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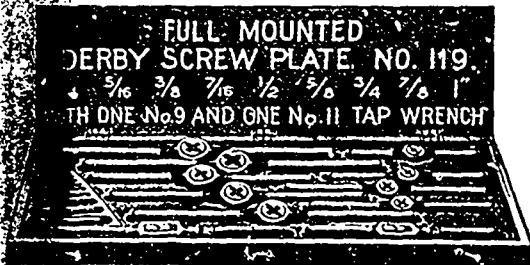
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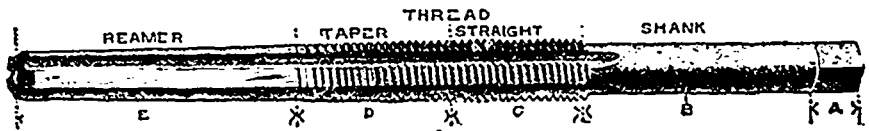
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G.A.L.T., ————— Ontario ————— Canada.

WE MAKE Wheelock Engines, Corliss Engines, Ideal Engines, Gas and Gasoline Engines, Boilers, Water Wheels, Pumps, Flour Mill Machinery, Oat Meal Mill Machinery, Oat Meal Steam Pan Kilns, Wood Working Machinery, Iron Pulleys, Wood Rim Split Pulleys, Shafting, Hangers, Gearing, Friction Clutch Pulleys, Friction Clutch Couplings, etc., Safes, Vaults and Vault Doors.



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Regular and Full Mounted Reece and Derby Plates, Bicycle and Machinists' Plates, etc., etc.

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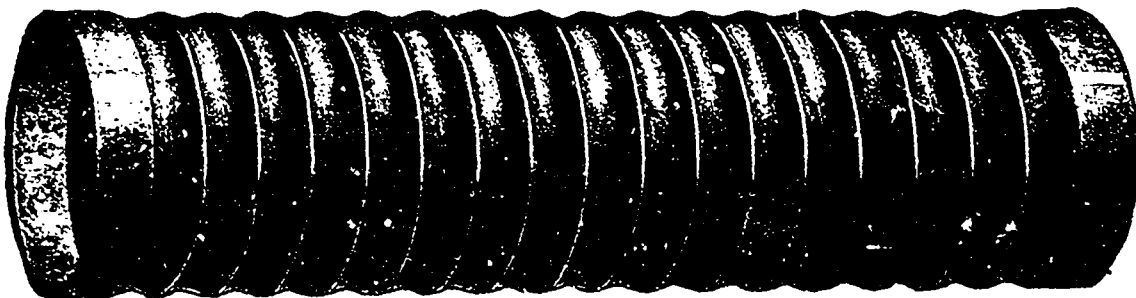
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For Land and Marine Boilers

With Plain Ends or Flanged to any required shape.

Uniform Thickness, Easily Cleaned, Unexcelled for Strength, Unsurpassed for Steaming Capacity.

The universally satisfactory record of "THE MORISON" proclaims it the best furnace made.



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Near 10th and 23rd Street Ferries.

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is now booking orders for

**STEEL RAILS**

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$\frac{1}{8}$ " and  $\frac{3}{8}$ " thick, 48" to 72" wide, 120" to 144" long,  
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# NICKEL FOR NICKEL STEEL

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It is no trouble to us to help you out of your Babbitt Metal difficulties. We have expert metal men in our works who know metals and machinery, and atmospheric conditions to a nicety; what's more our special method of mixing is what gives

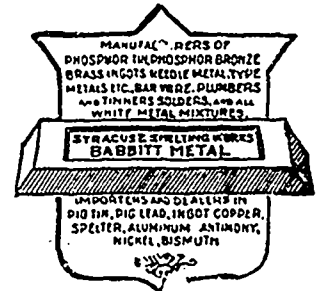
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**HIGH GRADE COKE**

Loading and Fueling Docks at all Ports on the  
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**Operating 2,500 Coal Cars.**

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**Genuine Thacker Coal**

Strongest and Best of West Virginia  
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**400 Individual Cars.**

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MINED IN WEST VIRGINIA.

The Best Bituminous Coal for Steam and Domestic Purposes.

Has a tough and blocky structure.  
Smallest percentage of fine coal.  
Low in ash and sulphur and no clinkers.  
Not subject to spontaneous combustion.  
Nothing better for malleable iron works.  
One of the strongest steam coals.

RED JACKET

### COMPARATIVE HEAT UNITS PER POUND OF COAL.

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"RED JACKET"—Determined by 50 weeks' test at Cincinnati Edison Plant, in 1901-2, the daily use of the coal tested being two hundred tons, 13,800.

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Water apparently evaporated under actual conditions per pound of coal, 10½ lbs.  
Equivalent evaporated from and at 212 degrees per pound of combustible pounds, 12:33.

We also handle Pocohontas Coke. Correspondence solicited.

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Best Grades of STEAM COALS.

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Shipments made direct from Mines to any point in Canada. Write for quotations.

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# COAL

Highest Quality

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Pittsburg Lump, Mine Run, Slack,

Smithing Coal,

American Gas House Coke,

Prepared Coke,

Car Load Lots Direct from Mines.

Prompt Shipment.

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HAMILTON, ONT. THOS. MYLES' SONS

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From Kanawha, Hocking and Fairmont Mines

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Shipments direct from mines to all points in Canada

Write for Prices

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During the year ending June 30, 1904, Canada imported **2,496,068** tons of Anthracite Coal and Coke, valued at **\$11,226,346** and **4,661,941**, tons of Bituminous Coal, valued at **\$9,652,331** and Charcoal valued at **\$22,224**, upon which duties were paid to the amount of **\$2,211,864**, there being no duty on Hard Coal or Coke.

EVERY STEAM POWER PLANT IN CANADA USES COAL.

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for Concrete or Mortar

LARGEST OUTPUT

ARE THE MOST EFFICIENT

LOW FOR CHARGING

— as —

Ransome Mixers produce the highest grade of Concrete with the least possible expenditure for labor and the contents of the mixing drum can be totally discharged, or wheelbarrow by wheelbarrow, as desired, without delaying the mixing operation—saving time and materials. Ransome Mixers will save money as they mix better, quicker and cheaper than any other mixer. They are built to last. All sizes and capacities. Write for Catalogue and Prices.

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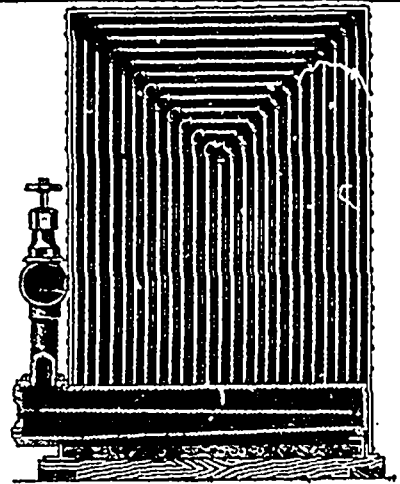
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FOR DRY ROOMS OF EVERY DESCRIPTION, BUILDINGS OF ALL SIZES AND FOR ALL PURPOSES, but chiefly used at present in **Factories, Hospitals, Churches, Theaters, etc.**

This Heater will give 50% more heat with a given heating surface than any other on the market.

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## HOISTING ENGINES

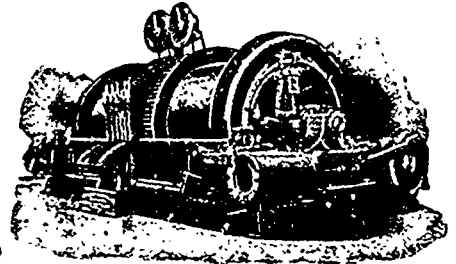
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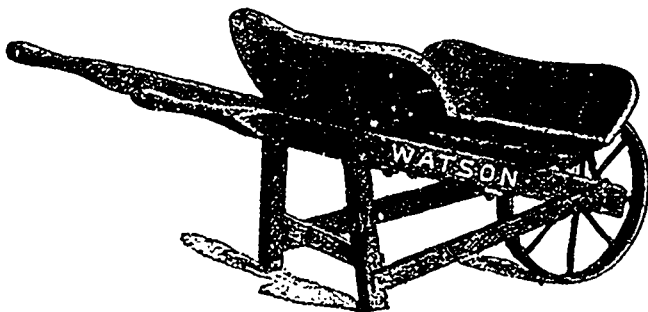
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Cables: CHALLENGE.

Codes: LIEBER'S, ABC, 4TH ED., PRIVATE.



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**Full Bolted Navy Barrow**

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**SAVES THE DOLLARS**

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ONE HUNDRED STYLES TO SELECT FROM FOR ALL PURPOSES

If you are not using Trucks in your Factory or Warehouse you are losing money.

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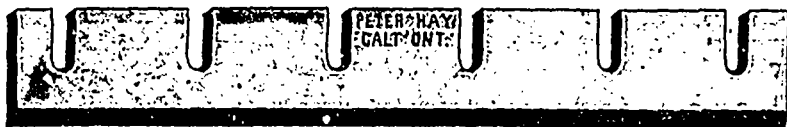
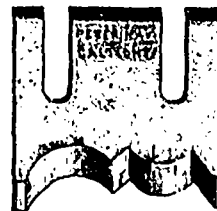
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Manufacturers of

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For WOOD-WORKING,  
PAPER CUTTING and LEATHER SPLITTING  
MACHINES,



Quality Warranted.

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Manufacturers

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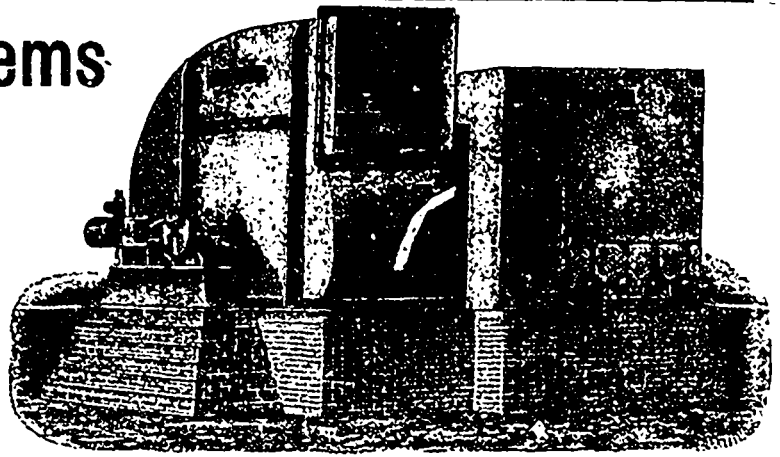
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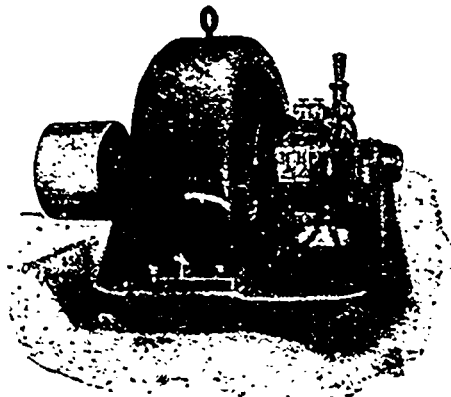
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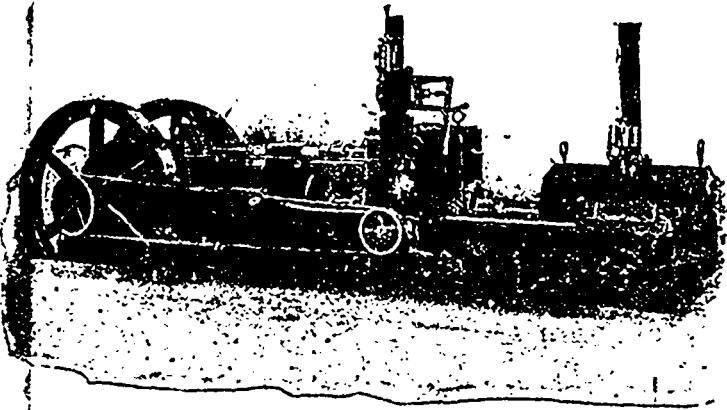
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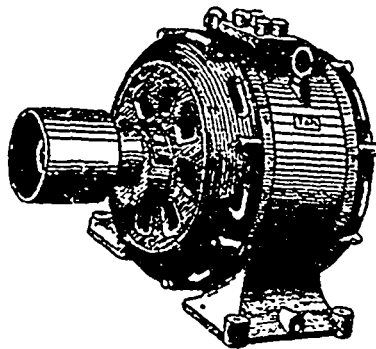
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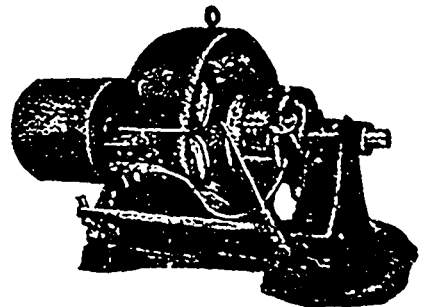
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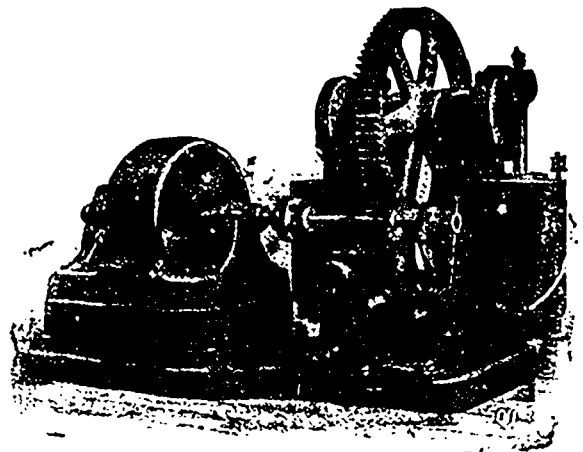
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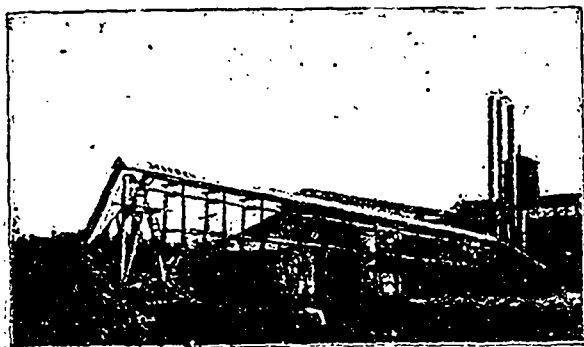
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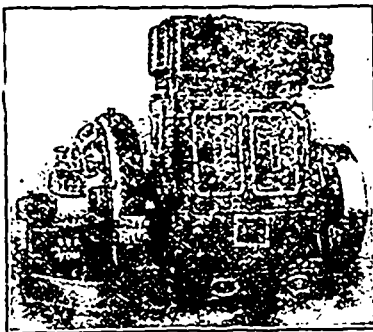
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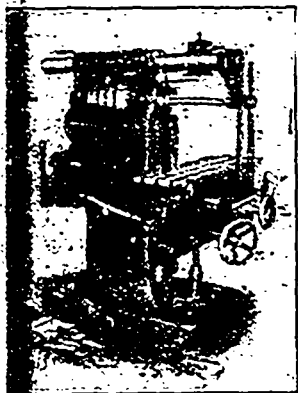
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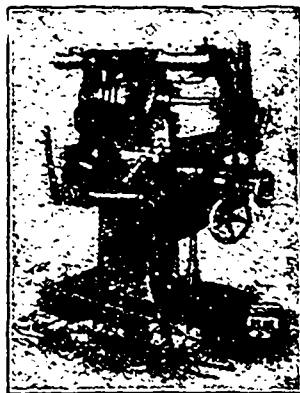
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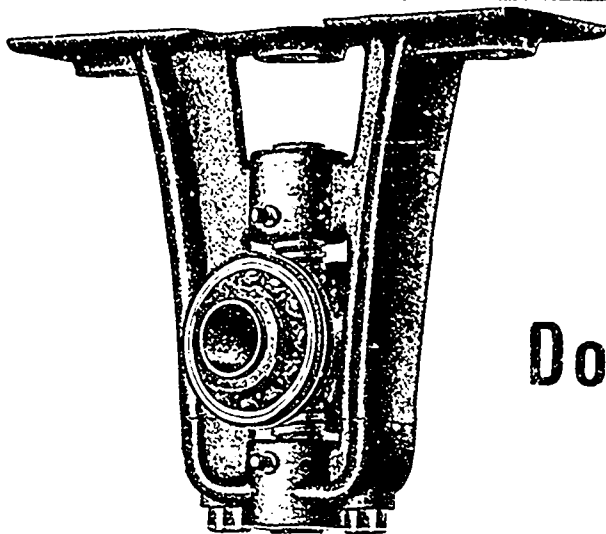
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J. J. CASSIDAY, Editor and Manager

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**CANADIAN TARIFF CHANGES.**

The following memorandum of Canadian tariff changes has been issued by the Department of Customs under date of July 7, 1905, to take effect on and after that date

1 That it is expedient to amend the Customs Tariff, 1897, as amended by subsequent Acts, to the following effect.

Schedule "A" is amended as follows:

Item 158—strike out the words "dry white and "

The following items to be inserted:

8 (a) Wines of all kinds, except sparkling wines, containing not more than forty per cent. of spirit of the strength of proof, whether imported in wood or in bottles (six quart or twelve pint bottles to be held to contain a gallon), when the produce or manufacture of any British colony or territory in the South African Customs Union Convention, twenty-five cents per gallon

30. (a) Rolled oats, six tenths of a cent per pound

58. (a) Dry white lead, thirty per cent ad valorem

58 (b) White lead ground in oil, thirty-five per cent ad valorem

Item 187 is repealed, and the following substituted —

187 Cement, Portland and hydraulic or water lime, in barrels or casks, the weight of the package to be included in the weight for duty, twelve and one half cents per one hundred pounds, in bags, twelve and one half cents per one hundred pounds, together with twenty-five per cent. ad valorem on the bag

Schedule "B" is amended by repealing item 455, and substituting the following:

455 Settlers' effects, viz.: Wearing apparel, books, usual and reasonable household furniture and other household effects, instruments and tools of trade, occupation or employment, guns, musical instruments, domestic sewing machines, typewriters, bicycles, carts, wagons and other highway vehicles, agricultural implements and live stock for the farm, not to include live stock or articles for sale, or for use as a contractor's outfit, nor vehicles nor implements moved by mechanical power, nor machin-

**Another Tariff Edition.**

As soon as the proposed revision of the tariff has been made and adopted by the Dominion Parliament, thus becoming the law of the land, a full and absolutely correct reproduction of it copied from the official document, will be published in the Canadian Manufacturer. It is impossible at this time to say just when that event will occur, probably about the latter part of next year. In the same special edition will be published in full, as heretofore, the tariff of the United States, both under the one cover, a convenience which will be fully recognized by our readers.

ery for use in any manufacturing establishment; all the foregoing if actually owned abroad by the settler for at least six months before his removal to Canada, and subject to regulations by the Minister of Customs: Provided that any dutiable articles entered as settlers' effects may not be so entered unless brought by the settler on his first arrival, and shall not be sold or otherwise disposed of without payment of duty until after twelve months' actual use in Canada.

2 The exemption from duty of machinery and structural iron and steel for the construction and equipment of factories for the manufacture of sugar from beet root, authorized by section 11 of chapter 11 of the Acts of 1904, is extended from April 1, 1905, to June 30, 1906.

3 The exemption from duty of machinery and appliances of a kind not made in Canada for use exclusively in alluvial gold mining, authorized by section 12 of the said chapter, is extended from July 1, 1905, to June 30, 1906

4 Section 18 of the said chapter is amended by inserting after the word "production," in the fourth line, the words "or from any British country."

**THE NEW TARIFF.**

From now on there will be a great deal of speculation as to what changes will appear in the new tariff, for the consideration of which the Dominion Government will appoint a commission of experts to examine into the necessities of the country and to formulate schedules which the Parliament will be asked to adopt. Mr. Fielding has intimated that there will probably be a maximum tariff that will apply to countries whose tariffs are hostile to us, a minimum tariff to apply to countries whose tariffs are not hostile to us, and a preferential tariff to apply to Great Britain and certain other British countries.

The government have had this matter of tariff revision under consideration for several years, which explains why it has not received the action so many have wished for before now. In a speech made by Sir Wilfred Laurier

in Hamilton in October of last year he directed attention to the fact that in a country like Canada, in which conditions are always changing, it is impossible that the tariff be permanent—it was never intended to be permanent—the intention being that it should be stable. "We all know," he said, "that the time is not far distant when there will be another general revision of the tariff; but when such revision is undertaken upon what lines shall it be? "Mr. Fielding," he said, "has declared what these lines should be. In the first place Mr. Fielding has declared that there shall be no revision until there has been ample investigation—until there has been consideration given to every class of the community—to the producer and to the consumer. All classes of manufacturers will be heard. We are not going to follow the old groove that has been followed ever since the Dominion of Canada became a confederation. We have now only one line of duty which we apply to all countries alike, except to Great Britain, to which we give a preference. We propose to add a new chapter. We propose to have a double class of duties—to have a maximum and a minimum tariff. The minimum tariff we will apply to such countries as treat us fairly. The maximum tariff we propose to use against those countries which are selfish in their methods, and which insist upon selling to us but do not have elasticity or reciprocity of fair trade with us. Under such circumstances we believe we are but following the consensus of opinion of Canadians when we apply to others the same treatment which they apply to us. Upon this point I give you an intimation of the line of the policy we intend to follow when we revise the tariff."

Sir Wilfrid's word in this matter is being kept good, but it is a question whether the forthcoming tariff, or tariffs are to be formulated with a view to protection in its highest sense or not. It is to be feared that there will be a set of tariffs that might be confusing. It cannot be that the necessities of the country require more than two tariffs—a maximum to apply to imports from commercially unfriendly countries and a minimum to apply to imports from commercially friendly countries such as Great Britain, but which would apply to any other country which treats us with commercial fairness.

It was upon the occasion of the call to the Dominion Parliament to assemble in February of last year that the CANADIAN MANUFACTURER suggested as follows:

1. The tariff should be of a dual character—a minimum tariff to apply to imports from commercially friendly countries, such as Great Britain—and a maximum tariff to apply to imports from commercially unfriendly countries, such as Germany.
2. The duty imposed upon imports should be (a) specific only and always where possible; or, (b) compound, i.e., both specific and ad valorem; to be ad valorem only when neither specific or compound is practicable.
3. Tariff rates, under all circumstances, should be sufficiently high to afford adequate protection to every Canadian manufacturing and industrial interest.
4. Every possible safeguard should be thrown around the administration of the tariff laws to prevent undervaluation and other frauds upon the Customs.

5. There should be no special preferential provision in the tariff such as now exist, as such features would be included in the minimum tariff, and applicable not only to British imports but also imports from any other country which treats Canada with equal commercial favor.

Such tariffs would be automatic in their application and it would be free to any country to decide under which its products would be admitted into Canada.

Specific duties would prevent importations of inferior goods of all descriptions, and also undervaluation. Compound duties would apply to textile fabrics, ready-made clothing, etc., and would prevent or restrict imports of shoddy and inferior goods.

But first, last and always the salient feature of the Canadian tariff should be adequate protection to every Canadian industry.

#### THE TARIFF COMMISSION.

The Tariff Commission, which, according to reports will consist of Ministers Fielding, Paterson and Brodeur will not begin its sittings immediately after Parliament prorogues. On the contrary, they will probably remain for a while in Ottawa to clear the slate of unfinished business, after which they will disperse for a vacation. The latter part of September or the beginning of October will witness the commencement of the inquiry.

A start will be made in Ontario and Quebec, after which a tour will be made of the lower provinces. The visit of the commission to the West will follow, and contrary to procedure in 1892, when Winnipeg was the western limit visited, the personal investigation will be extended to British Columbia, where there is a great field of inquiry, by reason of the recent great commercial development there.

The task before the commissioners will be more complex than in 1897, when the question was merely one of revising the tariff so as to be more in consonance with the needs of the consumer. There will be a maximum and a minimum tariff, the former to be applied doubtless to those countries whose tariffs are hostile to us, and the latter to meet the case of countries which believe in reciprocity. Then there will be a British preferential tariff. Rumor has it that there will not be any slavish adherence to the principle of British preference of 33 1/3 per cent, but rather in tariff treatment of British goods of each class, all to be considered on their own merits, that in some cases it may be less, and in others more than one-third of the existing duty. The advantage of this system will be in its elasticity.

#### HE SEES THE HANDWRITING.

Mr. D. M. Parry, president of the National Association of American Manufacturers, sees the handwriting on the wall of ultra protectionism in the United States, and is anxious as to the results that he expects from the countries growing out of their retaliatory tariffs. The United States' finance minister has suggested something of the sort for this country somewhat calculated to increase

Mr. Parry's anxiety. Writing to an American trade journal regarding tariff revision in his country he says:

To my mind there are some features in the present tariff situation that open to serious question the wisdom of the "let alone" or "stand pat" policy. The foreign demand for our agricultural products appears to be declining, and the exportation of manufactured commodities is not nearly so great as it should be, notwithstanding the fact that last year it amounted to over \$500,000,000 for the first time in our history. The pressure to find a foreign vent for the product of our mills and factories is constantly becoming more pronounced, but how in the face of unfavorable foreign tariffs we can materially develop markets abroad is difficult to see, unless through the adoption of a more liberal tariff policy on our own part we secure compensating concessions in the tariff schedules of those countries whose markets we seek.

Our chief customers abroad are the European countries, the amount of our exports to which in 1904 was \$1,057,000,000, about two-thirds of our entire exportation. The value of this trade is such as to compel careful attention to matters which threaten its continuance or development. In recent years the policy of discrimination against our trade by European governments has become more and more intensified, and that our high tariff and our failure to make reciprocity agreements have much to do with this cannot be doubted.

Illustrating the attitude of European countries is the adoption by Germany of a new tariff, which has not yet been put into force, but which, if it is enforced against us, will raise duties on American imports to a remarkable degree. Russia has also devised a new tariff which provides almost prohibitive duties, but which has not been put into force pending the making of special treaties with other countries. In France our manufacturers are handicapped by more favorable tariffs enjoyed by their English and German competitors. In England a great political agitation is being waged in behalf of a tariff system which would by preferential duties to the British colonies discriminate against American food products and manufactures. The outlook in other countries is equally suggestive of future injury to our foreign commerce and the advisability of the adoption of a less exclusive policy than we have heretofore pursued.

#### VIEWING WITH ALARM.

A few days ago a press telegram from London said:

W. H. Lever, of Port Sunlight, Liverpool, writing to the Liverpool Post, says:—"I fail to detect in Mr. W. K. George's speech the slightest indication of any intention to give English manufacturers the opportunity of supplying the Canadian market with any article that can by any possibility be made in Canada. Mr. George's speech was exactly the speech that would be made by the majority of the representatives of any of our colonies, and appears to me to entirely cut the ground from under Mr. Chamberlain's statement as to our colonies being ready to welcome English manufactured articles. To my mind it is Mr. Chamberlain and his followers who must view Mr. George's statements with alarm."

It should be borne in mind that Mr. Lever is a representative British manufacturer who would prefer to make goods at home for shipment abroad instead of migrating a portion of his capital to another country and producing goods there, rather than pay the import duty on them. A few years ago Mr. Lever was a large exporter of soap to Canada, where it was sold in competition with the products of Canadian soap makers;

and the protective duty he encountered here caused him to establish one of the largest soap factories in Canada. As long as the home soap industry enjoys adequate protection Mr. Lever's Canadian soap works will no doubt be operated to full capacity in supplying the Canadian market; but should it ever be that Chamberlainism should be established, meaning free trade within the Empire, no doubt Mr. Lever would cease to make soap in Canada, and thereafter supply his Canadian customers from his Port Sunlight works near Liverpool. He did a good thing for this country when he became a Canadian manufacturer, and it is to be hoped that the smoke from his tall chimneys at Toronto will not cease for many years to come.

But Mr. Lever is only a quasi Canadian manufacturer, and he is de facto a British manufacturer who looks to Chamberlainism to bring the time when Canadian wants for manufactured products will be supplied from Great Britain. Why should Canada abandon tariff protection for her manufacturing industries? Why should British manufacturers look for or expect that the door should be opened any wider than it now is for the admission into Canada of any article that can by any possibility be made here?

It is quite surprising that British manufacturers, favored as they are by the tariff preference already shown them, do not take advantage of it and make strenuous exertions to sell their products in this market. They seem to tacitly admit their inability to compete with their American rivals for Canadian trade. Notwithstanding the tariff wall that now exists American manufacturers find a demand for their products to the value of a hundred million of dollars in this country; and notwithstanding the large preference shown them, British manufacturers make a lamentable failure in exploiting the same trade, and look to Chamberlainism to help them. There is no sentiment in Canada, particularly among her manufacturers, in favor of Chamberlainism, and if the preference now shown the Mother Country is not more appreciated and reciprocated than at present, so much the worse for Chamberlainism.

#### THE CANADIAN ROYAL MINT.

From correspondence brought down to Parliament it appears that duplication of the machinery in the Canadian branch of the Royal Mint was urged by the Imperial authorities. Mr. Courtney, who was in London at the time (January, 1901), replied that he did not think that the coinage of gold and silver would at any time run concurrently, and therefore double machinery would not be required. The machinery would be, Mr. Courtney said, so far as gold was concerned, for nothing higher than \$10, and would be confined to ten and five dollar pieces. For silver from 50-cent pieces to 5-cent pieces. "Our present bronze coinage," said Mr. Courtney, "is only for one cent, but it is just possible that two-cent pieces, equivalent to one penny, may be required and at the same time a half cent or farthing may also be wanted." It was stipulated in London that a deputy master, a superintendent, an assayer, a chief clerk, and

a master mechanic, who understood the machinery should be sent from London. If any additions to the staff were required such could be appointed in the Dominion on recommendation of the Canadian Government. The Lords of the Treasury suggested that the Dominion Government should undertake to provide for the redemption at the cost of the Canadian revenues of all light sterling gold coin found in circulation in the Dominion. A similar arrangement was agreed to by the Government of India in connection with the proposed establishment of the branch mint at Bombay, and the Treasury Lords were of opinion it was clearly equitable in the case of a colony or dependency not using the subsidiary currency of Great Britain. In the case of Australia the profit derived by the exchequer on the supply of silver coin might fairly be treated as a set-off in the opinion of their Lordships, to the cost of renewal of worn gold coin transmitted to Great Britain in the ordinary course of trade. In the case of India or Canada the Imperial Government would have no such set-off to the cost of renewing gold coin worn out in those countries, and it was necessary that such steps should be taken as would prevent the transmission of Canadian or Indian worn-out coins to the United Kingdom for renewal at the expense of the British taxpayer. The recommendation made by the Lords of the Treasury was agreed to by Canada. Charges for coinage of gold were fixed at the same amount as in the Perth mint, viz., three cents per ounce for amounts not exceeding 500 ounces, and two cents per ounce for amounts above that sum. The Canadian Mint will turn out gold coin of the denominations of \$20, \$10, \$5 and \$2.50; silver coins of the denominations of 50 cents, 25 cents, 10 cents, 5 cents, and in copper or bronze one cent. Silver and copper or bronze are to be of the same dimensions, fineness and weight as the coins now minted for Canada in the Royal Mint.

#### REMARKABLE IF TRUE.

The New York Commercial says that it is reported that the late British consul at Mexico City, and now Consul General at Vera Cruz, recently said:—"The investment of additional British capital in Mexico will not be encouraged. England feels that the United States has a preferred claim to Mexico's trade and to the opportunities for industrial development in that republic. No campaign will be made by British interests to wrest Mexican trade from the United States, and no efforts will be put forth by the British consular service to encourage the investment of English capital in Mexico. The United States is right at Mexico's door, and it is reasonable that it should obtain the bulk of Mexico's trade. England is interested in Argentina and Chile, but outside of those countries there is no Latin-American country that we care much about."

It is to be hoped that this report is untrue and will be contradicted. It is inconceivable that a British Consul should have so depreciated the usual go-a-head-iveness of the manufacturers and commercial men of his country, and that the high standard under which

they have heretofore pushed their enterprises in all quarters of the globe, is to be lowered in Mexico or anywhere else in the presence of the Stars and Stripes.

The backing down of British enterprise in Mexico in favor of American competition, if such is the case, is the more remarkable in the face of the fact that arrangements for closer trade relations have just been perfected between Canada and Mexico, thanks to the wise efforts of Sir William Mulock, under which the governments of both countries have appropriated liberal amounts of money as subsidy for maintaining a regular line of steamships between Mexican and Canadian ports. Mexico is now a most progressive nation and the demands of her people for the products of other countries show open doors for business that both Canada and the United States quite fully appreciate, and to which, according to rumour, Great Britain is oblivious.

#### EDITORIAL NOTES.

Canadian manufacturers who are casting longing eyes towards the green fields of foreign trade, some of them neglecting the nearer and greater advantages of the home market, should be interested in the remarks made by United States Vice-President Fairbanks in his address at the opening of the Lewis and Clark Exposition at Portland, Oregon. He said:

While we seek Oriental and other markets we must have a care that we do not lose sight of the fact that our greatest and our surest market is at home, and that to jeopardize it in a desire to possess uncertain alien markets would be the part of inexpressible folly. While we look for the expansion of our trade throughout the world we should beware that we do not yield our hold upon the home production which, from every just consideration, belongs to American labor and American capital.

At a meeting of the directors of the Canadian Forestry Association held in Ottawa last week preliminary arrangements were made for a Canadian forestry convention. To suit the convenience of the Governor-General the date was fixed for the 10, 11 and 12 of January next. His Excellency has consented to act as the President of the convention, and has expressed the greatest interest in its success. Sir Wilfrid Laurier will be president and will probably open the convention and the vice-presidents will be Mr. R. L. Borden and Sir Henri Joly de Lotbiniere. Hon. J. P. Whitney has intimated that the Ontario Government will be represented at the convention, and it is expected that all the Provincial Governments will co-operate. The complete organization and preliminary programme will be announced later.

Last week, Hon. Adam Beck, Mr. P. W. Ellis and Mr. George Pattinson held the first meeting of the Electric Power Commission, to which they have recently been appointed. The business transacted was confined to preliminary details of organization, and Mr. Beck was elected chairman. It is unlikely that much will be done before the end of August, when the commissioners expect to receive advance sheets of the report of the engineers of the Municipal Power Commission. This commission has only dealt with the Niagara power, and the rest of the province must be covered by the new commission.

# MACHINERY AND ENGINEERING.

## KAHN SYSTEM OF REINFORCED CONCRETE.

We present herewith a representation of a rather remarkable piece of reinforced concrete work.

The problem consisted of constructing a retaining wall of a height of 38 to 42 feet, around the outside of a tall office building at Milwaukee, Wis., to withstand the earth pressure from the outside. It was contemplated to build three floors beneath the sidewalk level and to have the retaining wall entirely independent of the structural frame within. The earth consisted largely of

space within the abutments for storing material and the abutments for that reason were kept unusually narrow.

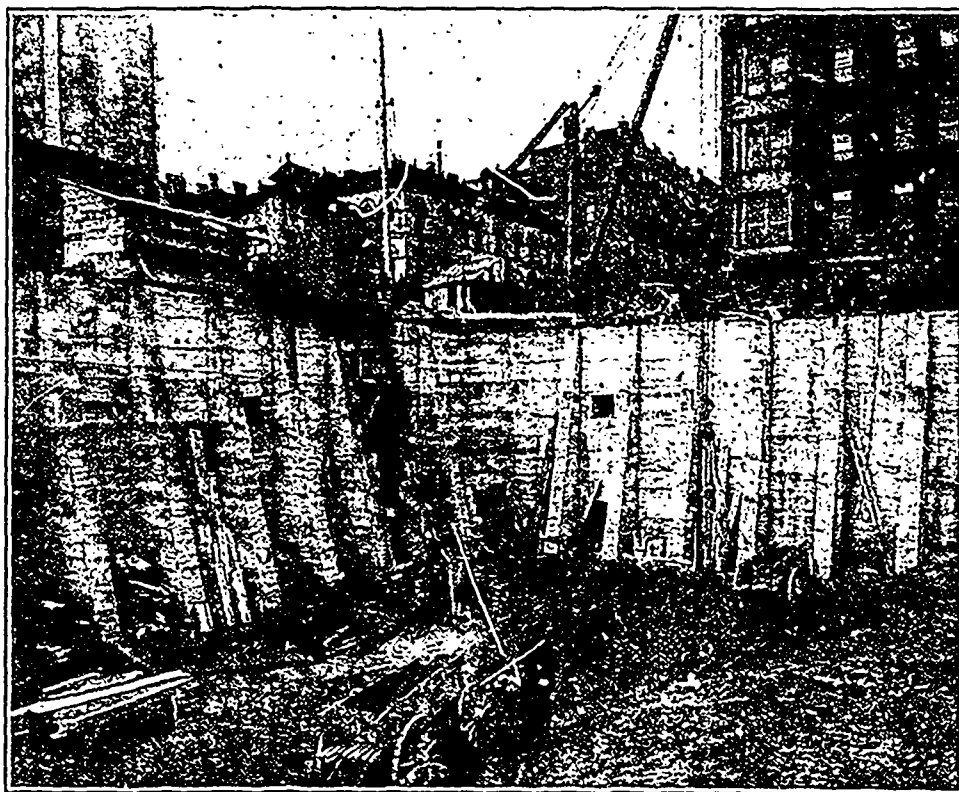
It is believed that this retaining wall is probably quite unusual, in view of its lightness, and at the same time, its very great depth, the total depth of earth at one end of the building being 42 feet and at the other 38 feet two inches. The over-turning effect, therefore, in this retaining wall is enormous. The Kahn system of reinforced concrete was used throughout for this work.

H. C. Koch & Son, architects, Milwaukee, Wis., writing to the Trussed Concrete Steel Co. of Detroit, Mich., state as follows:

"Sometime last December you wrote us in

You also seemed to doubt the advisability of doing this work during the winter, but as the same had to be done and could not be delayed without damage to the owners, we enclosed the space of ground where concrete work was to be done and kept it partially heated. We now find upon the near completion of this work that the retaining wall along the curb of sidewalk and street stands unimpaired—not even a check or crack can be seen, nor is it out of plumb or straight line, and we consider this the equal of any reinforced concrete retaining wall in the country, if not superior.

"The reason for this we attribute to a large degree to the proper steel reinforcement and



KAHN SYSTEM OF REINFORCED CONCRETE ABUTMENTS.

quicksand and soft clay and the pressure for that reason was to be exceptionally great. Originally the retaining wall was designed by the architect to consist of solid masonry, 10 feet in thickness at the base and two feet at the top. This was replaced by the design as shown. The reinforced concrete wall consists of a light curtain wall steadied by buttresses eight feet ten inches o.c. It is 12 inches thick at the top and 21 inches at the bottom. The curtain wall resists the pressure directly and carries it into vertical abutments. The method of reinforcement was the Kahn Trussed System. A line of steel columns exists about 16 feet from the face of the walls, the columns being spaced also 17 feet eight inches o.c. The base of abutments was 11 feet six inches opposite the columns and 21 feet between the columns. It was intended to utilize every portion of the

reference to the self-sustaining retaining wall for the building now in course of erection on N.E. corner of Milwaukee and Mason Streets, owned by the Wells Building Co. of this city. At that time you made drawings for additional strengthening of this retaining wall to the idea suggested by our firm, and, owing we presume to the condition of the ground thrusting against this retaining wall, (the ground surrounding same is composed from a point of about ten feet below grade to almost the entire depth of 35 feet below the grade of quicksand, fine sand, water gravel, which is almost equivalent to this wall being set into water) however, after we had carefully recalculated the strength of your material and concrete and the method of construction, we decided that it would be amply sufficient to sustain the load it had to withstand.

believe that no other steel bar would have accomplished this result better than the Kahn Trussed Bar, although there may be some equally as good, but not to our knowledge.

"We were also very careful in the selection and testing of the cement and aggregate forming the concrete. We tested this cement every tenth bag and the workmanship in constructing the concrete, as well as mixing of the materials forming the concrete was most carefully done, and believe the work as a whole can be referred to with credit by all people who furnished material or performed the work.

"In connection herewith we also wish to state that we used the Whitehall American Portland Cement and found the tests more uniform than from any other cement manufactured in this country."

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

## THE INTER-INSURERS OF AMERICA.

In another page will be found the card of the Inter-Insurers of America, an association composed of leading merchants and manufacturers for the purpose of insuring each other on a plan very similar to that of the New England Factory Mutuals.

The Honorable Edward C. Stokes, Governor of the State of New Jersey is its president; Franklin H. Kalbfleisch, president of the Franklin H. Kalbfleisch Co., vice-president, and Arthur G. Moses, Trenton, N.J., treasurer.

This association confines its operations principally to insuring isolated manufacturing plants, but will take on for members, plants located in the congested district of a city. In so doing, however, it limits the liability assumed in the whole of said district to the amount which it will assume on an isolated plant. Thus, in the event of a conflagration, it cannot suffer a greater loss in any city than it would by the destruction of an isolated plant.

Only merchants and manufacturers in good standing, and whose plants are of good construction, and under adequate fire protection are eligible to membership. Each application for membership is passed upon by its Executive Committee.

By adhering to the plan of operation, it avoids the possibilities of excessive losses from conflagration. It also practically eliminates the moral hazard which we understand is the greatest that the fire insurance companies have to contend with.

The first saving this association makes to its members is by writing insurance at a rate of premium at least 20 per cent. less than that asked by the old line companies. In addition to the first saving at the maturity of the policy, the profits will be pro-rated to the members, (as in the Factory Mutuals). We are advised by insurance men that, under normal conditions, this should make a further saving of at least 20 per cent. of the premium paid.

The indemnity offered by a policy of insurance in this association is of exceptional value, because each member is required to deposit with the trustees a guarantee fund note for \$500, to pay a premium for insurance at the reduced rate above mentioned, and a further sum in cash the first year, equal to the premium paid. This latter is deposited in a reserve fund for the better protection of the members, and a certificate is issued against it bearing three per cent. interest.

The plan calls for the return to the assured of the guarantee fund note, and the amount paid into the reserve fund to the member, when his interest as an Inter-Insurer has matured.

We are advised by the attorney in fact, Mr. James R. Skinner, that the aim of the association is to reach a membership of one thousand. When this point is reached, the guarantee fund will amount to \$500,000. It will then be placed in a position to write lines of insurance on approved plants of its members, amounting to \$100,000 each, and the premiums at an average rate of one per cent. will amount to \$1,000,000. The reserve fund will also be \$1,000,000, making total assets of \$2,500,000 to indemnify its members against any loss that they might sustain.

At the present time its membership is con-

siderable in excess of one hundred, and among them, we find:—

The E. B. Eddy Co., Hull, Que.; Adams Bros., Harness Mfg. Co., Canada Printing Ink Co., The Cowan Co., Toronto; Lit Bros., Dorman Bros., S. B. & B. W. Fleisher, Philadelphia, Pa.; Pittsburg Plate Glass Co., Kaufman Bros., Bindley Hardware Co., Pittsburg, Pa.; Racquette River Paper Co., Potsdam, N.Y.; N. J. Thompson & Co., J. Richardson & Co., Elmira, N.Y.; Watertown Engine Co., Watertown, N.Y.; August Steffen D. G. Co., Davenport, Iowa; George Q. Moon & Co., Binghamton, N.Y.; Bridgeport Wood Finishing Co., New Milford, Conn.; Goodell-Pratt Co., Greenfield, Mass.; E. A. Mallory & Sons, Danbury, Conn.; Franklin H. Kalbfleisch Co., New York City; Blanchard Bro. & Lane, Murphy Varnish Co., Heller Bros. Co., Newark, N.J.; Empire Rubber Mfg. Co., Mercer Pottery Co., Thomas Maddocks Sons Co., Trenton, N.J.

We believe that the fundamental plan of this association is a good one. The personal of its Advisory Board, and of its members assures honesty and efficiency in its management. It should prove an attractive proposition to manufacturers with first-class plants, as the security offered is of the best and the rate materially lower than in other high grade insurance companies.

Mr. James R. Skinner, No. 50, 52 Pine St., New York City, is the attorney in fact for the association, from whom full particulars can be obtained.

## CANADIAN WESTINGHOUSE CO.'S EXHIBIT.

The Canadian Westinghouse Co., Hamilton, Ont., had a neat and attractive exhibit at the recent meeting of the Canadian Electrical Association, held in Montreal. The headquarters were in the Hotel Windsor. Distributed at various places in the hotel were reproductions of the company's trade mark formed by electric light combinations.

They had on exhibition a line of their induction motors, direct current motors, OD transformers, series and multiple AC arc lamps, lightning arresters, fuse blocks, portable testing instruments, etc.

Distribution was made of a complete line of the company's literature illustrating and describing their products. A striking souvenir folder, prepared for the occasion, was given out to the attendants of the convention.

The following officials and representatives of the company were there:—Mr. P. J. Myler, general manager; Mr. N. S. Braden, general sales manager; Mr. H. D. Bayne, manager Montreal office; Mr. R. J. Dunlop, attache Toronto office; Mr. T. F. Dryden, manager Toronto office and Mr. Wm. Bradshaw, engineer, from Westinghouse Electric & Mfg. Co., East Pittsburg, Pa.

## WEAR OF HIGH SPEED ENGINE BEARINGS.

As an illustration of the small amount of wear in machinery bearings, even when running at considerable speed, provided the bearings are of sufficient area, with true surfaces and well oiled, we have been advised that a high speed engine, which was supplied for the electric light plant at Digby, N.S., in June, 1892, has been running on an average ten to

twelve hours each night, until replaced by a larger engine, over thirteen years

The engine is of the Robb-Armstrong high speed, center crank type, designed by Mr. E. J. Armstrong, M.E., of Robb-Engineering Co., Amherst, N.Y. The cylinders 10½ inches diameter a stroke 12 inches, speed 275 revolutions per minute. The main bearings of crank shaft run in solid sleeves or shells lined with babbitt, the journals of forged steel 3½ inches diameter by 12 inches long, were ground and lapped, the shells being two-thousandths of an inch larger than the shaft journal, to allow for oil. The journals were oiled continuously at ring oiling and oil cups to keep up supply. The shaft journals, which had not had anything done to them since engine was started, were in good condition, and show a wear of only one thousandth of an inch. The shells or sleeves were replaced six and a half years ago and during that time, show wear of only six-thousandths of an inch. The crank pin, for thirteen years running, was reduced only seven-thousandths of an inch at the center and five-thousandths at the ends. The steam valve, which is of "Sweet" flat balanced type, was reduced only three-thousandths in thickness wear and when scraped perfectly parallel and true was only five-thousandths of the original size.

Two orders for heating and ventilating equipment for the Pennsylvania railroad were recently taken by the B. F. Sturtevant Co., Boston, Mass. One was for a new machine shop at Renova, Pa., which contains nearly three-quarters of a million cubic feet of space, and requires heating to 65 degrees in zero weather. The large steel-plate engine-driven fan heater, and a system of underground ducts with outlet connections. The other was for the Trenton shops, which include a machine and erecting shop, paint shop and planing mill, containing over a million cubic feet of space, and require half a dozen fans with the necessary heaters and systems of distributing pipes.

The rapid advance of civilization in Japan has been closely followed by increased industrial activity. In no other way is this fact shown more forcibly than by the large orders for improved type machinery which are being continually received by well-known American manufacturers. The numerous orders received by the Westinghouse Machine Co. at East Pittsburg, Pa., for steam and electric engines, not only speak well for the products of that company, but also show that the Japs are as thoroughly informed along industrial lines as they have themselves to be in the science of engineering. During the years 1903 and 1904 the Westinghouse Machine Co. agents for the Westinghouse Machine Co. in Japan, have sold no less than 56 Westinghouse engines, ranging from 600 h.p. down to 12½ h.p., and aggregating in capacity almost 8,000 h.p. These are all of the vertical single-acting type, both simple and compound. The list of customers comprises government bureaus, railroads, electric light companies, water works, mines, universities and hospitals.

## 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 in these pages, and to every concern in Canada interested in any manufacturing industry whatever, this interest extending to supply houses also.

The Concrete Steel & Tile Construction Co., a United States incorporation have been licensed to carry on an engineering and construction business in Ontario with a capital of \$20,000. Gus Kahn, Toronto, is their attorney.

The Niagara Falls Brewing & Malting Co., Niagara Falls, Ont., have been incorporated since with a capital of \$100,000, to carry on a brewing and malting business, etc. The provisional directors include G. G. Durham, James Bampfield and J. J. Bampfield, Niagara Falls.

The New Ontario Iron Co., a United States incorporation have been licensed to manufacture machinery for mining and metallurgical operations, etc., and to carry on a mining business in Ontario with a capital of \$1,000,000. C. B. Martin, 166 Bay St., Toronto, is their attorney.

The Ontario Gas & Fuel Co., Hamilton, Ont., have been incorporated with a capital of \$100,000, to produce natural gas for light, heat and power purposes. The provisional directors include F. M. Lowry, Pittsburg, Pa.; W. A. Spratt, Hamilton, and W. J. Aikens, Dunnville, Ont.

The Raymond Mfg. Co. of Guelph, Limited, Guelph, Ont., have increased their capital from \$130,000 to \$250,000, to manufacture sewing machines, cash registers, cream separators, agricultural implements, etc.

The South Bay Oil Co., a United States incorporation have been licensed to carry on an oil producing and refining business, etc., in Ontario with a capital of \$100,000. G. C. Monerhoff, Petrolea, is their attorney.

The Hickey Oil Co., a United States incorporation, have been licensed to manufacture oil, asphaltum, petroleum, etc., in Ontario, with a capital of \$1,000,000. H. F. Slater, Leamington, Ont., is their attorney.

The Concrete Pole Co., St. Catharines, Ont., have been incorporated with a capital of \$100,000, to manufacture reinforced concrete and concrete poles, etc. The provisional directors include H. L. M. Weller, H. Collier, Toronto, and E. J. Odum, St. Catharines.

The Ingersoll Nut Co., Ingersoll, Ont., have been incorporated with a capital of \$25,000, to carry on the business of engineers, machinists, tool makers, etc. The provisional directors include J. A. Coulter, Ingersoll; W. H. Shapley, Toronto, and F. H. Deacon, Milton, Ont.

The Johnston Oil Engine Co., Toronto, have been incorporated with a capital of \$250,000, to manufacture engines and motors used for the production of power, oil, gas, electricity, etc. The provisional directors include H. A. Johnston, A. M. Wickens, and B. Watts, Toronto.

The Monarch Brass Mfg. Co., Port Colborne, Ont., have been incorporated with a capital of \$100,000, to manufacture valves, steam fittings and plumbers' supplies and brass goods, etc. The provisional directors in-

clude C. A. Masten, J. R. L. Starr and J. H. Spence, Toronto.

The Toronto Welsbach Light Co., Toronto, have been incorporated with a capital of \$50,000, to carry on the business of a light, heat and power company. The provisional directors include J. G. Lohman, Elkhart, Ind.; J. R. Adamson and James Fleck, Toronto.

The Algoma Furniture Co., Bruce Mines, Ont., have been incorporated with a capital of \$20,000, to manufacture furniture, railway fixtures and appliances, etc. The provisional directors include H. J. Hands, C. J. Skeates and Walter Cline, Bruce Mines.

Osborne Oil Producers, Limited, Petrolea, Ont., have been incorporated with a capital of \$100,000, to carry on a mining, milling and reduction business, etc. The provisional directors include John Armstrong, Owen Sound, Ont.; J. A. McIntosh and Daniel Urquhart, Toronto.

Messrs. R. Scott & Son, Limited, Galt, Ont., have been incorporated with a capital of \$100,000, to manufacture hubs, spokes, wheels, etc., for wagons, vehicles, etc. The provisional directors include Robert Scott, M. Scott and E. Scott, Galt.

The Kedwell Publishing Co., London, Ont., have been incorporated with a capital of \$20,000, to carry on a printing and publishing business, etc. The provisional directors include J. W. Kedwell, W. H. Dowling and Isaih Kedwell, Petrolea, Ont.

The Georgian Bay Milling & Power Co., Meaford, Ont., have been incorporated with a capital of \$100,000, to acquire the business of Wm. Moore & Sons and to manufacture cereals, flour, etc. The provisional directors include Wm. Moore, W. T. Moore and T. R. Moore, Meaford.

Merralls Engineering Co., Toronto, have been incorporated with a capital of \$100,000, to manufacture mining, milling and other machinery. The provisional directors include F. D. Woodworth, I. C. Morrison and M. C. Morrison, Toronto.

The Sur-Coat Mfg. Co., Windsor, Ont., have been incorporated with a capital of \$10,000, to manufacture chemical compounds, steamfitters' and plumbers' supplies, etc. The provisional directors include Timothy Hurley, J. T. Hurley, and J. H. Walsh, Detroit, Mich.

The town of Paris, Ont., bids fair to have a very important addition made to its industries. The Penman Mfg. Co., whose head offices and principal mills are at Paris contemplate large additions to their mills on the Grand river in that town, and to this end negotiations are now going on for the purchase of property adjoining. In all probability the land, water power, machinery and business of the Ontario Nut Works will be acquired and transferred to another location, as this property will be necessary in the carrying out of the extensive buildings which will be required for the Penman Co.'s works, as well as of the Watson Co., with whom

they are closely allied. The Paris Knitting industry which is the largest of the kind in Canada will thus be greatly increased and the local business of the town correspondingly benefited. The Ontario Nut Works was established by Brown & Co. in 1873 and has been continued successfully and without intermission since that time, being the oldest establishment of the kind in Canada.

The Canadian Pacific Railway Co. have prepared plans for a steel bridge across the river at Current River, Ont., to replace the present wooden structure. Address F. E. Busteed, Winnipeg, Man.

The Robb Engineering Co., Amherst, N.S., have received from Ahearn & Soper, Limited, of Ottawa, an order for a 50 h.p. engine for the Dunlop Tire Co., Toronto.

The town council of Tilbury, Ont., is inviting plans for a public building which will cost \$10,000.

The town council of Rainy River, Ont., will erect a fire hall and purchase fire fighting appliances. Address Mayor Carson for further particulars.

Messrs. Emery & Thompson, Fort Frances, Ont., will increase their saw mill plant and will purchase new machinery.

The Watson Mfg. Co., Paris, Ont., will erect a three story brick warehouse.

The ratepayers of Ottawa will raise \$60,000 for waterwork extensions.

The Canadian Pacific Railway Co. have prepared plans for a steel bridge to be erected over the Current River, near Port Arthur, Ont.

The sisters of Jesus, Mary and Joseph will erect a \$25,000 convent at Fort Francis, Ont. Archbishop Langevin, St. Boniface, Man., will give further information.

H. N. Ruttan, city engineer of Winnipeg, Man., has prepared an estimate showing that \$55,000 will be required to install a waterworks system at Rainy River, Ont.

The Conboy Carriage Co., Toronto, have taken out a permit for the erection of a four story factory to cost \$40,000.

The Fielding Chemical Co., Toronto, will remove to Guelph, where they will erect a large plant.

The London Machine Tool Co., London, Ont. have secured a new site and will erect a large factory at once.

The directors of the Lake Superior Corporation at Sault Ste. Marie, Ont., are considering the reopening of the car shops. Since the collapse of the enterprises in the fall of 1903 the car shops have been used for repairs only, and before considering reopening the shops for construction work the directors found that a fair amount of business would be offering. The Canadian Pacific Railway Co. have stated they would be large customers for box and freight cars. The business for the Canadian Pacific, Algoma Central & Temiskaming would keep the shops running more than half of the year.

The Toronto Contracting & Paving Co., Toronto, have secured the contract for the construction of the new reservoir at the waterworks at Winnipeg, Man., at a cost of \$70,000.

Mr. T. H. Crowley, Steelton, Ont., reports that he has discovered a rich copper and nickel mine situated in the Rainy River

district, north of Fort Frances, Ont. He proposes to form a syndicate to work the mine.

The ratepayers of Wingham, Ont., have voted favorably on a by-law to raise \$12,000, also improving the waterworks system and for on the by-law fixing the assessment of the Canada Furniture Manufacturers' property at \$20,000, for ten years, in consideration of which the company will erect a large addition to their factory.

The Keystone Sugar Co., have purchased the Whitby, Ont., harbor for about \$60,000, and the company will now proceed with the erection of their beet sugar factory which will cost about \$500,000.

The Canadian Shipbuilding Co., Toronto, a few days ago launched the Government steel dipper dredge successfully. The hull of the dredge is 90 feet long by 36 feet wide, by 9 feet deep, at one end and 8 feet deep at the other, and is built entirely of steel. It is of the boom type, and carries a two-yard dipper and will be used on the lower St. Lawrence River, and it is fitted both with salt and fresh water machinery. It is expected that the dredge will be completed in a few weeks, when it will be turned over to the Dominion Government.

The T. Eaton Co., Toronto, have taken out a permit for the erection of a six story building to cost \$50,000.

The Wesley Methodist Church, Toronto, will erect a new Sunday school building at a cost of about \$20,000.

The Toronto University will erect a four story students' residence in this city at a cost of \$18,000.

The city of Belleville, Ont., will spend \$15,000 for the extension of the gas plant.

Mr. A. W. Campbell, Deputy-Minister of Public Works, Toronto, states that 2,000 men are now at work on the roads throughout Ontario and that \$175,000 will be spent in opening new roadways, etc.

The Hoepfner Nickel Refining Co.'s factory at Hamilton, Ont., was destroyed by fire July 7. Loss about \$100,000.

The Keewatin Flour Mills Co., Ottawa, have contracted with the Macdonald Engineering Co., Chicago, Ill., to erect a large fireproof milling and elevator plant at Keewatin, Ont., to cost \$750,000. Both buildings are to be entirely of steel concrete construction and will have a capacity of half a million bushels storage, and an output of 5,000 barrels of flour per day. Work will be commenced at once and to be completed early next year. The contract includes the development of 2,000 h.p. on the water privilege owned by the company at Keewatin, which will be used for driving the mill and elevator and furnishing electric current.

The Riordan Paper Mills at Hawkesbury, Ont., were damaged by an explosion July 14.

James Brown, Toronto, will erect a four story brick warehouse at a cost of \$20,000.

Business Systems, Limited, Toronto, have been incorporated with a capital of \$195,000, to manufacture stationery, carbon papers, typewriting supplies, etc. The provisional directors include H. J. King, D. S. Baird and Frederick Harcourt, Toronto.

The Woodruff-Robins Co., Toronto, have been awarded the contract for the erection of St. Patrick's Cathedral, at a cost of \$75,000.

Messrs. Curry, Sproutt & Rolph, architects, Toronto, have prepared plans for a Nurse's Home to be in connection with the Hospital for Sick Children. The building will be 150x41 feet, five stories high and will cost \$60,000.

John Cowan, Toronto, will build an addition to his factory at a cost of \$5,000.

The Dominion Suspender Co., Niagara Falls, Ont., will erect an addition 100x30 feet, four stories high to their factory.

The Consumer's Gas Co., Toronto, will enlarge their offices at a cost of \$10,000.

Work has been commenced on the new Convocation Hall at Toronto, to be in connection with the Toronto University. Messrs. Darling & Pearson, are the architects.

The W. J. Gage & Co., Limited, Toronto, will increase their capital from \$200,000 to \$400,000.

The Toronto Sand Lime Brick Co., Toronto Junction, Ont., have been incorporated with a capital of \$40,000, to manufacture sand lime, brick, cement, etc. The provisional directors include G. H. Large, John Schultz and J. S. Proctor, Toronto Junction.

The Clark Mfg. Co., Toronto, have changed their name to the Clark Hat Mfg. Co., Limited.

The Beaver Mica & Mining Co., Sundridge, Ont., have been incorporated with a capital of \$50,000, to carry on a mining, milling and reduction business, etc. The provisional directors include Joseph Pinkerton, J. J. Jackson, Strong, Ont., and J. H. McCurry, North Bay, Ont.

The Guelph Stove Co., Guelph, Ont., have been incorporated with a capital of \$200,000, to manufacture stoves, ranges, furnaces, boilers, etc. The provisional directors include Joseph Brown, Matthew Kelly, and Christian Kloepfer, Guelph.

Mr. Jack Paisley, manager of the Grand Union Hotel, Ottawa, and several Montreal capitalists will erect a \$1,000,000 hotel building on the site of the present Grand Union in Ottawa. The new building will have 300 rooms, and it is intended to start construction at once.

The City Council of Toronto, have made a grant of \$200,000, towards the erection of a new general hospital to cost \$1,000,000.

The Preston Progress Printing Co., Preston, Ont., have been incorporated with a capital of \$20,000, to carry on a printing, engraving and lithographing business, etc. The provisional directors include T. H. Arntfield, Hespeler, Ont.; Otto Homuth and J. E. Klotz, Preston.

The Sentinel Publishing Co., Toronto, have been incorporated with a capital of \$25,000, to acquire the business of the Sentinel Printing Co., and to carry on a printing and publishing business. The provisional directors include H. C. Hocken, Frederick Dane, Toronto; and W. J. Parkhill, Midland, Ont.

The H. P. Lang Co., Stratford, Ont., have been incorporated with a capital of \$40,000, to acquire the business of H. P. Lang and to manufacture furniture, rugs, carpets, etc. The provisional directors include H. P. Lang, J. A. Bothwell, Stratford, and G. H. Kilmer, Toronto.

The Grand Trunk Railway Co., will erect a new station at Paris, Ont.

The Electric Advertising Co., Toronto, have increased their capital from \$40,000 to \$100,000.

Mr. Seidmore's broom factory at Newmarket, Ont., was destroyed by fire July 11.

Messrs. Sterling Bros., Limited, London, Ont., have been incorporated with a capital of \$125,000, to manufacture boots, shoes, rubbers, etc. The provisional directors include S. N. Sterling, C. E. Sterling and H. Firth, London.

Concrete, Limited, Toronto, have been incorporated with a capital of \$40,000, to construct roadways, buildings, bridges, culverts, etc. The provisional directors include Chas. Curtis, W. H. Peppin and J. A. M. Toronto.

The prosperity of the City of Toronto is shown by the rapid increase in its population and proved by the earnings of the Toronto Railway Co. for the six months ending July 1, 1905, compared with the first six months of 1904. The figures for the two half years referred to are as follows: 1904, \$1,121,300; 1905, \$1,247,586.73. This gives the increased earnings for the first six months of 1905 over the same period in 1904 as \$126,286.73. Speaking generally, every passenger pays in fares to the company on an average a small fraction under four cents. This shows that for the first six months of 1905 the company carried 28,034,900 passengers and for the first six months of 1904 31,188,700, an increase for this year of 3,153,700 in the number of passengers carried. In the company's financial statement of earnings there will have to be added to the above figures of each half-year the amount per month, which the postoffice pays for the transportation of the local staff, and the amount paid for advertising in the papers.

The Dominion Natural Gas Co. will supply the city of Brantford with natural gas from Selkirk, Ont., and supply it to consumers at 45 cents per 1,000 feet.

The town council of Goderich, Ont., are considering an application for a thirty-year franchise to the Goderich Heat, Light & Power Co., who propose to manufacture electricity in that town for domestic and power purposes and will expend about \$50,000 in installing a plant.

The Henderson Roller Bearing Co., Toronto, have taken out a permit for the erection of a three story building to cost \$40,000.

Messrs. Stewart & Witton, architects, Hamilton, Ont., will apply to that city for a franchise for a central heating plant. The idea being to start into heating a number of down-town buildings by steam. The cost of a dozen immense boilers will be installed on the line of the Toronto Hamilton and Brantford Railway as a starter, and in the course of time it is thought the system will be extended.

The contract for the tunnel under Toronto Bay, which is intended to secure an abundant supply of pure water for the city was signed a few days ago by Mr. J. Haney, Montreal, the successful tenderer for the work. The contract price is \$2,000,000 and the time allowed to finish the work is two years. The tunnel will be 5,131 feet in length and will have a flat bottom eight feet across. The sides will rise perpendicular for about four feet and then the remainder will be arched, the height from the floor



the apex being eight feet. The top half of the tunnel will be built of vitrified brick, chipped with concrete and the bottom half, including the floor, of solid concrete. The end of the tunnel at the Island will be 61 feet below the surface of the water and at the city end 41 feet below the surface. When the tunnel is completed, the daily water supply can, with adequate pumping machinery be increased to about 80,000,000 gallons per day.

The Ontario Portland Cement Co., Brantford, Ont., manufacturers of Portland and Blue Lake cement are considering the installation of additional machinery.

The Troy Laundry Co., Montreal, have increased their capital from \$20,000 to \$40,000.

The Canadian Fairbanks Co., Montreal, have increased their capital from \$500,000 to \$650,000.

The Canada Hay Co., Montreal, have been incorporated with a capital of \$49,900, to manufacture hay presses, tools, etc. The provisional directors include Napoleon Alard, St. Alexis, Que.; A. Fontaine and S. Vessot, Joliette, Que.

Another project is on foot to build the Georgian Bay canal connecting Montreal and Toronto by water. J. J. Hill, Montreal, is interested.

Investigations made by the Montreal Harbour Commissioners into the grounding of the steamship Tampican at Longue Pointe, Que., will result in the river being dredged by the government.

A new fire hall will be built in Montreal. For further information apply to Mayor LaPorte, that city.

The Universal Ideal Co., St. Hyacinthe, Que., recently organized with a capital of \$50,000, have purchased a large tract of peat land, which they will develop for the manufacture of peat fuel.

The Robb Engineering Co., Amherst, N.S., are building a 150-h.p. boiler for the Good Shepherd Asylum, Quebec.

Mr. Mark Workman, Montreal, will erect a five story factory building for the manufacture of clothing, etc.

At the quarterly meeting of the Chicago Pneumatic Tool Co., of Chicago, Ill., for the period ended June 30, 1905, it was announced that the company had purchased the business of the Canadian Pneumatic Tool Co., of Montreal, which will enable them to transact business in Canada at a large saving of cost in the way of duties. Only a short time ago this company acquired control of the Philadelphia Pneumatic Tool Co., and the Chicago Storage Battery Co.

Du Sault Cie, Limited, Joliette, Que., have been incorporated with a capital of \$40,000, to acquire the business of Du Sault & Co., and to manufacture biscuits, confectionery, etc. The provisional directors include J. A. Guibault, C. A. Goulet and E. G. Piche, Joliette.

The Geo. Murray Publishing Co., Montreal, have been incorporated with a capital of \$50,000, to carry on a printing, publishing and engraving business, etc. The provisional directors include Geo. Murray, W. H. Drummond and Hullett Desbarats, Montreal.

Mr. Luc Pelletier's sawmill at Charlesbourg, Que., was destroyed by fire July 15. Loss about \$20,000.

The Safety Car-Heating & Lighting Co. have been licensed to do business in Quebec and have appointed G. T. Merwin, Montreal, as their agent.

The George Matthews Co. have commenced an extension to their large pork factory in Hull, Que.

The General Explosives Co., Montreal, have been incorporated with a capital of \$20,000, to manufacture explosives, ammunition, cartridges, etc. The provisional directors include R. L. Dillon, Montreal; John McMartin, Cornwall, Ont.; and E. A. Le Sueur, Ottawa.

The Corrugated Concrete Pile Co. of Canada, Montreal, have been incorporated with a capital of \$50,000, to manufacture concrete piles, machinery, tools, etc. The provisional directors include V. E. Mitchell, Douglas Armour and A. Chase-Casgrain, Montreal.

The Montreal House, at Hull, Que., was damaged by fire July 17. Loss about \$5,000.

The Brunswick-Balke-Collender Co., Montreal, have about completed the erection of their new factory in Toronto, for the manufacture of pool tables, bowling alleys, etc.

It has been well said, that Rand rock drills and air compressors are amongst the world's foremost pioneers. From Greenland's icy mountains to Africa's heated sands, they are found doing their work of bringing forth hidden treasure and opening up new territory, through obstacles that were, heretofore, thought to be insurmountable. This fact was brought forcibly to light, recently, when the Department of Marine and Fisheries, through their consulting engineers, the Standard Construction Co. of Montreal, placed an order with the Canadian Rand Drill Co., Sherbrooke, Que., for one of their Imperial Type XI. compressors. This machine is for the S.S. Arctic, which is fitting out at Halifax for its long and perilous journey in search of the North Pole. The compressor is to be operated by a windmill, it being impossible to obtain fuel for steam, and the air will be discharged into several receivers, to a high pressure, the air in turn being used in place of steam to generate electricity. Needless to say, so far away from the base of supplies, it was necessary to procure a compressor that could be absolutely depended on to withstand the hard usage which it will necessarily meet with and a distinct compliment was paid to this enterprising Canadian company, in choosing one of their compressors for this important work.

The Canadian Baking Powder Co. will erect a factory at St. Roch, Que.

The City Hall at Montreal will be remodelled and enlarged at a cost of a \$1,000,000.

The Montreal Street Railway Co. have recently placed in service a new observation car. The style and type of which is completely open so that a general view can be obtained from all sides, while the seats are arranged, with a gradual ascent, from front to back so that each seat is slightly higher than the one in front of it. Over the car is an arch of electric lights which, at night, produce a charming effect, while electric devices also depend from the sides of the car.

The Halifax & Southwestern Railway Co., Halifax, N.S., have purchased the Halifax & Yarmouth Railway.

The Halifax Electric Tram Co., Halifax, N.S., will spend \$40,000 double tracking and installing additional machinery.

Architect H. E. Gates, Halifax, N.S., is preparing plans for the new buildings to be erected by the exhibition association.

The Hotel Dufferin at Windsor, N.S., was destroyed by fire July 14. Loss about \$7,000.

Messrs. Geo. E. Smith & Co.'s, hardware establishment at Halifax, N.S., was damaged by fire July 15. Loss about \$40,000.

The Sydney Cement Co., Sydney, N.S., have commenced the manufacture of Portland cement.

A proposition has been submitted to the Sydney, N.S., city council by Messrs. Horace, Mahew, Gladstone and other members of the Cape Breton Coal, Iron & Railway Co., to the effect that if Sydney should assist in various ways a shipbuilding plant and other works involving an expenditure of twenty millions of dollars would be established within the limits of that city.

The Robb Engineering Co., Amherst, N.S., have received an order from the Allis-Chalmers-Bullock, Limited, Montreal, for a 75 h.p. engine for the Canadian Pacific Railway Co.'s shops at Moose Jaw, N.W.T.

The ratepayers of Burt's Corners, N.B. will erect a large consolidated school building. For further particulars write Inspector Bridges, Moncton, N.B.

The Canadian Pacific Railway Co. have purchased the cantiliver bridge at St. John, N.B. for \$350,000. Several improvements to the bridge will be made.

A new public school building will be erected at Sussex, N.B.

An annex will be built to the public school building at Sackville, N.B.

A public school building will be erected at Chipman, N.B., at a cost of \$5,000.

The following buildings at Albert, N.B. were destroyed by fire July 7:—Brewster & Co.'s carriage factory, Commercial Hotel Royal and Globe hotels and McArthur's granite factory. Loss about \$50,000.

The A. L. Wright Lumber Co., Coverdale, N.B., have been incorporated with a capital of \$75,000, to acquire the business of Alex. Wright & Co., and to manufacture lumber, shingles, etc. The provisional directors include L. A. Wright, Salisbury, N.B.; G. W. Fowler and G. N. Pearson, Sussex, N.B.

A report from St. Johns, Nfld., states that C. A. Pearson, publisher, London, England, and Coutts & Co., bankers, London, England, have acquired four woodland properties in Newfoundland aggregating 300 square miles and they will shortly begin the manufacture of pulp paper on a large scale.

The school trustees at Killarney, Man., have decided to erect a large brick school building in that town.

Plans are being prepared to divert the course of the Red River, so as to take in the towns of St. Boniface and Norwood, Man. The new water course would be about two miles long, quarter mile wide and 40 feet deep. For further information apply to H. N. Ruttan, city engineer, Winnipeg, Man.

The Mennonite Educational Institute at Altona, Man., has decided to erect a modern building at a cost of \$40,000.

Architect Davies, Winnipeg, Man., is preparing plans for a brewery for the British Beer Breweries Co., which will cost about \$40,000.

The Winnipeg Apartments, Limited, Winnipeg, Man., have been incorporated with a capital of \$100,000, to erect an apartment building and business block, etc. The provisional directors include Andrew Wright, A. T. Davidson, and J. A. Machray, Winnipeg.

The Foss Lumber Co., Winnipeg, Man., have been incorporated with a capital of \$20,000, to manufacture lumber, shingles, sash, doors, etc. The provisional directors include J. F. Foss, S. S. Easton and B. A. Murphy, Winnipeg.

The William Patterson & Sons Co., biscuit manufacturers, Brantford, Ont., will erect a large warehouse in Winnipeg, Man.

The Lake of the Woods Milling Co. are erecting a two story warehouse, 100x60 feet, near their mill in Portage la Prairie, Man.

The steel and concrete grain tank which is to be erected at Stratheona, Alta., by the Brackman-Kerr Milling Co., will have a capacity of 80,000 bushels and will cost about \$19,000.

Messrs. Leitch Bros., Oak Lake, Man., will erect a grain elevator and warehouse in Winnipeg, Man. The buildings are to be constructed of steel and reinforced concrete.

The Calgary Milling Co., Calgary, Alta., have awarded the contract for the erection of a 1,000-barrel flour mill and a 150,000 bushel elevator. The mill building will be 100x70 feet and five stories high. It will cost \$80,000. When it is ready for operation the company's present mill will be used for the manufacture of oatmeal. W. B. Lewis, Brandon, Man., is the architect.

The Home Builders Realty Co., Winnipeg, Man., have been incorporated with a capital of \$50,000, to erect buildings, etc. The provisional directors include A. T. Liddle, J. W. Matthews, and O. C. Fraser, Winnipeg.

The Crescent Creamery Co., Winnipeg, Man., have been incorporated with a capital of \$50,000, to manufacture dairy products, etc. The provisional directors include R. A. Rogers, J. M. Carruthers, and A. McT. Campbell, Winnipeg.

Messrs. J. & J. MacDiarmid, Winnipeg, Man., have been awarded the contract for the reconstruction of the freight sheds of the Canadian Pacific Railway Co. at Moose Jaw, which were destroyed by fire last spring.

The Dominion Bridge Co., Montreal, will establish a plant at Winnipeg, Man., in order to supply the Western trade and are negotiating for a suitable site.

The ratepayers of St. Boniface, Man., have voted favorably on a by-law granting the Western Canada Flour Mills Co. exemption from taxation and the company will erect a plant which will consist of a 4,000 barrel flour mill, a 500,000 bushel storage elevator and a 70,000 barrel storage warehouse. Tenders for the construction of the mill, warehouse and elevator are being invited and the work will proceed immediately. In addition to this the company will erect a long line of elevators at country points.

The Cockshutt Plow Co. will erect a factory building 300x60 feet, three stories high in Regina, N.W.T.

A Y.M.C.A. building will be erected at Regina, N.W.T., at a cost of \$35,000.

A new post office building will be erected at Medicine Hat, N.W.T.

The Alberta Pacific Elevator Co., Okotoks, Alta., will build a 50,000 bushel elevator there.

A large steel traffic and railroad bridge will be built across the Saskatchewan River at Medicine Hat, N.W.T., by the Territorial Government.

The Ontario Wind Engine & Pump Co., Winnipeg, Man., have just been advised by the town of Stratheona, N.W.T., of the acceptance of their tender for a 120,000-gallon steel tank erected on an 80-foot steel tower for their new waterworks system, now being installed. The tank and riser pipe has to be jacketed with wood for fire protection from frost and the total cost of the outfit will be about \$10,000. The company have just completed a similar structure for St. Boniface, and another one has just been erected at the new Canadian Pacific Railway Co.'s shops in Winnipeg. The St. Boniface tank holds 106,000 gallons, and the tank at the Canadian Pacific Railway Co.'s shops holds 125,000 gallons.

Messrs. Burrows & Nash will erect a vaudeville theatre in Winnipeg, Man., at a cost of about \$35,000.

Several large grain elevators will be erected at Vancouver, B.C., to supply wheat and flour for Asiatic trade. For further information apply to J. Buntzen, Vancouver, manager of the British Columbia Electric Railway Co.

A public school building will be erected at Victoria, B.C., at a cost of \$30,000.

The Vancouver Construction Co., Vancouver, B.C., have commenced work on the new wharf for the Canadian Pacific Railway Co. It will be 600 feet long and 36 feet wide. A sea wall will be built in connection with the wharf.

A report from Victoria, B.C., states that surveys are being made for another railway through Alaska. Professor Waddell, of McGill University, Montreal, is among the promoters.

A by-law will be submitted to the ratepayers of Victoria, B.C., to raise \$100,000, for sewerage improvements.

Thomas Kelly, Winnipeg, Man., has been awarded the contract for the new public building to be erected at Vancouver, B.C., at a cost of \$400,000.

The Stave Lake Power Co., Stave Lake, B.C., will expend \$50,000 in building a coffer dam and \$150,000 in other improvements which will be completed before January, 1906.

The City Council of Vancouver, B.C., will have a new fire alarm system installed.

The Department of Trade and Commerce, Ottawa, has received a report from Mr. G. O. Buchanan, Lead Bounty Commissioner. The total lead production of Kootenay District, B.C., during the year has been 55,752,019 pounds, or a little more than 27,871 tons. Of the total, 11,000 tons have been exported; the remainder, nearly 17,000 tons, has been smelted in British Columbia. Mr. Buchanan estimates that the total bounty to be paid will be about \$340,000 out of the \$500,000 set aside by the Government for this purpose. For the civil year 1904 the total production

of lead was 18,323 tons; in 1903, 9,044; in 1902, 11,208; in 1901, 25,791; in 1900, 31,074.

The Granby Co., Grand Forks, B.C., will sink a new three-compartment shaft and install additional crusher machinery at their smelter, at a cost of about \$100,000. This will give a daily mine production of about 5,000 tons of ore.

The Kamloops Mines, Limited, Kamloops, B.C., have been incorporated with a capital of £135,000, to carry on a mining, milling and reduction business, etc.

David Spencer, Limited, Nanaimo, B.C., have been incorporated with a capital of \$50,000, to acquire the business of David Spencer and Drysdale-Stevenson, Limited and to manufacture hardware, etc.

## ELECTRICITY.

Electrical machinery and appliances of all kinds, electrical power plants and other progress in the electrical industries will be noted here.

The Pembroke Electric Light Co., Pembroke, Ont., have completed the purchase of the Black River water power and will develop 3,000 h.p.

The council of Fort Francis, Ont., have engaged J. Bradley to report on the power facilities for lighting the town with electricity. For further particulars write Mayor Carson.

The Guelph Electric Street Railway Co. will build a 20 mile branch from Guelph, Ont., to Hamilton, Ont. Address Hon. C. D. Haines, Toronto, for particulars.

The Berlin, Ont., Light Commission have recommended the town council to purchase a boiler, one 300 h.p. engine, one 150 h.p. engine and two generators for the electric lighting plant, also other improvements to be made to the plant to cost \$15,000.

The Electric Light Co., Golden, B.C., have placed an order with the Robb Engineering Co., Amherst, N.S., for an 80 h.p. engine and boiler.

The Western Counties Electric Co., Brantford, Ont., have been incorporated with a capital of \$500,000, to develop water power for the production of electric, pneumatic and hydraulic power, etc. The provisional directors include S. F. McKinnon, J. N. Shenstone and Chas. Greville Harstone, Toronto.

The Ontario Transmission Co., Niagara Falls, Ont., have been incorporated with a capital of \$1,000,000, to develop water powers for the production of electricity, etc. The provisional directors include J. S. Lovell, Wm. Bain and E. W. McNeill, Toronto.

The Alline Photocycle Co., of Toronto, Limited, Toronto, have been incorporated with a capital of \$15,000, to manufacture illuminating and electric devices, etc. The provisional directors include G. A. Graham, J. R. Miller, Toronto, and F. A. Wray, Montreal.

Following the electrification of the Canadian Pacific Railway line from Vancouver, B.C., to Steveston, B.C., comes the announcement from Phoenix, B.C., that the company may arrange with the West Kootenay Power & Light Co. to supply power to

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the boundary railway. The latter com-  
pany are now building a high tension power  
line from the hydro-electrical works at Bon-  
nington Falls on the Kootenay River near  
Nelson, B.C., 80 miles into the boundary  
country, to supply mines and smelters which  
the Cascade power works are not equal to.  
It is stated that the Canadian Pacific Rail-  
way Co. have in view the electrification of  
the entire Boundary system from Nelson to  
Midway, and that extra heavy power lines,  
built to carry 60,000 volts, will be con-  
structed with this in view.

It is reported that the Electrical Develop-  
ment Co., Niagara Falls, Ont., have entered  
into a contract to supply the Toronto Railway  
Co. and the Toronto Electric Light Co. with  
power from Niagara Falls at \$35 per horse  
power. It is understood that the latter com-  
pany will practically have control of the distri-  
bution in Toronto of all power transmitted to  
this city by the Development Co., except what  
is required by the railway company. The  
Toronto Electric Light Co. are constructing  
large substations which are connected with  
the main receiving station by underground  
conduits, containing eight insulated copper  
cables, four to each station, having a carrying  
capacity of 10,000 h.p.

The city of Ottawa now owns the plant of  
the Consumer's Electric Light Co. and will  
operate it under the title of the City of Ot-  
tawa Electric Co.

C. B. Smith, C.E., Toronto, has been ap-  
pointed by the Winnipeg City Council to  
examine the electric power propositions now  
before the aldermen of that city.

The City Council of Victoria, B.C., will ex-  
pend \$11,000 for improvements to the elec-  
tric light plant of that city.

The Chatham, Wallaceburg & Lake Erie  
Railway Co., Chatham, Ont., are now build-  
ing a power house and laying tracks through  
that city. The line will run direct to Wal-  
laceburg, Ont., thence north to Petrolia,  
Ont., connecting there with the Petrolia  
Rapid Railway for Sarnia, Ont. A line will  
run south to Cedar Springs on Lake Erie.  
Branches will be built to Dresden and Blen-  
heim, and to Rondeau, Ont.

The Tendiskanling & Northern Ontario  
Railway Commission will, if practicable, put  
electric locomotives on a portion of the line  
in place of steam engines, in order to mini-  
mize the danger of fire to the valuable pine  
timber through which the road runs. Es-  
timates of the total cost of such a locomotive  
are now being prepared and should the re-  
sult be satisfactory the contract for the  
locomotive will be given to the Locomotive  
& Machine Co., Montreal, and the electrical  
equipment will be furnished by the Canadian  
General Electric Co., Toronto.

The ratepayers of Napanee, Ont., have  
voted favorably on a by-law granting \$35,000  
for the purchase of machinery, etc., for a  
municipal electric light plant.

A large contract for heating and venti-  
lating equipment for the Elgin National  
Watch Co., Elgin, Ill., was recently  
awarded to B. F. Sturtevant Co., Boston,  
Mass. This very extensive equipment  
consists of five separate hot blast appara-  
tus, each including a fan, engine and  
water, and also two special ventilating  
systems.

## FUEL.

For names of fuel dealers see "Coal  
and Coke" in Classified Index.

The fuel supply question is a most im-  
portant one to Canadian manufacturers.  
The information published in this de-  
partment will keep the readers posted  
on sources of production.

The production and shipping of anthracite  
coal in the United States during the months  
of April, May and June, 1905, was greater  
than during any equal period in the history  
of the industry. It amounted to 17,127,327  
tons, which is 705,667 tons more than during  
the same three months of 1904, the largest  
previous record. The production for the  
first six months, however, does not equal  
that of the first half of 1903, when extra-  
ordinary efforts were made to supply the  
shortage resulting from the great strike.

The output of the Dominion Coal Co.,  
Glace Bay, N.S., for the month of June  
reached the total of 333,926 tons, every mine  
showing an increase. The shipments for the  
month were 332,285 tons, against 274,486  
tons the month previous.

The Vulcan Iron Works, Winnipeg, Man.,  
have turned out a coal briquette machine,  
weighing 15 tons, the first of its kind made  
in Canada, for the Paterson Pressed Coal  
Co., who are about to commence the manu-  
facture of pressed coal briquettes in that city.  
The Vulcan Co. are considering the establish-  
ment of a branch at Calgary, N.W.T.

The Universal Ideal Coal Co., Montreal,  
propose to erect a peat manufacturing plant  
at St. Doninique, Que.

The Crow's Nest Pass Coal Co., Fernie,  
B.C., have closed a contract with the Grauby  
smelter to supply it with all the coke it re-  
quires. This contract calls for at least three  
hundred tons per day, and this amount will  
be increased.

## OPPORTUNITIES.

Manufacturers and others in need of  
machinery, supplies, etc., of any kind  
are requested to consult our advertis-  
ing columns, and if they cannot find  
just what they want, if they will send  
us particulars we will make their wants  
known free of cost, and in this way  
secure the attention of those who may  
be able to supply them. No charge for  
publishing what is wanted nor for giv-  
ing information. When writing to en-  
quirers kindly mention The Canadian  
Manufacturer.

Tenders will be called shortly for the erec-  
tion of a new depot at Edmonton, N.W.T.,  
for the Canadian Northern Railway Co.  
Address M. H. McLeod, Winnipeg, Man.,  
for further information.

C. J. Brown, city clerk, Winnipeg, Man.,  
will receive tenders until August 7 for fur-  
nishing a gas engine pumping plant with a  
capacity of 9,000 imperial gallons per minute  
against a pressure of 300 pounds per square  
inch. Specifications and forms of tender  
can be obtained from H. N. Ruttan, city  
engineer.

Hon. Charles S. Haines, one of the directors  
of the Hamilton, Ancaster & Brantford Rail-  
way Co., Hamilton, Ont., states that tenders

for the construction of this road will be let  
shortly.

Tenders for the new municipal building at  
Oakbank, Man., will be received by R. G.  
Millen of that place until July 26.

David Morgan, town clerk, Oxbow, Assa,  
will receive tenders for the erection of a public  
school building in that town.

O. Davidson, Prince Albert, N.W.T., will  
receive tenders for the following:—Two  
chemical fire engines, one life saving net,  
one hose reel, six smoke protectors, one  
ladder truck, 40 firemen's hats, and 20 belts.

The Winnipeg City Council will receive  
tenders for the following street improve-  
ments:—Plank walks, \$10,242; granolithic  
sidewalks, \$36,525; sewers, \$32,125; boule-  
vards, \$11,323; asphalt, \$117,551; macadam,  
\$20,099, and cedar block pavements, \$42,574.

The Department of Public Works, Ottawa,  
will receive tenders for alterations and ad-  
ditions to the post office building at Calgary,  
N.W.T.

Tenders for alterations to the Custom  
House, Toronto, will be received by the De-  
partment of Public Works, at Ottawa.

James McNichol, Blackfalds, N.W.T., has  
invited tenders for the erection of a flour mill.

The Mexican Aluminum Mfg. Co. are being  
organized for the purpose of establishing an  
aluminum manufacturing plant. They will  
buy raw materials in ingots and bars and  
manufacture same into seamless aluminum  
tubing (3-16, 1/2, 5-16, 3/4, 7-16, 1, 9-16, 5/8, 3/4,  
1, 1 1/4, 1 1/2, 1 3/4, 2, 2 1/4, 2 1/2, and 2 3/4 inch),  
plates and sheets. Machinery for this pur-  
pose is now wanted; also smelting-furnace  
equipment, boxes, rolling machinery, presses,  
lathes, etc.; offices at Prolongacion del Cinco  
de Mayo No. 76, City of Mexico; Post office  
Box 2409.

James Austan, Hamilton, Ont., is about  
to establish a tack factory in that city, and  
is desirous of purchasing a number of tack  
machines.

C. J. Brown, city clerk, Winnipeg, Man.,  
will receive tenders for the supply of a  
quantity of brass goods, etc.

Tenders will be received by the Depart-  
ment of Public Works, Ottawa, for altera-  
tions, fittings, etc., to the public buildings at  
St. Thomas, Ont.

Mr. C. M. Kittson, Canada's agent in South  
Africa, in a letter received at the Trade and  
Commerce Department, Ottawa, says there  
are fine chances for Canadian cement and  
soap manufacturers to obtain a good market  
for their products in Cape Colony. Most of  
the imports at the present time come from  
England and Belgium.

The Yucatan Brick Co., recently incor-  
porated with a capital of \$50,000 will estab-  
lish brick works in Yucatan, Mexico.

It is stated that Alfred Giles of San An-  
tonio, Texas, and Monterey, New Leon,  
Mexico, is preparing plans and specifications  
for municipal buildings to cost \$500,000 to  
be erected in Monterey, Mexico.

Among the recent mining developments in  
Mexico the following are of interest: Eugene  
Davis of Washington, and associates, have  
secured concessions for three smelters, with  
an aggregate capacity of 1,000 tons daily, to  
be located at Parral, Minus Nuevas and Villa  
Escohedra. In connection with the smelter  
concession is a franchise permitting the es-

establishment of a hydro-electric power plant, in the vicinity of Parral, which will furnish power for the operation of the different smelting plants. J. F. Johnston of Parral is negotiating for a concession for the establishment of a smelter at Jimenez. If built it will have a capacity of approximately 1,000 tons a day. W. M. Wiley and L. H. Taylor, Jr., both of Philadelphia, Pa., plan to erect a mill at the Nueva Luz Mine in the Guanajuato district. Two new copper furnaces are shortly to be installed at the American-Mexican smelter at Velardena. Carlos Romeros, of Guadalajara, who has recently purchased the Abarandon Mine, Jalisco, proposes erecting extensive reduction works, having already contracted for 200 h.p. from the San Pedro Anasco Mining Co.'s power plant.

## PUBLICATIONS.

The publishers of The Canadian Manufacturer solicit in advance, if possible, catalogues, circulars, and other industrial publications issued by manufacturers. We wish to review such literature, and bring the principal points to the attention of our readers.

Mr. Reginald F. Robinson, a newspaperman well known in Toronto and to many of the readers of this paper, and now a resident of Winnipeg, has established the Winnipeg Press and News Bureau which will be appreciated by those who desire to keep in touch with the special newspaper features of that city and of Manitoba and the newer provinces of the great Canadian West. The Bureau possesses special facilities for the prompt supply of news and magazine articles, and is prepared to furnish descriptive articles, illustrations, photographs, and stories of life in the mountains and plains of Canada.

The Sunbeam Incandescent Lamp Co., Toronto, distributed a novel purse with combination lock to their friends at the Canadian Electrical Association Convention at Montreal, and will be pleased to mail one of these to users of their lamps.

Among the attractive souvenirs distributed at the recent convention of the Canadian Electrical Association at Montreal was a handsome match box given by the Conduits Limited, Toronto, of which Mr. J. Herbert Hall is president and general manager.

The Link Belt Engineering Co., Philadelphia, Pa., have sent us a copy of their new booklet devoted to "Renold roller chain." This book, beautifully illustrated, tersely explains the advantages of this sterling chain, which redounds in such great degree to the credit of England's foremost chain maker. The Renold Silent Chain transmits power in any quantity up to chain speeds of 1,600 feet per minute, its economical range being between 900 feet and 1,600 feet. The Machine-made Roller Chain fills the gap between the malleable and silent chains. Mr. Hans Renold, of Manchester, England, whose product is presented in this book, is famous the world over as a manufacturer of bicycle roller chains and silent chains. He has given to the creation of the larger sizes of steel roller chain the same care in detail of design, in selection of material, and in accuracy of workmanship that established his fame as a maker of bicycle chains, and as a consequence, has produced a line of chains

which for accuracy, durability and harmony of design are unequalled. Not only are the chain joints of ample area to secure low unit pressures, but the roller, the bushing and the pin are hardened to just the right extent to give durability without incurring disaster from brittleness. The steel is the best that the steel makers of Europe can produce, so that the weight is materially below that of any domestic chain of anything like equal strength. This is a very important consideration because a heavy chain brings on self-destruction and absorbs power in the process.

The B. F. Sturtevant Co., Boston, Mass., have just issued a second edition of their Bulletin No. 63, showing generating sets in a full line of 36 sizes ranging from three to 100 K.W., and equipped with vertical simple, vertical compound or horizontal engines, according to size. All of these engines are equipped with forced lubrication, watershed partitions and oil tight cases.

The Canada Foundry Co., Toronto, have issued from their Hydraulic Department Bulletin No. 29, which is devoted to "single and duplex steam pumps for general purposes."

The Canadian Westinghouse Co., Hamilton, Ont., have sent us a handsome booklet containing valuable information regarding electrical apparatus, etc. Circular No. 1111 is also to hand which describes and illustrates direct current engine type generators manufactured by them.

The Canadian Rubber Co., Montreal, have just issued several handsome catalogues as follows:—Catalogue "D" is devoted exclusively to rubber belting and rubber-covered rolls. Catalogue "E" comprises the principal lines of rubber and special hose manufactured. Catalogue "G" deals comprehensively with interlocking rubber tiling, and other unique rubber floor coverings.

The Pilling Air Engine Co., Detroit, Mich., have sent us a very neat brochure in which is contained expressions of satisfaction from a large number of prominent manufacturing and industrial concerns in the United States who have these Pilling air engines in use. Among these we notice the names of the Aultman & Taylor Machinery Co., Mansfield, Ohio; Worden-Allen Co., Milwaukee, Wis.; Pennsylvania Steel Co., Steelton, Pa.; American Car & Foundry Co., Berwick, Pa.; Calumet & Hecla Mine, Calumet, Mich.; Armour & Co., Chicago, Ill.; John Brennan & Co., Detroit, Mich.; the Reeves Brothers Co., Alliance, Ohio; Detroit Steel Castings Co., Detroit, Mich.; Carrol Foundry & Machine Works, Bucyrus, Ohio; Toledo & Ohio Central Railway Co.; Jenkes Shipbuilding Co., Port Huron, Mich., and others. We also have a large number of engravings showing the air machinery made by the Pilling Co. covering a wide variety of uses to which such machinery is now being put.

"The Builders' and Contractors' Annual Record Book of the Province of Ontario," is the title of a most useful book compiled by Mr. Henry Schwartz, and published by the Retail Merchants' Publishing Co., Toronto. It contains a complete alphabetical and classified list of builders, contractors and material manufacturers which cannot but be of special value to those actively engaged in building, contracting and engineering operations, etc. Mr. Schwartz is to be complimented upon the thorough manner which

characterizes his book, and the publisher upon the handsome and convenient appearance of it.

A very convincing little circular is issued by the B. F. Sturtevant Co., Boston, Mass., regarding their exhaust heads, which shows that by the utilization of centrifugal force in the operation of this head, the water is thrown outward with 1,000 times the force exerted upon the steam, and is therefore absolutely separated from it.

## PERSONALS.

Mr. G. Herrick Duggan, for the past years General Manager of the Dominion Coal Co., Glace Bay, N.S., will go to Mexico as manager of the Mexican Heat, Light & Power Co., of which Mr. James Ross is president. Mr. Charles Fergie, the new general manager of the Dominion Coal Co. will sume his duties on September 1.

Mr. C. V. Osborn, representing Messrs. F. H. Hopkins & Co., and the Dominion Rope Co., both of Montreal, was in this city last week.

Mr. H. N. Kittson, Hamilton, Ont., has become president of the Central Ontario Power Co. of Peterborough, Ont., of which Mr. J. A. Culverwell is managing director.

Mr. Collingwood Schrieber, C.M.G., Deputy Minister of Railways and Canals, has been appointed consulting engineer to the Dominion Government and will have supervision over the selection of terminals and location of the National Transcontinental Railway. He will be succeeded as Deputy Minister by Mr. M. J. Butler, who has been appointed engineer to the Government Transcontinental Commission.

Mr. B. B. Kallihier, Grand Trunk Railway, has been promoted to the position of chief divisional engineer at Winnipeg, Manitoba, and has been promoted to the position of chief engineer of the company, succeeding Mr. Sturtevant.

The International Waterways Commission will meet in the Toronto City Hall on September 15 at 10 a.m. to hear any parties who may have anything to say regarding the proposal to dam out outlet of Lake Erie.

The Conduits, Limited, Toronto, have been organized to acquire the business of the Richmond Conduit & Mfg. Co., Toronto, and control the Canadian patents of the S. J. Armorie Conduit Co., are about to open a large factory in this city. For some time the Richmond Conduit & Mfg. Co. operated a plant in Toronto, being the only manufacturers in Canada of interior conduits. The Conduits Limited will engage in this business on a much larger scale in order to meet the increased demand. The company are manufacturing the well-known "Richmond Conduit" and "Loricated" conduits. Mr. H. Hall, who was manager of the Richmond Conduit & Mfg. Co., is general manager of the new company.

The United States Geological Survey has compiled statistics of the clay and pottery industry of the United States in 1904, from which it appears that the value of the clay products in that year was \$2,023,243, made up as follows: Brick, 978; tile and the coarser products, \$1,053,978; pottery and the finer products, \$1,069,265.

SUPPLEMENTARY ESTIMATES.

The main estimates expenditures by the Dominion Government for the fiscal year, ending June 30, 1906, were published in the February 3rd issue of this journal, and the following are a portion of the supplementary estimates just presented. The total estimates for the current year are \$81,979,371.

Of the total to be spent Ontario gets: public buildings, \$228,946; harbors and rivers, \$227,500. Quebec—public buildings, \$60,800; harbors and rivers, \$389,700. Nova Scotia—public buildings, \$50,500; harbors, and rivers, \$257,800. New Brunswick—public buildings, \$10,500; harbors and rivers, \$126,900. Manitoba—public buildings, \$172,951. North-West Territories—public buildings \$32,000, and British Columbia, public buildings, \$9,782; and harbors and rivers, \$18,500.

APPROPRIATIONS FOR ONTARIO.

Table listing appropriations for Ontario, including items like Construction National Transcontinental, Terminals and right of way for Transcontinental, Additions and alterations to Parliament buildings, Ottawa, etc.

Table listing expenditures for various locations in Ontario, including Windsor, Owen Sound, Hamilton, Kingston, Almonte, Niagara-on-the-Lake, Cobourg, Ottawa, Belleville, Petrolia, Kingston, Orillia, Toronto, Galt, Guelph, Barrie, Silverwater, Echo Bay, Stokes Bay, Kincardine harbor, Kingsville, Port Rowan, Colborne, Head River, Oshawa harbor, River Otonabee, Indian River, and Devil's Elbow.

Table listing expenditures for Quebec, including Crowe's Landing, Rosseau, Midland harbor, Graham's Bay, Saugeen River, Wiarton, Colchester, Thornbury Harbor, Sarnia, Wabush Bay, Burlington Channel, and various steamship services.

APPROPRIATIONS FOR QUEBEC.

Table listing appropriations for Quebec, including an armory for the Royal Scots in Montreal, Intercolonial capital account, St. Gabriel basin, Parliament building, and various wharf and dredging projects.

Cro's Point wharf—Extension....	\$3,000	Sorel deep water wharf—Contract and additional works.....	\$40,000	Phinney's Cove breakwater.....	\$3,000
St. Valier—Wharf.....	4,000	Disraeli wharf—To complete....	1,500	Port Lorne breakwater.....	1,500
Les Eboulements—Repairs to wharf.....	1,000	Lacolle wharf—Repairs.....	1,000	Parker's Cove—Extension of breakwater.....	3,000
Rivers Ashuapmouchouan and Peribonka — Experimental training dykes.....	4,000	Three Rivers harbor—Additional deep water wharves (revote, \$20,000).....	50,000	Delap's Cove—Repairs to and extension of breakwater.....	2,000
Ste. Anne du Saguenay wharf—To complete.....	2,500	River St. Maurice—Dredging channel.....	10,000	Annapolis—Repairs to Queen's wharf.....	5,000
Lake Megantic piers.....	5,000	Ile Perrot—Repairs to wharf on south side of island.....	1,000	Rain Creek wharf.....	1,500
Grand Riviere wharf—Freight shed.....	1,000	Gatineau River — Reconstruction of protection wall at St. Gatineau Point..	7,000	Tracadie breakwater reconstruction of superstructure and repairs.....	1,200
Anse a l'Ilot—Landing pier.....	1,000	St. Blaise—Wharf on River Richelieu.....	1,500	Bayfield breakwater—Repairs....	1,600
Cannes de Roches—Breakwater...	1,000	APPROPRIATIONS FOR NOVA SCOTIA.			
Anse du Cap (Cape Cove)—breakwater.....	5,000	North Sydney—Public buildings, repairs, improvements, etc. ....	\$3,500	Cribbin's Point wharf—Repairs...	1,200
Newport breakwater—Extension.	7,700	Lunenburg—Public building improvements.....	2,500	Livingstone's Cove wharf—Repairs.....	1,000
Marsouin—Wharf.....	2,000	Westville—Public building.....	3,000	Arisaig breakwater pier—Repairs, etc.....	2,200
Perce (North Cove) wharf—Addition.....	15,400	Yarmouth—Public building, addition to.....	6,500	Georgeville wharf extension—Additional amount.....	2,300
Pointe St. Pierre breakwater.....	6,000	Springhill—Public building, repairs, etc.....	2,000	Glace Bay harbor improvements—Revote.....	25,000
Riviere aux Renards breakwater—Pier.....	20,000	Bridgewater—Public building....	5,000	Sydney quarantine station wharf revote.....	1,500
Douglastown—Isolated block....	10,000	Lawlor's Island quarantine station, Halifax harbor, winter hospital.....	30,000	Irish Cove wharf.....	8,000
Ste. Genevieve piers.....	2,500	Devil's Island breakwater, additional revote.....	2,600	Pugwash wharf.....	1,000
Lotbiniere wharf—Repairs and improvements.....	4,000	Anderson's Cove—Breakwater....	2,000	River Hebert—Wharf repairs and renewals.....	2,000
Grand Riviere de Beupre—wharf	4,000	Round Hill—Wharf.....	2,000	Parrsboro', addition to landing pier, etc.....	2,500
Chateau Richer—Harbor improvements.....	1,000	Parker's Cove—Breakwater on side of mouth of stream....	3,600	Parrsboro, harbor improvements.	2,000
Port St. Francis—Wharf improvements and dredging.....	5,000	Battery Point breakwater—Extension.....	2,000	Pugwash—Wharf repairs.....	2,000
Grondines wharf.....	12,000			Malagash wharf.....	1,000
Deschambault wharf.....	12,500			Amherst Point wharf.....	3,000
Pointe-aux-Trembles wharf.....	20,000			Joggins Mines — Approach to breakwater.....	3,000
Riviere Blanche — Repairs to wharf.....	1,000			Economy—Extension of pile wharf.....	6,000
Father Point landing pier—Revote.....	28,000			Tatamagouche wharf.....	3,000

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1905.

\$3.00	Cheverie harbor works—Repairs..	\$1,000	Kelly's Cove breakwater.....	\$7,000	Hazelton—Port Simpson line extension, Aberdeen to Port Es-sington.....	\$3,000
1.50	Port Hawkesbury wharf—To complete.....	2,000	Yarmouth harbor works—Repairs	1,000	Okanagan Landing -- Kelowna telegraph line extension to Pent-ticton .....	6,000
3.00	Pleasant Bay wharf.....	1,300	APPROPRIATIONS FOR PRINCE EDWARD ISLAND			
2.00	Cheticamp harbor improvements..	1,000	Montague—Public building heat-ing apparatus.....	\$1,000	Quesnel—Barkerville branch to complete repairs.....	131,000
5.00	Lower Ship harbor wharf.....	2,000	For another ice-breaker for use between Prince Edward Island and the main line.....	175,000	Towards a Dominion Exhibition at New Westminster..	50,000
1.50	Porter's Lake—Boat channel to Three Fathom Harbor.....	5,000	APPROPRIATIONS FOR NEW BRUNSWICK.			
1.20	Jeddore wharf.....	1,200	Bathurst—public building repairs	\$1,000	Steamer for service at Victoria, B.C.....	25,000
1.60	West Quoddy wharf.....	2,500	Chatham—Public building, repairs	2,000	Esquimault Fort, there is .....	110,000
1.20	Half Island Cove breakwater.....	7,500	Moncton—Public building, im-provements .....	3,500	APPROPRIATIONS FOR MANITOBA AND NORTH-WEST TERRITORIES.	
1.20	Middle Country harbor wharf.....	3,000	Fredericton—Post office improve-ments, etc .....	1,000	Winnipeg gets a new customs examining warehouse to cost, \$100,000. Edmonton is to have a new public building.	
1.20	Drum Head—Breakwater exten-sion.....	6,000	Partridge Island—Quarantine sta-tion, St. John harbor, improve-ments.....	2,500	Grant to Yukon local council for maintenance and repairs to road	100,000
1.00	Baxter's Harbor—Reconstruction of breakwater.....	2,000	St. John harbor is granted \$100,000 for dredging.		Construction of waterworks and sewerage systems at Banff, N. W.T.....	95,000
2.20	Hall's Harbor improvements.....	2,500	APPROPRIATIONS FOR BRITISH COLUMBIA.			
2.30	Ogilvie breakwater wharf—Widen-ing outer end.....	2,000	Cumberland—Public buildings....	\$2,000	Maintenance vessels patrolling Hudson's Bay and establishing and maintaining police posts....	65,000
2.50	Blomidon, Mill Creek wharf, ex-tension of pile work.....	2,500	Ladysmith—Public buildings....	2,000	Patrol steam boat, Northwest Mounted Police in Hudson's Bay.....	40,000
25.00	Harborville—Repairs to harbor works.....	1,000	Osoyoos—Public building.....	2,000		
1.50	Marble Mountain wharf.....	2,000	Williams Head—Quarantine sta-tion repairs and improvements..	1,100	PACIFIC COAST EXCURSIONS.	
8.00	Feltzen south wharf.....	2,500	Mission City wharf.....	2,500	During June, July, August and Septem-ber the Chicago & North-Western Rail-way will sell from Chicago round trip excursion tickets to San Francisco, Los Angeles, Portland, Ore., (Lewis & Clarke Exposition), Seattle, Victoria and Van-couver at very low rates. Correspond-ingly cheap fares from all points in Canada. Choice of routes, best of train service, favorable stop-over and liberal	
1.00	Petite Riviere improvements.....	4,000	Graham Island wharf.....	2,500		
2.00	Hiltz Narrows improvements.....	1,000	Countorey river improvement....	5,000		
2.00	Pictou Light Beach improvements	1,000	Wharf on Fraser at Whornoch....	3,000		
2.00	TONY RIVER BOAT HARBOR.....	5,000	Wharf on Fraser at Port Ham-mond.....	3,000		
2.50	Bailey's Brook — To complete channel protection.....	2,000	Campbell river wharf.....	2,500		
2.00	Bourgeois Inlet wharf.....	3,500	There is to be a snagboat for the Skeena river costing.....	15,000		
2.00	Poirierville landing pier.....	5,000	Lewis and Yukon river improve-ments.....	15,000		
1.00	Barrington Passage—Reconstruc-tion of wharf.....	6,000	Kamloops—Nicola telephone line, repoling.....	3,350		
3.00	Barrington Passage—Improve-ment of channel.....	3,000				
3.00	Fryde's Point wharf—Enlarge-ment.....	5,000				
6.00	North-East Harbor wharf.....	3,000				
3.00	Cape Negro Island—Harbor re-pairs to breakwater.....	1,500				
—	Sandford breakwater.....	1,300				

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I got her all varnished, but it began to rain when I had graphited only one side. Before I could finish the job I went into a race with the Meta, a ten-mile reach out and back. On the first leg I had to work the plain-varnished side against the water, and the Meta beat us by a quarter of a mile to the stake boat. On the long reach home I had the graphited side of the Dolphin under, and finished thirteen minutes ahead of the Meta." This good story ends properly with the moral, thus: Right now we're sending out copies of

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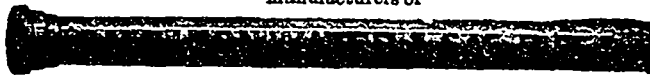
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—OF—

1905

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1905

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## CANADIAN WHITE COMPANY

LIMITED

SOVEREIGN BANK BUILDING, MONTREAL

### ANNOUNCEMENT

THE CANADIAN WHITE COMPANY, LIMITED, is incorporated in Canada; carry on a General Contracting and Engineering business, on similar lines to J. G. White & Company, Incorporated, of New York; J. G. White & Company, Limited, London, England, and the Waring-White Building Company, Limited, London, Eng.

The Letters Patent of the Canadian Company were granted the latter part of May and the organization of the Company is now being completed.

#### Objects of the Company

The Canadian White Company, Limited, will carry on a General Contracting and Engineering Business and will undertake any Civil, Mechanical, Electrical, Hydraulic and Building Work. It will be fully equipped to handle large construction contracts for Steam or Electric Railways, and will be prepared to design, build, equip and operate Electric Lighting Plants and Power Installations, Gas Works, Water Supply, Sewage Systems, Piers, Docks, Harbor Works, Office Buildings, Apartment Houses, Hotels, etc.

The Contracting and Engineering Departments of J. G. White & Company, Incorporated, of New York, will at all times be at the service of the Canadian Company, and the Company will further have the benefit of the experience of J. G. White & Company Limited, London, England, and the Waring-White Building Company, London, England. This insures the Canadian Company, from its inception, the benefits and advantages to be derived from a very long and successful experience in the Contracting and Engineering business.

#### Organization

The Canadian White Company, Limited, will have upon its Board and as stockholders, strong representative business men well-known throughout Canada, and will be organized to carry on its business in the most thorough and expeditious manner.

#### General Manager

The General Manager of the Company will be a prominent Civil Engineer with long experience in Railway Construction, etc., and who has held executive positions.

#### Treasurer

Mr. H. P. Douglas, formerly Vice-President and General Manager of the Canadian Otis Elevator Co., Limited, will be Treasurer of the Company.

#### Contracting and Engineering Staff

The Contracting and Engineering Staff will be sufficient at all times to carry on promptly and efficiently all works undertaken by the Company. The men for this department will be competent engineers who have had long and thorough experience.

#### Superintendent of Building Construction

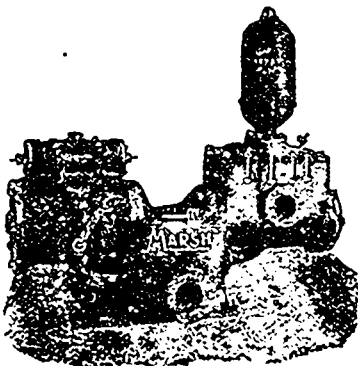
For this position, Mr. H. C. Hitch has been engaged. Mr. Hitch has been for several years connected with the Thompson-Starrett Company, of New York, as Superintendent. The organization as outlined above, with its allied interests, insures prompt and efficient attention to any contracting or engineering matter that may be brought to its attention.

#### Building Department

The Canadian White Company, Limited, intends making a feature of Building Construction, and is now prepared to contract for the better class of building work; such as Office Buildings, Apartment Houses, Hotels, Industrial Plants, Warehouses, etc.

The Company invites correspondence on all Contracting, Engineering and Building propositions and will be glad at all times to investigate and report upon any business that may be brought to its attention.

"SIMPLEX" NOT DUPLEX.



## MARSH STEAM PUMPS

"AMERICAN" COMPOUND PUMPS

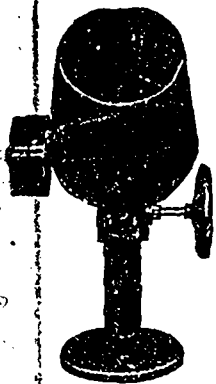
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Each Type at the Head of its Class

AMERICAN STEAM PUMP CO., - Battle Creek, Michigan, U.S.

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WILLIAMS & WILSON, - MONTREAL.

Write for No. 12 Catalogue.



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The Globe Tilting Tumblers being CHEAPEST to operate are the CHEAPEST TO BUY.

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OUR PRICES ARE LOW

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21 St. Peter Street, QUEBEC  
109 Prince William St., ST. JOHN, N.B.



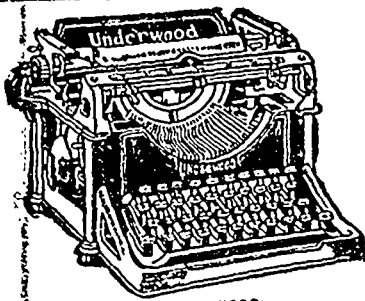
### NOTICE

The following are the Factory Inspectors for the Province of Ontario:

JAS. T. BURKE, Parliament Buildings, Toronto.  
THOMAS KEILTY, Parliament Buildings, Toronto.  
ARTHUR W. HOLMES, Parliament Buildings, Toronto.  
JOHN ARGUE, Parliament Buildings, Toronto.  
MARGARET CARLYLE, Parliament Buildings, Toronto.  
MRS. JAS. R. BROWN, Parliament Buildings, Toronto.

Persons having business with any of the Inspectors will find them at the above address.

HON. NELSON MONTEITH, Minister of Agriculture.



### Manufacturers

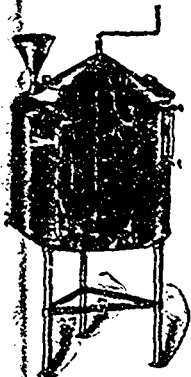
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United Typewriter Co., Limited, - Toronto, Canada

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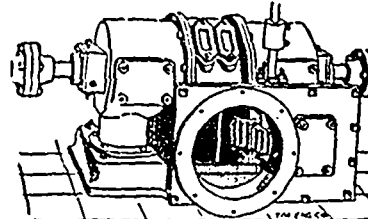


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We give you **30 Days' Free Trial** and if it does not convince you in that time that it will pay for itself in a year, send it back.

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FOR ALL PURPOSES

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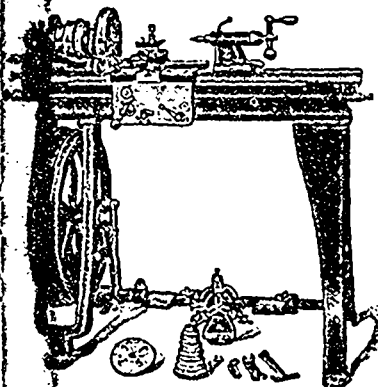
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"I would say to Steam Users—'If you want to save coal, if you want to save repair bills, if you want to prevent shut-downs, if you want to lengthen the life of your boilers, if you want to increase their efficiency—then Scale Formation must be prevented.'"

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A Complete Assorted Stock of the above always on hand.

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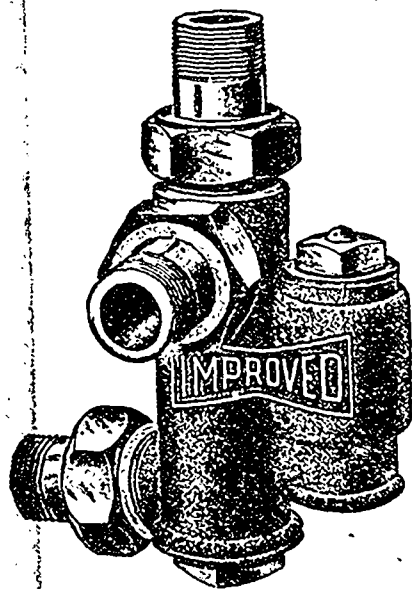
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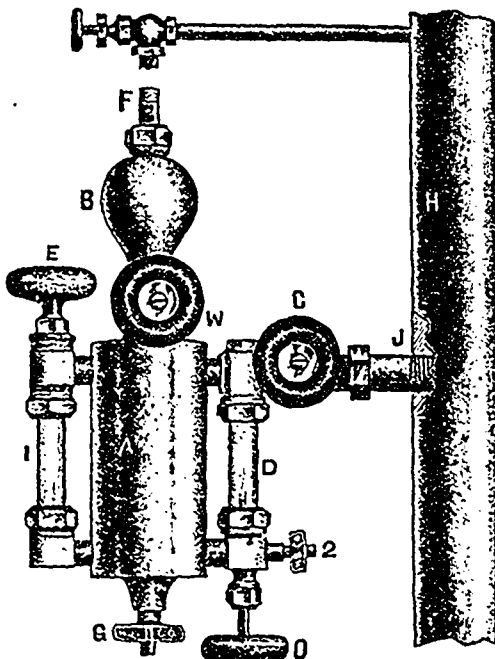
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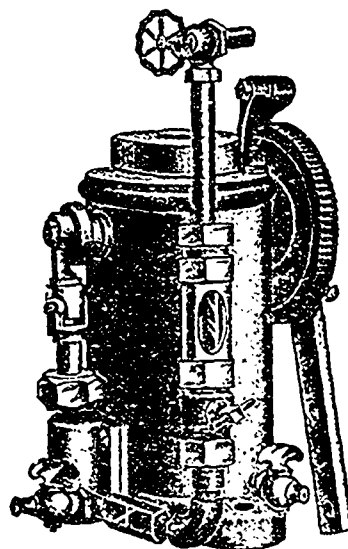
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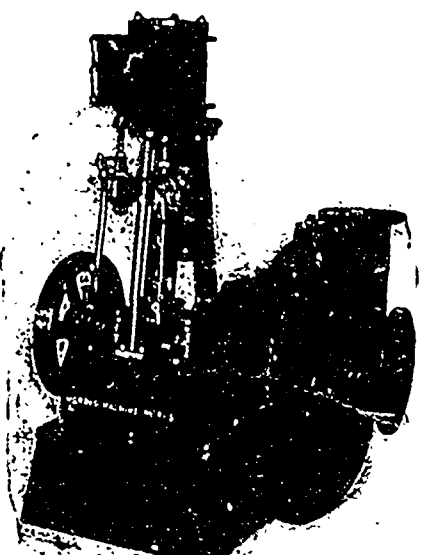
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- Fort William, Ont.
- Hallifax, N.S.
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- Lindsay, Ont.
- Peterborough, Ont.
- Regina, N.W.T.
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Orillia Town Council has purchased a piece of property lying between two rails, with a view to offering free sites to desirable industries.

Better still, Orillia sells *Electric Power* developed at its municipal plant for \$16.00 per h. p. per annum for an excellent service, available 24 hours a day.

Those interested are invited to correspond with

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Water and steam power; one set Woollen Mill. Three story brick and stone 36 feet. Two story brick and stone added 30 x 36 feet.

Good locality; wool plentiful.

Address,  
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IN THRIVING TOWN.

On Line of Grand Trunk Railway.

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Coal for the Dominion Buildings," will be received  
at this office until Tuesday, August 8, 1905, inclu-  
sively, for the supply of Coal for the Public Build-  
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Combined specification and form of tender can  
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Persons tendering are notified that tenders will  
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supplied, and signed with their actual signatures.

Each tender must be accompanied by an accepted  
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Works, equal to ten per cent. of amount of the  
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upon to do so, or if he fails to complete the work  
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cheque will be returned.

The Department does not bind itself to accept  
the lowest or any tender.

By order  
**FRED. GELINAS,**  
Secretary.

Department of Public Works,  
Ottawa, June 26, 1905

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paid for it.

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Manufacturers of Slot Machines,  
Novelties, Fine Tools  
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Model and Experimental Work a specialty.  
Inventions perfected.

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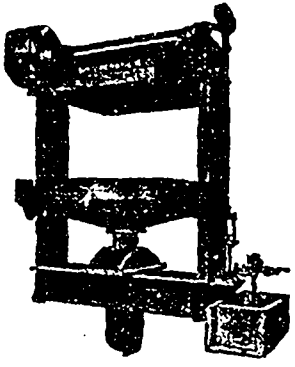
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## Hydraulic Screw and ..Filter Presses..



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Steam Gearing or Electrically Driven.  
Deep Well Pumping Systems for Cities, Railroad,  
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**DOWNIE PUMP CO., Downieville, Pa., U.S.A.**

### BARGAINS Money Savers.

First Class.

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Stanley Direct Connected Gen. Set.
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G. E. Direct Connected Gen. Units.
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and can furnish non-union skilled labor of  
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# IT IS WARM NOW

# BUT WHAT ABOUT

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Will you continue to heat your buildings by antiquated methods or will you be satisfied with nothing but the best?

Will you continue to waste your exhaust steam or will you investigate the economy to be effected by saving this vast amount of "squandered energy?"

If the Exhaust is used, will you suffer a repetition of the common difficulties of every-day experience, or will up-to-date methods be employed?

Or if no Exhaust steam is available how do you expect to deal comprehensively and successfully with your heating problems?

## ***The Answer***

to all these perplexing problems is outlined in a little book we are sending to all who are interested in the vital subject.

## ***It tells of the Webster System of Steam Circulation***

which has been successful in disposing of nearly two thousand such problems. Steam has been circulated "up hill and down dale" to the tops of tall "sky scrapers," to the farthest limits of extended groups of buildings without back-pressure upon the engines. **THAT IS ECONOMY.**

We have more "reasons why" for those who desire to investigate.

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**Manufacturers of Feed Water Heaters, Separators for steam and oil,  
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Williams, A. R. Machinery Co., Toronto.

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Nichols Chemical Co. of Canada, Montreal.

**Air Compressors**  
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Traverse Smelting Works, Montreal.

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Burns-Fuller Co., Cleveland, Ohio.  
Canada Foundry Co., Toronto.  
Crompton, F. H. & Co., Montreal.  
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Brunner, Mond & Co., Northwich, England.  
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Dye Color Co., New York City.  
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Crescent, J. C. Belting Co., Montreal and Toronto.  
Nichols, H. W., Toronto.  
Lawry, F. & Co., Manchester, England.  
Crescent & Haworth, Montreal and Toronto.  
Watts, A. R. Machinery Co., Toronto.

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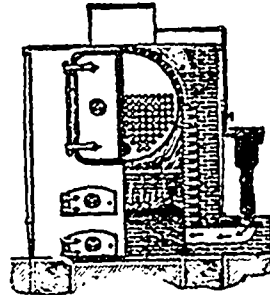
The Schutte & Koerting blowers offer a means of burning low priced fuel, such as screenings, gas works breezes and other refuse with perfect combustion, thereby making a direct reduction in cost of steam. They are used to great advantage on:

Can be actuated by steam or water jets.

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2. Heating and Gas Producing Furnaces in chemical and glass works.
3. Steam Boiler Furnaces.

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THE FURNACE BLOWER Attached to a Tubular Boiler.



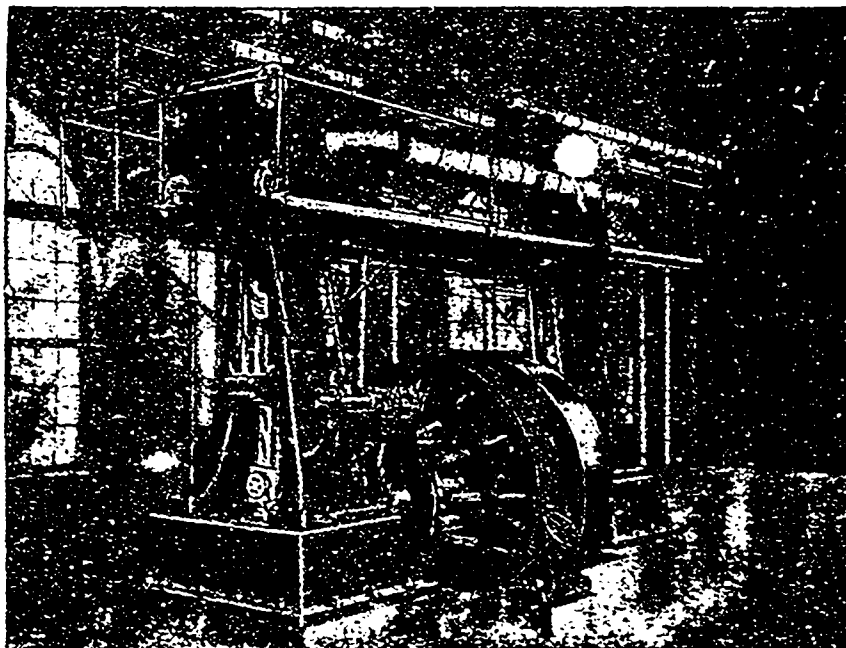
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Regulate blast with side handle.

Start and stop by opening and closing a valve in steam pipe—full.

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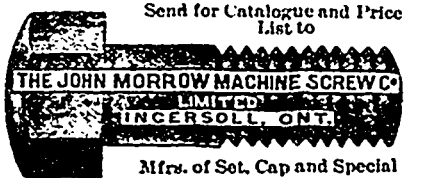
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# CLASSIFIED INDEX.

(CONTINUED).

### Bolting (Rubber)

Gutta Percha & Rubber Mfg. Co., Toronto.  
McLaren, D. K., Montreal and Toronto.  
McLaren, J. C., Belting Co., Montreal.  
Petrie, H. W., Toronto.  
Sadler & Haworth, Montreal and Toronto

### Bolting and Supplies

Bristol Co., Waterbury, Conn.  
Dominion Belting Co., Hamilton, Ont.  
Gutta Percha & Rubber Mfg. Co., Toronto.  
Jeffrey Mfg. Co., Columbus, Ohio.  
McLaren, D. K., Montreal and Toronto.  
McLaren, J. C. Belting Co., Montreal and Toronto.  
Petrie, H. W., Toronto.  
Reddaway, F. & Co., Manchester, England.  
Rosendale Belting Co., Toronto.  
Sadler & Haworth, Montreal and Toronto  
Williams A. R. Machinery Co., Toronto.

### Blast Furnace Brick

Dunbar Fire Brick Co., Pittsburgh, Pa.  
Hamilton Facing Mill Co., Hamilton, Ont.  
Pennsylvania Fire Brick Co., Lock Haven, Pa.  
Queen's Run Fire Brick Co., Lock Haven, Pa.  
Reese-Hammond Fire Brick Co., Boliver, Pa.  
Stowe-Fuller Co., Cleveland, Ohio.

### Blowers

McEachren Heating & Ventilating Co., Galt, Ont.  
Schutte & Koerting Co., Philadelphia, Pa.  
Sheldon & Sheldon, Galt, Ont.  
Sturtevant, B. F. Co., Boston, Mass.

### Boiler Compounds

Canada Chemical Mfg. Co., London, Ont.

### Boiler Inspection

Boiler Inspection & Insurance Co., Toronto.  
Canadian Casualty & Boiler Insurance Co., Toronto.

### BOILERS (See Engines and Boilers) Bolts and Nuts

London Rolling Mills, London, Ont.  
Morrow John, Machine Screw Co., Ingersoll, Ont.

### Brass Foundries

Hamilton Brass Mfg. Co., Hamilton, Ont.  
Penberthy Injector Co., Windsor, Ont.

### Brick and Bricklaying Machinery

Allis-Chalmers-Bullock, Limited, Montreal.

### Building and Paving Brick

Dunbar Fire Brick Co., Pittsburgh, Pa.  
Hamilton Facing Mill Co., Hamilton, Ont.  
Pennsylvania Fire Brick Co., Lock Haven, Pa.  
Queen's Run Fire Brick Co., Lock Haven, Pa.  
Reese-Hammond Fire Brick Co., Boliver, Pa.  
Stowe-Fuller Co., Cleveland, Ohio.

### Building Iron and Steel

Bourne-Fuller Co., Cleveland, Ohio.  
Canada Foundry Co., Toronto.  
Expanded Metal & Fireproofing Co., Toronto.  
Pedlar People, Oshawa, Ont.

### Bullders' Materials

Albert Mfg. Co., Hillsboro, Ont.  
Canada Foundry Co., Toronto.  
Conduits Company, Limited, Toronto.  
Expanded Metal & Fireproofing Co., Toronto.  
Garthshore, John J., Toronto  
Hopkins, F. H. & Co., Montreal.  
Otis-Fensom Elevator Co., Toronto.  
Pedlar People, Oshawa, Ont.  
Sheldon & Sheldon, Galt, Ont.

### Cables

Dominion Wire Rope Co., Montreal.  
Greening, B. Wire Co., Hamilton, Ont.  
Phillips, Eugene F. Electrical Works, Montreal.

### Canada Plates

Lealie, A. C. & Co., Montreal.  
Nova Scotia Steel & Coal Co., New Glasgow, N.S.

### Canoes

Peterborough Canoe Co., Peterborough, Ont.

### Caps

McCullough-Dalsell Crucible Co., Pittsburg, Pa.

### Card Clothing

McLaren, D. K., Montreal and Toronto.  
McLaren, J. C. Belting Co., Montreal and Toronto.

### Cast Iron Pipe

Canada Foundry Co., Toronto.  
Montreal Pipe Foundry Co., Montreal.  
McDougall, John, Caledonian Iron Works Co., Montreal.

Castings (Grey Iron, Malleable Iron and International Harvester Co., Hamilton, Ont.)  
Jenckes Machine Co., Sherbrooke, Que.  
Kerr Engine Co., Walkerville, Ont.  
McDougall, John, Caledonian Iron Works Co., Montreal.

### Cement Machinery

Allis-Chalmers-Bullock, Limited, Montreal  
Bradley Pulverizer Co., Boston, Mass.  
McDougall, John, Caledonian Iron Works Co., Montreal.

### Centrifugal Pumping Machinery

Morris Machine Works, Baldwinville, N. Y.

### Chain Making Machinery (Welded Coil Chain)

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

### Channels

Bourne-Fuller Co., Cleveland, Ohio.  
Canada Foundry Co., Toronto.  
Lealie, A. C. & Co., Montreal.  
Nova Scotia Steel & Coal Co., New Glasgow, N.S.

### Charcoal Pig Iron

Canada Iron Furnace Co., Montreal.  
McDougall, John, Caledonian Iron Works Co., Montreal.

### Chemicals

Canada Chemical Co., London, Ont.  
Nichols Chemical Co. of Canada, Montreal.

### Chemists

Archbold, Dr. Geo., Prescott, Ont.  
Heys, Thomas & Son, Toronto.

### Clay Working Machinery

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

### Coal and Coke

Bourne-Fuller Co., Cleveland, Ohio.  
Ferguson, J. D., Hamilton, Ont.  
Milnes, James H. & Co., Toronto.  
Nyles' Thor's Sons, Hamilton, Ont.  
Old Colony Coal & Coke Co., Pittsburgh, Pa.  
Pittsburgh Coal Co., Pittsburgh, Pa.  
Shawmut Coal & Coke Co., St. Mary's, Pa.  
Sawyer, Edward T., Columbus, Ohio.  
Skaz, E. A., Detroit, Mich.  
Wick, H. K. & Co., Buffalo, N.Y.  
Wilson, H. T. Coal Co., Detroit, Mich.

### Coal Cutting Machines

Allis-Chalmers-Bullock, Limited, Montreal  
Canadian Rand Drill Co., Sherbrooke, Que.  
Jeffrey Mfg. Co., Columbus Ohio.

### Coal Tipples

Jeffrey Mfg. Co., Columbus, Ohio.  
Jenckes Machine Co., Sherbrooke, Que.

### Coll Chains

Greening, B. Wire Co., Hamilton, Ont.  
Lealie, A. C. & Co., Montreal.

### Coke Oven Brick

Dunbar Fire Brick Co., Pittsburgh, Pa.  
Stowe-Fuller Co., Cleveland, Ohio

### Collection Agency

Petrie, H. D., Hamilton Ont.

### Concrete Mixers

Hopkins, F. H. & Co., Montreal

### Concrete (Reinforced)

Trussed Concrete Steel Co., Detroit, Mich.

### Conduits (Interior).

Conduits Company, Limited, Toronto.

### Contractors' Machinery

Allis-Chalmers-Bullock, Limited, Montreal  
Garthshore, John J., Toronto.  
Hopkins, F. H. & Co., Montreal.  
Jenckes Machine Co., Sherbrooke, Que.  
McDougall, John, Caledonian Iron Works Co., Montreal.  
Schutte & Koerting Co., Philadelphia, Pa.

### Contractor's Plants

Allis-Chalmers-Bullock, Limited, Montreal  
Hopkins, F. H. & Co., Montreal.  
Jenckes Machine Co., Sherbrooke, Que.  
Petrie, H. W., Toronto.  
Von der Osten, E. & Co., Toronto.  
Williams, A. R. Machinery Co., Toronto.

### Conveying Machinery

Allis-Chalmers-Bullock, Limited, Montreal  
Babcock & Wilcox, Limited, Montreal  
Canada Foundry Co., Toronto.  
Jeffrey Mfg. Co., Columbus, Ohio.  
Link-Belt Engineering Co., Philadelphia, Pa.  
McDougall, John, Caledonian Iron Works Co., Montreal.

Perrin, William R. & Co., Limited, Toronto  
Rosendale Belting Co., Toronto.

### Copper Materials

Greening, B. Wire Co., Hamilton, Ont.  
Phillips, Eugene F. Electrical Works, Montreal.  
Syracuse Smelting Works, Montreal.

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(CONTINUED).

al. orks Co.)  
 on and m. On  
 Cotton Banding and Rope  
 McLaren, J. C. Belting Co., Montreal.  
 orks Co.)  
 Covers  
 McCullough-Dalsell Crucible Co., Pittsburg, Pa.  
 Pittsburg Crucible Works, Pittsburg, Pa.  
 orks Co.)  
 Crayons  
 Lowell Crayon Co., Lowell, Mass.  
 McLaren, J. C., Belting Co., Montreal.  
 hinery  
 Crucibles  
 Dixon, Joseph, Crucible Co., Jersey City, N. Y.  
 McCullough-Dalsell Crucible Co., Pittsburg, Pa.  
 Pittsburg Crucible Works, Pittsburg, Pa.  
 oga Falls  
 Syracuse Smelting Works, Montreal.  
 Crucible Caps  
 McCullough-Dalsell Crucible Co., Pittsburg, Pa.  
 Pittsburg Crucible Works, Pittsburg, Pa.  
 Glasgow,  
 Crucible Covers  
 McCullough-Dalsell Crucible Co., Pittsburg, Pa.  
 Pittsburg Crucible Works, Pittsburg, Pa.  
 orks Co.)  
 Cutter Grinding Machines  
 Leckie-Brainard Milling Machine Co., Hyde Park, Mass.  
 Montreal,  
 Deep Well Engines  
 American Steam Pump Co., Battle Creek, Mich.  
 Detective Agency  
 Towar Detective Agency, St. Louis, Mo.  
 Dies (Socket, Sewer Pipe and Tile)  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.  
 Directories  
 Kelly's Directories, Limited, Toronto.  
 Draw Benches (Wire)  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.  
 Drilling & Fishing Tools  
 National Supply Co., Leamington, Ont.  
 H. Well Supply Co., Pittsburg, Pa.  
 Drills  
 National Supply Co., Leamington, Ont.  
 H. Well Supply Co., Pittsburg, Pa.  
 Drills (Pneumatic and Rock)  
 Allis-Chalmers-Bullock, Limited, Montreal.  
 Barnes, B. F. Co., Rockford, Ill.  
 Canadian Westinghouse Co., Ltd., Hamilton, Ont.  
 Jones, H. W., Toronto.  
 Drop Forgings  
 Globe Machine & Stamping Co., Cleveland, Ohio.  
 Drop Forging Dies  
 Globe Machine & Stamping Co., Cleveland, Ohio.  
 Dry Kilm Apparatus  
 Sheldon & Sheldon, Galt, Ont.  
 Intervant, B. F. Co., Boston, Mass.  
 Dust and Shavings Separators  
 Sheldon & Sheldon, Galt, Ont.  
 Intervant, B. F. Co., Boston, Mass.  
 Dye Stuffs and Chemicals  
 Macos, W. T. & Co., Montreal.  
 Turner, Mond & Co., Northwich, England.  
 Sada Chemical Mfg. Co., London, Ont.  
 Sada Color Co., New York City.  
 Fry, Killino & Extract Co., New York City.  
 Arthur, Cornelle & Co., Montreal.  
 Scola Chemical Co. of Canada, Montreal.  
 Jan & Holland, Montreal.  
 DYNAMOS (See Motors and Dynamos)  
 Electric Motors and Transformers  
 Allis-Chalmers-Bullock Limited, Montreal.  
 Packard Electric Co., St. Catharines, Ont.  
 Electric Mine Locomotives  
 Canadian General Electric Co., Toronto.  
 Canadian Westinghouse Co., Ltd., Hamilton, Ont.  
 Jeffrey Mfg. Co., Columbus, Ohio.  
 Electrical Repairs  
 Keystone Engineering Co., Toronto.

Electrical Supplies  
 Allis-Chalmers-Bullock, Limited, Montreal.  
 Bristol Co., Waterbury, Conn.  
 Canadian General Electric Co., Toronto.  
 Canadian Westinghouse Co., Ltd., Hamilton, Ont.  
 Electrical Construction Co., London, Ont.  
 Forman, John, Montreal.  
 Jones & Moore Electric Co., Toronto.  
 Keystone Engineering Co., Toronto.  
 Packard Electric Co., St. Catharines, Ont.  
 Toronto & Hamilton Electric Co., Hamilton, Ont.  
 United Electric Co., Toronto.  
 Worth & Martin, Toronto.  
 Elevators and Conveyors  
 Allis-Chalmers-Bullock, Limited, Montreal.  
 Darling Bros., Montreal.  
 Jeffrey Mfg. Co., Columbus, Ohio.  
 Jenckes Machine Co., Sherbrooke, Que.  
 Link-Belt Engineering Co., Philadelphia, Pa.  
 Otis-Fensom Elevator Co., Toronto.  
 Elevator Insurance  
 Canadian Casualty & Boiler Insurance Co., Toronto.  
 Emery and Emery Wheels  
 Forman, John, Montreal.  
 Petrie, H. W., Toronto.  
 Engineers (Chemical)  
 Heys, Thomas & Son, Toronto.  
 Hunt, Robert W. & Co., Chicago, Ill.  
 Engineers (Civil)  
 DeLano-Osborn Engineering Co., Toronto.  
 Parke, R. J., Toronto.  
 Vogel, C. H., Ottawa.  
 Engineers (Consulting)  
 Aitken, K. I., Toronto.  
 Canadian White Co., Montreal.  
 DeLano-Osborn Engineering Co., Toronto.  
 Electrical Construction Co., London, Ont.  
 Fensom, C. J., Toronto.  
 Hunt, Robert W. & Co., Chicago, Ill.  
 Keystone Engineering Co., Toronto, Ont.  
 Marion & Marion, Montreal.  
 Parke, R. J., Toronto.  
 Perrin, William R. & Co., Limited, Toronto.  
 Vogel, C. H., Ottawa.  
 Von der Osten, E. & Co., Toronto.  
 Engineers (Contracting)  
 Babcock & Wilcox, Limited, Montreal.  
 Canada Foundry Co., Toronto.  
 Canadian White Co., Montreal.  
 Darling Bros., Montreal.  
 Electrical Construction Co., London, Ont.  
 Fensom, C. J., Toronto.  
 Keystone Engineering Co., Toronto, Ont.  
 McDougall, John, Caledonian Iron Works Co., Montreal.  
 Robb Engineering Co., Amherst, N.S.  
 Engineers (Electrical)  
 Aitken, K. I., Toronto.  
 Allis-Chalmers-Bullock, Limited, Montreal.  
 Canadian General Electric Co., Toronto.  
 Canadian Westinghouse Co., Ltd., Hamilton, Ont.  
 Canadian White Co., Montreal.  
 Crocker-Wheeler Co., St. Catharines Ont.  
 DeLano-Osborn Engineering Co., Toronto.  
 Electrical Construction Co., London, Ont.  
 Fensom, C. J., Toronto.  
 Jones & Moore Electric Co., Toronto.  
 Keystone Engineering Co., Toronto, Ont.  
 Marion & Marion, Montreal.  
 Toronto & Hamilton Electric Co., Hamilton, Ont.  
 United Electric Co., Toronto.  
 Worth & Martin, Toronto.  
 Engineers (Mechanical)  
 Allis-Chalmers-Bullock, Limited, Montreal.  
 Armstrong, Herbert J., Toronto.  
 Babcock & Wilcox, Limited, Montreal.  
 Darling Bros., Montreal.  
 DeLano-Osborn Engineering Co., Toronto.  
 Electrical Construction Co., London, Ont.  
 Fensom, C. J., Toronto.  
 McDougall, John, Caledonian Iron Works Co., Montreal.  
 Hunt, Robert W. & Co., Chicago, Ill.  
 Kerr Engine Co., Waterville, Ont.  
 Marion & Marion, Montreal.  
 Robb Engineering Co., Amherst, N.S.  
 Sheldon & Sheldon Galt, Ont.  
 Engineers (Mill and Hydraulic)  
 DeLano-Osborn Engineering Co., Toronto.  
 Fensom, C. J., Toronto.  
 Hawksworth, Alfred, Montreal.  
 Vogel, C. H., Ottawa.  
 Engineers (Mining)  
 Heys, Thomas & Son, Toronto.  
 Mills, S. D., Toronto.  
 Engineers (Municipal)  
 Von der Osten, E. & Co., Toronto.  
 Engineers and Contractors  
 Canadian White Co., Montreal.  
 Jeffrey Mfg. Co., Columbus, Ohio.  
 Jenckes Machine Co., Sherbrooke, Que.  
 Engines and Boilers  
 Allis-Chalmers-Bullock, Limited, Montreal.  
 Babcock & Wilcox, Limited, Montreal.  
 Canada Foundry Co., Toronto.  
 Corbett, R. B., Brooklyn, N.Y.

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(CONTINUED).

**Goldie & McCulloch Co., Galt, Ont.**  
 Hamilton, Wm. Mfg. Co., Peterborough, Ont.  
 Hopkins, F. H. & Co., Montreal.  
 Jenckes Machine Co., Sherbrooke, Que.  
 Morris Machine Works, Baldwinville, N. Y.  
 McDougall, John, Caledonian Iron Works Co., Mont-  
 real.  
 McEachren Heating & Ventilating Co., Galt, Ont.  
 National Supply Co., Leamington, Ont.  
 Oil Well Supply Co., Pittsburgh, Pa.  
 Petrie, H. W., Toronto.  
 Robb Engineering Co., Amherst, N.S.  
 Sheldon & Sheldon, Galt, Ont.  
 Sturtevant, B. F. Co., Boston, Mass.  
 Williams, A. R. Machinery Co., Toronto.

**Engravers**  
 Canadian Manufacturer, Toronto.  
 Jones, J. L. Engraving Co., Toronto.

**Exhaust Fans**  
 Sheldon & Sheldon, Galt, Ont.  
 Sturtevant, B. F. & Co., Boston, Mass.

**Exhaust Heads**  
 Darling Bros., Montreal.  
 Sheldon & Sheldon, Galt, Ont.

**Exhausters**  
 Schutte & Koerting Co., Philadelphia, Pa.

**Explorer and Geologist**  
 Evans, Horace F. Ashcroft B.C.

**Factory Sites**  
 (See Factory Locations, page 3S).  
 Board of Trade, Orillia, Ont.  
 Central Ontario Power Co., Peterboro, Ont.  
 Hutcheson, B. M., Paisley, Ont.

**Feed Water Heaters**  
 Babcock & Wilcox, Limited, Montreal.  
 Darling Bros., Montreal.  
 McDougall, John, Caledonian Iron Works Co.,  
 Montreal.  
 Robb Engineering Co., Amherst, N. S.  
 Schutte & Koerting Co., Philadelphia, Pa.

**Files**  
 Spence, R. & Co., Hamilton, Ont.

**Fillet (Pattern)**  
 McLaren, J. C. Belting Co., Montreal.  
 Sadler & Haworth, Montreal and Toronto.

**Filters (Oil)**  
 Babcock & Wilcox, Limited, Montreal.  
 Darling Bros., Montreal.  
 McDougall, John, Caledonian Iron Works Co., Mont-  
 real.  
 Perrin William R. & Co. Limited, Toronto.

**Filters and Filtering Systems (Water)**  
 Babcock & Wilcox, Limited, Montreal.  
 Jenckes Machine Co., Sherbrooke, Que.  
 McDougall, John, Caledonian Iron Works Co., Mont-  
 real.

**Financial**  
 Bradstreet's, New York City.  
 Dun, R. G. & Co., Toronto.  
 Neff & Postlethwaite, Toronto.  
 Petrie, H. D. Hamilton Ont.

**Fire Brick and Clay**  
 Dunbar Fire Brick Co., Pittsburgh, Pa.  
 Hamilton Facing Mill Co., Hamilton, Ont.  
 Pennsylvania Fire Brick Co., Lock Haven, Pa.  
 Queen's Run Fire Brick Co., Lock Haven, Pa.  
 Reese-Hammond Fire Brick Co., Bolivar, Pa.  
 Stowe-Fuller Co., Cleveland, Ohio.

**Fire Escapes**  
 Darling Bros., Montreal.

**Fire Insurance**  
 Inter-Insurance of America, New York City.

**Flour Mill Machinery**  
 Goldie & McCulloch Co., Galt, Ont.

**Forges and Blowers**  
 Canada Foundry Co., Toronto.  
 McEachren Heating & Ventilating Co., Galt, Ont.  
 Sheldon & Sheldon, Galt, Ont.  
 Sturtevant, B. F. Co., Boston, Mass.

**Founders**  
 Canada Foundry Co., Toronto.  
 Goldie & McCulloch Co., Galt, Ont.  
 Hamilton, Wm. Mfg. Co., Peterborough, Ont.  
 Jenckes Machine Co., Sherbrooke, Que.  
 McDougall, John, Caledonian Iron Works Co., Mont-  
 real.  
 Robb Engineering Co., Amherst, N. S.

**Foundry Facings and Supplies**  
 Hamilton Facing Mill Co., Hamilton, Ont.

**Fuel Economizers**  
 Babcock & Wilcox, Limited, Montreal.  
 Schutte & Koerting Co., Philadelphia, Pa.  
 Sturtevant, B. F. Co., Hyde Park, Mass.

**Furniture (Lodge, Opera and School)**  
 Canadian Office & School Furniture Co., Pease

**Galvanizing**  
 Ontario Wind Engine & Pump Co., Toronto

**Galvanizing and Tinning Machinery**  
 Furnaces (Wire)  
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio

**Gas and Gasoline Engines**  
 Goldie & McCulloch Co., Galt, Ont.  
 Morrison, T. A. & Co., Montreal.

**Gauges (Recording Pressure)**  
 Bristol Co., Waterbury, Conn

**Gauges (Steam)**  
 Penberthy Injector Co., Windsor, Ont.  
 Petrie, H. W., Toronto.  
 Williams, A. R. Machinery Co., Toronto

**Gauges (Water)**  
 Babcock & Wilcox, Limited, Montreal.  
 Penberthy Injector Co., Windsor, Ont.

**Generators**  
 Allis-Chalmers-Bullock, Limited, Montreal.  
 Canadian General Electric Co., Toronto  
 Canadian Westinghouse Co., Ltd., Hamilton, Ont.  
 Electrical Construction Co., London, Ont.  
 Forman, John, Montreal.  
 Jeffrey Mfg. Co., Columbus, Ohio.  
 Jones & Moore Electric Co., Toronto.  
 Phillips, Eugene F., Electrical Works, Mont-  
 Toronto & Hamilton Electric Co., Hamilton

**Gloves, Mittens and Moccasins**  
 Storey, W. H. & Son, Acton, Ont.

**Glue Heaters**  
 Advance Machinery Co., Toledo, Ohio.

**Glue Room Equipment**  
 Advance Machinery Co., Toledo, Ohio.

**Government Notices**  
 Factory Inspectors.  
 Minister of Agriculture.

**Graphite**  
 Dixon, Jos., Crucible Co., Jersey City, N.J.  
 McCullough-Dezell Crucible Co., Pittsburg,  
 Pittsburg Crucible Works, Pittsburg, Pa.

**Grease Cups**  
 Penberthy Injector Co., Windsor, Ont.

**Hardware**  
 Butterfield & Co., Rock Island, Que.  
 Gartshore, John J., Toronto.  
 Globe Machine & Stamping Co., Cleveland,  
 Hopkins, F. H. & Co., Montreal.  
 Morrow, John, Machine Screw Co., Ingersoll, Ont.

**Heating and Ventilating Apparatus**  
 Darling Bros., Montreal.  
 McEachren Heating & Ventilating Co., Galt, Ont.  
 Sheldon & Sheldon, Galt, Ont.  
 Sturtevant, B. F. Co., Boston, Mass.

**Hoisting Engines**  
 Jenckes Machine Co., Sherbrooke, Que

**Hoists (Chain and Pneumatic)**  
 Allis-Chalmers-Bullock, Limited, Montreal.  
 Canadian Rand Drill Co., Sherbrooke, Que.  
 Hopkins, F. H. & Co., Montreal.

**Hose (Fire and Pneumatic)**  
 Gutta Percha & Rubber Mfg. Co., Toronto  
 McLaren, J. C. Belting Co., Montreal and Tor-  
 Sadler & Haworth, Montreal and Toronto

**Hotel**  
 Gallatin Hotel, New York City.

**Hydrants**  
 Kerr Engine Co., Walkerville, Ont.  
 Jenckes Machine Co., Sherbrooke, Que.  
 McDougall, John, Caledonian Iron Works Co.,  
 real.

**Hydraulic Accumulators**  
 Jenckes Machine Co., Sherbrooke, Que.  
 McDougall, John, Caledonian Iron Works Co.,  
 real.

**Hydraulic Leather**  
 McLaren, J. C. Belting Co., Montreal.  
 Sadler & Haworth, Montreal and Toronto

**Hydraulic Machinery**  
 Canada Foundry Co., Toronto.  
 Darling Bros., Montreal.  
 Hamilton, Wm. Mfg. Co., Peterborough,  
 Jenckes Machine Co., Sherbrooke, Que.  
 McDougall, John, Caledonian Iron Works Co.,  
 real.  
 Perrin, William R. & Co., Limited, Tor-  
 Petrie, H. W., Toronto.  
 Wilson, J. C. & Co., Glenora, Ont.

**Industrial Plants**  
 Von der Osten, E. & Co., Toronto.

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## Insulated Wires and Cables

Phillips, Eugene F., Electrical Works, Montreal.

## Iron and Steel Specialties

Armstrong Mfg. Co., Bridgeport, Conn.  
Bourne-Fuller Co., Cleveland, Ohio.  
Canada Foundry Co., Toronto.  
Leahy, A. O. & Co., Montreal.  
London Rolling Mill Co., London, Ont.  
Lysaght, John, Limited, Bristol, England and Montreal.  
Nova Scotia Steel & Coal Co., New Glasgow, N.S.  
Petrie, H. W., Toronto.

## Injectors

Canada Foundry Co., Toronto.  
Hamilton Brass Mfg. Co., Hamilton, Ont.  
Penberthy Injector Co., Windsor, Ont.  
Schutte & Koerting Co., Philadelphia, Pa.  
Williams, A. R. Machinery Co., Toronto.

## Iron and Steel Inspection

Funt, R. W. & Co., Chicago, Ill.

## Lamps—Electric

Allis-Chalmers-Bullock, Limited, Montreal.  
Canadian General Electric Co., Toronto.  
Canadian Westinghouse Co., Ltd., Hamilton, Ont.  
Forman, John, Montreal.  
Haskard Electric Co., St. Catharines, Ont.  
Incandescent Lamp Co., Toronto and St. Catharines, Ont.

## Lathes

Armes, B. F. Co., Rockford, Ill.  
Petrie, H. W., Toronto.  
Williams, A. R. Machinery Co., Toronto.

## Lathes (Wood-working)

McLaren, J. C., Belting Co., Montreal.  
Petrie, H. W., Toronto.  
Williams, A. R. Machinery Co., Toronto.

## Loom Reeds.

McLaren, J. C., Belting Co., Montreal.

## Lubricators

Penberthy Injector Co., Windsor, Ont.

## Machinists

McLaren, J. C., Belting Co., Montreal.  
Petrie, H. W., Toronto.  
Williams, A. R. Machinery Co., Toronto.

## Machinists' Supplies

Armstrong Mfg. Co., Bridgeport, Conn.  
Hetherfield & Co., Rock Island, Que.  
McLaren, J. C., Belting Co., Montreal.  
Petrie, H. W., Toronto.  
Williams, A. R. Machinery Co., Toronto.

## Machine Tools

Armes, B. F. Co., Rockford, Ill.  
Becker-Brainard Milling Machine Co., Hyde Park, Mass.  
Darling Bros., Montreal.  
Petrie, H. W., Toronto.

## Malleable Castings

Imperial Harvester Co., Hamilton, Ont.  
Smith's Falls Malleable Castings Co., Smith's Falls, Ont.

## Marine and Stationary Engines and Boilers

Allis-Chalmers-Bullock, Limited, Montreal.  
Jencks Machine Co., Sherbrooke, Que.

## Mechanical Draft

Rock & Wilcox, Limited, Montreal.  
Robinson Heating & Ventilating Co., Galt, Ont.  
Sloan & Sheldon, Galt, Ont.  
Terrace, B. F. Co., Boston, Mass.

## Metal Stamping

McLaren, J. C., Belting Co., Montreal.  
Petrie, H. W., Toronto.

## Metallurgists

Mills, S. D., Toronto.

## Mill Machinery and Supplies

Allis-Chalmers-Bullock, Limited, Montreal.  
Armstrong Mfg. Co., Bridgeport, Conn.  
Becker-Brainard Milling Machine Co., Hyde Park, Mass.  
Darling Bros., Montreal.  
Gartshore, John J., Toronto.  
Goldie & McCulloch Co., Galt, Ont.  
Gutta Percha & Rubber Mfg. Co., Toronto.  
Hamilton Brass Mfg. Co., Hamilton, Ont.  
Hamilton, Wm., Mfg. Co., Peterborough, Ont.  
Hawksworth, Alfred, Montreal.  
Hay, Peter Knife Co., Galt, Ont.  
Hopkins, F. H. & Co., Montreal.  
Jeffrey Mfg. Co., Columbus, Ohio.  
Jencks Machine Co., Sherbrooke, Que.  
Morrow, John, Machine Screw Co., Ingersoll, Ont.  
McDougall, John, Caledonian Iron Works Co., Montreal.  
McLaren, D. K., Montreal and Toronto.  
McLaren, J. C., Belting Co., Montreal.  
Penberthy Injector Co., Windsor, Ont.  
Petrie, H. W., Toronto.  
Reddaway, F. & Co., Manchester, England.  
Robb Engineering Co., Amherst, N.S.  
Spence, H. & Co., Hamilton, Ont.  
Wilson, J. C. & Co., Glenora, Ont.

## Milling Cutters and Machines

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

## Miners' Lamps

Allis-Chalmers-Bullock, Limited, Montreal.  
Anton, John & Son, Monongahela, Pa.

## Mining Machinery

Allis-Chalmers-Bullock, Limited, Montreal.  
Canadian Rand Drill Co., Sherbrooke, Que.  
Corbett, R. B., Brooklyn, N.Y.  
Gartshore, John J., Toronto.  
Hamilton, Wm., Mfg. Co., Peterborough, Ont.  
Hopkins, F. H. & Co., Montreal.  
Jeffrey Mfg. Co., Columbus, Ohio.  
Jencks Machine Co., Sherbrooke, Que.  
Link-Belt Engineering Co., Philadelphia, Pa.  
McDougall, John, Caledonian Iron Works Co., Montreal.  
Perrin, William R. & Co., Limited, Toronto.  
Petrie, H. W., Toronto.  
Schutte & Koerting Co., Philadelphia, Pa.  
Williams, A. R. Machinery Co., Toronto.

## Motors and Dynamos

Allis-Chalmers-Bullock, Limited, Montreal.  
Canadian General Electric Co., Toronto.  
Canadian Westinghouse Co., Ltd., Hamilton, Ont.  
Corbett, R. B., Brooklyn, N.Y.  
Electrical Construction Co., London, Ont.  
Forman, John, Montreal.  
Jeffrey Mfg. Co., Columbus, Ohio.  
Jones & Moore Electric Co., Toronto.  
Keystone Engineering Co., Toronto.  
Petrie, H. W., Toronto.  
Toronto & Hamilton Electric Co., Hamilton, Ont.  
United Electric Co., Toronto.

## Moulding Sand

Hamilton Facing Mills Co., Hamilton, Ont.

## Nickel.

Canadian Copper Co., New York, N.Y.  
Orford Copper Co., New York, N.Y.

## Novelty Manufacturers

Worth & Martin, Toronto.

## Nozzles

McCullough-Dalsell Crucible Co., Pittsburg, Pa.  
Pittsburg Crucible Works, Pittsburg, Pa.

## Office and Bank Fittings

Canadian Office & School Furniture Co., Preston, Ont.

## Oils and Lubricants

Dixon, Jos. Crucible Co., Jersey City, N.J.  
Imperial Oil Co., Petrolia, Ont.  
Queen City Oil Co., Toronto.

## Oil Cloth

Dominion Oil Cloth Co., Montreal.

## Oil Cups

Penberthy Injector Co., Windsor, Ont.

## Oil Well Supplies

National Supply Co., Learnington, Ont.  
Oil Well Supply Co., Pittsburg, Pa.

## Paints and Colors

Berry Bros., Walkerville, Ont.  
Galzy, Aniline & Extract Co., New York City.  
McArthur, Cornelle & Co., Montreal.

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J. J. CASSIDY, Manager.

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**Paper Manufacturers**  
Barber, Wm., & Bros., Georgetown, Ont.  
Toronto Paper Mfg. Co., Cornwall, Ont.

**Patents**  
Budden, Hanbury, A., Montreal.  
Fotherstonhugh & Co., Toronto.  
Marion & Marion, Montreal.

**Perforated Metals**  
Globe Machine & Stamping Co., Cleveland, Ohio.  
Greening, B. Wire Co., Hamilton, Ont.

**Personal Accident**  
Canadian Casualty & Boiler Insurance Co., Toronto.

**Phosphorizers**  
McCullough-Dalzell Crucible Co., Pittsburg, Pa.  
Pittsburg Crucible Works, Pittsburg, Pa.

**Pig Iron**  
Bourne-Fuller Co., Cleveland, Ohio.  
Canada Iron Furnace Co., Montreal.  
Nova Scotia Steel & Coal Co., New Glasgow, N.S.  
Syracuse Smelting Works, Montreal.

**Pipe Line Supplies**  
National Supply Co., Leamington, Ont.  
Oil Well Supply Co., Pittsburg, Pa.

**Pipe (Riveted, Iron and Steel)**  
Babcock & Wilcox, Limited, Montreal.  
McDougall, John, Caledonian Iron Works Co., Montreal.

**Pipe Threading Machines**  
Armstrong Mfg. Co., Bridgeport, Conn.  
Butterfield & Co., Rock Island, Que.  
Petrie, H. W., Toronto.

**Pipes and Tubes**  
Bourne-Fuller Co., Cleveland, Ohio.  
Canada Foundry Co., Toronto.  
Corbett, R. B., Brooklyn, N.Y.  
Montreal Pipe Foundry Co., Montreal.  
National Supply Co., Leamington, Ont.  
Oil Well Supply Co., Pittsburg, Pa.

**Plaster**  
Albert Mfg. Co., Hillsborough, N.B.

**Plates**  
Bourne-Fuller Co., Cleveland, Ohio.  
Nova Scotia Steel & Coal Co., New Glasgow, N.S.

**Plumbago**  
Hamilton Facing Mills Co., Hamilton, Ont.  
McCullough-Dalzell Crucible Co., Pittsburg, Pa.  
Pittsburg Crucible Works, Pittsburg, Pa.

**Pneumatic Tools**  
Allis-Chalmers-Bullock, Limited, Montreal.  
Canadian Hand Drill Co., Sherbrooke, Que.

**Pointer Rolls (For Rods and Wire)**  
Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

**Power Plants—Equipments**  
Allis-Chalmers-Bullock, Limited, Montreal.  
Armstrong, Herbert J., Toronto.  
Babcock & Wilcox, Limited, Montreal.  
Canadian General Electric Co., Toronto.  
Canadian Westinghouse Co., Ltd., Hamilton, Ont.  
Corbett, R. B., Brooklyn, N.Y.  
Darling Bros., Montreal.  
Dolano-Osborn Engineering Co., Toronto.  
Electrical Construction Co., London, Ont.  
Goldie & McCulloch, Galt, Ont.  
Gutta Percha & Rubber Mfg. Co., Toronto.  
Hamilton, Wm. Mfg. Co., Peterborough, Ont.  
Jeffrey Mfg. Co., Columbus, Ohio.  
Jones & Moore Electric Co., Toronto.  
Kovetone Engineering Co., Toronto, Ont.  
McDougall, John, Caledonian Iron Works Co., Montreal.

**Presses (Tilo, Sewer Pipe, Nozzles and Sleeves)**  
Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

**Pulleys**  
Darling Bros., Montreal.  
Goldie & McCulloch Co., Galt, Ont.  
Hamilton, Wm. Mfg. Co., Peterborough, Ont.  
Jeffrey Mfg. Co., Columbus, Ohio.  
McDougall, John, Caledonian Iron Works Co., Montreal.  
McLaren, J. C., Belting Co., Montreal and Toronto.  
Petrie, H. W., Toronto.  
Wilson, J. C. & Co., Glenora, Ont.

**Pumps and Pumping Machinery**

Allis-Chalmers-Bullock, Limited, Montreal.  
American Steam Pump Co., Battle Creek, Mich.  
Canada Foundry Co., Toronto.  
Corbett, R. B., Brooklyn, N.Y.  
Darling Bros., Montreal.  
Downie Pump Co., Downieville, Pa.  
Goldie & McCulloch Co., Galt, Ont.  
Jencke Machine Co., Sherbrooke, Que.  
Kerr Engine Co., Walkerville, Ont.  
Morris Machine Works, Baldwinville, N.Y.  
McDougall, John, Caledonian Iron Works Co., Montreal.  
Ontario Wind Engine & Pump Co., Toronto.  
Petrie, H. W., Toronto.  
Schutte & Koerting Co., Philadelphia, Pa.

**Punches and Shears**  
Globe Machine & Stamping Co., Cleveland, Ohio.  
Petrie, H. W., Toronto.

**Purifiers**  
Babcock & Wilcox, Limited, Montreal.  
Goldie & McCulloch Co., Galt, Ont.  
McDougall, John, Caledonian Iron Works Co., Montreal.

**Purifying and Softening Systems (Water)**  
Babcock & Wilcox, Limited, Montreal.  
Darling Bros., Montreal.  
McDougall, John, Caledonian Iron Works Co., Montreal.

**Railroads**  
Chicago & North-Western Ry., Toronto & St. Paul, Minn.

**Railway Supplies**  
Algoma Steel Co., Sault Ste. Marie, Ont.  
Allis-Chalmers-Bullock, Limited, Montreal.  
Garshore, John J., Toronto.  
Greening, B. Wire Co., Hamilton, Ont.  
Gutta Percha & Rubber Mfg. Co., Toronto.  
Hopkins, F. H. & Co., Montreal.  
Nova Scotia Steel & Coal Co., New Glasgow, N.S.  
Phillips, Eugene F., Electrical Works, Montreal.

**Reamers**  
Butterfield & Co., Rock Island, Que.

**Rivets**  
Bourne-Fuller Co., Cleveland, Ohio.  
London Rolling Mills, London, Ont.

**Rock and Ore Crushers**  
Allis-Chalmers-Bullock, Limited, Montreal.  
Bradley Pulverizer Co., Boston, Mass.

**Rolling Mill Engineers**  
Bourne-Fuller Co., Cleveland, Ohio.

**Roofing**  
Bourne-Fuller Co., Cleveland, Ohio.  
Pedlar People, Oshawa, Ont.

**Rubber Goods**  
Gutta Percha & Rubber Mfg. Co., Toronto.

**Rubber Packing**  
Gutta Percha & Rubber Mfg. Co., Toronto.

**Rubber Washing Tubs**  
Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

**Rural Mail Boxes**  
Globe Machine & Stamping Co., Cleveland, Ohio.

**Safes and Vaults**  
Goldie & McCulloch Co., Galt, Ont.

**Screws**  
Morrow John, Machine Screw Co., Ingersoll, Ont.

**Screw Plates**  
Armstrong Mfg. Co., Bridgeport, Conn.  
Butterfield & Co., Rock Island, Que.

**Shafting**  
Allis-Chalmers-Bullock, Limited, Montreal.  
Bourne-Fuller Co., Cleveland, Ohio.  
Goldie & McCulloch Co., Galt, Ont.  
Jeffrey Mfg. Co., Columbus, Ohio.  
McDougall, John, Caledonian Iron Works Co., Montreal.  
Nova Scotia Steel & Coal Co., New Glasgow, N.S.  
Petrie, H. W., Toronto.

**Shapers and Carvers**  
Advance Machinery Co., Toledo, Ohio.

**Shear Knives**  
Hay, Peter Knife Co., Galt, Ont.

**Sheets (Iron and Steel)**  
Bourne-Fuller Co., Cleveland, Ohio.  
Leslie, A. C. & Co., Montreal.  
Lysaght, John, Limited, Bristol, England.

**Sheet Metal Goods**  
Globe Machine & Stamping Co., Cleveland, Ohio.  
Pedlar People, Oshawa, Ont.

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## Sheet Metal Stamping

Globe Machine & Stamping Co., Cleveland, Ohio.  
Edlar Peoplo, Oshawa, Ont.

## Smoke Stacks

Hamilton, Wm. Mfg. Co., Peterborough, Ont.  
McDougall, John, Caledonian Iron Works Co.,  
Montreal.  
Robb Engineering Co., Amherst, N.S.

## Solder

Globe Machine & Stamping Co., Cleveland, Ohio.  
Syracuse Smelting Co., Montreal.

## Special Machinery

Chalmers-Bullock, Limited, Montreal.  
Globe Machine & Stamping Co., Cleveland, Ohio.

## Speed Recorders

Wastol Co., Waterbury, Conn.

## Sprinkler Insurance

Canadian Casualty & Boiler Insurance Co., Toronto.

## Stamps and Stenolls

Globe Machine & Stamping Co., Cleveland, Ohio.

## Steam Pumps

Chalmers-Bullock, Limited, Montreal.  
American Steam Pump Co., Battle Creek, Mich.  
Canada Foundry Co., Toronto.  
Filing Bros., Montreal.  
Idle & McCulloch Co., Galt, Ont.  
McDougall, John, Caledonian Iron Works Co., Mont-  
real.  
Massey, H. W., Toronto.  
Williams, A. R. Machinery Co., Toronto.

## Steam Separators

Beech & Wilcox, Limited, Montreal.  
Filing Bros., Montreal.  
Eschen Heating & Ventilating Co., Galt, Ont.  
Robb Engineering Co., Amherst, N.S.  
Sheldon & Sheldon, Galt, Ont.

## Steam Specialties

Filing Bros., Montreal.  
Eschen Heating & Ventilating Co., Galt, Ont.  
Barthory Injector Co., Windsor, Ont.  
Luttrell & Koerting Co., Philadelphia, Pa.  
Sheldon & Sheldon, Galt, Ont.

## Steam Valves

American Steam Pump Co., Battle Creek, Mich.  
Beech & Wilcox, Limited, Montreal.  
Filing Bros., Montreal.  
Kerr Engine Co., Walkerville, Ont.  
Massey, H. W., Toronto.  
Williams, A. R. Machinery Co., Toronto.

## Steel Balls

Omega Steel Co., Sault Ste. Marie, Ont.  
Timmond, McCall & Co., Montreal and Toronto.  
Treshore, John J., Toronto.  
Hopkins, F. H. & Co., Montreal.

## Steel Shafting

Filing Bros., Montreal.  
Idle & McCulloch Co., Galt, Ont.  
Hamilton, Wm. Mfg. Co., Peterborough, Ont.  
Idle, A. C. & Co., Montreal.  
McDougall, John, Caledonian Iron Works Co., Mont-  
real.  
Scott's Steel & Coal Co., New Glasgow, N.S.  
Son, J. O. & Co., Glenora, Ont.

## Stocks and Dies

Strong Mfg. Co., Bridgeport, Conn.  
Farfield & Co., Rock Island, Que.  
Massey, H. W., Toronto.  
Smith & Martin, Toronto.

## Stoppers

Dalzell Crucible Co., Pittsburg, Pa.  
Pittsburg Crucible Works, Pittsburg, Pa.

## Structural Steel

Bourne-Fuller Co., Cleveland, Ohio.  
Canada Foundry Co., Toronto.  
Hopkins, F. H. & Co., Montreal.

## Sulphate of Alumina

Canada Chemical Co. of Canada, Montreal.

## Sulphur Furnace

Luttrell & Koerting Co., Philadelphia, Pa.

## Suspension Furnaces

Central Iron Works Co., New York City.

## Tanks (Oil and Water)

Canada Foundry Co., Toronto.  
Corbett, R. B., Brooklyn, N.Y.  
Idle & McCulloch Co., Galt, Ont.

Hamilton, Wm. Mfg. Co., Peterborough, Ont.  
Jenckes Machine Co., Sherbrooke, Que.  
McDougall, John, Caledonian Iron Works Co., Mont-  
real.  
Ontario Wind Engine & Pump Co., Toronto.

## Taps and Dies

Butterfield & Co., Rock Island, Que.  
Globe Machine & Stamping Co., Cleveland, Ohio.

## Tees

Bourne-Fuller Co., Cleveland, Ohio.  
Canada Foundry Co., Toronto.

## Textile Manufacturers

Dominion Oil Cloth Co., Montreal.  
Smith Mfg. Co., Toronto.  
Storey, W. H. & Sons, Aton, Ont.

## Textile Supplies

McLaren, J. C. Belting Co., Montreal and Toronto.

## Thermometers (Recording)

Bristol Co., Waterbury, Conn.

## Tin

Leslie, A. C. & Co., Montreal.  
Syracuse Smelting Works, Montreal.

## Tool Grinders

Barnes, B. F. Co., Rockford, Ill.

## Tool Steel

Bourne-Fuller Co., Cleveland, Ohio.  
Hopkins, F. H. & Co., Montreal.  
Leslie, A. C. & Co., Montreal.

## Trucks

Corbett, R. B., Brooklyn, N.Y.  
Hopkins, F. H. & Co., Montreal.  
McDougall, John, Caledonian Iron Works Co., Mont-  
real.  
Sheldon & Sheldon, Galt, Ont.

## Trucks (Railway)

Canada Foundry Co., Toronto.

## Trucks (Wire Mill Supplies)

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

## Tubs (Cleaning and Coating Wire)

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

## Tumbling Barrels

Globe Machine & Stamping Co., Cleveland, Ohio.

## Turbines

Canada Foundry Co., Toronto.  
Hamilton, Wm. Mfg. Co., Peterborough, Ont.  
Jenckes Machine Co., Sherbrooke, Que.  
Wilson, J. C. & Co., Glenora, Ont.

## Typewriters and Supplies

United Typewriter Co., Toronto.

## Valves

American Steam Pump Co., Battle Creek, Mich.  
Beech & Wilcox, Limited, Montreal.  
Canada Foundry Co., Toronto.  
Hamilton Brass Mfg. Co., Hamilton, Ont.  
Kerr Engine Co., Walkerville, Ont.  
Petrie, H. W., Toronto.  
Schutte & Koerting Co., Philadelphia, Pa.  
Williams, A. R. Machinery Co., Toronto.

## Valves (Rubber)

Gutta Percha & Rubber Mfg. Co., Toronto.

## Varnishes

Berry Bros., Walkerville, Ont.

## Ventilators

Darling Bros., Montreal.  
Sheldon & Sheldon, Galt, Ont.  
Sturtevant, B. F. Co., Boston, Mass.

## Wagon and Carriage Wood Work

Horo, F. W. & Son, Hamilton, Ont.

## Washers or Hollinders (Cleaning Rubber)

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

## Watchman's Clocks

Eco Magneto Clock Co., Boston, Mass.

## Water Power Development

Vogel, C. H., Ottawa.

## Water Purifying Chemicals

Canada Chemical Mfg. Co., London, Ont.

## Windmills

Ontario Wind Engine & Pump Co., Toronto.

## Wire Mill Supplies

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

## Wire and Wire Rope

Dominion Wire Rope Co., Montreal.  
Greening, B. Wire Co., Hamilton, Ont.  
Leslie, A. C. & Co., Montreal.  
Phillips, Eugene F. Electrical Works, Montreal.

## Wire Rope Fittings

Dominion Wire Rope Co., Montreal.

## Wire Cloth

Greening, B. Wire Co., Hamilton, Ont.

## Wire Drawing Machinery

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

## Wood-Working Machinery

Advance Machinery Co., Toledo, Ohio.  
Goldie & McCulloch Co., Galt, Ont.  
Petrie, H. W., Toronto.  
Sheldon & Sheldon, Galt, Ont.  
Williams, A. R. Machinery Co., Toronto.

## Zinc

Leslie, A. C. & Co., Montreal.  
Syracuse Smelting Works, Montreal.

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Builders' Journal	London	Weekly	3 50	3 75	Montreal La Presse	Montreal	Daily	3 00
Camera	Philadelphia	Monthly	1 00	1 25	Montreal Witness	Montreal	Daily	3 00
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Electrical World and Engineer	New York	Weekly	3 00	3 25	Photographic Journal	London	Monthly	2 00
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Electro-Chemical Industry	New York	Monthly	2 00	2 25	Photography	London	Weekly	2 25
Engineering and Mining Journal	New York	Weekly	5 00	5 25	Popular Science Monthly	New York	Monthly	5 00
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