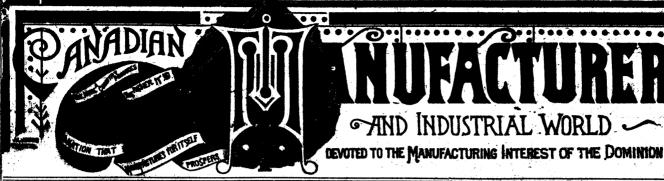
Technical and Bibliographic Notes / Notes techniques et bibliographiques

Canadiana.org has attempted to obtain the best copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

Canadiana.org a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

Coloured covers / Couverture de couleur	Coloured pages / Pages de couleur
Covers damaged / Couverture endommagée	Pages damaged / Pages endommagées
Covers restored and/or laminated / Couverture restaurée et/ou pelliculée	Pages restored and/or laminated / Pages restaurées et/ou pelliculées
Cover title missing / Le titre de couverture manque	Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
Coloured maps / Cartes géographiques en couleur	Pages detached / Pages détachées
Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)	Showthrough / Transparence Quality of print varies /
Coloured plates and/or illustrations / Planches et/ou illustrations en couleur	 Qualité inégale de l'impression
Bound with other material / Relié avec d'autres documents	Includes supplementary materials / Comprend du matériel supplémentaire
Only edition available / Seule édition disponible	Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / II se peut que
Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.	certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été numérisées.
Additional comments / Commentaires supplémentaires:	



Vol. 43.

TORONTO, SEPTEMBER 6, 1901.

No. 5.

STEAM

ECONOMY DURABILITY

SAPETY

HEATERS, SUPERHEATERS, ECONOMIZERS AND STEAM ACCESSORIES

BABCOCK & WILCOX

LIMITED.

202 ST. JAMES ST., MONTREAL

-IN King St. West

MILL

For all TEXTILE PURPOSES

MANUFACTURED BY

Dominion Dyewood TORONTO

Iron and Steel

All Qualities and Sizes for Manufacturers' Use Imported.

Sanderson's Tool Steel

In stock. Self-hardening and other high grades a specialty.

and Chemical Company, A. C. LESLIE & CO..

MONTREAL

RUBBER INSULATED WIRES AND CABLES

Telephone, Telegraph and Electric Lighting Purposes. MAGNET WIRES ANNUNCIATOR WIRES

The WIRE AND CABLE COMPANY, Montreal.

Fensom's

ELECTRIC HYDRAULIC -STEAM HAND-POWER

All made of the best material and Finest workmanship.

Works..... Elevators
Works.... Elevators
Toronto, Ont.

RUBBER GOODS OF ALL



61 and 63 FRONT ST. WEST. TORONTO.

Walkerville Maileable Iron

 $\mathbf{GO}_{\mathbf{x}_{\mathbf{y}}}$ (Limited)

Manufacturers of .

REFINED AIR FURNACE

lalleable Gastings

ALSO LIGHT GREY IRON CASTINGS.

WALKERVILLE.

ONTARIO.

CAVEATS

Soliditor of Patenta Public: of the Canadian Manufac-Agendation

> HEAD OFFICE:

TEMPLE BULLDING TORONTO

Offices:

OTTAWA

AND mashire.

Fetherstonhaugh & Co

JOHN J. KELLER & CO., 104 and 108 Murray St. NÈW YORK

220 Church St., Philadelphia. 185 Pearl St., Boston. 18 Pryor St., Atlanta, Qa.

Aniline Colors, Dyewood Extracts, Sumac and Nutgall Extracts. . .

FAST OOLORS for Wool Dyeing, One Dip Cotton Colors, Novelties and Specialties for Calico Printing.

MANUFACTURED BY

JOHN R. GEIGY & CO. BASLE, SWITZERLAND.

ANILINES

Denis Dyestuff and Chemical Co., St. (A. POIRRIER),

Manufacturers of

of Paris, France.

Aniline Colors, Aniline Oil and Salt, Archil Extracts Cudbear, Cachou de Laval, Thiocatechines, etc.

A Complete Assorted Stock of the above always on hand.

W. T. Benson & Co.,

Sole Agents for Canada.

164 St. James St., MONTREAL

MAGNET BRAND

PORTLAND CEMENT SAMSON BRAND

LAKE, ONT.

Our Celebrated Samson Brand has been before the public for many years, and has made hosts of friends among Contractors and Municipal Corporations until it has become one of the leading Cements on the market to-day, being excelled by none. This year we have decided to place the Magnet on the market, and respectfully ask consumers to give it a trial. It will, we think, do its own advertising.

The OWEN SOUND PORTLAND CEMENT CO., Limited

Correspondence invited.

Works, SHALLOW LAKE, Ont.

Head Office, OWEN SOUND. Ont.

New Black for Cotton

2

olonial Black:

Double Strength. Unequalled for Depth of Shade.

Users of Black should investigate

Fastest Black on the Market.

F. E. ATTEAUX & CO.,

BOSTON, MASS., U.S.A.

CANADIAN BRANCHES: -63 Colborne Street, TORONTO. 13 Lemoine Street, MONTREAL.

CHARCOAL PIG IRON

Deseronto Iron Company

DESERONTO, ONTARIO

MANUFACTURERS OF

High Grade Charcoal Pig Iron for Special Foundry Purposes, Malleable Castings, Car Wheels and other Chilled Castings.

SELBY & YOULDEN

SOLE MANUFACTURERS IN CANADA OF

PRESSED STEEL CAR

Roller Bearing Railway Section Hand and Push Cars, Track Laying Cars and Velocipedes, ALSO OF THE

Gelebrated "CARROLL" PROPELLOR WHEELS

MARINE ENGINES and BOILERS, CAPSTANS, STEERING GEARS, DOUBLE and SINGLE DRUM HOISTING ENGINES

Mill and General Boiler and Engine Repairs promptly attended to

KINGSTON FOUNDRY, SELBY & YOULDEN,

KINGSTON, ONT.

CANADA IRON EURNACE CO., LIMITED

Montreal, Radnor and Three Rivers

Manufacturers of the well-known

Three Rivers Charcoal Pig Iron

Suitable for Car Wheels, Cylinders and Fine Co where the utmost strength is required.

UNSURPASSED IN STRENGTH BY SWEDISH, RUSSIAN OR AMERICAN CHARCOAL IRON.

Canada Life Insurance Bldg., Montreal.

PIPE FOUNDRY CO

DRUMMOND-McCALL PIPE FOUNDRY CO.

Manufacturers of

(Limited

4 Specials," Hydrants, Valves, Etc.

Ullees:

Canada Life Building,

TOO OFTEN manufacturers pay too little attention to the nection there are other considerations, than fuel. Write to us and we will explain more fully. Address Dept. "D."

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

The GOLDIE & McGULLOCH GO.

- ONT.

THE IMPERIAL OIL COMPANY,

Highest Awards at the World's Fair, Chicago, upon

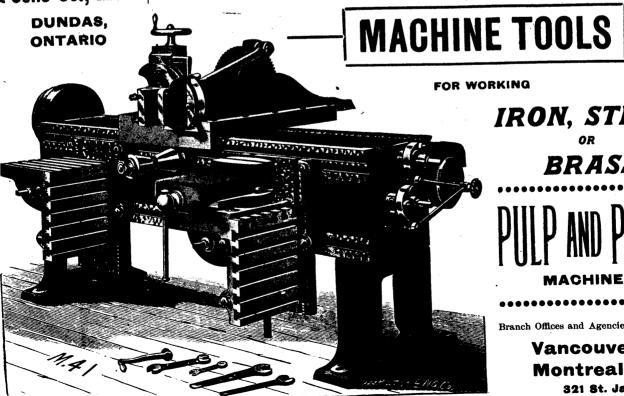
Lubricating, Water White Illuminating Oils, Paraffine Wax, Etc.

We manufacture all grades of oils, greases, soap stocks, candles, wool stocks, leather and tanners' oils, fuel gas, machinery, cylinder oils, &c. And solicit opportunity to compete against any oil on the market. Write for prices and samples.

Merchandising Branches at: Refineries at SARNIA and PETROLIA, CANADA. HALIFAX, N. S. HAMILTON, ONT. QUEBEC, QUE. LONDON, ONT. TORONTO, ONT. WINNIPEG, MAN. (IONTREAL, QUE. CHATHAM, ONT. PETERBORO, ONT. VANCOUVEE, B. C. MONCTON, N. B. STRATFORD, ONT. WINNIPEG, MAN. St. JOHN, N. B. GUELPH, ONT. KINGSTON, ONT. WINDSOR, ONT

The John Bertram & Sons Co., Limited

Canada Tool Works



IRON, STEEL

BRASS

Branch Offices and Agencies-

Vancouver, B.C. Montreal, Que.

THE PART OF THE PARTY OF THE PA

THE NOVA SCOTIA STEEL CO., LIMITED

MANUFACTURERS OF

BRIGHT COMPRESSED STEEL SHAFTING

FROM & TO 5 INCHES IN DIAMETER. GUARANTEED STRAIGHT AND TRUE TO WITHIN 120 OF AN INCH.

Spring, Recied Machinery, Tire, Toe Caulk, Sleigh Shoe, Angles, Special Sections and all Merchant Bar Steel. Sheet Steel up to 48 inches wide.

RAILWAY AND ELECTRIC RAILWAY CAR AXLES FISH PLATES, SPIKES AND TRACK BOLTS

Tee Rails, 12, 18, 24 and 28 lbs. per yard

..HEAVY FORGINGS A SPECIALTY ..

"FERRONA" PIG IRON, For Foundry Use.

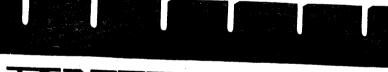
Works-NEW GLASGOW, N.S., and FERRONA, N.S.

Head Office-NEW GLASGOW, NOVA SCOTIA

GALT Machine Knife Works

PETER HAY,

Manufacturers of Every



GALT, ONT.



VES KNIVES

For Wood-Working, Paper Cutting and Leather-

Splitting Machines

Shear Blades Straw Knives, Paper Knives, to. Etc.



Quality Quaranteed.

ULP Knives

Special Knives Made to Order.

Send for Price List

DOMINION BRIDGE CO., Limited,



MONTREAL AND LACHINE LOCKS, P.Q.

Steel Bridges for Railways and Highways,

Steel Piers and Trestles, Steel Water Towers and Tanks, Steel Roofs, Girders, Beams, Columns for Buildings.

Alargo ROLLED STEEL BEAMS, JOISTS, GIRDERS, CHANNELS, ANGLES, TEES, Z BARS and PLATES

Tables, giving Sises and Strength of Rolled Beams on application.

ALWAYS ON HAND

IN LENGTHS TO THIRTY-FIVE FEET.

Post Office Address, MONTREAL.

GEORGE E. EVANS, Agent, 38 Canada Life Building

When writing to Advertisers kindly mention The Canadian Manufacturer.

BRUNNER, MOND & CO., Limited,

NORTHWICH, ENGLAND.

PURE ALKALI

48% and 58% (Light and Heavy)

BLEACH PWD.

35% to 37% (Hardwood Casks)

CAUSTIC SODA

60% to 77%



SODA CRYSTALS

Lump and Crushed. Bris. and Bags.

CONCTO SAL SODA

DOUBLE STRENGTH

BICARBONATE SODA

ABSOLUTELY PURE

Also for Mineral Water Manufacturers.

Wm. J. MATHESON & CO., LIMITED

NEW YORK

BOSTON

PHILADELPHIA

PROVIDENCE

CHARLOTTE, N.C.
MONTREAL, CANADA

DYE...
STUFFS

Royal Paper Mills Company, Limited

••••••

Mills -AND-Head Office:

East Angus,

••••••



- - - PRESIDENT AND GENERAL MANAGER.

••••••

WAREHOUSES:

763 Craig Street,

52 and 54 Front St. W.
TORONTO, ONT.



Paper

Pulp and

Lumber

Fine News, Book, Lithograph, Tub and Engine Sized Writing, and Colored Cover Papers.

ROYAL CANADIAN BRAND
Soda and Mechanical Pulp

SPRUCE, PINE and HARDWOOD (Dressed and)
CLAPBOARDS and SHINGLES.

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

ALBERT

MANUFACTURING CO.

MANUFACTURERS OF THE WELL-KNOWN

"HAMMER BRAND"

Calcined Plaster

AND

Patent Rock Wall Plaster

HILLSBOROUGH, N. B.,

KEMP MNFG. CO.

TORONTO.

Galvanizing

DONE FOR THE TRADE.

GET OUR PRICES.



For IRON FENCING, BANK and OFFICE RAIL-INGS and all kinds of IRONWORK

Address

Toronto Fence & Ornamental Iron Works
99 Queen St. East, Toronto.

BROWN & CO.



Manufacturers of

Square and Hexagon

HOT PRESSED NUTS.

PARIS. - ONT.

Send for Catalogue and Price List to

THE JOHN MORROW MACHINE SCREW CO

Mfrs. of Set. Cap and Special Screws, Studs, Finished Nuts, etc.



If you find your Fuel Account high it will pay you to send for our literature.

ASK ESPECIALLY ABOUT OUR

WEBSTER SYSTEM

OF STEAM HEATING

of STEAM HEATING
FOR HEATING BUILDINGS
BY THE WASTE EXHAUST STEAM

Webster Vacuum Feed Water Heater and Purifier

And we will explain HOW you can reduce your COAL BILL

DARLING BROS.

ELIANCE WORKS

7 OTTAWA ST.

Montreal.

A. KLIPSTEIN & CO. 122 Pearl St. New York

Anilines, Dyestuffs & Chemicals

DELIVERY MADE AT NEW YORK, MONTREAL OR HAMILTON.

WRIGHT & DALLYN, HAMILTON, ONT.

A Perfect Success



A Customer Says:

"I would like to mention what a very great success the hot water heaters you sent us have been.

They are a perfect success, burn the very poorest fuel, need very little attention, heat rapidly and have done most admirably."

ROBB ENGINEERING CO., Limited, Amherst, N.S.

Agents WM. McKAY, 19 McKenzie Crescent, Toronto.

Lighting, Heating and Motive Power BY GAS

rich permanent Gas almost equal to that of Coal Gas, can be made by using the

RICHÉ GAS GENERATOR

at a mere nominal cost per thousand cubic feet.

The Generator is simple in construction, and does not require skilled labor to work it. No Puriflers required. Products being a Rich Permanent Gas and Charcoal.

These Generators are extensively used in Europe, and are on exhibit at the Paris Exposition. Particulars by applying to

JULES DE CLERCY, Gas Expert,

ROOM 501 CARLAW BUILDING, 30 Wellington St. W., Toronto

GEORGE WARD

LASKAY, ONT.

Acetylene GAS Generators

WRITE FOR PARTICULARS

CANADIAN

AGENTS:

JBBER <

"The writer has personally handled your beiting for between twenty-five and thirty years. We are glad to be able to be able to say that we are both pleased with the quality of your goods and with the manner of treating

THE A. R. WILLIAMS MACHINERY CO.

CANADIAN RUBBER Co

MONTREAL - TORONTO WINNIPEG

ROSSENDALE, M.A.Y.

Twice the strength of Leather Used by all the large manufacturers Very much cheaper Lasts longer

Every Belt Guaranteed

Specially suitable for Damp Work All sizes up to 20 inches in stock for immediate delivery Write for our quotations before buying your belts

R. H. BUCHANAN & Co., 692 Craig St., Montreal

Shafting-Hangers-Pulleys

THIS IS OUR SPECIALTY

We also manufacture Friction Clutch Pulleys, Clutch Couplings, Belt Tighteners, Self-Oiling Bearings, Iron Rope Drive Wheels,

AND A FULL LINE OF

Power Transmission Machinery

END FOR OUR B 6 CATALOGUE

DODGE MFG. CO. of Toronto, Limited ENGINEERS, FOUNDERS, MACHINISTS

TORONTO, CANADA

Air Pumps **Acid Pumps** Feed Pumps Mine Pumps Fire Pumps **Tank Pumps Duplex Power** & Stuff Pumps Sinking Pumps **Suction Pumps Tannery Pumps Duplex** and **Triplex Power Pumps**

NORTHEY GAS AND GASOLINE ENGINE

Canadian Manufacturers and Engineers will find it to their interest to refer to us when in need of anything in the shape of Pumping Machinery.

CATALOGUES AND SPECIFICATIONS SENT ON REQUEST

Supplies a cheap, simple, easily applicable form of power that is filling the necessity for such a motor very extensively and satisfactorily. The running expenses are very light. It requires no experience to handle, and runs for hour without attention. Well adapted for running independant electric lighting plants or pumping and elevator plants.

SEND FOR ILLUSTRATED BOOKLET

Company Limited, Foronto

THE MASON REGULATOR CO.

ESTABLISHED 1883

Standard Steam Specialties

Reducing Valves, Damper Regulators, Pump Governors and Automatic Appliances of all Descriptions for the Regulation and Control of Steam, Water and Air Pressures.

158 Summer St., Boston, Mass.

Works at MILTON, MASS., U.S.A.

RODERICK J. PARKE,

CONSULTING ENGINEER TO MANUFACTURERS:—Competent and impartial advice on Industrial Electrical Systems of Lighting, Power Distribution, Heating and Welding, Etc. Plans, Specifications, Tests, Reports, Valuations.



Reflectors, Shades, Lamps

We Stock a Large Variety of SHADES and REFLECTORS in

ALUMINUM, MIRROR, CELLULOID, PAPER, PORCELAIN, FOR FACTORY AND OFFICE.

Imperial Lamps and Helios Upton Enclosed Arcs Give BEST LIGHT with LEAST CURRENT ELBRIDGE Sparking Dynamos, SAMSON Batteries and IMPERIAL Salts, for Gas or Oil Engines.

Write us about Lighting your Factory or Office.

JOHN FORMAN, 708 and 710 Graig St., MONTREAL

When writing to Advertisers kindly mention The Canadian Manufacturer.



ESTABLISHED IN 1880.

PUBLISHED ON THE FIRST AND THIRD FRIDAYS OF EACH MONTH

The Canadian Manufacturer Publishing Co., Limited.

McKinnon Building, Cor. Melinda and Jordan Sts., Toronto.
Cable address: "Canaman." Western Union Telegraphic Code used.

MESSRS. DAVISON & CO., 164 Federal Street, Boston, Mass. AGENTS FOR UNITED STATES.

Index to AdvertisersPage 42

J. J. CASSIDEY.

Editor and Manager

A PAN-BRITISH EXPOSITION.

At the opening ceremonies of the Toronto Fair last week. the president, Dr. Smith, expressed the hope that at an early day a Canadian inter-provincial fair, to be participated in by all the provinces of the Dominion, would be held in Toronto, using the buildings in Exhibition Park as a nucleus for that purpose; with which idea Sir Wilfrid Laurier appeared to agree.

It is in the opinion of THE CANADIAN MANUFACTURER, that while this idea is a most excellent one, and comparatively easy of accomplishment, it is within the realm of possibility to enlarge it, and to bring into existence in Toronto a Pan-British Exposition, which would include not only the provinces of the Dominion of Canada, but those embraced in the Commonwealth of Australia, and also every land which owes allegiance to the British flag, including Great Britain herself. Such an event, occurring in a country which has done so much to maintain the integrity of the flag in South Africa, would signalize the rounding out to maturity of that "vaster Empire than has been," as foreshadowed by our Postmaster-General, Mr. Mulock. We believe the scheme feasible.

THE TORONTO FAIR.

According to programme, the twenty-third annual fair of the Toronto Industrial Exhibition Association came into active existence last week, and closes this day. Sir Wilfrid Laurier, Premier of Canada, honored the occasion by his presence on the opening day, touched the electric button that put the machinery in motion and tooted the whistles, and made a speech that gave pleasure to all who heard him. Many objectionable features noticeable at recent Fairs are not in evidence; the grounds and surroundings never showed to better advantage; many improvements are apparent in all directions, and an effort to make the buildings and the exhibits show to the greatest advantage has met with considerable success. Without doubt the displays in Machinery Hall are the best and most attractive that have been exhibited there, and in other buildings the displays are equally fine. While a great deal was done to improve the general appearance of the grounds, and of the buildings also, it is to be regretted that so little attention was given to making repairs of the roofs of several of the buildings beneath which so many valuable articles were exposed. The directors had knowledge of the dilapidated condition they were in. As it was, a torrential downpour of rain on Saturday found its way through the

The Canadian Manufacturer :

Reaches all the Blast Furnaces, Iron and Steel Works, Rolling Mills, Manufacturers of Iron and Wood-Working Machinery, Steam Engines and Boilers, Pumping and Mining Machinery, Electric Machinery and Appliances, Machinery Dealers and Steam Fitters' Supplies, all Hardware Dealers, Cotton, Woolen, Knitting and Yarn Mills, Pulp and Paper Mills, etc., in Canada.

roofs, to the great damage of many exhibits. On Labor Day the turnstiles recorded the entrance to the grounds of more than 83,000 persons.

CANADIAN TRADE INDEX.

The Monetary Times has come into possession of a copy of the Trade Index recently published by the Canadian Manufacturers' Association, and seems to be as much delighted with it as a boy with red top boots. In describing it it says: "It is an education to the average man among Canadians to peruse this book, for he had no idea beforehand that so great a variety of manufactured goods are produced in Canada as the lists show." The book itself tells us that "it is intended to give a fair idea of the extent and importance of manufacturing in Canada," and that "it has been prepared for the purpose of advancing the interests of the manufacturers of Canada as a whole."

The man who forms his idea of the variety of manufactured goods produced in Canada from what he can learn in this book will be far astray in his conclusions; and if he forms his idea of the number of prominent manufacturers in Canada from it he will be equally far astray. No doubt the general scheme of the book is good, and if it is published only for the glorification of its promotors, no one could object if it were so understood, but it is certainly not a correct and exhaustive enumeration of even the more prominent manufacturers of Canada, nor does it give more than a tithe of the thousands of articles produced by them; and it will prove a delusion and a snare to unsuspecting enquirers in other countries regarding the manufacturers and manufactured products of Canada if placed in their hands. The list of members of the Association given in the book includes many who are not manufacturers at all, and of some who are merely selling agents of Canadian and foreign goods. The Monetary Times may not be aware of the fact, but there are at least ten thousand manufacturing concerns in Canada whose works require the use of permanent steam plants, employed in the production of more than twenty thousand different articles—the Trade Index shows the names of less than eight hundred manufacturers who are credited by it with the production of less than two thousand different articles. In fact, some of the most important manufacturing industries of Canada are either not ennumerated in the book. or what is said of them is exceedingly misleading. An illustration: Canada is celebrated for the shells, skiffs, canoes, sail and row boats made by Canadian builders, some of whom do a large export trade. Two Canadian shells recently captured first and second prizes at Philadelphia from the best shells of American make; a Canadian sail boat, only a few days ago, brought back from Chicago a prize that was worth the winning, and the Sewanhaka Cup, won from a prominent American yacht club several years ago, remains in the hands of a Canadian club, won by a Canadian boat. But under the heading "Boats," meaning such as are here alluded to, only three makers are named, one of whom is not engaged in that business. A hundred similar instances might be given.

It may be contended that the book was intended to give only the names of members of the Association and of the articles they make; but the persistence with which it has been advertised, the claims advanced for it that it was representative of Canadian industries generally, that thousands of copies of it were to be distributed throughout the world, particularly in French and Spanish speaking communities, and to people who might readily be led to imagine that it covered the whole ground as far as Canadian manufacturers and Canadian products are concerned, is misleading and mischievous. Instead of bringing Canada prominently before the world as a manufacturing nation, it will have the contrary effect. The French or Spanish speaking business man in a far off country will not be likely to comprehend the fact that the Canadian Manufacturers' Association does not include one-tenth of the manufacturers of Canada—he will most probably and naturally conclude that the list given in the book includes about all that are worth including; and when he looks at the lists of articles enumerated, he will, without doubt, conclude that they mention about everything that is manufactured in Canada.

Of what benefit can it be to this country, judging from what is shown in this Canadian Trade Index, to find the names of but six concerns who manufacture cheese—and how mortifying it is to recognize that five out of the six are not manufacturers of cheese at all. One of the most valuable of our Canadian industries is the manufacture of cheese, the value of the exports of which amounts to hundreds of thousands of dollars a year; and to our knowledge the manufacture of the article is carried on by a larger number of reliable concerns than the total number of members of the Canadian Manufacturers' Association.

The book is not a credit to the Association nor to Canada, and the publication of it is to be regretted.

INDUSTRIAL CANADA.

It has frequently been proclaimed by the Canadian Manufacturers' Association that it does not sell merchandise of any kind. When it began the publication of Industrial Canada it was officially announced therein: "There is no desire or intention to compete with any of the many trade papers already published and doing good work in developing advanced industrial and business methods. Industrial Canada will be sent out merely to show to our manufacturers, in an official way, what steps their organization is taking to advance the prosperity of Canada." With this pledge on the part of the Association before them the publishers of more than twenty trade journals and of several daily newspapers were induced to become members. It was not long, however, before paid advertisements began to appear in Industrial Canada, and later it was announced that advertisements of members of the Association would be admitted under certain restrictions. "It was felt," we were told, "that the paper should not be a means of competitive advertising by members, only one inch to be allowed under one heading," and the hope was expressed

that members would use Industrial Canada as an advertising medium. Quickly following this break, advertisements of concerns in Canada, the United States and other countries began to appear—concerns who are not Canadian manufacturers in any sense of the word, nor members of the Association,—and now a general invitation is kept standing, appealing for advertising business generally from any who will patronize the organ.

The stultification is complete.

CANADIAN ASSOCIATION OF STATIONARY ENGINEERS.

The twelfth annual convention of the Canadian Association of Stationary Engineers was held at Brantford, Ont., August 20th and 21st., and was attended by many of the most responsible men who handle the throttle in this country. The address of President G. C. Mooring disclosed the prosperous condition of the Association.

During the past year there had been valuable increases in the membership of various branches, finances were in a satisfactory condition, and much had been done in the way of procuring the passage of laws having reference to the inspection of steam boilers and the qualifications of those having them in charge. Secretary A. M. Wickens, in his report, showed that at present there are 288 members in the Association, included in nine subordinate branches; and he congratulated the Association upon the fact that the Ontario Government had amended the Factories' Act so that steam boilers, as alluded to in the Act, must be inspected. Mr. Wickens read a most interesting paper on "Wasted Heat," which should receive special study by all who are connected with steam plants in manufacturing establishments and elsewhere. The following officers and committees were chosen for the ensuing year: President, Charles Moseley, Toronto; vice president, Welschlager, Berlin, Ont.; secretary, A. M. Wickens, Parliament Buildings, Toronto; treasurer, G. W. Dawson, Hamilton, Ont.; conductor, J. M. Dixon, Toronto; door-keeper, J. Struthers, Sarnia, Ont. Educational Committee: A. M. Wickens, E. J. Philip, W. J. Webb, J. Huggett and J. M. Dixon. Legislative Committee: G. C. Mooring, N. V. Kuhlman, A. M. Wickens, W. Outhwaite, James Huggett, E. J. Philip and A. E. Edkins. Following are the names of the presidents and recording secretaries of the Ontario branches included in the Association: Toronto, No. 1: President, W. J. Webb; secretary, W. H. Johnson. Hamilton, No. 2: President, F. Sculthorpe; secretary, Joseph Ironside. Brantford, No. 4: President, T. Pilgrim; secretary, Joseph Ogle. Dresden, No. 8: President, S. M. Sager; secretary, Willis Burnett. Berlin, No. 9: President, J. H. Walker; secretary, Jacob Heyd. Brockville, No. 15: President, William Robinson; secretary, James Aikens. Waterloo, No. 17: President, G. Bearn; secretary, F. A. Pflug. Toronto, No. 18: President, Thomas Graham; secretary, J. M. Dixon. Sarnia, No. 20: President, Richard Bell; secretary, W. D. Hall.

EDITORIAL NOTES.

A correspondent of The Toronto World, writing about the new issue of postage stamps which our change of monarchs has rendered necessary, makes a suggestion which is a good one, that scenes typifying the industrial resources of Canada take the place of the monarch's head as heretofore. We suggest that the Canadian Manufacturer's Association offer premiums for designs, to be submitted to the Postmaster-General for adoption.

The secretary of the Canadian Electrical Association has received through Mr. A. A. Dion, immediate past-president, a cheque for \$100, being a refund of two-thirds of the amount voted by the Association for entertainment purposes in connection with the annual convention held in Ottawa last June. Mr. Dion states that the committee are pleased to find themselves in a position to make this refund to the funds of the Association. The thanks of the members are certainly due the committee and the citizens of Ottawa for their generosity in providing almost entirely at their own expense the splendid programme of entertainment enjoyed by those who attended the convention.

It will be news, no doubt, to Messrs. Miller & Richard, a large type-founding concern in Edinburgh, Scotland, to learn that they are Canadian manufacturers of gasoline engines, but they are so reported in the Canadian Trade Index. The Gulline Horse Collar Co., Granby, Que., who describe their business as manufacturers of horse collars, are classified in the Index as being one of the only two concerns in Canada mentioned as electro-platers of brass, copper and nickel. To those who know better it is somewhat surprising to see that the Trade Index puts down those two large and world-wide known English manufacturers of high-grade tool and sheet steel, Messrs. W. Jessop & Sons and John Lysaght, Limited, as Canadian manufacturers of those articles.

In the United States the Standard Oil Co. has to compete with other oil companies, and, consequently, has to sell its eil at fair prices. But in Canada—thanks to its good friends in the Dominion Government—it has an absolute monopoly, and it makes its Canadian customers pay about ten cents a gallon more for their oil than it charges its United States customers. The result is that it is lifting at least one million dollars a year out of the people of Canada by bare-faced extortion, over and above all reasonable profits. What is more, it will continue to do so, so long as its contributions to the Grit machine funds continue to be paid, and the people submit to Grit misgovernment. The company does not think it is doing any wrong in robbing us, seeing that it purchased the right to rob us from the men to whom we have entrusted the government of the country.—Halifax, N.S., Herald.

Our contemporary should not dally with the facts in such a reckless manner. According to Mr. E. R. Clarkson, of the Sun Oil Refining Co., Hamilton, Ont., a protege of the Cornplanter Refining Co., Warren, Pa., 950,000 families in Canada use annually above 11,000,000 gallons of Canadian oil, an average of about 11½ gallons per family per year. The average price to large dealers of Canadian refined oil in tank cars f.o.b. at Sarnia during a year or more past has been not exceeding 10½ cents per imperial gallon. At this time Canadian oil, in all respects equal to American oil, is selling in Toronto at about 12½ cents per imperial gallon, and in other places in proportion. Under what the Herald calls the Grit Government, the duty is no higher, if as high, as it was under the Tory Government. The Herald should stick to the truth.

The great feature of Ottawa's reception to their Royal Highnesses the Duke and Duchess of Cornwall and York, will be the electric illumination of the Parliament buildings and the Interprovincial Bridge, at present the longest cantilever bridge in the world. The work of preparation for the illumination is being carried out by Ahearn & Soper, who, after considering various plans, decided, with the concurrence of the Government architects, to follow the method of illumination so successfully adopted at the Pan-American Exposi-

The unexcelled Gothic architecture of the Parliament buildings affords scope for even better illumination than the Renaissance of the Buffalo buildings, and the private tests of parts of the Ottawa illumination made from time to time after dark as the work proceeds give promise of results more beautiful than any ever attained hitherto. Unlike like previous illuminations, there will be no mottoes or designs of any kind. The thousands of lights are being placed on the arched lines of the windows, doors, pinnacles, etc., of the buildings: On the Interprovincial Bridge, which will receive its new name on the occasion of the Duke's visit, the outlines are being strictly followed, and surmounting the centre span the words "Royal Alexandra"—formed by electric letters, each letter twelve feet in height and all together two hundred feet in length—will burst forth upon the touching of a button by his Royal Highness. The illumination of the Parliament buildings will begin each evening during the visit of the Royal party at a fixed hour, and will continue until midnight. At the hour for beginning the illumination absolute darkness will prevail upon Parliament Square, the faintest red glow will then slowly appear in the thousands of electric jets and gradually increase until full brilliancy is attained, the effect produced being that of creating the buildings in lines of fire out of the darkness.

Talk of the exodus from Canada to the United States has been so persistent for more than a generation that it is refreshing to hear occasionally of the reverse movement from the Republic to the Dominion. Thus the Detroit Evening News reports that the latest hegiras from the State of Michigan across the lakes to the Province of Ontario are the Saginaw Lumber Co. and the Cleveland Lumber Co. Both are old-established Michigan institutions doing a large business, which supported several hundred families, but having exhausted the supply of pine in their own state, and being unable to obtain logs from Canada, they décided to move their mills to Canada. Accordingly they have moved over, bringing with them their hundreds of dependent families, and there is a howl against the tariff, which, instead of transferring the Canadian lumber business to the United States, as was its intent, is, on the contrary, transferring whole towns from Michigan to Ontario. After exhausting their own forests the Michigan lumbermen got along all right so long as they could raft logs across the lakes from the forests of Ontario. For many years this went on, till they became too greedy and obtained the imposition of a heavy duty on Canadian-sawn lumber entering the United States. All efforts to secure a modification of those duties having failed, the Ontario Legislature put a countervailing impost on logs cut for export. After that went into force the Michigan mills had no more logs to saw, and one after another they have been compelled to move across to the Canadian side of the lakes. The same principle has been applied, and may be further extended in other directions, as in the case of nickel and other ores. Canada contains immense natural resources of material largely in demand by the manufacturers of the United-States, and, if our neighbors will persist in their policy of exclusion of the manufactured product, what more natural than that the provincial legislatures having control of those resources, should find means to prevent the exploitation thereof for the benefit of selfish foreigners who shape their laws with the purpose of killing Canadian industry. -- Montreal Witness.

The latest report to the Ontario Bureau of Mines is that Mr. Thomas A. Edison has secured an office at Sudbury in

which to conduct his business, and is making a thorough personal inspection of the nickel properties in that district. He has secured the services of two prospectors to assist him in the work. It is understood that Mr. Edison is just now assiduously devoting his energies to the production of the new storage battery of which descriptions have appeared, and that as this battery requires a quantity of nickel in its construction it is surmised that he is desirous of making sure of a base of supply before going into manufacturing. The two points which Mr. Edison claimed for this battery in his recent descriptions of it were its cheapness and lightness as compared with any existing storage batteries. The advantage claimed for such a battery is that it could be charged at some great source of power, say a backwoods waterfall, and transported cheaply by rail to the point where the power was to be consumed.

Mr. John Waldie, president of the Ontario Lumbermen's Association, at the recent meeting of the Association, explained that the board of management had not seen their way to join the Canadian Manufacturers' Association. In the matter of the tariff, he said that association wanted exceptions made in the case of hard woods, that they should be admitted free, and the committee had met that with the statement that if they began to make discrimination in woods and did not protect hard woods, while southern pine was admitted, they might as well let all woods come in. The committee, therefore, did not see fit to join the Manufacturers' Association, as the Lumbermen's Association were asking protection on the whole line of woods. It is quite evident that the Lumbermen's Association want tariff protection on an entire line of products, while the Manufacturers' Association do not want it on certain lines, which is very inconsistent.

The Queen Consort has written a letter expressing the hope that all ladies who are to be present at the Royal coronation will wear clothing of British production.

The management of the Toronto Industrial Exhibition might follow the example set by the management of the Central Canada Fair, at Ottawa, who have decided that the best plan to secure a fine exhibit of paintings would be to buy several hundred dollars' worth yearly, only pictures exhibited to be bought. This they think would prove an incentive to the leading artists to exhibit, as well as being the means in time of establishing a permanent art gallery in connection with the Fair. It was decided to buy \$500 worth this year, and the result has surpassed the directors' most sanguine expectations. Already sixteen noted artists have notified the secretary that they will each send at least four paintings to be hung in the art building of the Fair with the view of having them purchased, and it is estimated that over one hundred choice paintings from professionals will be on view.

Canada's expenditure to date in connection with the South African contingents has been a little over \$2,000,000, and the Imperial authorities have expended \$4,000,000 in this country for supplies.

The Mail and Empire suggests that the best spot in Toronto to present our respects to the Royal visitors would be in front of the grand stand at the Exhibition Park. On the stand itself some 14,000 persons can be seated. Besides this

number a vast audience could congregate in the arena; indeed, nearly the whole population of Toronto, and thousands of visitors besides, could be accommodated there.

Ever since the announcement that the Canadian Manufacturers' Association proposed to publish a Trade Index, it has been stated that the book could be obtained by other than members in Canada only upon the payment of two dollars. The unreliability of the publication as an exhaustive index of names of Canadian manufacturers, and of the different articles made by them, having so detracted from whatever value it might have otherwise possessed, that the Executive Committee have resolved to distribute it free—if they can find takers.

The Montreal Board of Trade propose tendering a banquet to Hon. J. I. Tarte, Minister of Public Works, in October, and invited the Canadian Manufacturers' Association to take part in the function. At the August meeting of the Executive Committee of the Association the matter was referred to the Montreal Branch, with instructions that if any of the members of that Branch desire to attend the banquet, the words "By members of the Montreal Branch of the Canadian Manufacturers' Association" should appear on the menu card. Quite funny that invited guests to a banquet should dictate to the host what should be placed on the menu card.

The Trade Index gives the names of only three concerns in Canada, all in Toronto, as manufacturers of women's clothing. As to manufacturers of wheat flour, the names of but ten millers are given; but we have knowledge of more than fifty large concerns who make flour for export, while there are hundreds of others who prepare that article of food for the people. It fills the list of manufacturers of lumber with thirty-one names, but The Canadian Manufacturer circulates to a hundred lumber mills engaged in the production of pine lumber alone.

We find the following letter in an English contemporary: To the Editor of the Manchester Guardian.

Sir,—The Canadian Manufacturers' Association has almost completed a carefully-prepared directory of its membership, which comprises some 800 of the leading manufacturers in Canada. It is desired to give a wide circulation to the book, which will be distributed free of charge, and I am asked to forward to the secretary of the Association a list of the various merchants interested in Canadian trade to whom such a directory would be useful. Will you allow me to use your columns to invite those desirous of obtaining copies to communicate with me on the subject? Yours, etc.,

G. H. MITCHELL. Canadian Government Offices, 15 Water St., Liverpool, June 14.

It is to be regretted that Canadian commercial agents abroad should find employment in disseminating mischievous and misleading information regarding the manufacturing industries of this country.

Mayor Howland, of Toronto, has addressed a letter to the chairman of the Civic Reception Committee of the City Council anent the Royal visit in which he expresses the opinion that any considerable expenditure for that purpose should, if possible, take some form which may be a permanent benefit towards the adornment of the city, instead of being frittered away in temporary structures. This is a suggestion to the Canadian Manufacturers' Toronto Royal Reception Committee which they do not seem to appreciate.

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

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

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

Messrs. J. C. Wilson & Co., Glenora, Ont., inform us that this season business has been very good with them, and in order to supply the demands of their customers they are working at nights.

The Campbell Mfg. Co., Montreal, will apply for incorporation with a capital of \$75,000, to manufacture clothing, etc. The applicants include F. R. Lannigan, G. P. Butters and B. W. Beyer, all of Montreal.

The Consumers' Electric Co., Ottawa, will apply for incorporation with a capital of \$300,000, to manufacture electricity for light, power, etc. The applicants include, R. Blackburn, J. W. McRae and H. K. Egan, all of Ottawa.

The Western Mfg. Co., Winnipeg, Man., will apply for incorporation with a capital of \$10,000, to manufacture chemicals, etc. The applicants include, E. D. Martin, E. E. Lightcap and L. L. Lang, all of Winnipeg.

The town of Mount Forest, Ont., have purchased the works and property of the Mount Forest Electric Light Co., carried on by Messrs. Corley & Collins.

A steamer arrived at Cleveland, Ohio, a few days ago with about 2,655 tons of brown hematite ore mined at Michipicoten.

The Burt Mfg. Co., Akron, Ohio, recently installed one of the largest Cross oil filters ever made in the power house of the Edison Electric Illuminating Co., Brooklyn, N.Y.

Messrs. Avery & Thompson's lumber mill near Sharbot Lake, Ont., was de-

stroyed by fire Aug. 20. Loss about **\$4,000.**

John Greenlees' sawmill, Red Bay, near Wiarton, Ont., was destroyed by fire Aug. 27.

The McPherson Shoe Co., Hamilton, Ont., who are erecting a factory at Orangeville, Ont., request the council of that place to extend the time of operating factory from September to December.

The Collingwood Shipbuilding & Dry Dock Co., Collingwood, Ont., have booked some large and important orders well ahead, and contemplate adding to their plant by enlarging the dry dock to 530 feet length and 75 feet width, and to a depth of 16 feet of water over the sill. To do this work they will add to the outer gate of the dry dock by cofferdam on the flat rock bottom, and inside of this extension will build stone walls, as is now being done with the present dry dock. A new set of gates will be placed inside the basin, the working power being supplied by two large steel boilers allowed a pressure of 170 pounds per square inch. The dock when finished will have stone walls and rock bottom the whole length. This work being done during the winter, without disturbing the original dock. company has just completed a new pumping well, in the solid rock, and intend to put in new pumping machinery. The limestone formation at Collingwood is favorable for such work, and the quarries furnish stone cheaper in the end than if timber was used. There will also be added an engine shop, foundry and boiler

shop, so that marine engines and boilers of the largest kind can be built in the yard, thus providing in all respects a modern shipbuilding and engineering plant, with the best provision for new work of the largest size and all probable repairs.

The Dowsley Spring & Axle Co., Chatham, Ont., who are erecting a new factory at that place, have awarded contracts for equipment of same to H. W. Petrie, Toronto, for engines; Park Bros., Chatham, for boilers; Chambers Plumbing Co., London, for heating apparatus. The works when completed will cost about \$40,000, and it is expected that the factory will be in operation about October 1.

The electric light plant, including dynamo, switch-board, etc., on the steamer Algoma has recently been completed by the Jones & Moore Electric Co., Toronto.

The Victoria Brick Co., Victoria, B.C., has been incorporated with a capital of \$25,300 to take over the brickmaking works of Messrs. Elford & Smith of that

The Grimsby Mfg. Co., Grimsby, Ont., has been incorporated with a capital of \$40,000, to manufacture agricultural implements, etc. The provisional directors include J. Doran, A. G. Pettit, and W. B. Calder.

The Jones & Moore Electric Co., Toronto, have received an order for a 15-h.p. slow speed motor and controller from the Polson Iron Works.

The North Shore Powder Co., Port Arthur, Ont., has been incorporated with a capital of \$40,000, to manufacture powder, dynamite, etc. The provisional directors include H. Shear, H. A. Wiley, and F. S. Wiley.

John Calder & Co., Hamilton, Ont., has been incorporated with a capital of \$50,000, to manufacture clothing, etc. The provisional directors include A. Horsfall, A. Langlois and J. Calder.

The Owen Sound Canning Co., Brookholm, P.O., Ont., has been incorporated with a capital of \$40,000, for canning fruits, vegetables, etc. The provisional directors include W. A. D. Graham, M. L. Graham and W. Johnson Graham.

The ratepayers of Magnetawan, Ont., have granted a loan of \$2,500 to L. F Purdy, who is erecting a roller flour mill at that place.

INGERSOLL-SERGEANT ROCK Drills FOR MINES, TUNNELS AND QUARRIES

PISTON INLET Air Compressors DUPLEX and COMPOUND.

COMPOUND.

... COMPLETE MINE EQUIPMENT...

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

Other Offices - - - ROSSLAND, B.O.

RAT PORTAGE, ONT.

HALIFAX, N.S.

The Jones & Moore Electric Co., Toronto, are manufacturing a completé line of electric welding machinery, and have recently completed an outfit of the same for Gee & Co., this city.

The Canboro Natural Gas Co., Canboro, Ont., has been incorporated with a capital of \$12,000, to bore or drill for natural gas. The provisional directors include J. N. Paget, N. A. Teeft and Jas. Allan.

Milverton Light & W.

Milverton, Light & Water Co., Milverton, Ont., has been incorporated with a capital of \$20,000 to supply that village with gas and water. The provisional directors include W. Egbert, J. G. Grosch and H. Schaefer.

The Jones & Moore Electric Co., Toronto, inform us that they have accepted orders for electric machinery from the following concerns: -- Coaticook Electric Light & Power Co., Massey-Harris Co., Robert McCausland Co., Paulter & Cooper, Simpson & Simpson, Cohen Bros., J. Shales, A. Bradshaw & Co., D. Pike & Co., Beatty-Nesbitt, and J. H. Greer.

The Ottawa Milling Co., Ottawa, has been incorporated with a capital \$40,000 to manufacture flour, etc. The provisional directors include P. Armstrong, E. Fitzpatrick and J. Cunningham.

The Pure Gold Mfg. Co., Toronto, have purchased a portion of the grounds recently occupied by the Upper Canada College, this city, upon which they will erect a large factory for the purposes of their business.

The dryer building of the Don Valley Pressed Brick Works, was destroyed by fire August 24. The loss is about \$7,000.

The work of setting the plant for the lighting of Lachine canal by electricity has been commenced, and if everything goes well it will be completed in time for next season's business. The Canadian Electric Co. has been given the contract for building the machinery. The price is in the neighborhood of \$14,000. Messrs. Ahern & Soper, Ottawa, had the contract for the poles and wires at \$14,237. They are getting on well with their work, and expect to finish in about six weeks. Government is building a power house at St. Paul, at a cost of \$9,750. The contract for this work has been given to Mr. J. B. Gratton. With the completion of the entire work the canal will be lighted for the first time entirely by electricity.

been used at different points.-Montreal | 000, to manufacture harness, trunks, bags,

The Toronto Foundry Co., will build large new foundry, warehouse and offices at the corner of Liberty and Jefferson Avenue, Toronto.

the corporate name of the company to be the United Factories, Toronto, with a capital of \$1,500,000. The provisional directors are E. C. Boeckh, A. M. Wills, and L. W. McKeown.

H. R. McLean, Sault Ste. Marie, Ont., has contracted with the Clergue Syndicate, to cut 300 cords of hardwood daily for a year, to be used in the carbonization plant of the steel industry at that place.

John McDonald's lumber mills and factory, Antigonish, N.S., were burned on August 10. Loss about \$10,000.

The Goldie & McCulloch Co., Galt, Ont., have received the contract for placing the new machinery in the mill of the Hood & Cullen Milling Co., Stratford, Ont.

The Saginaw Lumber & Salt Co., Windsor, Ont., will remove their sawmill works to Sandwich, Ont.

Robert Stewart's Planing Mill, at Guelph, Ont., was partially destroyed by fire August 17.

Mr. G. A. Bronder, mechanical engineer, New York, has been awarded a contract from the Consumers' Gas Co., for an equipment of their plant in this The B. F. Sturtevant Co., Boston, city. Mass., will supply all the necessary blower equipment.

The Niagara Falls Home Telephone Co., Niagara Falls, Ont., has been incorporated with a capital of \$40,000, to carry on the general business of a The provisional telephone company. directors include W. R. Campbell, Niagara Falls, N.Y., Leonard McGlashan, and E. S. Fraser, both of Niagara Falls, Ont.

The Vulcan Iron Co., Winnipeg, Man. is erecting a new machine shop and power house at a cost-of \$15,000.

Messrs. Morton & Pierson, Gladstone, Man., will erect an elevator at Gilbert Plains, Man.

The Wright Mfg. Co., Ottawa, Ont., has Hitherto oil, gas and electricity have been incorporated with a capital of \$10,-

valises, etc. The provisional directors include Philemon Wright, J. S. White and C. B. Pratt, all of Ottawa.

The G. H. Harrower Co., Montreal, has been incorporated with a capital of \$50,000, to manufacture underwear and clothing. The charter members include G. H. Harrower, R. A. Dunton and J. C. Baker, all of Montreal.

G. S. Wakeford's large roller flour mill at Battersea, Ont., was destroyed by fire August 10.

The Imperial Knitting Co., Dunnville, Ont., has been incorporated with a capital of \$40,000, to manufacture all kinds of knitted goods, etc. The provisional directors include James Rolston, J. W. Slingsby, W. F. Haskins and T. F. Haskins, all of Dunnville.

The Brantford Brick Co., Brantford, Ont., has been incorporated with a capital of \$25,000, to manufacture brick, etc. The provisional directors include, Robert Hall, Charles Coulson and W. C. Lovington, all of Brantford.

The Humber Power & Light Co., Toronto Junction, Ont., has been incorporated with a capital of \$50,000. The provisional directors include, Joseph Barrett, Elswood Smart and A. C. Morris, all of Toronto.

The Dominion General Engineering · Co., Montreal, has applied for incorporation with a capital of \$500,000, to manufacture locomotives, automobiles, etc. The applicants include G. H. Flint, W. H. Laurie and J. N. Greenshields, all of Montreal.

The Strathcona Rubber Co., Montreal, has applied for incorporation with a capital of \$50,000, to manufacture oil and rubber clothing, etc. The applicants include E. L. Rosenthal, James Crankshaw and Wm. Campbell, all of Montreal.

The Quebec Combination Rack Co., Montreal, has been incorporated with a capital of \$25,000, to manufacture racks. The charter members include C. O. Clarke, St. Paul, Que., F. Fowler and F. W. Fairman, both of Montreal.

The Miramichi Pulp & Lumber Mfg. Co., is applying for incorporation with a capital of \$1,000,000, to build a pulp mill at Chatham, N.B.

Messrs. Chandler & Co., Richford,

Transfer Ornaments,

AMERICAN MADE.

Guaranteed Quality.

TRADE MARKS, DECORATIONS, NAME PLATES, ETC,

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

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

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

CHAS. H. JAQQER, Hamilton, Ont.

Largest Makers in the World of Guaranteed Decalcomania Transfers.

When writing to Advertisers kindly mention The Canadian Manufacturer.

Mo., have commenced work on a huge cornmeal mill at Owen Sound, Ont., and will erect large cooper shops to supply the barrels, of which 200 will be shipped with ground corn per day.

The Sun Portland Cement Co., Owen Sound, Ont., has been granted exemption from taxation for ten years, and will erect a large new cement factory. company has large marl deposits at Mc-Nab Lake.

The Lake of the Woods Milling Co., will erect an elevator at Gilbert Plains, Man.

The Bradley, Levy & Weston Machinery Co., Toronto, has been incorporated with a capital of \$40,000, to manufacture all kinds of machinery. The provisional directors include W. J. Bradley, W. J. Levy and W. H. Weston, all of Toronto.

The Pigeon River Lumber Co., will erect a mill at Fort William, Ont., to have a capacity of twenty million feet of lumber annually.

The Rutland Railway Co., Vermont,

B.C., will erect an elevator at Sorel, Que., with a capacity of 500,000 bushels.

S. Gable, Dauphin, Man., will erect a new flour mill at Swan River, Man.

Dow & Curry, Pilot Mound, Man., will build a 25,000-bushel elevator.

The charter for the new refinery company being established here, which will The be known as the Canadian Oil Refining Co., Limited, has been received, and the work of pushing the plant to completion is being carried on as rapidly as possible. The stills were shipped yesterday, and they, with the boilers (which are now ready) will be placed in position as soon as they arrive here. The object of the company is to put on the market a grade of illuminating oil, the same as was formally produced in Petrolea, and in addition the company will manufacture all grades of lubricating oils, as well as gas and fuel oils and all the bye-products. The works will be under the supervision of Mr. Jas. Fiddis, an experienced oil man, who for many years was employed

Oil Works. He has had many years experience in the oil refining business, and the securing of his services is a guarantee to the public that the company will turn out the best grades only. Much of the products has already been sold in advance, and the trade in general need have no fear but what they will be able to secure in future a reliable article as well as business dealings that will be at all times satisfactory. As matters are now shaping, the company will have their goods on the market in less than sixty days.-Petrolea Advertiser.

One of the most beautiful electrical exhibits to be seen at the Toronto Fair is that of the Jones & Moore Electric Co., Toronto, shown in Machinery Hall. Included among the machinery and apparatus they show there are a 25 k.w. multipolar motor; one 15 k.w. capacity; one slow speed direct connected marine 8 k.w. machine; a number of small motors for light power manufacturing purposes; and a large variety of elecwith Mr. John McDonald, in the National trical equipments and devices.

Water and Steam

Packings,



WEATHER PROOF, FIRE PROOF AND COLORS. WHITE bricating Oils and Greases OILS, ETC. PAINT PAINT,

Montreal and St. John, N.B

CAMEL BRANI

"The Reeves

BUILT HONESTLY **BUILT RIGHT**

No Trouble. it Does the Work

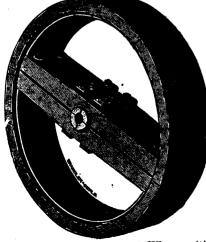
Wood-Split

A HIGH GRADE

No Worry.

SEND FOR CATALOGUE

REEVES PULLEY MANUFACTURING CO., Limited 14 Pearl Street, Toronto, Ont.



The universal satisfaction given by our DERBY and REECE SCREW PLATES, cutting from 1/16 to 1/2 inch, including all the machine screw sizes, has created a demand for a plate made on the same principle, to cut bolts to 1 inch in diameter. To meet this demand we have brought out these sizes.



BICYCLE SCREW PLATES, REECE SCREW PLATES, DERBY SCREW PLATES, BLACKSMITH'S STOCKS AND DIES, BLACKSMITH'S IM-PROVED SCREW PLATES, HAND TAPS, MACHINE TAPS, PIPE TAPS. EVERY KIND OF TAPS AND DIES.



BUTTERFIELD & CO., Rock Island, Que.

concern are furnishing from their dynamos in this exhibit much of the lighting on the ground.

The Bradford Gas Co., Bradford, Ont., has been incorporated with a capital of \$10,000, to supply gas for that place. The provisional directors include P. H. Sims, J. A. Burgess and G. Dunstan.

The Morden Mfg. Co., Gananoque, Ont., has been incorporated with a capital of \$100,000, to manufacture metal and wood furniture.

Coppley, Noyes & Randall, Hamilton, Ont., has been incorporated with a capital of \$150,000, to manufacture clothing. The provisional directors include G. C. Coppley, E. F. Noyes and J. Randall.

The "Little Giant" turbine appears to be growing in favor with trans-Atlantic owners of water powers. Messrs. J. C. Wilson & Co., report three orders in one day for these wheels from their English representatives.

The work of improving the harbor at Meaford, Ont., is so far advanced as to allow a through business to be done. The outlay of the improvements will be about \$250,000.

A 33-inch horizontal "Little Giant" turbine is being furnished by J. C. Wilson & Co., Glenora, Ont., for Geo. Sisson's pulp mill at Bourg Louis, Que.

\$25,000, to manufacture pulp and other coal oil stoves, etc. plaster.

The McLaughlin Carriage Co., Oshawa, Ont., has been incorporated with a capital

of \$400,000, to manufacture carriages and vehicles, etc.

The Leader Automobile & Engine Co.. Toronto, has been incorporated with a capital of \$250,000, to manufacture automobiles, etc.

The Clergue syndicate are erecting a sawmill with a capacity of 60,000 feet per day, at Goulas, on the Algoma Central Railway.

Among recent shipments of "Little Giant" turbines reported by J. C. Wilson & Co., Glenora, Ont., are a 24-inch horizontal type to T. G. McMullen, Truro, N.S.; an 18-inch vertical to Henry Hortop, Eden Mills, Ont.; a 21-inch vertical to Fred. Heimbecker, Hanover, Ont.; a 24-inch vertical to P. E. Roy, Emileville, Que.; a 16-inch vertical to E. K. Weber, Strasbourg, Ont. The machine-cut gears made by this firm still maintain the good reputation gained in other years, as is attested by the numerous orders being placed with them for this class of work.

The York Mfg. Co., Toronto, has been incorporated with a capital of \$40,000, to manufacture laundry machinery, etc.

The Woodburn Milling Co., Woodstock, Ont., has been incorporated with a capital of \$40,000, to erect and operate grain mills, etc.

The Incandescent Burner Co., Toronto, The Pulp-Plaster Co., Toronto, has been incorporated with a capital been incorporated with a capital of \$60,000, to manufacture lamp burners,

> A mill of 20,000,000 feet annual capacity is to be built by the Pigeon River Lumber Co.

A by-law was passed by the ratepayers of Elora, Ont., Aug. 16, for the purpose of loaning the sum of \$5,000 to the Bissell Mfg. Co., who will take possession of the mill formerly occupied by the Dominion Brussels Carpet Co., where they will carry on the manufacture of Bissell disc harrows and steel land rollers.

J. C. Wilson & Co., Glenora, Ont., are building a 21-inch and a 33-inch water wheel, with necessary gearing and shafting for the water works plant now being constructed by the town of Hanover,

The Paris casket factory, Paris, Ont., recently removed from Thorold, Ont., was destroyed by fire Aug. 27. Loss about \$1,500.

The Canadian Oil Refining Co., Petrolea, Ont., has been incorporated with a capital of \$100,000, to manufacture petroleum, salt, etc.

Messrs. R. H. Buchanan & Co., 692 Craig St., Montreal, inform us that they were recently in receipt of an order for a 30-inch Rossendale woven M.A.Y. belt for Morgan's Crescent Cement Works, at Longue Pointe, Que., the requirement being for specially heavy article. They immediately cabled for the same to the head office of the Rossendale Belting Co., at Manchester, England, and within ten days thereafter the belt was delivered in Montreal. Canadian manufacturers would do well to bear in mind that Messrs. Buchanan & Co. make a specialty of their belting trade, and being Canadian agents for the Rossendale woven M.A.Y. belts, are supplying them very exten-

THE BEST PIPE THREADING and CUTTING-OFF MACHINES

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

Also Manufacturers

of a FULL LINE of ADJUSTABLE STOCKS and DIES and Water, Gas and

Steam Fitters' Tools. New York Office: 139 CENTRE STREET.

Send for Catalogue 27.

Factory: BRIDGEPORT, CONN.

Hardware and Metal

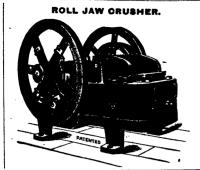
RICE LEWIS & SON, LIMITED, MACHINIST TOOLS, PIPE FITTINGS,

Bar Iron, Steel, Boiler Plate Tubes COMPLETE STOCK OF STOCKS AND DIES. PIPE VICES.

STILLSON AND TRIMO WRENCHES. STEAM PIPE.

CORNER KING AND VICTORIA STREETS,

When writing to Advertisers kindly mention The Canadian Manufacturer.



Crushes

Large Rock

Send for Circular.

STURTEVANT MILL CO.,.



inch.

Boston.

sively to belt users throughout the country, who report experiencing much satisfaction in the use of them. Messrs. Buchanan & Co. carry large stocks of this belting specially adapted for driving, carrying, and grain elevator purposes.

The Brompton Falls Paper & Pulp Mills Co., Brompton Falls, Que., has been organized with a capital of \$50,000. The mills are to be complete and running next spring.

The Kent Oil & Gas Co., Dresden, Ont., has been incorporated with a capital of \$50,000, to develop oil and gas lands, and to construct pipe lines for the conveyance of same to points of consumption.

The capacity of The Canada Woolen Mills Co. mills at Waterloo, Ont., will be increased by the addition of a two-storey brick building 35x60 feet. A shoddy mill will also be added to the plant.

Messrs. J. C. Wilson & Co., Glenora, Ont., report that they have forwarded to Great Britain and other European countries so far this year twenty-two "Little Giant" water wheels.

The old Major grist mill, Sarnia, Ont. operated by James Parkes, was destroyed by fire Aug. 17. Loss about \$40,000.

Mr. Brodie, late of Peterboro, Ont., is desirous of starting woolen mills at Streetsville, Ont He requests that town

to appropriate \$6,000 to purchase machinery, while he will supply the mills and operate them.

The Momentum Brake Co., Hamilton Ont., has been incorporated with a capital of \$40,000, to manufacture brakes and other railway supplies.

W. J. Hill, Esq., Toronto, who has large contracts with the Clergue Syndicate, Sault Ste. Marie, states that 4,000 men are at present employed on these enterprises. The steel plant buildings are fast approaching completion, a large quantity of machinery being already in place. The reduction works for the manufacture of ferro-nickel are almost finished.

Hon. W. C. Wells, Commissioner of Crown Lands, B.C., has entered into an agreement with the Pacific Coast Power Co., Victoria, and the Industrial Power Co., Nelson, by which they acquire extensive timber limits on the coast for the purpose of engaging in the manufacture of pulp and paper.

Mayor Bowlby, H. Kranz, C. K. Hagedorn, and other citizens of Berlin, Ont., are considering the establishment of beet sugar works in that town, to have a capacity of 500 tons daily. The amount of capital to be invested would be \$700,000, and employment would be given to about 200 hands.

Messrs. Lumsden Bros., Hamilton, Ont.,

are backing a project for the establishment of another canning factory in that city. The building formerly occupied by Messrs. James Stewart & Co., stove founders, will be used as a factory, and operations are expected to begin in the near future.

Mr. Patrick Heffernan, Walkerton, Ont., is promoting the organization of the Walkerton Beet Sugar Co., of which he and Messrs. John Messner and J. W. Bundy, of Walkerton, are directors. The scheme is to establish a beet-sugar factory at Walkerton, with a capital stock of \$500,000. The company has already arranged with the farmers in the vicinity of Walkerton for 2,500 acres of beets. That locality is said to be peculiarly fitted in the matter of soil for the growing of sugar beets.

A syndicate, it is said, has been formed to look up the power sites to the north-west of the town of Port Arthur, Ont. The capitalists behind the enterprise are calculating on great industrial developments at that point, in consequence of the completion of the Ontario and Rainy River Railroad. Land is being bought for a power canal twenty-two miles long, to connect with and divert the Kaministiquia River. An easy route has been found to high levels to a point within three and a half miles of the town, where it is proposed to construct a storage reservoir of 1,500 acres. When the route

Meehanieal Induced

Bottom Angular Up Discharge Right Hand Fan.

installed in connection with a Boiler Plant, will prevent smoke, will give greater fuel economy and increased boiler capacity, besides which the initial cost is far less than that of a chimney.

Mechanical Draft may be applied to old boilers to increase draft at a minimum initial outlay.

FOR PRICES and PLANS WRITE

MCEACHREN HEATING and VENTILATING CO. GALT, ONT., CANADA

Co. of London, Limited.

Electrical Construction



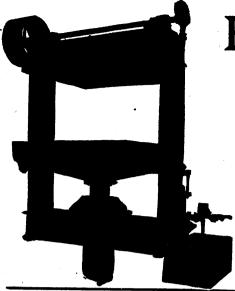
MULTIPOLAR MOTORS & DYNAMOS

And Direct Connected Plants for isolated Lighting.

Repair Work a Specialty.

HEAD OFFICE AND FACTORY:

No. 90 YORK STREET, London, Canada. 760 Main St., Winnipeg. 24 York St., Toronto, 134 Granville St., Halifax.



Hydraulic PRESSES

We Build Presses

PRESSING VENEERS TANNERS' USES BALING, Etc.

SEND FOR CATALOGUE AND PRICES

William R. Perrin & Company

TORONTO, - CAN.

has been acquired, it is expected that not much influence will be required to secure the water power of a river in West Algoma, as that will probably be conceded by the Ontario Government.

It is announced that an American syndicate has purchased Cow Bay Beach, near Halifax, N.S., which will be modernized and placed on a footing with the watering places of the United States. An electric tramway will be constructed from Dartmouth to the beach, and a hotel with 200 rooms will be built. The cost of the buildings will be \$150,000.

Mr. John A. Walker, Dublin, Chairman the Gaspe Oil Fields Co., and Dr. Lee, of London, a director of the company, were in Toronto a few days ago. Both gentlemen are on a tour of inspection of the oil fields. They have one hundred square miles of limits and have sunk thirty-four wells. Mr. Walker said that his company was endeavoring to have a railway built from the oil wells to Gaspe harbor, and if this is done the company will also begin the manufacture of pulp on a large scale.

The Dominion Shingle Mfg. Co., Victoria, B.C., has been incorporated with a capital of \$20,000, for the manufacture of shingles, etc.

'The Terreault Steel & Malleable Iron Co., Montreal, has been incorporated with a capital of \$200,000, to conduct a process for the manufacture of pig iron into steel,

Prof. Shuttleworth, the Government expert, was in London, Ont., a few days ago, meeting gentlemen from Michigan, who are promoting the London Sugar Refining Co., recently chartered by the Ontario Government, and it is now claimed as an assured fact that London will next season have, perhaps, the largest beet-sugar factory in Canada. With one or two exceptions all the gentlemen interested are United Statesers, who have had large experience in the business, and who are largely interested in the refinery already established at Wallaceburg, Ont. It was their original intention to put their capital into two refineries in Wisconsin, but beet-sugar refiners in the United States are beginning to feel the pressure of the Sugar Trust, and these capitalists did not care to risk any more of their money in the industry there until the result of the fight between the beet-sugar men and the trust is known. Ontario is profiting thereby. Already \$200,000 has been invested in the London refinery. This season the company put out amongst the farmers in the vicinity a large quantity of seed for trial, and the indications from the growing crop have made the experts who have seen it enthusiastic over the prospects. The Government tests made last season placed London in the van as a sugar beet producing district, and the results this year of Montreal.

will be even more satisfactory, it is believed. The London factory is to have a capacity of 1,000 tons a day, and will give employment to upwards of 300 hands for ten or eleven months in the year, the company purposing to cultivate on its own account several hundred acres of beets. The men will thus be employed in the fields in the growing months and in the refinery in the winter.

Messrs. J. C. Wilson & Co., Glenora, Ont., have just closed a contract with the town of Iroquois, Ont., for a double 44-inch "Little Giant" water wheel to drive their electric light and power plant.

The Board of Trade Building, Montreal, which was recently destroyed by fire, will be replaced, as soon as possible, by a much handsomer structure.

The Paris Casket Co., Paris, Out., has been incorporated with a capital of \$40,000, to manufacture burial caskets, coffins, etc.

The Standard Asbestos Co., Montreal, has been incorporated with a capital of \$150,000, to develop asbestos lands.

The Seamless Boat & Canoe Co., Montreal, has applied for incorporation with a capital of \$100,000, to manufacture seamless boats, canoes, etc. The applicants include G. H. Duggan, Lachine, Que., H. M. Mokon and A. G. Ferguson, both of Montreal.

CONTRACTORS, ATTENTION!

If you are excavating in stone, use

THE "LITTLE GIANT" ROCK DRILL

...NINE SIZES...

Adapted for Steam or Air

THE CANADIAN RAND DRILL COMPANY

SHERBROOKE, QUE.





CROSBY STEAM APPLIANCES EXCEL

Steam Engine indicators. Recording Gages. Revolution Counters. Pressure and Vacuum Gages. Lubricators, etc.



Stationary and Marine Valves. Water Relief Valves. Blow-off Valves. Globe and Angle Valves Single Bell Chime Whistles. SEND FOR CATALOGUE

A TRUTHFUL CACE IS THE ONLY GOOD GAGE



CROSBY STEAM GAGE and VALVE CO. BOSTON, NEW YORK, CHICAGO, LONDON

The Royal Military College, Kingston, Ont., have purchased a large isolated plant to be used for both commercial lighting and scientific experiments. The firm of Brock & Halliday, Kingston, have secured the entire contract. The plant will consist of two Canadian General Electric Co's 25 k.w. generators direct connected to two 9x10 Ideal engines, together with three marble switchboards and a large storage battery plant of sixty-four cells. The entire order for generators, engines, switchboards, supplies, etc., as given to the Canadian General Electric Co., and the order for boilers was given by Brock & Halliday to a local company.

The numerous uses for which Buffalo B Volume Blowers, built by the Buffalo Forge Co., Buffalo, N.Y., are adapted, are well illustrated and described in a twenty-page booklet recently issued by that company. Although not claiming the pretentions of a complete catalogue, this booklet is fully and handsomely illustrated and presents many tables of value and interest. The Buffalo Steel Plate Planing Mill Exhausters are special types of centrifugal fans, and are applied for the purpose of exhausting shavings, and sawdust from wood-working machines, refuse from emery wheels, buffing wheels, and for other purposes of like nature. A small catalogue just issued by this company illustrates and describes the various kinds of this type of fan. This company has recently perfected its Shavings and has increased its capital to \$100,000.

Dust Separator, and the type now being constructed is illustrated in a new folder. Copies of any of these books will be sent to any one upon application.

The Canadian General Electric Co. whose head office is at Toronto, have sent us an illustrated pamphlet descriptive of the S.K.C. system of alternating current apparatus, reference being made to the different important parts thereof, methods of installation, peculiar adaptability for different purposes and under varying conditions, etc. Mention is also made of the fact that the company have recently enlarged their factories and have also purchased the manufacturing plant of the Royal Electric Co., in Montreal, which additions admit of orders for all kinds of electrical apparatus being filled promptly, and with the same high grade of workmanship as heretofore.

Adam Hall and his son R. R. Hall, representing the Canadian Cordage & Mfg. Co., Peterborough, Ont., were in Chicago recently visiting the twine mills This company are building at Peterborough a plant for the manufacture of rope and binder twine. It will have a capacity of five tons per day of rope and the same amount of binder twine. Adam Hall is president of the company and R. R. Hall, attorney.—Chicago Farm Implement News.

The Gall-Schneider Oil Co., Montreal,

THE JENCKES TUBULAR BOILERS.

The Jenckes Machine Co., Sherbrooke Que., have sent us a copy of their Bulletin No. 12, just published by them, having reference to the horizontal tubular boiler and accessories, manufactured by them. Alluding to this boiler we are informed that for permanent plants for manufacturing, mining and other service, this type has long been preferred. It is as safe as any, cheaper in first cost than more complicated styles, renders high duty with the least liability to stoppage for repairs, and the least cost for repairs as a regular charge against its

The book is copiously illustrated, showing different features of these boilers and their appurtenances, and there are numerous explanatory tables, etc. There is also a list showing the sizes of the trimmings and fittings usually supplied for attachments to these boilers of the various capacities listed, which covers both the regular fittings sent out with each boiler, and those which are supplied to order only. These trimmings and fittings are all standard goods of best make, and are suitable in every way for general service.

Reference is also made to the duplex and triplex power pumps for boiler feeding and general purposes, made by this concern; feed water heaters, mechanical draft machinery, smoke stacks and connections, grate bars, etc.

Che A. R. Williams Machinery Co., LIMITED, **MANUFACTURERS** IMPORTERS AND DEALERS



OUR NEW BELL PATENT HIGH SPEED AUTOMATIC ENGINE

Engines, Boilers Iron Machinery Tools Wood-Working Machinery

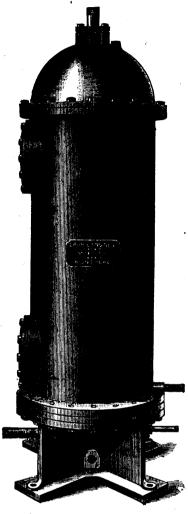
-AND-

GENERAL MILL **MACHINERY** and SUPPLIES

Write for

GATALOGUE and QUOTATIONS

Extract from "Rowe's Engineer's Catechism," P. 283

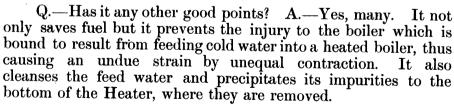


- Q.—Why does not every steam plant contain a Feed Water Heater? A.—Because the proprietor does not know how much money would be saved by its use. If he did, he would as soon think of doing without a boiler as being without a Heater.
- Q.—How does a Feed Water Heater save money for its owner? A.—By raising to a high degree the temperature of the water entering the boiler, without burning any fuel in so doing.
- Q.—How and where can this heat be obtained without fuel? A.—By extracting from the exhaust steam, after it has done its work in the cylinder, the surplus heat, which would otherwise be wasted in the atmosphere.
- Q.—Does it not cost money to do this? A.—None whatever, in fact less than that. Pay the first cost of the Heater and it will work free of charge and without attention, reducing the fuel bill to less than when running without a Heater.
- Q.—There must be more than one style of Heater. is the best? A.—The Laurie Patent Feed Water Heater and Purifier, manufactured by the Laurie

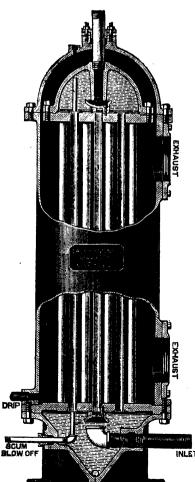
Engine Co., Montreal, is decidedly

the best.

Q.—Why so decidedly the best? A.—Because, by a special internal construction (patented) of moveable tube plates, it will heat the water to almost boiling point without any danger of tubes bursting or plates cracking through expansion or contraction.



- Q.—Is there more than one type of Heater? Yes, there are two, the "open," which receives the exhaust steam direct into the feed water, and the "closed," which by an arrangement of its tubes does not allow the exhaust steam to mingle with the feed water.
- Q.—Which is the better, the open or the closed? closed; because it makes it impossible for the grease and other impurities in the exhaust steam to enter the boiler with the feed water. The open Heater also requires two pumps, one for cold and one for hot water. The closed Heater requires but one.
- Q.—Is the Laurie Heater of the open or closed type? A.--The Laurie Heater is one of the closed type.



WILL NOT AFFECT CANADA.

Will the steel strike affect Canadian industries? was the question put to several gentlemen connected with the iron industry in Toronto. The consensus of opinion was that any work now under way or contemplated would not be hampered by the tying-up of many of the mills of the United States Steel Corporation, for several reasons: Local firms have an ample supply for present or future needs: other mills not affected by the strike will be kept busy turning out material to supply the increased demand; and, even if the required steel cannot be obtained in the States, there is still the English market open, where it can be obtained. Mr. E. J. Lennox, architect of the new

hotel, did not anticipate the strike would give the contractors any trouble. The contractors say they have secured all the iron necessary for the building, and it is now under shipment, either from Pitts-burg, Glasgow or Germany. When I saw there was likely to be trouble, said Mr. Lennox, I gave instructions to the contractors to secure iron wherever they could get it. They scoured around among the different manufacturers, and we have had advisory information that it has been shipped.

Mr. W. T. Jennings hoped and anticipated that the strike would be settled before construction metal becomes scarce. No one could tell, he said, what effect it would have; that depends entirely on its extent and duration. If it is not con-

cluded for some time it will be detrimental to our interests, but the usual course for contractors to pursue is to order materials well in advance of construction, so that the strike would not

affect any work now on hand.

Mr. F. B. Polson, of the Polson Iron Works, said he had all the construction iron he wanted this year. He did not think the strike would last long, but in any case Canadian firms can get all their orders filled in England. It will require a little more time, but the price will be about the same for English steel as for American. Some of the mills of the United States Steel Corporation will be operated as usual, he thought, and will be able to supply the demand. Just now the Polson Iron Works have a lot of government work on hand, including two hydraulic bridges, and they do not expect

to experience any trouble in filling orders.

Mr. Arendt Angstrom, manager of
Bertram Engine Works Co., Limited, said: So far as we are concerned, the strike does not affect us. The products manufactured by the mills in the strike are not used by us in our business, and unless it spreads to the plate and shape mills, like the Carnegie works at Homestead, we would not be affected. We have now contracts for two large steamers, one for the Richelieu and Ontario Navigation Co. for the Montreal and Quebec route, and one freight steamer for a syndicate, which are to be completed in the spring of 1902, and we have all the but, fortunately, have a large quantity materials on hand for these jobs. I don't on hand. Should the strike, however, the spring of 1902, and we have all the

industries directly to any large extent. The tying-up of the tin plate mills will probably hamper the roofing companies, if they have not a good supply of tin on hand, and other classes of industries such as tin stamping companies.

No, I don't think the strike will be

protracted. The men cannot afford to hold out for any great length of time, and their resources will probably soon be run out. There is another feature of the strike — the Amalgamated Association don't control their own men. There are many things against any extreme position of the men in this strike.

Mr. Henry F. Duck, consulting engineer of the Canadian Bridge Co., said unless the strike is settled it would have a bad effect on future orders. It will hit the consumers hardest if the builders have to import their rolled steel from Belgium, where the price is much higher than in the United States. He, however, did not anticipate a long struggle. Some of the mills, he pointed out, are running, and the steel manufacturers are bringing in outside labor to start up other mills. As far as his company are concerned, they have plenty of material on hand. and the strike would not hamper them in the least. He, of course, desired to see the strike settled, as he did not wish to

see a struggle between capital and labor.
Mr. A. E. Hagar, manager of the
Wrought-Iron Range Co., said his firm imported a large quantity of rolled steel. believe the strike will affect Canadian be of long duration, it might affect the



In the expansion of business now bringing profit to so many manufacturers, advertisers who have made themselves regularly prominent in past years have been notable in reaping the rewards of persistent publicity by advertising in

The Canadian Manufacturer

HAVE YOU A MODEL PLANT? No steam plant is perfect

with a shrieking, dripping exhaust pipe. Put on a



Burt Exhaust Head

And stop it all.

Will save you steam and money, too. Write us for catalogue.

THE BURT MFG. CO., AKRON, OHIO, USIN WAL

LARGEST MFRS. OF OUL FILTERS IN THE WORLD

trade somewhat by causing a scarcity of COPPER AND GOLD IN ONTARIO. the products of the strike mills.

Mr. Lennox mentioned the fact that he had plans drawn for a large building in the West End for the Toronto Foundry Co., but the builders were reluctant to give any figures for the steel work on account of not knowing whether or not they will be able to get the steel.

Advices received by Government officials respecting the mineral development of northern Ontario contain some important facts. A large copper deposit, two miles long, has been discovered in the Michipicoten district, south of Lake Wawa. The land has been acquired by

Mr. A. W. Fraser's Ottawa syndicate and by the Clergue syndicate, in the proportion of about two to one in area. Some of the ore found is reported to have been of the sensational richness of twentyseven per cent. It is probable that the early completion of the Algoma Central Railway will cause development work to go on almost immediately.

Another statement is that Mr. Clergue's gold mine in the Lake Wawa District. from which a trial shipment has just been made, has turned out to be an excellent body of ore. Gold discoveries are also reported some seventeen miles west of Sudbury, where there is said to be a large body of ore, one vein eighty feet wide, going \$8 a ton, and another vein eighteen feet wide going \$16 a ton.

THE PORT OF QUEBEC.

The Leyland Steamship Co. and the American capitalists who are connected with it in its efforts to divert the export shipments of western grain from New York, Boston and Portland, to Quebec, are more than satisfied with the result of their first shipments from that port. Mr. H. H. Melville, of Boston, and Col. James McNaught, of New York, who are heavy stockholders in the Great Northern Railway of Canada, by which road the grain is shipped over the shortest existing route from the great lakes to the ocean steamships, are authority for the statement that immediate steps are to be taken for more than doubling both the sailings of grain ships from the port of



ESTABLISHED 1823

(1900)

45 GOLD MEDALS AND DIPLOMAS

HIGH CLASS WORKMANSHIP.

SEVENTY YEARS' REPUTATION.

${ t BOBBIN\ AND\ SHUTTLE}$

MANUFACTURERS

Telegrams-"WILSONS, CORNHOLME,

ABC AND A1 CODES.

Cornhalme Mills, - TODMORDEN.

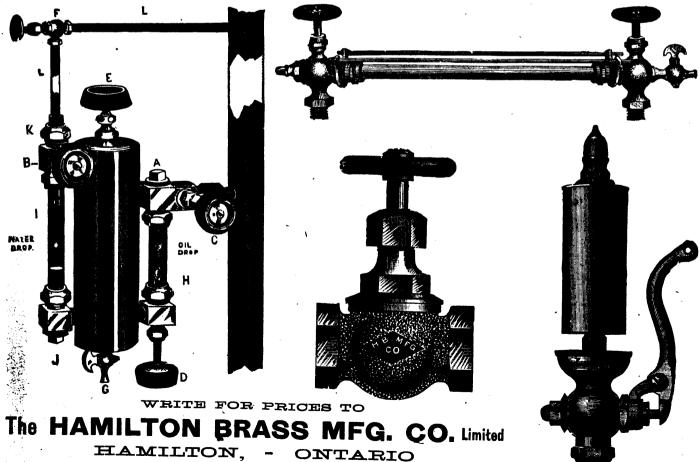
BRANCH WORKS-

LIVERPOOL AND ST. HELENS

OFFICE AND SHOWROOMS-

14 Market Place, Manchester, Eng.





Quebec and the terminal facilities of the railway there. In little more than two months, notwithstanding that this industry is yet in its infancy, the Great Northern had shipped nearly a million and a quarter bushels of grain from Quebec, while for the month of August the Leyland Steamship Co. has decided to run four grain-carrying steamships to the port instead of two, one of which will be the new cargo-carrier Kingstonian, of

9,000 tons capacity. The doubling of the railway terminals at Quebec to accommodate the increased shipments of grain from the West has already been commenced, and the discharging of barges and other vessels having cargoes of Western grain, by means of the marine leg of the new elevator equipment belonging to the Great Northern Railway, is going on concurrently with the elevating of grain from the cars. The enormous spurt which the company's operations have given to the business of the port is illustrated by the fact that all the available storage accommodation upon the wharves has been taken up, necessitating the immediate construction of a series of new sheds, each 850 feet long and 80 feet wide, one of which has already been completed.

So promising is the development of this trade that large improvements are being made to the roadbed of the railway to enable it to meet the new demands upon it. New stretches of road are being built to avoid difficult curves and grades, and heavier rails are being laid wherever necessary. With these improvements completed and new locomotives in use, trains of forty cars each are to be run between Parry Sound and Quebec.

ONTARIO'S METAL INDUSTRY.

The output of the metalliferous mines and works in Ontario for the six months ending June 30, as reported to the Bureau of Mines, shows an increase in value of thirteen per cent., compared with the same period of last year. The total value in that period this year was \$1,438,539, compared with \$2,541,131 for the whole of 1900. A feature of the returns is that pig iron heads the list, with a value of \$594,617. This required 69,763 tons of iron ore, of which 41,172 tons were the product of Ontario mines, and 28,591 tons were imported from the United States. Formerly the bulk of the pig iron produced in Ontario was smelted from Northern Michigan ore, but, as the present figures show, this is not now the case, hematite from the Helen mine at Michipicoten having largely taken the place of the imported article. Magnetite from eastern Ontario was also used to some extent.

The production of nickel was second in the list in point of value, reaching \$416,-288. Nickel-copper ore to the extent of 132,370 tons was raised from the Sudbury district, of which there were smelted 95,573 tons. The Mond Nickel Co. have started their plant at Victoria Mines, and are now producing matte. Of purely copper ores 9,000 tons were raised. Of gold ore 25,225 tons were crushed, and of silver ore 4,560 tons were raised. The

Toronto Elevator Co.

MILLWRIGHTS AND ELEVATOR SPECIALISTS

Estimates Given and Losses Adjusted

OUT-OF-TOWN WORK PROMPTLY ATTENDED TO.

'PHONE JOHN H. SHALES,
1535 Manager

74 ADELAIDE ST. WEST TORONTO

Miller Bros. & Toms.

Leitch & Turnbull Co.

Greening's Wire Ropes.

Elevators

Limited, Elevators.

ALEX. GARTSHORE, President. J. G. ALLAN, Sec.-Trees. Jas. THOMSON, Vice-Pres. and Gen. Mngr.

GARTSHORE-THOMSON PIPE & FOUNDRY CO.

Limited

CAST IRON PIPE

3 in. to 60 in. diameter.

For Water, Gas, Culverts and Sewers

Special Castings and all kinds of FLEXIBLE AND FLANGE PIPE.

WATER WORKS SUPPLIES

HAMILTON, ONT.

PACKARD

MAKERS OF

LAMPS AND TRANSFORMERS

SOLE AGENTS FOR CANADA

SCHEEFFER RECORDING WATT METERS

ST. CATHARINES, - CANADA

A Money Maker...



SUTTON BOILER COMPOUND

--PREVENTS-

Loss of life and property, and saves fuel and expensive repairs. Trade mark is on every package for the protection of our customers.

For Engineers' Supplies, Oil, Grease, Packings, etc., write

THE WM. SUTTON COMPOUND CO., CIMITED 186 QUEEN STREET EAST

The Wm. Hamilton Mfg. Co. Peterboro, Ont., Can.

Acting as the Patentee's Licensee

Are prepared to manufacture and supply

SAVERY'S PATENT SHAKE FRAMES

·FOR

Fourdrinier Paper Machines,
AS DESCRIBED IN

Canadian Patent No. 57,819.

----AL80---

SAVERY'S PATENT COMBINED DRYER STEAM JOINT

SAFETY VALVE

AS DESCRIBED IN

CANADIAN PATENT No. 68,093.
ABOUT 2,000 NOW IN USE.



BALE'S

Fire . Cement

LINING AND REPAIRING
STOVES, FURNAGES, RETORTS

And all work where great heat is required.

BALE & CO., Newgate St., LONDON, ENG. GAS PURIFICATION and GENERAL IRON MERCHANTS



Auction Sale of Timber Berths.

PUBLIC NOTICE is hereby given that pursuant to authority of Orders in Council, the Red and White Pine Timber in the following townships in the DISTRICT OF ALGOMA, namely:—The Townships of Graham (part), Hart, Cartier, Levack, Jarvis, Anderson, Chesley, Gillmor, Whitman, Curtis and Rutherrord (part), and certain areas between the Pigeon River and the Arrow River waters in the District of Thunder Bay, will be offered for sale by Public Auction at the Parliament Buildings, in the City of Toronto, on TUESDAY, the SEVENTEENTH day of SEPTEMBER next, at the hour of ONE o'clock in the afternoon.

SEPTEMBER next, at the hour of UNE o'clock in the afternoon.
At the same time and place certain forfeited and abandoned Berths in the Townships of Digby, SHERBOURNE and LUTTERWORTH, in the District of Haliburton and County of Victoria, will be offered for sale, the purchasers of these latter Berths to have the right to cut all kinds of timber.

Sheets containing terms and conditions of Sale and information as to Areas and Lots and Concessions comprised in each Berth will be furnished on application, either personal or by letter, to the Department of Crown Lands, Toronto, or the Crown Timber Agencies at Ottawa, Sault Ste. Marie and Port Arthur.

E. J. DAVIS,

Commissioner Crown Lands.

DEPARTMENT OF CROWN LANDS, TORONTO, June 1, 1901.

N.B.—No unauthorized publication of this advertisement will be paid for.

old Victoria silver mine at Echo Lake has resumed operations.

The returns of the output of the various classes of mineral is as follows:

Quantity.	Value.
Iron ore, 68,564 tons	\$70,572
Pig iron, 41,294 tons	594,617
Nickel, 3,964,000 pounds	416.288
Copper, 3,638,000 pounds	178.476
Arsenic, 591,034 pounds	18.912
Gold, 6,646 ounces	116.898
Silver, 68,200 ounces	40.770
Zinc ore, 400 tons	2,000
<u>_</u>	

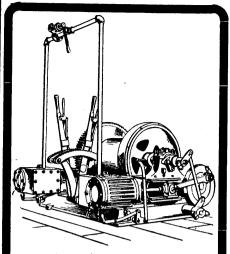
\$1,438,539

ST. LAWRENCE CANALS.

Even if there is not a clear fourteenfoot draft in the St. Lawrence system of canals, too much cannot be expected of this artificial waterway. Many years ago two large steel steamers, the Mackinaw and Keewenaw, built at the Bay City yards of F. W. Wheeler & Co., were drawn apart and each taken to the St. Lawrence in two sections. At even an earlier date steamers of small size had crossed the Atlantic and came through the canals to the lakes. Anything crossing the Atlantic must be in fairly good ballast trim and twelve to fourteen feet simply submerges a propeller in any sized craft to speak of. This argues that a 3,000-ton steamer, built very full and with the general hull dimensions of 256-42-26 feet can be locked through canals 270 feet in length and forty-five feet in width, leaving room to work the gates, but there is no chance for her to carry any cargo worth mentioning in so doing. We have consistently stated that these canals require specially built tonnage, equally so and for much the same reasons as the Erie canal does. A flotilla of canal boats will never make economical interlake and Atlantic Ocean carriers, nor can the Erie, Welland or St. Law-rence river canals be likened to the Suez or Manchester canal from a transportation standpoint. In a word, too much is now being expected from the Canadian stretches of canals to the St. Lawrence. Marine Record.

TRANSPORTATION PROBLEMS

It will not be the fault of Hon. J. Israel Tarte if a thriving shipbuilding industry is not established in Canada. The quesis not established in Canada. tion is one which the Minister has closely at heart, and he loses no opportunity of urging his views upon his colleagues in the Government and upon the public. Mr. Tarte believes in the Government owning its own dredges, and in consequence of his energetic action, the Government will have at its disposal before the winter sets in several fine hydraulic dredges of the most modern design and equipment. One of these is now being completed on the Fraser River for use in the harbors and rivers of British Colum-A second is under construction in the Polson shipyards at Toronto. is intended for dredging operations in the St. Lawrence. A third hydraulic dredge for the Maritime Provinces is in course of construction. Two wooden dredges, one



BACON'S 1901

Hoisting Engines

These engines are designed with special reference to efficiency, durability and convenience in operation.

Besides various standard sizes and styles, modified types are built, specially adapted for underground use, contractors, bridge builders, ships and docks, operating cableways, etc., etc.

Whether your requirements are small or large, we shall be glad to receive your inquiries, and to submit attractive figures for your consideration.



Branch Offices in Principal Canadian Cities. THE

Jones & Moore Electric Co.

MANUFACTURERS AND CONTRACTORS



Dynamos for Belt or Direct Connection

Motors Slow or Moderate Speed.

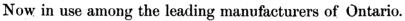
Arc Lamps

Direct or Alternating Current.

Celephones . .

Highest Efficiency





Repairs to all Systems Promptly Performed



Satisfaction Guaranteed or No Sale.



Secure our Estimates
Before Purchasing.

LIGHTING and POWER PLANTS

INSTALLED COMPLETE.

Welding Dynamos

MANUFACTURED IN ALL SIZES.



THE JONES & MOORE ELECTRIC CO.

See our Exhibit in Machinery Hall at the Industrial Fair, Toronto. 20-22 Adelaide West, TORONTO.

E. B. THOMPSON. **CUSTOM HOUSE BROKER**

GENERAL FORWARDING and TICKET AGENT,

38 YONGE ST., TORONTO.



This Chain Pipe Wrench

has interchangeable jaws. Improved method of holding and releasing chain. No locking. Send for

TRIMONT MFG. CO., Roxbury, Mass., U.S.A.

FOR SALE

The Manufacturing Rights, patented in Canada, of a VALUABLE APPLIANCE extensively adopted by Electrical Lighting Companies and users of high steam pressure in Great Britain. Full particulars from

WOOD & GREGORY, Limited, Duke's Rd., London, Eng., W.C.

The new \$600,000 beet sugar factory, at Wallaceburg, Ont., has let contracts for the main building, which is to be 244 feet long and four storeys high. There are to be ten beet sheds, with a storing capacity of from 15,000 to 18,000 tons of beets, each of which is to be 400 feet long.

for Ontario and the other for Quebec, have just been finished. Canada has no need to go abroad for ships, said the Minister to a newspaper correspondent. We can construct in this country all the vessels we require, and ought to do so. by some criticisms in The Farmers' Sun, The trouble with the professor is that he is all the is where we differ with him. We are for Canada—first, last and always. We believe we have great natural opportunities, and we will strive to make the most of them.

DIXON'S

SOLID lt Dressing

SAMPLE SENT FREE. SEND FOR ONE.

NOTHING

EQUALS IT.

Joseph Dixon Crueible Co., Jersey City, N. J.

U.S.A.

For Roofs

of all kinds, Bridges,

Iron Work.

PLEASES THE MAN

WHO USES IT.

DOES

TWO THINGS

AND DOES THEM

THOROUGHLY

STOPS THE BELT FROM SLIPPING.

"Zanzibar

Anti-Rust

ALL **COLORS**

Paint"

MADE TO ENDURE

GARFIELD PAINT CO. TORONTO, ONT., CANADA

Write for Booklet

W. A. FLEMING & CO., -

Montreal, Que.

"A STUDY IN BLACK."

Agents for Quebec and Maritime Provinces

THE SMART-EBY MACHINE

191 Barton Street East, Hamilton, Ont.

High Speed Engines, Brown Automatic Engines, Boilers, Rogers' Patent

Shaking and Dumping Grate Bars, Pumping Machinery,

Electric and Hand Power Travelling Oranes, Shafting, Pulleys, General Machinery, Etc.

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

They can be built just as cheaply here as anywhere else. The Minister reverted to the transportation question, and lamented that out of, perhaps 30,000,000 bushels of grain, less than 5,000,000 bushels would go through Canadian channels this season. We must remedy this state of affairs, Mr. Tarte declared, and I am prepared to give whatever time and thought I can to grappling with the problem. Mr. Goldwin Smith, judging is not in sympathy with our plans for improved transportation. The trouble time thinking of the United States. That

SHIPBUILDING AT HALIFAX, N.S.

A company is about being organized at Halifax, N.S., to construct and operate a shipbuilding plant to qualify for the municipal and provincial bonuses that have been offered. The company will principally be a local one, and in it John F. Stairs and B. F. Pearson are largely interested. Besides, there is a possibility of British competitors for the aggregate bonus of \$400,000 or \$500,000 that has now been hung up for plants at that port. S. M. Brookfield expects to meet a representative of a Scotch shipbuilding firm, and will point out to him the desirability of his becoming interested in the possibilities of the shipbuilding industry of Halifax and qualifying for the city and provincial bonus or for the Dartmouth, N.S., and provincial bonus.

A possibility of a third company is represented by E. B. Swan, of Swan & Hunter, builders of a number of steamers now chartered by the Dominion Coal Co.

The subsidies now available for ship-building plants are: City of Halifax, \$200,000; province, \$100,000; town of Dartmouth, \$100,000; province, \$100,000.

TO WORK ONTARIO MINES.

A deal of considerable importance is at present being considered by capitalists of Newark, N.J. The plan laid down is to operate on a large scale in developing Ontario mines that are now lying idle for the want of capital to work them. this object in view negotiations have been going on for some time past between the Mines Contract & Investigation Co., of Toronto, Limited, who are large owners of mining properties in Ontario, and W. L. Cheeseworth and others, of Newark, N.J., who represent capitalists there. It is understood that these parties have secured some very valuable gold mining properties situated on Clytie Bay, near the Mikado mine. The Clytie Bay district is now known as one of the richest gold producing sections of the Lake of

the Woods, and it is confidently expected that with good properties, good management, and ample means to carry on the development work, satisfactory results will follow, and that the investors will in course of time extend their operations in the gold fields of Ontario similar to that which Mr. Clergue and his Philadelphia friends are doing at the Canadian Soo.

ECONOMICAL STEAM PRODUC-TION.

The Robb Engineering Co., Amherst, N.S., have favored us with an exceedingly handsome illustrated description of the Mumford type boilers made by them. The introduction informs us that economical steam production is obtained, first, by perfect combustion of the fuel; second, by transferring as much as possible of the heat produced by combustion to the water in the boiler; third, by converting the water into dry steam. Illustrations explain the methods of obtaining these results; and they also show how these results are most economically obtained by the use of the Mumford boiler. The illustrations, and accompanying descriptive matter, are intended to show that the Mumford boiler combines in a remarkable degree the advantages of three or four standard types of boiler, each of which has its special merits, namely, the simple construction of the return tubular; the quick steaming qualities of the vertical tubular, and the internal furnace of the Scotch Marine and Lancashire boiler, with the special advantages in the way of quick circulation and safety of the modern water tube boiler

There are illustrations and descriptions of the Mumford Standard boiler with steel case; with side of case removed; with brick case; sectional views, and of portable boiler. There are also views of return tubular boiler, vertical boiler, Scotch Marine boiler and Galloway boiler.

NEW ANILINE COLORS.

Acid Chrome Black B & G. These new products are very easily soluble, and are dyed in a strong acid bath with the addition of Glauber's salt and sulphuric Dyed direct the colors can be employed in a similar manner to Napthole Black 2 B, but when afterwards treated with bichrome their value and properties are considerably enhanced, the shades then being very fast to alkalies and acids, as well as resisting the action of stoving and milling, and the after-chromed shades are also distinguished for their excellent fastness to light. With regard to their level dyeing property, they can be classified amongst the best products in this respect, and their good penetration is even superior to most of them. Both products can be recommended for the dyeing of slubbing in machines, as well as for the dyeing of loose wool and piece goods.

Brilliant Wool Blue B Extra and Wool Blue S R Extra. Brilliant Wool Blue B extra is distinguished for its very clear and bright shade, whereas the S R extra brand offers a great advantage in its



N.Y. & Boston Limited Kniekerboeker Special South-Western Limited

Famous Trains between

BOSTON **NEW YORK** WASHINGTON

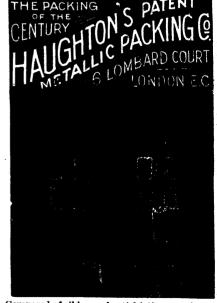
CINCINNATI **CHICAGO** ST. LOUIS

Big Four Route

NEW YORK CENTRAL BOSTON & ALBANY

Cafe, Library, Dining and Sleeping Cars

M. E. INGALLS, President. W. J. LYNCH, Gen. Pass. and Ticket Agent. W. P. DEPPE, Asst. Gen. Pass. and Tkt. Agt. CINCINNATI...



Composed of ribbons of anti-friction metals, combined with metallic and other lubricants, therefore in this form will fit any size gland.

USED IN THE BRITISH and FOREIGN NAVIES.

Always elastic. Lasts for years without re-packing. Packed in cases of 10 and 20 lb., and drums of 1, 1, 2 and 5 cwt.

SPECIFY-HAUGHTON'S PATENT PACKING.

JAS. H. MILNES & CO.

Best Grades of STEAM COALS. Best Grades of BLACKSMITHS' COALS. Best Grades of FOUNDRY COKES,

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

Head Office: 78 OUEEN ST. EAST

TORONTO.

Docks: Esplanade, Foot of Yonge

cheap price; both of these new products are possessed of the same good level dyeing properties, and are dyed in the same manner as the older N extra and R extra brands. Brilliant Wool Blue B extra is much faster to rubbing than colors of similar clearness of shade, such as Victoria Blue. The B extra brand can be employed in all branches of wool dyeing for the production of very clear sky blues, whereas the S R extra mark can be reccommended for cheap dark navy blue shades, also for dyeing bright shades on dark shoddy. Both brands are well adapted for dyeing half-wool by the one bath process.

Katigen Black 2 B and Katigen Blue Black 4 B. The chief feature of these new brands is that they produce a much more bluish tone than the older brands, even when dyed direct. The 4 B brand could almost be classified among the dark navy blues. Katigen Black 2 B yields a bright bluish black shade and can also be well recommended in combination with the older S W Brand for the production of bluer black tones. Both qualities are possessed of all the same excellent pro-

perties, as the older brands. With respect to their level dyeing properties, what has already been mentioned in former circulars on Katigen Black S W and T G equally applies to these two new colors. Both brands are well adapted for dveing cotton piece-goods in the vat, and therefore need not necessarily be dyed on the jig. They are especially suited as substitutes for aniline oxidation black, and can be dved in any machine. Even when dyed direct according to the one bath process they produce finer and faster shades than any existing black.

Pluto Black F Extra. This new direct black is very fast to acids, and its fastness to light is much better than the BS extra brand, and will undoubtedly meet with a ready and favorable reception, the more so as its shade is a very fine one. Pluto Black F extra will prove very valuable where good fastness to light is required, as well as fastness to acids, and does not turn dull or flat in subsequent finishing with iron salts and logwood. It is further adapted for level dyeing in half-woolen fabrics, and is also suited for dyeing in the milling machine.

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

LYTHITE COLD WATER PAINT.

Messrs. W. A. Fleming & Co., 771 Craig street, Montreal, have recently become general distributing agents in Canada for the well-known Lythite Cold Water Paint and the National Wall Coating. Lythite, although only a dry powder, when mixed with cold water produces, we are informed, a perfect paint suitable for both interior and exterior work. It is made in white and black, and twenty-four different colors. White Lythite is claimed to be the whitest paint made. Its great value will therefore be seen, especially for use on the interior walls and ceilings of mills, factories, railway buildings, engine-rooms, store-rooms, elevator shafts, area-ways, and many other places, especially where



Galvanized Steel or Wood, all Sizes, 4 to 26 feet in Diameter.

PUMPING MILLS

FURNISHED WITH OR WITHOUT TANK ELEVATED IN TOWER.

GALVANIZED Steel Towers

Any height, either nost, with Three or four post, w substantial ladder.

TANKS Any Capacity, Any Purpose

Made in Pine, Cypress, Fir or Galvanized Steel,

Our windmills are self-regulating and self-governing, and with our Hoosier Automatic Anti-Freezing Force Pump the windmill outfit takes care of itself, night or day, in calm or storm.

" Hoosier " IRON "Fast Mail" PUMPS.

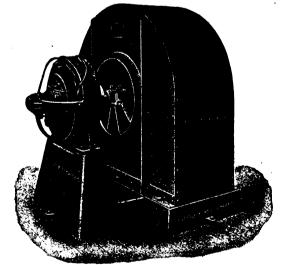
Designs and Prices Furnished. Write for Catalogue.

"STATION A"

KENDALLVILLE, IND.

Buffalo Mechanical Fans

For BOILER PLANT ECONOMY



Buffalo Electric Induced Draft Fan.

BUFFALO FORGE COMPANY BUFFALO, N.Y.

E. A. WALLBERG, 410 Temple Building, - TORONTO. MONTREAL.

the greatest possible amount of light is required.

This paint which increases the light also reduces insurance wherever used, as it is fireproof and gives a remarkably hard coating that will not crack or peel off. It is both cheap and economical, costing, we are told, only about one-fourth the price of oil paint. There are many people owning stables, sheds and outbuildings that have never been painted at all, because of the excessive cost of oil-paint, but who now do not hesitate about painting when it can be done so cheaply and satisfactorily with Lythite Cold Water Paint.

National Wall Coating, Lythite's little sister, as it is called, also has great covering power, will not run, lap or show joints, and possesses great sanitary properties, and is recommended for calcimined and plastered surfaces. If one wants to whiten his cellar, to keep the engine rooms and store house light, bright and clean, or to paint a cottage, shed or out-building, send to Messrs. W. A. Fleming & Co. for color cards and all facts about these valuable products.

OPPORTUNITIES.

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

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

554. A fruit salesman and commission agent in Leeds desires to correspond with exporters of Canadian fruit and poultry who require representation.

555. An agent in London who is conversant with the provision and fruit trade is open to take up the agency of Canadian shippers who can utilize his services.

556. Enquiry is made for particulars of partly opened out copper claims in Canada for development purposes.

557. The names of reliable furniture manufacturers in Canada are asked for by a west of England firm who also have branches in South Africa.

558. An agent at Amsterdam working chiefly in the dried fruit business desires to obtain the agency for a good Canadian house shipping evaporated apples, etc.

559. A correspondent in Ireland asks to be furnished with addresses of cheese and butter factories in the province of Ontario from whom he can import direct.

560. The addresses of furniture manufacturers in Canada are required by an agent who can entertain agencies both for the United Kingdom and South Africa.

561. Enquiry is made for names of firms in Canada who own mills for cutting fir sleepers and blocks, and are prepared to quote for the delivery of such timber, f.o.b. shipping port.

562. A correspondent in the South of England asks for names of exporters of Canadian bacon and cheese.

THE BOURNE-FULLER CO. IRON, STEEL

AND

PIG IRON

CLEVELAND, OHIO, U.S.A.

Shipping Tags.

Invoice Tags.

DUPLICATING BOOKS

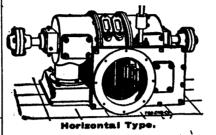
HEAD OFFICE:

THE MORTON COMPANY, Limited (Successors to Automatic Check Book Co.)

46 & 48 Richmond St. W., Toronto.

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

Branch Office: 260.St. James St., Montreal.



"LITTLE GIANT" TURBINE

....FOR ALL PURPOSES....

HORIZONTAL AND VERTICAL.
BUILT IN 44 SIZES.

We guarantee a higher percentage of power from water used than any other wheel on the market.

Water Wheel Governors, Machine Dressed Gearing, Pulleys, Shafting and Bearings.

Catalogue and Gear List mailed on application.

Correspondence Solicited.

J. C. WILSON & CO., - - GLENORA, ONT.

PIANOS and ORGANS

BUILT TO LAST A LIFETIME
AND USED THE WORLD OVER

Send for Catalogue No. 47 to

THE BELL ORGAN AND PIANO CO., LIMITED-

QUELPH, - - ONTARIO.

LARGEST MAKERS IN CANADA.



THE WELLINGTON MILLS, London, Eng. GENUINE EMERY

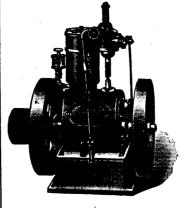
Oakey's Flexible Twilled Emery Cloth. Oakey's Flint
Oakey's Emery Paper, Black Lead, Etc.

Oakey's Flint Paper and Glass Paper.

Prize Medal and Highest Award Philadelphia, 1876, for Superiority of Quality, Skilful Manufacture, Sharpness, Durability, and Uniformity of Grain.

Manufacturers, JOHN OAKEY & SONS, Limited, Wellington Mills, Westminister Bridge Road, London, England.

EMQUIRIES SHOULD BE ADDRESSED TO JOHN FORMAN, 650 CRAIG ST., MONTREAL



THE SYLVESTER CAS and CASOLINE ENGINES

Are beyond doubt the most complete and economical engine in the market. They are compact and perfectly under control, easily managed, get up speed immediately, thoroughly reliable, and where intermittent power is required they are just the thing.

They are built in sizes from 1 to 20 h.p., upright and horizontal, for pleasure yachts, boats, shops, farm work and any purpose where light power is required. Tell us to what use you want to put the engine, and what power you require, and we will name you prices.

SEND FOR CATALOGUE SYLVESTER BROS. MFG. Co., Lindsay, Ont.

FOUNDRY EQUIPMENT

E. A. WALLBERG, C.E.

Temple Building, TORONTO

Merchants Bank Building, MONTREAL



MARKETS.

Following are reports and observations relating to the markets of Canada and elsewhere, having reference to hardware, metals, paints, oils and such specialties as are usually handled by jobbers and dealers in such goods. Following these items will be found current market quotations of such goods, and the trade are requested to suggest to the publishers any improvements by which it is believed the quotations may be rendered as correct and valuable as possible.

TORONTO, September 6, 1901.

One of the most important trade announcements of the day is contained in a cable from London stating that the great shipbuilding firm of Armstrong-Whit-worth Co., of Newcastle, is considering the feasibility of erecting a shipyard in Canada. The company, is is said, have gone so far in the matter that Mr. F. B. Swan, nephew of the manager of the big company, is in Canada entering into negotiations with the several interests involved. Mr. Swan was in Toronto recently, and discussed the question with western people who are interested. The place where the establishment of the themselves the superior of the Americans. plant is contemplated is Halifax, and the In wholesale circles business is gener-Nova Scotia government has offered a bonus of \$100,000 to the industry. The firm must guarantee to construct certain works, docks and waterways, and to

carry on the industry for a certain length houses when they come to the city for the of time, but is not bound to guarantee any output. If satisfactory arrangements are completed the company will spend from \$300,000 to \$500,000 in the erection and equipment of the plant.

A street report which spread rapidly a few days ago was to the effect that a leading Toronto hardware firm had within a very short time scooped an American the season. Payments are about the combination in a clever manner, and the completion of the deal netted a handsome the crops are moved remittances will be combination in a clever manner, and the profit. The American combination had for some time a plan to supply the Canaworking of the combination, and immediately despatched representatives to the various points, who purchased the pipe at a fair price. The firm immediately had the pipes threaded and shipped to the Old Country, where it is understood they found a ready sale at a handsome advance on the Canadian price. Our American neighbors have been given credit often for being the shrewdest of business men. but in this case it must be acknowledged that the Canadian merchants showed

ally quiet. Travellers are preparing for the fall trips, and many are remaining in advance influencing trading. the city until after the Fair is over. Country merchants visit the wholesale

Fair, and it is one of the traveller's duties to look after his customers while they are in the city. According to reports from the various houses the fall trade is expected to be an unusually large one, as retailers have with few exceptions allowed their stocks to run down and must purchase heavily to meet the demands of punctual.

The money market is steady, call loans dian markets with iron pipe, and for the purpose had laid down at some important Canadian points a plentiful supply. The Toronto firm received information of the quite impossible to foreshadow the course of the market. Fears of the demand from the West for money cause many to believe that it is wise to be conservative and take profits whenever they are in sight. The steel strike appears to have lost its influence in the market, and increased earnings of railroads enthuse the bullishly inclined speculator.

The movement in Canadian securities

is without special feature. Electric shares have shown a little activity, and the advance in prices is one of satisfactory statements. Twin City is attracting the attention of many speculators, the recent

BUFFALO PIG IRON MARKET. -- Office of

FOR SALE

One LOCOMOTIVE BOILER	TUBES.
Length over all, 25°. Diameter of Shell, 5°. Width across front, 5°2". Height in front, 7°6". SMOKE BOX—Length, 2′3". FURNACE	Number of 112. Length, 16' 3". Diameter, 3". Water Leg Space, 4½". FURNACE DOOR, 16" x 18".
(Inside) Length, 6'. "Height, 5'8\". "Width, 4'7".	SMOKE STACK Height, • 33'. Diameter, • 37'.

FOR FURTHER PARTICULARS APPLY TO

JOHN LUMSDEN, & CO., - 375 St. James St., Montreal, Que.

The B. GREENING WIRE CO., Limited



MANUFACTURERS

Lang's Patent Wire Ropes For Colliery and Mining Use.

WIRE ROPE

HAMILTON, ONT. and for all purposes. and MONTREAL, QUE.

SILICIA BRICKS

Highest Grade for all Purposes

MAGNESIA BRICKS

FOR LINING

Smelting, Refining and Matte Furn aces, also Cenverters Retary Cement Kilns

F. HYDE & CO. 31 WELLINGTON ST.

TORONTO and HAMILTON ELECTRIC CO.



MOTORS and DYNAMOS

MODERATE and SLOW SPEED OF RICH EFFICIENCY. EITHER BELTED OR FOR DIRECT CONNECTION.

REPAIRS PROMPTLY EXECUTED ON ALL ELECTRICAL APPARATUS.

T. & H. ELECTRIC CO. 99-103 McNAB N., HAMILTON, ONT.

PROVISIONAL

PATENTS, Caveats, Etc. DIXON, REGISTERED ATTORNEY. MECHANICAL EXPERT, ETC. 124 VICTORIA STREET, TORONTO, ONT.

CHARLES F. CLARK,

JARED CHITTENDEN, Treasurer. Established 1849.

BRADSTREET'S

Oapital and Surplus, \$1,500,000

Offices Throughout the Civilized World. EXECUTIVE OFFICES,

346 & 348 Broadway, New York City, U.S.A. Correspondence Invited.

OFFICES IN CANADA:

Halifax, N.S. London, Ont. Ottawa, Ont. St. John, N.B.

Hamilton, Ont. Montreal, Que. Quebec, Que. Toronto, Ont. Victoria, B.C. Vancouver, B.C

Winnipeg, Man. THOMAS C. IRVING, Gen'l Manager Western Canada, TORONTO.

JOHN A. FULTON, Gen'i Manager Eastern Canada, MONTREAL.

Rogers, Brown & Co., Buffalo, N.Y., Sept. 3, 1901.

Conditions seem very favorable for a strong active market ahead. It is true that two or three furnaces in the past ten days have been trying to fill every chink of their order books, and have therefore been willing to name prices below the market. Two of these have satisfied their appetites already.

As a rule we believe furnaces tributary to this market are well supplied with orders for the rest of the year and even into 1902.

The busiest season of the year is just ahead, and the labor situation will soon be on a normal basis, but notwithstanding these strong features prices are held down very conservatively by all.

We quote below on the cash basis, f.o.b. cars Toronto, in bond:

No. 1, X. Tonawanda Scotch iron.	\$ 16	50
2	16	സ
" 1, " Niagara iron	16	50
" 2, "	16	00
5°/° Silicon Mannie Charcoal		
softener	16	50
3 _o /° Silicon Mannie Charcoal		
softener	16	00
Connellsville 72 hour Foundry		
coke	4	95

BRITISH PIG IRON MARKET.-Messrs. William Jacks & Co., 49 Leadenhall St., London, E.C., Eng., under date of Aug. 23, 1901, quote as follows: No. 1 Carnbroe, 56/6 per ton f.o.b. Glasgow; No. 3 Carnbroe, 55/- per ton f.o.b. Glasgow; No. 1 Summerlea, 70/- per ton f.o.b. Glasgow; No. 3 Summerlea, 57/6 per ton f.o.b. Glasgow, including Clyde dues. Mixed numbers, Cumberland Hematite, small pigs, 66/6 per ton f.o.b. Liverpool; refined D.T.N. Hematite, small pigs, 84/per ton f.o.b. Liverpool. Market steady and inclined to harden on autumn orders being placed.

BINDER TWINE IN MANITOBA.—The importers of binder twine in Winnipeg report that the demand this year is unprecedently large. In anticipation of a heavy crop the dealers had ordered large supplies from manufacturers, but the demand has been beyond their expectations and more consignments have been ordered. The price this year is 12½ cents per pound, with a liberal discount for very large quantities or prompt payment. This is about the same price as last year, but is lower than that of previous years. The length and strength of straw this year makes it necessary to use more than the average amount of twine to the acre.

THE PROPOSED FAST ATLANTIC LINE. The announcement that the House of Lords had approved of the incorporation of a steamship company which proposes to cut a couple of days off the time of passage across the Atlantic has been heard with a great deal of interest by Montreal shipping men. Mr. G. A. Riugland, passenger manager of the Elder-Dempster Co., does not believe in the commercial practicability of the scheme. The proposal to reduce distance

W. J. McGUIRE & CO.,

TORONTO and MONTREAL.

THIS COMPANY makes complete installa-

"International" Head.

tions of either the

WET or DRY SYSTEMS

APPARATUS

AUTOMATIC ...FIRE... **EXTINGUISHING**

Systems, Devices and Workmanship fully approved by Insurance Companies and Bodies.

Systems in extensive use, and have stood the . test of time.

Write for full particulars and Catalogue.

40 to 70 % OF INSURANCE SAVED

Dominion Oil Cloth Co.

(LIMITED)

Manufacturers of

OIL-CLOTHS of Every

Floor Oil-Cloth, Table Oil-Cloth. Carriage Oil-Cloth, Enamelled Oil-Cloth, Stair Oil-Cloth, etc.

Office and Works:

Cor. St. Catherine and Parthenais Sts. MONTREAL, Que.

Protection Against Fire

Apart from the protection it affords, it pays as an investment to use an

AUTOMATIC SPRINKLER SYSTEM



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

AUTOMATIC SPRINKLER EQUIPMENT

No charge for estimating. Endorsed by Insurance Companies.

The General Fire Equipment Co.

72 Queen Street East, TORONTO.

.TO MANUFACTURERS.

GORDON, DRUMMOND & CO. 134 LONDON WALL

LONDON, E.C., ENG.

Desire the represesentation in Europe of a FIRST-CLASS MANUFACTURER.

References kindly permitted to the Editor of this journal. Address as above.

Telegrams: "Bierenate, London," ABC code used. Bankers: London City and Midland.

THE PATENT INTERCHANGEABLE

RUBBER TREAD



For Public Institutions, Warehouses, Offices, etc.
The Treads consist of a metallic keeper, fitted with
pieces of rubber (specially prepared), which form
the wearing surface, and can be renewed when
worn, by anyone in a few minutes.

WILLIAM GOODING, Manufacturer,

North Road Works, Holloway, London, N. Eng.

and time in the passage of the Atlantic is attracting attention because of its novelty, he said. From a steamship company's point of view, I cannot see where the profits are to come from in a line from Berehaven to New York and Sydney or Halifax. The route would be useful for mails and express freight, but I do not think it would be attractive for passengers. The mails and fast freight would hardly produce enough revenue to

make the thing pay.

Mr. Robert Reford, head of a wellknown steamship firm, when asked if he thought a line of fast steamers from Berehaven to Halifax and New York would be feasible from a commercial standpoint, said: Yes, the line would be perfectly feasible, and could be made to pay. should, however, have preferred Galway to Berehaven. However, the line is quite practicable, and should be the favorite route both for passengers and freight. At this end I think Halifax should be the port selected. My idea of the best route is from Halifax to Galway, with steamers of the speed of the Deutchland. The passage could be made in three days, as the distance is 2,165 miles. The journey from Halifax to London could be made in three and a half days, and from Montreal to London would only occupy four days.

THE BRITISH COLUMBIA LEAD INDUS-TRY .- The seriousness with which British Columbia lead mines have been affected by the fall in the London price for lead is known by the production of the province. Figures compiled by the American Smelting & Refining Co. show that the total output of the provincial lead mines for the six months ending on July 1 was a shade less than 30,000 tons. Of that 9,000 tons were furnished by the St. Eugene, in East Kootenay, and were treated at European smelters. The rest was handled at the Trail and Hall mines smelter and at the plants in the United States outside the Smelter Trust. This tonnage is only half the output which was expected at the first of the year. The break in the price of lead had not then become serious. It was worth about £17 sterling per ton, or three and one-half cents per pound, on the English market. There was a good profit in British Columbia lead at that price, though it cost about \$28 per ton to smelt the ore and put it on the English market. The British Columbia shipments average about 50 per cent. lead, so that there was \$35 per ton in lead alone from the shipments. The Slocan ores had an additional advantage in yielding about seventy-five ounces in silver, while the East Kootenay ores averaged about thirty ounces in silver.

Under these conditions it was expected that the shipments from the British Columbia lead mines would be from 110,000 to 120,000 tons for this year. That belief was confirmed in the rate at which shipments were made during the latter part of 1900, when the output averaged nearly 9,000 tons per month. But in December the lead market showed signs of a decline, due in part to the Chinese troubles, which cut off the market for Australian

KINLEITH PAPER COMPANY LIMITED

Book, Writing

Envelope and Cover \(\Gamma \)

AND SPECIALTIES

MILLS AND HEAD OFFICE

St. Catharines. Ont.

EDWARD FINLAY

Managing Director.

MeLaehlan Eleetrie & Gasoline Motor Co..' LIMITED. 94 ADELAIDE ST. WEST.

......

Gas or Gasoline Engines from 1 h.p. to 6 h.p. Stationary or Marine and Electric Motors from 1/2 h.p. up. Motor Carriages for Pleasure or Business. One cent spent for a postal will bring you any information you wish.

"GENUINE OAK" BELTING

SOLID LEATHER to the Foot than any Belt made.

"LANCASHIRE" HAIR BELTING

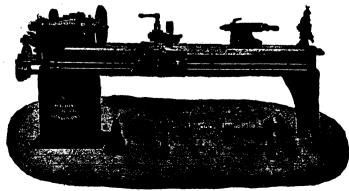
ENGLISH CARD CLOTHING

K. McLAREN

Head Office and Factory, MONTREAL.

Western Trade, - TORONTO STOCK DEPOT, 88 Bay Street.

The London Machine Tool Co., LONDON, ONT.



MANUFACTURERS

General **Machinery**

LATHES, PLANERS. DRILLS. SHAPERS. HAMMERS, BULL DOZERS, PUNCHES. PRESSES.

Bellhouse, Dillon & Co.

30 ST. FRANCOIS-XAVIER ST. MONTREAL

Dyestuffs, Chemicals **EXTRACTS**

SOLE AGENTS IN CANADA FOR KUTTROFF. PICKHARDT & CO'S

ANILINE and ALIZARINE COLORS

TORONTO OFFICE:

JAS. HAYWOOD, Agent, 30 Wellington St. E.

NEW YORK OFFICE:

DILLON & CO., 20 Gedar Street.

STEAM USERS

VULITE

As used by His Majesty's Government.

VULITE is a powerful vegetable disincrustant. No acids. No alkali.

VULITE will not affect the naked steam in color, taste or smell.

VULITE will save you time, money and vexation.

VULITE is what Canada wants.

WRITE FOR PARTICULARS.

Vulite Syndicate, Limited

40 William Street, Finsbury, London, E.C., Eng.

Wanted-An Active Representative for Canada

WANTED.

A man capable of managing a machinery and stove manufacturing business. Must be able to design and figure on machinery. Reply with references, and state if able to take an interest in the business. Address, MACHINERY, care of The Canadian Manufacturer.

Thompson, Worth & Martin

Electrical and Mechanical . . Contractors . .

-AND-BRASS FOUNDERS and FINISHERS

Electric Supplies, Nitrous Oxide Gas SWITCHES and SWITCHBOARDS

MANUFACTURED. Dynamos and Motors

Built and Repaired. We have a well-equipped Machine Shop. Model and Experimental Work a specialty. Inventions perfected. All work strictly confidential. Correspondence solicited.

35 to 39 ADELAIDE ST. W., TORONTO

'PHONE, MAIN 3494.

Since then the London price for lead has steadily declined, until now it stands around £11 17s. per ton. The Canadian smelters, which pay for ore on the London quotations, now pay only about \$1.60 per hundred for lead in ore. Under these conditions, therefore, the total output for the province for the first half of the year was slightly less than 30,000 tons. The total output for last year was 66,450 tons.

The St. Eugene mine, which was the largest shipper in the province, is now closed down on account of the market. The North Star is still shipping on account of its contracts, but the present price is far from satisfactory. The Payne is idle. Shipments from the lead mines of the Slocan now amount to only about 100 tons per week. The Rambler-Cariboo, the Slocan Star and the American Boy are about the only producers.

Relief is expected from the proposed Canadian lead refinery. Nelson, B.C., is the site talked of. The British Columbia Mine Owners' Association has assurances from the Canadian Pacific smelting interests that the completion of the refinery will mean a cut of \$3 per ton in smelting rates. The capacity of the refinery under the bonus would be 20,000 tons, and that would mean a saving to the mine owners of \$60,000 a year.

TRADE WITH NEW SOUTH WALES .-Canada's trade with New South Wales, according to the report of Mr. J. S. Larke, Canadian Commissioner for Australia, shows a fairly satisfactory increase for the past year. The colony's imports from Canada amounted last year to \$571,-605, as against \$463,550 the previous year, and \$658,460 in 1898. The exports of New South Wales to Canada totalled \$332,015 last year, \$558,945 in 1899, and \$434,820 in 1898. Mr. Larke's report says: Leaving out the item of flour, the trade in other articles was nearly fifty per cent. greater than in any previous year. It shows a marked development in the general trade with this colony. The total imports of flour were only \$241,160 during the year, of which more than half came from Canada. In 1899 the imports from Canada were only one-third of those from the United States. In the year 1899 the importation of hard wheat flour from the United States was \$404,220, from Canada \$136,-460. Last year they were, from the United States \$57,380, from Canada \$83,575. Mr. Larke further says: The Canadian trade is doing very well, in view of the declining demand. With a probable duty in view it is not likely that the trade will increase unless Australia should be subjected to a general drouth such as she had three and four years ago. There has been a good trade in oatmeal, but no attempt to introduce other food-

ALVANIZING

We are prepared to attend to all orders Promptly and Economically.

WINDMILLS, PUMPS, TANKS; Etc.

ONTARIO WIND ENGINE and PUMP CO.

95 ATLANTIC AVE., TORONTO.

FLECTRIC WORK WHICH LASTS

We do work which proves a lasting testimonial to us.

No matter what the job is, whether the installing of Electric Bells, or the equipping of a factory for Light or Power, the material used is right, and the important little details closely watched.

> Let us quote you on your next job.

R. A. L. GRAY & CO. 85 YORK ST., . TORONTO.



The Publishers announce the preparation of the Sixteenth Edition of the Directory of

MERCHANTS. MANUFACTURERS & SHIPPERS of GREAT BRITAIN & THE WORLD

Containing Classified Trade Lists of the Importers and Exporters, Merchants and Manufacturers of the United Kingdom and all principal trading centres of the World. The work contains nearly 4.000 pages, and includes in addition to the above the Customs Tariffs for every Country and all classes of Goods.

HICHEST AWARD, COLD MEDAL, PARIS, 1900. Also in course of preparation, the ninth edition of

THE BUILDING TRADES DIRECTORY

Comprising every trade and profession in any way connected with Architecture and Building. The only work of its kind published.

For further particulars, charges for advertisements, etc., apply,

Kelly's Directories, Ltd., London, Eng.

(ESTABLISHED 1799). Dominion Branch—71 Victoria St., Toronto, Ont.

W. P. DENT, - Manager.

Branches at Paris, Hamburg, New York, Bombay, Calcutta, Cape Town, Melbourne, Sydney, Dunedin, etc.



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

JAS. T. BURKE, Parliament Buildings, Toronto. JAS. R. BROWN, Parliament Buildings, Toronto. MARGARET CARLYLE, Parliament Buildings, Toronto.

O. A. ROCQUE, Orleans, Ont.

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

JOHN DRYDEN, Minister of Agriculture.

W. G. Meneill Thompson CONSULTING ENGINEER

M. Inst. C. E., M. Can. Soc. C. E., M. Am. Soc. C. E. 59 JAMES ST., - ST. CATHARINES, ONT.

Manufacturing Concerns will find it to their interest to correspond with

> ULRICH PETERS. M.E. 3527 N. 17th St.

PHILADELPHIA, PA. DESIGNS OF PULP and PAPER MACHINERY

Capitol" Cylinder

"RENOWN" ENGINE "ATLANTIC" RED

RELIABLE WELL-KNOWN BRAND ALL ORDERS PROMPTLY FILLED

THE QUEEN CITY OIL CO. SAMUEL ROGERS, Pros. TORONTO, Canada.

THE EUGENE F. PHILLIPS ELECTRICA

MONTREAL, CANADA

BARE and INSULATED ELECTRIC WIRE

ELECTRIC LIGHT LINE WIRE. INCANDESCENT AND FLEXIBLE CORDS,

RAILWAY FEEDER and TROLLEY WIRE

RUBBER-COVERED, MAGNET, OFFICE AND ANNUNCIATOR WIRES.

CABLES FOR AERIAL and UNDERGROUND USE.

THE-

"Yeakley" Vacuum Hammer

Is unique and unequalled by any other Power Hammer for its Simplicity, Power, Ease in Operating and Fewness of Parts; Nothing to Break, no Steam to Leak, no Pipes to Freeze, no Delays, no Expense for Repairs.

SEND FOR CATALOGUÉ

GEORGE BRUSH,

Sole Canadian Manufacturer.

MONTREAL.

What the Trade Wants

YOUR OWN PAPER MADE INTO

ENVELOPES

WE SELL TO THE TRADE ONLY. YOUR OWN PAPER-YOUR OWN LABEL-YOUR OWN BANDS. NO NEED TO BUY FOREIGN GOODS.

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

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

L. P. BOUVIER, Envelope Manufacturer, 31 Lombard St., TORONTO. thirty-two degrees. If the weather grows

stuffs, although there is a limited market for split peas. The figures show that the trade in Canadian plows has ceased, but Mr. Larke says this is because Canadian plows were sold last year to a United States firm doing business in New South Wales. There was a notable gain in boots and shoes, but the trade is still below what it should be. A fair importation of carriages is reported, but the new tariff, Mr. Larke says, will probably decrease the business in carriages and increase the demand for parts. Furniture shows a slight increase, and Canada appears to be holding her own in agricultural machinery, notwithstanding keen competition. A good opening has also been made in sawmill machinery. In regard to timber, Mr. Larke says that Canada shares the small increase, adding: In the absence of Canadian-owned ships suitable for the trade, the Canadian export to Australia will fluctuate in the future as in the past. After observing that several new lines of Canadian imports have made their appearance, such as ammunition, cutlery, hollowware, silks, tobacco, etc., Mr. Larke concludes: As a whole, the prospects for Canadian trade are good; the chief difficulties are lack of persevering effort and advertising. If the manufacturer has a surplus of goods in stock he is anxious to do business here; but perhaps by the time the demand has been created his stocks have run down, the orders, if filled, are filled so slowly and so badly as to discredit him and discourage his agent, and so the business ends.

TEMPERATURE OF ICE. -Is ice any colder in winter than in summer? Most people suppose not. They understand that ice is ice, and cannot be any colder or warmer.

If a thermometer is buried in ice in summer it will indicate thirty-two degrees. If you throw a piece of ice into boiling water and leave it there till it is almost gone, what is left will still be at thirty-two degrees. Ice can never be gotten above that temperature.

But while ice can never be warmed above thirty-two degrees, it will go as much below that as the weather does. An iceman delivering ice one zero day in January was asked whether his ice was any colder than in July. He thought not. But as a matter of fact a piece of summer ice, if he had had it, would have been something of a foot-warmer for him, as it would have been thirty degrees warmer than the air of the bottom of his

Mixing salt with ice makes it much cooler. The ice in an ice cream freezer goes down to about zero. This is why the point zero on our common thermometers was fixed where it is. It was supposed to be the lowest point that could be reached by artificial means. Since then we have reached about 383 degrees below zero by chemical processes.

Ice will cool down with everything else, on a cold night, to zero or below. What should prevent it? On a day when it is just freezing, a block of iron

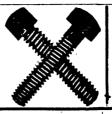
The Diamond Machine and Screw Co., Limited

MANUFACTURERS OF



CAP AND SET SCREWS, STUDS, Etc. Finished and Semi-Finished Nuts

TORONTO. - CANADA



The Rehder Plating & Mfg. Co., THOROLD, - ONT. Manufacturers of

Stove and Piano Trimmings and Novelties

Fine Grey Iron Castings a Specialty. Nickel, Copper and Brass Electro Plating. WRITE FOR PRICES.

weather, but the ice will stay at thirty- a whirling motion, and being heavier two degrees and melt away. But if the than the air, are thrown by their centriweather grows colder the iron and the ice will cool off too, and one just as much as the other.

As the ice grows colder it gets harder and more brittle. There can be no "hickory bend" on the skating pond on a zero day, for ice is then too brittle. Slivers of ice dipped in liquid air become so hard that they will cut glass. Water thrown on ice in the Arctic regions will shiver it like pouring boiling water upon cold glass. This is because the ice is so much colder than the water.

BUFFALO SHAVINGS AND DUST SEPARATOR.

The accompanying illustration shows a new and improved style of Buffalo Shavings and Dust Separator, which has been recently devised by the Buffalo Forge Co., Buffalo, N.Y., to meet the demand for an efficient apparatus of this nature.

The operation of this separator depends upon the centrifugal force of the refuse material. These particles, upon entering

warmer the iron will warm up with the the inlet at the top, are discharged with



Buffalo Shavings and Dust Separator.

fugal force against the outer shell, dows which they pass in a spiral path to th discharge orifice. The air changes its direction abruptly, passing at a very low speed out of the orifice in the top, and owing to its greatly lessened velocity is no longer able to carry along the shavings and dust. By these means separation is effectively accomplished.

This Buffalo Separator is built in a large range of sizes. It is constructed throughout of steel plate of heavy guage, securely riveted, and is sufficiently stiff to resist strains of any reasonable magnitude. When the woody refuse is to be used for boiler firing, the separator may be located to discharge into a bin adjacent to the boiler room. In all cases where exhaust fans are employed to remove the shavings, sawdust, or refuse material of woodworking and other processes, such a device is a simple and effective means for unloading the air currents.

TO RESTRICT OUTPUT.

At a meeting of the Ontario Lumbermen's Associationheld in Toronto a few days ago, the following resolution was adopted:

Northrop Iron Works

IRON and **BRASS FOUNDERS**

Heating and Ventilating Engineers,

OFFICE and SHOWROOMS :

ST. JAMES STREET. MONTREAL

Phone Main 4180



WORKS and HEAD OFFICE :

Valleyfield, P.Q. Canada

MANUFACTURERS OF

"HANDY" ELEVATORS STEAM, HOT WATER and GAS RADIATORS

"HANDY" . DUMB WAITERS

> SECTIONAL HEATING BOILERS . . . , .

PLAIN AND **AUTOMATIC LOOMS** SPOOLERS, WARPERS

DOOR FIXTURES

SANITARY OUTFITS FOR MILLS AND FACTORIES

VENTILATING and EXHAUST FANS .

TOOL GRINDING MACHINERY . . .

NICKEL AND BRONZE PLATING . . .

PATENT HANGERS AND COUPLINGS . .

MODEL AND PATENT MACHINERY .

WRITE FOR QUOTATIONS

STURTEYANT GENERATING SETS In 100 types and sizes. High speed, and high grade. We build both engine & generator. **Blowers Exhausiers** Steam Pans Electric Pans Engines **Electric Motors Forges Exhaust Heads** Steam Traps Heating Ventilating -**Drying Apparatus** Mechanical Draft

STURTEVANT 6, BOSTON.

Moved by Mr. N. Dyment, seconded by Mr. C. Beck, that in view of the present conditions attached to the carrying on of the lumber business, the increased value of stumpage, the difficulty of procuring suitable labor, and the un-certainty of demand for the product, the members of the Lumbermen's Association are of the opinion that it is very desirable to decrease the quantity of logs to be taken out next season, and those present agree to curtail their operations, and advise that all the members of the Association follow this course, and so conserve their timber holdings.

Mr. John Bertram wanted to impress the necessity for this course. In looking over the north shore, it seemed to him that they were all working full blast. This was the wrong course, because it would pay them better to cut their limits in ten rather than in five years. Every man who owned white pine to-day should guard it carefully. They should keep their operations on a moderate scale, treating the limits as being rather in the nature of an investment. In four or five years the south shore of Lake Superior would be stripped of white pine, and any of the Canadian owners who held white pine after that time would certainly reap the benefit.

Messrs. Cowan & Co., Galt, Ont., have recently received the following orders:— Moulding machine from Lachance & Fils, River du Loup, Que.; band saw from Hayden Piano Co., Montreal; 30 h.p. boiler from R. G. Hodgins, Shawville, Que.; 90 h.p. boiler from Chas. J. Hurt, Carberry, Man.; 50 h.p. boiler from Boyd-Burns Co., Vancouver, B.C.; and a

heavy moulder from Fernie Lumber Co., Fernie, B.C.

BUSINESS CHANGES.

FROM BRADSTREETS.

ONTARIO.

BARRIE — John Barr, wagon maker, advertising business for sale.

BEETON—A. Hurdon, hardware, sold out.

BRANTFORD — Beaver Oil & Gas Co., obtained charter.

Brantford Brick Co., obtained charter.

BROOKE — Owen Sound Canning Co., obtained charter.

BROOKE — Owen Sound Canning Co., charter.

BURLINGTON—Handy Crate Co., mfrs. baskets, etc., assigned.

DRESDEN—Kent Oil & Gas Co., obtained charter.

DUNNVILLE — Imperial Knitting Co., obtained

DRESDEN—Kent Oil & Gas Co., obtained cnarter.
DUNNVILLE — Imperial Knitting Co., obtained charter.
GANANOQUE—Morden Mfg. Co., obtained charter.
GRIMSBY—Grimsby Mfg. Co., obtained charter.
HAMILTON—John Calder & Co., obtained charter.
Momentum Brake Co., obtained charter.
LONDON—John Bowman, Hardware & Coal Co.,
w. hardware, Wm. Bowman retires and
John Bowman continues.
Kilgour Furniture Co., sold out.
NIAGARA FALLS—Niagara Falls Home Telephone
Co., obtained charter.
OSHAWA — McLaughlin Carriage Co., obtained
charter.
OTTAWA — Ottawa Interior Finish & Show Case
Co., changed style to Ottawa Show Case Co.
Ottawa Milling Co., obtained charter.
PETEROLEA—Canadian Oil Refining Co., obtained
charter.
PETERBORO—James E. Cullen, agrl. implts, etc.,
assigned.
Dodg Apprung—North Shore Powder Co., obtained

assigned.

PORT ARTHUR—North Shore Powder Co., obtained

PORT ARTHUR—North Shore Fowder Co., charter.

RENFREW—Roberts Planing Mill, assets to be sold.

St. Catharines — Co-operative Cycle & Motor Co., National Trust Co. appointed interim liquidator.

Stewart—Smith Bros., stave, hoop and saw mill, advertising business for sale.

STRATHROY—W. H. Pike, tinware, etc., sold to F. Hanev.

Haney.

THOROLD—Thorold Burial Casket Co., sold out.
TORONTO—Incandescent Burner Co., obtained charter.

charter.
Leader Automobile & Engine Co., obtained charter.
Pulp Plaster Co., obtained charter.
York Mg. Co., obtained charter.
Union Factories, obtained charter.

Schoellkopf, Hartford & Hanna Co.,

BUFFALO, N.Y.

Aniline Colors,

Manufacturers of

Dyestuffs, Chemicals

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

"WEBER" VALVES

KERR'S

ARE THE GENUINE VALVES OF THAT

ALL OTHERS ARE IMITATIONS.

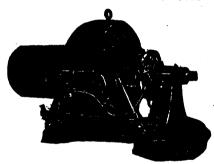
BE SURE AND GET THOSE MADE BY

THE KERR ENGINE CO.

WALKERVILLE, - ONTARIO

The Jones & Moore ELECTRIC CO.

ELECTRICAL CONTRACTORS



DYNAMOS, TELEPHONES, SLOW SPEED MOTORS, MOTORS, SUPPLIES, DIRECT CONNECTED DYNAMOS.

We manufacture Direct Current Machinery in all sizes and for any purpose.

20 and 22 ADELAIDE W., TORONTO.

CANADA CHEMICAL MANUFACTURING CO.

MANUFACTURERS OF

Sulphuric, Nitric, and Muriatic Acids—Commercial and Chemically Pure.

Mixed Acids for Explosives.

Liquid Ammonia, Glauber Salts, Copperas, Muriate Tin Tin Crystals, Acetic Acid, Nitrate Iron, Bisulphite Soda, Acid Phosphate for Baking Powders and General Chemicals, Fertilizers, etc.

LONDON, ONTARIO

HAMILTON COTTON CO..

HAMILTON, ONTARIO.

Yarn Manufacturers. DYERS AND BLEACHERS.

Warp Yarns of all descriptions, in Skein, Chain or on Beams. Hosiery Yarns in single or double, in Cop, Skein or Cone. Yarns of all kinds for Manufacturers' use.

Twines, Lampwicks, Webbings, Etc.

Dyeing of all Colors, including GENUINE FAST BLACK.

TORONTO JUNCTION - Humber Power & Light

Co., obtained charter.

WROXETER—S. B. McKelvie & Co., mfrs. woolens, stock to be sold.

WOODSTOCK — Woodburn Milling Co., obtained charter.

OUEBEC.

MONTREAL Campbell Mfg. Co., mfrs. clothing, applied for charter.

Dominion General Engineering Co., applied for

Domínion General Engineering Co., applied for charter.
Fenlin Leather Co., obtained charter.
Albert Homes, brass mfr., stock and machinery damaged by fire.
Holmes & Arpin, box mfrs., burnt out.
Huntingdon Mfg. Milling & Power Co., applied for charter.
Gall, Schneider Oil Co., supplementary letters issued increasing capital to \$100,000.
A. Riendeau, foundry, assigned.
St. Amour & Co., hardware, sold out.
Matashquan Iron Co., obtained charter.
Terreault Steel & Malleable Iron Co., obtained charter.

Terreault Steel & Managara charter Canada Horse Nail Co., registered. F. W. Webb Mfg. Co., registered. Royer & Rougier Freres, importers hardware,

Hoyer & Rougher Freres, imported instance, dissolved.

Murray & St. Amour, electricians, registered.

St. Gregorie — Hebert Gedeon, mfrs. threshing machines, assigned.

St. Henri de Montreal — Antoine Viau, furnities of the control of the control

THENRI DE MONTREAL — SHOWING VIEW, TRUE
SHAWINIGAN FALLS — Shawinigan Lumber &
Wood Working Co., obtained charter.
SHERBROOKE—Roy & Co., plumbers, dissolved.

NORTH-WEST TERRITORIES.

 $\begin{array}{lll} {\bf Strathcona} & {\bf -Strathcona} & {\bf Electric} & {\bf Co., incorporated.} \\ \end{array}$

NOVA SCOTIA

PICTOU — Pictou Iron Foundry Co., sold to Weir & Hannan. Sydney--Louis Dana, hardware, assigned.

NEW BRUNSWICK.

FREDERICTON-J. C. Risteen & Co., wood workers, applying for incorporation.

Chestnut & Son and Tabor & O'Neill, woodworking factory and sash and door factory,

amalgamated.

N-Wm. Parks & Son, mfrs. cotton, assets advertised for sale by auction.

MANITOBA

PLUM COULER—Vogt & Sawatzky, hardware, dissolved, Peter Vogt continues.
WINNIPEG-Graham & Rolston, hardware, dissolved, C. W. Graham continues.

BRITISH COLUMBIA.

GRAND FORKS — Ernest Spraggett, saw mill, assigned.

HARRISON RIVER—Fullbrook & McInnes, sawmill, fire loss

Harrison River Mills Timber & Trading Co.,

Harrison River Mills Timber & Trading Co., burnt out,
HAZELMERE—Columbia Sawmill Co., dissolved, J. B. Kinney continues,
NEW WESTMINSTER—Dominion Shingle Mfg. Co., incorporated.

BUY all Minerals at Mines by contract or otherwise. Mineral Lands and Timber Properties bought and sold. H. FAWCETT HARTLAND.

Room 309-310 Merchants Bank Chambers, 205 St. James Street, Montreal. Correspondence Solicited.

MILL TELEPHONES

F. O. PLUMMER Boston, Mass., U.S.A.

PATENTS

Home and Foreign Patents Procured at Lowest Rates

Patent Rights Sold on Commission.
Prompt Attention guarante d to all business entrusted. Write for full particulars.

THE TORONTO PATENT AGENCY, Limited, Confederation Life Bldg., Toronto, Can.

TALISMANIC BELT DRESSINGS WILL INCREASE YOUR POWER



"What We're On We'll Cling To."

TALISMANIC BELT CLINCH—For Leather Beits TALISMANIC RUBBER FACING —For Rubber Beits TALISMANIC ROPE PRESERVER

JOHN W. BOWDEN & CO. 330 Clinton Street.

Toronto, Ont.

he Canadian JOHN J. MAIN. MANAGER. Heine Safety Boiler Co.

ESPLANADE (Opp. Sherbourne St.)

TORONTO

HIGH-CLASS

Water Tube

FOR ALL PRESSURES DUTIES AND FUEL

From 75 to 600 H.P. Each

REFERENCES: N.B.—We do not make small Boilers

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

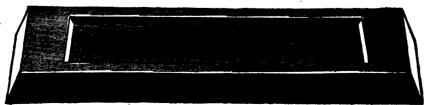
THE BEST IS NONE TOO GOO

The largest machinery builders in Canada and United States use our Babbitt Metal. Is this not sufficient proof of its superiority over other anti-friction metals?

If the largest users are satisfied with our Babbitt Metals, why should it not suit you? We can furnish you with numbers of testimonials.

Importers and Dealers in

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



SYRACUSE BABBITT

BEATS THEM ALL

Manufacturers of

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

SYRACUSE SMELTING WORKS

WILLIAM AND ST. THOMAS STREETS. - -

HARDWARE, METALS, PAINTS and OILS

Current Prices, Revised September 6, 1901,

The following quotations represent the prices current in the market, as obtainable by the trade, whether from the manufacturers or the jobbers. Small orders and broken packages usually command higher prices, while lower prices are usually given to larger buyers.

The Canadian Customs Duties imposed upon all imported articles enumerated in these lists are published in full in the 1900 Tariff Edition of The Canadian Manufacturer. Price 50 cents per copy.

The publishers request the trade to suggest any changes and improvements which might be made in these lists, with a view to

rendering quotations as correct and useful as possible.

ADZES.—Duty 30%. \$13 to \$20 per doz. AMMUNITION.—Duty 30%. IMUNITION.—Duty 30%.
Caps, Gun, gross.
Cartridges, B.B. Cap, Dom., 50 & 5% discount, Can. list.
Cartridges, B.B. Cap, Amer., 40% discount, Amer. list.
Cartridges, Central Fire, Military and Sporting, Amer., add 5% to list.
Cartridges, Central Fire, Military and Sporting, Dom., 15 & 5% discount.
Cartridges, Central Fire, pistol size, Dom., 30% discount. discount.

Cartridges, Central Fire, pistol size, Dom., 30% discount.

Cartridges, Central Fire, pistol size, Amer., 10% discount.

Cartridges, Central Fire, rifle size, Amer., 10% discount. cartridges, Rim Fire, pistol, Amer., 40% discount.
Cartridges, Rim Fire, pistol, Dom., 50 & 5% discount. count.

Powder, sporting, Can., \$4.50 per keg 25 lbs.

"Eng., """

Amer., \$5.50 per keg 25 lbs.

"blasting, \$2.50 per keg.

Primers, Dom., 30% discount.

Shells, Brass, Shot, 55% discount.

"Trap, loaded or empty, 25% discount.

"Rival and Nitro, net.

Shot, Buck, Seal or Ball, \$6.62½ per 100 lb. net.

(duty 35%).

"Chilled, \$6 per 100 lb. net.

"Common, \$5.50 per 100 lb. net. count.

Prices are f.o.b. Toronto, Hamilton, Montreal, St. John and Halifax. Terms 3% cash, freights equalized.

ANCHORS.
Small, 30 to 50 lbs., \$7.00 per 100 lbs).
100 lbs. and larger, \$5.00 per 100 lbs). 100 lbs. and larger; \$5.00 per 100 lbs).

VVILS.--Duty 30%.

Boker & Co., 12 to 15 cents per lb.

Brook's, 10 to 13 cents per lb.

Peter Wright's, 12 to 15 cents per lb.

JGERS.--Duty 30%.

Eye Augers, 60% discount.

Forstner's, 20

Gilmore's, 50

Irwin's, 30

Nut Augers, 60

Ship Augers, 10

KES.--Defty 25%. AXES.—Dfty 25%.

Bench, \$6.50 to \$14 per doz.

Broad, \$26.25 to \$40 per doz.

Double-bitted, \$11 to \$13 per doz.

Handled, \$8.50 to \$12 per doz.

Regular, \$6 to \$10 per doz.

Ship Carpenters, \$22 to 25 per doz. AXLE GREASE.—Duty 25%.
Ordinary, box, \$5.75 to \$6 per gross. Ordinary, 1003, 2007

AXLES.—Duty 35%.

Half patent, short beds, 60% discount per set. long "60%" BAGS.—Duty 20%, Cotton, seamless, \$14 @ \$24.50 per 100. Jute, \$7.75 @ \$9 per 100.

BANDS.—Duty 30%. Carriage Hub, 2" x " 21"x 17.00 26.00 27.00 28.00 29.00 30.00 " " x1\frac{37}{2}", \frac{31.00}{31.00}".

BARROWS.—Duty 30%.
See Wheelbarrows.
BELLS.—Duty 30%.
Church, 35 cents per lb.
Cow. \theta 0% discount.
Door, \theta 5.50 to \theta 12 per doz.
Farm, \theta 1.75 to \theta 4.50 each.

BELLOWS.—Duty 25%.
Blacksmiths', Canadian, 10% discount; Amer.,
50% discount.
Moulders', \theta 9.50 to \theta 15 per doz.

BELTING (Leather).—Duty 20° BELTING (Leather).—Duty 20%.
Amer., Hoyt's, regular, 35% discount.
Canadian, 55% discount. BELTING (Rubber).—Duty 20%.
50 to 60% discount.

Safford Radiator

has a score of them, but there is one which success has accented—its simplicity. Like all other great inventions, the "SAFFORD" is ingeniously simple. It is connected at the joints by patent screw nipples. That's what made the "SAFFORD" successful—no bolts, no packing—just a plain screwed connection. This means that the "SAFFORD" is positively non-leakable—positively durable. Of all Radiators the "SAFFORD" alone possesses this simple device.

The "SAFFORD" is made in many designs and heights, and is always graceful in its lines and bulk. It is made to fit in corners, to circle pillars, and for bay windows.

We will be pleased to give you any information you desire. Remember, we are the Largest Radiator Manufacturers under the British flag.

HE DOMINION RADIATOR COMPANY, Limited, TORONTO

AL STATE OF THE ST

```
BITS.—Duty 30%.

Boker's Center, 75 cents to $2.60 per doz.
Countersink, $1.50 per doz.
Gimlet, U.S., $1 per doz.
Marple's Centre, $1.30 to $4.50 per doz.
Reamer, $1.50 per doz.
Morse, blacksmiths', 45% discount.
Morse, straight shank, 45 "
Morse, straight shank, 45 "
Morse Bit Stock, 50"
BLANKETS.—Duty 35%.
Horse, $18 to $36 per doz.
BLOCKS.—Duty 30%.
Gin, $3.50 to $5 each.
Hyper Acme, 15% discount.
Weston Chain, 25
Wood Pulley, 60% discount.
Wrought Iron, 25
BLUE STONE.
Cask lots, for spraying, 7 cents per lb.
100-lb. lots, for spraying, 71 cents per lb.
BOLTS.—Duty 1 center lb., & 25%.
Bolt Ends, 62% discount.
Carriage, 60
Coach Screws, 70
Elevator Bolts, 45% discount.
Machine, 60
Plow, 60"
                                                            Machine, 60
Plow, 60
Shaft, 45
Sink, 50
Sleigh Shoe, 72½
Stove, 60
                    Stove, 60
Tire, 55
BOOT, CAULKS.—Duty 20%.
Small or Medium, ball, $4.25 per M.
Heel, $4.50 per M.
BOOT HEELS or Lifts (Leather).—Duty 25%.
Large Size, $1.15 doz. pairs.
Medium Size, $1.05 doz. pairs.
BOOT HEELS (Rubber)—Duty 35%.
Sizes 6 to 11 (Men's), $3.35 doz. pairs.

" 4 to 5 (Boy's), $3.35
" 0 to 3 (Women's), $3.25 doz. pair.
BOOT SOLES (Leather).—Duty 25%.
Heavy, $3.60 doz. pairs.
Medium, $2.90
BORAX.
Heavy, $3.60 doz. pairs.

Heavy, $3.60 doz. pairs.

Medium, $2.90

BORAX.

Lump, 8 cents per lb.

Powdered, 10 cents per lb.

Barber's best, 70 and 10% discount.

Spofford's, 50 and 5% discount.

Imperial, 50 and 5% discount.

Imperial, 50 and 5% discount.

BRICK (Fire).—Duty 20%.

Circular, $35 per M.

Square, $30 per M.

BRUSHES.—Duty 25%.

Canadian list, 50% discount.

BUCKLES.—Duty 30%.

Double Grip Trace, three loop, tinned and japanned, put up a dozen in a box, 14%, 55 cents per doz.; 14%, 65 cents per doz.

Harness, japanned or tinned, 12 cents per lb.

Shoe, japanned or tinned, 12 cents per lb.

Shoe, japanned or tinned, 12 cents per lb.

BUTTS.—Duty 30%.

Cast Butts, 60% discount.

Loose Pin, Bronze, 60 cents to $2 per pair.

Loose Pin, Wrought, 50% discount.

Wrought Brass, 50

Wrought Iron, 60

CANT DOGS.—Duty 30%.

$10 per doz.

CARBIDE, Bicycle.—Duty 25%.

In Cases containing 2 doz. 1 lb. cans, $1.75.

""" 2" 2" 2.75.

""" 1" 5 3.00.

In Cans "100 lbs., $3.25.

CASTINGS (Iron).—Duty 30%.

Carriage, in 5 ton lots, 5 cents per lb.
            In Cans "100 lbs., $3.25,

CASTINGS (Iron).—Duty 30%.
Carriage, in 5 ton lots, 5 cents per lb.
"2 "51 ""
"1 "51 ""
"1 "51 ""
"1 "51 ""
"
CASTINGS (Brass)—Duty 20%.
21 to 25 cents per lb.
CASTINGS (Phosphor Bronze)—Duty 20%.
22 cents per lb.
CASTORS.—Duty 30%.
Bed, 55% discount.
Plate, 55
Truck, Payson's, 60% discount.

CEMENT.—Duty 12½ cents per 100 lbs.
              Truck, Payson's, 60% discount.

CEMENT.—Duty 121 cents per 100 lbs.
Belgian, Portland, $2.50 to $2.75.
Canadian, Portland:
Rathbun's, "Star," $2.35 to $2.75.
"Beaver," $2.10 to $2.50.
"Ensign," $1.90 to $2.30.

The smaller figures represent car load lots, and the larger less than car loads, f.o.b., Toronto.
English, Portland, $3.

CHALK.
                  CHALK.
                                                  ALK.
Carpenters', colored, 45 to 75 cents per gross.
Crayon, 14 to 18 cents per gross.
Red, 5 to 6 cents per 1b.
White Lump, 60 to 65 cents per 100 lbs.
              W nite Lump, 60 to 65 cents per 100 lbs.

CHAIN.—Duty 5%.
Brass, Jack, 30% discount.

Coil, 3-16, $11.00 per 100 lb.; 1, $8.75 per 100 lbs.;
5-16, $5.50 per 100 lbs.; 1, $4.90 per 100 lbs.; 1, $4.40 per 100 lbs.; 1, $4.40 per 100 lbs.; 1, $3.90 per 100 lbs.

Iron, Jack, 25% discount.

Safety, 55
```

```
CHISELS.—Duty 30%.
Calking, Socket, Framing and Firmer.
P.S. & W. Extra, 60, 10 & 5% discount.
Warnock's, 70% discount.
CLEVISES.—Duty 30%.
Screw, $2.50 per doz.
COLORS.—In oil, see Paints.
—Dry, see Paints.

CORD.—Duty 25%.
Sash, Silver Lake (A), 50 cents per lb.; (B), 40 cents per lb.
Baltic, 25 cents per lb.
Hercules, 30 cents per lb.
COTTON DUCK.—Duty 224%.
36 in. wide, 38 cents per yd.
48 in. wide, 45 cents per yd.
60 in. wide, 57 cents per yd.
CROW BARS.—Duty 30%.
5 cents per lb.
CRUCIBLES.
Dixon's, 7 cents per number.
DRILLS.—Duty 30%.
Blacksmiths' bit, $6 to $15 each.
DYES (Aniline).
DYNAMITE.
30 to 50 cents per lb.
EMERY CLOTH.—Duty 23%.
Beader & Adamson, 40% discount.
EMERY HONES.—Duty 25%.
$3 to $5 per doz.
EMERY STEELS.—Duty 25%.
$2 per doz.
EMERY WHEELS.—Duty 25%.
$5 discount.
                    EMERY STEELS.—Duty 25%,

$2 per doz.

EMERY WHEELS.—Duty 25%.
65% discount.

EXPANDERS.—Duty 30%.

Tube, Dudgeon, 33½% discount.

FAUCETS.—Duty 30%.

Brass, $2.50 to $5 per doz.

Wood, 60c. to $1.00 per doz.
  FENCING.
Barb Wire, $3.05 per 100 lbs.
FENCING (Wire).—Duty 15%.
Galvanized, barb, f.o. b. Toronto, $3.05.
Galvanized, plain twist, f.o. b. Toronto, $3.05.
Galvanized, barb, f.o. b. Cleveland, $2.82\ in less than car lots, and $2.70 in car lots.
Mesh, 5\xi10\, 20 rod rolls 55\% discount, Can. list.

"4 x8, 20" 50\&5\%"

"3 x6, 20" 55\&5\%"

FERRULES.—Duty 30\%.
FILES.—Duty 30\%.
Black Diamond, 50 and 10\% discount.
Globe, 70\% discount.
Globe, 70\% discount.
Nicholson, 50\&10\% discount.
Stubbs', 15\% discount.

FITTINGS (Pipe).—Duty 30\%.
Bushings, 55\% discount.
Cacks, 60

Elbows, tees, crosses, couplings, lock nuts, return bends, 50\% discount.
Nipples, 55

Unions, 55

Unions, 55

Unions, 55

FORKS, HOES AND RAKES.—Duty 25\%.
50, 10 and 5\% discount.
                    FENCING.
Barb Wire, $3.05 per 100 lbs.
                  FORKS, HOES AND RAKES.—Duty 25%. 50, 10 and 5% discount.
             FUSE.
Blasting, Single tape, $3.75 per M ft.
Double tape, $5 per M ft.
Blasting, Single tape, $3.75 per M ft.

"Double tape, $5 per M ft.

"Bouble tape, $5 per M ft.

"GASKETS.—Duty 35%.
Rubber Insertion, 60 cents lb.

GAUGE GLASSES.—Duty 30%.

Water, 25% discount.

GAUGES.—Duty 30%.

Steam, 50% discount.

GLASS—Duty 20%. (Window—Box Price).

Star, under 26 in., $2.15 per 50 ft., $4.15 per 100 ft.; 41 to 50 in., $4.35 per 100 ft.; 51 to 60 in., $5.15 per 100 ft.; 61 to 70 fn., $5.50 per 100 ft.; 71 to 80 in., $6.50 per 100 ft.; 71 to 80 in., $6.50 per 100 ft.; 51 to 60 in., $6.50 per 100 ft.; 51 to 60 in., $8.50 per 100 ft.; 71 to 80 in., $6.50 per 100 ft.; 71 to 80 in., $6.50 per 100 ft.; 51 to 60 in., $8.50 per 100 ft.; 51 to 70 in., $8.50 per 100 ft.; 71 to 80 in., $10.50 per 100 ft.; 51 to 80 in., $11.70 per 100 ft.; 61 to 70 in., $1.50 per 100 ft.; 91 to 85 in., $15.50 per 100 ft.; 96 to 100 in., $118 per 100 ft.

Glass Demijohns or carboys, empty or filled, bottles, decanters, flasks, phials, glass jars, lamp chimneys, glass shades or globes, cut. pressed or moulded crystal or glass tableware—Duty 30%.

GLASS LAMP CHIMNEYS—Duty 30%.

Common Crimp, per doz. 0, 43 cents.

"""

B, 65 "

Lead Glass, "A. 50 "

""

A, 45 "
```

```
FRUIT JARS—Duty 30%.
Standard pints, $7.25 per gross.
quarts, $7.75 per gross.
half gal., $10.00 per gross.
Imperial pints, $7.75 per gross.
quarts, $8.75 per gross.
half gal., $12.00 per gross.
           "Quest's, establer gloss."
half gal., $12.00 per gross.
GLUE.—Duty 25%.
Cabinet, sheeft, 12 to 13 cents per lb.
Common, 81 to 9 cents per lb.
French Medal, 14 to 141 cents per lb.
Gelatine, 22 to 30 cents per lb.
Huttner, 18 cents per lb.
Strip, 18 to 20 cents per lb.
White, extra, 18 to 20 cents per lb.
LaPage's, 25% discount.
Progressive, 25
GOVERNORS.—Duty 25%.
Gardners', 25% discount.
GRANITEWARE.—Duty 35%.
Firsts. 50% discount.
GRAIN CRADLES.—Duty 25%.
With Scythes complete $33 per doz.
Without scythes, $18.50.
GRINDSTONES.—Duty 25%.
             Without scythes, $18.50.

GRINDSTONES.—Duty 25%.
Large, $1.75 per 100 lbs.
Mounted, $3 to $3.50 each.
Small, $1.50 per 100 lbs.

HALTER MOUNTINGS.—Duty 30%.
ix1\(\frac{1}{2}\) inch, 10c, per lb.
(Evans), 1x1\(\frac{1}{2}\) in., doz. set packages, $8.00 per gross.
             gross.

HALTERS.—Duty 30%.
Leather, 1 in. strap, $3.87½ to $4 per doz.
Leather, 14 in. strap, $5.15 to $5.20 per doz.
Rope, ½, $9 per gross.
Rope, ½ to $2.45 per doz.
Rope, ½ to $2.45 per doz.
HAMMERS.—Duty 30%.
Blacksmiths', 10 cents per lb.
Carpenters', Madoles', $6.40 to $8.75 per doz.
Carpenters', Warnock's, $4 to $7.50 per doz.
Machinists', 22 cents per lb.
Sledge, 10 cents per lb.
Tack, 60 cents to $1.20 per doz.
Tinners', $4 to $6.50 per doz.
HANDLES.—Duty 25%.
             Tinners', $4 to $6.50 per doz.

HANDLES.—Duty 25%.

Axe, $1.50 to $2.50 per doz.

Chisel, $3.50 to $5 per gross.

Cross-cut saw, $2 to $3 per doz.

File, $2 to $2.50 per gross.

Hammer, 50 cents to $2 per doz.

Plane, $3.50 per gross.

Plane, $3.50 per gross.
Pick, $1.50 to $2.50 per doz.

Plane, $3.50 per gross.

HANGERS.—Duty 30%.

Barn Door, round groove, $4.50 to $6.50 per doz.

Lanes, $6.75 to $12 per doz.

Parlor door, $3 to $6 per set.

Stearns, $5.50 to $6.50 per doz.

HARVEST TOOLS.—Duty 25%.

Forks, 50 & 10% discount.

Rakes, 50 & 10 "

Hoes, etc., 50 & 10 "

HATCHETS.—Duty 30%.

Canadian, 40 to 42½% discount.

HAY KNIVES.—Duty 25%.

50, 10 and 5% discount.

HINGES.—Duty $2 cents per lb., & 25%.

Blind, Parker's, 50 & 10 to 60% discount.

Heavy T and strap, $4 in., 6} cents per lb.

""" $1in., 5½" """

Light T and strap, $5 & 5 off.

Light T and strap, 6 5 & 5 off.
                                             Light T and strap, 65 & 5 off.
Screw hook and hinge, 6 to 12 in., $4.50 per 100 lbs.; 14 in. up, $3.50.
Spring, $12 per gross pairs.
       Spring, $12 per gross pairs.

HOES.—Duty 25%.
Grub, $5 to $6 per doz.

HOOKS.—Duty 30%.
Brush, $7.50 to $9.
Reaping, 50, 10 and 5% discount.
Chain, wrought, round or grab, $3 & $4.50 per doz.
Lumber Piling, $7 to $19 per doz.
Malleable, wardrobe, $1 50 to $2.50 per gross.
Wire,
$1.25 to $2

HORSE NAILS —Duty 30% —See Nails
Malleable, wardrobe, $1.50 to $2.50 pc
Wire, "$1.25 to $2
HORSE NAILS.—Duty 30%.—See Nails.
HORSE SHOES.—Duty 30%.
Lt. Med. & H., $3, 40 per keg.
Snow, $3.55 per keg.
Steel, $3.30 to $5.25 per keg.
Toe weight steel, $6.15 per keg.
HOSE.—Duty 35%.
City Standard, 70% discount.
Phoenix, 60% discount.
INJECTORS.—Duty 30%.
Pemberthy, 65% discount.
I. J. C., 65% discount.
I. J. C., 65% discount.
IRON.—See M. 5448.
JACKS.—Duty 30%.
Lifting, 40% discount.
KEYS.—Duty 30%.
Carpenter, 50 cents to $1.25 per doz.
Desk, 25 to 35 cents per doz.
Padlock, 25 to 35 cents to $1 per doz.
Rim Lock, 25 cents to $1 per doz.
Rim Lock, 25 cents to $1 per doz.
Rim Lock, 25 cents to $1 per doz.
Rocket, $1 to $5 per doz.
Pocket, $1 to $5 per doz.
Pocket, $1 to $5 per doz.

MANUFACTURER.
```

A, 50 B, 75

Lead Glass,

```
KNOBS.—Duty 30%.

Door, Bronze, $7 to $12 per doz.

"White Porcelain, 90 cents per doz.

"Wood, $4.50 per doz.

"Wood, $4.50 per doz.

LACING.—Duty 15%.

Belt (Raw Hide Cuts), 75 cents per lb.

(Leather Side Cuts), 75 cents per lb.

LADDERS.—Duty 25%.

Step, 10 cents per foot.

Rung, 10 cents per foot.

LAND ROLLERS.—Duty 20%.

$12 to $15 each.

LANTERNS.—Duty 30%.

Cold Blast, $7 per doz.

Dashboard, cold blast, $9 per doz.

Japanned, 50 cents per doz. extra.

No. 0, $5.75 per doz.

No. 3 "Wright's," $8.50 per doz.

Ordinary, with 0 burner, $4 per doz.

LAWN MOWERS.—Duty 35%.

Pennsylvania, 50% discount.

Stearns, 50

Woodyatt, 40

LEAD (Bar and Strip).—Duty 25%.—See Metals.

Lead, pig.—See Metals.

LEAD.—Duty 5%.

Red and White, dry.—See Paints.

LINES (Cotton).—Duty 25%.

Chalk, $2 to $3.50 per gross.

Wire, clothes, $2.50 to $4.50 per M ft.

LOCKS.—Duty 30%.

Cupboard, $1.50 per doz. up.

Drawer, $1 per doz. up.

Drawer, $1 per doz. up.

Padlocks, 75 cents per doz, up.

Rim and Mortise, Peterboro, $1.50 per doz, up.

"Amer., $1.50 per doz. up.

MALLEABLES.—Duty 30%.

Carpenters', hickory, $1.25 to $3.75 per doz.

Caulking, 60 cents to $2 each.

Lignum Vitae, $3.85 to $5 per doz.

MATTOCKS.—Duty 30%.

Canadian, $5.50 to $6.50 per doz.

MATTOCKS.—Duty 30%.

Canadian, $5.50 to $6.50 per doz.

MATTOCKS.—Duty 30%.

Canadian, $5.50 to $6.50 per doz.

MEAT CUTTERS.—Duty 30%.

Amer., 25 to 30% discount.

German, 15% discount.

METALS.

Ingots.—Aluminium, 35 to 50 cents per lb.

"Antimony (Cookson's), 10‡ to 11 cents per lb.

"Bar, 25 cents per lb.
                                                                                               German, 15% discount.

TALS.

Ingots.—Aluminium, 35 to 50 cents per lb.
Antimony (Cookson's,) 10½ to 11 cents per lb.

"Copper, "English," 18 cents per lb.
"Bar, 25 cents per lb.
"Straits, 32 cents per lb.
"Cents per lb.
"Straits, 32 cents per lb.
"Cents per lb.
"Straits, 32 cents per lb.

Babbit Metal (duty 10%).
Lewis, 7 to 10 cents per lb.
Magnolia, 25 cents per lb.
Spooner's Copperine, No. 2, 12½ cents per lb.
Spooner's Copperine, No. 2, 12½ cents per lb.
Syracuse Smelting Works, dynamo, 29 cents per lb.; special, 25 cents per lb.
Sheets, Black, Duty $7 per ton.
"10—$2.65, 100 lbs.
"12—$2.75, "
"14—$3.10.
"Sheets, Black, Duty 5%.
"17—$3.10. 100 lbs.
                                                                                                    "12-$2.75, "
"14-$3.10, "
Sheets, Black, Duty 5%. "
"17-$3.10, 100 lbs. "
"20-$3.25, "
"22-$3.30, "
"24-$3.50, "
"24-$3.50, "
"28-$4.00, "
Sheets, Tinned—7½ cents per lb., Base price. Sheets, Galvanized Iron. "
"17-$3.80 per 100 lbs. "
"20-$3.90 "
"20-$3.90 "
"22 to 24-$4.10 per 100 lb. "
"28-$4.50 "
"28-$4.25 per 100 lb. "
"28-$4.50 "
"16-(Queen Head), $3.90 per 100 lb. "
"18-22-24—(Queen's Head), $4.15 per 100 lb. "
"28-$4.40 per 100 lb. "
"28-$4.50 "
"38-$4.55 "
"48-$2-$4.50 per 100 lb. "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 per 100 lb. "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 per 100 lb. "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 per 100 lb. "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 per 100 lb. "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 per 100 lb. "
"58-$4.55 "
"58-$4.55 per 100 lb. "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"58-$4.55 "
"
                                                                                                    28-$4.55 "
Sheets, Corrugated—Galv., $4.50 per 100 sq. ft. Shafting, Bright Steel.—$3.50 per 100 lb. Shingles, Galv. Iron, Ordinary, $4.90 per sq. "

"Medium, $5.45 "

"Best, $5.80 "

"Painted Steel, Ordinary, $3.15 per sq. "

"Medium, $3.35 "

Best, $5.80 "
                                                                                               " " Medium, $3.35 "
Best, $5.80

Iron (duty $7 per ton).

" Angle. $2.75 per 100 lb.

" Bar (Common). $1.90 per 100 lb.

" Bar (Common). $4.50 per 100 lb.

" Bar, "Swedes." $4.50 per 100 lb.

" Refined Bar. $2.60 per 100 lb.

Iron, Planished Sheet (duty 5%)

" " A" $6.00 per 100.

" Bussia. $10.00 per 100 lb.

Iron, Galv. Sheet, see Sheets.

" and Corrugated, see Sheets.

" and Corrugated, see Sheets.

Pig Lead (duty 15%). Domestic, $3.75 per 100 lb; pigs, imported, $4.25 per 100 lb; pars, $5 per 100 lb; sheets, $5.50 per 100 lb.

Solder bar (duty 25%). -1st, refined, 18 cents per lb.; half-and-half, 18 cents per lb.

Iron, Pig (duty $2.50 per net ton). $16.50 @ $17 per ton.

When writing to
```

```
Iron, English Horse Shoe.—$2.85 per 100 lb.
Iron, Band.—$2.05 per 100 lb.
Iron, Hoop.—$2.90 per 100 lb.
Beams, Steel.—$3 per 100 lb.
Rods.—Brass, 24 cents per lb., base price; hard sheets, 20 to 30 cents per lb.; soft sheets, 20 to 30 cents per lb.; soft sheets, 20 to 30 cents per lb. base price; hard sheets, 20 to 30 cents per lb.
Rails, Small Steel.—$3 per 100 lb.
Steel, Cultivator.—$4.50 per 100 lb.
"Channel.—$3 to $4 per 100 lb.
"Channel.—$3 to $4 per 100 lb.
"Firths."—12 cents per lb.
"Crescent."—9 cents per lb.
"Cant Hook.—74 cents per lb.
"Machinery(in the rough).—$2.25 per 100 lb.
"Machinery(in the rough).—$2.25 per 100 lb.
"Mid.—$1.30 per 100 lb.
"Sleigh Shoe.—$1 90 per 100 lb.
"Spring.—$3.00 per 100.
"Tire.—$2.05 per lb.
"Toe Caulk.—$2.20 per 100 lb.
Steel, Cast.—Firth's, 12 cents per lb.
Jessop's, 14 cents per lb.
Black Diamond, 12 cents per lb.
Steel, Black Diamond, 12 cents per lb.
Steel, Hammer.—7 cents per lb.
Steel, Hammer.—7 cents per lb.
Steel, Black Sheet (duty 5%).—10, $2.75 per 100 lb.; 12, $2.85 per 100 lb.; 14, $3.20 per 100 lb.; 20, $3.50 per 100 lb.; 22, $3.50 per 100 lb.; 24, $3.75 per 100 lb.; 22, $3.50 per 100 lb.; 24, $3.75 per 100 lb.; 26, $4.00 per 100 lb.; 24, $3.75 per 100 lb.; 26, $4.00 per 100 lb.; 24, $3.75 per 100 lb.; 26, $4.00 per 100 lb.; 24, $3.75 per 100 lb.; 26, $4.00 per 100 lb.
Plates, Steef Boiler (duty 10%).—$2.60 per 100 lb.
Canadian Plates.—All dull, 52 sheets, $2.90; half polished, $3.
DPS.—$1 per doz.
ALL PULLERS.—Duty 30%.
                                 MOPS.—$1 per doz.
MOPS.—$1 per doz.

NAIL PULLERS.—Duty 30%.
German and American, $1.85 to $3.50 each.

NAILS.—Duty, cut, ½ cent per lb.; wire, 3-5 cent per lb.
Chair nails, 35% discount.
Clout nails, blued, 65 and 5% discount.
Coopers, 35% discount.
Copper nails, 52% discount.
Copper nails, 50% discount.
Galvanizing, 2 cents per lb. net, extra.
Horse (C brand), 50 & 74% discount.
Galvanizing, 2 cents per lb. net, extra.
Horse (C brand), 50 & 74% discount.
Steel cut nails, 10 cents extra.
Trunk nails, black, 65 and 65% discount.
Trunk nails, tinned, 65 and 10% discount.
Trunk nails, 10 cents extra.
Trunk nails, 53; 3d, $3.50; 4 & 5d, $3.25; 6 & 7d, $3.15; 8 & 9d, $3; 10 & 12d, $2.35; 16 & 20d, $2.90; 30, 40, 50 & 60d (base), $2.85; fine, 3d, $3.35.
Wire nails in car lots, $2.77\data,
Miscellaneous wire nails, 70 & 10% discount.
NAIL SETS—Duty 30%.
Assorted sizes, $1.20 per doz.
NETTING—Wire.—Duty 30%;
Green wire, $1.50 per 100 sq. ft.
Poultry, 2x2 mesh, 150 ft. roll, 55 off Canadian List.
NOZZLES.—Duty 30%.
Hose (Brass), $3.50 to $5 per doz.
NUTS.—Duty 2 cent per lb. & 25%.
Finished, tapped, 25% discount.
Rough, hexagon head, 4 cents lb. from list.
Rough, hexagon head, 4 cents per gal.
Cylinder Oil, from 40 cents up.
Lard Oil, bbls., 38 cents per gal.
Prime White (U.S.), 15\discount.
OAKUM.
Navy, $7.80 per 100 lb.
OIL.—Duty 25%.
Boiled Linseed Oil, bbls., 38 cents per gal.
Prime White (U.S.), 15\discounts per gal.
Prime White (U.S.), 15\discounts per gal.
Prime White (U.S.), 15\discounts per gal.
Sperm Oil, bbls., $1.75 per gal.
Water White (Can.), 1 cents per gal.
Prime White (U.S.), 16\discounts per gal.
OILERS.—Duty 30%.
Societs per lb.
PACKING.—Duty 25%.
Rubber Insertion, 60 cents per lb.
PACKING.—Duty 25%.
Galvanized from, $2.50 to $3.50 per doz.
PAINTS.—Duty 25%.
Columized from, $2.50 to $3.50 per doz.
PAINTS.—Duty 25%.
Columized 
                            MOPS.—$1 per aoz.

NAIL PULLERS.—Duty 30%.
German and American, $1.85 to $3.50 each.

NAILS.—Duty, cut, ½ cent per lb.; wire, 3-5 cent
```

```
PAINTS.—Duty 30%.

Copper, $3.50 per gal.

LEAD, DRY WHITE.—Duty 5%.

Pure, in casks, $5.75 per cwt.

Pure, in kegs, $6.25 per cwt.

No. 1, in casks, $5.50 per cwt.

No. 1, in kegs, $5 per cwt.

LEAD, WHITE.

Pure, $6.37 per 100 lb.

No. 1, pure, $6 per 100 lb.

No. 2, pure, $5.62½ per 100 lb.

No. 3, pure, $5.25 per 100 lb.

No. 4, pure, $4.87½ per 100 lb.

No. 4, pure, $4.87½ per 100 lb.

Brandram's B. Genuine, $9 per 100 lb.

"Becorative, $7.55 per 100 lb.

"No. 1, $6.55 per 100 lb.

"No. 2, $6 per 100 lb.

"No. 2, $6 per 100 lb.
   "No. 1, $6.85 per 100 lb.

"No. 2, $6 per 100 lb.

LEAD, RED.—Duty 5%.

Genuine, 560 lb. casks, $5.50 per cwt.

Genuine, 100 lb kegs, $5.75 per cwt.

No. 1, 560 lb. casks, $6.25 per cwt.

No. 1, 100 lb. kegs, $5.75 per cwt.

No. 1, 100 lb. kegs, $5 per cwt.

COLORS (Dry).—Duty 25%.

American Oxides, $1.75 to $2 per 100 lb.

Brussels Ochre, $2 per 100 lb.

Brussels Ochre, $2 per 100 lb.

"Umber, pure, 10 cents per lb.

"Umber, pure, 10 cents per lb.

Canadian Oxides, $1.75 to $2 per 100 lb.

Chrome Greens, pure, 12 cents per lb.

Chrome Yellows, pure, 12 cents per lb.

Drop Black, pure, 9 cents per lb.

English Oxides, $3 to $3.25 per 100 lb.

English Vermillion, 80 cents.

Fire Proof Minoral, $1 per 100 lb.

Genuine English Litharge, 7 cents per lb.

Mortar Color, $1.25 per 100 lb.

Pure Indian Red, No. 45, 90 cents per lb.

Super Magnetic Oxides, $2 to $2.25 per 100 lb.

Ultamarine Blue, in 28-lb. boxes, 8 to 24 cents per lb.

Venetian Red (best), $1.80 to $1.90 per 100 lb.
                                  per lb.
Venetian Red (best), $1.80 to $1.90 per 100 lb.
      Venetian Red (best), $1.80 to $1.90 per 100 lb.
Whiting, 12 cents.
Yellow Ochre (J. C.), bbls., $1.35 to $1.40 per 100 lb.
Yellow Ochre (J. F. L. S.), bbls., $2.75 per 100 lb.
Yellow Ochre (Royal), $1.10 to $1.15 per 100 lb.
Yellow Ochre (Royal), $1.10 to $1.15 per 100 lb.
COLORS (In Oil).—Duty 25%.
25 lb. tins, Standard Quality.
Chrome Green, 8 cents per lb.
Chrome Yellow, 11 cents per lb.
French Imperial Green, 109 cents per lb.
French Ochre, 5 cents per lb.
Golden Ochre, 6 cents per lb.
Marine Black, 9 cents per lb.
Marine Green, 9 cents per lb.
Venetian Red, 5 cents per lb.
PAPER.—Duty 25%.
    Venetian Red, 5 cents per 10.

PAPER.—Duty 25%.
Brown Wrapping, 2½ to 4 cents per lb.
Manilla Wrapping, No. 1, 4 cents per lb.
No. 2, 5½ "."

Carpet Felt, $45 per ton.
Plain building, 35 cents per roll.
Tarred lining, 45 cents per roll.
Tarred roofing, $1.65 per 100 lbs.
       PEAVEYS.—Duty 30%,
Round and Duck bill, $2.50 and $13 per doz.
PIKE POLES.—Duty 30%
$10.50 per doz.
         PICKS.—Duty 30°/..
$4.50 to $7 per doz.
       PITCH.
85 cents 100 lbs.
       PIPE. –Duty, $8 per ton.
Cast Iron Soil, Medium and Heavy, 65% discount
Light, 60% discount.
    PIPE.

Brass, 25 to 35 cents per lb., base price.

Copper, 25 cents per lb., base price.

PIPE.—Duty 30%.

Galvanized Iron.

$\frac{1}{2}$, $5.50 per 100 ft.; 1, $7.95 per 100 ft.; 1, $15.5 per 100 ft.; 1, $1.50 per 100 ft.; 14, $12.95 per 100 ft.; 2, $17.35 per 100 ft.; 14, $12.95 per 100 ft.; 2, $17.35 per 100 ft.; 1, $3.45 per 100 ft.; 1, $3.30 per 100 ft.; 1, $3.45 per 100 ft.; 1, $3.30 per 100 ft.; 1, $3.75 per 100 ft.; 1, $5.25 per 100 ft.; 1, $7.40 per 100 ft.; 1, $9.30 per 100 ft.; 2, $22.75 per 100 ft.; 2, $12.75 per 100 ft.; 21, $22.75 per 100 ft.; 3, $30.00 per 100 ft.; 3, $37.50 per 100 ft.; 3, $37.50 per 100 ft.; 6, $74.50 per 100 ft.

PIPE.—Duty-30%.
         PIPE.—Duty 30%.
Wrought Iron, 1 inch, per ft. 16½ cents.
      wrought fron, 1 inch, per ft. 16½ cent
PIPES.—Duty 30%.
Stove, 5 and 6 in., $7 per 100 lengths.
" 7 in., $7.50 per 100 lengths.
PLANES.—Duty 30%.
Bailey's, 40% discount.
Canadian wood, 25% discount.
Mathieson wood, 20
      Mathieson wood, 20 "
PLUMBERS' BRASS GOODS.—Duty 30°/,.
Check Valves, 60% discount.
Compression Cocks, 50% discount.
Geneuine Jenkins' Valves, 45 "
Imitation Jenkins' Valves, 45 "
Radiator Valves, 55% discount.
Standard Angle Valves, 65% discount,
Standard Globe Valves, 65"

**Stop Cocks, 65% discount,
**Stop Cocks, 65% discount,
```

```
POLISH.—Duty 25%.
Liquid Stove, $5 per gross.
Paste, $5 per gross.
              Paste, $5 per gross.

PULLEYS.—Duty 25%.

Awning, 25 to 60 cents per doz.
Clothes Line, 50 cents per doz.
Dodge wood split, 50% discount.
Sash, 25 to 27 cents per doz.

PUMP CYLINDERS.—Duty 25%.

Regular patterns, 65% discount.

PUMPS.—Duty 25%.

Cistern, 50% discount.

Force, 50 "

PUNCHES (centre)—Duty 30%.

Assorted sizes, $1.80 per doz.
               Assorted sizes, $1.00 per 100.

PUTTY — Duty 20%.

In bbls. (Bladders), $2.10 per 100 lbs.
In kegs, boxes or loose, $2.25 per 100 lbs.
In 25-lb. tins, $2.35 per 100 lbs.
In 12j-lb. tins, $2.65 per 100 lbs.
In bulk or tins less than 100 lb., $2.90 per 100 lbs.
Bulk, in bbls., $1.90 per 100 lbs.

"in less quantity, $2.05 per 100 lbs.

PAGES That 20%
              RASPS.—Duty 30%.
Blacksmiths, Woodworkers, etc., see Files.
               REGISTERS.—Duty 30%.
Floor and Wall, 50% discount.
    REGISTERS.—Duty 30%.
Floor and Wall, 50% discount.

RIVET SETS.—Duty 30%.
Canadian, 35 to 37½ discount.

RIVETS AND BURRS.—Duty 30%.
Copper Rivets and Burrs, 35 & 5 off; cartoons, 1 cent per lb. extras.

Extras on Iron Rivets in 1-lb. cartoons, ½ cent per lb.
Extras on Iron Rivets in ½-lb. cartoons, 1 cent per lb.

Extras on Tinned or Coppered Rivets, ½-lb. cartoons, 1 cent per lb.
Iron Rivets, black and tinned, 60 & 10% discount. Iron Burrs, 55% discount.

ROPE, ETC.—Duty 25%.
Cotton, 3-16 in, and larger, 16 cents per lb.

5-32 in., 21 cents per lb.
Crucible Steel Rope, 25% discount.
Galvanized Wire Rope, 25% discount.
Galvanized Wire Rope, 25% discount.
Jute, 8 cents per lb.
Lath Yarn, 9½ cents per lb.

* å in., 14½ cents per lb.

* å in., 14½ cents per lb.

* and 5-16 in., 15½ cents per lb.
Russia Deep Sea, lines 15½ cents per lb.
Sisal, 7-16 in. and larger, 10 cents per lb.

* å in., 11 cents per lb.

RUBBEE.

Reclaimed.
         RUBBER.
Reclaimed.
       Bulles.—Duty 30%.
Boxwood, 75 and 10% discount.
Ivory, 37½ to 40% discount.
Lumbermans.
       Lumoermans:

SAD IRONS.—Duty 30°/..

Mrs. Potts', No. 55, polished, 62½ cents per set.

"Sensible, "55 and 60 cents set.

"Toy," $13.00 gross.

SAND AND EMERY PAPER.—Duty 25°/..

B. & A. Sand, 40 & 5% discount.

Garnet, 5 to 10% advance of list.
     SAP SPOUTS.—Duty 30%.
Bronzed iron, with hooks, $9.50 per 1,000.
     SASH WEIGHTS.—Duty 25%.
Sectional, $2.75 to $3 per 100 lb.
Solid, $1.25 to $2.25 per 100 lb.
  Solid, $1.25 to $2.25 per 100 lb.

SAWS.—Duty 30'/.
Crosscut, Disston's, 35 to 55 cents per foot.
Hack, complete, 75 cents to $2.75 each.
Hack, frame only, 75 cents each.
Hand, Disston's, 12½' discount.
S. & D., 40'/ discount.
S. & D., 35 off on Nos. 2 and 3.

SCALES.—Duty 30'/.
Champion, 60'/ discount.
Gurney's, 40
Troenmer's, 30 "Canadian list.

SCREEN'S.—Duty 30'/.
 Gurney 8, 40

Troenmer's, 30 "Canadian list.

SCREEN'S.—Duty 30'/.
Door, $7.50 to $12 doz.
Window, $1.75 to $2.75 doz,

SCREWS.—Duty 35'/.
Bench, iron, $4.25 to $5.75 per doz.
"wood, $3.25 to $4 per doz.
Drive Screws, 87\} & 10\% discount.
Hexagon Cap, 45
Set, case-hardened, 60 "Square Cap, 50 & 5
Wood, F.H., bright and steel, 87\} & 10\% discount.
"R. H., bright, 82\} & 10\% discount.
"F. H., brass, 80 & 10 "
"F. H., brass, 75 & 10 "
"F. H., bronze, 75 "
"R. H., bronze, 70 "SCREWS, (Machine, Iron and Brass)—Duty 35'/.
 SCREWS, (Machine, Iron and Brass)—Duty 35%,
Flat head, 25% discount.
Round head, 20 "SCYTHES.—Duty 25%,
Grass, $8 to $10.
Grain, $12 to $14.
 SHEARS. -Duty 30%.
Tailors, 30 % discount Amer. list.
SHELLS (Cartridge). - See Ammunition.
```

```
SHOT, See Amunition.
                                 SHOY, See Amunition.

SHOYELS AND SPADES.—Duty 35%.
Burns', 40 and 5% discount.
Ely's,
Gray's "
Jones', "
Steel, Snow, $2.45 @ $2.60 per doz.
Wood, "
                                 SKATES.—Duty 35%.
American Hockey.
Canadian "40 cents to $2.50 pair.
                             Canadian

SNAPS.—Duty 30°/.,
Harness, 40% discount.

SNATHS.—Duty 25°/.,
Sythe, $5.25 to $8 per doz.

SOLDER (Plumbers').—See Metals.
                           SOLDER (Funivers).—See Metals
SOLDERING IRONS.—Duty 30%.
20 to 90 cents each.
SPIKES.—Duty 4 cent per lb.
Rail, 20% discount.
Ship, $5 per 100 lb.
                       Ship, $5 per 100 ib.
SPRINGS.—Duty 35%.
Bright Carriage, 64 per lb. net.
STAPLES.—Duty 30%.
Barb wire, $3.75 per 100 lb.
Bed, 50% discount.
Blind, 25
Wrought iron, 75% discount.
                             STEEL—see Metals.
                     STEEL—see Metals.

STOCKS AND DIES.—Duty 30%.

Blacksmiths', Lightning, 25% discount.

"Green River, 25"

"Reece, 30% discount.

"Jardine, 25"

Pipe, Solid, 70 & 10% discount.

"Duplex, 334% discount.

"Jarecki, 334% "

"Oster, 30% "

"Armstrong, 35% "

Wiley & Russell's, 25% discount, Canadian list.
                Wiley & Fuissen 8, 20% discounts,
STONES.—Duty 30%.
Arkansas, $1.50 per lb.
Hindostan, 6 to 7 cents per lb.
slip, 9 cents per lb.
axe, 15 cents per lb.
Scythe, $3.50 to $5 per gross.
Turkey, 50 cents per lb.
Washita, 28 to 60 cents per lb.
Water-of-Ayr, 10 cents per lb.
          wasnita, 28 to 60 cents per lb.

Water-of-Ayr, 10 cents per lb.

TACKS, BRADS, etc.—Duty 35%.
Carpet tacks, blued, 80 & 15% discount.

"inkegs, 40% discount.
Cheese-box tacks, blued, 85 & 12½% discount.
Copper tacks, 50% discount.
Cut tacks, blued, in dozens only, 80% discount.

"weights, 60% discount.
Leather carpet tacks, 55% discount.
Leather carpet tacks, 55% discount.
Lining tacks, in papers, 10% discount.
Patent brads, 40% discount.
Picture frame points, 10% discount.
Strawberry box tacks, bulk, 75 & 10% discount.
Swedes, cut tacks, blued and tinned, in bulk, 80 & 10% discount; in dozens, 75% discount.
Swedes, upholsterers, bulk, 35, 12½ & 12½% dis.

"brush, blued and tinned, bulk, 70% dis.
"gimp, blued, tinned and japanned, 75 & 12½% discount.
Trunk tack, black and tinned, 85% discount.
Zinc tacks, 35% discount.

TAGS.—Duty 25%.
Shipping 50 @ 70 contact 55%
            TAGS.—Duty 25%.
Shipping, 50 @ 70 cents per M.
  Snipping, 50 @ 70 cents per M.

TAR.
Coal $2.75 bbl.
Refined, $4 per bbl.
TENTS.—Duty 30%.
Canadian list, 20% discount.

TONGS.—Duty 30%.
Ice, $9 per doz.
Pipe, "Brown's," net.
"Brock's," 25% discount.
"Trimo," 25

TRAPS.—Duty 30%.
"Hawley & Norton's," 65% discount.
"Newhouse," 45% discount.
"Victor," 75% discount.
"Victor," 75% discount.

TRUCKS.—Duty 30%.

1, $3.75; 2, $5; 3, $6.75 each.
"Handy "Canadian, $16 to $18.

TUBES FOR BOILERS.
14, 14, 13, 2, 24, 24, 3, 34, 4
TUBES FOR BOILERS.

14, 14; 13; 2, 24; 24, 3, 34, 4

15, 12; 104, 13, 14, 144, 184, 244 ft.

TURNBUCKLES.—Duty, $\frac{1}{2}$ cent per lb., 25%; 33\frac{1}{2}%$; 33\frac{1}{2}%
```

```
TWINE—Continued.
Tarred Lath, 11 cts.
Wrapping, 22 to 27 cts.
              Tarred Lath, 11 cts.
Wrapping, 22 to 27 cts.
VARNISHES.—Duty 20 cents per gal.
20% off 5-gal. lots.
Black Japan, $2 per gal.
No. 1, 75 cents to $1.50 per gal.
Brown Japan, $1.50 to $2.50 per gal.
Carriage, No. 1, $2 to $3 per gal.

'body, $4 to $6 per gal.

rubbing, $2.50 to $4 per gal.

Pleastic Oak, $1.50 to $2.50 per gal.
Elastic Oak, $1.50 to $2.50 per gal.
Elastic Oak, $1.50 to $2.50 per gal.
Furniture Brown Japan, $1.20 to $2 per gal.

No. 1, 75 cents to $1.50 per gal.

Gold Size, Japan, $1.50 to $2.50 per gal.
Hard Oil Finish, $1.50 to $2.50 per gal.
Light Oil Finish, $1.50 to $2.50 per gal.
Shellac, orange, $2 to $2.50 per gal.

"white, $2 to $2.50 per gal.

"white, $2 to $2.50 per gal.
               VISES. – Duty 30%.
Amer., 134 cents per lb.
Brooks, 134 cents per lb.
Peter Wrights, 15 cents per lb.
            Peter Wright's, 15 cents per lb.
WASHERS.—Duty \( \frac{1}{2} \) cent per lb., 25%.
Buggy, 75% discount.
Wrought iron, 40% discount.
WASHING MACHINES.—Duty 35%.
Reacting square, \( \frac{2}{3} \) 61.00 per doz.
Rocker, \( \frac{2}{3} \) 848.00
Rocker, \( \frac{2}{3} \) 848.00 to \( \frac{2}{3} \) 42.00 per doz.
Dowswell, \( \frac{2}{3} \) 75 each.
Re-acting (Dowswell, \( \frac{2}{3} \) 6 each.
WIRE
       Re-acting (Down...

WIRE.

Barbed Wire, see Fencing.

Brass Wire, (duty 10%), 50 to 50 & 24% discount.

Copper Wire, (duty 15%), 45 & 10% discount net

cash 30 days, f.o. b. factory.

Smooth Steel Wire, (duty 20%), is quoted at the
following net selling prices:

No. 6 to 8 guage, $2.28 per 100 lbs.

9 "2.80"

10 "2.80"

2.90 "
                                                                                                                                                        2.90
2.95
3.15
3.37
3.50
3.65
                         ",īē
                            Galvanized Wire, per 100 lb.: Nos. 6, 7, 8, $3.50 to $3.85; No. 9, $2.85 to $3.15; No. 10, $3.60 to $3.95; No. 11, $3.70 to $4.10; No. 12, $3 to $3.30; No. 13, $3.10 to $4.50; No. 14, $4.10 to $4.50; No. 15, $4.60 to $5.05; No. 16, $4.85 to $6.35. Base sizes, Nos. 6 to 9, $2.57\frac{1}{2} f.o.b.
                         Clothes Line Wire, solid 7 strand, No. 17, $4.25;
No. 18, $2.65; No. 19, $2.35; f.o.b. Toronto,
Hamilton and Montreal.
  Hamilton and Montreal.

WASTE (Cotton).
Colored, $5.50 to $6 per 100 lb.
White, $7.75 per 100 lbs.

extra, $8 per 100 lb.

WHEELBARROWS.—Duty 30%.
Garden, $2 to $4.50 each.
Navy, $19 per doz.

iron wheel, $22.50 per doz.
Steel tubular, $7.50 to $10.50 each.

WHENCHES.—Duty 30%.
 Steel tubular, $7.00 to $10.00
WRENCHES.—Duty 30%.
Agricultural, 60% discount.
Alligator, 50
Coes, 30
P.S. & W., 30
Stillson's, 25
Trimo, pipe, 25

WEINGERS (Clather) —Duty 3
Trimo, pipe, 25

WRINGERS (Clothes).—Duty 35%.
Ajax, $66 per doz.
Canadian, $26 to $30 per doz.
Crascent, $17.50 to $20 per doz.
Leader, $30 per doz.
Leader, $30 per doz.
Novelty, $23 to $27 per doz.
Royal American, $26 to $30 per doz.
Royal Canadian, $26 to $30 per doz.
ZINC.—See Metals.
ZINC.-See Metals.
```

INDEX TO ADVERTISEMENTS.

Where the folio is not given the Advertisement appears at intervals.

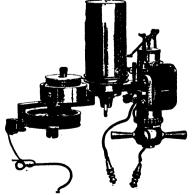
Adams, G. H. & Co., Melbourne, Australia ibc Agriculture, Ontario Minister of Toronto	Garfield Oil Co., Cleveland, Ohio	Northey Mfg. Co., Toronto 8 Northrop Iron Works, Valleyfield, Que. 35 Nova Scotia Steel Co., New Glasgow, N.S. 4
American Steam Gauge & Valve Mfg. Co., Boston, Mass	Hamilton, Ont 23 General Fire Equipment Co., Toronto 31 Goldie & McCulloch Co., Galt, Ont 3 Gooding William, London, Eng 32	Oakey, John & Sons, London, Eng
Archbold, George, Prescott, Ont	Gordon, Drummond & Co., London, Eng. 32 Gray, R. A. L. & Co., Toronto. 33 Greening B. Wire Co., Hamilton 30 Gutta Percha & Rubber Mfg. Co., Toronto. ofc	Sound, Ont ifc
Babcock & Wilcox, Montreal and Toronto. ofc Bale & Co., London, England . 24 Barber, Wm. & Bro., Georgetown, Ont. ibc Bellhouse, Dillon & Co., Montreal . 33 Bell Owen & Piano Co. Guelph, Opt. 29	Hamilton Brass Mfg. Co., Hamilton, Ont	Packard Electric Co., St. Catharines, Ont
Benson. W. T. & Co., Montreal life Bertram, John & Son, Dundas, Ont. 3 Big Four Route, Boston, Mass 27 Bourne-Fuller Co., Cleveland, Ohio 29 Bouvier, L. P., Toronto. 34 37	Hore, F. W. & Son, Hamilton, Ont ibc Houghton, John, Toronto ibc Howard, E. Clock Co., Boston, Mass., and	Petrie, H. W., Toronto ibc Phillips, Eugene F., Electrical Works, Montreal 34 Plummer, F. O., Boston, Mass 37 Queen City Oil Co., Toronto ofc-34
Brustol Co., Waterbury Conn. obc Brown & Co., Paris, Ont. 6 Brush, George, Montreal 34 Brunner, Mond & Co., Northwich, Eng. 5	New York City. 31 Hyde, F. & Co., Montreal. 3 Imperial Oil Co., Petrolea, Ont. 3	Reeves Pulley Mfg. Co., Toronto 15 Rehder Plating & Mfg. Co., Thorold, Ont 35 Rice Lewis & Son, Toronto 16
Buchanan, R. H. & Co, Montreal ibc Budden, Hanbury A., Montreal ibc Buffalo Forge Co., Buffalo, N.Y 28 Burt Mfg. Co., Akron, Ohio 21	Jenckes Machine Co., Sherbrooke, Que	Riley, C. E. & Co. Boston, Mass obc Robb Engineering Co., Anherst, N.S 6 Rosamond Woolen Co., Almonte, Ont ibc Rossendale Belting Co., Manchester, Eng 7 Royal Paper Mills Co., East Angus, Que 5
Canada Chemical Mfg. Co., London, Ont 36	Keller, John J. & Co., New York, N.Y itc Kelly's Directories, Toronto and London, Eng	Schoellkopf, Hartford& Hanna Co. Buffalo, N.Y. 36 Smart-Eby Machine Co., Hamilton, Ont. 26 Smith & Cameron, Toronto. obc Smith Woolstock Co., Toronto. ibc
Canada Switch & Spring Co., Montreal obc Canadian Colored Cotton Mills Co., Montreal Canadian Heine Safety Boiler Co., Foronto. Canadian Office & School Furniture Co., Preston, Ont	Kerr Engine Co., Walkerville, Ont. 36 Kingston Foundry, Kingston, Ont ifc Kinleith Paper Co., St. Catharines, Ont. 32 Klipstein, A. & Co., New York, N.Y. 6	Storey, W. H. & Son, Acton, Ont Ibc
Canadian Rubber Co., Toronto and Montreal. Carrier, Laine & Co., Levis, Que obc. Case, Egerton R., Toronto. ofc. Chapin, Geo. W., Philadelphia, Pa 17-22-30. Clercy, Jules de, Toronto. 7	Laurie Engine Co., Montreal 20 Leitch & Turnbull, Hamilton, Oht. ibc Leslie, A. C. & Co., Montreal ofc Lewis, Rice & Son, Toronto 16	Taft Dr. Bros. Medicine Co., New York City obc Tallman, J. N. & Sons, Hamilton, Ont
Clercy, Jules de, Toronto. 77 Cooper, James Mfg. Co., Montreal. 13 Cowan & Co., Galt, Ont	London Machine Tool Co., London, Ont	Thompson, E. B., Toronto. 26 Thompson, W. G. M., St. Catharines, Ont. 34 Thompson, Worth & Martin, Toronto 33 Toronto & Hamilton Electric Co., Hamilton, Ont. 31
Crown Lands Department, Toronto 24 Darling Bros., Montreal 6 Descripto Iron Co., Descropto, Ont ifc	Matheson, Wm. J. & Co., New York, N.Y.,	Toronto Elevator Co., Toronto
Diamond Machine & Screw Co., Toronto	And Montreal And	Toronto Patent Agency, Toronto 37 Trimont Mfg. Co., Roxbury, Mass 26 United Electric Co., Toronto obc
Dominion Bridge Co., Montreal. 4 Dominion Dyewood & Chemical Co., Toronto. ofc Dominion Oil Cloth Co., Montreal. 31 Dominion Radiator Co., Toronto 38	Morrow Machine Screw Co., Ingersoll, Ont 6 Morton Co., Toronto	Walkerville Malleable Iron Co., Wakerville,
Electric Construction Co., London, Ont	McEachren Heating & Ventilating Co., Galt, Ont	Williams, A. R. Machinery Co., Toronto 19
Firstbrook Box Co., Toronto. ibo Fleming, W. A. & Co., Montreal. 15 Flint & Walling Mfg. Co., Kendallville, Ind Forman John, Montreal. 8-28 Frick, H. C. Coke Co., Pittsburg, Pa. obc Frost, W. H., Smith's Falls, Ont. obc	Neff, A. C., Toronto ibe New Toronto Woolstock Co., New Toronto,	Wilson J. C. & Co., Glenora, Ont. 29 Wire and Cable Co. Montreal ofc Wood & Gregory, London, W.C., Eng. 26
·	1	1

ofc outside front cover.

ifcinside front cover.

ibc.... inside back cover.

obc.....outside back cover.



American Thompson Improved ndicator with Reducing Wheel an Electrical Attachment.

American Steam Gauge and Valve Mfg. Co. BOSTON, MASS., U.S.A.

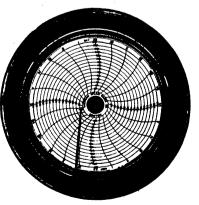
MANUFACTURERS OF

Standard Appliances for Measuring, Indicating, Recording, and Coverning Water, Steam, Gas, Ammonia, and all pressures.

Manufacturers of The THOMPSON IMPROVED INDICATOR. The only American Indicator awarded a Medal at the Paris Exposition.

Also Gauges, Clocks, Revolution Counters, Pop Safety, Cylinder and Underwriters' Water Relief Valves,

Recording Gauges, Pyrometers, Salinometers, and all Steamship Instruments. Send for New General Catalogue.



American Pressure Recording Gauge.

Smith Wool-Stock Co.

Makers of

WOOL STOCK, SHODDIES, Etc.

W. H. PARRER

NEW TORONTO WOOL STOCK CO.

MANUFACTURERS OF

WOOL STOCK and SHODDIES Write for Samples and Prices.

NEW TORONTO, - ONTARIO, CANADA.

A. S. PARKER, NEW TORONTO



Dealer in Woolen Waste. Carnetting a Specialty

PENMAN MANUFACTURING CO.

PARIS, ONT.

LIMITED.

Manufacturers of

Hosiery, Shirts, Drawers, Glove Linings and Yarns.

Selling Agents-D. Morrice, Sons & Co., Montreal and Toronto.

ROSAMOND WOOLEN CO.

ALMONTE, ONT.

Fine Tweeds, Cassimeres, and Fancy Worsted Suitings and Trouserings.

Canada Elevator Werks,
Queen and Peter Sts.
HAMILTON, ONT.... Patent Safety Hydraulic,
Hand and Power ELEVATORS.

Telephone Connection.

W. H. Storey & Son, Acton, ONT.,

Manufacturers

FINE GLOVES AND MITTS

In every variety and style.

Moccasine.

WM. BARBER & BROS. Georgetown, Ont

Manufacturers of

and Fine Papers.



Advertise in THE Can-ADIAN MANUFACTURER.



F. W. HORE & SON, Limited, Manufacturers of

CARRIAGE, WAGGON, AND SLEIGH WOOD WORK.

G. H. Adams & Co.

ANUFACTURERS' AGENTS AND COMMISSION MERCHANTS.

Flinders Lane, MELBOURNE,

Clarence Street, SYDNEY, and at FREMANTLE, ADELAIDE, BRISBANE and N.Z.

Will be pleased to correspond with Canadian Manufacturers and Exporters desirous of opening up direct relations with Aus-tralasia.

ENGRAVING SS OF ENGRAVINGESE ADVERTISING PURPOSES, CATALOGUES MAGAZINES, &c. TORONTO. Adelaide St W

A. C. NEFF

OHARTERED ACCOUNTANT

Room 500 McKinnen Bldg.,

Tel. 1880. TORONTO.

Audits and Investigations a Specialty.

THE

Toronto Paper Manufacturing Co., Cornwall, Ont.

Manufacturers of Engine Sized Superfine Papers, White and Tinted Book Papers, Blue and Cream Laid and Wove Foolscaps, Account, Envelope and Lithographic Papers, etc.

Over 30 years Experience in Great Britain, Europe and Americs APPLIED CHEMISTRY

Dr. GEO. ARCHBOLD, A.M.

TECHNICAL CHEMIST

(Formerly Chief Chemist, Ordnance Dept., U.S. Navy Yard, Washington, D.C.)

Investigations made and advice given on matters relating to Technological Chemistry and Technology. Brewing, Distillation and Wood Pulp, etc., a specialty.

P.O. BOX 288, PRESCOTT, ONT.

JOHN J. GARTSHORE,

83 Front St. West, Toronto.

RAILWAY, TRAMWAY, and

.. Contractors' Supplies METALS and SCRAP IRON

Bought and Sold.

MTENTS

HANBURY A. BUDDEN NEW YORK LIFE BUILDING, MONTREAL



ASTHMALENE BRINGS INSTANT RELIEF AND PERMANENT CURE IN ALL CASES.

SENT ABSOLUTELY FREE ON RECEIPT OF POSTAL.

There is nothing like Asthmalene. It brings instant relief, even in the worst cases. It cures when all else fails.

The Rev. C. F. Wells, of Villa Ridge, Ill., says: "Your trial battle of Asthmalene received in good condition. I cannot tell you how thankful I feel for the good derived from it. I was a slave, chained with putrid sore throat and asthma for ten years. I despaired of ever being cured. I saw your advertisement for the cure of this dreadful and tormenting disease, asthma, and thought you had overspoken yourselves, but resolved to give it a trial. To my astonishment, the trial acted like a charm. Send me a full-size bottle.

a trial. To my astonishment, the trial acted like a charm. Send me a full-size bottle.

We want to send to every sufferer a trial treatment of Asthmalene, similar to the one that cured Mr. Wells. We'll send it by mail POSTPAID, ABSOLUTELY FREE OF CHARGE, to any sufferer who will write for it, even on a postal. Never mind, though you are despairing, however bad your case, Asthmalene will relieve and cure. The worse your case, the more glad we are to send it. Do not delay. Write at once, addressing BR. TAFT BROS. MEDICINE CO., 79 East 130th St., N.Y. City. Sold by all Druggists.

JOHN HOUGHTON

Practical Machinist

106 CHURCH ST., TORONTO-

MODEL MAKING A SPECIALTY.

THE PATENT CLOTHBOARD CO. OF PARRY SOUND

PARRY BOUND, ONT., CANADA.

Clothboards, Lapping, Rolling and Bailing Boards Veneers of Ash, Birch, Bass and Elm, all thicknesses Cheese Box Bands and Rims Box Shooks (Small and Light) also Crating Material

The Firstbrook Box Co. Limited PACKING CASES DOVETAIL BOXES

Bottlers' SHIPPING CASES.

BOX SHOOKS, Etc.

TOP PINS, SIDE-BLOCKS & CROSS-ARMS

Write for prices. TORONTO, Canada.

CARBONIZER A neutral sub-stance, harmless

to animal fibre. or tissue, while it destroys burrs, etc., as efficiently as acid. It leaves the wool in fine condition. Manufactured by the Merrimac Chemical Co., 18 PKARL ST.

PAFENTS Write for "Inventor's Help"—FREE. ENCINEERS AND EXPERTS.

WASHINGTON

MCARTHII GERGHE TOURT CORNEILLE & CO.,

OFFICES:

310 to 316 St. Paul Street.

WAREHOUSES;

147 to 151 Commissioners Street.

...MONTREAL...

AGENTS FOR . . .

Berlin Aniline Co., Aniline Colors and other Coal Tar Products.

Stamford Manufacturing Co., Dyewoods and Extracts.

Coez, Langlois & Co., French Extracts.

Miller Extract Co., Hemlock Extracts British Alizarine Co., Alizarine. J. H. Heald & Co. Extracts Oak, etc.



The Ontario. Malleable Iron Co.

(Limited)

....Manufacturers of...

MALLEABLE **IRON**

AGRICULTURAL IMPLEMENTS

AND.

Miscellaneous Purposes.

OSHAWA, - - ONT.

THE UNITED ELECTRIC CO.

SUCCESSORS TO

Limited.

MPROVEMENTS

SPECIALTIES

OARD

W. A. JOHNSON ELECTRIC CO. THE TORONTO ELECTRIC MOTOR CO., Limited. THOMPSON ELECTRIC CO.

We Manufacture Electric Light and Power Apparatus.

ARE PREPARED TO CONTRACT FOR COMPLETE

INSTALLATIONS.

134 KING ST. W., TORONTO, ONT. Head Office.

THE CANADA SWITCH & SPRING CO., LIMITED.

Manufacturers of

..... SPECIALTIES FOR.....

Steam and

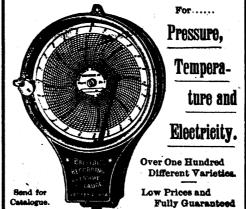
Electric Railways. SPRINGS, STEEL CASTINGS, FROGS, FORGINGS, TRUCKS FOR ELECTRIC RAILWAYS, ETC.

INTERLOCKING SWITCH and SIGNAL PLANTS,

(Under patents of Messrs. Saxby & Farmer, Limited, of London, Eng.)

CANAL BANK, POINT ST. CHARLES. MONTREAL

BRISTOL'S Recording Instruments



THE BRISTOL WATERBURY, CONN., U.S.A. SMITH'S FALLS

Malleable iron. Works

00000

CAPACITY 3,000 TONS.

00000

WILLIAM H. FROST

PROPRIETOR

SMITH'S FALLS

ONTARIO, CANADA.

CARRIER, LAINE & CO. LEVIS, P.Q.

ENGINEERS, FOUNDERS, MACHINISTS, BOILER MAKERS AND GENERAL CONTRACTORS

Montreal Branch... 147 St. James St. Quebec Branch .

263 St. Joseph