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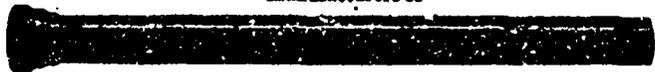
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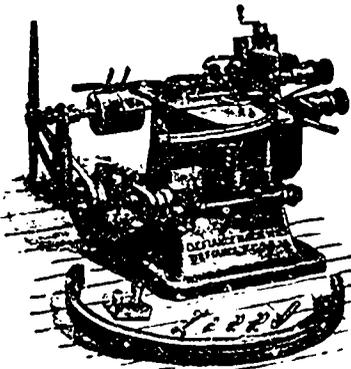
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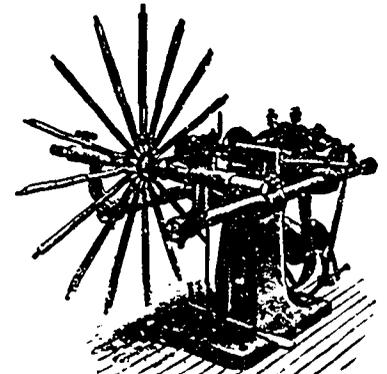
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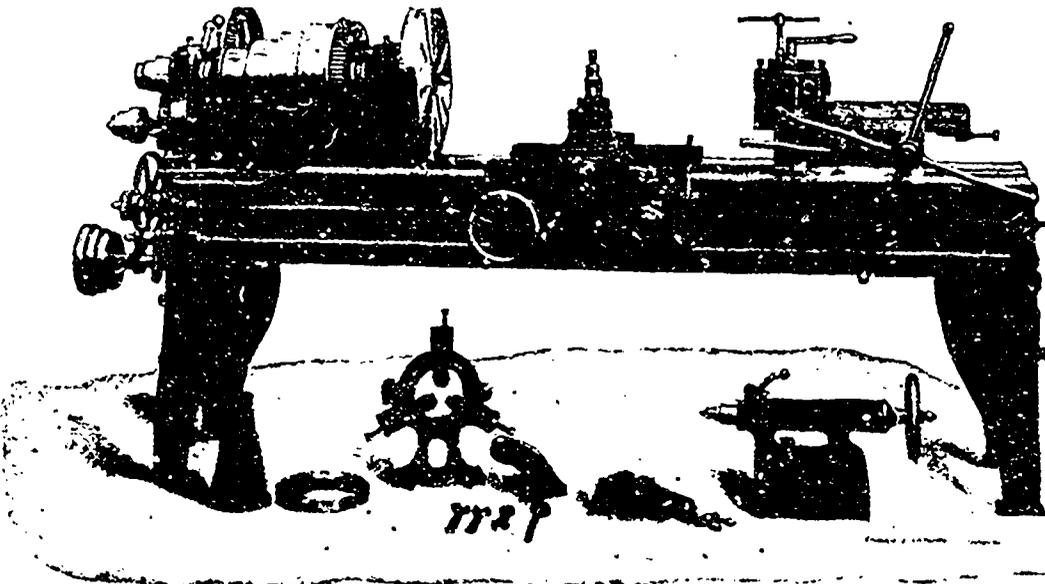
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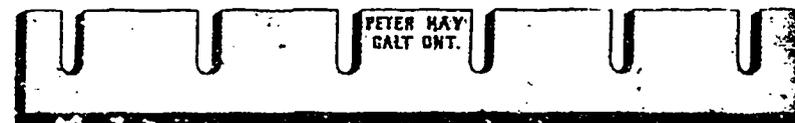
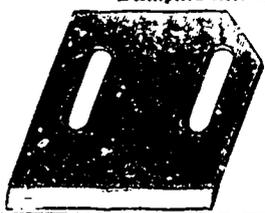
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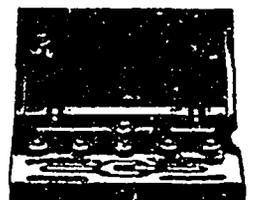
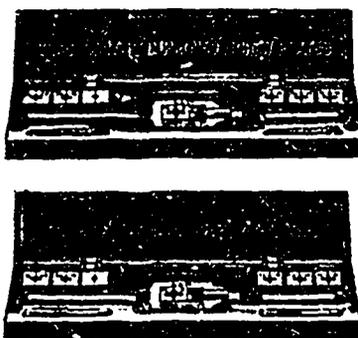
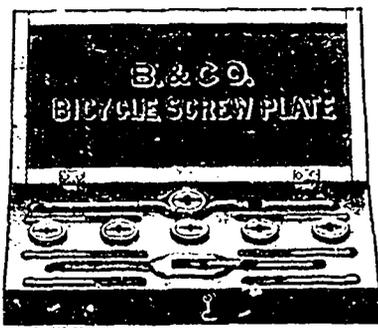
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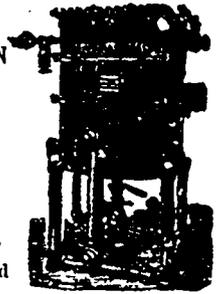
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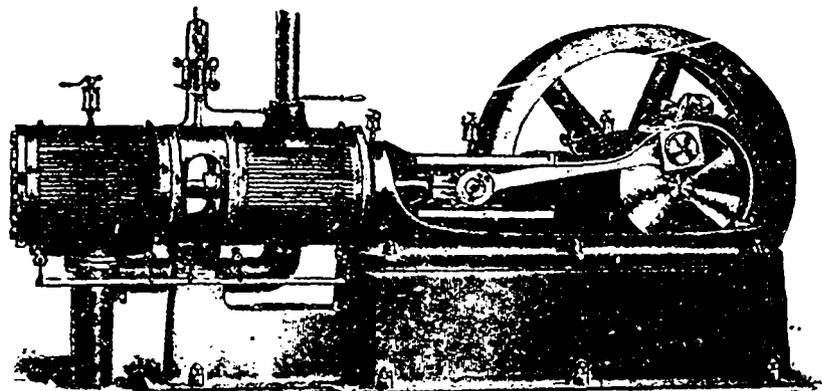
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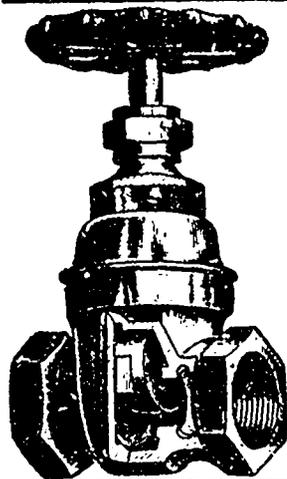
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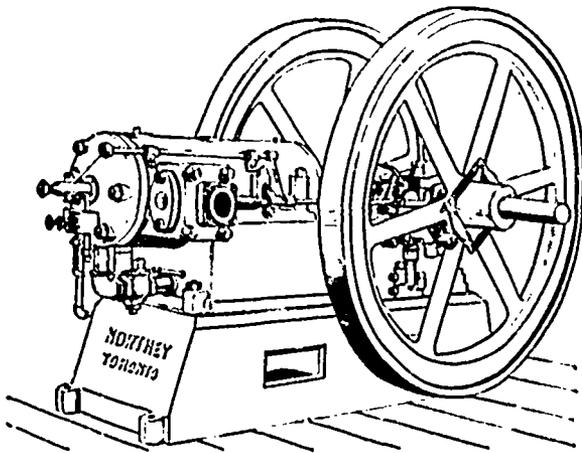
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THE GROWING TIME AND THE NATIONAL POLICY.

The Toronto Globe in its department in which it shows the beneficent and practical working of the National Policy through its "Growing Time" article, tells of the situation in Hamilton, Ont. Speaking of the manufacture of pig iron there it says:—

"The industry there, which is controlled and operated by the Hamilton Blast Furnace Company, has been running continuously two years, and has amply justified its promoters in going into the enterprise. Mr. John H. Tilden is President, Mr. John Milne is Vice-President and Managing Director, and Mr. Robert Hobson is Secretary-Treasurer, the officials all being Hamilton men. As the business of the Hamilton Blast Furnace Company is an indication of the foundry business throughout Ontario, the statement that the output from the smelting works is steadily increasing is of particular interest. About 120 hands are employed and the furnace is going all the time, working 365 days in the year. Two shifts of men run the works, and a great quantity of coke or foundry iron is turned out. The capacity of the works is about 40,000 tons of iron in a year, enough to supply all the stove foundries in the province, besides agricultural implement foundries.

"The making of coke iron is a new industry in Canada, and it has taken foundrymen some time to realize that just as good iron can be made in this city as in the United States or the old country. They are finding this out now, and as the quality of the Hamilton iron becomes better known the demand for it increases. The smelting of iron in Ontario is bound to increase the industries of the country, especially in the development of the iron ore mines. The Laurier Government's tariff has reduced the cost of iron to the consumer and saved the manufacturer from loss by paying him a bounty. The Government's bounty is calculated to develop the Canadian iron mines, from which at present the Hamilton Blast Furnace Company gets one-third of its ore. Two-thirds of

the ore used comes from across the lines, because, as President Tilden explains, the company cannot, as yet, procure a sufficient supply in Canada. The smelting industry is also proving itself to be the basis of the wrought iron supply, and the Hamilton Blast Furnace Company is now supplying the Ontario Rolling Mills with wrought iron. The company claims that it is a better iron than that made from scrap, and this branch of the business will probably be pushed more extensively when other rolling mills find out by actual experience the superiority of the wrought iron made by the Hamilton Blast Furnace Company."

We most heartily endorse all the pleasant things The Globe says about the Hamilton Blast Furnace Company, but it says some things that are quite at variance with the truth and very ridiculous to those acquainted with the facts. It is quite true that the Laurier Government reduced the duty on pig iron, but it is not true that it thereby reduced the cost of iron to the consumer, neither did it save the company from loss by paying it a bounty on its production of iron. If the Laurier Government had, instead of reducing the duty on iron, maintained it where it was, and had announced that it was its intention to keep it there, there would undoubtedly have been erected one or more additional blast furnaces in Canada, which would have so increased the supply as to render it unnecessary to import pig iron from either Great Britain or the United States. That would have been the result if the duty had not been reduced. But the reduction of duty had nothing whatever to do with the reduction in the price of pig iron, and whatever reduction may have occurred in the price since the Laurier Government came into power was owing to the lessened cost of production in the United States. The Globe would lead its readers to believe that the Laurier Government had originated the idea of paying a bounty on the production of pig iron in Canada, but in doing so it is robbing the dead, and endeavoring to deprive Sir John A. Macdonald of a credit that he justly earned many years ago. The Globe, too, seems to be quite willing to deprive the Ontario Government of its share of the honor it is entitled to in bestowing a bounty on the production of pig iron in this province; and it forgets that an active factor in bringing about the bestowal of the provincial bounty was the request of a large and influential committee of the Canadian Manufacturers' Association who waited upon Sir Oliver Mowat when he was Premier, some four years ago, and urged the necessity of such a bonus for the encouragement of an Ontario industry that did not then exist. If it had not been for what Sir Oliver did in this direction the Hamilton furnace would not have eventuated.

Is the development of Canadian iron mines to be desired? Is a Canadian pig iron industry to be desired? Is the development of those industries dependent to any extent upon the bestowal of bonuses? Then why does The Globe in its political department so strenuously object to either duty or bonus? Consistency is a jewel.

Furnace and rolling mill men can but laugh at the ignorance of The Globe when it tells us that the Hamilton blast furnace is the base of the domestic wrought iron supply, and that that furnace is supplying the Ontario Rolling Mills Company with wrought iron. For its information we would whisper to The Globe that the Hamilton Blast Furnace Company has never yet produced a pound of wrought iron, and never will unless a puddling plant is added. The Ontario Rolling Mills Company, however, manufacture wrought iron of different kinds. A part of its equipment consists of puddling furnaces in which pig iron,

such as that produced by the Hamilton blast furnace, is converted into wrought iron.

The Globe bears testimony to the fact that under the National Policy tariff as observed by the Laurier Government both the Hamilton Blast Furnace Company and the Ontario Rolling Mills Company are in a flourishing condition. Both these concerns are active members of the Canadian Manufacturers' Association.

A LESSON IN ECONOMICS.

The chief object of the Home Industry League, of Bristol, England, is—co-operation in the interest of British industry and the employment of British labor. The policy of the League is—the abolition of import duties upon non-competing foreign products, except articles of luxury, and the levying of duties only upon foreign labor-competing products equal in amount to the taxation now levied upon similar home productions; the federation of the British Empire under a Custom's Union, and the limitations of foreign immigration prejudicial to British home-labor interests. In a leaflet addressed to British Workmen the League offer the following arguments against free trade:—

The one-sided treat-us-as-you-choose policy now being gratuitously and needlessly forced upon the nations by England, is to be condemned upon the following grounds:—

1. It affords Englishmen no real freedom in trading with any other country, and places England at the mercy of the specially designed hostile tariffs of the world. Lord Salisbury said of these tariffs—"They are simply acts of fiscal war, but you are now excluded from legitimate acts of self-defence, and as long as you are thus excluded, you may sigh in vain for justice in fiscal matters, at the hands of other nations of the globe."

2. It imposes customs duties to the extent of £20,000,000 yearly upon articles in every-day use by the people of this country (tea, etc., etc.), which employ no English labor in their production, whilst it permits the free importation of all foreign articles that unfairly compete with English labor. Free-trade England arranges her heavy duties with the avowed object of not protecting English labor, or industries.

3. It permits the free importation of prison-made goods, and the free immigration of alien paupers, to the lowering of wages, and the increase of competition for employment in this country. No other nation now takes our paupers, or our goods, free of duty.

4. It permits our free-trading ship companies to secure English taxpayers money, in the shape of large subsidies from the Government, encourages such companies to employ cheap foreign sailors, and allows foreigners to study our natural coast and channel defences, and to obtain English pilot licenses. 235,000 seamen are employed on British merchant ships, only 55,000 of whom are Englishmen. Foreign ships can engage in the English coasting trade without hindrance, but English ships are not permitted this privilege abroad.

5. It promotes the too rapid development of new countries, and the employment of low-priced native labor in the East, by the help of vast amounts of English capital, such "cheap" labor being thus brought into direct competition with English labor. Railways, steamship lines, cotton and other factories, are started abroad in every direction with English capital,

the owners of which all demand a perfectly free market in this country for their freight and goods.

6. It exacts very heavy taxation from English home industries, upon which labor is entirely dependent, and by giving foreigners a free antaxed market in this country, enables them to undersell English producers in their own home markets. This is notably the case with regard to agriculture, which is by far the chief industry of England. The virgin, and practically untaxed new lands of the world—by the help of English capital—are thus brought into most unfair and ruinous competition with heavily-taxed English land.

7. It enables English capital invested in foreign industries, to secure all the benefits of protected markets abroad, as well as the privilege of a perfectly free market in England—its owners enjoying all the costly residential advantages of this country, whilst paying but a nominal share of taxation. The London Statist newspaper estimates that three thousand millions sterling are thus invested in foreign countries by Englishmen. The profits on this vast foreign business are largely re-invested abroad and not in English industries.

8. It deprives England of her bargaining power when making commercial treaties with other nations, prevents any step being taken to obtain international reciprocity of trade, and thus absolutely retards the enforcement of universal free trade. Lord Salisbury told the London Chamber of Commerce—"We have nothing to offer other nations when making a commercial bargain, because, by adopting free trade, you have deprived the Foreign Office of the weapons by which alone such bargains can be obtained."

9. It encourages imports of foreign productions at the expense of exports of English products, enables foreign nations to shut out English trade whilst developing their own industries under protection, and to export their surplus goods to our free market. In 1874 our imports were £370,000,000, and exports £297,000,000, 1892, imports £424,000,000, and exports £292,000,000. In five years, 1890 to 1894, our imports exceeded our exports by £600,000,000. In the twenty-five years, 1869 to 1893, the increase of imports for consumption and exports of domestic products, from the following countries were: protectionist Europe 46 per cent., United States 143 per cent., free-trade England 28½ per cent. The increased exports of domestic products only for the same years were still more striking, viz.: Europe 50 per cent., United States 202 per cent., and England only 15 per cent.

10. It promotes the giving of bounties by foreign rival nations, and enables foreign merchants and shippers to combine and force competing English railway companies to give most unjust preferential rates for the carriage of foreign products. Foreign goods are often thus carried at half, or a third the rate charged for English goods, and this iniquitous practice acts as a positive bounty in favor of our foreign competitors.

11. It drives large tracts of English land out of cultivation, and laborers away from the country districts, greatly lessens the value of agricultural property, and makes England dependent upon other—possibly hostile—nations for her food supply. The census returns prove that one-third of the rural population has been driven off the land since 1860. In 1863 we grew seventeen million quarters of wheat, but in 1895 only about five million quarters.

12. It imposes false, delusive theories upon English working

men, the sole object of its promoters being to enrich the foreign trading, foreign investing capitalist class, it prevents the rapid development of our colonies under a system of preferential trading terms with the mother country, and puts our dense city population in the gravest peril in the event of war, when, through war risks at sea and prohibitive insurance rates, exports from English factories will almost cease, a large number will be thrown out of employment, and food will be at famine prices. £600,000 was spent by commercial capitalists through the league which was organized to bring about so-called free trade, and £130,000 was afterwards presented to Richard Cobden for his efforts during the agitation. Under free trade we have abolished all preferential trading with our colonies, and our surplus wealth and population has largely gone to the United States to develop and build up the most protectionist nation on earth. The price of bread in England during the Crimean war, when France was fighting with us, at one time rose to a shilling the four pound loaf. What will its price be in the next great war?

Taking all things into consideration, where is the great benefit said to be derived by working men from one-sided free trade.

THE ACME OF GALL.

A few days ago Messrs. Brown, Boggs & Co., of Hamilton, Ont., received a letter from The American Journal of Health, 160 Fifth Avenue, New York City, which enclosed an article regarding the canned goods that the Hamilton concern were supposed to manufacture, which, it was stated, had been prepared for the editorial columns of The Journal of Health, and which, as the recipients of the letter were informed, was to be published in that journal without any cost to them. It was stated in the letter that if the article met the approval of Messrs. Brown, Boggs & Co., and they desired copies of the journal containing the article, they could be had at certain prices named.

The article in question was entitled, "The Attainment of Perfection in Canned Goods," the authorship being ascribed to "A. R. Wilson, M.D." It alluded to the rapid increase in the use of food products supplied in the form of canned goods and showed the necessity of the unremitting attention of the hygienic press in investigating the subject. The practical results of this investigation has been, as stated, great and necessary improvements in the methods of putting up canned goods, and this has already been attained, particularly in the case of Messrs. Brown, Boggs & Co. The writer then goes on to say: "As an example of the very highest grade of canned goods which have been examined by us, we have satisfaction in endorsing the products offered by Brown, Boggs & Co., of Hamilton, Ontario, Canada. This brand is indeed an illustration of what we have just said concerning the perfection of modern methods in preserving food. * * * In our careful examination of Brown, Boggs & Co's products, we discovered a uniformly high grade quality. This remark applies to each class of product put up by this firm and bearing their brand." Other remarks allude to the "conscientious regard to the laws of hygiene" in the factory where the canning is done, and other suggestions that the writer evidently thought would be pleasant to the Hamilton concern; the article closing with this sentence: "The American Journal of Health is glad,

upon the facts demonstrated, to add its cordial endorsement of this superlative brand of canned goods."

The utterly unreliable character of this stroke of enterprise on the part of The American Journal of Health is evident when we state that Messrs. Brown, Boggs & Co. are not and never were in the business of putting up canned goods of any description whatever, although they are manufacturers of canners' and tinsmiths' tools, etc.

In a copy of The American Journal of Health now before us, in an editorial alluding to a "special feature" of it, we are told that during all the years of its existence it has at all times adhered to its early declaration that the editorial columns of a newspaper belong exclusively to its readers, and that it is an imposition upon the rights of its subscribers to permit advertisements or paid matter to appear in such a way that deception is practised upon those who receive such statements as coming from the editorial department. "We have no space for sale in our reading columns," it tells us, "and all suggestions contained therein reflect our unbiased and candid opinions made after thorough investigation, and may be implicitly relied upon." And yet The American Journal of Health is glad, upon the suppositious facts related in its write-up article, to add its cordial endorsement of a superlative brand of canned goods that were never produced.

American trade journals, as a class, occupy a high and honorable position, but the one here alluded to proves the exception.

CHOOSE YE THIS DAY.

"The parties who bombarded the umbrella upon its first appearance in a shower with the decayed fruit of the festive hen must certainly have been free traders," says The New York Commercial. Their descendants on the press are yet busily bombarding the protective tariff idea with fruit just as badly decayed and hardly more fragrant than that with which their ancestors assailed the umbrella. Free traders do not believe in resisting providential dispensations of weather and climate by any sort of modern new-fangled device. As their forefathers said: "If it rains it is our duty to get wet with becoming reverence for the source of the shower," so they now say: "If foreign imports destroy our industries and starve us to death, it is our duty to starve without a murmur, still burning incense under the nose of the great idol of free trade."

Our remarks are called forth by a criticism in the columns of the Hamilton, Ont. Times upon a recent editorial of ours opposing "flat reciprocity;" in other words, naked free trade with Canada, in the course of which criticism the Canadian paper remarks that "long adherence to the protective system in both countries has dwarfed the spirit of self-reliance." So has the use of the umbrella dwarfed the spirit of self-reliance in the same way. So has the steam fire engine dwarfed the spirit of self-reliance under which people carried water up ladders by the bucketful, instead of forcing it through a hose in small Niegaras. Wearing clothing has dwarfed our self-reliance upon the warmth of our own blood alone to keep us alive in New England and Canadian winters. In short, every imaginable device by which life is made more possible in some places and more enjoyable everywhere, has destroyed self-reliance in the old way of living, when our ancestors dwelt in caves, went practically naked, and slew wild animals

with their naked hands, scorning even to use a club as a weapon of assault or defence.

Advice not to resist the laws of free trade is of precisely the same sort as that which advises non-resistance to the law of gravitation. It is advice not to use tools, canes and crutches; balloons and parachutes should seem contrivances of the evil one; to build a dike to keep out the ocean or the swollen river should be a capital offence. The protective tariff is simply a dike to keep out a flood which would as surely destroy as the unbridled ocean or river. Wise men face facts and shape their conduct accordingly. The facts are that, in this world, there are certain areas of high productive cost and certain areas of low productive cost, all inhabited by people who must live by production. To stop production is to stop food, to stop food is to stop life. And for people who live in areas of high cost to tear down tariff dams between them and the areas of low cost is just the sort of fool thing that people on the Mississippi River would be guilty of, if, with the river twenty feet higher than their town level, they should deliberately tear down the levees and let the water in. The breath of thousands of human beings is stopped scarcely more quickly by levelling the river dike in the one case than by levelling the tariff dam in the other.

It is hard for free traders to realize that they are dealing with questions of life and death, and not simply handling inorganic matter, when they destroy production by destroying the walls which separate high from low cost areas.

EDITORIAL NOTES.

Two lessons in economics for the consideration of The Toronto Globe:—A few days ago a dispatch from Glasgow, Scotland, stated that a thousand tons of ship plates had just been landed there from Norfolk, Va., the event being more notable in the fact that the steamer bringing them was flying the American flag. Later, a dispatch from London, England, stated that Messrs. Vickers, Sons & Maxim, British shipbuilders, had acquired the shippard at Newport News, Va., to enable them to comply with the terms of a contract they had entered into with the United States Government for the construction of torpedo boats. Protection encouraged the development of the steel industry in the United States to a point where steel plates for shipbuilding can be produced cheaper than in free trade Scotland, and British shipbuilders find it to their interest to abandon free trade Britain and transfer their capital and energies to a country where tariff protection is the religion of the people.

A baking powder manufacturer is about to move from London to Toronto, without requiring exemption or favor of any kind. This is a satisfactory proof of Toronto's exceptional advantages as a manufacturing centre. It also attests the healthy condition of industry when an establishment can move from place to place without soliciting public aid.—The Globe.

Protection gives the healthy condition. The duty on baking powder is, in bulk, three cents per pound, in packages weighing less than fifty pounds, six cents per pound.

We do not know who Mr. George Evans is but he is a genius who should have lived in the days when Adam was a tiller of the soil outside the walls of the Garden of Eden, judging from what he said a few days ago at a meeting of the Cartwright Club in Toronto. Discussing the question, "Is

Labor Rewarded?" Mr. Evans endeavored to point out the evils which resulted in the unequal distribution of wealth. He condemned the system of gambling on the Stock Exchange and in general objected to all conditions which enabled one man to amass a great fortune, whereby he was placed in a position to control the labor of his fellows. The wealthy man never worked with his hands, he said, and therefore was not a producer of wealth, but inasmuch as he controlled wealth he was able to take from the laborer a share of his product, giving him no just return. Going even further, he said that labor on the soil was the only honorable toil. It would enable every man to provide for himself, and not deprive others. On this ground he objected to the sale of land. Land should be free; every man being entitled to as much of it as would, by his cultivation, provide enough of the necessaries of life for his own subsistence. We think it would be safe to say that Mr. Evans never plowed a furrow in a wheat field nor hoed a quarter acre of potatoes in his life although there are millions of acres of good farming land in Canada, some of which he might obtain almost for the asking.

While THE CANADIAN MANUFACTURER has always abstained from expressing any political sentiments whatever for or against any political party, it has always been an avowed advocate of the policy of tariff protection to Canadian manufacturing industries; and it has always been pleased to extend the glad hand to any and every legislator, either Provincial or Dominion, who proclaimed himself a protectionist. And therefore it is now our pleasure to offer congratulations to Mr. John R. Barber upon his election as a member of the Legislature of the Province of Ontario. Mr. Barber is a manufacturer, an avowed protectionist, and an esteemed member of the Canadian Manufacturers' Association.

Following is an extract from a departmental circular issued to all postmasters in Canada relative to parcel post packages: "The attention of postmasters is further called to the fact that no parcel can be sent from Canada to any other country by parcel post unless it bears a customs declaration setting forth the nature of its contents and its value. As the acceptance by a postmaster of a parcel addressed to any other country, and not provided with a customs declaration, will result in its being sent to the dead letter office, postmasters are specially directed not to accept such parcels without the customs declaration."

Canada has been allotted 31,000 feet for its exhibit at the Paris Exposition in 1900. Hon. Sidney Fisher, Dominion Minister of Agriculture, says that the great natural resources of Canada will be well represented at Paris. Mineral, agricultural, and pulpwood products are the three things that he proposes to make particular features of. It is probable that a special Klondike exhibit will be made. Mr. Fisher has arranged to secure the co-operation of a committee representing the different provinces to assist him in selecting and laying out the exhibits.

For the season of navigation recently closed the exports of grain from the port of Montreal show the extraordinary increase of nearly 20,000,000 bushels over the previous year. Cheese shows an increase of 108,902 boxes, and butter 141,464 packages. While compared with 1897 there has been an in-

crease in the number of ocean arrivals of only thirty-seven, their capacity exceeds that of the previous year by 158,522 tons. In 1897 there entered the port 479 vessels, with an aggregate tonnage of 1,054,225, in 1898 there arrived 516 vessels, with the magnificent tonnage of 1,212,747. The coastwise steamers also show a substantial increase both in vessels and tonnage. In 1897 there arrived 296 vessels, while in 1898 336 arrived. The tonnage for 1897 was 317,000 tons, and for 1898 345,800, being an increase of 28,000 tons.

A special telegram from Ottawa published in The Mail and Empire says:

It will be remembered that a special vessel with exhibits left Quebec for South Africa in September. Many leading Canadian firms declined the Government's offer of space, and are now sorry for it. After the vessel had gone, one Toronto manufacturing concern wrote the department, asking why they had not been invited to send goods to the Grahamstown exhibition, and on being confronted with a letter from their office declining to take part in the exhibition, they had not the decency to apologize for their error.

It is not probable that any Toronto manufacturer who might have desired to have made shipments of his products to the Grahamstown exhibition did not know of the opportunity of doing so offered by the Government. Sufficient notice was given that a ship in the employ of the Government would sail from the city of Quebec for Cape Town, by which exhibits could be sent, and this fact was several times alluded to in this journal. The Government did all that could have been expected of it in the matter.

While Hon. N. Clarke Wallace, M.P., was in Washington in December representing the Canadian Manufacturers' Association before the Canadian Commissioners to the International Conference, The Washington Post made the following pleasant reference to him.

One of the visiting Canadians in Washington has been establishing himself on very friendly terms with the members of House and Senate. He is Hon. N. Clarke Wallace, M.P., of Toronto, formerly Controller of Customs, and now a leading Conservative in the Canadian Parliament. Mr. Wallace is less English than many of his colleagues, has thoroughly up-to-date ideas, and has fraternized very readily with American lawmakers. Vice-President Hobart some days ago invited him upon the floor of the Senate, and he has listened very attentively to the discussions on public questions in that body. Nearly every day Mr. Wallace takes a little time around the House Committee on Ways and Means, and he has had some very enjoyable talks with the members, particularly Representative Dolliver, of Iowa, whom he regards as a "very pleasant chap." Mr. Dolliver, in his rich diction and entertaining manner, explained to Mr. Wallace the achievements of Speaker Reed in establishing the present rules of the House, and sandwiched in many anecdotes, which the Canadian relished immensely. He is himself an interesting conversationalist, and while he proved himself an ardent listener, related instances of politics in the Dominion that absorbed Mr. Dolliver. Mr. Wallace is about 50 years of age, short of stature, and rather stocky, has abundant grey hair, and clear, interesting eyes. His mission in Washington for several weeks past has been to represent the interests of Canadian industries before the Anglo-American Commission.

Following is the text of the proclamation of the Postmaster General of Canada, issued on December 24th, bringing into

effect penny postage between Canada and certain other British countries:—

Whereas the post-office act provides that the Postmaster General may, subject to the provisions of the act, establish the rates of postage on all mailable matter, not being letters, newspapers or other things therein specially provided for, and whereas the rate of postage upon letters from Canada to the United Kingdom or to any British possession is not specially provided for by the post-office act or any amendments thereof, now, therefore, I, William Mulock, Postmaster-General of Canada, under and by virtue of authority vested in me, do hereby establish two cents per half ounce or fraction of half ounce as the rate of postage upon all letters transmitted by post from any point in Canada to any point in the following countries and colonies embraced in the British Empire, viz.: United Kingdom of Great Britain and Ireland, British India, Newfoundland, Natal, Jamaica, Bermuda, Barbadoes, Bahama Islands, British Guiana, British Honduras, British East Africa, British Central Africa, Niger Coast Protectorate, Niger Company's Territories, Uganda, Aden, Ascension, Sarawak, Malay States, Johore. This regulation shall come into force and take effect on, from and after the 25th day of December, one thousand eight hundred and ninety-eight.

It having been stated in some newspapers that the new two-cent Imperial stamp would not become available until Christmas day, enquiry made at the Post-office Department at Ottawa to ascertain the truth of this statement elicits the fact that, although it was the original intention of the department that the new stamp should not come into use until the 25th inst., the demand from the public for it has become so pressing that the department has decided to issue it at once, and permit its immediate use to the extent of its face value for all postage purposes. In other words, as soon as it reaches the public it may, if preferred by the purchaser, be used instead of the ordinary two-cent stamp. The two-cent inter Imperial rate does not, of course, come into effect until Christmas day. The following is an official list of the places, other than Great Britain, to which letters can now be sent for two cents:—

Aden	Leeward Islands
Bahamas, The	Natal
British Central Africa	Newfoundland
British East Africa	Niger Coast Protectorate
British India	St. Helena
Ceylon	Seychelles
Cyprus	Sierre Leone
Falkland Islands	Straits Settlements
Fiji	Trinidad
Gambia	Tobago
Gibraltar	Turk's Islands
Gold Coast	Uganda
Hong Kong	Windward Islands
Lagos	

Anglo-Canadian trade is showing notable signs of vitality. The High Commissioner's office in London, has recently received inquiries from firms in Doncaster, Leicester, Dundee, Glasgow, Manchester, Liverpool, Christiania (Norway), and Antwerp (Belgium), anxious to buy or sell in Canada elastic fabrics, boots, spruce boards and timber generally, wheat, grain, oakum, wool, sheep, dip, glucose, woodenware and antimony. Anglo-Canadian traders strongly urge that an equitable insolvency law is absolutely essential.

A Frenchman has discovered a remedy instantaneous in its effects for the horrible burns caused by the use of oil of vitriol. It is a soft paste of calcined magnesia and water,

with which the parts burned are covered to the thickness of an inch. It alleviates the pain almost immediately, and when the paste is removed no scar remains.

A German inventor proposes to manufacture leather from asbestos. He will treat the fibre in a solution of caoutchouc until it is thoroughly coated, and then evaporate the dressing. The product adheres together after this treatment so tenaciously that after pressing it can be used for all the purposes of leather. It is claimed for it that it will not expand in moisture and possesses great durability.

LITERARY NOTES.

The publication offices of *The American Carpet and Upholstery Journal*, of Philadelphia, have just been moved to 102 S. Twelfth St. at Chestnut St., in the Beneficial Saving Fund Building. The office of this journal is a bureau of information for the industries it represents, and the trade generally is invited to make use of it.

"A Home and Work for Every Man," is the title of a brochure sent to us by its author, Mr. James Hunt, of Hampton Park, Bristol, England, the object of which is to educate the working men of England to the necessity of a change in the fiscal system of that country and the adoption of the principle of Fair Trade. Upon the title page of this book is printed an extract from the declared policy of The United Empire Trade League as follows: "The furtherance of mutually advantageous trading relations among all who share allegiance to Her Majesty the Queen, and the advancement of the interest of British industry and commerce throughout the world." Upon the same page is an extract from a speech of Daniel Webster made in the United States Senate, which says: "Place this great truth on the title page of every book of Political Economy; proclaim it everywhere, that where there is work for the hands of men, there will be work for their teeth also—where there is employment there will be bread." Some of the subjects discussed in the book are "British Pauperism and Suffering Home Industries," "Made in Germany," "The Change Taking Place in Public Opinion," "True and False Prophets," "Revolt Against Cobden's Dogma," "Does Protection Make Goods Dear?" "Can we Grow our Nations Food, etc.

The *Christmas Farmer's Advocate*, of London, Ont., is a graphic revelation of the agricultural progress of Canada during the past fifty years, and of its capacities as a food producer for the British Empire. The articles reviewing these and other subjects read equal to a romance, but, like the half hundred engravings illustrating its seventy-two beautiful pages, they are the faithful portrayal of realities in every part of Canada, from the humble home of the settler to the mansions of those who have risen to a competence. Our old contemporary modestly says little or nothing about its own thirty-three years' service on behalf of the farmers' advancement, which, in the opinion of many best competent to judge, has been probably the most effective for good of all agencies. This number contains the most complete survey ever given of the Dominion Experimental Farm system and the Ontario Agricultural College. There are sketches of "German Agriculture," by Prof. Shuttleworth; "The English Country Gentleman," by Richard Gibson; "Reminiscences," by William Miller; "Agricultural Education," by Rev. Prin. Bryce; "Starting Right on a Prairie Farm," by Supt. Bedford; and "Canada's Resources," by the Dominion Statistician; any one of which is alone worth the price of the number, which is being supplied gratis to all new subscribers for 1899 at the old rate of \$1.00 per year. The design on the front cover represents Canada as the Empire's Rising Hope, and the poem "The Path of the Yeoman," by Mr. Elliott, and "John Bull's Christmas Dinner," by J. W. Bengough; "Ramshackle Farmin'," by Frank Stockton, are among the many features that will catch the popular fancy in this splendid issue of *The Advocate*, which will not only be a benefit, but a surprise and delight to its readers.

Outing for January is a splendid number, which carries the usual generous supply of interesting text and artistic illustration. It is full of the merry sport and pastime of bracing winter days. "Mid-Winter Madcaps," a poem by Charles Turner; "A Christmas in Mooseland," by Ed. W. Sandys; "A Snowshoe Caribou Hunt," by Frank H. Risteen; "New Year's Day at a Hudson's Bay Fur Post," by W. Blaisdell Cameron, and "Figure Skating," by J. E. Michie, are a few of the many good features which have

the pale beauty of the snow in them. The fiction department contains two complete stories, while tales of sport, travel and adventure in many lands furnish the needful variety. The editorial and record departments are fresh and interesting.

"A Treatise on Economical Transmission of Power" is the title of a nicely bound volume sent to us by the Unbreakable Pulley and Mill Gearing Company, West Gorton, Manchester, England. In compiling this treatise, we are told, the writers were influenced by the feeling that, in these days of small profits and keen competition, it is not sufficiently realized how important a part the machinery used for the transmission of power bears in the general economy of manufacturing establishments. Any power consumed by shafting, beyond the small amount necessary to overcome friction in well-designed and properly lubricated bearings, is absolutely wasted; yet though people will look closely enough into the economy of the engine or machines they propose purchasing, economy in the means by which power is transmitted from the engine to the machines is constantly overlooked, as is also generally the economy in erection; while the sole care is to buy from the man who will supply so many feet of shafting and so many bearings at the lowest price. The writers believe they can plainly prove to anyone who will take the trouble to read the treatise that it is not only a mistake, but a serious and costly one to the user to be so careless about the means employed to distribute his power. The book contains many illustrations, tables, diagrams, etc., of the subjects treated of, and cannot but be of much interest to any interested in the transmission of power. For further information apply as above.

Messrs. Pawson & Brailsford, Sheffield, Eng., has sent us an elegant copy of *The Foreign Buyers' Illustrated Catalogue*, which includes a large number of manufacturer's circulars, carefully selected, which give information respecting hundreds of trades and industries. In placing this catalogue in the hands of colonial and foreign buyers, the publishers call attention to the fact that they have accepted the circular of one firm only in each trade, and it is therefore hardly necessary to state, as they do, that leading firms only are embodied in the book. Not only are the names of firms mentioned in the book alphabetically arranged, reference being had to the page to which the card appears, but the articles manufactured by these firms are also likewise arranged and paged, making reference thereto very easy. This latter index is printed in six languages. The catalogue cannot but be of great value to those into whose hands it may chance to come.

The *Methodist Magazine* with its January number enters on its twenty-fifth year and forty-ninth volume with unusual interest. No other magazine in Canada, we think, has ever reached half the age. There are three well-illustrated articles. The first is by the editor, on "Auld Reekie," with its stirring memories. "An Experiment in Altruism," by James L. Hughes, is an account of a very remarkable American manufacturing industry, a branch of which is to be established in Canada. The spirit of sympathetic co-operation with employes to secure their moral and physical betterment has, we think, never been surpassed. *The World's Progress*, *Popular Science*, *Recent Books*, and *Religious Intelligence of the World* make up an excellent number. Toronto: William Briggs. \$2.00 a year.

A copy of the *Official Guide of the Intercolonial Railway* has been laid upon our desk by the publisher, James D. Seecley, of St. John, N.B. The information contained in the same will be found very useful to shippers, travellers and all those whose duties require them to be familiar with the territory traversed by the government railway system. An alphabetical list of every station along the line, with the cost of transportation to Montreal, Halifax, St. John and Moncton is a good feature. A mileage table covering the distances between these and intermediate points is also included. A large portion of the book is devoted to a general but brief review of the various attractions of the chief cities and towns in the maritime provinces, which are reached by this railway and its connections. The entire work is embellished by many half-tone engravings and maps which amply illustrate the text and make the publication one which will readily find a welcome place in every situation where the public are likely to seek information on the topics covered. It is very tastefully bound in crimson and gold and comprises about 214 pages, which in addition to the above information contain the advertisements and cards of the leading wholesale and retail dealers throughout the maritime provinces. The information contained in this work is prepared in the way it is presented, for the first time. The book is being distributed free by the officials of the Intercolonial Railway. The supply for Toronto and Ontario is being sent to Mr. William Robinson, Toronto, the General Travelling Agent of the road, from whom copies can be procured.

CANADIAN MANUFACTURERS' ASSOCIATION.

President :

J. F. ELLIS.

First Vice-President :

JAMES KENDREY, M.P.

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P. W. ELLIS.

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Chairman Tariff Committee :

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*The Executive Committee meet on the
Second Tuesday of each month.*

OFFICES

McKinnon Building,

TORONTO.

Tel. 1274.

J. J. CASSIDEY, - SECRETARY.

**THE OBJECTS OF THIS ASSOCIATION
ARE :**

To secure by all legitimate means the aid of both Public Opinion and Governmental Policy in favor of the development of home industry and the promotion of Canadian manufacturing enterprises.

To enable those in all branches of manufacturing enterprises to act in concert, as a united body, whenever action in behalf of any particular industry, or of the whole body, is necessary.

To maintain Canada for Canadians.
Any person directly interested in any Canadian manufacturing industry is eligible for membership.

CANADIAN INDUSTRIAL LEAGUE,

President, **JAB. KENDRY, M.P.**

WOOLEN MANUFACTURERS' ASSOCIATION,

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J. J. CASSIDEY.

CANADA'S COMMERCIAL AGENTS.

Following is the correct official list of Canada's Commercial Agents in Great Britain, British Possessions and foreign countries.

- J. S. Larko**, Sydney, N.S.W., agent for Australasia.
- G. Eustace Burke**, Kingston, Jamaica, agent for Jamaica.
- Robert Bryson**, St. John, Antigua, agent for Antigua, Montserrat and Dominica.
- S. L. Horsford**, St. Kitts, agent for St. Kitts, Nevis and Virgin Islands.
- Edgar Tripp**, Port of Spain, Trinidad, agent for Trinidad and Tobago.
- C. E. Sontum**, Christiania, Norway, agent for Sweden and Denmark.
- D. M. Rennio**, Buenos Ayres, Argentine Republic, agent for Argentine Republic and Uruguay.

In addition to their other duties, the undermentioned will answer inquiries relative to trade matters, and their services are available in furthering the interests of Canadian traders.

- J. G. Colmer**, 17 Victoria Street, London, S.W., England.
- Thomas Moffat**, 16 Church Street; Cape Town, South Africa.
- G. H. Mitchell**, 15 Water Street, Liverpool, England.
- H. M. Murray**, 40 St. Enoch Square, Glasgow, Scotland.
- Harrison Watson**, Curator Imperial Institute, London, England.

IMPORTANT.—An enquiry addressed to **J. J. Cassidey**, Secretary Canadian Manufacturers Association, Toronto, Canada, will place you in communication with the leading Canadian Manufacturers of the articles you mention. Merchants and Importers in all parts of the world are invited to make free and full use of the facilities afforded by this Association when they desire information about anything produced in Canada. No charge whatever for answering inquiries.

CANADIAN BROOM HANDLES WANTED.

The Secretary of the Canadian Manufacturers' Association is in receipt of an inquiry from a concern in Liverpool for a large quantity of finest quality broom handles to be delivered at Birmingham, England. There is a good demand in that country for really excellent, well-made, number one handles, and there is no country better prepared than Canada to supply them.

TRADE OPENINGS IN FRANCE.

A number of fruit dealers in Lyons, France, think that they could do a large business in fruits, and Canadian shippers would do well to investigate that opening.

They give it as their opinion that they can do a large business in fruits—dried, pressed and preserved—if they can be received in France in good condition and at a price not too high. The outlook for the French fruit crop is not very promising, owing to long-continued drought and intense heat. There ought to be an especially good market for Canadian apples there, as they have been incredibly high during the past year.

The dealers wish answers to the following questions :

What will be the wholesale price of apples, pears, prunes and grapes ?

How will they be packed ?

Are the grapes hard enough to stand the journey to France ?

Give particulars as to quality, and how fruit may be preserved for winter use.

All estimates of prices must be based upon kilograms. The kilogram is equivalent to 2 1/5 pounds avoirdupois.

Boards, planed, about one-half inch thick, regardless of

length or width, would find a large market in Lyons. At present they are brought from Switzerland, where the price is fixed every year by the Forestry Commission. After this price is determined producers ought to be able to get some of the trade. These boards are used here for silk packing boxes. The manufacturer arranges his goods in piles in his warehouse and a man is called in to make boxes according to the size of the piles, and to pack the goods.

According to the proclamation of May 10th, "manufactured and prepared pork meats" are admitted at fifty francs per 100 kilograms, or \$9.65 per 220 pounds.

Cheapness in transportation, with the minimum loss of time are the essential elements. A dealer in Lyons recently received 105 kilograms (231 pounds) of hams from Cleveland, Ohio. They came by way of Liverpool and were forty-nine days in transit. At the end of their journey they were not in a condition to offer in the regular course of trade, yet the merchant who received them spoke very highly of their quality and the way they were packed. He would like to know the lowest price for which they can be laid down in Lyons, and the shortest time for transit. The damaged condition of these goods was the result of warehousing and transshipment at Liverpool.

There is an additional "surtax de pavillon," or flag tax, levied upon merchandise carried in foreign ships. In the above shipment it amounted to \$2.94. This tax can, of course, be saved by shipping goods in French bottoms.

No merchandise is received in France which has been in any way treated with borax.

The wine and liquor interests of France necessitate the use of over a million barrels every year, and Canadian staves ought to find a market there.

BUTTER IN CAPE COLONY.

Consul General Stowe, writing from Cape Town, South Africa, says:—

In my recent report on butter, I called attention to the large quantities imported into South Africa from Australia and Denmark, and offered advice as to the preparation and packing of American butter. I am informed that within the last two months from 3,000 to 4,000 boxes (of fifty-six pounds) from America have reached this city through London. This was shipped here as Australian butter, all the American marks on the boxes having been erased and Australian marks substituted. By this means all credit to the products of the American producers is lost, and this action is *prima facie* evidence that the American butter is now satisfactory, although complaint is still made that it is too yellow. Other shipments of butter, to the amount of several thousand pounds, have been recently received direct from America with the American marks thereon. The absence of the Australian Government stamps on the first-mentioned packages attracted notice, and the attention of the Australian representative in London was called to the same, and it is stated that the matter is now being investigated by him. There was also a difference in the packages, the American ones being more solid or substantial. United States producers should have trade marks or brands of their own, duly registered, and, if possible, Government stamps or marks on the packages. The demand for American butter is from July to October, when the Australian and Denmark butters are not on the market, the former occupying the market from October to May and the latter from May to July, these months being the butter-making seasons of the respective countries. American producers should therefore prepare for export in the months stated. This is a good pointer for Canadian butter makers.

SOUTH AFRICAN WANTS.

United States Consul-General Stowe, at Cape Town, reports that, as there is little timber in that country, all furniture and other articles made from timber must be imported. American oak, ash and even the cheaper woods stained or painted and varnished, are acceptable. Medium-priced furniture is what is wanted, although much of the elaborate and high-priced could be sold.

Wire fly-screens are unknown, but the demand would be large if they were once introduced. All the screen wire is imported and is very high, and the mesh is too large. The fine wire used in the United States is not found there. Such goods would very likely come in under the head of furniture, the duty upon which is nine per cent. *ad valorem*, and the freight would be comparatively light on account of the small space the doors would occupy on the ship.

Very few windows and door frames are made there; nearly all are imported. In order to successfully meet the demand and establish a trade, the best and safest plan would be for some one posted in the manufacturing of such materials to go to South Africa and see how the houses are built. The door and window frames differ in several respects from those used in America. American manufacturers must disabuse their minds of the opinion that what is good in shape, form and finish in America is good for the whole world. People in different countries build differently, on account of location, climate, etc., and their tastes must be catered to.

One of the lessons to be learned by the manufacturer is that he must adapt his products to the wants and needs of the foreign buyer. You cannot force upon the foreign buyer what you may honestly believe is the article he ought to buy, but after willingly supplying him with what he wants, you can gain his good-will and confidence and finally convince him that you are right and he wrong. Again, the actual article to be sold must be seen. When you want to sell engines, machinery of all kinds, furniture, window and door frames, and other materials produced in other countries as well as your own, you must show the article.

The market is supplied by American cereals, oil and canned meats. As South African country does not now produce food products, its large herds of cattle having been killed off by disease, these conditions will change in time, and the large imports of meat will cease, and with irrigation and intelligent farming, the cereals will be raised to supply the home demand. But many years will elapse before the country can produce its own manufactured goods. With no timber and no iron, and thus far no coal suitable for manufacturing purposes, manufactured articles must be imported.

The white-rubber goods manufactured in the United States will soon have the trade in South Africa, for it is said that no other foreign manufacturer has yet been able to produce a quality which will stand the climatic conditions of South Africa; so that, with proper effort on the part of the producers of the United States, the demand will soon be increased. A representative from the United States, who has just been through South Africa, reports an increased trade and a growing demand.

Another pleasant feature is that the white glass bottles which are manufactured in the United States are superior to those of any other make, and it is a question if they can be duplicated elsewhere than in the United States.

As to the financial condition of the South African merchant, it is worthy of notice that but few failures occur and none of any moment. Considering the rinderpest, drought, flies, locusts, and the loss of trade with the Transvaal, conditions are creditable.

There are openings for Canadian trade in South Africa that our manufacturers should investigate and profit by.

GRATIFYING CONSULAR ACTIVITY.

Mr. E. W. T. Richmond writes as follows to The London Daily Mail:—

Referring to your special article re our falling trade, in your issue of September 14th, an incident which has occurred in our own experience during the last few days may serve to point a moral and adorn the tale.

We have recently opened in Plymouth, in connection with the Plymouth Gas Company, a showroom for gas stoves and fittings. The other day the American consul called and inspected our goods carefully, asked for lists, and then said that he believed his people could supply better value, and that he would write to various makers of similar appliances in the States and suggest their shipping a quantity of goods to compete with us.

One can not fail to notice the admirable business promptitude of American consuls, who are so alert that within a few weeks of the opening of a new establishment they pay a visit, and immediately report to their countrymen new openings that are arising in countries where they are located. How many of our consuls would take such steps as these? Possibly the solution is to be found in commercial attaches to the consulates. Certainly something should be done to keep home manufacturers as much abreast of foreigners and as well informed on foreign openings as our American cousins are kept by their alert consuls.

What are Canadian representatives in Great Britain, and there are quite a number of them, doing in the way of advising the Dominion Government or Canadian manufacturers as to trade openings in the Mother Country?

TRADE OPENINGS.

Mr. F. Hurtubise, manager De la Fonderie de Plessisville (the Plessisville Foundry), Plessisville, Que., manufacturers of all sorts of machinery for making butter, cheese, etc., writes the editor as follows:—

"I have read your article 'Trade Openings Abroad' published in the December 2nd issue of THE CANADIAN MANUFACTURER, and beg to say that I fully concur with the ideas expressed therein. In my opinion the correct course for Canadian manufacturers to pursue in placing their products on sale in foreign markets is that which you so wisely suggest—by syndicates.

"I have already been in correspondence with Canadian commercial representatives in foreign countries regarding the marketing of articles manufactured by our concern, and most of these agents have suggested that we send our representatives with samples, price lists, etc.

"We would be pleased to act with any such syndicate, should one be formed, for the purpose indicated."

EXPORT BOUNTIES IN FOREIGN COUNTRIES.

BARBADOS.

There are no enactments or orders in the colony which have the effect of extending special grants or bounties to any class of merchandise exported to any country.

BELGIUM.

The Belgian Government grants no bounty, direct or indirect, on exported articles, unless the peculiar legislation on sugar exports can properly come under that head.

ARGENTINE REPUBLIC.

No bounty is paid by the Argentine Republic upon any exported article other than sugar.

BRITISH HONDURAS.

No export duties are levied or bounties paid on the products of the colony. The tariff may be said to be for revenue only, and is levied on the merchandise of all countries alike.

CHILE.

The Government of Chile extends no grants or bounties of any kind to any article produced in Chile or imported and subjected to further manufacture in that country. The only Government protection afforded to Chilean industries is given by the imposition of import duties on articles that are similar to those manufactured in the country.

CHINA.

There are no enactments or orders which have the effect of extending special grants or bounties to any class of merchandise exported from China.

COLOMBIA.

There are no enactments in Colombia which have the effect of extending bounties to any class of exports.

ECUADOR.

The Government of Ecuador does not pay bounties on any class of exports, either directly or indirectly, in the crude or manufactured state. On the contrary, a few of the chief products of the country have to pay an export duty, no matter to what country exported.

FRANCE.

France has a complex system of bounties on sugar, in virtue of the law of 1884, modified by that of 1886. The law affords the opportunity to sugar manufacturers of France to gain all they can in quantity of sugar turned out in excess of that on which duties are paid. It is clear that, if by perfecting machinery and improving its agricultural methods the sugar manufacturers and beet growers get the maximum yield of sugar, the more that is obtained the larger is the quantity escaping the stipulated duty.

FRENCH WEST INDIES.

Respecting the regulations of the sugar bounty system of the French Colonies it was at first estimated that 10 per cent. would be the gain as the result of the law, but during the two years from 1884 to 1886, it was found that beet sugar gained enormously, and, as the object of the law was to establish equality of treatment for the colonies in the beet-sugar industry, the law was amended in this way: Whatever the percentage of gain resulting from any given year or season of beet sugar is ascertained to be, the same percentage is accorded to the colonies for the succeeding season. This percentage is ascertained by the customs authorities in France the 1st day of September of each year, the result of the beet crop of the preceding term being then fully established. The next succeeding colonial crop gets the benefit of said percent-

age, which is reduced to a certain figure, in francs and centimes, per 100 kilograms. This is certainly a bounty in disguise, but is called *déchet de fabrication* (loss in weight).

There is also granted to the colonies what is called a *détaxe de distance* of 2.25 francs (3 cents) in 100 kilograms of 100%, as a partial reimbursement of the expense of sending their sugar to France, seeing that beet sugar has not this expense to incur. A recent French law grants a downright export bounty of about 2.50 to 3 francs per 100 kilograms of pure sugar, in retaliation for the new German law. In France, the former system is called *boni de fabrication* (benefit derived from manufacture), whereas the latter is designated *prime a la sortie* (bounty on export).

GERMANY.

There are no export duties in Germany. Sugar is the only article upon which a direct export bounty is paid. In the case of spirits (*Branntwein*), there is an indirect bounty, in that the internal revenue tax is remitted upon spirits which are exported. There are also indirect bounties in the case of oil products, cacao, etc.

HAITI AND DOMINICAN REPUBLIC.

There are no bounties or grants on any class of merchandise exported from Haiti, except on sugar; but there have been no exports of sugar for several years, the small quantity produced being consumed in the country.

There are no enactments in the Dominican Republic extending bounties to any class of merchandise exported.

JAPAN.

A bounty of 70,000 yen (\$34,860) is to be granted annually for seven years, beginning with the first of the fiscal year (April 1) of 1897, to extend the markets for prepared tea. Of this subsidy, 61,200 yen (\$30,477) is to be devoted to opening markets in North America and Canada and 18,000 yen (\$8,964) to establish agencies in Chicago, New York, Canada, etc.

LEEWARD ISLANDS.

There are no enactments in force having the effect of extending bounties to any class of merchandise for export from the Leeward Islands.

MIQUELON.

The French Government pays ten francs (\$1.93) per fifty kilograms (110.23 pounds) on dry codfish exported to foreign countries, French possessions or colonies. There is no bounty paid on fresh fish; it must be dried in the colony before it is exported in order to obtain the bounty.

MOROCCO.

The Government of Morocco extends no bounties or grants to any product or any manufactured article exported to any country.

NETHERLANDS.

The fiscal legislation of the Netherlands does not permit the according of bounties or grants other than to raw and refined sugars.

In virtue of the law of January 29, 1897, which went into effect September 1, 1897, the said articles enjoy a bounty (given in article 67), which will be accorded all sugars leaving the raw-sugar factories or refineries, no matter what their destination. The bounty is guaranteed on the general production, and is not accorded specially to the sugar exported, since those who export sugar enjoy the same advantage as those who sell for home consumption.

NICARAGUA.

Nicaragua imposes an export tax of \$1 gold per ounce on gold ingots, and \$2 per ounce on gold dust.

PARAGUAY AND URUGUAY.

No bounties are paid by either Paraguay or Uruguay; on the contrary, both countries levy an export tax on their principal products.

PERU.

Peru makes no special grants or bounties on any class or merchandise that may be exported.

RUSSIA.

There exists at the present time no legislative enactment in Russia instituting bounties on exports. Merchandise subject to excise duty is free from this tax if destined for export, the excise being a tax on internal consumption exclusively. The Imperial Government also reimburses exporters of cotton products the customs duties paid on the materials employed in their manufacture.

On the exportation of products of gold gimp, the Government reimburses the producers the customs duties on the foil and the silver or plated gimp at 6.50 rubles (\$5.02) per pood, and ten rubles (\$7.72) on gilded gimp.

SAMOA.

Under the Berlin general act of June 14, 1889, which controls the customs service of Samoa, there is no bounty on Samoan exports, or any possibility of such a grant.

SOCIETY ISLANDS.

Under existing regulations no bounties or other grants are extended to any class of goods produced in the Society Islands.

SWEDEN AND NORWAY.

The tax on the manufacture of whiskey in Sweden is refunded when it is exported to foreign countries or to Norway. Following is a list of articles manufactured in whole or in part from imported raw materials on which drawbacks are allowed when the manufactured articles are exported, as follows: Sugar, chocolate, candy, bread, tobacco (manufactures of), cotton and woolen yarn, cotton and linen cloth, and articles thereof.

In Norway, also, the manufacturer of whiskey receives a restitution of the tax on whiskey exported; and the Department of Finance and Customs is authorized to grant a rebate on the duty of raw materials entering into manufactures exported.

No bounties are granted either in Sweden or Norway on agricultural products.

SWITZERLAND.

No bounties or special grants are allowed in Switzerland upon merchandise to be exported.

TURKEY.

Turkey does not pay or bestow, directly or indirectly, any bounty or grant upon the exportation of any article of merchandise from the Ottoman Empire.

VENEZUELA.

The Venezuelan Government grants no special bounties to any class of merchandise to be exported.

SHOES IN ENGLAND.

Consul Halsted writes:—An American manufacturer of men's shoes has effected an arrangement with the proprietors of a well-known Birmingham shoe store, by which the productions of the American factory are given a fair show, but at prices somewhat in advance of those of the same grade in the United States. This advance is probably due to the fact that British shopkeepers demand and get a higher percentage of profits on all goods than do American retail merchants.

It is, however, strange and very annoying to one interested in American trade, that a manufacturer enterprising enough to establish agencies in London and also in the provincial cities of Great Britain should have given so little thought and study to the needs of the market he is seeking. He has three styles of shoes on sale, viz., patent leather laced, calfskin buttoned, and tan laced. The patent leather would perhaps go better if a button shoe, the black calfskin should certainly, I think, be laced, and all are far too light soled for the unquestioned climatic demands here. The one style of toe, also, is of too extreme a point to suit English taste. While in the United States the drift in style is away from the pointed, the bulldog and half bulldog toes gaining in popularity, it must be acknowledged that there is a tendency here toward a pointed toe, though it will never be the sharp point we know

in America. The majority of Englishmen wear "pumps" to balls and other indoor evening entertainments, and they might be ready to adopt as a more convenient and useful substitute the light-soled and pointed American patent-leather shoes with their splendidly finished uppers, but the calfskins and tans are too thin for this climate, even for Americans living here, and in a few weeks I shall have to add an extra thickness of sole to the shoes I have bought.

Canadian made shoes should find a ready sale in the British market.

GREAT BRITAIN WANTS FURNITURE AND BROOM HANDLES.

United States Consul Halstead writes from Birmingham, England:—

A representative of a firm of general American merchants has just closed the stock room which he had open during three weeks for the fall trade in the Grand Hotel of this city. He has had a very successful trade in articles of American manufacture. One of the articles for which he found a ready sale was a little desk, ornamental and appropriate for parlor and ladies' boudoir use. The agent said these were sold with great ease, but he complained that there was a good deal of loss by bad packing. In packing these little desks for shipment, they are wrapped in paper, and it frequently happens that they need another twenty-four hours in drying, for a piece of paper sticking to the varnish, though it covers only a quarter of a square inch of surface, ruins the whole article.

This agent has had a large sale of American broom handles. He states, however, that he could have disposed of many more if the ends had been "turned in," the favorite style for broom handles in this country. His firm works along the line of least resistance, and having once succeeded in inducing an American manufacturer to make broom handles exactly like those of English manufacture, and having found them on receipt to have been turned in a rough and slovenly manner, it simply sent them back to the United States and has made no further effort in that direction.

CANADA'S TRADE WITH CAPE COLONY.

The Department of Trade and Commerce has received an interesting report from Mr. Thos. Moffatt, commercial agent for Canada at Cape Town. He mentions that the import trade of Cape Colony last year amounted to \$89,659,390, of which Canada's share was not as great as it should be. The United States is credited with imports to the value of \$13,735,670, but Mr. Moffatt thinks a certain proportion of this comes from Canada via New York, and the credit is wrongfully given in the Cape returns.

The Canadian agent considers there are splendid openings at the Cape for many lines of Canadian products, as is evidenced by the import returns of the past year. For instance, the Cape imported dressing apparel to the value of \$4,000,000; carriages, \$1,500,000; wheat, \$3,000,000; cotton \$5,500,000; drugs and chemicals, \$1,500,000; dynamite, \$500,000; furniture, \$2,000,000; haberdashery, \$6,300,000; hardware, \$4,750,000; leather, \$3,250,000; machinery of all kinds, \$7,000,000; provisions, \$2,750,000; stationery, \$1,500,000; lumber, \$2,500,000; woollens, \$1,750,000.

By arrangement with the department, Mr. Moffatt has opened a Canadian office and exhibit rooms in Cape Town, and he asks that Canadian manufacturers do not send single catalogues to him but three or four dozen, so that he can give them away when asked. He also desires price lists and discounts marked thereon, prices to be figured f.o.b. steamer at New York.

Mr. Franta Ludikar, Puch majerova, 29 Vinhrady, Prague, Bohemia, writes to the Canadian Manufacturers' Association that he desires to become commercial representative in Austria-Hungary of some Canadian concerns who desire to sell goods in that country. Those interested should correspond as above.

INFORMATION FOR CANADIAN IMPORTERS.

The Department of Customs, with a view to facilitating the transaction of customs business, has issued a very handy and valuable memorandum of information for the guidance of exporters sending goods to Canada for entry under the general tariff. A memorandum respecting the preferential tariff was issued some time ago. The present memorandum contains a summary of the regulations and customs laws of Canada in regard to the values at which goods must be entered for duty and to the certifying of invoices. It also contains the form of declaration required to be made by a foreign owner or exporter of goods shipped to Canada on consignment, and the form of certificate of value recently prescribed to be placed on invoices for entry under the general tariff; in short, it gives all the information which an exporter sending goods to Canada for entry under the general tariff requires. Collectors of customs will be furnished with copies of the memorandum, with instructions to hand them to importers for transmission to the foreign firms from whom they purchase. In this connection the attention of the importing public is drawn to the new certificate of value prescribed to be printed, written or stamped on invoices of merchandise for entry under the general tariff after January 1, 1899, inasmuch as the change is quite an important one. The wording of this certificate is as follows.—“This invoice is true and correct, and where there is a difference between any of the prices shown therein and the ordinary credit prices at which the same articles are now sold bona fide by the exporter in like quantity and condition at this place for consumption in this country, the latter prices are shown on the margin or elsewhere on such invoice.” Under the old form the exporter simply had to certify that the invoice was correct. The new certificate has been adopted with the object of securing a more just and faithful appraisal of goods under the law, and in the hope that it will be a means towards securing uniformity in values, which is very much desired not only by the department but by honest importers generally. The customs act, by which the department has to be governed in its administration, provides that whenever any duty ad valorem is imposed on goods imported into Canada the value for duty shall be the fair market value whereon when sold for home consumption in the principal markets of the country whence and at the time when the same were exported directly to Canada. The exporter may sell and the importer may purchase at prices lower than the home consumption value; that is perfectly legitimate business, but the provision of law requires that the goods must be entered at the home consumption value in the country of export. In very many cases goods are sold in foreign countries for export to Canada at special export prices, which are lower than the fair market value for home consumption in the country of export, and consequently do not represent the correct value for duty purposes here. In such case the old certificate, which is simply to the effect that the invoice is

correct, is valueless as an aid in determining the value for duty. The importer is often without knowledge as to the home consumption value, although he is required by the law to enter the goods at such value and to make oath thereto. The new regulation requires the exporter to show the home consumption, fair market value on the margin or elsewhere of his invoice, where there is a difference between such value and the selling price shown on the invoice, and it will, therefore be of assistance not only to the department but to the importer. It is hoped that the certificate will do away, in some degree at least, with the necessity for amended enterprise consequent upon goods being entered at invoice prices which do not represent the proper value for duty. The demands for such entries have been the cause of much friction between the department and importers in past years. It is not, of course, considered that the information given in the certificate will be absolutely correct in all cases; allowance has to be made for misconception as to what constitutes the fair market value, to say nothing of fraud. It is felt, however, that on the whole the certificate will be of very material benefit, and it is conceived to be a step in the right direction. The objects of the department in prescribing a new certificate, namely, to secure as far as possible the proper collection of the revenue and to insure uniformity in such collections, cannot but be approved, and that heartily, by every honest importer. The necessity of having uniformity in the collection of duties has frequently been pressed upon the department by business houses and boards of trade, and the department fully appreciates it and is endeavoring to effect it. Uniformity is desirable not only in the interest of the business public but also in the interest of the revenue. It should be noted that the certificate applies only to merchandise sold for entry under the general tariff; it need not be furnished in the case of goods subject to a specific duty, free goods or goods not being merchandise. The department, realizing that it may be some time before the requirement as to the certificate will be generally complied with, has given collectors discretionary powers to waive production of the certificate, if found necessary in any exceptional case, for a reasonable time after January 1, 1899. It might be of interest to note the evidence as to value required by the United States Government. Exporters of goods to the United States must make a declaration in the country of export before an American Consul as to the quantity and value of the goods to be exported to the United States, and must obtain a Consular certificate, for which a very considerable fee is charged.

Messrs. Goodwin & Co., Birmingham, England, informs the Canadian Manufacturers' Association that they desire to receive quotations of prices on 200 gross Canadian broom handles, fifty inches long, 1½ inch thick, delivered at Cardiff, South Wales. The requirement is for a nice, white handle, free from knots and imperfections. Those interested should correspond as above.

Transfer Ornaments, AMERICAN MADE.

TRADE MARKS, DECORATIONS, NAME PLATES, ETC.

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

Sketches submitted free of charge. Being home makers can deliver promptly. Write us.

THE MEYERCORD CO., Inc., MAIN OFFICE—

CHAMBER OF COMMERCE, - CHICAGO.

NEW YORK OFFICE 805 St. James Building.
ST. LOUIS OFFICE—621 Holland Building.

Largest Makers in the World Guaranteed Decalcomania Transfers.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

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, belting, 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 Canadian Pacific Railway is building 50 ore cars in its shops at Perth, Ont. These cars are of 60,000 pounds capacity and are designed for the mineral traffic of British Columbia. They will weigh 24,000 pounds, with frames 22 feet long, 8 feet wide and 8 feet 7 inches high above the rails. The cars will have steel axles, rigid trucks, Westinghouse air brakes, Hein couplers, Thornburgh draft rigging, M. C. B. standard brakeshoes, brasses, journal boxes and lids, and Canadian Pacific standard springs.

At a recent meeting of Ontario tobacco-growers, held at Ridgetown, it was determined to start a co-operative tobacco factory, the growers to be the stockholders. A capital of from \$25,000 to \$50,000 was suggested. Stock books were ordered to be prepared, and action will depend on the way in which the proposition will be received by intending shareholders.

The Dominion Government have in preparation a scheme which will be submitted to the House next session, for building a solid fireproof record office. The building itself will probably stand in Major's Hill Park, will be thoroughly fireproof, and will be arranged to contain the whole of the archives and records. At present, Mr. Douglas Brymner presides over what is known as the "Archives Branch," but he has under his care a very small share of the Canadian records. In the East Block, in a most dangerous corner of a roof, which, in its best part is a thorough fire trap, is the Record Office, where Colonel Audet, as keeper of the records, has a large number of

valuable, and in many cases, rare papers, under his charge. Mr. J. J. McGee, Clerk of the Privy Council, is also called the custodian of State papers, and in another corner of the same fire-trap roof a large collection of valuable documents is under his charge. In the West Block, in the basement, there is, or at least was, until recently, a room where a vast pile of invaluable military records, which could not be replaced, lay piled. In each department are vaults containing departmental records. These will all be brought together in the new building, under a civil servant holding the position of a deputy minister, and bearing the title of Dominion Archivist. At present, though Dr. Brymner is called by that title, it is merely by courtesy, Parliament not having sanctioned its use. These changes will not be made for a long time, as it is not expected that the new building will be finished till A.D. 2001, as it will be impossible to erect a building of the nature required in less than three years.

Work on the bridge that is to span the Niagara river gorge between Lewiston, N. Y. and Queenston, Ont., has been suspended owing to the dangerous condition of the ice-covered cliffs on both sides of the river. Nothing further will be done on the bridge until the weather makes the conditions better. There is no possibility of having the bridge ready for use until some time next spring. The retaining walls on both sides of the river have been finished and the pier work is practically complete. As soon as work is resumed the superstructure will be put in its place. A good portion of the material

that will be used was part of the suspension bridge that formerly spanned the gorge near the falls.

Messrs. Cowan & Britton, Gananoque, Ont., have sent us circulars relating to some of the electric novelties which they manufacture and handle. Among the articles alluded to are the Ever Ready electric light, which can be used at any time and for all purposes where a light is required, there being no wires, no chemicals and no danger; Ever Ready surgical and dental lamp, possessing handiness, portability, exceedingly convenient in operative work in eye, nose and throat case rectal examinations, etc.; Ever Ready bicycle electric lamp; Ever Ready night light for small clock or watch stand; Ever Ready electric gas lighter; Ever Ready electric candle; Statue of Liberty with electric torch; cigar lighters, etc. Each and every instrument is guaranteed to be as represented.

There is a probability that the formal opening of the new Victoria Jubilee Bridge at Montreal, will take place at that city on May 24th next. The Grand Trunk management are desirous that the function should be held on that day, and, although no arrangements have as yet been made in that direction, it is safe to say that the opening will take place on that day. The bridge is now rapidly approaching completion, nearly all of the old tubular spans having been demolished. The task of removing the rivets from the central span has been commenced, and it is hoped that this portion of the work will be finished by Christmas Day. The task of laying the flooring for the vehicular and passenger roadways on either side of each span will then be begun and rushed forward to completion. It is expected that the bridge will be finished and ready for all sorts of traffic by the end of January. It is said that the gold rivet driven into the main span of the old bridge by the Prince of Wales, on the occasion of its opening in 1860, will be sent to Ottawa, where it will be placed in the library of the Parliament Buildings.

A gentleman of Glasgow, Scotland, who has been in Ottawa recently, claims to have discovered a substance to take the place of tin for canning purposes, and some experimental packages are now being made, which the inventor proposes introducing to British Columbia canners. It is claimed for the new invention that it will do away with the discoloration and poison so often caused by tin, and at the same time will be as hard as tin and cheaper.

INGERSOLL-SERGEANT Rock Drills

FOR MINES, TUNNELS AND QUARRIES

PISTON INLET Air Compressors

STRAIGHT LINE
 DUPLEX and
 COMPOUND.

FOR ALL DUTIES.

... COMPLETE MINE EQUIPMENT ...

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

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

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

The W. A. Johnson Electric Company, Toronto, are installing an alternating plant for the corporation of Acton, Ont., which includes fifty-five street lamps and all wiring for the town. The generator will be one of their inductor type alternators which are meeting with much success.

Application has been made to the Legislature of the Province of Quebec, to authorize the Petroleum Oil Trust, of London, Eng., and Gaspé, Que., to construct a pipe line from the Gaspé oil lands to deep water, and to erect all necessary machines, engines, pumps, tanks, warehouses, wharves, etc.

The Canadian General Electric Company has been awarded the contract for erecting the electric power house for the canal gates at Soulanges.

The handsome steam launch, Wanda, the property of T. Eaton, Esq., Toronto, recently built by the Polson Iron Co., is being enlarged and remodelled, and fifteen feet added to her length. Her speed will be increased to seventeen miles an hour. A number of apartments will also be added, and when finished she will be one of the prettiest yachts afloat on Muskoka Lakes.

At the last session of the Nova Scotia Legislature. M. Chisholm and others, of Halifax, were incorporated as the Bedford Electric Company, with power to build and operate an electric line in Halifax county, outside Halifax city, and with other powers. It was recently reported that the company had in contemplation the building of a line around Bedford Basin, through Dartmouth and down to Cow Bay.

The Canadian Pacific Railway Company are building at their shops at Montreal, ten

large compound consolidated freight locomotives that will weigh in working order about 150,000 pounds. They will have extended wagon-top boilers with Belpaire fire boxes, 200 pounds pressure; fifty-seven inch driving wheels with cast steel centres, Westinghouse American brakes, cylinders twenty-six and thirty-three by twenty-six, steel tender frame, with tank having capacity of 4,000 imperial gallons. The company has also placed orders for thirteen similar locomotives and has ordered material for six large passenger engines for service between Montreal and Toronto. The company is also building two rotary snow plows, embracing all improvements that have been made up to date, four C.P.R. standard wing snow plows, two dining cars, sixty thirty-five ton ore cars, and 400 thirty ton thirty-five foot box cars. The latter are being turned out at the rate of ten a day. Some stock cars and possibly ten or twelve suburban cars may also be built.

The Gendron Manufacturing Company, Toronto, have recently installed a direct connected 600 light generator for lighting their factory. The order was placed with the W. A. Johnson Electric Company for the generator and the wiring of the factory. They will use a 10x10 Ideal engine manufactured by The Goldie & McCulloch Co. of Galt, Ont.

We beg to call the attention of steam users and foundrymen to the advertisement on the back cover of this journal of Messrs. Jas. H. Milnes & Co. This concern has connections with coal mining companies in the United States that enables them to furnish the very best grades of steam, blacksmith and foundry coals and cokes at the

lowest possible prices. Shipments made direct from mines to all points in Canada. Write them for quotations.

McCormick & McLeod, of Bracobridge, Ont., have been awarded a three years' contract for ties for the Northern division and the main line of the Grand Trunk Railway between Toronto and Montreal. During the past year they held the contract for the Northern division only. It is estimated that fully 450,000 ties will have to be supplied yearly under the contract.

In the advertisement of The Fairbanks Company, Montreal, are a lot of cabalistic words, signs and figures that would prove quite an enigma if an explanation did not accompany the diagram. The puzzle, which is really no puzzle at all, but which commends itself to all steam users, reads:—"Five times an hour by twenty-two hours per day by 240 days of service equal 26,400 openings and closings." The explanation to this is—The Fairbanks Company handle asbestos disc valves, and they are in receipt of a letter from The Economical Gas Apparatus Construction Company, in which the writer bears testimony to the merits of these valves, and in which he says, "The only thing necessary where the disc becomes worn is to unscrew the bonnet of the valve, take off the old disc and replace it with a new one."

The American Shoe Company, of Montreal, is asking the city of Kingston, Ont., for a bonus of \$35,000 as an inducement to erect a factory there to cost \$30,000 and install a plant to cost \$20,000. They would employ from 125 to 150 hands, to whom about \$40,000 in wages would be paid annually.

$$5 \text{ Times an Hour} \times 22 \text{ Hours per Day} \times 240 \text{ Days of Service} = 26,400 \text{ Openings and Closings.}$$

ENOUGH TO SUIT YOU ?

COSTS 12c. FOR NEW DISCS FOR ONE INCH VALVE.

THE FAIRBANKS COMPANY,
749 Craig St., Montreal, Que.

GENTLEMEN:—We have found that the asbestos disc valve is the very best valve on the market, and we have been using it in connection with our apparatus for several years. * * * To give you an illustration of the amount of work that one of these valves will stand, providing that seat has not been cut with scale from the pipe, in handling steam through our apparatus we open and close the valves on an average of five times per hour, and on large machines that are in operation twenty-two hours per day, we have frequently had these valve discs stand this severe work from six to eight months. The only thing necessary when the disc becomes worn is to unscrew the bonnet of the valve and take off the old disc and replace it with a new one. We never have had the body of the valve or the seat give out yet, * * *

Yours truly,

THE ECONOMICAL GAS APPARATUS CONSTRUCTION COMPANY, Limited.

(Signed) L. L. MERRIFIELD, Chief Engineer.

SEND FOR CATALOGUE.

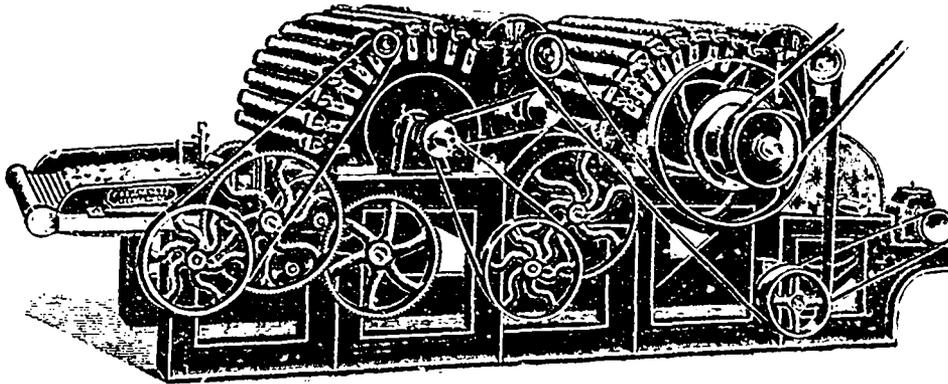
THE FAIRBANKS COMPANY, - 749 Craig St., Montreal.

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P. & C. GARNETT, Limited

CLECKHEATON, YORKS, ENG.

TELEGRAMS, - GARNETT, CLECKHEATON.



THESE Machines have a world-wide reputation. They are made in various widths up to 60 inches on the wire, and with one, two, or three swifts. They can be clothed as fine as 24 rows per inch so as effectually to open the finest threads.

Waste Opener or Garnett Machine, for Opening Hard-Twisted Woolen and Worsted Waste.



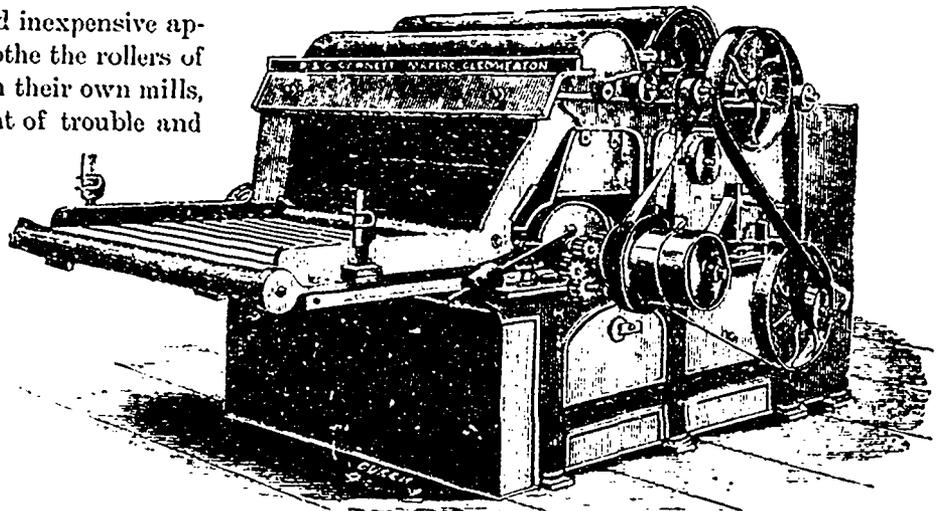
Garnett Wire.

Garnett Wire, or Metallic Card, made with any form of tooth, in Swedish Charcoal Iron or Cast Steel, with points hardened by electricity.

This Wire is used for covering iron rollers, breasts of woolen cards, liches-in of cotton cards, comber doffers, etc.

Patent Garnett Clothing Apparatus

BY means of this simple and inexpensive apparatus parties can re-clothe the rollers of their waste-opening machines in their own mills, and so save an immense amount of trouble and expense in sending their rollers away to be done.

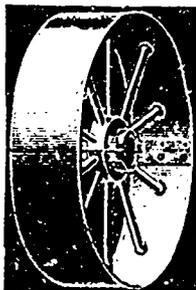


Improved Wool Cleaning or Burring Machine.

Capable of cleaning 1,500 pounds of wool per day. The very best and most economical machine made for the purpose.

WROUGHT IRON PULLEYS

Light, True and Unbreakable.



CAST IRON PULLEYS

*Iron and Steel Shafting, Couplings,
Flummer Blocks, W. I. Collars,
Hangers, Wall Boxes, etc.*

Mr. Reid, the Newfoundland railway contractor, seems to be progressing with his scheme for developing that country. He has issued a public notice to the effect that lands along the line of railway will be granted for agricultural purposes free of cost, under the conditions, as to cultivation, prescribed in the Crown Lands Act. Formerly these lands were sold by settlers on the same terms as are granted Crown lands, namely, thirty cents per acre. Now Mr. Reid offers them free to bona fide settlers, so that anyone can obtain from him 160 acres free of all charges. The settler may also avail himself of an act passed last year, which offers a bonus of \$20 per acre, payable to the extent of three acres, for clearing land which then belongs to the settler. Any man can now have 160 acres along the line of railway free, and will also be paid by the Government \$60 for clearing the first three acres. He has also contracted with the Newfoundland Government to build and run seven steamers, one to ply direct between St. John's and Labrador, the others on the large bays, to connect with the railway at various points. This is part of the plan he has formed for the development of the resources of the island. By this coastwise steam service every fishing village and town will participate in the benefits of the railway, and all will be connected with St. John's.

The KAY Electrical Manufacturing Co.

HAMILTON, ONT.

Begs to announce that in future it will conduct its business under the name of

The T. & H. Electric Co.

HAMILTON, ONT.,
255-257 James St. Phone 538.

TORONTO, ONT.,
Phone 1211. 58 Adelaide St. W.

Hiram S. Maxim, of London, England, inventor of the famous Maxim gun, was in Ottawa a few days ago in connection with the proposed establishment of pulp and paper mills on the Gatineau. Mr. Maxim represents British capitalists who have plenty of capital to develop the pulpwood resources of the Gatineau district, and who have faith in the resources. Mills will be erected larger than any near Ottawa.

Prof. Ruttan and Prof. Nicholson, of McGill University, Montreal, were in Ottawa last week on business with Mr. W. C. Edwards, M.P., in connection with Emerson's process for the extraction of different products from sawdust and for the manufacture of calcium carbide therefrom. Prof. Ruttan says the apparatus is a success, but the products are new and, consequently, it will take some time before he will be able to report as to their commercial value.

The "Fulda" and the "Werra," two steamers of the North German Lloyd Steamship Company's fleet have been sold to the Canadian Steamship Company (Limited) of London, which has begun a service from Milford Haven to the St. Lawrence.

The electric lighting plant recently sold to the Corporation of the town of Campbellton, Ont., was started up and used for Christmas lighting. The driving power is water and the electrical apparatus is of the Royal Electric Co's S.K.C. two-phase type for arc and incandescent lighting and power. A more extended description of this plant will appear in our next issue.

A committee of the city council of the city of St. Thomas, Ont., has reported favorably for the city to install an electric arc lighting plant at a cost of \$31,000.

The town of Roxton Falls, Que., has agreed to give a bonus of \$20,000 to Rolland Brothers, to establish a manufactory of cabinet hardware, upholstery goods, etc. The firm is to employ seventy-five men and pay \$20,000 a year in wages.

The shoe factory of R. J. Jamieson and the paper box factory of J. C. Harkness, contained in the building at 140 King street, West, Toronto, were damaged by fire Dec. 22nd, the former to the extent of about \$1,000 and the latter about \$3,000.

Gerow's cheese factory, near Napanee, Ont., was destroyed by fire, November 20th. Loss about \$2,700.

W. W. Ogilvie is building a new 2,000,000 bushel grain elevator at Montreal.

The Wallaceburg Electric Light Co., of Wallaceburg, Ont., who have been supplying arc lights for the town of Wallaceburg for a number of years have decided to go into the incandescent lighting business, and have placed their order with the Royal Electric

Co. for a thirty k.w. alternator and 900 light capacity in S.K.C. transformers and material. They expected to have the lights in operation by the first of the New Year.

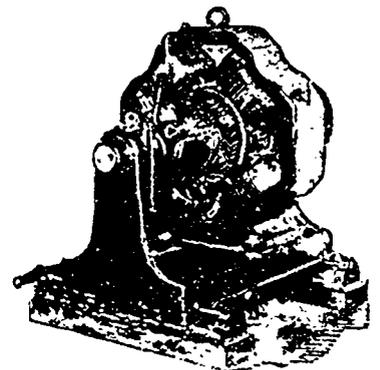
The Alliston Electric Light Co. of Alliston, Ont., are making changes in their lighting station and have decided on increasing their incandescent light capacity, and for this purpose have placed their order with the Royal Electric Co. for one of their sixty k.w., S.K.C. two-phase machines, from which they will serve both arc and incandescent lights as well as power, which has heretofore been served by two machines.

The Dominion Bridge Company, Montreal, have just completed the installation of an arc lighting system in their large works at Lachine, Que. The dynamo and arc lamps were manufactured by the W. A. Johnson Electric Company, Toronto.

Dr. C. J. Edgar, manager of the Eastern Townships Light & Power Company, has concluded the purchase of the water power at Nengle's Dam, near Rock Forest, Que. The company intends to transmit electrical energy for power and lighting purposes to the city of Sherbrooke, Que.

The Golden Star Mining Co., Rat Portage, Ont., have just installed an eighty h.p. steel tubular boiler, from the Jenckes Machine Co., of Sherbrooke, Que.

The Electrical Construction Co. of London, Limited.



MULTIPOLAR MOTORS & DYNAMOS

And Direct Connected Plants for Isolated Lighting.

Repair Work a Specialty.

HEAD OFFICE AND FACTORY:

No. 90 YORK STREET, London, Canada.

760 Main St., Winnipeg.

12 York St., Toronto. 131 Granville St., Halifax.

REDDAWAY'S ORIGINAL

CAMEL BRAND HAIR BELTING

STRONGEST BELT MADE. NO STRETCHING.

NOT AFFECTED BY DAMPNESS, HEAT OR STEAM.

WRITE FOR PARTICULARS. LARGE STOCK ON HAND.

Fire Hose, Steam Hose, General Mill Supplies.

W. A. FLEMING & CO., SOLE AGENTS FOR CANADA, 57 St. Francois-Xavier St., Montreal

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In its recently issued Bulletin G., the B. F. Sturtevant Co., of Boston, Mass., illustrates and describes a unique generating set, in which both the engine and the generator are entirely enclosed, although perfectly accessible through suitable doors. Such a device is of manifest utility wherever the atmosphere is laden with dust. This bulletin, containing other information of interest, will be mailed on application.

The Wheeler Saddle Company, of Toronto, has been incorporated with a capital stock of \$20,000 to manufacture bicycle saddles, bicycle equipments and other leather goods.

The Leamington Veneer and Basket Company, Leamington, Ont., has been incorporated with a capital stock of \$3,000 to manufacture veneer, boxes, baskets, butter plates and other articles made of wood.

We are advised that since the purchase by the Westinghouse Manufacturing Company, of Pittsburgh, Penn., of the Walker Company, the Canadian representatives of the latter company, Messrs. W. A. Johnson

Electric Company, of Toronto, will continue to represent the combined interests of the aforesaid companies in Western Canada. The advantage of this arrangement is quite evident, as the Westinghouse Company manufacture a most complete line of apparatus for long distance power transmission, including A.C.D.C. generators, rotary transformers, revolving field generators, etc.

The town of Seaforth, Ont., is making application to the Ontario Legislature for authority to grant a bonus of \$20,000 to T. R. F. Case & Co., to aid in the establishment of a pork packing works in that town.

The city of Belleville Ont., is making application to the Ontario Legislature for authority to grant a bonus of \$35,000 to the Canadian Brussels Carpet Company, to establish a carpet factory in that city.

Mr. Lethoule, an electrical engineer of Paris, France, was in Quebec recently. He was subventioned by the French Government to visit Canada and examine and report for French capitalists on the application of electricity for industrial purposes.

The large grain elevator of the Ogilvie Milling Co., at Pearson, Man., was destroyed by fire Dec. 28th.

The large grist mill of John E. Gordon, at Wallaceburg, Ont., was destroyed by fire Dec. 27th. Loss about \$5,000.

The corporation of Beeton, Ont., recently decided to install an electric light plant and are now highly pleased for having done so. The plant was installed about two months ago, and since then the number of lights has been increased to nearly the capacity of their present machine, which is one of the W. A. Johnson Electric Company's inductor type of alternator which are so suitable for a plant where a repair shop is not near by.

The Jenckes Machine Co., Sherbrooke, Que., have just shipped to the General Mining Association, Limited, Sydney Mines, N.S., one of their double cylinder double drum hoist, with link motion. This is the third engine of this type furnished the Coal Mining Co. by the manufacturers, which is the right kind of evidence as to serviceableness.

THE TORONTO PATENT AGENCY, (LIMITED) . . . TORONTO, CAN.

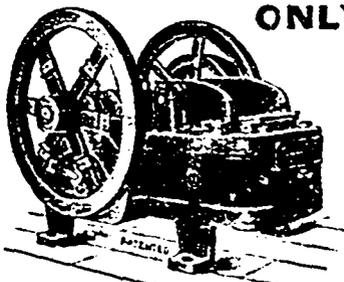
Head Office, 79, 80, 81 Confederation Life Building.
CAPITAL, \$25,000.00.

Patents obtained. Patents sold on commission. Provincial rights sold. Most actual sales. Best results. Quickest work. Honest Treatment. Oldest company. Reliable references. All patent business promptly attended to. Valuation and prospects of any patent furnished on application.

Pipe and Boiler Coverings, Engine Packings,

LUBRICATING OILS, GREASES, AND BOILER COMPOUND, COTTON WASTE, ETC.

EUREKA MINERAL WOOL and ASBESTOS CO., 136 Bay Street, - Toronto.



ROLL JAW CRUSHER.

ONLY

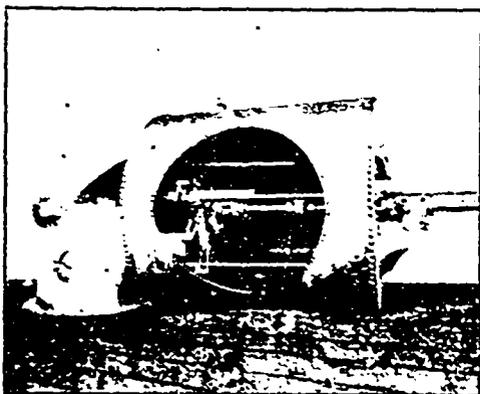
FINE CRUSHER

BREAKS LARGE, or when set close
Reduces to GRAVEL and SAND.

FOR ORES.

STURTEVANT MILL CO., BOSTON, MASS.

The Crocker Patent Turbine



36 inch Crocker Wheel in Horizontal Setting, for Slipton Electric Light and Power Co., Danville, Que.

WE MAKE A SPECIALTY OF SUPPLYING

COMPLETE
WATER POWER
PLANTS

Designed to meet the working conditions in each instance, and to yield the highest efficiency obtainable thereunder. Every detail constructed in a thorough and substantial manner, and the whole equipment installed on the site by our own workmen, especially skilled in this class of work.

If you are interested in water power in any way, we should take pleasure in supplying you with information regarding our work in the above line.

Catalogue Free on Request. Correspondence Invited.

The JENCKES MACHINE CO.

42 Lansdowne St., Sherbrooke Que.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

One of the largest Cornish pumping plants ever built in the Dominion was shipped recently by the Jenckes Machine Co., of Sherbrooke, Que., to Brankoville, B.C.

The Miller Brothers Company, Montreal, has been incorporated with a capital stock of \$200,000 to manufacture paper, etc.

The Eastern Townships Light, Power and Carbide Company, Sherbrooke, Que., has been incorporated with a capital stock of \$40,000 to manufacture acetylene gas apparatus, etc.

The Jenckes Machine Co. and the Canadian Rand Drill Co., of Sherbrooke, Que., shipped two car loads of stock to their Rossland, B.C., House, a few days ago.

The capital stock of the Imperial Oil Company, Petrolea, Ont., has been increased from \$500,000 to \$1,000,000.

Special Correspondence of THE CANADIAN MANUFACTURER.

MINING MACHINERY IN BRITISH COLUMBIA.

One of the most interesting examples of the rapid advancement in mine development in British Columbia is the extensive introduction of mining machinery. In the Slocan division alone, within a radius of four miles of the town of Sandon, the amount of money expended for machinery recently erected, and now in course of erection, represents a total of \$499,000.

When we consider the transportation difficulties which have to be overcome in erecting mining machinery in an extremely mountainous country like British Columbia, we marvel at the skill of machinery manufacturers in adapting their designs to meet these conditions.

The production of lode mining during 1898 was very gratifying, which accounts for, and amply justifies the heavy expenditures for machinery by the conservative mine owners of the different mining divisions of British Columbia. An estimate based on replies received from representative mine owners throughout British Columbia, places the contemplated expenditure for machinery during the year 1899 at over \$1,000,000.

To the mine owner whose property has passed from the stage of a prospect into that of a partially developed mine, the subject of the proper treatment of his ore is perhaps the most immediate, if not the most important one he has to consider.

It is very necessary that manufacturers of mining machinery should mingle freely with the mining men and profit by their experience in the different fields of operation. The manufacturer should thoroughly understand the topography of the country and the nature of the rock formation when contemplating competing for trade in a certain district.

A brief description of the Slocan country, nature and class of machinery installed and the propelling power chiefly used, may be of interest and value to manufacturers and those interested in mining.

In this article the Slocan district is taken as a basis of information because of its being more generally known, representing as it does a fair average of the mineral formation of British Columbia, and because of the fact that in the Slocan district, operations are conservatively conducted and based on the legitimate requirements of the properties in hand.

The Slocan Star, owned and controlled by the Byron N. White Company, of Milwaukee, Wis., is located one-half mile from the town of Sandon, and is operated by a compressor plant with tramway connection between the mine and mill. The machinery on this property is propelled by both water and steam power, the capacity of the mill being 120 tons daily. This plant was erected at a cost of \$60,000, and was manufactured by the E. P. Allis Company, of Milwaukee, Wis.

The Ruth mines, adjacent to the Slocan Star, are owned and operated by the Ruth Mining and Milling Company, with headquarters at Kaslo, B.C. An extensive air



Coach Screw.

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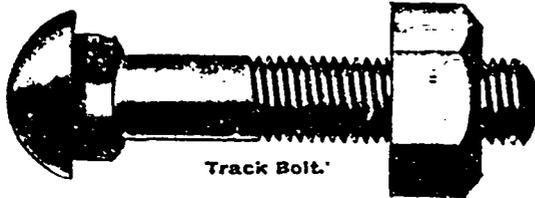
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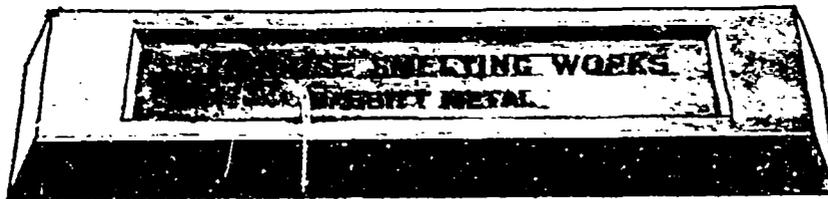


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AGENTS IN CANADA. A. R. WILLIAMS MACHINERY CO., Toronto, MECHANICS SUPPLY CO., Quebec; JOHN J. BARRY, St. John, N.B.; H. H. FULLER & CO., Halifax, N.S.

compressor plant and sawmill operated by steam power are located at the mines, the company having extensive sampling works at Kaslo. The cost of their plant complete was \$60,000. The Ingersoll-Sargent Rock Drill Company were the manufacturers.

The Idaho mines, two and one-half miles southwest from Sandon, the property of the Idaho and Elmo Mining and Milling Company, with headquarters at Idaho Siding on the C.P.R., have extensive machinery installed, consisting of mill and surface tramway with a capacity to handle 100 tons daily. The tramway on this property extends a distance of 3,000 feet, the motive power for the mill being water and steam, the plant was manufactured by Fraser & Chalmers, of Chicago, and erected at a cost of \$65,000.

The Payne mines are owned and operated by the Payne Mining Company, with headquarters at Sandon, B.C. The mines are situated two miles from the town of Sandon. This property is equipped with a surface tramway one and one-quarter miles long, conveying the ore from the mine to their compressor plant, located on the line of the Kaslo & Slocan railway, and an aerial tram

from there to the C.P.R. The company have both water and gasoline power to operate their plant. The cost of the machinery on this property was \$45,000.

In the same district there is the R. E. Lee mines, owned by Geo. Alexander & Bros., of Kaslo, B.C. Extensive operations are carried on on this property, gasoline power being used. Machinery in place consists of engine, boiler and drills, placed at a cost of \$8,000.

The Last Chance mines, operated by The Last Chance Mining and Milling Co., with headquarters at Cody, B.C., have an aerial tramway one and one-quarter miles, conveying the ore from the property to their mill located on the Kaslo & Slocan railway. The machinery on this property has a capacity of fifty tons daily, and was built at a cost of \$20,000.

The Washington mines, owned and operated by the London & B.C. Goldfields Co., with headquarters at McGuigan Siding on the Kaslo & Slocan railway, operate a mill and tramway of a capacity of sixty tons daily on the Washington mine, also hoisting machinery on the Slocan Bay.

Power is taken from McGuigan Crook to operate the mill, the tramway extending one-half mile from the mine to the mill. Like all other tramways in the district it is operated by gravity, i.e., the loaded buckets going down serve as power to bring back the empties, and also supplies for the mine. Their machinery is of Canadian manufacture and built at a cost of \$23,000.

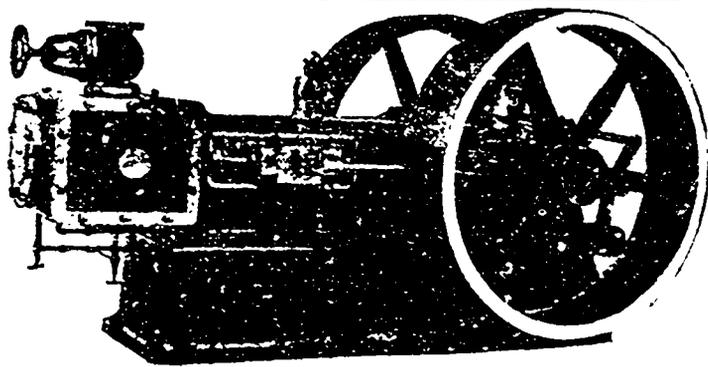
The Antoine mine is owned and operated by private parties, under the management of J. C. Ryan, of Kaslo, B.C. The property is equipped with engine, boiler and pump, costing \$10,000.

The Cariboo Rambler is the next property in line, operated and controlled by the Cariboo Rambler Co., with headquarters at Kaslo, B.C. On this property \$7,000 was expended in the erection of an air compressor plant operated by steam power.

The Dardinells Mining and Milling Co. have expended \$6,000 in the erection of hoisting engine, boiler and pumps on the Dardinell mines.

The Lucky Jim mines, owned by Brayden Bros., of Pilot Bay, B.C., are continuing extensive operations on their property with

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**Electric Lighting, Electric Railways
MANUFACTORIES, MILLS.**

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WIRE MANUFACTURERS
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Special Attention given to Miner's Requirements.

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OF CANADA

Head Office, TORONTO.

ARE YOU SURE
they are
SAFE
and in
Good
Condition?

the aid of a compressor plant operated by steam power, erected at a cost of \$5,000.

The Jackson Mining and Milling Co. own and operate the Jackson mines, using water power taken from Jackson Creek to operate their concentrator and electric plant, the concentrator having a capacity of eighty tons per day. Their machinery cost \$18,000.

The Whitewater mines, owned by the Whitewater Mining and Milling Co., is at present being equipped with a complete milling plant, to be operated by water power, the plant to cost \$85,000. The Whitewater Deep mine is operated by a company of the same name, having just completed the erection of a fifteen drill compressor plant operated by waterpower and built at a cost of \$10,000.

The Motezuma Mining and Milling Co., with headquarters at Kaslo, B.C., own and operate the Montezuma mines, using water power to operate their mill, connected with the mines by gravity tramway. The total cost of the machinery on this property was \$45,000.

The Noble Five Mining and Milling Co. are carrying on extensive development with one of the most complete mining machinery plants yet constructed in British Columbia, consisting of an air compressor built by the

Ingersoll-Sargent Rock Drill Co., with a capacity capable of forcing air through a four-inch wrought iron pipe from the mill to the mine, a distance of 8,000 feet, and with four drills and two fire blasts in full operation, shows but a loss of two and one-half pounds between the pressure exerted at the mill and that at the mine. On this property a gravity tramway, 6,100 feet in length, is constructed, requiring 24,400 feet of cable supported by twenty towers. In one place the cable carries at a height of 400 feet. This tramway requires but three men to operate it at its full capacity of twenty tons an hour. The power for the operation of the compressor plant on this property is taken from Cody Creek, one mile distant, conveyed by a flume, 18x24 inches, a distance of 4,700 feet, thence by a penstock of ten-inch wrought iron pipe to the mill, a distance of 1,800 feet, giving direct water pressure the full distance. A thirty-six inch Pelton wheel serves to produce power to operate the machinery. The wheel has a capacity of 300 horse power.

The mill of the Noble Five Co., which is truly representative of the mills of the district, contains the following machinery :

- One Blake crusher.
- Four sets crushing rolls.

Twelve two-compartment jigs, with a capacity of ten tons each per day.

Screen Sizers, producing six sizes of ore. Slime Tables.

Ten settling Tanks, used in retaining the light and greasy metals that work off in the slimes.

The machinery on the Noble Five was erected at a cost of \$22,000.

J. O. R. CASSIN.

CALENDARS AND OTHER SOUVENIRS

Some of the holiday remembrances sent to us by friends were as follows :

The Barber & Ellis Co., Toronto, manufacturers of envelopes, paper boxes, etc., a beautiful office calendar.

John Bertram & Sons, Dundas, Ont., proprietors of the Canada Tool Works, and manufacturers of all kinds of iron and wood working machinery, paper mill machinery, etc., a beautiful office calendar.

The B. Greeing Wire Co., Hamilton, Ont., manufacturers of all kinds of wire and sheet metal goods, a beautiful office calendar.

Willard & Frick Mfg. Co., Rochester, N.Y., manufacturers of the Rochester Time Recorder, a beautiful office calendar.

FETHERSTONHAUGH & CO.

PATENT BARRISTERS AND SOLICITORS

ELECTRICAL AND MECHANICAL EXPERTS AND DRAUGHTSMEN

Head Office: Canadian Bank of Commerce Bldg., Toronto, Ont.

Patents Procured in Canada and all Foreign Countries.

Offices in Montreal, Que., Ottawa, Ont., and Washington, D.C

To MANUFACTURERS

Do not be misled on the Wood Pulley question! The construction of the Dodge Split Pulley is unique. The complete and extensive plant of Dodge Manufacturing Company, of Toronto, makes it possible for them to make an all-wood pulley nearer perfection than any of its competitors. No other wood pulley is made just like the Dodge Pulley, because a lot of special and expensive machinery was necessary before the Dodge Pulley could be produced in its present state of perfection.

Our output exceeds that of all other wood pulleys combined. There are no drawbacks with us, we have the best wood split pulley made, and we want to send you our new 260-page Catalogue, also our revised Discount Sheet and to tell you all about all kind of pulleys.

We carry a complete stock of pulleys in sizes from 4 in. diam. to 60 in. diam. any face, and can ship most any order on day received. A post card or a phone will bring us to you at any time.

DODGE MANUFACTURING CO. of Toronto, Limited,

Office, 74 York St., Toronto, Ontario. Works, Toronto Junction. Phone 2030

To MANUFACTURERS...

Bar Iron, Steel, Boiler Plate,
Rivets, Tube Expanders,
Hammers, Metallic Letters
and
Figures for Patterns.

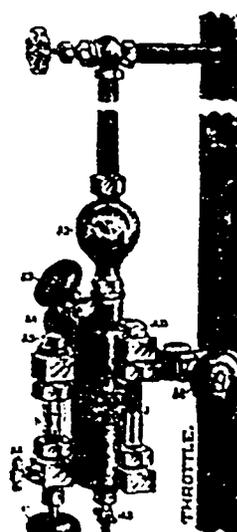
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**The Detroit
Sight-Feed
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This is equally true of Canadian as of American engine builders. They know that the valve friction must be overcome if their engines are to work at their best. They know from experience that the Detroit Lubricator, do this, and where so much is at stake they want only the best. It should be the same with all engine owners. The saving our Lubricators effect will pay for themselves very soon.

Send for Catalogue and Prices.

Detroit Lubricator Co.,

DETROIT, MICH.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

William Corry, manufacturer of knitting machine latch needles, etc., Upper Bedford, Que., a beautiful calendar, "The prettiest thing out."

The J. C. McLaren Belting Co., Montreal, manufacturers of English oak tanned belting card clothing, etc., and general mill supplies, a brass finished and very useful desk ruler.

O'Keefe Brewery Company, Toronto, a handsome desk calendar.

The St. John, New Brunswick, Board of Trade, an illustrated pamphlet descriptive of that port and the Bay of Fundy. This pamphlet was prepared mainly with the view of making the advantages possessed by St. John as a port for the import and export business of the Dominion of Canada, especially during the winter months, more widely known; and the Board of Trade trust that it may be the means of showing the people of Canada that they can receive and forward their goods through Canadian ports as rapidly, cheaply and safely as through ports in the United States.

Mr. John B. Paine, 53 Colborne St., Toronto, Ont., manager of the business of Messrs. F. E. Atteaux & Co., Boston, Mass. manufacturers and importers of alizarine and aniline colors, dye stuffs, chemicals, etc., a very beautiful lithographed calendar, in

which is a portrait of Her Most Gracious Majesty, Queen Victoria, surrounded by the Imperial Standard and other British flags, a view of Windsor Castle, and a representation of a British battle ship.

The Dominion Dyewood and Chemical Company, Toronto, a desk calendar pad for 1899, accompanied by an engraved card of the company conveying the compliments of the season. This pad, which consists of a leaf for every day in the year, is made to fit into an aluminum frame which was sent out by this company several years ago, the pads being sent each successive year.

THE JONES & MOORE ELECTRIC CO.

The Jones & Moore Electric Co., manufacturers and contractors of electric light and power installations, bells, telephones, speaking tubes, supplies, repairs, etc., Toronto, inform us that the following is a list of a few of their recent orders for electric motors from Toronto firms:—R. J. McBride The Elliott & Brooke Co., Ltd., Reid & Brown, S. Ephriam, Messrs. Jeffery, W. J. Little, J. Leishley, J. Cotts, J. Capp, Toronto Special Machinery Co., J. Spears, Montreal Optical Co., Dominion Laundry Co., R. J. Lovell & Co., Toronto Fence and

Ornamental Iron Co., the Sheppard Publishing Co.

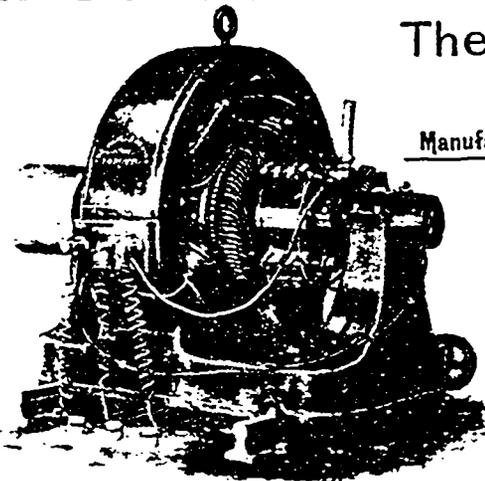
The company are installing an incandescent dynamo for J. Fenderson & Co., Sayabec, P.Q.

The Massey-Harris Co. have placed an order with the Jones & Moore Electric Co., for three motors for their new Toronto factories.

The demand for private telephones seems to be on the increase. The Jones & Moore Electric Co., have recently received orders from the following companies:—Iroquois Hotel, Cohen Bros., Ambrose Kent & Co., H. & B. Kent & Co., Reid & Brown, Wanless & Co., J. Foster & Co.

A second illustrated edition of the lecture on Mechanical Draft for Steam Boilers, delivered at Cornell University by Walter B. Snow, of the Engineering staff of the B. F. Sturtevant Co., Boston, Mass., has just been issued to meet the demand for information of this important subject. Copies may be obtained upon application to the Sturtevant Co.

The capital stock of the Gurney Foundry Company, Toronto, has been increased from \$35,000 to \$750,000.



The Jones & Moore Electric Co.,

Manufacturers and Contractors

All Work Fully Guaranteed

ELECTRIC LIGHT and POWER PLANTS a Specialty

A Few Second-Hand A 1 Machines For Sale Cheap

20 and 22 ADELAIDE STREET WEST TORONTO

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DIRECT FROM THE GREAT MINES of British Columbia and Northwestern States.

Handsome cabinet of specimens with catalogue describing each specimen and the different mines from which they were obtained. A BEAUTIFUL PRESENT. A SCHOOL OF MINES IN ITSELF. Price, Express paid, \$1.25.

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Engineers and Builders

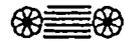
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Contractors for the Design and Construction of Complete Stamp Mills, Concentration, Chlorination, Cyanide, and Smelter Equipments....



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Leather Belting,
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D. K. McLAREN

Head Office and Factory—
VICTORIA SQUARE, - MONTREAL
Stock Depots—Ottawa, Galt.

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WESTERN TRADE:—

Our Mr. R. M. W. McLaren, in charge of Galt Branch, will be pleased to give quotations as well as receive orders.

STORAGE BATTERIES

THE LIGHTEST. THE STRONGEST. THE BEST.

If you use Electricity we can save you Money. Batteries Repaired and Recharged at Reasonable Rates.

The Croftan Storage Battery Co.

W. M. H. NELLES. CANADIAN BRANCH. REIN WADSWORTH.
22 Sheppard Street, Toronto, Ont.

DO YOU USE CORRUGATED SHUTTLES

FOR WEAVING FROM COP?

WE MAKE THEM.

Write for Prices and Samples.

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THOMPSON & CO., Manufacturers of BOBBINS and SPOOLS

FROM SELECTED STOCK.

Correspondence Solicited Orders Promptly Filled.....

SHERBROOKE, P. Q.

.. THE .. NEW PRINCIPLE IDEAL ACETYLENE GAS GENERATOR

Acknowledged by Experts and Insurance Inspectors as the only perfect and safe system for Generating Acetylene Gas.

Separate Ideal Generators supplied for attachment to present Gas Holders where Sprinkling Generators are now in use.

ADVANTAGES

Of New Style . . .
Carbide Submerging
Machine

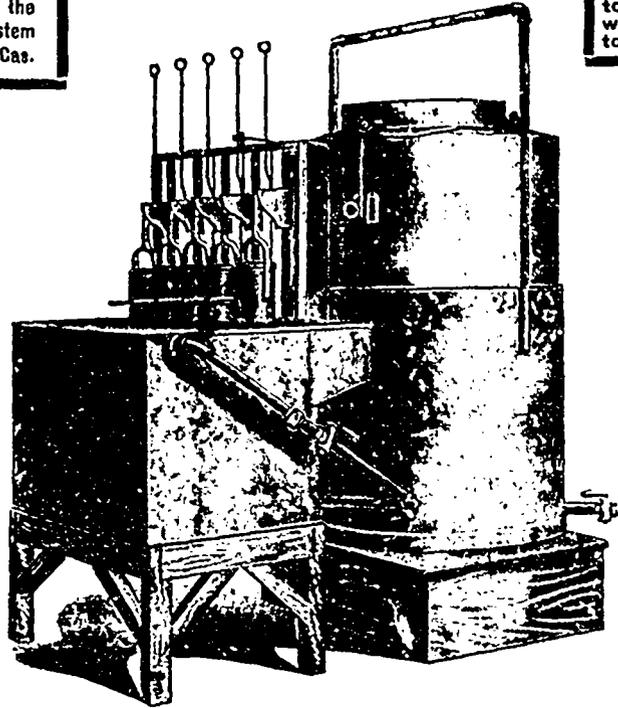
No Generator to Open to Recharge.

Gas is Generated under Water and is Cool and Pure.

200 Degrees less Heat in Generator than in Old Style.

Absolutely no Over-Generation or Loss of Gas.

Can tell at a Glance exactly how much Carbide is Used, and how much Un-used.



DEFECTS

In Old Style
Sprinkling Machines.

Generator must be Opened to Recharge, with Loss of Gas and Bad Odour.

Gas Generated by Sprinkling is Hot and Impure.

More or Less Over-Generation and Waste of Gas.

Cannot tell how much Carbide is or is not used without opening Generator.

J. WALLACE & SON, Manufacturers of **Acetylene Gas Apparatus,** 156 King Street East
HAMILTON, ONT.

WE MAKE IT. The Reeves

A High Grade Wood Split Pulley.

Made of the Best Materials and so Constructed, by Expert Workmen, that it stands the most severe and heavy work.

Stronger than Iron.

Lighter than Steel.

ASK YOUR MACHINERY OR HARDWARE DEALER FOR IT.

REEVES PULLEY CO., Toronto, Ont., Also Columbus, Ind.

THE CANADIAN RAND DRILL CO. have moved their General Sales Office, controlling Canadian Territory, to 18 Victoria Square, Montreal, in order to facilitate their business, which has been rapidly increasing during the last two years. They have established an office at 88 York St., Toronto, one in Halifax, one in Rat Portage in charge of Mr. George J. Rosa, and one in Rossland in charge of Mr. Mendenhall. They are as usual manufacturing largely along the lines of duplex construction which they have advocated from the first. A duplex compressor costs a little more in the first place than a straight line machine, but the difference in economy of the two offsets the difference in price. Their Toronto office has lately contracted with the Canadian Copper Co., the largest nickel producers of Canada, for a very large mining plant. The Canadian Gold Fields of Marmora, they have also just equipped with a large Corliss Compressor.

Through the Halifax office the Intercolonial Coal Mining Co., of Westville, are also installing one of their high class machines for pumping. Duplex construction permits of an economical arrangement of cylinders in proper ratio to the steam pressure at hand, and to the air pressure required.

The Rat Portage office last year installed from start to finish a large plant at the Sultana mine, a large plant at the Foley mine, and also a large plant at the Mikado. They are now putting in machinery at the Cameron Islands mine, and also a large plant for the Boulder Gold Mining Co., which is controlled by Mr. Leclair and other American capitalists.

The Rossland branch has rather the advantage of the others in that it has a large warehouse at its back and is able to fill orders from stock. They have lately contracted with the Knob Hill mine for a large power plant and two mining plants, the object being for the second mining plant being supplied with power from the one Compressor located at Knob Hill.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

A NEW ELECTRIC RAILWAY EQUIPMENT.

Mr. W. A. Johnson of the W. A. Johnson Electric Company, Toronto, reports the recent sale by his company of Westinghouse apparatus to the Metropolitan Railway Company, Toronto. This apparatus will be used on the extension of the present railway to Lake Simcoe. In the power house at Bond Lake will be installed two 60 cycle three phase, A.C. D.C. generators each of about 400 h.p. and a full compliment of switchboard apparatus, step up transformers, lightning protection, etc. The transmission voltage will be 16,500. There will be two rotary transformers, sixty cycles, three phase, giving 570 volts on direct current side, which will be located in sub-stations about fourteen miles from the generating

stations, step down static transformers being provided to reduce the voltage to that suitable for the rotaries. The generator switchboard will consist of eight marble panels, the sub-station switchboards of five marble panels, with non-arching and tank lightning arresters. In addition to the above there will be passenger and freight car equipments including one quadruple equipment for heavy freight car, and double equipments for two light freight cars; two double equipment for ordinary passenger cars and two quadruple equipments for heavy passenger coaches; the motors to be used in these to be thirty-eight B. fifty h.p., each. This is claimed to be the first installment in Ontario to use a generator delivering both direct and alternating current from the same machine; also the first application of rotary transformers. The sale includes one 45 ton electric locomotive, Westinghouse-Baldwin type.

region it is said:—The hardwoods, it is true, are used for fuel, the pines for lumber, elm and ash for furniture purposes, hemlock bark for tanning and spruce for pulp. A great number of our common woods, however, have been treated as cumberers of the ground. Birches and basswoods, for example, have been treated by the settler as sections of the forces of the common foe. Fire and axe have been used against them relentlessly to convert them into their original elements. One of the most hopeful signs of industrial development in the north is that such despised members of the tree family are beginning to be recognized as belonging to respectable society.

KER & HARCOURT.

This concern was formerly at Walkerton, but a desire to get nearer their raw material brought them to Parry Sound. The firm manufactures chiefly spools and bobbins for cotton and woolen factories. While this is their main output, they also manufacture a variety of wood turnings, such as knitting-pin and hair-pin boxes, pill boxes and the wood finishings of rattan furniture. The business is, of course, not an experiment, as the firm already has its market, but with access to unlimited raw material it

PARRY SOUND.

The town of Parry Sound, Ont., and the vicinity thereof is thus alluded to in a "Growing Time" article in The Globe:—

WOOD PRODUCTS.

Speaking of the wood growth of that

The **Canadian Gazette**

LONDON, ENGLAND

A Weekly Journal

Of Information and comment upon matters of use and interest to those concerned in Canada, Canadian Emigration and Canadian Investments.

EDITED BY THOMAS SKINNER, Compiler and Editor of

"The Stock Exchange Year Book," "The Directory of Directories," etc.

Every Thursday. Subscription, \$4.38 per annum

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1 ROYAL EXCHANGE BUILDINGS LONDON, E.C., ENG.

Advertisements—The charge for ordinary advertisements is 8d. per line of twelve words; and for Leader page advertisements, 1s. per line. The scale of charges for Displayed Advertisements, Special Positions, and for a Series may be had upon application to the publisher.

THE SOUTH AFRICAN Trade Journal

AND

Shipping Gazette

THE RECOGNIZED ORGAN OF COMMERCE FOR SOUTH AFRICA.

PUBLISHED MONTHLY AT CAPE TOWN, SOUTH AFRICA.

It circulates throughout the Mercantile Centres of South and East Africa, including Cape Colony, Orange Free State, Transvaal, Natal, British Protectorate of Bechuanaland, Zambesia, etc.

Advertising Rates on Application.

.. ORDER ..

"Capitol" 

THIS IS THE STANDARD GRADE **CYLINDER**

'Renown' | 'Atlantic'

ENGINE RED OIL

NO BETTER OILS MADE

THE QUEEN CITY OIL CO., LIMITED

SAMUEL ROGERS, PRESIDENT TORONTO, Canada

CHEMICAL **C**ORRECTLY **C**IVILITY
COMPOUND **C**OMPILED **C**AREFULNESS
COMPANY **C**HEMICAL **C**OMPLETENESS
COMPOUNDS **C**ONTINUITY

DO YOU KNOW

That you are paying for Boiler Compound all the time whether you use it or not?

IF YOU DO NOT BUY

You will pay your coal dealer more than its cost in the extra Coal you burn.

Zinkolene Saves Money

THE CHEMICAL COMPOUND CO., 311 Temple Building, Toronto.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

CHARLES F. CLARK Pres. JARED CHITTENDEN, Treas.
ESTABLISHED 1849.

**THE BRADSTREET
MERCANTILE AGENCY**

THE BRADSTREET COMPANY, Proprietors
346 & 348 Broadway, NEW YORK.
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may be expected to still further increase its output. The wood used is mainly white and yellow birch, which is bought in the logs from the settlers. Thirty-five hands are at present employed.

THE PATENT CLOTH BOARD COMPANY.

The name of the company indicates the article of manufacture. As is known, cloths of all kinds are wound on flat boards, and of course millions of them are used throughout the world. The requirement for the British Isles alone is enormous. The raw material used in this case is basswood. A basswood log after being denuded of its bark is put into a machine and pared like an apple, although that is not a good comparison, for the apple is round and the log is cylindrical. These parings after being planed, dried and covered with paper are ready to receive their webs of fabrics. A market is found both in England and the United States. For placing their goods in the former market the new Manchester line of steamers will be largely employed, taking the article into the very

heart of the English textile and fabric manufacturing centres. The industry employs thirty hands. The members of the company Messrs. W. M. Keighley and W. H. Marcon are well known in Toronto.

LUMBERING.

Lumbering, which was the foundation industry of Parry Sound, has been somewhat quiet for the past two years. The Parry Sound Lumber Company, which may be regarded as the pioneer lumbering concern of the district, has not been taking out logs recently. The Congor Lumber Company has been in the same position, and the mills of both have been quiet. This winter, however, both companies will take out some logs, the Parry Sound Company about six million feet and the Congor Company about two million feet. These will be taken off patented lands, and, not being subject to Government control, may be exported. The Parry Sound Company, will, however, run its shingle mill next summer, and sufficient shingle stock for the purpose will be got out. Mr. William Peter ran his sawmill all last summer and is taking out 15,000,000 feet of logs this winter.

OTHER INDUSTRIES.

The tannery of Wm. Taylor & Son, which had very small beginnings, is a constantly growing business. It employs twelve hands. It should be said that between the French and Severn rivers the greatest belt of hem-

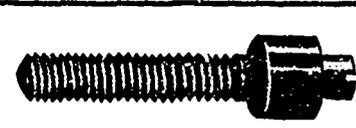
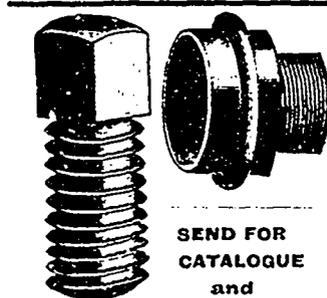


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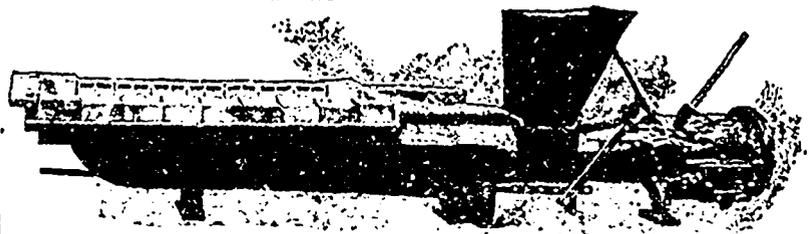
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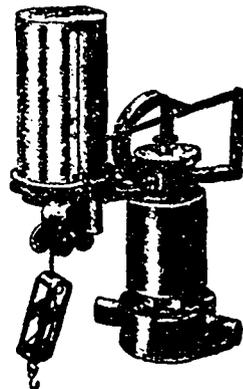
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lock known to exist on the continent is situated and the prospects for a large manufacturing tannery would be excellent. Argue & Son's sash and door factory is steadily growing, having been recently increased to almost double its former size. There is an excellent opening for a grist mill the needs of the district itself being from 75 to 100 barrels a day. The water powers on the River Sequin offer excellent sites.

The Concentrating machinery built for the Coleraine Mining Co., at Black Lake, Que., was formally inspected last week by the company's consulting engineer, Mr. A. Davis, of Montreal. This entire plant, including engine and boiler, was furnished by the Jenckes Machine Co., of Sherbrooke, Que.

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In its interesting and attractive circular entitled "Draft Without a Chimney," the B. F. Sturtevant Co., of Boston, Mass., tells why its tall chimney has been taken down, how draft is now produced, and how an annual fuel saving of nearly \$1,000 is secured. This information may be had for the asking.

The plant for the town of Norwood, Ont., recently installed by the W. A. Johnson Electric Company, Toronto, is giving much satisfaction to the purchaser, the machine being a single phase inductor alternator, which is practically indestructible and has the excellent advantage of a very low speed.



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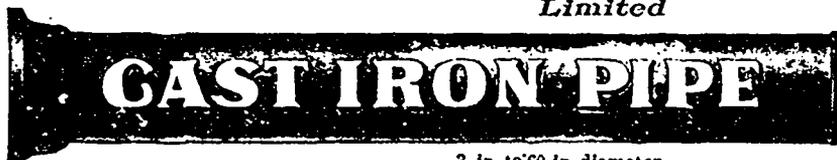
As we shall not be able to personally visit each manufacturer, it is for this purpose that we publish this advertisement. This is our agent who is going about to solicit a share of your patronage. We are thankful for the patronage extended to us in the past, and hope that we may secure an extension of the favors for the future.

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THE McINNES STEAM INDICATOR.

The accompanying illustration is of the McInnes' patent steam engine indicator, manufactured by Messrs. T. S. McInnes & Co., 41 Clyde Place, Glasgow, Scotland, and which is now being introduced in Canada. The apparatus is already well known in Great Britain and throughout Europe, and has been adopted by the British, Spanish and Dutch Admiralties, and by many of the leading engineers of Great Britain. Regarding it we are told that it is the only one in the market which is sheathed with vulcanite, and therefore it can be handled with comfort while other indicators burn the fingers.

The following advantages are claimed for the McInnes' indicators :-

1. A spiral drum spring, with adjusting head, to increase or diminish the tension of drum to suit speed of engine.
2. A light and accurate parallel motion, the momentum of which, owing to its construction, is checked by its own action.
3. A revolving pulley stud, to allow of the lead being carried away at any angle.
4. A milled head screw is fitted on body of indicator, by which the pressure of pencil on drum is adjusted, and the pencil arm being free at the pencil end yields to any inequality on paper, and gives a uniform fine line.
5. The cylinder, cylinder cover, and coupling ring are sheathed with vulcanite to enable the spring to be changed and the indicator handled in comfort, while other indicators burn the fingers.
6. The cylinder of the indicator is made

open at foot to allow of its being easily cleaned.

7. A clip cord adjuster is fitted on cord, by pressing tails of which the cord may be lengthened or shortened instantaneously.

8. Wire cord. To obviate annoyance and delay caused by stretching of ordinary cord for long leads, we supply a cord having six strands of plated steel wire, covered with a double linen tube, making a flexible cord without stretch.

9. A jam nut is fitted on screw of stop-cock, to allow it to have handle in most desirable position; the jam nut on being screwed down with an asbestos washer makes a steam-tight joint.

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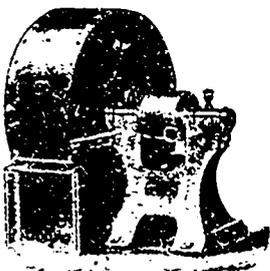
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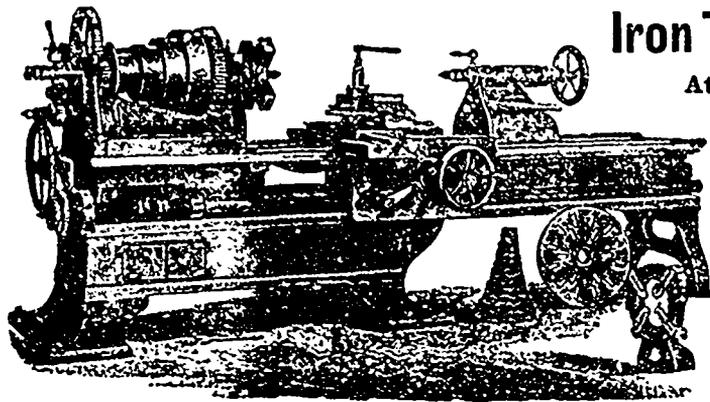
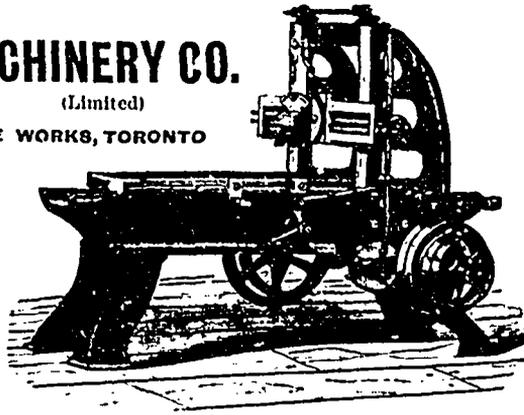
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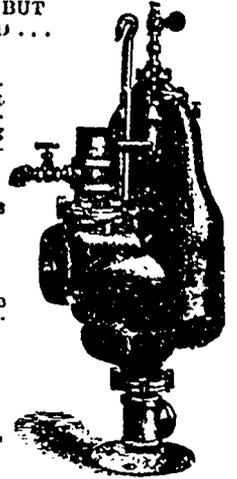
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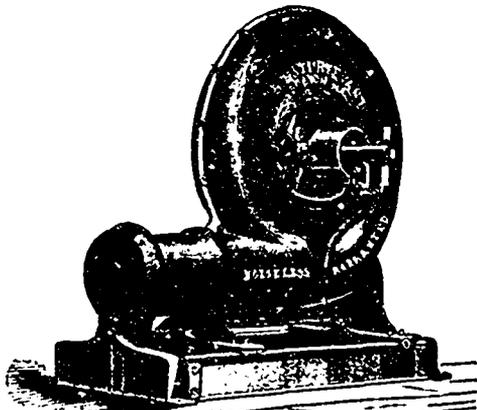
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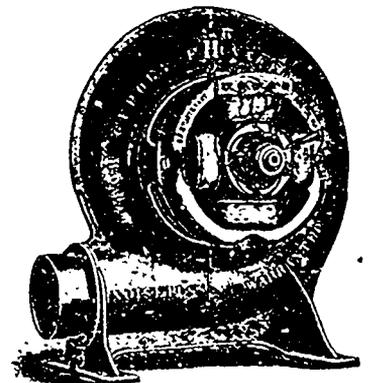


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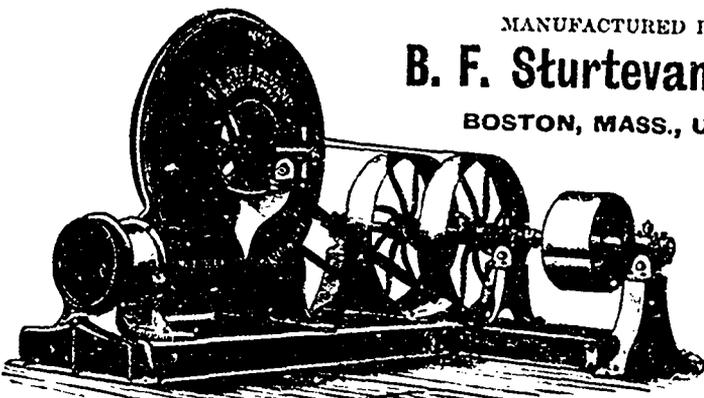
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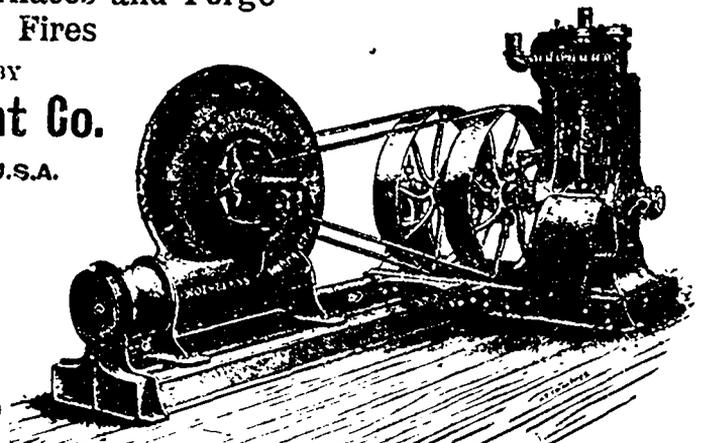
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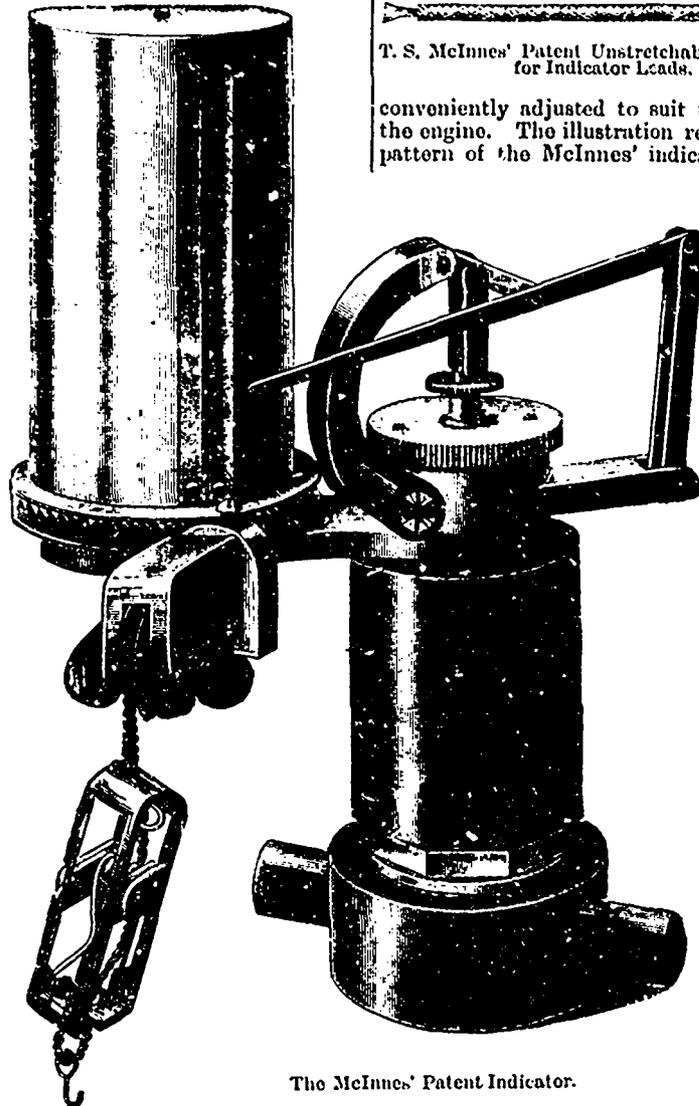
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that for every half inch of vertical travel of the piston, the pencil travels three inches.

The drum spring is of the spiral type, and means are provided whereby the tension is

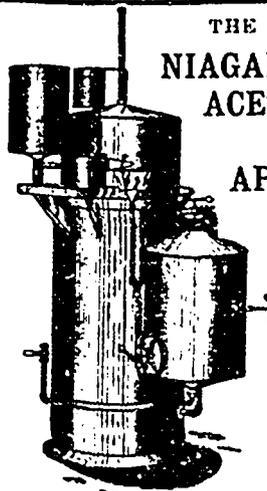


T. S. McInnes' Patent Unstretchable Wire Cord, for Indicator Leads.

conveniently adjusted to suit the speed of the engine. The illustration represents the pattern of the McInnes' indicator adapted

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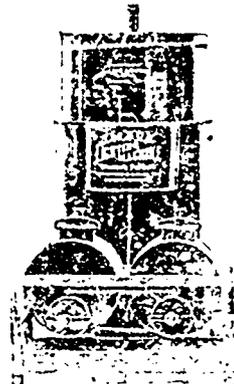
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for ordinary land and marine purposes, and for speeds up to 400 revolutions per minute. For higher speeds and special purposes, such as for gas and explosive engines, railway locomotives, ammonia compressing machines torpedo boats, etc., special indicators are made having the necessary alterations to suit the work for which they are intended. In the indicator here illustrated the piston is of case hardened steel.

The pressure of the pencil arm is regulated by means of an adjustable screw with binding nut, as shown in joint of the brass arm carrying the pencil lever, and a revolving pulley stud is also provided to enable the lead to be carried off at any angle desired.

The other illustration represents a patent unstretchable wire cord which Messrs. McInnes' supply. It is composed of a number of strands of fine brass wire placed side by side—not twisted or woven together—and covered with textile material. This cord is perfectly flexible, cannot be stretched and is therefore much better adapted for indicator leads than ordinary cord.

The sole makers of both the McInnes' patent indicator and the patent wire cord, are Messrs. T. S. McInnes & Co., whose address is given above; and we understand that they are open to appoint one or more first-class concerns to represent them in Canada. Meantime all enquiries and orders should be addressed to the head office at Glasgow. Owing to the preferential tariff in favor of British made goods now in operation, the McInnes' indicator can be sold in Canada on very favorable terms.

POWER AND TURBINE WATER TUBE CLEANERS.

For some time past there has been considerable complaint from users of water tube boilers about accumulation of scale in their boilers. Scale, of course, is bound to accumulate as long as boilers are used; in some localities it is more severe than others, owing to the kind of feed water used.

There has been a great many compounds brought out of more or less efficiency, for the prevention of scale, and while it does in many cases prevent the formation of scale to a certain extent, it is expensive; and if the scale is allowed to remain in the tubes it is still more expensive, as it impairs the efficiency of the boiler and increases the fuel consumption to a great extent.

We take pleasure in describing to our readers a machine which has recently been brought out by the Chicago Boiler Cleaner Co., for removing scale from water tube boilers. It consists of a shell in which is inclosed a reactionary turbine which revolves under water pressure at a high speed. On one end of the turbine is attached the cutting head, which consists of four strong arms and on the end of each arm is attached a series of cutting wheels. When the machine is in operation these arms fly out against the flue with great force, producing a combined hammering and pulverizing effect which removes the scale before it as it goes, and is washed away by the flow of water.

One very important feature about this machine is that you can take it with you wherever you go, and it is always ready for use and will do as good work in bent tubes of the Stirling type as in straight tubes of the B. & W. type. These machines are fast coming into use on account of their efficiency, durability and the very low price at which they can be obtained.

They are manufactured and sold by the Chicago Boiler Cleaner Co., Monadnock Block, Chicago, Ill.

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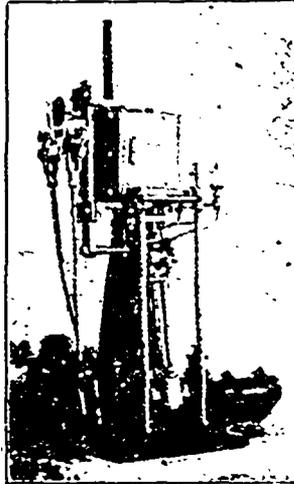
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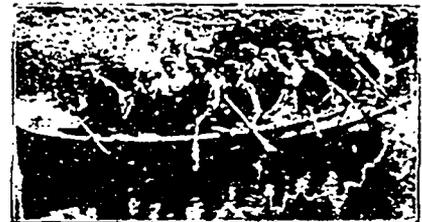
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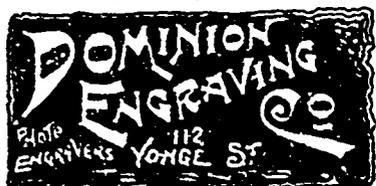
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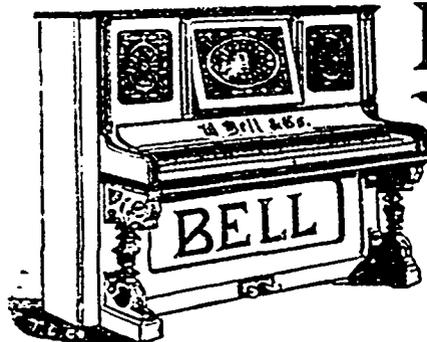
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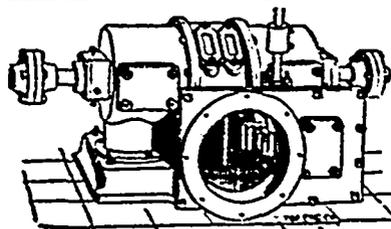
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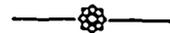
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