Resolved, That the representatives of this Board on such joint committee be, and they are hereby instructed:

"To use their best influence and to vote on said committee to secure the establishment of such shipbuilding industry within the limits of the city of Halifax, and for such purpose the city of Halifax be urged to aid the establishment of such industry by bonus, subvention or otherwise."

Halifax is not the only maritime town aspiring to become a great centre of the steel shipbuilding industry. Digby, a Nova Scotia town on the Bay of Fundy, is agitating for a shipbuilding plant. Liberal inducements, besides an excellent free site, could be obtained there. Within three miles of Digby are the iron deposits of North Mountain, while within twenty miles are the deposits of Annapolis County, from which the material for iron and steel works could be obtained.

#### A NOVEL MARINE IDEA.

Walter Dean, the well-known yacht and boat builder at Sunnyside, Toronto, has under construction a steam yacht which embodies a novel idea. The operation of this boat when launched upon the elements for which it is intended, is being looked to with much interest. Of course, a boat which goes through the water, while at the same time the water goes through it, cannot but be a novelty.

The inventor of this boat, Mr. Paul R. Trethewey, of Bracebridge, Ont., is person-

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FOR PUMPING OR POWER PURPOSES

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"Hoosier" IRON  
—AND—  
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"STATION A" KENDALLVILLE, IND.

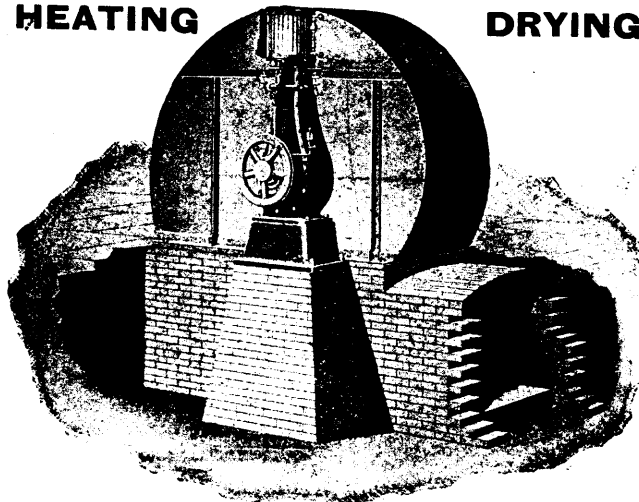
# Buffalo Fan System

OF

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HEATING

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Buffalo Steel Plate Steam Fan.

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Canadian Representative:

**E. A. WALLBERG, 410 Temple Bldg., TORONTO.**

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ally superintending the construction of the craft, which he confidently expects will double the speed of any other similar craft propelled in any other way. If he succeeds his fortune is made—there is no doubt about it—for, as he says, the chief drawback to increasing the speed of ocean greyhounds is the fact that to obtain an extra knot of speed above a certain point means such a marked addition to boiler, furnace and coal space as to prohibit the increase, unless space is of no value on the vessel. In fact it now takes one-half the room on a modern ocean flier to produce speed to propel her in her flight across the ocean.

There is nothing novel about the hull of Mr. Trethewey's boat or his engine. His application of power is unique. The boat is built on the lines of an ordinary launch. She is about twenty-four feet long and of five feet beam. At the bow on either side of the stem, are two holes just below the water-line, and six-inch steel pipes, which run back to the engine, are set in. At the engine the pipes are jointed and run to the stern with a slightly downward dip. Twin screws are worked in the pipes. The idea is that the water will be drawn in at the bow and forced out astern by the screws.

The openings at the bows will do away with the greater portion of the resistance forward, Mr. Trethewey says, while the discharge of the water astern will prevent the drag there, and I calculate that the destruction of these two items of resistance to speed will double the pace of the boat.

The engine with which the craft is equipped is calculated to drive the boat seven miles an hour with an ordinary screw, but the inventor expects that she will go at least fifteen, if not twenty miles an hour,

equipped with his device. Mr. Trethewey, in whose brain the idea originated, is about fifty-eight years of age.

TEN HINTS.

The following hints to exporters given by Dr. Edward Breck, who was for a time United States Vice-Consul General at Berlin, Germany, commend themselves to those interested:

Describe clearly and fully the goods you are offering, and say all you want to say at the very beginning. The party whom you want to represent you cannot guess particulars left out and must know entirely what he is to sell and how to do the work before he can start, and asking questions by mail means always a loss of time. The almost incredible neglect of this and the following points on the part of American manufacturers is one of the most frequent complaints of the importers over here.

Answer correspondence immediately and do not forget nine-tenths of it. Put enough postage on your letters. This is a rule sadly neglected by almost all American houses.

State all prices, trade and extra discounts—if possible simple discount sheets, instead of ridiculous rates like 33½ and ten and five per cent.—terms of payment, shipment, particulars, cost of packing (better included in the prices), former business to Germany, time of delivery, weights and measures, German patent numbers and trade-marks, if any, etc.

American offers are generally incomplete in most of these essential details.

Send practical samples and all printed matter you possess, and not only one of each. One can do nothing whatever here with insufficient material.

Electrical  
Common Sense

It is poor economy to buy a good dynamo unless your wiring is properly installed.

It will not save you to save power at your dynamo if you lose it on the way to your lamps.

Our wires are proportioned to the power they are to carry, and we put them up to stay.

As we are not connected with any manufacturer, we are prepared to install any of the standard machines on the market.

Let us quote you prices.

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Simplify everything as much as possible. Make the business easy for agent and buyer.

You must clearly recognize that you have to invest at least some money in a new offshoot. Say, therefore, how much and consider carefully your authority's propositions how to use this to the best advantage.

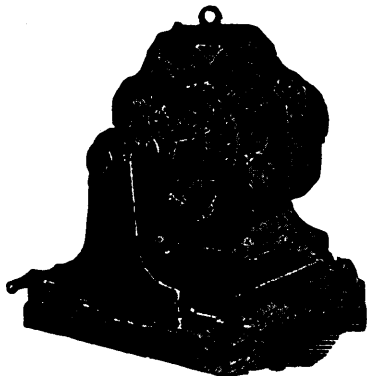
A regular business in Germany can only be done with prospectuses in German, best

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Are Made by the ARMSTRONG MFG. CO., BRIDGEPORT, CONN.

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Bar Iron, Steel,  
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MACHINIST TOOLS,  
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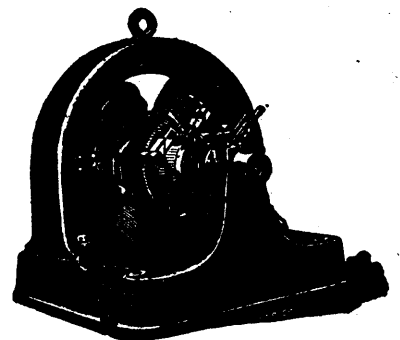
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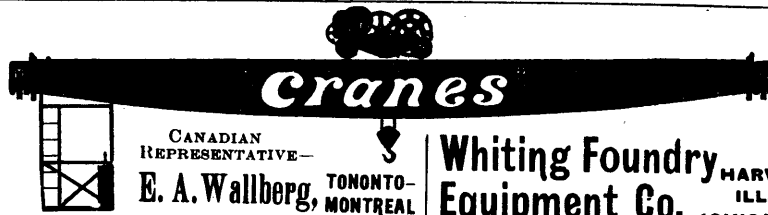
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**Whiting Foundry** HARVEY,  
ILL.,  
(CHICAGO)  
**Equipment Co.**

# AIR... CRANES

without your firm name on them, and in German money. You must therefore either furnish them, or, better, make your agents an allowance to have the printing done here. In this case send electros in good time. Instructions for use, if any, are also necessary in the German language.

Adapt your terms to German trade methods. Very few buyers will consent to pay cash f.o.b. New York or sight drafts with documents attached when they do not even know how the goods are looking and whether they will be equal to sample. You cannot reasonably expect this. And why should you not, after all, allow payment on receipt when you are dealing with reliable and fair concerns? C.i.f. German port makes business considerably easier than f.o.b. American.

Treat your agents in a reasonable and fair manner. Assist them, if necessary and if they deserve it, in the way of a moderate credit by keeping for them stock on consignment account, by advertising and perhaps part of the expenses. Don't expect people to guarantee you a minimum sale before they know the business. If you give a party the sole agency for a territory, let it be actually exclusive. Do not expect the agent to do the hard introductory work only.

Do not distrust everybody, and be open and fair. Convince yourself, though, whether you have to do with respectable people. The German population consists neither of scoundrels nor of gentlemen only.

In one word, you will do right in the export trade if you place yourself on all questions in the position of the buyer and take time to think what you could and would do in his place and what not.

All the above may seem to trifle like a catechism, but should be studied closely by our exporters.

Mr. A. J. Moxham, general manager of the Dominion Iron & Steel Co., during his recent speech in Toronto made the following remarks:—As an instance of the development which might be expected in Canada, he stated that the company are building five very large blowing machines. No bigger machines of the sort exist in the world; some of equal size are in use in the United States. The United States manufacturers proved rather slow, and in a moment of wisdom, or of folly—he did not yet know which—he got permission to have them built in Canada. It was being done at the moment, and he thought they were doing it successfully. It was the prelude to more business, which would come naturally, and things like that would put into the minds of their foundry-men and machinists the conviction that they could do the big things that other people did. The machines above referred to are being manufactured at the works of the Laurie Engine Co., Montreal. The two largest pieces are cylinders eight feet in diameter, and weighing thirty to thirty-five tons, together with several large castings weighing twenty to twenty-five tons.

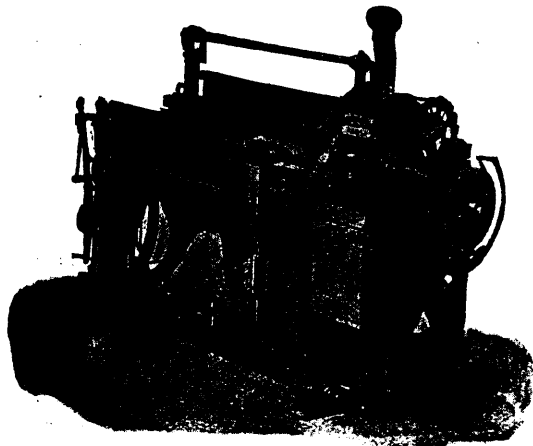
About half the contract has been completed and shipped, and the balance will be cast in the foundries during this and next week.—  
The Montreal Gazette.

## GEORGE WARD LASKAY, ONT.

MANUFACTURER  
OF

# Acetylene GAS Generators

WRITE FOR PARTICULARS



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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.

VALLEYFIELD, P.Q.

**B. GREENING WIRE CO.**  
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WIRE MANUFACTURERS  
& METAL PERFORATORS  
**HAMILTON  
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Wire Screens for  
Every Class of  
Material.

Perforated Metal  
of Steel, Cop-  
per, Brass, Zinc  
for all pur-  
poses.

Special Attention  
given to Miners'  
Requirements

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## OPPORTUNITIES FOR TRADE.

The following enquiries have been received at the offices of the High Commissioner of Canada in London, and of the Canadian Section of the Imperial Institute, London, England.

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

418. Enquiry is made for the names of one or two reliable firms in Canada, who are in a position to ship cut wood for fruit crates to the Canary Islands.

419. The name of a Canadian firm interested in builders materials is asked for by a London house having the monopoly of the export of some important lines of special wall-tiles, both earthenware and opal glass.

420. A manufacturer and agent in South

Africa is desirous of taking up the representation of Canadian hardware, furniture, lumber, rubber and other firms.

421. The addresses of leading English boot and shoe manufacturers, who might be interested in a new patent pegging machine are asked for by a Montreal firm.

422. The names of large exporters of fruit from Canada are asked for by a party who can sell on commission on the Liverpool market.

**AUSTRALIA.**—A Canadian manufacturer writes expressing surprise that he received an order from a Sydney firm with whom he had business through a New York house, instead of coming to him directly. In consequence of this, he says, he had to pay a commission to this New York firm, and doubtless the buyer had to pay a commission as well. It would be better for both if the business were done directly, and thus save the charges to both sides. This has been the experience of more than one firm. It is confirmatory of the statement I have previously made that an increasing share of the Canadian business with Australia is being done through New York buyers. There are several causes for this apparently unwise procedure. One is the delay that has been experienced in dealing directly with the Canadian manufacturer. The arrival of a Canadian mail is sure to be followed by complaints from Sydney firms communicating with Canada that replies due are not to hand. Orders sent are not acknowledged, and not unfrequently the purchaser is not informed that his order will be filled for months, and perhaps not until the goods are here. When ordering through a New York commission house there are no delays. If the Canadian manufacturer does not reply or ship promptly the goods are bought elsewhere. The difficulty can be easily overcome by promptness in correspondence. Letters to all points in Canada from Montreal west can be replied to and orders acknowledged to come here by the steamer which carried them to Canada.—J. S. Larke, Canadian Commercial Agent in Sydney.

An Act to regulate the traffic of traction engines has been passed in Victoria. A traction engine is defined to mean any ordinary road, oil, or steam engine used for agricultural purposes, and in connection with agricultural implements and machinery, or for haulage purposes, and does not apply to motors used on trams, or to motor cars, or cycles driven by gas, oil or electricity, or other forces. The weight which may be carried by any traction engine or on any vehicle drawn by a traction engine on any public road is not to exceed 5½ cwt. for each ½-in. of bearing surface of the tire or felloe, the weight of the vehicle being included. Bearing surface means the actual width of the bearing surface of the tire or felloe that comes in contact with a hard, smooth, level surface when the wheels are attached to the axle ready for use. The speed in any city, town, or borough, is

limited to 2½ miles per hour. Notice has to be given of the intention to pass through. Unless he is a certificated engine-driver, the driver of any traction engine must obtain a license from the municipality wherein he resides. Fee 5s. There are other matters of detail.

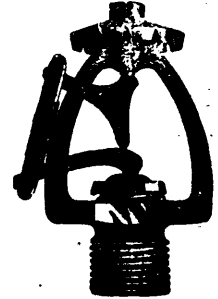
**BRAZIL.**—The Austro-Hungarian Consul-General at Rio de Janeiro, in a report to his Government, calls the attention of his countrymen to the favorable chances that exist in Brazil for the sale of pianos, in the course of which he says:—French pianos are well introduced here, but these instruments have of late deteriorated in their quality. After two or three years' use their sound becomes unbearably metallic. Nor is sufficient regard paid to the hot and moist climate. Still for want of better instruments, and because the French article has been well advertised, they continue to meet with ready sale at high prices. Last year a few pianos of Bohemian (Austrian) manufacture were introduced in Curitiba, the capital of the State of Parana, and are said to have given great satisfaction. One of the best selling pianos is the short square, called "Mignon," 175 centimetres long, 7½ octave, which sold at the factory for 400 Austrian florins (about 33l.) Pianos which are more popular and most in use cost at the factory about 300 florins (25l.) These instruments must be ornamentally and highly finished, have cast-steel frames and light mechanism, which, however, must be impervious to moisture.

**CAPE COLONY.**—The consumption of potatoes is very important, and large quantities have to be imported every year. France stands first on the list of exporting countries. The import season is from May to December. The arrivals in May and June come almost exclusively from the Canaries and Maderia, but these are so faulty that their importation has almost been abandoned. France sends potatoes from Havre and Bordeaux, but the freights charged by the English lines are very high. The boats of the Chargeurs Réunis charge much less, but have only a monthly service to South Africa, and require from thirty to thirty-five days, whereas the English steamers run once a week and do the trip in sixteen or twenty-two days. The potato most in demand is the French "Early Rose"; its only fault is that it is too watery, and does not keep well

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**MILL?**

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IF SO have your buildings equipped with

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## Automatic Sprinklers

And save from 30 to 70 per cent. on your insurance rates. Insurance companies approve of our system and devices.

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Manufacturers of...

**OIL-CLOTHS** of Every Description

Floor Oil-Cloth, Table Oil-Cloth,  
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Apart from the protection it affords, it pays as an investment to use an

**AUTOMATIC SPRINKLER SYSTEM**

From 40 to 70 per cent. of cost of insurance saved by putting in an

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72 Queen Street East,  
TORONTO.



in warm countries. It could be replaced with advantage by some other kind with a rose-colored skin, and white or slightly yellowish body. Magnum bonums have also been imported, but are too dear. Small seedling potatoes fetch very good prices in August and September. The principal countries of origin are: Great Britain, France, Canaries, Germany, St. Helena, United States, Natal, Holland, Madeira, Belgium, Portugal, Australia.—M. L. Sainson, French Licentiate of Commerce at the Cape.

CHILE.—United States Consul Greene, of Antofagasta, notes the extended service of the Compania Sud Americana de Vapores (a Chilean company with headquarters in Valparaiso) and the Pacific Steam Naviga-

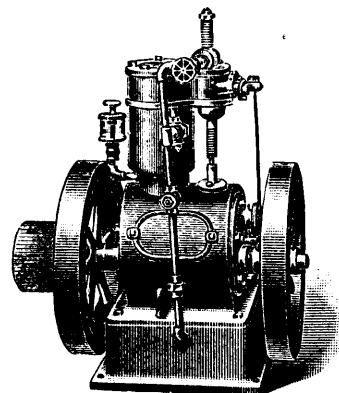
tion Company (a British company with headquarters in Liverpool), working jointly on the Pacific coast, to San Francisco. Some years since, the consul adds, the route was extended from Panama to Ocos, in Guatemala. This weekly service is continued, but San Francisco steamers leave Valparaiso for that port only once a fortnight. He continues:—The Kosmos steamships, of Hamburg, leave Valparaiso once a month, calling at a smaller number of ports. Their trade is mostly freight, and they have not much accommodation for passengers. The new service will render valuable aid to trade. The steamers are large and have good accommodations for passengers and freight of all sorts, including healthy space for 500 head of cattle.

GERMANY.—The Economic Committee of the German shoe and boot manufacturers, who lately met in convention at Berlin, resolved to petition the National Legislature to raise the tariff on imported shoes, so that leather shoes weighing over 1,500 grammes (3.3 pounds) henceforth should pay an import duty of 70 pfennigs (8½d.) per pair; those of 500 to 1,500 grammes (1.1 to 3.3 pounds), 1.50 marks (1s. 6d.); and all below 500 grammes weight, 2 marks (2s.) The association claims that this tariff is necessary to protect their important industry, which at present turns out a yearly product valued at £12,500,000, and pays £2,000,000 annual wages to 50,000 people employed in over 1,100 manufactories. This measure is aimed against the influx of American shoes.

GREAT BRITAIN.—The following review of the trade of Great Britain with other countries in 1900 is published in Commercial Intelligence:

The recently published returns of the trade and navigation of the United Kingdom during the past year show that, under the head of manufactured articles alone, we purchase 93½ millions sterling of goods, as compared with 91½ millions during the previous year. How is this vast total made up? The question is of such moment that we give the list as set out in the official returns, showing in many cases whence the articles mentioned are imported.

To begin at the beginning, baskets and basketware account for £239,976; brooms and brushes, £269,034; cement, £211,532; chinaware, porcelain, and earthenware, £932,070; clocks, £540,561, and of these,



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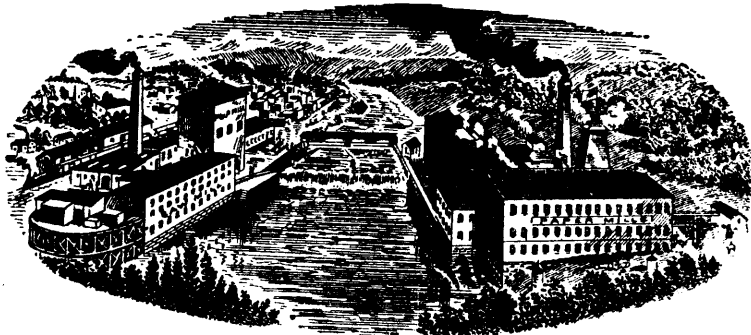
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CABLE ADDRESS—"OBBAPER," EAST ANGUS—A.B.C. and Lieber's Code.

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from France, £109,678, from United States, £125,258. It would have been equally interesting to learn where nearly a million pounds' worth of pottery came from, but the returns are silent on this point, nor, to turn to the next item, do they help us in regard to cotton manufactures of all sorts to the value of £4,751,309. Surely their origin was worth a little elucidation. Cutlery only amounted to £20,696; but electrical apparatus and goods reach the huge sum of £1,265,965, and fancy goods to almost as much, i.e., £1,237,121. Window glass, including shades and cylinders, £650,251; plate glass, £354,679; flint glass and manufactures thereof, £900,948; bottles, £673,429; unenumerated manufactures of glass amount to £617,185. Glue, size and gelatine come to £463,837, and hardware, other than cutlery, to £880,634, but the returns do not help us to find out whence this important item is obtained. Hats or bonnets of straw reach £98,235.

Iron or steel manufactures are chiefly remarkable, for what we are not told. Thus we have no less than £3,572,490 put down as unenumerated, which seems a big share. Other items are: Sewing machines, £280,037; girders, beams, joists and pillars, £705,995; steel rails, £313,212; tyres and axles, £44,089; cycles and parts, including those with motors, £194,848; and machinery (convenient word that!) £3,196,750. Jute manufactures are valued at £2,159,836, and not a word about them save that we notice an increase over 1899 of £650,000.

Leather altogether reaches £8,792,934, and this is imported from France, £957,174; from United States, £3,038,638; British East Indies, £2,913,659; Australasia, £727,215; and other countries, £1,156,248. As the next item is leather manufactures we should explain that under the heading leather, are comprised—hides, tanned, tawed, curried, or dressed as leather; goat skins, tanned or dressed as leather; and sheep skins, tanned or dressed as leather. Leather manufactures, on the other hand, comprise: Boots and shoes, £694,698, a steadily increasing item; and gloves, £1,744,183, a decrease.

Linen yarn amounts to £915,441, and mouldings for picture frames and gilt mouldings, £249,505. Musical instruments come to £1,221,286, but whether Jews' harps or pianos predominate we are left in doubt. Painters' colors and pigments reach £1,349,164. Paper, curiously enough, we do not know why, is carefully subdivided under printed and unprinted and strawboard, millboard, and wood pulp board, and further, the country of origin of the printed and unprinted is carefully set out. Thus, of unprinted paper, we get from Sweden, £570,396; Norway, £629,503; Germany, £444,457; Holland £466,682; Belgium, £275,776; United States, £313,323; and all other countries, £412,784. Total £3,112,921. Of printed paper, which only amounts to £410,320, we get from Germany, £82,180; Holland, £97,058; Belgium, £106,915; France, £58,817; United States, £52,202. The item strawboard, millboard, and wood pulp board, amounts to £888,316, giving a total for paper and millboard of £4,411,557. Platings of straw, etc., for making hats, come to £642,619. Scientific instruments, other than electrical, reach £648,817.

Silk goods are carefully set out. We get broad stuffs from Holland, £1,386,546; and from France, £5,645,349. The total importation of broad stuffs is £7,331,503, showing a steady decline of about £2,200,000 during two years. Ribbons of silk or satin, from

# BLACK IS BLACK

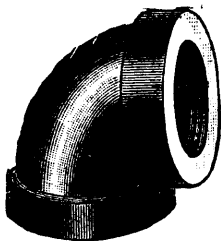
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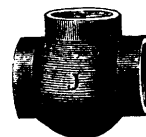
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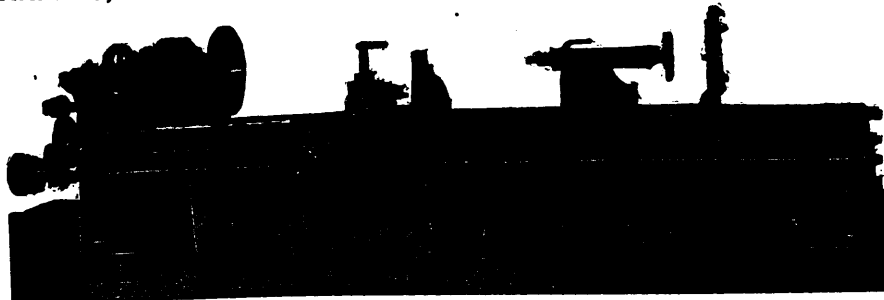
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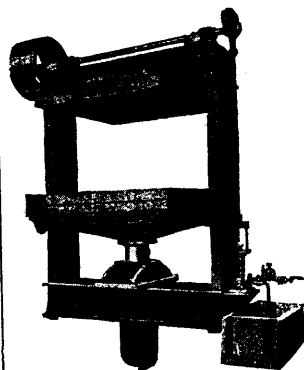
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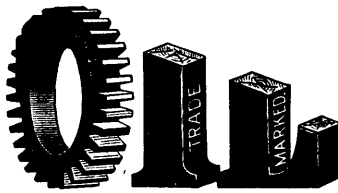
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OUR GOODS ARE MADE EQUAL TO THE BEST IN THE WORLD.

The Trade will find it to their advantage to get our prices.

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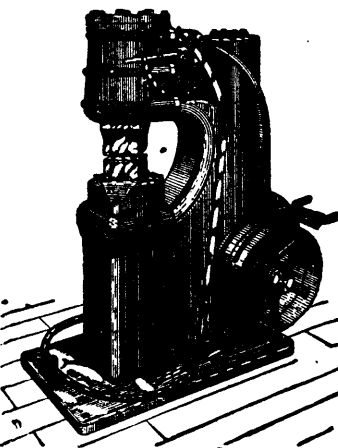
## The Yeakley Vacuum Hammer.

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Belgium, amounts to £976,155; from France, £1,057,085. and the total is £2,314,385, a steady decline of over £300,000 per year being seen during the last two years. Other kinds of ribbons amount to £3,476, and the unenumerated silks from France, to £3,766,801; from the British East Indies, China, Japan, and Hong Kong, £358,417, and other countries, £516,660.

Soap and soap powder amounts to £244,345; toys and games to £1,186,801, but, as neither of these items have been set out separately previously, we cannot note their rise or fall in value. Watches reach £1,363,902, a fairly steady figure of late; wood manufactures in the shape of house frames, fittings, joiners' and cabinet work, £1,195,314; other sorts, including woodware and turnery, £1,106,280. Woolen yarn for weaving amounts to £2,041,902, and for other purposes to £121,971. Woolen manufactures of goats' wool or hair, either mixed with other materials or not, come to £116,949; and of other wool or mixed with cotton to £622,903. Stuffs from France are valued at £3,919,004, and from other countries at £393,665. Carpets and rugs reach £572,901, a steady increase, and finally the "unenumerated" wools are £3,682,936. Zinc manufactures close the list with £559,705.

The total of this list is £93,216,298, compared with £91,310,487 in 1899, and £87,076,479 in 1898. The many articles included in it, which, if we gave thought to it, might be made in this country, or, if already made here, produced in larger quantities, will suggest themselves to the most casual reader of the enormous list we have set out. Our competitors have not only discovered that our colonies are a fine field for their products; Great Britain is the richest market of them all; its doors invitingly open; its people the most opulent in the world. The British manufacturer, we hope, will see to it that the £100,000,000 is reduced in the near future.

INDIA.—There seems a good opening in India for the sale of lamps. A contemporary of Commercial Intelligence points out, the native Indian likes to improve his light. At present in the most primitive Indian communities no iron is used, a clay vessel with a few loose vegetable fibres or a bit of rag and some oil or fat for an illuminant constituting the lamp. The Saracens introduced lanterns of glass in the form of slender vessels of cylindrical form which were hung by a collar through the floor of an elaborately decorated brass lantern. The oil was chiefly vegetable, including coconut, sunflower, castor, ground nut, and others. But kerosene has changed all that. Its very cheapness has revolutionized even the priests. Twelve years ago some priests proclaimed that kerosene was unclean and

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at a mere nominal cost per thousand cubic feet. The Generator is simple in construction, and does not require skilled labor to work it. **No Purifiers required.** Products being a Rich Permanent Gas and Charcoal.

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Prevents Belts Slipping.

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## BUILDING TRADES OF GREAT BRITAIN

The Publishers beg to announce the preparation of the ninth edition of the "Building Trades' Directory" of Great Britain, the only complete Directory of the Building and Timber Trades published. Highest award—Gold Medal—Paris, 1900. For further particulars, charges for advertisements, etc., apply

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NOW READY—Eighty-fifth edition of

## LAXTON'S BUILDERS' PRICE BOOK (Great Britain)

Lists of Addresses furnished for all trades—all countries.

W. P. Dent, Manager, Head Office, London, W.C. Eng.

prophesied an awful future for those who handled it. But kerosene won hands down. The result has been a growing demand for cheap and simple lamps. Large quantities of burners are imported which are made up on the spot. Then again wickless lamps for cooking are being used in growing quantities. Any manufacturer with a cheap, primitive lamp, which he can make in large quantities and at an absolutely minimum price, might do worse than make inquiries through Calcutta and Bombay import houses as to his chances.

A Customs circular has been issued by the India Office stating that dynamos, accumulators, motors, and electric fans are to be treated, for tariff purposes, as machinery, and as such exempted from import duty. Exports of all such articles to India are constantly increasing.

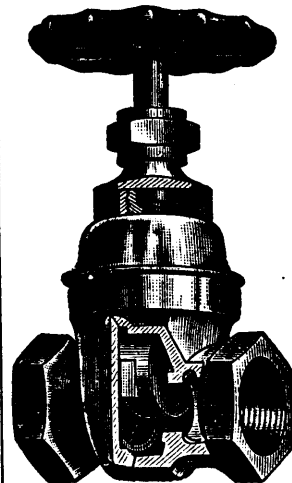
**KLONDYKE.**—The consumption of preserved provisions is enormous, as these form almost the sole means of subsistence the miners have during the winter. With the exception of sardines, French brands have not yet made their appearance here, whereas German provisions (sauerkraut, sausages, green peas) are becoming more and more appreciated. Care must be taken that every tin is supplied with a key. Brands which must be opened with a hammer and chisel find no sale.—French Consular Agent at Dawson City.

"Placers," or diggings, at Klondyke are developing more and more, thanks to the use of machinery for thawing the soil, by forcing steam into the earth by means of tubes. Trials have also been made with washing gold in warm water during the winter, but so far the results obtained have not been a success.—French Consular Agent at Dawson City.

**MEXICO.**—The development of the Mexican rubber industry by American capital is an interesting study. In the Ubero District, in the Isthmus of Tehuantepec, are two companies operating rubber plantations, the head offices of which are at Indianapolis, Ind. The Ubero Plantation Co. was incorporated in 1900 with \$1,000,000 capital. It owns 3,000 acres, on which it is planting 400,000 rubber trees. The Ismuth Rubber Co., with head office in New York, is now being organized. The Tehuantepec Rubber Culture Co., Vera Cruz, Mexico, is a branch of the Woolson Spice Co. The original stock of the Woolson Co. was \$37,500. It paid over \$1,000,000 dividends in six years when it sold out for \$2,200,000. The Mexican Plantation Co., of Vera Cruz, an Indiana corporation with \$10,000 capital, has acquired 600 acres in the Teschoacon River, where they are planting 125,000 rubber trees. A report recently issued by La Zacualpa Rubber Plantation Co. states that during the last year 600,000 rubber trees were transplanted, 1,000,000 rubber plants were placed in nurseries for transplanting in 1901, 1,000,000 plants were started in seed beds for transplanting to the nursery. The Leavenworth Coffee & Rubber Co., Leavenworth, Kansas, is mentioned as having a tract of 2,000 acres just above the Dos Rios plantation, on the Isthmus of Tehuantepec, where they are planting large numbers of rubber trees.

In a report recently received at the British Foreign Office from the British Legation in Mexico City, it is stated that the greater part of the agricultural machinery and implements at present in use in Mexico is imported from the United States,

## It Pays to Buy GOOD VALVES KERR'S GLOBE AND WEBBER STRAIGHTWAY VALVES



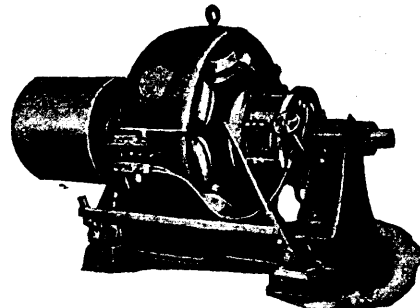
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SPEED MOTORS, MOTORS, SUPPLIES,  
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FLEXIBLE AND FLANGE PIPE.

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MAKE Gas or Gasoline Engines from 1 h.p. to 6 h.p.  
Stationary or Marine and Electric Motors from ½ h.p. up.  
Motor Carriages for Pleasure or Business. One cent spent for a postal will bring you any information you wish.

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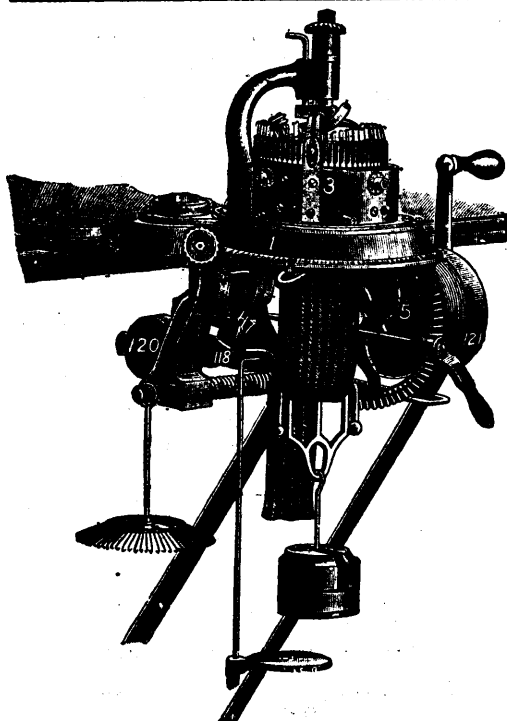
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SOLE AGENTS FOR CANADA

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Seamless Hosiery

## KNITTING MACHINES

WE have been hard at it for nearly  
1/3 of a Century.

We have had Success.

Our Customers have had Success.

Why? MERIT and SUPERIORITY  
in our Machines tells the story.

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CREELMAN BROS.,

Manufacturers,

GEORGETOWN, ONTARIO, Canada.

but other manufacturers could well afford to give their attention to the wants and requirements of the Mexican market. A case may be cited in support of this. English threshing machines are recognized throughout the country as being superior to those made in the United States. Their finish and adjustment are better, and the results obtained are greater, but owing to the inability to procure pieces for repairing them in cases of accident, the order is often given to American firms. The cylinders in American machines are made in pieces, and the teeth are attached by means of screws and nuts; in case of one or more breaking, they can be taken out and new ones put instead, while in machines of British manufacture the cylinder and teeth are made in one piece, which, if broken by accident, has to be taken out. This renders the machine useless until a new piece can be obtained, either by having it cast in one of the foundries in the country, which is expensive on account of the mould having to be made first, or by waiting for it to come from the makers, and this often entails a delay of several months.

The demand for mining machinery and tools is always increasing, and though there are several American firms established in Mexico City, who keep a very large assortment, English tools and machinery would undoubtedly find a ready sale.

Machinery for drilling in mines for obtaining water, or for pumping it out would also find a steady market. Artesian wells are very much needed in some parts of the country where water cannot be obtained from the rivers in sufficient quantity for irrigation purposes. By means of pumping machinery, applied to electrical motors, sufficient power could be obtained at very reasonable prices for working any sized manufacturing or industrial enterprise. An example of this may be given. The falls of Juanacatlan have a good supply of water all the year round, and by means of a wheel race the water is conveyed to a large turbine that moves the electrical plant and other machinery for the cotton mill erected at the summit of the falls, and also generates sufficient electricity to light the city of Guadalajara, situated about twenty miles away.

The want of high-class hardware for building is more noticeable every day, and this is an article that is not to be found in Mexico. There are five large hardware stores in Mexico City, and though they are very large establishments and keep an immense assortment of cutlery and hardware, it is all of articles that can be sold very cheaply. Scissors, cutlery, agricultural tools, etc., are all branches of the manufactures of steel and iron in which goods of a better quality would find a ready sale, as also a fine grade of surgical instruments of the latest invention; at present these are entirely imported from Germany and France.

Paints and colors are also articles that with a little careful management could easily be introduced. The greater quantity of paints and colors are imported from Germany and are nearly all made from aniline dyes; varnishes are principally of American manufacture. Up to the present this branch of trade has received very little attention from the British manufacturer, and though one or two feeble attempts have been made to introduce them, no foothold has been acquired, owing to the lack of experience required to conform to certain local customs and methods of business in the Mexican market.

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 In Toronto Junction,  
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**PARRY SOUND, ONT., CANADA**  
*Clothboards on Lapping and Rolling Boards*  
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We now offer as a going concern the property known as

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Consisting of the following machinery:—

One set 48 in. Platt Cards, all clothed.  
 One 264 Spindle Baucroft Mule.  
 One 24 in. G. & Mc. Picker. One Cone Duster.  
 One Fraser's Card Grinder. One Yarn Spooler.  
 One 60 Spindle Fly Twister.  
 One 108 in. Crompton Cone Loom, 4x4 box, 1 harness.  
 Two 92 in. Faisey " " 4x4 " 24 "  
 One 48 in. Gilbert " " 3x1 " 4 "  
 One 48 in. " " " 1x1 " 4 "  
 One Broad Warper and Beamer.  
 One Bobbin Winder.  
 Two Broad Up and Down Gigs.  
 One Rotary Fulling Mill. One Cloth Washer.  
 One Yarn Washer.  
 With Spools, Bobbins, Tools, etc., etc.

BUILDING No. 1.

Two and a-half Storey Frame, with stone foundation, 30x60 feet.

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Boiler and Picker House—One Storey Brick, 24x64.

A never-failing Water Power, all heat by steam and in first-class order. Good local trade has always been done.

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<b>Award</b>		<b>Medal</b>
<b>Paris</b>		<b>1900</b>

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Glass, china and earthenware are all articles where an opening in Mexico could be easily acquired by a manufacturer, if he would only assist his agents by stretching a point or two in regard to certain special requirements for that market. The following example is of quite recent date. A merchant of Mexico City required some dinner ware of a certain weight and pattern, and the order was given to representatives of British manufacturers for a quotation. After a long time the reply came that as they were not accustomed to make that style of ware in the quality required they could not accept the order, and in consequence the order was sent on to France and Germany, where it was executed without delay.

Leather goods could also find a very ready market in Mexico if the manufacturers would facilitate matters by attending to certain little requirements in connection with the taste of the country. The greater part of fancy leather goods, such as purses, card cases, etc., are imported from France and Germany, where the manufacturers are always on the alert to provide for any innovation in the orders sent for execution.

**NEW SOUTH WALES.**—According to the Queensland Government Mining Journal, arrangements have been completed for the establishment of large nickel ore smelting and refining works at Newcastle. An area of 400 acres has been secured on the Wall-send Coal Company's property, and the ore to be treated will be brought from New Caledonia by a regular line of steamers. The works will provide employment for a large number of men.

**PERU.**—The system of building in vogue here will be considerably modified shortly for sanitary reasons, and in view of the frequent earthquakes. Cement is of primary importance—a remark which also applies to iron shells for two-storied houses with double walls of sidero-cement, ordinary bricks or compressed sand. Under these conditions this market will require prompt supplies of cement, iron girders for uprights and top-beams, iron for use instead of binding joints, etc. The employment of these will necessitate the use of screw-bolts, hand drills, shears, sledge hammers, etc.—Belgian Mission at Lima.

**RUSSIA.**—The *Viestnik Finansoff*, in an article reviewing the progress of the Ural mining and metallurgical industry during the ten years 1891-1900, publishes figures of the production of platinum in the Ural district during that period, which are here reproduced:

	Pounds.	Pounds.
1891.....	258	1896..... 301
1892.....	279	1897..... 345
1893.....	311	1898..... 365
1894.....	318	1899..... 363
1895.....	269	1900..... 332

Pound = 36 lbs. avoirdupois.

The figures given above for 1900 are not definitive, but have been computed from the returns for the first eleven months of the year. Taking the value of one pound of platinum as 14,000 roubles, the value of the production in the Ural region in 1900 was 4,648,000 roubles or about half a million sterling. Commenting on the above figures, the "*Viestnik Finansoff*" states that the platinum industry in the Ural has not advanced as rapidly as might have been expected from its unique position; it has

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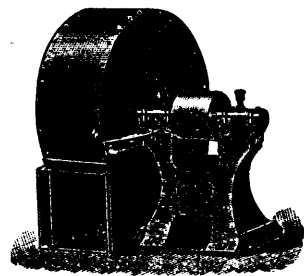
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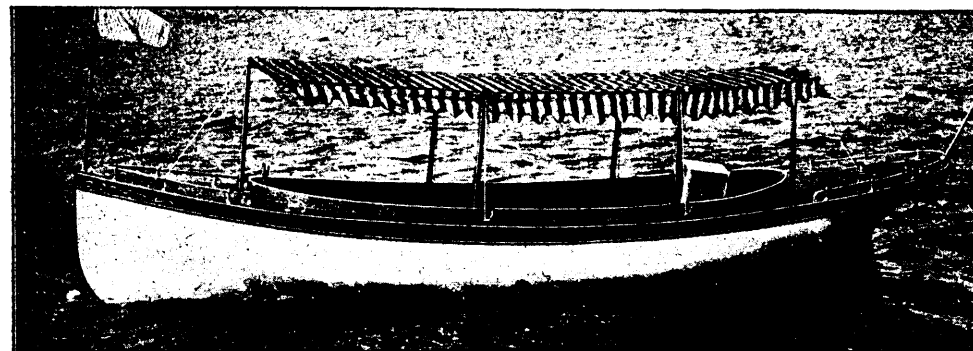
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practically no competitors, about 96 per cent. of the world's production coming from this district. The price of platinum in 1900 was not less than 14,000 roubles per pound, the cost of production being only from 4,000 to 7,000 roubles per pound. That this industry has not shown a further development in view of the diminished cost of production and increased price of platinum is attributed to the absence of any new discoveries of deposits of this metal in the Ural, where the few existing mines are all fully worked.

It is reported that the repairs to the Chinese Eastern Railroad will cost not less than \$17,000,000, much of which will have to be spent immediately. This is not wholly on account of the injuries to the line inflicted by the Chinese, but is due in part to the fact that much of the line previously built was too light for the traffic it had to carry and was also too hastily constructed. It is reported that the Russian Government will shortly purchase hoisting machinery, derricks, dumping cars, narrow-gauge track, picks, shovels, and other construction tools and machinery, to the value of \$2,000,000.

UNITED STATES.—Americans do not fully appreciate their own achievements in foreign trade. To the hasty reader statements of exports during 1900 convey little meaning, except that the country is still growing. It is difficult to grasp such enormous figures as \$1,478,050,854. Five years ago, in 1895, exports were \$824,860,136. Had this marvelous expansion of business, amounting to \$653,190,718, been confined to agricultural products, there would have been no occasion for irritation among manufacturers in other lands. But even with the large gain during the last three months in the value of cotton sent abroad, owing to the high price, the total export of staple products was but \$832,364,250. Hence, manufactured goods exported were valued at \$645,686,604. This means successful competition against manufacturers in older countries which formerly had complete monopoly of the markets of the world. Many European writers have expressed concern on the subject, but the first one to see the situation as it really exists, states the case in a recent issue of the Hamburger Fremdenblatt. His figures are six months old, being based on the statement for the fiscal year, but recent events only make the situation more satisfactory to Americans and distressing to their opponents. The writer shows how this country has taken a position of industrial supremacy in the face of competition from all the world. Iron and steel products are given the position of prominence they deserve. Instead of importing boots and shoes, especially women's footwear, from Austria,



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Americans have established shoe depots in all the principal cities of Europe. The future position of America as coal yard of the world is also predicted, and textile manufacturers are expected to place their surplus output on the shelves of European stores. That the writer thoroughly appreciates the value of American goods is shown by his admission that the typewriter on which his article is written was purchased in America, as well as the table on which it stands, the desks, bookcases, chairs and all his office furniture—goods of the same quality could not be produced in Europe at the same price.—Dun's Review.

The Canadian Northern Railway has just let a contract for 7,000 piles for the elevator, coal docks, and other terminal foundations on their terminal grounds at Port Arthur, Ont. Plans are ready for a two million bushel elevator. They have two round-houses, the last one fitted up with all modern machinery. A gang of men are laying out the waterfront for the foundations. The track is laid from Port Arthur to Atikokan and seventeen miles more are ready for the rails. Heavy rock work is being proceeded with, and the whole line is covered with camps and provisions ready for a big push when the frost goes. Five thousand men will then be needed. The contractors can finish the railway to Winnipeg by the middle of August. Many miles of the railway will cost nearly a hundred thousand dollars per mile. One million dollars will be spent on the waterfront at Port Arthur.

**THE SCIENCE OF EXPORTING.**

"How to sell goods, where to sell them, and when to sell them," is the subject of an exceedingly interesting discussion in The Manufacturer, of Philadelphia, which should receive as careful consideration from Canadian manufacturers and exporters as from Americans for whose benefit it was written. Our contemporary says:

A word ament our new era may be worth a great deal to those who hope to do a big business in the markets now opening to our people. First of all we don't know it all, nor nearly as much as we should. In the matter of exporting and marketing goods in far-off countries we are not in it, a little bit with lots of our rivals, notably the Germans. We have the A, B, C of it all to learn. Blunder after blunder is down against us in markets that might easily be ours, and which, but for the blunders would be ours now, and will be ours as soon as we see and correct our mistakes. Common sense should and will serve us as successfully far from as at home.

A little common sense. Think! Thought is as necessary in seeking foreign as it is in seeking home markets. An ounce of common sense will carry a man much further than a ton of conceit, or so-called confidence. Good goods sell themselves if common sense is used in getting them under the eyes of into the hands of possible purchasers.

Experience.—Experience is needed. Now that our goods are fairly well-known, it needs only a little experience in foreign fields to fit our men to make sales. Our exports are increasing at a rapid rate. In

recent years the increase has been remarkable. We are turning off line after line equal to and in many cases superior to and more cheaply than Europe. Up to date our salesmen have not been ourselves, or our own countrymen. We have had to rely on others. For those who hitherto have been unable to enter foreign fields successfully we say, to do so, you must make what people want to buy. In other words, you must adapt your goods to markets in which you want to sell. On this basis, and on this basis only is it possible to build up a permanent trade, at home or abroad. We must bear in mind, always, that there are others, eager to get the trade and willing to give what is wanted. This is true of every market on earth. If we put ourselves in the place of the possible purchaser, and ask what we would do, did anyone want us to take what we did not want we will answer as others will answer. Buyers are willing to buy what they want; not what we want to sell. In time, if we keep at it long enough, we may, at greatly reduced prices, coax them to try the wares we are anxious to sell.

Money Must be Spent.—Before we can hope for anything like the huge returns that are possible, we must put out a great deal of money. This is inevitable. We must be as liberal abroad as we are at home. Good men get and must be given good wages. Large orders mean liberal terms; and the man who knows how and when to make liberal terms is usually an able, far-seeing man.

A Few Foolish Things to Avoid.—Don't be foolish enough to expect to build up a

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big business or any business on so insecure a basis as English catalogues, lacking lucid descriptions and lacking price-lists. Don't expect to sell when and where you neglect to send samples when samples are supposed to accompany offers of sale. Don't think you can sell on so one-sided a system as is so often suggested by American houses, 'cash against delivery on board.' Others are honest, intelligent and trustworthy. We must meet the people among whom we want to do business at least half way. Of course a house that can afford to say "Our terms are none" without fear, may do so. But we are not writing for such. We are writing for the millions, or the many who are anxious to enter China, the East, South America, South Africa, Australia, etc., as well as Europe.

Questions to Ask Before Trying to Sell.  
 —1. Are my goods wanted anywhere on earth except here? If yes, where? The answer to this must be obtained by careful study of foreign fields, conditions, etc. (2) If the goods are wanted—can they, existing conditions considered, be sold? Before a single bill is sold or sent, freights, tariffs, methods of transportation, competitors, etc., etc., must be considered. The minutest details must be gone into. The writer knows of parties who have been bled and bled again and again by some of the biggest houses on this side, simply because they did not take the necessary precautions. We know of a case where a party had to pay a firm of brokers, with a big name, \$7.75 on a package, the contents of which were worth \$1.50. We suffer silently these exactions when the thing we should do is pull some of these high-toned thieves up in court. A good reliable importing or wholesale house, an intelligent Consul can collect this and much other excellent information.

Packing.—One would want a week to tell all one knows about bad packing. We were once, we hope we have reformed, the worst packers in the world. All the talk about what one or two good houses do will not wipe out the evil due to the dozen or dozen dozen others who pack as if the goods were of no value whatever. We have seen goods landed at Bremen and Hamburg that were absolutely no good; so wretchedly had they been packed. Now if a house knows from experience that its packing is O.K. or A No. 1, why it has only to pass this paragraph and go on packing as of yore. Leave it for beginners and for those who have sinned and suffered.

Weights and Measures.—We hope to see the metric system of weights and measures adopted in this country. Till that time comes we must possess our souls in patience and go on with what we have. Only we urge that net as well as gross weights go into bills of lading.

Knock-Down Goods.—The world wants millions of dollars' worth of our knock-down goods and our interchangeable parts. When possible we should save freight and space by sending goods knocked-down and closely packed.

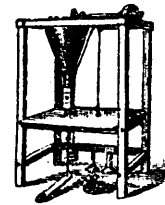
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to go very carefully to work in selecting the way or medium by which the market is to be invaded. There are many ways. The best three are (1) by means of a big importing house; (2) a special agency, or (3) by a branch of one's own house. These ways are all good. Any one is worth trying. Sometimes it pays to send a man over with samples, to go about selling in the large centres. German and English and French salesmen have succeeded with this last method. Americans, too, where they have tried it.

As a rule, the big seaports or capitals of countries are best suited for a beginning. It is often better by the way, to put one's business into the hands of a hustling house made up of young, energetic and enterprising men, who have little capital, than into the hands of old fogies, or conservative concerns with millions. Above all things get men who will tell you what will sell. Carrying marble to Carrara, coals to Newcastle, tea to China, will never pay.

One wants to bear in mind how very hard it is, at home even, to get a new staple article on the market. A cheap novelty will go like wildfire here, there, perhaps, and everywhere; but it is with the big business problems we are dealing. We are not writing for novelties or spasmodic movements. You must expect to spend money. You must do it at home: how much more abroad! You must back up your agent to the best of your ability. If you don't like his methods say so, giving him a chance to change, or get out, or to give a satisfactory reason for his methods. Study the ways and works of others. Find out what it has cost England and the German Empire to establish and to maintain markets in foreign fields. If we will make anything like the efforts made by both these countries we are sure to secure a large share of the world's markets, once we get our costs of production reduced to the exporting level.

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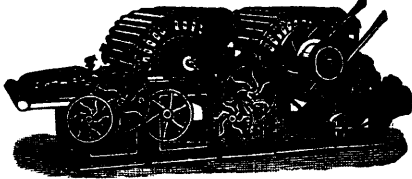
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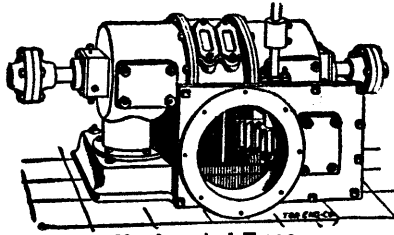
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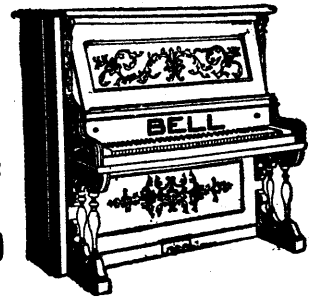
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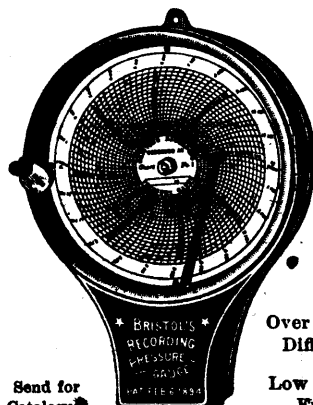
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