

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. 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 filming, are checked below.

L'Institut a microfilmé 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 filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- 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
- Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- Additional comments:/
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Continuous pagination/
Pagination continue
- Includes index(es)/
Comprend un (des) index
- Title on header taken from:/
Le titre de l'en-tête provient:
- Title page of issue/
Page de titre de la livraison
- Caption of issue/
Titre de départ de la livraison
- Masthead/
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
									✓		

ROYAL OIL CO., TORONTO
... and ...
MONTREAL

CYLINDER
DYNAMO
ENGINE.....

OILS

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

THE MORE COUNTRY IT PRODUCES THE RICHER IT IS
ANATION THAT MANUFACTURES FOR ITSELF PROSPERS

J. L. JONES TORONTO.

Vol. 35.

TORONTO, OCTOBER 1, 1897.

No. 7.

THE
BARBER & ELLIS CO.

Selling Agents for
**Rolland's Superfine
Writing and
Ledger Papers.**

Prices and Samples on
Application.

Nos. 43, 45, 47 and 49 BAY ST.,
TORONTO.

ANILINES
DOMINION DYEWOOD & CHEMICAL CO.
TORONTO.
ALIZARINES
PRODUCTS OF
The Farbenfabriken vorm. F. Bayer & Co.
DOMINION DYEWOOD & CHEMICAL CO.
SOLE AGENTS FOR CANADA TORONTO.

CHARLES F. CLARK, Pres. EDW. F. RANDOLPH, Treas.
ESTABLISHED 1849.

**THE BRADSTREET
MERCANTILE AGENCY**

THE BRADSTREET COMPANY - Proprietors
NEW YORK.

Offices in the principal cities of the United States, Canada, the European Continent, Australia, and in London, England.

The Bradstreet Company is the oldest, and financially, the strongest organization of its kind—working in one interest and under one management—with wider ramifications, with more capital invested in the business, and it expends more money every year for the collection and dissemination of information than any similar institution in the world. Toronto Offices:—

McKINNON BUILDING, TORONTO
THOS. C. IRVING, Superintendent.

We are the only Manufacturers in Canada making GENUINE OAK TANNED BELTING in "Extra," "Standard" and "Dynamo."

We Manufacture CARD CLOTHING set in OAK LEATHER, FLEXIFORT and RUBBER

Estimates for LEATHER RUBBER "THISTLE" and GANDY BELTING will be found favorable

HEDDLES, LOOM REEDS, PICKERS, RUB. APRONS, Etc.

MONTREAL * THE J. C. McLAREN BELTING CO. * TORONTO

Fensom's

ELECTRIC
HYDRAULIC
STEAM
HAND-POWER

All made of the best material and Finest workmanship.

The Fensom Elevator Works...
#2, 54, 56
Duke Street,
Toronto, Ont.

Elevators

RUBBER GOODS OF ALL KINDS.



61 and 63 FRONT ST. WEST, TORONTO.

THE...
**Walkerville
Malleable Iron
Co., (Limited)**

Manufacturers of..

REFINED AIR FURNACE

Malleable Castings

ALSO LIGHT GREY IRON CASTINGS.

WALKERVILLE, - ONTARIO.

RIDOUT & MAYBEE

Foreign members of the....

CHARTERED INSTITUTE OF
PATENT AGENTS, ENGLAND

SOLICITORS of and EXPERTS in
PAMPHLET ON PATENTS SENT FREE

103 Bay Street, Toronto

Patents

OAK TANNED BELTING
TELLIOW'S ENGLISH
CARD CLOTHING
ROBERT S. FRASER

Shippers of Fire Brick, Fire Clay, Fire Sand, Moulding Sand, suitable for all classes of work

Manufacturers of Foundry Facings, Ceylon Plumbago, Core Compound and Foundry Supplies

HAMILTON, ONT.
Hamilton Facing Mill Co., LIMITED

TORONTO JUNCTION, ONTARIO.

BICYCLE STEEL CASTINGS A SPECIALTY.

Cans, Solder AND CANNERS' SUPPLIES.

WE have special facilities for manufacturing Solder in triangle bars, large bars and wire.

GET OUR PRICES BEFORE BUYING

THE NORTON MFG. CO.
Hamilton, Ont.

F. W. HORE'S SONS,
HAMILTON, ONT.

Manufacturers of . . .

WHEELS, Wheel Materials, Shafts, etc



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

Address . . .

Toronto Fence & Ornamental Iron Works
73 Adelaide St. West, Toronto.

Reproductions Made for Eight
Cents per Square Inch.



Half Tones Made Direct from
Photos.

WM. BARBER & BROS.
GEORGETOWN, ONT.

Manufacturers of

BOOK AND FINE PAPERS



JOHN HALLAM
TORONTO.

WHOLESALE DEALER IN

DOMESTIC
and FOREIGN **WOOLS**
Sumac, Japonica, etc.

SMITH WOOL-STOCK CO.

219 FRONT ST. EAST, TORONTO

Makers of.. **WOOL STOCK, SHODDIES, Etc.**

All lines of Graded Woolen Rags. Carboniz-
ing and Neutralizing. Beyers of Wool Pickings.
All lines of Hard and Soft Waste.

These
Three
Words



In letters of fiery red will make the
careless employee pause when about
to use Indurated Fibre Ware Fire
Pails for chores. Besides, he couldn't
if he would—the round bottoms pre-
vent their being used but "for fire
only."

The **E. B. EDDY CO., Limited**
HULL, MONTREAL, TORONTO.

METAL STAMPS,

SOAP DIES, AND BRASS SIGN
MANUFACTURERS

PATTERSON & HEWARD
40 WELLINGTON ST. WEST, TORONTO.



Send for Catalogue and Price
List to

BROWN & CO.

Manufacturers of

Square and Hexagon

HOT PRESSED NUTS.



PARIS. - ONT.

HARDWARE DEALERS' MAGAZINE

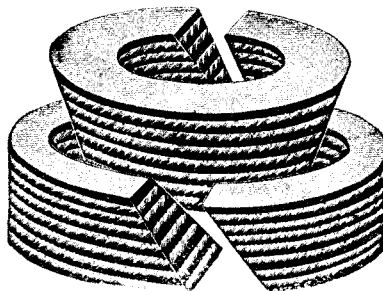
Largest Circulation in its field in the World

One Dollar
a Year.

D. T. MALLETT, Publisher
271 Broadway, New York

Specimen
Copy upon
Request

ENGINEERS' FAVORITE RING PACKING

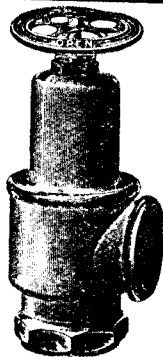


Rainbow Sheet Packing, Eclipse Gasket Packing
Sheet Rubber and Plumbago,
Square Flax. Hemp and Soapstone,
Asbestos Cement and Pipe Covering,
Sutton's Boiler Compound
Albany Grease.

WILLIAM C. WILSON & CO.

LUBRICATING OILS AND GREASES

24 FRONT STREET EAST. TORONTO



CROSBY STEAM GAGE AND VALVE CO.

Sole Proprietors and Manufacturers of

Crosby Pop Safety Valves, for all kinds of Boilers, Water Relief Valves including
the Underwriter, which is fully approved by the Associated Factory Mutual
Insurance Companies; Crosby Steam Engine Indicators, with Sar-
gent's Electrical Attachment; Crosby Improved Steam
Gages, Recording Gages and Patent Gage Testers.
Original Single Bell Chime Whistles.

BRANDEN PATENT PUMP VALVES

CLARK'S LINEN FIRE HOSE AND ADJUSTABLE COUPLINGS

All Kinds of Pressure and Vacuum Gages used in the Various Arts

Gold Medal Paris Exposition, 1889
Ten Highest Awards Columbian Exposition, 1893

Main Office and Works BOSTON, MASS., U.S.A.
Branch Offices at New York, Chicago, and London, Eng.

Underwriter

J. A. CULVERWELL,
Promoter of
Inventions and Companies.

(Late with Edison General Electric Co.)

12 Adelaide Street East, TORONTO.

AULD MUCILAGE CO.

Manufacturers of the Celebrated

Premium Mucilage, Lithogram Com-
position, Lithograms Ready for Use.
Printers' Premium Roller Composition.

Write us for Quotations.

759 CRAIG STREET, - MONTREAL, P.Q.

BOILERS.

YOU WANT THEM. WE MAKE THEM

WRITE FOR PRICES

BANNERMAN & FINDLATER,
Boiler Makers, OTTAWA, ONT.

UNEQUALLED

It has been demon-
strated that the Anti-Scale Boiler Purge
is unequalled as to effectiveness and economy
by anything on the market for removing scale
from boilers. Write for illustrated circular.

C. C. HEARLE,
623 LaGauchetiere Street, - MONTREAL.

HARVEY HUBBELL
 Machinery and Tool Mfr
 Improved Tapping Machines
SCREWS
 Machine screws for all special purposes.
 Sample box free
BRIDGEPORT, CONN., U.S.A.

The Pulsometer
STEAM PUMP

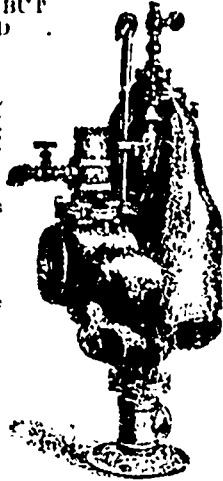
OFFERED UNDEPATED BUT
 NEVER EQUALLED

 The handiest, simplest and most efficient steam pump for general Milling, Quarrying and Contractors' purposes.

 Muddy or Gritty Liquids
 Handles without wear.

 Best of all catalogue
 will be sent for 10¢

PULSOMETER
 Steam Pump Co.
 NEW YORK, U.S.A.

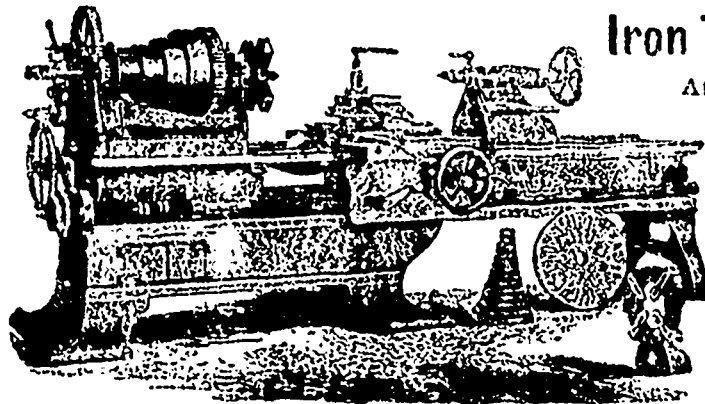


A. R. Williams Machinery Co.
 Toronto and Montreal,
 Selling Agent for Canada.

THE
A. R. WILLIAMS MACHINERY CO.
 Limited

Head Office, - - SOHO MACHINE WORKS, TORONTO

Manufacturers of the Dealers in
 High Class Iron Tools,
 Wood working Machinery,
 Engines, Boilers,
 Motors Water Wheels,
 General Machinery
 and Supplies



Iron Tool Works

At London
 BRANCHES
 193 Colborne St
 BRANTFORD
 345 and 347
 St. James St.
 MONTREAL

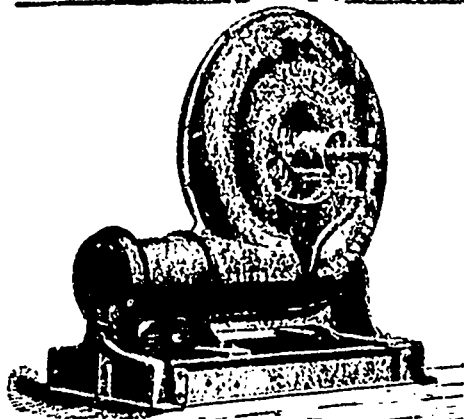
Send for Circulars
 Referring
 to this Advt.

The STURTEVANT
STEEL

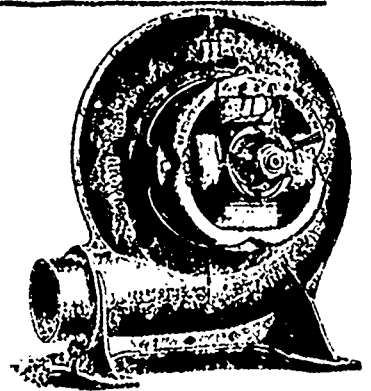
Pressure
Blowers

FOR
 Cupola Furnaces and Forge
 Fires

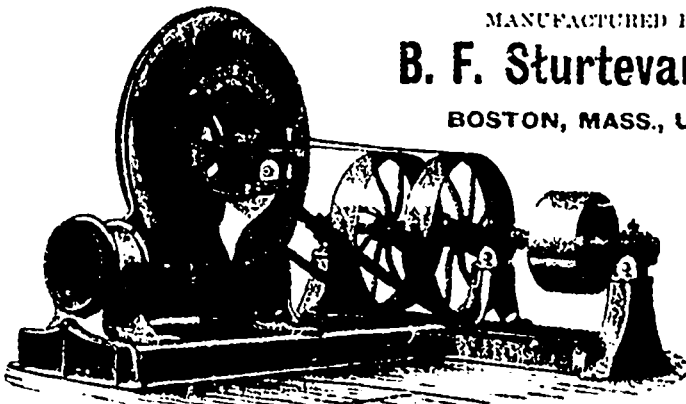
MANUFACTURED BY
B. F. Sturtevant Co.
 BOSTON, MASS., U.S.A.



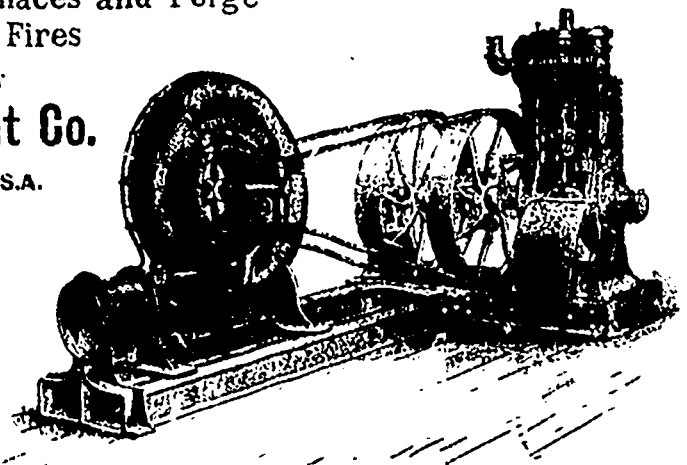
Blower on Adjustable Bed.



Blower with Electric Motor.



Blower on Adjustable Bed with Combined Countershaft.



Blower on Adjustable Bed, with Double Ended Engine

A. R. WILLIAMS MACHINERY CO., General Canadian Agents, Toronto, Brantford, Montreal

The Royal Electric Co'y

MONTREAL, QUE.

Western Office. . . TORONTO, ONT.

S.K.C. Two-Phase Alternators

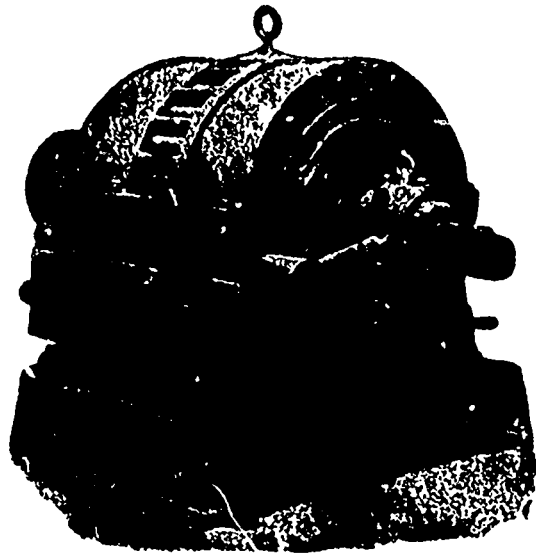
Incandescent Light, Arc Light and Power from same Dynamo and Circuit.

Highest Efficiency

Best Regulation

Slow Speed

Least Attention



No Collector

No Moving Wire

No Exposed Parts

No Compounding

S.K.C. 50 Kilowatt Two-Phase Generator

The Polson Iron Works, TORONTO CANADA.

THE BEST EQUIPPED BOILER AND ENGINE WORKS IN CANADA.

We Manufacture—

STEEL BOILERS

The BROWN AUTOMATIC ENGINE, MARINE ENGINES (SINGLE, COMPOUND AND TRIPLE), Hoisting and Mining Engines

STEEL STEAM VESSELS OF EVERY DESCRIPTION.

STEAM YACHTS AND LAUNCHES

GET OUR PRICES BEFORE ORDERING.

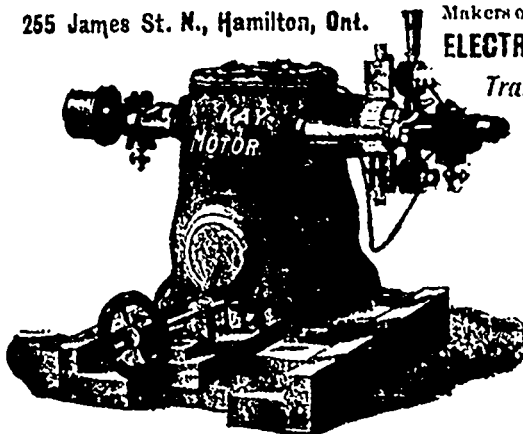
ESPLANADE EAST, Foot of Sherbourne St., - - Toronto, Canada

KAY Electric Manufacturing Co.

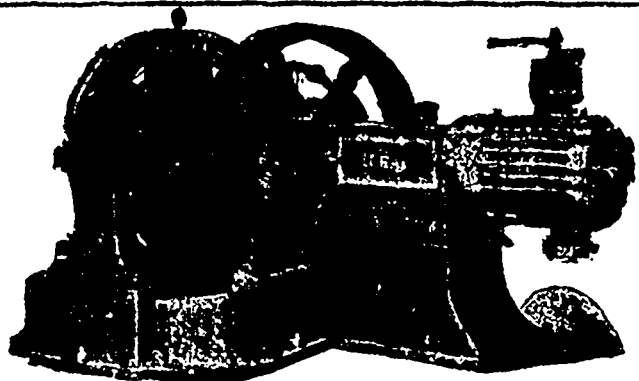
255 James St. N., Hamilton, Ont.

Makers of.....
ELECTRIC MOTORS

Transformers
DYNAMOS
PLATING
MACHINES
ETC.



Please let us know your requirements. Write for latest prices and testimonials.



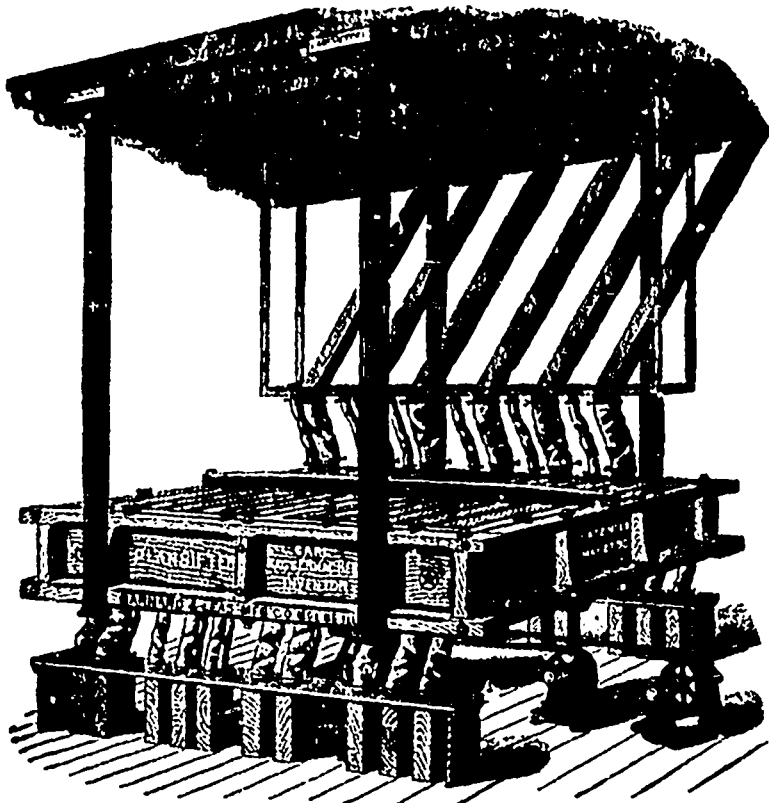
From 8 to 100 K. W.

TORONTO ELECTRIC MOTOR CO.

103 105, 107, 109 Adelaide Street West, Toronto, or to R. E. T. PRINGLE, Room 57, Imperial Building, Montreal, Que.

THE PLANSIFTER

This Machine Leads ; Others try to Follow!



The following is a partial list of millers who have adopted the Plansifter system within the last twelve months.

	Capacity, Barrel.
John Wason, Warsaw	50
Consolidated Milling Co., Peterboro'.....	250
C. E. Drewery, Colborne	35
G. S. Baldwin, Aurora	125
Robert Sugden, Holt.....	30
M. N. Stephens, Glencairn	150
Jos. Knox & Co., Stayner	75
E. W. B. Snider, St. Jacobs.....	150
Wm. Ross, Brussels.....	60
Smith & Scratch, Kingsville	35
Wray & Hawkshaw, Lucan	50
T. Muthor, Tilbury	75
Lorenzo Marquerz Milling Co., Lorenzo Marquerz, South Africa.....	230
John Lockhart, Rainy River	50
Wolsley Milling Co., Wolsley, N.W.T.....	100
George Vick & Son, Orillia, Ont.	100
A. S. Bowen & Sons, Keimptville	125
H. Brown & Sons, Carlton Place	125
Hunt Bros., London	250
Wm. Mack, Cornwall	100
George Boxall, Embro.....	50
Hudson Bay Co., Winnipeg	350
J. L. Meek, Alton	50
Harold Barrett & Co., Port Hope.....	75
J. W. Cornish, Leskard	50
A. McKillop & Son, West Lorne	50
Donald Currie, Port-Lock	30
Cookshire Flour Mill Co., Cookshire, Que.....	60
Sadler, Dundas & Flavolle Milling Co., Lindsay	100
Korr Bros., Farran's Point.....	50
T. J. Bennett, Spencerville	60

THE PLANSIFTER produces results far superior to any other machine or system.

POWER SAVED—The saving in power alone in steam mills will soon pay the cost of a PLANSIFTER.

THE PLANSIFTER is the most convenient machine to place in a mill.

THE PLANSIFTER MILL has lots of air, light and room, with easy access to every stock.

PRICE WITHIN REACH OF ALL.

ITS ADVANTAGES ARE

It Saves Space
It Saves Power
It Saves Cloth
Makes Better Separations
Makes Purer Stock
Makes Better Flour

Makes Better Clean-up
Makes Closer Finish
Makes Larger Yield
Makes Milling Easier
No Vibration
No Noise

No Dust
Easily Controlled
Insures Uniform High Grade
Increases Capacity
Must Come into General Use

Big Mills Cannot Afford to do Without them, and they do Charming Work in the Smallest Mills.

SOLE LICENSEES AND MANUFACTURERS FOR CANADA

WM. & J. G. GREY, 2 Church St., TORONTO

**ALBERT
MANUFACTURING CO.**

Manufacturers of the
well known

"HAMMER BRAND"

**Calcined
PLASTER**

—AND—

Patent Rock Wall Plaster

HILLSBOROUGH, N.B.,
CANADA.

A. B. FLEMING & CO.

(Limited).

EDINBURGH, SCOTLAND

Sole Proprietors and
Manufacturers of Fleming's Patent

SOLIDIFIED OIL

FINEST LUBRICANT

In the Market.

USED BY ALL THE PRINCIPAL STEAM-
BOAT, RAILROAD AND MILL
OWNERS THROUGHOUT
THE WORLD.

William C. Wilson & Co.

TORONTO

SOLE AGENTS FOR CANADA.

Welland Vale Manufacturing Co.

LOCK No. 2, ST. CATHARINES, ONT.

Manufacturers of.....

**AXES, SCYTHES, FORKS, HOES
RAKES and EDGED TOOLS**

W. H. STOREY & SON

ACTON, - - ONT.

Manufacturers of . . .

Fine Gloves and Mitts

In Every Variety and Style.

MOCCASINS

CANADIAN OFFICE & SCHOOL FURNITURE
CO. LTD.
PRENTON
ONT.



FINE
BANK OFFICE,
COURT HOUSE &
DRUG STORE FITTINGS.

OFFICE, SCHOOL,
CHURCH & LODGE FURNITURE.

SEND FOR CATALOGUE

YOU DO NOT TAKE ANY RISK

THE WEBSTER HEATING SYSTEM

Has Proved **SATISFACTORY** where all
Others Have Failed

Guaranteed Perfect Circulation

Graduated Temperature

No Back Pressure

EXHAUST AND LOW
PRESSURE STEAM CIRCULATED ANY
DISTANCE AND ANY HEIGHT.

*If you Intend Altering your present HEATING SYSTEM, or wish to effect a
saving in your fuel account, we will send you our NEW CATALOGUE
OF THE WEBSTER SYSTEM which may interest you.*

DARLING BROS., Queen and Ottawa Sts., MONTREAL

FRANK DARLING, Agent, NELSON, B.C.

J. HERBERT LARMONTH, B.A. Sc., Agent, CENTRAL CHAMBERS, OTTAWA, ONT.



A CRANK PIN OILER

Which can be relied upon.

THE NEW

PENBERTHY

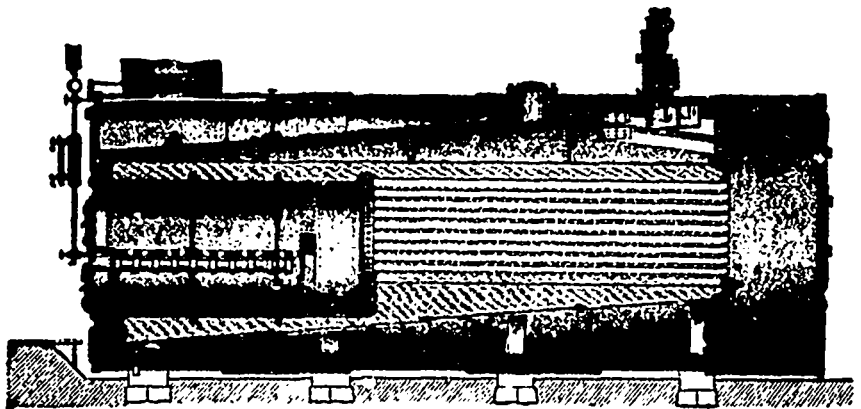
Safety Automatic Double Feed DOES NOT WASTE OIL.

...Descriptive Circular on application....

PENBERTHY INJECTOR CO.,

Largest Injector Manufacturers in the World.

132 Seventh Street,
Detroit, Mich.
Branch Factory—
Windsor Ont.



The Monarch Economic Boiler

Is Portable

Has an outer casing and requires
no brickwork. Leaves our Shop mounted
on skids ready for use.

Saves Fuel

Some tests show a saving of 30 per cent
over a common brick-set boiler. We
guarantee at least 10 per cent.

ROBB ENGINEERING CO., Ltd., AMHERST, N.S.

WILLIAM MCKAY, Seaforth, Ont., Traveller

BRUNNER, MOND & CO., (Limited), Northwich, Eng.

MANUFACTURERS OF

The Strongest and Cheapest Form of SODA ASH for the Manufacture of . .



PURE ALKALI

GUARANTEED 88 DEGREES

SOAP, GLASS, PAPER, WOOD PULP AND COLORS

Also for Printers and Bleachers

BLEACHING POWDER AND

CAUSTIC SODA, 70% 74%, & 76%

Winn & Holland, Montreal

SOLE AGENTS FOR THE DOMINION OF CANADA.

Wm. J. MATHESON & CO., LIMITED

NEW YORK

BOSTON

PHILADELPHIA

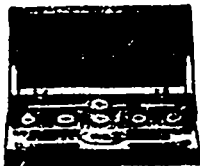
PROVIDENCE

CHARLOTTE, N.C.

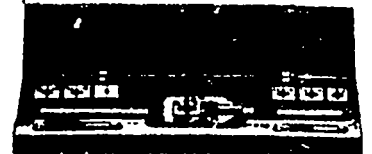
MONTREAL, CANADA

DYE . . .

STUFFS

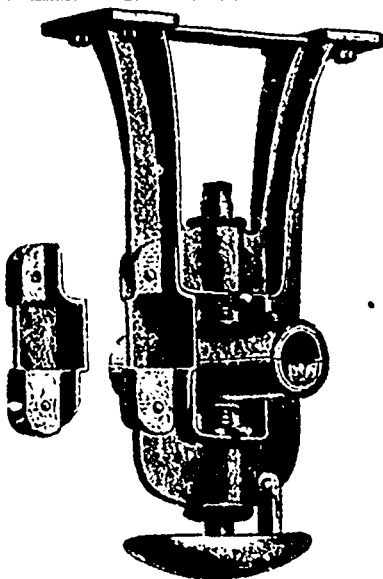
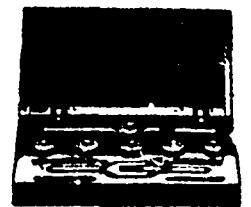
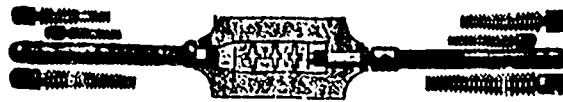
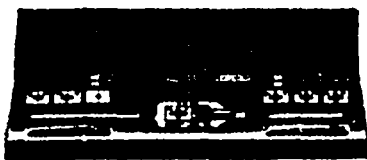


Bicycle Plates in all the most desirable sizes and threads. Taps and Dies of Every Variety



BUTTERFIELD & CO.

ROCK ISLAND, P.Q.



HANGERS...SHAFTING...PULLEYS

We carry a full line of Power Transmission Machinery, including High-Grade Turned Steel Shafting, any length, any diameter. HANGERS of all kinds, in new designs, with plain and self-oiling bearings. FRICTION CLUTCH PULLEYS AND COUPLINGS.

SEND FOR CATALOGUE

DODGE WOOD SPLIT PULLEY COMPANY

WORKS: TORONTO JUNCTION. Office: 74 YORK ST., TORONTO

JOHN INGLIS & SONS

Manufacturers of

Corliss Engines, High Speed Engines, Water Works Machinery,
Marine Engines, Condensers,
Ice and Refrigerating Machines, Flour Mill Machinery,

MINING MACHINERY

Bollers and Tank Work of all kinds.

Telephone 5333

HEAVY CASTINGS A SPECIALTY

TORONTO, ONT.

THE IMPERIAL OIL COMPANY, LIMITED

HIGHEST AWARDS AT THE WORLD'S FAIR, CHICAGO, UPON

Lubricating, W. W. 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, Etc.,

And Solicit opportunity to compete against any Oil on the Market.

Write for Prices and Samples.

THE IMPERIAL OIL COMPANY, (Limited)

Head Office, PETROLEA, CAN.

BRANCHES

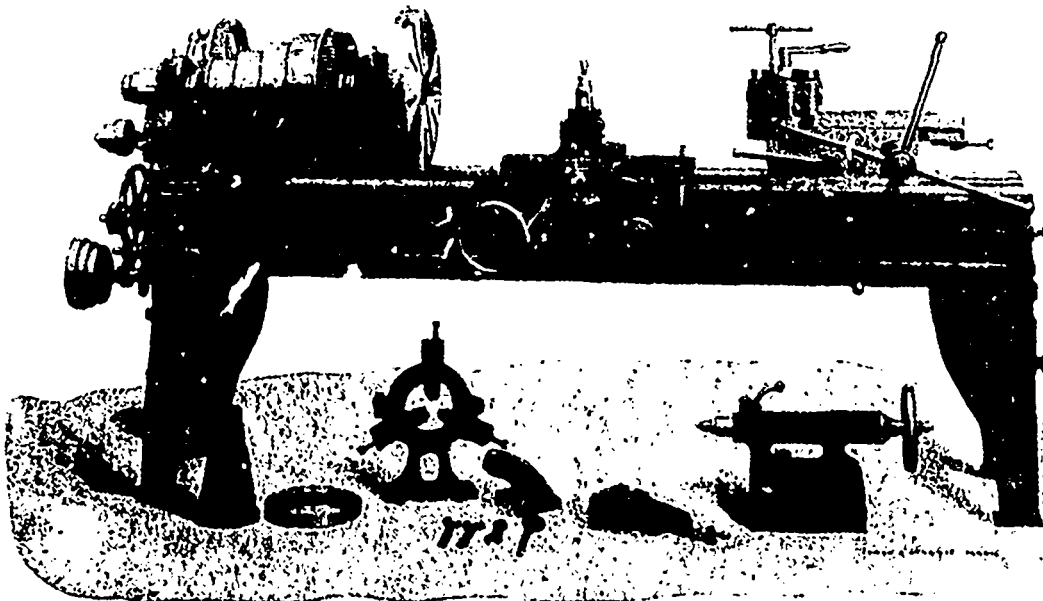
HALIFAX, N.S. HAMILTON, ONT. QUEBEC, QUE. LONDON, ONT. TORONTO, ONT. WINNIPEG, MAN. ST. JOHN, N.B.
GUELPH, ONT. MONTREAL, QUE. CHATHAM, ONT. PETERBORO', ONT. VANCOUVER, B.C. MONCTON, N.B.
STRATFORD, ONT. KINGSTON, ONT. WINDSOR, ONT.

JOHN BERTRAM & SONS,

DUNDAS, - - ONTARIO.

Offer for Sale

A Foundry Cupola, NEW, Complete,



Engine Lathe with Turret Attachment.

Shell, 52 in. Diam.,
14 ft. long.

Stack, 20 ft. long,
38 in. Diam.

Base plate, Columns
Air Drum and
Tuyers.

No. 7 Sturtevant
Fan and all Con-
ducting Pipes.

Also Complete Fire
Brick for Lining.



THE ABOVE IS
OFFERED AT
A BARGAIN



NORTHEY MFG. CO., LIMITED,
TORONTO, - ONTARIO.

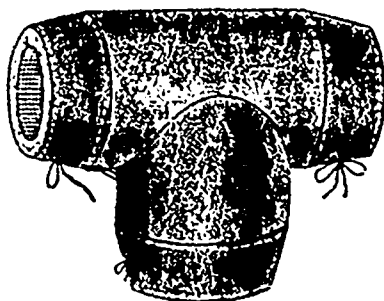
Steam and Power

Pumps
 & HYDRAULIC
 MACHINERY

**FOR
 ALL
 DUTIES.**

MICA BOILER AND STEAM PIPE COVERING.

THE CHEAPEST IN THE MARKET. DURABLE, FLEXIBLE, AND A MAGNIFICENT NON-CONDUCTOR OF HEAT.

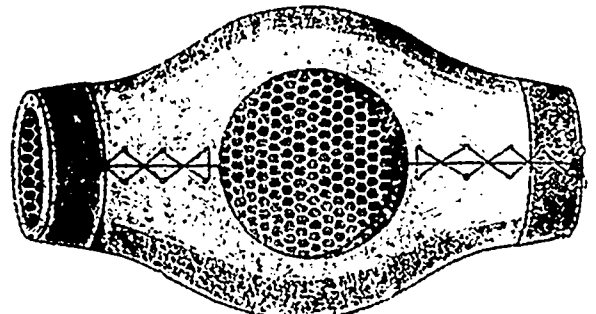


TEE

Made in Sections to fit all sizes of Pipes, and can be removed and replaced as often as desired.

Adjustable Mica Coverings for all kinds of fittings.

Mica Covering cannot be affected by vibration, and will not shift or sag.



GLOBE VALVE.

Write for reports of trials, testimonials, etc., to

THE MICA BOILER COVERING COMPANY, Limited
 9 JORDAN STREET, TORONTO.

FETHERSTON HAUGH & CO.

PATENT BARRISTERS AND SOLICITORS

ELECTRICAL AND MECHANICAL EXPERTS AND DRAUGHTSMEN

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

Patents Procured in Canada and all Foreign Countries.

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

THE Defiance Machine Works

DEFIANCE, OHIO, U.S.A.

Established 1850

INVENTORS AND BUILDERS OF UP-TO-DATE NINETEENTH CENTURY

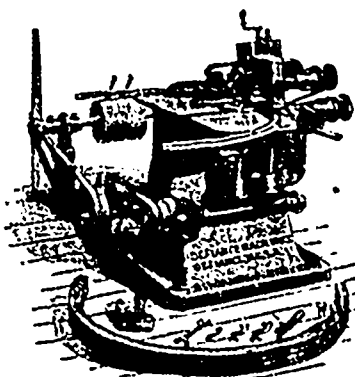
AUTOMATIC Wood-Working Machinery

For Making
 WAGON AND CARRIAGE WHEELS, HUBS, SPOKES, RIMS,
 FELLOES, SHAFTS, POLES, NECK-YOKES, SINGLE-
 TREES, BARREL HOOPS, Etc., Etc.

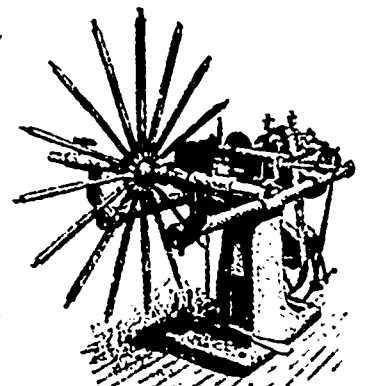
Send for 300-Page Catalogue—FREE
 GENERAL CANADIAN AGENTS

ESTATE OF T. T. COLEMAN

SEAFORTH, ONTARIO, CANADA



RIM PLANING MACHINE.



WHEEL TENONING MACHINE.



ESTABLISHED IN 1880.

PUBLISHED ON THE FIRST AND THIRD FRIDAYS OF EACH MONTH

J. J. CASSIDY, - - - - - Editor.

Subscription, \$1.00 per year.

ADVERTISING RATES:

\$12.00 Per Column Inch per year; Thirty inches to Page.

The Canadian Manufacturer Publishing Co., Limited.

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

J. J. CASSIDY, - - - - - President and Treasurer.

J. C. GARDNER, - - - - - Manager and Secretary.

OFFICERS OF

THE CANADIAN MANUFACTURERS' ASSOCIATION

President.	D. W. KARR.
First Vice-President.	J. F. ELLIS.
Second Vice-President.	JAMES KENDRY M.P.
Treasurer.	GEORGE BOOTH.
Chairman Executive Committee.	R. W. ELLIOT.
Chairman Tariff Committee.	W. K. McNAUGHT.
Secretary.	J. J. CASSIDY.

SECRETARY'S OFFICE: McKinnon Building, Cor. Melinda & Jordan Sts., Toronto.

CANADIAN INDUSTRIAL LEAGUE.

President.	JAR. KENDRY, M.P.
Secretary.	J. J. CASSIDY.

WOOLEN MANUFACTURERS' ASSOCIATION

President.	B. ROSAMOND, M.P.
Vice-President	JAR. KENDRY, M.P.
Secretary.	J. J. CASSIDY.

KNIT GOODS MANUFACTURERS' ASSOCIATION

President.	JOHN PENMAN.
Vice-President.	JOHN HEWTON.
Secretary	J. J. CASSIDY.

CARPET MANUFACTURERS' ASSOCIATION

President.	JAMES P. MURRAY
Vice-President.	ROBERT DODDS.
Secretary.	J. J. CASSIDY.

GLOVE MANUFACTURERS' ASSOCIATION

President.	W. H. STORRY.
Vice-President.	A. R. CLARKE.
Secretary.	J. J. CASSIDY.

REPRESENTATIVES TO

TORONTO INDUSTRIAL EXHIBITION ASSOCIATION

R. W. ELLIOT.	GEORGE BOOTH.
W. K. McNAUGHT.	A. E. KEMP.
J. J. CASSIDY.	

OUR TARIFF EDITION.

We have pleasure in reproducing many more of the kind expressions of our friends regarding the Tariff Edition of THE CANADIAN MANUFACTURER, which contained the full text of the 1897 Canadian Tariff, the 1897 United States Tariff, the British Tariff, the Newfoundland Tariff, and the British Merchants' Marks Act, issued by us on August 6th.

The Toronto Carpet Manufacturing Co., Toronto, Ont.: You have shown most commendable enterprise in supplying your Tariff Edition to the merchants and manufacturers, not only of Canada, but of all those countries whose tariffs are contained therein.

J. Walshaw, Esq., woollen manufacturer, Bolton, Ont.: The Tariff Edition of THE CANADIAN MANUFACTURER fills a long felt want.

Messrs. Kerr and Harcourt, manufacturers bobbins and spools, Walkerton, Ont.: We are in receipt of the Tariff Edition of THE CANADIAN MANUFACTURER, and thank you for it. It will prove most useful to us.

The Kingston Hosiery Co., Kingston, Ont.: I am pleased to say that you deserve great credit for the enterprise you have shown in publishing the Tariff Edition of THE CANADIAN MANUFACTURER. I consider it to be very valuable to all engaged in mercantile or manufacturing business.

Dovercourt Twine Mills Co., Toronto, Ont.: You are entitled to much credit for the enterprise you have shown in publishing your Tariff Edition in such a convenient form. It will be highly appreciated by all merchants and manufacturers.

Messrs. Craig & Mahoney, manufacturers felt hats, Truro, N.S. We highly appreciate the Tariff Edition of THE CANADIAN MANUFACTURER. It is highly creditable to the publishers and a valuable reference book for office use. Every manufacturer in the Dominion should have it.

Messrs. James Hall & Co., Ontario Glove Works, Brockville, Ont.: We have much pleasure in expressing our appreciation of the enterprise you have shown in publishing your Tariff Edition. As a book of reference for business purposes, it is unequalled and occupies a very prominent place among the volumes of our office library.

The Bell Organ and Piano Co., Guelph, Ont.: We compliment you upon the originality you have displayed in your Tariff Edition. The tariff, as shown within, will be valuable to us for reference.

Messrs. W. Doherty & Co., organ manufacturers, Clinton, Ont.: We wish to place on record our appreciation of your efforts to further the interests of Canadian manufacturers in the publication of your Tariff Edition. We voice the sentiments of those engaged in manufacturing when we say that we are under many obligations to you in the matter. It is a great convenience and is highly appreciated.

The Goderich Organ Co., Goderich, Ont.: We congratulate you on your Tariff Edition and the style in which it has been published. It will prove a fitting adjunct to our office and as a book of reference will be invaluable.

The McLaughlin Carriage Co., Oshawa Ont.: We assure you of our high appreciation of the Tariff Edition of THE CANADIAN MANUFACTURER. Your friends will recognize your enterprise and appreciate what you have done in giving them so complete a reference book.

Messrs. Wm. Gray & Sons, carriage manufacturers, Chatham, Ont.: We beg to compliment you upon your idea of embodying so many important tariffs under one cover, as you have done in your Tariff Edition, which makes it the most valuable of the kind that has come to our notice. We offer you the assurance of our appreciation of your enterprising effort.

NOTICE!—Although we printed an unusually large number of copies of our Tariff Edition, the demand for them has been so great that our supply has become nearly exhausted. The remaining copies will be sold to present subscribers only, at twenty-five cents each; and sent as a premium to new subscribers who send us one dollar for a year's subscription to THE CANADIAN MANUFACTURER.

Messrs. F. W. Hore's Sons, manufacturers carriage wheels, Hamilton, Ont.: In your Tariff Edition you have produced, in a most complete and useful form, a work which we will keep for reference in our office.

The Wm. Cane & Sons Mfg. Co., woodenware, Newmarket, Ont.: We are highly pleased with your Tariff Edition. It will be of great service to the manufacturers of the country. You deserve all thanks for your effort in this direction.

Messrs. J. F. Lillierap & Co., planing mills, Lakefield, Ont.: It is difficult to fully estimate the value of your Tariff Edition as a reference book for the manufacturers and business men of Canada.

The Simon & Bros. Mfg. Co., furniture, Warton, Ont.: We very much appreciate your effort in publishing your Tariff Edition. It will be preserved in our office for constant reference. We wish you continued success for your interest in the manufacturing industries of the country.

Messrs. Dowling & Leighton, furniture manufacturers, Harriston, Ont.: We consider your Tariff Edition one of the best things ever published and would not be without it. The different tariffs are so compactly and conveniently arranged that there is no trouble in finding the item wanted.

C. C. Rock, Esq., planing mill, Broadhagen, Ont.: It was quite a surprise to me to observe that you had been to so much trouble and expense in publishing your Tariff Edition. Accept my sincere thanks. It is very useful to me.

Messrs. J. Oliver & Son, manufacturers of furniture, Ottawa, Ont.: We consider your Tariff Edition a most valuable book and are sure that the manufacturers of Canada will fully appreciate your effort to place conveniently before them information which otherwise would be difficult to obtain.

D. McDonald, Esq., sash and door factory, Orangeville, Ont.: The Tariff Edition of THE CANADIAN MANUFACTURER should find a place in every business office in the country.

The Spanish River Lumber Co., Spanish River, Ont.: We have much pleasure in saying that you deserve great credit for placing before the public your Tariff Edition. No manufacturer or merchant should be without it.

C. P. Moore, Esq., Sydney, N.B.: Your Tariff Edition is a very valuable book and useful to all business men.

J. A. Tate, Esq., Sherbrooke, Que.: Your Tariff Edition is a most complete and valuable work that I would not be without.

Messrs. J. Lewis & Sons, manufacturers of shoe lasts, etc., Truro, N.S.: We extend to you our thanks for your Tariff Edition. It is a most complete reference book, which will be appreciated by all.

Messrs. Reinhardt & Co., brewers, Toronto, Ont.: The Tariff Edition of THE CANADIAN MANUFACTURER is to be admired from a journalistic stand point, and from a commercial view it is invaluable. It will occupy a place among the reference books in our office that none other holds. Your enterprise commends itself to the entire commercial world.

Messrs. P. Freysing & Co., manufacturers of corks, etc., Toronto, Ont.: We most highly appreciate your Tariff Edition, and will carefully preserve it in the office for reference.

James R. Hinds, Esq., carbonated beverages, Kingston, Ont.: I find your Tariff Edition exceedingly useful in our office, and it is greatly appreciated.

The Albert Manufacturing Co., calcined plaster, etc., Hillsborough, N.B.: Your Tariff Edition contains most valuable information for business men, and we beg to note our appreciation of your enterprise and keen perception in looking after the interests of our manufacturers, importers and exporters.

Messrs. Moir, Son & Co., manufacturers of confectionery, Halifax, N.S.: We cannot imagine a publication that would

be more interesting and useful to the business public than your Tariff Edition of THE CANADIAN MANUFACTURER. The care and trouble expended in the preparation of this work has certainly been very great, and your enterprise and generosity have not been equalled by any other publishers in Canada.

Messrs. Vanluven & Co., soap manufacturers, Napawan, Ont.: The push and enterprise displayed by you in publishing the Tariff Edition of THE CANADIAN MANUFACTURER, deserves the commendation of all your friends. It will be most useful in all branches of trade.

J. L. O. Vidal, Esq., attorney-at-law, Quebec, Que.: Your Tariff Edition is exceedingly valuable to lawyers, attorneys, and business men, and, in fact, to all interested in the progress of the Dominion.

The Truro Condensed Milk and Canning Co., Truro, N.S.: We value most highly your Tariff Edition, and believe that business men generally will greatly appreciate the utility of such a publication. This exhibition of journalistic enterprise meets with most hearty recognition.

Messrs. Duclos & Payan, tanners, St. Hyacinthe, Que.: We beg to congratulate you on producing such a very useful volume as your Tariff Edition. Your friends have reason to be pleased with your spirit of enterprise, which has given them so much valuable information under one cover.

The Lamont Glass Co., New Glasgow, N.S.: We find your Tariff Edition to be a most useful book.

Messrs. Richard Roschman & Bro., manufacturers of ivory buttons, Waterloo, Ont.: We beg to say that your Tariff Edition is a credit to you, which displays in its publication a unique enterprise and we congratulate you on its success.

Messrs. Wm. Barber & Bros., paper manufacturers, Georgetown, Ont.: We have great pleasure in adding our testimony to that which you will no doubt receive from many others in praise of your Tariff Edition. It will remain in our office as a standard.

Acadia Coal Co., Stellarton, N.S.: Your Tariff Edition is a most welcome addition to our office. It brings together information respecting all the important tariffs we have to consider in our business, and is, therefore, a ready reference at any time. At the present moment it is of special value as it is up to date in the very important changes that have been made both in Canada and the United States. We appreciate the energy and ability that is so signally displayed.

The Gendron Manufacturing Co., manufacturers bicycles, etc., Toronto, Ont.: Your Tariff Edition will be exceedingly handy to us, as we will have occasion to refer to it very often. The work reflects great credit on the publishers, and cannot but be appreciated by those who are connected with any commercial enterprise.

Messrs. Body & Noakes, linseed oil mills, Winnipeg Man.: Your Tariff Edition is highly creditable and will be exceedingly useful to us as a reference.

Messrs. H. J. Brady & Co., the Pacific Sauce and Vinegar Works, Victoria, B.C.: We have pleasure to bear testimony to the excellence of your Tariff Edition of THE CANADIAN MANUFACTURER. It is one of the most valuable productions of the kind that has come under our observation.

The New Glasgow Electric Co., New Glasgow, N.S.: We beg to bear testimony to the great value of your Tariff Edition.

John Stewart, Esq., bridge contractor and manufacturer, New Glasgow, N.S.: Acknowledging receipt of your Tariff Edition, we beg to say that having the different tariffs therein enumerated, compiled in one most convenient volume, is certainly a new and unique feature which will be found most valuable in our business. Your enterprise deserves much commendation.

Messrs. Ganong Bros., manufacturing confectioners, St. Stephen, N.B.: We beg to compliment you on your enterprise

in getting out your Tariff Edition, and in placing so very valuable a publication in the hands of the importers and manufacturers.

A. W. Leitch, Esq., Canadian agent for the New York and Boston Dyewood Co., Hamilton, Ont.: In common with all your other friends, we beg to thank you for the valuable Tariff Edition of THE CANADIAN MANUFACTURER, and to assure you of its utility to us, and to our appreciation of it.

The Dominion Brussels Carpet Co., Sherbrooke, Que.: We beg to congratulate you upon your Tariff Edition. Such a convenient compilation cannot but be of the greatest value to all manufacturers. It will prove of great value to us, and will be kept as a reference book in our office.

The Brown & Wigle Co., Kingsville, Ont.: We beg to congratulate you upon your journalistic enterprise in producing your Tariff Edition of THE CANADIAN MANUFACTURER. It should be highly appreciated by the manufacturers of the country. We keep our copy hanging by our desk for ready reference at all times.

Charles Wilson, Esq., manufacturer of ginger ale, soda water, etc., Toronto, Ont.: I am sure that the merchants and manufacturers of Canada will fully appreciate what you have done for them in presenting to them your Tariff Edition of THE CANADIAN MANUFACTURER.

Robert Bell, Jr., Esq., proprietor Hensall Engine and Machine Works, Hensall, Ont.: In publishing your special Tariff Edition you have shown a most liberal spirit which is, and should be, highly appreciated by Canadian manufacturers. It is a most useful book of reference.

George Booth, Esq., President The Booth-Copper Co., Toronto, Ont.: We beg to compliment you upon the excellent style in which you have presented the Tariff Edition of THE CANADIAN MANUFACTURER. It is an enterprise which deserves to be encouraged, and which will be appreciated by all into whose hands it may come. The high standing of THE CANADIAN MANUFACTURER is a guarantee of the correctness of the texts of the various tariffs.

THE LAURIER BANQUET IN MONTREAL.

The Montreal banquet was a brilliant affair in respect of the numbers, position and influence of those who attended, the enthusiastic reception tendered to Sir Wilfrid Laurier, and the patriotic tone of the speeches. Leaving sentiment aside, we find nothing in any of the speeches to show any practical advantage which Canada has derived from Sir Wilfrid's mission to Great Britain.

Although, as this journal has shown in former issues, a combination of causes led to the denunciation by the British Government of the German and Belgian treaties, Sir Wilfrid assumes for his Government, that the inoperative preferential tariff of last session of the Dominion Parliament was the real reason for this action. In somewhat bombastic and bordering on nonsensical language, he claims that through the denunciation of these treaties Canada has been "lifted up to the state of a nation;" "a factor among the nations of the earth;" "another star of liberty risen in the West;" "today the last of the shackles which still reminded us of the colonial period has fallen from our limbs." Making due allowance for the exuberance permitted to after-dinner speeches, gush such as the above was out of place at a meeting held under the auspices of the Board of Trade of the first city in the Dominion. Inasmuch as the discussion on the Canadian Preferential Tariff has established the fact that the policy intended thereby cannot be put into effect, and that

preference granted to any other country except Great Britain must be extended to all "favored nations," it was to be expected that the Premier would have embraced the splendid opportunity, which this grand meeting afforded him, to announce the policy which his Government has determined to adopt in lieu of the blundering and abortive legislation of last session. They know now, what the Opposition warned them of, that their Preferential Trade policy was in violation of international law. Is Government going to ask Parliament to repeal the legislation of last session, and enact a new law on the line of preferential tariff treatment for the British Empire alone? This is the kind of information that should have been imparted, not only in the interest of the people of Canada, but also of the manufacturers, merchants, and ship-owners of Great Britain, who are all left in doubt as to the future policy of the Canadian Government. Preferential Trade is a commercial consideration rather than one of sentiment. It involves a money value given in exchange for an equivalent value in return. THE CANADIAN MANUFACTURER has recently shown by extracts from a large number of British trade journals, that this is the meaning which is almost universally attached to Preferential Trade by financial and mercantile authorities there. What is the money value which would be granted to Great Britain under the proposed rebate of twenty-five per cent. to be allowed on the customs duties on merchandise imported from that country? During the three fiscal years, ending June 30, 1896, the average annual amount of customs duties derived by Canada on imports of merchandise from Great Britain has been a little over \$7,500,000. The object of Preferential Trade is to encourage and increase imports from that country, and as a consequence, to reduce the quantity and value of imports from other countries. Leaving this consideration of future increase aside, it is seen that the proposed preference involves an annual reduction in customs revenue of nearly \$2,000,000. If this reduction would result in a corresponding reduction in the cost to the consumer of all the British merchandise imported, the loss of revenue might not involve any great sacrifice. However, this would not be the case. A very large proportion of this merchandise now exported to Canada is sold on equal and keen competition with the goods of the United States, Germany, Belgium, France, and other countries. Withdraw this competition, or weaken it by giving to the English exporter an advantage of from five to ten per cent. over his former competitors, and it is clear that a large part of the two million million dollars will revert to the British exporter in the shape of increased profits. If then, the proposed policy is calculated to increase the trade and the profits of the manufacturers, merchants and shippers of Great Britain, does it not become incumbent on the Government there to devise some reciprocal legislation by which a similar increase of trade and profit will be derived by Canada? We cannot do better than repeat a quotation which appeared in our last issue, taken from the British Trade Journal of London, which is probably the most influential organ of mercantile opinion in the whole Empire: "The next step must be one of reciprocity. Canada, Australia, and the Cape will very properly ask, What advantage is it to us that we give your manufactured goods this preferential treatment, unless you at home, respond by similar discrimination in favor of British colonial produce?" This is intelligible and practical. When Sir Wilfrid was in Britain he might

have availed himself of the very general sentiment there in favor of preferential treatment for Canada, but, on the contrary, he took every opportunity of discountenancing the opinions and frustrating the friendly intentions of Canada's best friends. Before the general election, Mr. Laurier professed to attach great value to a British preference for colonial produce. In one of his speeches he said: "Just see what a great advantage it would be to Canada, if the wheat, cheese and butter which we send to England would be met in England with a preference over similar products of other nations. The possibilities are immense. Mr. Joseph Chamberlain, the new and progressive Secretary for the Colonies, has declared that the time has come when it is possible to discuss that question." Having but recently been converted into his present belief in the theories of the Free Trade school, he must show his zeal for the new faith by sacrificing the best interests of Canada, in order to secure his own popularity with the disciples of that creed. He returns to Canada with no more valuable results of his mission than a Cobden medal, and some frothy sentence about "a new nation," "a factor among the nations," "a new star in the West," and "shackles of colonial period." Sir Wilfrid might have benefited by the practical language used by the chairman of his own banquet, who well expressed the true meaning of reciprocity, when in speaking of any new treaties which might be made, he "hoped that his country's interests will be fully protected, and that we will receive a full return for what we may concede."

In reading Sir Wilfrid's speech, one is disposed to wonder whether he is the same Mr. Laurier, who only a year or two ago travelled all over Canada and part of the United States advocating the policy of unrestricted reciprocity, as not only the best, but the only policy by which Canadian prosperity could be attained. To be sure this policy involved severe discrimination against the commerce of Great Britain, but it was so essential to our future progress, that although he dearly loved Great Britain, don't you know, he loved Canada so much better, that British interests must be sacrificed. Now, Sir Wilfrid says: "Well, sir, if it be true we have to find a market on the other side of the Atlantic, that the prices of such products are regulated in England, which is the great buyer—the great consumer—in this nineteenth century, it seems to me, and I leave it to you business men of the city of Montreal, that the problem to be solved by the Government, nay, by ourselves as well, not by the Government alone, is the matter of cheap transportation." Equally inconsistent with the Mr. Laurier of pre-election days, or even of last session, is the Sir Wilfrid Laurier of the Montreal banquet. Formerly, it was his boast that from time to time the tariff would be remodelled, always in the direction of Free Trade. Now, he finds that "if there is to be in Canada a period of industrial activity and commercial development, I take it, that it is an essential condition that there shall be stability and permanency of the tariff. I take, that every man who invests his money in new ventures can contemplate with safety that the conditions under which he goes into business shall be permanent, and that the calculations which he makes shall not be shattered by any tariff changes. Tariff revolution, I will say more, even tariff reform, is always more or less dangerous. Tariff tinkering is odious to me." This is good, sound National Policy doctrine, but sounds strangely from the lips of one who has for so many years avowed opinions and intentions of the very opposite character.

While avowing his intention to eschew politics on a festive occasion, Sir Wilfrid takes occasion to have a fling at the National Policy. He thinks "a great mistake was made in 1879. The tariff of that date was framed with a view that every producer would find a market in Canada alone." Such a criticism of the design of the National Policy displays either ignorance or misrepresentation. No intelligent advocate of this policy ever believed or asserted that through its operation, all the produce of Canada could find a market at home. What was intended, and what has been effected time and again, was, that in years of deficient crops of which there was no surplus, the farmer of Canada should be secured against low prices through free imports from the United States, or elsewhere; so also, with respect to many of his products for which, even in times of good harvests, there was no satisfactory sale to be made by way of exports. If Sir Wilfrid Laurier does not know that through the National Policy the Canadian farmers have derived better prices than they otherwise would have done for millions of bushels of wheat, oats and other grain, and for millions of dollars worth of beef and pork products, he must be far more ignorant of the results established by our trade and navigation returns than he ought to be. But what can be expected of a politician who knows so little of the commerce of Canada as to state that nine-tenths of its produce shipped to Europe is exported through United States ports, when his own country's official returns show that more United States produce is shipped through Canadian ports than there is of Canadian produce shipped through United States ports? What must business men think of the ignorance and boasting of this quack-statesman, who pretends by means of his efforts, to secure nine-tenths of the export trade of the great Western States?

STOP EXPORTING LOGS.

"No alien labor," says the Ontario Government, to the American lumberman who wants to bring American laborers into the field and pay them for doing work that Canadians should perform and be paid for. Heretofore, the Michigan lumber king who was engaged in cutting pine in northern Ontario surrounded himself with men brought with him, and who went back with him as soon as they completed their winter's work in our woods.

The American was out of work and he got work to do cutting Canadian logs and driving them by way of Canadian rivers and lakes to the big Michigan saw mills. The Canadian was out of work, too. Just over the line a vacant position required exactly his qualifications to fill it acceptably, and enable him to earn an honest living. And Uncle Sam's employes said to him, "Get out of this. You are a Canadian. You can't work here."

"Why?" he asked, in surprise.

"Because this is the United States," was the answer. And it was even so. The sole reason lay in that short sentence of six words. Canada lay wide open for the American capitalist to bring his own labor with him, while the Canadian laborer was turned back from the border if he tried to get work in the United States. Every cent of the money paid to those Americans who worked in the Ontario lumber camps went back across the line and was expended there, instead of going into circulation in Canada.

At the last session of the House of Commons the Federal Government were asked to take some action to put the Canadian workingman on a more equal footing with the American workingman. Their answer is epitomized in their argument--that it was best not to take any hasty action that might cause hard feeling between Ottawa and Washington. They proposed to wait and see if the government of the United States would not do something to lessen the severity of the application of their alien labor law. Instead of that, their action has been rather in the opposite direction, and Inspector DeBarry, of Buffalo, figures in progression more frequently and more unpleasantly than before in his attitude towards Canadian workingmen.

The action of the Ontario Government in prohibiting the importation of aliens to work in lumber camps, and at river-driving, is a step in the right direction. Retaliation is an unpleasant thing, but it seems in this case to be necessary. The sooner the Federal Government take steps to put in operation an alien labor law equally stringent with that of the United States, the sooner the United States will realize what a boon our forbearance was to them, and the sooner Canada will realize that it is absolutely unnecessary for this Dominion to knuckle to the United States, or allow itself to be treated as though it were not a rational country with the right and the ability to take care of itself.

So much for alien labor. Let us follow out that argument a moment in the direction of the lumber question. The alien labor law which the Ottawa Government holds ready to put into force, simply by the order of the Governor-General in Council, would put lumbering in Ontario even more exclusively into the hands of Canadian laborers than the regulations just passed by the Ontario Government. Carry it farther. The terms under which the last batch of timber limits were sold by the Ontario Government contained a clause providing expressly that all logs cut on these limits should be manufactured in the Dominion of Canada. This provision was inserted at the last moment, and only decided upon within a couple of hours of the time of sale. It created some talk among the buyers present, but it did not in any perceptible degree, cause a falling off from the prices usually paid for timber limits. Since then, deputation after deputation of Canadian lumbermen have asked the Ontario Government to put such a restriction upon all timber cut in Ontario after the time of renewal of leases in April next, and the Ontario Government will make a tremendous mistake if it fails to seize the golden opportunity to put hundreds of thousands of dollars in circulation in the province every year by the addition of just one line to the leases next spring.

A deputation of American lumbermen presented the other side of the case. It was fitting that they should be introduced by John Charlton, M.P., who is ever alert to see that Canadian rights shall not be protected from the American who desires to profit at the expense of Canadians.

American journals have told us that we may do as we like,—and it doesn't make any difference to them. One lumberman went back from Canada to his Michigan home and told them that Ontario dare not prohibit the export of logs. At the same time the actions of American lumbermen belied their words.

Within the past week it was erroneously announced by a Toronto daily paper that the Ontario Government had decided

not to stop the export of logs. Then the joy of the American lumberman burst forth. In his delight he forgot his caution, and despatches from several points, prominent among them being Bay City, Mich., told of the millions of feet of logs that were being hustled into Uncle Sam's country to be sawed in the big Michigan sawmills. The despatches even went so far as to state, that had the regulation been passed it would have necessitated the removal of saw mills from Michigan to Ontario and their operation here. The idea is a good one. Hitherto the proposal to put an export duty on logs has apparently been the most favored by Canadians. The American lumberman is not as afraid of that. He could make the American consumer pay the duty. What he fears is the Ontario Government's proposal. Let us take the cue.

An export duty on logs would put money in the treasury at Ottawa.

That is good.

But let the Government force the American lumberman to manufacture Ontario logs in Canada. That will put money in the pockets of the working man.

That is better.

Give home industries a chance. If an American capitalist wants to make money out of our natural resources make him allow the people of Canada at least a fair share of his profit. There is plenty for both, and there is no valid reason why every saw mill in Ontario should not be run to its full capacity. Americans say they don't need our logs and lumber. Their statisticians tell us their own supply will last but seven years. Impartial men say they could not get along for a year without our pine.

The whole control of the question lies with our governments, and there is no reason why they should submit to dictation from the United States. The place where terms should be dictated is on this side of the line, and those terms should not, in any instance, fail to carry out to its fullest extent the principle "Canada for Canadians."

DEEP WATERWAYS.

Re-awakened interest in deep waterways in the United States leads us to note some important points as to the present position of affairs. The proposition to construct a canal for deep draught vessels from the southern end of lake Michigan into Lake Erie, is being met with a good deal of favor, and in this connection the problem of a deep water route to the ocean again comes into prominence. THE CANADIAN MANUFACTURER has never lost sight of the benefits that must accrue from the construction of such waterways, and it now remains for us to point out the danger that the United States may secure development along these lines that will put them away ahead of Canada in the race for commercial pre-eminence.

The convention of the International Deep Waterways Association, held in Toronto three years ago, recommended that the United States and Canada should join in the construction of these canals. In the United States there is a strong feeling against this. Our lake and river canal system cost the Dominion some \$60,000,000. The canals are about fourteen feet deep, and the cost of deepening and widening them would be very little in comparison with the cost of putting into shape for a deep waterway, the Erie canal which is only seven feet deep, and which is to be deepened to

nine feet at the expense of the State of New York. The ostensible argument against the use of our canal system is that "the canals in Canada are completely frozen up during about five months in the year." The real reason for objection to the wise decision of the International Deep Waterways Association is that the United States is not desirous of taking part in any scheme from which Canada would derive any benefit whatever. The wide interest taken in the question was shown by the attitude of representatives from as far west as St. Paul, whence Mr. Suydam was a delegate to the convention here. The use of our canal system was agreed upon. Now, the anti-Canadian influences in the United States are polling for an all-American ship canal, the Congress of the United States having been prompt to realize the commercial value of a water road from the Great Lakes to the Atlantic.

In November, 1895, President Cleveland, acting upon a resolution of Congress in March of that year, appointed a Government commission to take up the work of investigation. The gentlemen who composed this commission were James Bangell, president of the University of Michigan, John E. Russell, of Massachusetts, and L. E. Cooley, of Chicago. They reported upon several practicable routes, and on June 4th last, Congress appropriated \$150,000 for preliminary surveys, and the President appointed as a Board of Surveyors, Major Chas. W. Raymond, United States engineer at Philadelphia; Alfred Noble, of Chicago, who was a member of the Nicaragua canal commission; and Geo. G. Wisner, of Detroit, who was prominently identified with the Deep Waterways convention in Cleveland in 1895. These gentlemen are getting ready for work, with Detroit as a basis of operation.

The commission scouted the use of the Erie canal, which a great many think should be used if the State of New York can be induced to remove the present restrictions upon its use. Other persons and several journals advocated the construction of a ship canal from Lake Erie to the Hudson river by the Federal Government. This idea, also, is in disfavor with the commission. They are a unit in their recommendation that the Great Lakes are the proper route, but when they get to Lake Ontario they are uncertain as to what route to follow. From the lakes to the seaboard two routes are recommended, one by way of the St. Lawrence River, Lake Champlain and the Hudson river, and the other by way of the Oswego and Oneida rivers, Oneida lake, the Mohawk Valley and the Hudson river.

The Board of Surveys have no authority to make recommendations. Their instructions are to survey these two routes. Out of deference to the opinion of the Deep Waterways Association, an international body, the lake Champlain route was suggested by the commissioners. Public opinion in the United States is against it even being used, because it would mean the use of our canals, and "they are completely frozen up for five months in the year." What a setting up of straw men! How much longer than the Erie canal is our canal system icebound? Do they produce icebergs in Weland in winter and grapes and peaches in summer? They are too crafty to tell us now that they want nothing to do with us. That might scare us into action, and we might take steps that would put us ahead of them in the game. With the St. Lawrence system at our disposal it would not cost us very much to provide a very serviceable deep waterway of our own. Manitoba wheat might just as well be handled in Canada.

We do not need to allow it to pass to the sea in American vessels and over an American ship canal. Let us have a Deep Waterways Commission of our own. We don't need a Board of Surveys because we have but the one route. Let the Government of Canada retain control of this important route. The vain-glorious American is afraid Canada might profit by his "experienced" collaboration. We really don't require his assistance.

Just at this juncture we can well afford to show Uncle Sam that we stand on our own feet. The attitude of the American republic in the Deep Waterways matter is unmistakable. Let us be first for once. The Federal Government should appoint competent men to report as to the approximate cost of deepening the existing canals so that a continuous ship route would be navigable from Fort William to the Atlantic ocean. With an era of unprecedented industrial development dawning upon Canada we cannot afford to neglect this opportunity for advancement.

A WORD TO PREMIER HARDY.

American lumbermen complain that if the Ontario Government compels the manufacture in Canada of all logs cut in Ontario, they will be obliged to move their mills from the United States to Canada. It goes against the grain with them, even that they are now obliged to employ Canadian labor in their lumber camps. When they cannot take a log out of Canada they will be heart-broken at having to either buy lumber from our saw-millers, or else pay Canadian workmen for cutting logs into lumber on this side of the line. Wages for men in lumber camps have already gone up some six dollars per month since the labor provisions were enacted. In a country so circumstanced as Canada progress and protection are co-existent. When Sir Oliver Mowat left Toronto for Ottawa, the younger Liberal school rejoiced in the removal of what they were pleased to call his "conservatism" from the Ontario Cabinet. If Hon. A. S. Hardy fails to insist upon the manufacture of Ontario saw logs in Canada, he will make a fatal mistake. The influence of his pseudo-Canadian friend, John Charlton, will not be much assistance at the polls in the North Country, where nearly every man is interested directly or indirectly in the lumber trade. Why should Mr. Hardy display consideration for the business interests of the United States, when that country's treatment of Canadian manufacturing interests, and (what is equally important) of Canada's laborers and mechanics, has consisted, and still consists of illiberal and picayune persecution, with the apparent intention of driving us into ultimate annexation to the powers at Washington.

The American lumberman who has made his pile out of our natural resources should think himself lucky that he is not treated as the American Powder Trust tried to treat the Westphalian-Rhenish Explosive Company of Spotswood, N.J., an institution that undertook to get a share of the American powder trade.

This German powder company bought 600 acres of land and let contracts to the tune of \$20,000 for buildings. The American Powder Trust tried to force the concern out of the field, but discovered that there was only one way to do it. The German firm was accordingly bought out, and the price paid was a royalty, and re-imbusement for expenses incurred.

The American lumberman is not so enterprising as the Westphalian-Rhenish Explosive Company, which it now appears consisted of Herr Krupp, the great German cannon manufacturer. The American lumberman does the baby-act, instead of promptly proposing to get a share of Canadian home-trade by way of revenge for being forced to manufacture here.

The sufferer will not be the American lumberman, but his workman and the consumer. The consumer may possibly find some consolation in the fact that his position will be better off under a prohibition of the export of Canadian logs, than if the Federal Government had dealt with the question by way of an export duty. One of those peculiar master strokes of international finance, characteristic of the Dingley tariff, provides that in case an export duty is placed on sawlogs by any country exporting them to the United States, the amount of the export duty shall be added to the amount of the import duty in the United States. Canada's being the only available foreign lumber supply to the United States, this legislation is evidently directed at us. The result of the application of the regulation would be to stop the export of logs from Canada to the United States, if such were not the case. But as the American consumer must have Canadian logs or lumber, the present effect of its enforcement would be simply to raise the price to the American consumer.

PROTECTION PAYS.

Word has just been received that the works of the Russian-American Manufacturing Company, Nijni Novgorod, Russia, have been completed, and are now about ready to begin active operations. This is the enterprise established by Edmund P. Smith, of Philadelphia, and other American capitalists, and it is believed that it will take from American and other foreign manufacturers much business. Already the company has contracts for \$5,000,000 worth of locomotives, and, we are told, enough work is in sight to keep the works busy for ten years. The company, it is stated, receives \$16,500 for every locomotive made. This is about double the American price, but the great difference is partly the increased cost of manufacture in Russia, and partly a subsidy. That the Russian government intends to foster and protect the new industry is fully attested by the fact that it has passed a prohibitory duty upon foreign-made locomotives. Under these circumstances this American venture in Russia should be highly successful.—American Manufacturer.

The true autocrat is progressive, and the "Czar of all the Russias" is apparently no exception to this rule. Hitherto, Russia has been paying American, or other foreign manufacturers for its locomotives which were constructed of foreign materials in foreign workshops, and put together, taken apart and sent to Russia, there to be re-constructed. All the work done in Russia was this re-construction, so that it did not set much money afloat as the outcome of wages paid to Russian mechanics.

On the other hand, the locomotives gave employment to a host of Americans. In the mines miners labored to bring the black ore up to the surface of the earth. Then another army of men were engaged in the smelting of it. Still another division refined it. Another course of treatment was required to bring it to the refined state which it is required that steel shall be in for the purposes of locomotive construction. Beyond all this came the final processes. The various parts of the locomotive were planned by skilled engineers, who laid down on paper the

exact lines and proportions, from the big driving wheels to the bolts that held together the smokestack or whistles. Pattern-makers next took up the work, and the cast parts were soon cooling in their moulds, while the welded parts were growing black under heavy hammers. Then trained mechanics rivetted and bolted the pieces, each in its place, until the complete engine at last stood ready to be "fired," and haul a train of cars across the continent.

Now every cent of the money paid out in wages to these men, from the draughtsman to the steam-fitter, was put into circulation in the United States. Russia realized that, and has consistently followed out its policy of keeping its money circulating among its own people. Russia had the essentials; all that was necessary was to find the skill and experience necessary to carry out the proposition.

American exports were offered a chance to establish a monopoly in Russia. Russia said to them:—

"We want a locomotive manufacturing industry. We will place a prohibitive import duty on locomotives. Come and build them in Russia. Pay your wages to workmen who will spend the money in Russia. We can afford to give you this valuable privilege, because we shall more than reimburse ourselves by the amount of money you must put in circulation, and the establishment of this new industry, to afford occupation for our people."

There are those who have temerity enough to say that free-trade is the policy, and the only policy under which a country can be a commercial success. Sir Wilfrid Laurier has been presented with a Cobden Club Medal (so we are told), in token of admiration for his free-trade sentiments, and his service to the cause.

The Cobden Club is apparently unable to discern that preferential trade with Britain (which at present is all give, and nothing get with us) tends not to free-trade, but to what would be ideal protection—a system of commercial union throughout the British Empire.

Russia's action in the locomotive manufacturing question is a pointed and a proper justification of the uncontrovertible assertion that protection pays.

GREAT BRITAIN AND ITS SUGAR-PRODUCING COLONIES.

Owing to the fierce competition to which these colonies have been subjected through the bounty-fed production of the beet-sugar countries of Europe, there has been severe depression in all the cane-sugar producing dependencies of Great Britain. Millions of capital have been lost, many valuable plantations have been neglected or deserted. Urgent appeals have been made to the British Government for redress. The demands generally have been, that Great Britain should either prohibit the import of bounty-favored sugar, or should impose a duty on imports of such sugar equal to the bounty paid. For years the reply to these appeals has been that the colonists should find their own remedy by improving the systems of cane cultivation and sugar manufacture. The colonists reply that the capital required for such improvements cannot be obtained, because just by so much as the cost of cane sugar can be reduced, this would be met by a corresponding increase in the beet-sugar countries of Europe. The Government recently appointed a Commission to visit the West Indies, to

investigate complaints, and report thereon. This Commission has completed its work and submitted its report to the British Government. For some reason or other this report has not been presented to Parliament. The British Trade Journal, September 1st, comments on this delay as follows:—

What is the reason for the delay in the publication of the West Indian Sugar Commission Report? Mr. Chamberlain promised that it should be presented to the House of Commons at the end of July or the beginning of August, but Parliament has been prorogued without its appearance. It looks as though this were another instance of the sacrifice of colonial interests to the exigencies of party politics. Curious rumors are afloat as to recommendations of the Commission; and if these be correct, the recommendations are such that the British Government has not sufficient moral courage to present them to Parliament, much less to act upon them. If anything is to be done to relieve the sugar planters, it should be done quickly. Lord Salisbury's Government will find it much easier to recover from any unpopularity in the constituencies now than in two or three years' time when a general election is due.

EDITORIAL NOTES.

American shipping will probably benefit from the discontinuance of the custom of sending goods from foreign countries to the United States through Canada, both on the Atlantic and the Pacific. It will doubtless have an appreciable effect upon the commerce of the port of New York, and largely increase its imports.—N.Y. Seaboard.

How about the effect upon the commerce of Portland and Boston?

The best thing that can happen to American manufacturers

is that they shall have a monopoly of the home market first of all. The worst thing is that foreigners shall occupy this market so largely that the Americans, to meet them, must cut prices below the profit point and then almost give away the surplus to Europeans. The notion that trade over-seas is a sign of prosperity is a British notion, promulgated in this country by Free Traders. We make some things which we can export at a profit, because we beat the world in producing them, but this is not true of the mass of our manufactures.—Philadelphia, Pa., Textile Record.

A Protective Tariff established the steel rail industry in this country, and now we are able to make rails at such a price that they can be sold to the Indian railroads cheaper than those of British make. A Protective Tariff established the tin plate industry and now we have shipped tin plate to Italy and to England. A Protective Tariff will also establish the beet sugar industry in this country, as it did the pearl button one and numerous others.—Springfield, Mass., Union.

The best Protective Tariff for the laboring man is that which brings good times, the times that afford steady work at good wages. He cares nothing for schedules or percentages, what he wants is employment and pay. It is similar with the farmer. Doctrinaires and demagogues may talk to him of export bounties and the markets of the world, but if good times are established in his own country, when there is abundant market and good prices for his products, he need pay no attention to their theories and arguments. The money in his pocket is the argument that satisfies him every time.—Hornellsville, N.Y., Times.

SADLER & HAWORTH

FORMERLY

ROBIN, SADLER & HAWORTH

Manufacturers of

OAK-TANNED LEATHER BELTING

MONTREAL AND TORONTO

Orders addressed either to our Toronto or Montreal Factory will have prompt care. Goods will be forwarded same day as order is received.

The British Trade Journal is one of the largest and most influential trade journals published in the mother country. In its edition of September 1st, is published a letter addressed to the editor, in which reference is made to Sir Wilfrid Laurier and the Cobden Club medal, as follows:—

Sir,—In presenting a medal to Sir Wilfrid Laurier the Cobden Club has again shown the world how eager it is to snatch at the slightest opportunity by means of which its moribund existence can be made known. Three or four gentlemen constitute themselves a deputation from the Club, and each subscribes a few shillings in order that a medal can be presented. There is no popular enthusiasm; there is no crowded public meeting; but quietly in a private room of a London hotel this great ceremony of presentation is carried out, and the world is asked to believe that an irrepressible wave of public enthusiasm has risen to such a height that some means had to be adopted by which its pressure could be relieved.

Now, it should be asked whether the freedom of trade, of which so much was said, really exists in Canada, whether the essence of the Canadian proposal is not one for the protection of British manufacturers as against those from foreign countries? There is nothing to be gained in denying the fact that a British manufacturer has no objection whatever to sending his goods to Australia or Canada under a tariff which discriminates in his favor as against foreign goods of the same class. It may suit the Cobden Club to confer a medal upon the originator of such a system, but no one with-

out obliquity of vision can lay the flattering unction to his soul that it is an extension of free trade. Fortunately, the British manufacturer cares little for shibboleths, and if he can extend his exports to the Colonies, it matters little to him what the system under which it is done is called.

Canada can easily grow all the wheat required by Great Britain, and she can supply it as cheaply as the United States.—THE CANADIAN MANUFACTURER.

Why in the world, then, don't you get to work and do it? Little children who can do things, and won't do them, should be spanked by their mother till they do do them.—American Economist.

Don't be too previous, dear friend. Canada has the soil and the climate to enable it eventually to supply the requirements of the mother country. The reason why the United States enjoys so large a proportion of the British demand is, not that its soil and climate is any better than that of Canada, but because it has a much larger population. But then look at Manitoba—come and see it. It is not exactly in good taste for our contemporary to poke fun at the inability of five million population in Canada to do quite as much in the way of wheat growing, as the United States with more than seventy million. Perhaps it will explain why Canada has more sea-borne tonnage than the United States; and why Great Britain, with only about half the population of the United States, does about three-fourths of the American carrying trade. Big children who can do things and won't do them should be licked.

THE - - - -

WM. HAMILTON MANUFACTURING CO., Limited

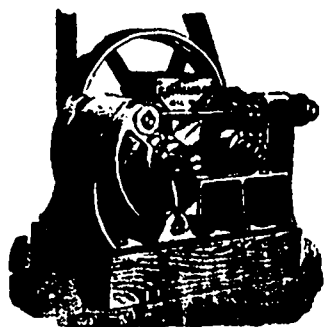
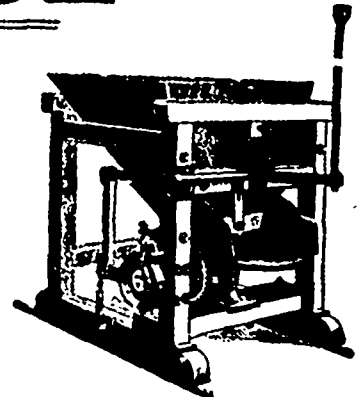
MANUFACTURERS OF

THE "RELIANCE"

Mining, Milling

AND

Smelting Machinery



FOR THE DOMINION OF CANADA

(Under License from The E. P. ALLIS CO., Milwaukee, Wis.)

Crushers, Rolls, Jigs, Concentrators, Screens, Stamps, Pumps
Compressors, Hoists, Boilers, Engines, Water Wheels, Etc.

Branch Office
VANCOUVER, B.C.

 PETERBOROUGH, ONT.

What hurt England most when she lost her colonies was that we set up manufacturing for ourselves. Then England was, counting by time and freight charges, as far away from us as Australia is now, and London is as near us now as, by the same measurement, Boston was then. Protection is much more important now than then, because the competition, instead of being on the other side of the world, is at our doors.—Fall River, Mass., News.

Speaking of what protection has done for Germany, The Toronto World says:—The wonderfully rapid growth of the cities of the United States is generally attributed to the fact that the United States is a new country, full of undeveloped resources. This is, no doubt, true to a certain extent, but the adoption of the protective system has been a more important factor in increasing the population of the cities of that country. The same thing is true of the cities of the German Empire. It cannot be argued that Germany is a new country, and yet under protection its cities have increased in population even more marvelously and rapidly than those of the United States. Minneapolis, supposed to be the banner town in the United States for mushroom growth, is surpassed by the German city of Magdeburg. The population of the former in 1885 was 129,000, which increased to 210,000 in 1897. Magdeburg's population for the same years was 97,000 and 243,000. Chicago is generally believed to be the most progressive city in the world. But it has to take a back seat when compared with Berlin. In 1880 the capital of Germany had a population of 800,000. To-day it claims 1,750,000, and this increase is not due to the annexation of

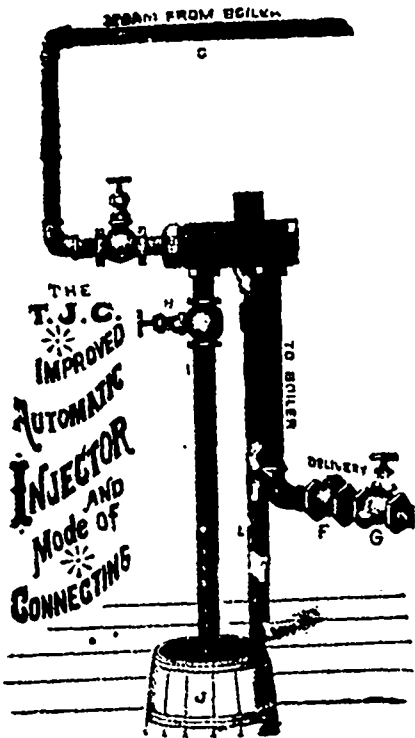
whole counties, but to immigration and births. Hamburg has grown faster than Boston or Baltimore or any city of its size in the States. The old and historic town of Nuremberg has developed more rapidly than Omaha. Twelve years ago it had a population of 72,000. In 1897 its population is 175,000. Leipsic is another example of the marvelous growth of German cities within the last twenty-five years. From 127,000 in 1875 it has increased to 420,000 in 1897. These figures are taken from official sources and they may be relied upon as correct. It is a significant fact that the two greatest protectionist countries of the world are those which have made the greatest strides in manufactures and population.

Fort Chakdara, in the Chitral district, India, the garrison of which has just been relieved by the British army under Gen. Blood, is the work of two graduates of the Royal Military College. That the garrison was saved, having held out so well, is attributed to the excellence of the construction of the fort, by Captain George Duff, Royal Engineers, son of Lieut.-Col. Duff, Kingston, and a nephew of Sir Oliver Mowat. When, a few years ago, it was determined to fortify this district, out of the forty officers of the engineer forces in India, two Canadians were selected for the work, both graduates of the Royal Military College. Captain Nanton, formerly of Toronto, was placed in charge of the operations at Malakand, and Captain Duff in charge of those of Chakdara. These officers had to lay out and superintend the erection of the fortifications, and thoroughly well they seem to have done their duty. It is only reasonable to expect that their good work will be acknowledged by future favors by the army authorities.

THE IMPROVED AUTOMATIC INJECTOR,

Pat. by T. J. CARROLL.

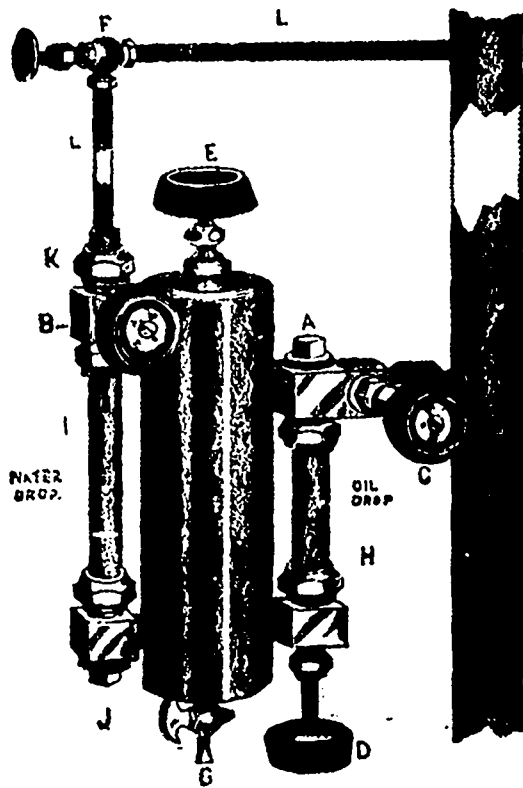
No.	PRICE.	GAL. PER HR. @ 5 LBS. PRESS.	SIZE OF PIPE CONNECTION.	HORSE POWER.	
				15	20
10	\$7 00	120	1 1/2	16 to 20	
15	10 50	360	2	20 to 25	
20	13 00	540	3	25 to 30	
25	15 50	900	4	30 to 40	
30	22 00	1,270	6	40 to 50	
35	30 00	2,170	8	50 to 60	
45	35 00	2,870	10	60 to 80	



FOR STATIONERY, MARINE, PORTABLE and LOCOMOTIVE BOILERS
Simple, Reliable, and Durable. Range 20 to 150. Will lift 20 feet.
A written guarantee with each Injector for two years.

REDUCED PRICES OF

Michigan, Eagle, and Queen Lubricators.



PRICE LIST.	QUANTITY	PRICE LIST.
1 Pint	100	10 00
1 Quart	50	11 00
1 Gallon	25	16 00
1 Bushel	10	64 00
1 Barrel	5	320 00
1 Ton	2	1280 00

HAMILTON BRASS MFG. CO., Limited, 259 to 265 James Street North, HAMILTON, ONT.

The order directing our Customs officials to admit the goods of any "most favored nation" at the reduced rate of duty when they are imported from any other favored nation just as if they had been imported direct from the country of production, will ward off a threatened blow from British shipping interests. Britain does, to a great degree, the carrying trade of the world. Her ports are great warehouses where the products of many climes are assembled and then distributed to purchasers as widely separated. Hence, for Canada to extend special favors to the goods of other countries only when they are imported directly from those countries, and to refuse these favors when they come to us via Britain, would be to discourage the practise of shipping in English bottoms and through English merchants. This blunder, however, is now corrected, and German goods will be as well treated at our ports when they come from Liverpool as when they come from Hamburg. That such a correction should come so late in the day is a disquieting comment, nevertheless, upon the amount of consideration that was given the probable results of our new tariff policy before it was launched upon the world.—Montreal Star.

The protection unit has never yet been discovered. Why a political boundary should be a trading boundary has never been explained. The fruit-growers of Ontario were protected because the American fruits, ripening earlier, would satisfy the appetite of the Canadian consumer. A fruit-grower at Mitchell writes to know where this protection line comes in. His plum trees are breaking with their load, while the Niagara fruit, ripening earlier, is satisfying the appetites of his townsmen. If the fruit-growers of Mitchell were protected against Niagara and the people of Niagara against some products from Mitchell the people would be making a great amount of work for themselves. Those are the arguments which used to go during National Policy days.—The Globe.

Any school-boy can see the ridiculousness of this argument. The American fruits that the Globe mentions grow in the United States, and the Niagara and the Mitchell fruits grow in Canada. Do we care any more for the prosperity of Canadian fruit-growers than for American fruit-growers? Do American fruit-growers spend their money in Canada? Do they pay taxes in Canada? The Canadian fruit-growers do. Then, of course, it is desirable to protect our Canadian fruit industry against the Yankee fruit industry. The Globe tries to muddy the water by attempting to contrast two similar Canadian enterprises with an American enterprise. The arguments for protection that were used during the National Policy days are quite as cogent now. Protection should be our watchword.

A meeting of wholesale Druggists' and manufacturers of drugs, chemicals and druggists' sundries was held in Toronto last week; and at the same time and in contiguous apartments meetings were held of the manufacturers of proprietary medicines and of the retail Druggists, the arrangement being to facilitate the inter-change of views between these three branches of the trade. One of the chief questions under consideration was the sale of proprietary medicines, drugs, etc., in departmental stores. The retailers wanted the manufacturers to refuse to sell to the big stores, in which they were supported by the wholesalers. The determination, if any was arrived at, was not made public, but we observe that the big stores have not closed up their drugs and medicines departments. Nor will they.

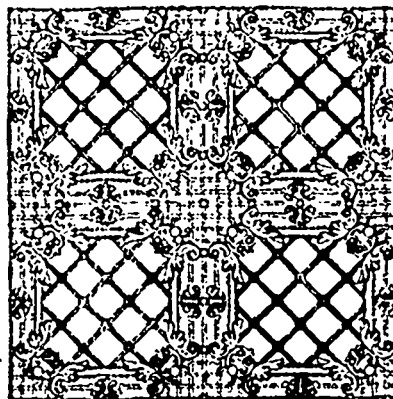
LITERARY NOTICES.

The October number of The Canadian Home Journal more than realizes the expectations of its readers, who from the phenomenal improvement noticeable in the few months it has been under its present management, have learned to look with genuine interest for each issue. The current number contains, among much other matter of interest, another of Miss Alexandrina Ramsay's well illustrated articles on Old Toronto Families, this time giving us the Shaw family; a full description, by T. Mower Martin, R.C.A., of the exhibition of art at the Toronto Fair last month; an unusually pretty illustrated page for the children; a short sketch and a number of beautiful views of the Yukon region; the first chapter of the Competition Story, the conclusion of which will be most interesting; a paper on Theosophy, by Mrs. Annie Besant; a full page of photographic Snap Shots of the Toronto Industrial Fair; the newest fall jackets, fashion notes, etc.; Mrs. Joy's page of receipts, book reviews, Bible study, music and fancy work, and an article on the Wild Flower Planters, which gives to many their first idea of the work of this newly organized society. It is by far the best and most prettily illustrated number The Canadian Home Journal has yet given us, and in every way holds its own among the publications of the day. The Canadian Home Journal, McKinnon Building, Toronto.

The Ladies Home Journal has had photographed for it, and will produce from month to month several thousand views of the interior of homes in the United States. The October number begins this series with a reproduction of the first and only pictures Mrs. McKinley has had taken in ten years. They are some of the new, and, as yet unpublished photographs of the latest occupants of the White House. Mrs. McKinley is gowned in her inaugural ball dress of silver and white brocade, in which she was photographed at the special request of the President, who considered it particularly becoming. The portrait of Mr. McKinley in his office was taken in June. The other pictures in the series show the changes in the arrangement and furnishings of the rooms and

**EMBOSSSED
METAL CEILINGS.**

These Ceilings are made from mild annealed steel plates in a great variety of designs, suitable for every description of building, including



ONE OF OUR DESIGNS.

The many advantages of their use, as a modern substitute for wood and plaster, lies in the fact that they are light in weight, will not crack or drop off, consequently no danger of falling plaster; are unquestionably durable, have air-tight joints, are easily applied, are practically fire-proof, are highly artistic, do not harbor vermin or the germs of disease, and possess splendid acoustic properties in addition to many other points of excellence over any other form of interior decoration.

Sole Manufacturers:

The METALLIC ROOFING CO., Limited,
TORONTO.

'Phone 5481.

Write for Prices:

- Hospitals,
- Churches,
- Schools,
- Convents,
- Opera Houses,
- Asylums,
- Offices,
- Stores,
- Residences,
- Etc., Etc.

grounds, made by the President and Mrs. McKinloy. Another interesting article shows, according to Mrs. Rorer, the most famous cook in America, how a table for eight people can be provided for ten dollars a week. She gives twenty-one menus, covering a week's meals, and adds full directions, proving how it can be done.

The Methodist Magazine and Review for October publishes a most interesting article entitled "Across Siberia," by Rev. Dr. Wenyon, a Wesleyan Medical Missionary who had some remarkable adventures returning from China over the Siberian post road. He graphically describes, with the aid of illustrations, the Siberian exiles, and other features of life on the Steppes. Among a great deal also that is of interest, the editor gives a character sketch of Sir Arthur Blackwood, head of Her Majesty's post office in Great Britain; and Miss Ewan Macpherson writes a gossipy account, with ten engravings, of home life in Switzerland. "The Indian Famine and Indian Missions," is also discussed, showing the wonderful improvement in the condition of women through the work of the Christian Missions.

Scribner's Magazine for October contains an article by Henry Norman, of the London Chronicle, who before and during the war in Greece was so frequently quoted on the crisis. He gives the inside history of the diplomacy that preceded the war, now told for the first time. He was in confidential relations with the Greek government, and his narrative is therefore of authoritative

value. A visit to the front on the eve of battle is also picturesquely described. The illustrations are from Mr. Norman's own photographs, and among them are autographed portraits of the king and his sons. The first popular article ever published on "The Newspaper as a Business Enterprise" appears in this number, by J. Lincoln Steffens. Like other articles in the series on "The Conduct of Great Businesses," it gets at the inside facts from the highest authorities. Mr. Steffens recently had the advantage of a long railroad journey with the executive heads of more than forty leading newspapers, and his material thus gathered has been carefully sifted. The newspaper is here expounded as a great factory which buys the raw material of white paper by the ton and tries to sell it at retail profitably. Mr. Steffens shows what the manning of the New Journalism is, and predicts the elevation of its tone for purely business reasons. The illustrations by W. R. Leigh show the progress of the manufacture from the white paper rolls to the arrival of the finished product at a country station. There is also a clever article, "The Workers," by Walter A. Wyckoff, giving a vivid narrative of his personal experiences as a day-laborer, which has called out more newspaper comment than any magazine series for many years. The originality of the young college graduate's scheme for perfecting his knowledge of social conditions, and the pertinacity with which he carried it out have gained the admiration of his readers. The literary charm of the narrative has also won him many friends. This third chapter of his adventures describes his work as a hotel porter at a summer resort. It will be a revelation to those who only see the upstairs life of a hotel. The social cleavage below stairs is explained; it is as rigid as the social distinctions among the guests.

THE ACME ROCKING GRATE CO.



The Acme Rocking Grate Bar is composed of fine zig-zag bars connected together; the centre bar is 5½ inches deep, the two bars next the centre are three inches, and the two outer ones are two inches. They are connected every six inches, thereby giving a very strong and durable bar, with very little iron on surface, giving a larger percentage of air space than any bar made, and will burn screenings as

well as lump coal, while there is no trouble whatever in crushing the clinkers. We guarantee ten per cent. saving in coal in every cast.

This is what a Street Railway has to say after making a test with screenings :

THE TORONTO SUBURBAN STREET RAILWAY CO.

R. WILSON-SMITH, Pres.

E. P. HEATON, Vice-Pres.

R. H. FRASER, Sec. and Manager.

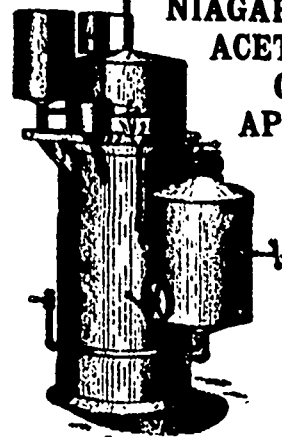
TORONTO JUNCTION, April 21, 1897.

Messrs. The Acme Rocking Grate Company,

GENTLEMEN.—The Grates put in by you in our Power House have shown a decided saving in coal.
Yours truly, R. H. FRASER.

The Acme Rocking Grate Co. 176 FRONT STREET EAST, TORONTO, ONTARIO

THE NIAGARA FALLS ACETYLENE GAS APPARATUS



Patented in Canada, United States and Great Britain.

This is the only machine perfectly automatic in its action, requiring little or no attention. Machines made in 10 sizes costing \$15 and upward.

Acetylene Gas the Coming Light.

CHEAPER THAN ELECTRIC LIGHT COAL GAS OR COAL OIL

For Private Dwellings, Business Houses Churches, Public Halls and Offices.

For particulars write to the

NIAGARA FALLS ACETYLENE GAS MACHINE CO. NIAGARA FALLS, ONT. LIMITED.

THE CROCKER TURBINE.

The cut shows the direct connection of two 20 inch.

Crocker TURBINES

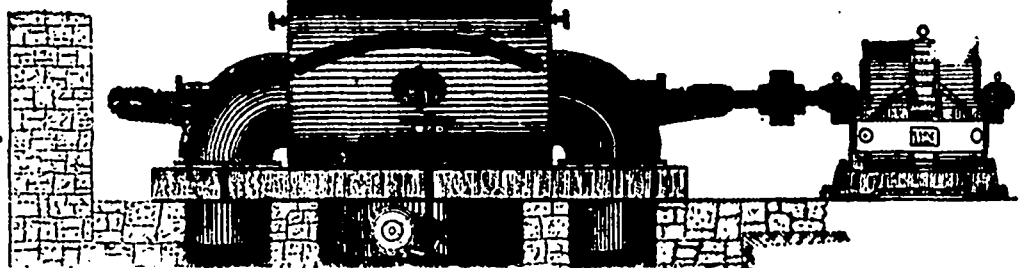
Under 50 feet head to

ELECTRICAL GENERATOR

At Power Station of North Shore Power Co., at St. Narcisse, Quebec.

Two sets were furnished for lighting and power for City of Three Rivers,

17 Miles Distant from Power Station



THE JENCKES MACHINE CO., SHERBROOKE, QUE.

Address for Catalogue and full information—28 LANSDOWNE STREET

COMPLETE WATER POWER PLANTS BUILT AND INSTALLED.

CAPTAINS OF INDUSTRY.

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

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

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

The Laurentide Pulp Company, Grand Mere, Que., is pushing forward the construction of its paper mills at that place. The company have laid out a town for three or four thousand inhabitants, and have already made excavations for the foundations of a large number of cottages for residences for employees. A million dollars, it is said, will be spent this year in construction work, and the mills, when completed, will be capable of converting from 150 to 170 cords of spruce blocks per day into pulp, and the pulp into paper, before the product leaves the works.

The Central Bridge and Engineering Company, Peterborough, Ont., have secured the contract for the construction of a new bridge at P. Sedale, Ont.

The screens and wet presses, furnished by the Jenckes Machine Co., of Sherbrooke, Que., are now arriving at the Morgan Falls of the Acadia Pulp and Paper Co., and the mills whole plant is expected to be in operation within a short time.

The Dominion Paper Company are extending and enlarging their mills at Kingsay Falls, Que., and have placed an order with the Jenckes Machine Co., of Sherbrooke, Que., for two of their 30-inch Crocker special turbine wheels. These wheels are mounted on one shaft, set horizontally in a steel case, thus doing away with gearing and attendant evils.

William Wooley's coeprage at Hamilton, Ont., was burned a few days ago. Loss about \$5,000

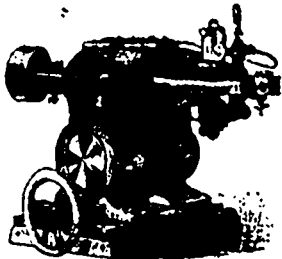
The dam at Magog, Que., for the civic electric light plant is completed, and the 50-inch Crocker water-wheel, which is being furnished by the Jenckes Machine Co., of Sherbrooke, Que., is expected to be installed now within a short time.

The Dominion Bridge Company, Montreal, have been given the contract for the steel and wrought iron-work of the New City Hall, Toronto, and Page & Co., Toronto, have the contract for the arching.

Dr. Roughedge, V.S., has returned to South Edmonton from England, accompanied by his partner, Mr. H. Smith, of London. They have completed arrangements for the erection of their metal extracting works, and have purchased property from the townsite company on the flat directly north of the South Edmonton railway terminus. Permanent buildings for the plant will probably not be erected before next spring, but an assay office will be established and black sand will be bought from now on till the end of the season, in fact, the company has bought several tons already since the Doctor's return from England. They expect in addition to the extracting works to build a smelter and will refine the gold purchased from miners, as well as that extracted from the black sand. They have dredges being built in England which will be placed on the river next spring, and five mile leases of the river are applied for.—Alberta (N.W.T.) Tribune.

The Jenckes Machine Co., of Sherbrooke, Que., shipped last week one of their heavy 50 h.p. slide valve engines, with standard steel tubular boiler, to Desire Thibault, Esq., East Hereford, Que.

ELECTRIC BARGAINS



350-light Incandescent Dynamo
And One Smaller Machine
One Arc Light Dynamo
One Electric Motor

Above are but slightly used, and are as good as new.

We Manufacture a full line of
Dynamos, Motors and Platers
WRITE FOR PRICES.

THE JONES & MOORE ELECTRIC CO.
22 Adelaide Street West
TORONTO.

VALVES AND PIPE . . . FITTINGS

WRITE FOR LATEST PRICES

RICE LEWIS & SON, Limited

Corner King and Victoria
Streets
TORONTO

BREWERS COPPER WORK

Brewing Kettles, Boiling Coils,
Beer Coolers, Attempartors
Spargers, etc., etc.

—THE—
BOOTH COPPER CO.

LIMITED,

TORONTO, ONT.

Established 1854.

WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY

PITTSBURG, PA.

THE LEADING MANUFACTURERS OF ELECTRICAL APPRATUS FOR ELECTRIC LIGHTING, POWER TRANSMISSION, AND ELECTRIC RAILWAY PLANTS

NEW YORK—129 Broadway. CHICAGO—New York Life Bldg. PITTSBURG—Westinghouse Building. SYRACUSE, N.Y.—Bastable Bldg.
BOSTON—Exchange Bldg. PHILADELPHIA—Girard Bldg. ST. LOUIS—American Central Bldg. TACOMA, WASH.—102 South 10th St.
BUFFALO—No. 1130, Guarantee Bldg. SAN FRANCISCO—Mills Bldg. ATLANTA, GA.—Kqultable Bldg.

WESTINGHOUSE ELECTRIC COMPANY, Ltd., 32 Victoria Street, LONDON, S.W., ENGLAND.

For CANADA address, - - - - - AHEARN & SOPER, - - - - - OTTAWA, CANADA

The Brookfield Mining Co., of North Brookfield, N.S., have placed an order with the James Cooper Manufacturing Co., Montreal, for a five-drill Ingersoll Sergeant air compressor, receiver, drills, etc.

D. Champoux & Bro., Disraeli, Que., are installing an electric lighting plant, and have purchased for this purpose a 30-inch Crocker turbine, from the Jenckes Machine Co., of Sherbrooke, Que.

Mr. George Easterbrook, who is about taking his departure for Delagoa Bay, South Africa, where he is erecting flouring mills and other industries for a wealthy syndicate of Canadians, is taking with him a complete electric lighting plant. The apparatus and materials are being purchased from the Royal Electric Co. This, we believe, is the first instance where a Canadian electric lighting plant has been sold for service in South Africa.

By a vote of 1,370 to 219 the property owners of Kingston on Sept. 15th granted a bonus of \$35,000 to the Montreal Transportation Company to aid it in erecting a 500,000-bushel elevator at that place.

The Chicoutimi Pulp Company have decided to extend their mill, and are adding another 40-inch Crocker turbine, arranged to work under a 70-foot head, which is being supplied by the Jenckes Machine Co., of Sherbrooke, Que., making the fourth of these wheels supplied by them to this company.

The Hall Mines (Limited), of Nelson, B.C., have placed an order with the James Cooper Manufacturing Co., of Montreal, through their Rossland, B.C., branch, for another ten-drill Ingersoll-Sergeant air compressor, and five more Sergeant drills. This is the third compressor plant that the Hall Mines have ordered from this company, and when it is installed the machinery at the Silver King mine will have a capacity of twenty-five drills.

The power station for the Sherbrooke Street Railway, at Sherbrooke, Que., is rapidly nearing completion, and the turbine plant, being installed by the Jenckes Machine Co., is also about completed. Mr. Burke, the president, states that they expect to be in operation by October 15th.

Water was turned into the flume at the factory of the Boston Rubber Co., at St. Jerome, Que., on the 25th ultimo. The steel flume, which is 350 feet long, six feet in diameter, was furnished complete, including a 55-inch Crocker wheel, by the Jenckes Machine Co., of Sherbrooke, Que.

The Bridgewater Power Company, of Bridgewater, N.S., have lately been re-constructing and enlarging their electric light plant, and have re-placed their three-wire system by an alternating current system, for which purpose they have purchased a 40-K.W. "S.K.C." two-phase generator from the Royal Electric Company, and 600 light capacity in transformers.

The Jenckes Machine Co., of Sherbrooke, Que., shipped last week a complete tramway plant to the Lucky Jim mines at Sandon, B.C.

Mr. C. B. McAllister, of Peterboro, Ont., is lighting his new mill by electricity, and has placed his order for the dynamo and fixtures with the Royal Electric Company.

The Robb Engineering Co., Amherst, N.S., have received an order for three tandem compound Engines, side crank type, for export to Spain. These engines are to be direct connected to electric dynamos and were ordered by an English engineering firm for electric tramways at Barcelona and Madrid.

The Hamilton Powder Co., of Montreal, have placed an order with the James Cooper Manufacturing Co. (Limited), for an Ingersoll-Sergeant piston inlet air compressor, to be used at their Beloit works for pumping and agitating acids.

The contract for supplying water to Larracetown, Annapolis county, N.S., has been awarded to George Brown, of Windsor, N.S.

Messrs. Ogilvie Bros. are making extensive improvements to their mill at Wentworth Centre, Cumberland county, N.S. A new building, 30x50 feet, is being added, and when complete there will be included, under the two roofs, a saw mill, carding mill and grist mill. A new turbine wheel and set of stones have also been added.


 ARE MANUFACTURED BY


THE
Storey Motor and Dynamo

 MANUFACTURED BY
THE STOREY MOTOR AND TOOL CO.
 John St. North, Hamilton, Can., and Philadelphia.
 Send for Catalogue.

Dominion Oil Cloth Co.,
 Manufacturers of...
OIL-CLOTHS OF EVERY DESCRIPTION
*Floor Oil-Cloth, Table Oil-Cloth, Carriage Oil-Cloth,
 Enamelled Oil-Cloth, Stair Oil-Cloth, etc, etc.*
 Office and Works
 Cor. St. Catharine and Parthenais Sts., MONTREAL, Que.

FERGUSON & PATTINSON
 PRESTON, - - ONTARIO.
 MANUFACTURERS OF
FINE AND MEDIUM TWEEDS
 ADVERTISE IN
The Canadian Manufacturer

Messrs. Litch & Turnbull, elevator manufacturers, Hamilton, Ont., have just completed elevators in the following buildings:—One hydraulic passenger, Galt Hospital, Galt, Ont.; one steam-belted freight, Gutta Percha & Rubber Mfg. Co., Toronto; one freight elevator, Geo. Foster & Son, Brantford, Ont.; one carriage elevator, John Temple, Hamilton, Ont.; one elevator, belt power, Hollinger & Ball Chair Co., Hanover, Ont.; one elevator, C. C. Hamilton, Shediac, N.B.; one elevator, Raymond Mfg. Co., Guelph, Ont.; and now have on hand contracts for a fast speed passenger elevator and steam pumping plant in Spectator Building, Hamilton, Ont., passenger elevator, Ladies' College, Hamilton, Ont.; one freight elevator, Riordan Paper Mills Co., Merriton, Ont., one electric-belted, passenger and freight, Butterworth & Co., Ottawa, Ont., one belt power elevator, Messrs. J. Duff & Son, Hamilton, Ont.;

one belt power elevator, Sewage Disposal Works, Hamilton, Ont.; one elevator, Chas. Fawcett, Sackville, N.B.

A company has been formed to open the Worsted Braid factory at Toronto Junction, Ont., which has been closed for the past two years.

The St. Thomas, Ont., City Council, will submit by-laws to the ratepayers on October 11th, to raise \$50,000 to purchase suitable property on which to erect municipal buildings.

Messrs. Anderson Bros., saw mill near Chesley, Ont., was destroyed by fire a few days ago. Loss about \$6,000.

The Monte Cristo Mining Co., of Rossland, B.C., have ordered a complete new hoisting and pumping plant from the Jenckes Machine Co., of Sherbrooke, Que., which has been supplied from their Rossland stock.

An elevator at Emerson, Man., owned by D. H. McMillan, Winnipeg, was destroyed by fire a few days ago. Loss about \$15,000.

The Old Ironsides mine, at Greenwood, B.C., have got their new plant, furnished by the Jenckes Machine Co., of Sherbrooke, Que., into position, and are now about ready to ship ore. This property is expected to enter the list of dividend payers within the next few months.

The Foley mines, Seine River, Ont., are now installing two 100 h.p. steel boilers, built by the Jenckes Machine Co., of Sherbrooke, Que.

The 30-stamp mill at the Sultana mines is almost ready to commence operations. This mill is probably the most modern one in the district, and the entire, complete plant, with which Mr. Caldwell is equipping the property, was furnished by the Jenckes Machine Co., of Sherbrooke, Que.

The Packard Electric Co., Limited.

MAKERS OF

Lamps and Transformers

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

Cleveland WIRE SPRING Company, CLEVELAND, OHIO, U.S.



TEMPERED STEEL MACHINE SPRINGS.
SPECIAL SPRINGS of all description to order and for Upholstery, Furniture, Beds, Chairs, etc.
WIRE, Oil Tempered, Spring Steel and all kinds

.. STEEL ..

LA BELLE STEEL CO.

PITTSBURG, PA.

Manufacturers of STEEL
PLOW SHAPES, HARROW DISKS,
CULTIVATOR PLATES, and
AGRICULTURAL STEEL of all kinds.

FINE TOOL STEEL

FOR —

DIES, DRILLS, TAPS,
BICYCLE CONES,
PUNCHES, MAGNETS, Etc.

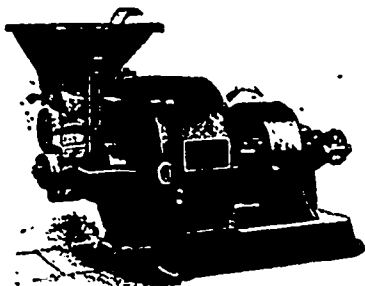
And for all purposes where requirements are exacting.

For Prices, Etc., Address,

W. G. BLYTH,

Agent for Canada.

29 Melinda St., - Toronto, Ont.



ROCK

CRUSHERS

EMERY

MILLS

AND

MILLSTONES.

FRENCH BUHR AND ESOPUS STONES. *Send for Circular.*

STURTEVANT MILL CO.

BOSTON, MASS.

The DRIER the STEAM the GREATER the POWER.

"Eureka"



OUR SECTIONAL PIPE AND BOILER COVERING

Almost Entirely Prevents Condensation of Steam when Passing Through the Pipes

EUREKA MINERAL WOOL & ASBESTOS CO.

114 BAY STREET, TORONTO.

ASBESTOS GOODS.

MINERAL WOOL.

ENGINE PACKING.

6 OPTIONS - 6

Granted to the holder of the 20-year
DISTRIBUTION POLICY of the **Manufacturers' Life**

IF HE SURVIVES THE PERIOD HE MAY

- (a) Surrender his policy and receive (1) Cash, (2) Paid-up Insurance (3) Annuity; or,
(b) Retain his policy and take his profits as (4) Cash, (5) Bonus addition, (6) Annuity.

If he dies during the term his beneficiaries receive the face value of the policy. These options, together with the liberal benefits guaranteed in the policy, render this plan one of the most attractive ever offered.

HEAD OFFICE, - TORONTO.

GEORGE GOODERHAM, President. J. F. JUNKIN, General Manager.

GEO. A. STERLING, Secretary.

Agents Wanted in Unrepresented Localities.

WASHERS.

Rhode Island Horse Shoes

Cut Nails

Bar Iron and Steel

Railway Spikes

Pressed Spikes.

ABBOTT & CO., - MONTREAL

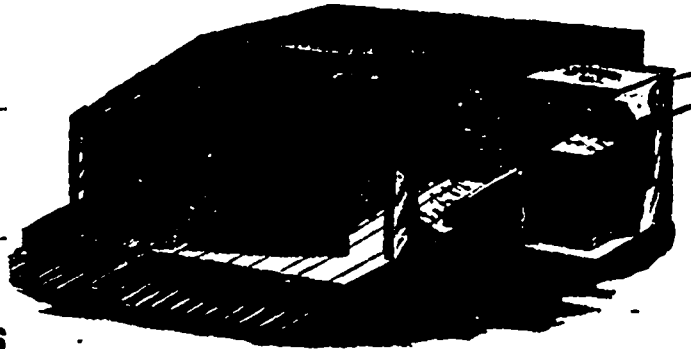
DRY KILNS AND HEATERS

HOT BLAST HEATING SYSTEM FOR LARGE BUILDINGS

Ventilating
Fans,

Shaving
Fans,

Blowers and
Exhausters



LITTLE WONDER HOT WATER BOILER for Heating Dwellings.

McEACHREN HEATING AND VENTILATING CO.

GALT, ONT.

HAHLO & LIEBREICH, BRADFORD, ENG.

Machinery Merchants and Exporters

NEW and GOOD SECOND-HAND **WOOLLEN MACHINERY**

SHAKE WILLEYS, TEAZERS, RAG PICKERS, GARNETTS,
AUTOMATIC FEEDS, WASTE CLEANERS, CARDS, CONDENSERS, SELF-ACTING
MULES, TWISTERS, LOOMS, HYDRO-EXTRACTORS,
SHEARING MACHINES, ETC.

GOOD Second-Hand **COTTON and WORSTED MACHINERY**

BELTING, CARD-CLOTHING, PICKERS, PICKING HANDS, etc.

The Lettoi company is adopting Ingersoll Sergeant Drills for its mine, having placed an order with J. D. Sword, agent of the company, for six B24 Sergeant Drills, which will be delivered immediately, making nine ordered in the last six weeks. This will make a complement of thirty drills, and as an evidence of the large amount of mining development and ore stopping going on in this mine, it may be stated that of all the large mines in Butte, Montana, there are not more than four using more drills than the Lettoi.—Rossland (B.C.) Miner.

The gas works at the eastern end of the city of Charlottetown, P.E.I., have been sold to Mr. H. R. Lordly, C.E., of St. John, N.B., who will assume the management of the same, for a new syndicate made up of Maritime Province capitalists, a number of whom belong to Charlottetown. The price paid, it is understood, is in the neighborhood of \$13,000. The plant is to be remodelled immediately and the business extended to do lighting by the Auer light, and to provide for the introduction of the London system of supplying gas cooking apparatus by rental. The automatic slot meter will be used, by means of which a customer may obtain gas at any time by putting a coin in the slot.—Examiner, Charlottetown, P.E.I.

During the current month the James Cooper Manufacturing Co., Montreal, have supplied the following mining plants. Canadian Goldfields Syndicate, Rossland, B.C., for Sunset Mine—7-drill Ingersoll-Sergeant air compressor, with full complement of Sergeant drills, hoiler, hoisting and pumping plant. Ruth Mines, Sandon, B.C.—5 Drill Ingersoll-Sergeant air compressor, necessary complement of Sergeant drills, hoiler and all accessories to make complete mining plant. G. Alexander, Kaslo, B.C., for Northern Bell and Jackson Mines—3-drill compressor, full complement of drills, etc. Burley Gold Mining Co., Rat Portage, Ontario—Ingersoll-Sergeant air compressor, sergeant drills, double compartment shaft hoisting engine, etc. Guffey-Jennings Mining Co., Caribou, N.S.—Ingersoll-Sergeant five drill air compressor, drills, etc.

Attention

Central Station Managers.

**A GOLDEN . . .
OPPORTUNITY.**

Are you desirous of purchasing Arc Lighting Machinery, Leather Belting, Water Wheels or Shafting? If so, you cannot afford to miss this opportunity.

Owing to extensions necessitated at our Generating Station, we are obliged to discard the above mentioned material.

Communicate with us at once for all information and particulars.

THE
Montmorency Electric Power Co.,
QUEBEC.

The moulding shop of Messrs. Torreau, Racine & Co., Quebec City, was burned a few days ago. Loss about \$8,000.

The Deaf and Dumb Institute, at Fredericton, N.B., was destroyed by fire a few days ago.

The lumber mills of the Hull Lumber Company, Hull, Que., were destroyed by fire September 20th. Loss about \$100,000.

The Canadian Key-Opening Can Company, Rossland, B.C., has been incorporated with a capital stock of \$50,000, to manufacture B. W. Morfoot's key-opening can, and to carry on the business of manufacturers in all kinds of tin and tinware.

The Toronto Paving Brick Company, Toronto, has been incorporated with a capital stock of \$100,000, to manufacture paving brick, tiles, sewer pipe, etc.

The name of the Electrical Supply Company, of Hamilton, Limited, has been changed to the Electrical Power and Manufacturing Company, of Hamilton, Limited.

The Exeter Electric Light and Power Company, Exeter, Ont., has been incorporated with a capital stock of \$15,000.

The Hay Island Mining Co., of Rat Portage, Ont., placed an order with the James Cooper Manufacturing Co., Montreal, through the Rat Portage branch office, for a complete mining outfit, consisting of Ingersoll-Sergeant air compressor, rock drills, hoisting engine, etc.

The Winnipeg Heater Company, of Toronto, has been incorporated with a capital stock of \$24,000, to manufacture Winnipeg heaters, and all kinds of fuel burners, radiators, etc.

At Toronto Junction, Toronto's railway suburb, the Heintzman Piano Factory, the Art Wood-work Manufacturing Company, the Dodge Split Pulley Company, the Malleable Iron Works, and the Wilkinson Plow Works are all running full time, and the Queen City Flour Mills are running day and night. All the factories are unusually busy.

The Strathroy Electric Company, Strathroy, Ont., has been incorporated with a capital stock of \$20,000.

J. N. Howard, Exeter, Ont., has sold his electric light plant to the Exeter Light and Power Company.

An electric and water-power company has been organized in Bridgewater, N.S., for the purpose of furnishing water and light to the town. Mr. F. W. Clarke has been appointed manager.

**YOU SAVE
20%**

**CRYSTAL
CARBONATE**

BY USING

PUREST AND CHEAPEST
FORM OF

SAL SODA

MADE ONLY BY

THE UNITED ALKALI CO., LIMITED

ORDERS FOR IMPORT ONLY

ARTHUR P. TIPPET & CO., MONTREAL Ag'ts for Canada

TO BELT USERS :

IT IS NOT WIND YOU WANT.

RESULT OF MY TRIP :

GENUINE

ENGLISH OAK

TANNED BELTING

D. K. McLAREN

24 Victoria Square, - MONTREAL

FIRE PROTECTION.

INDICATOR VALVES. CHECK VALVES.
INDICATOR POSTS.
FIRE HYDRANTS. CAST IRON PIPE.

For the modern equipment of your Mill with Automatic "Sprinkling System," write us.
We manufacture a full line of these goods.

ST. LAWRENCE FOUNDRY CO.
OF TORONTO (Limited),
TORONTO, - CANADA.

SHUTTLES BOBBINS
SPOOLS
PICKER
STICKS
CLOTH
ROLLS, Etc.

JOHN HOPE & CO., - - LACHUTE, QUE.

Penman Manufacturing Co., Limited
PARIS, ONTARIO.

Manufacturers of

HOSIERY, SHIRTS, DRAWERS,
GLOVE LININGS AND YARNS

Selling Agents: D. MORRICE, SONS & CO., Montreal and Toronto.

ROSAMOND WOOLEN COMPANY
ALMONTE, ONT.

FINE TWEEDS, CASSIMERES, AND FANCY
WORSTED SUITINGS AND TROUSERINGS.

Guelph Woolen Mill Co., Limited
GUELPH, ONTARIO

Manufacturers of
Underwear, Hosiery, Wheeling, Fingering and Worsted Yarns
EIDERDOWNS FLANNEL, ETC.

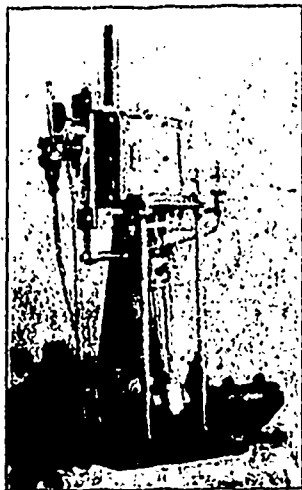
Selling Agents: Donald Fraser, Montreal F. H. Walsh & Co., Toronto.

AUBURN WOOLEN COMPANY
PETERBOROUGH, ONT.

Manufacturers of Fancy Tweeds, Etc.
Selling Agents, D. MORRICE, SONS & CO., Montreal and Toronto.

ALBERT BELL

DUNNVILLE, ONT.



Maker of

**YACHT ENGINES, 1 H.P. to 50 H.P.
Safety Water Tube BOILERS
PROPELLER WHEELS**

Stationary Engines and Boilers

WRITE FOR CIRCULARS



ATLAS METAL FACTS

Speak louder than words, and
ATLAS does not rely on empty talk for its UNSURPASSED REPUTATION.

It Has Been Undeniably Proved that ATLAS METAL is Superior to all and has stood under Enormous Pressures and Phenomenal Speed.

TRADE MARK. THE ATLAS METAL WHERE ALL OTHERS HAVE FAILED.

WE CHALLENGE A TEST

Against any Anti-Friction Metal on the Market.

THE ATLAS METAL CO., Limited
75 Queen Victoria St., London, Eng.

H. G. McLAREN, General Agent for Canada,
318 ST. PAUL ST., MONTREAL, QUE.

Kemp Mfg. Co.

TORONTO.

Galvanized Steel Pails

FOR FIRE PURPOSES ONLY.
NO HOOPS TO FALL OFF.

PRICES ON APPLICATION.

A. C. NEFF, Chartered Accountant. JAMES WOOD, Late Sec. The T. Eaton Co. Ltd.
NEFF & WOOD
PUBLIC ACCOUNTANTS, AUDITORS
ASSIGNEES, ETC.
Room 500 McKinnon Bldg., Toronto

Wheat is Higher

And the price of all general produce is improving, but it costs no more than usual to spend a term at the

Central Business College OF TORONTO.

New term now opened. Better facilities with larger attendance than ever before in Business, Shorthand, and Typewriting Department. Members admitted at any time. Tuition gratis added. Good results guaranteed in every department. Send postal for particulars.

Address **W. H. SHAW,** Principal,
Yonge and Gerrard Streets.

Leitch & Turnbull

Canada Elevator Works,

Queen and Peter Streets, Hamilton, Ont.

Patent Safety Hydraulic Hand and Telephone Connection. **POWER ELEVATORS**

Subscribe for Canadian Manufacturer.

The salmon pack on the Fraser river this year has been double that of any previous year. It is estimated at 840,000 cases. In 1893, the last big year, the total pack for the whole province was 607,706 cases; in 1895, 600,889; and, last year, an "off" year, it reached 616,482. With the northern pack added to that of the Fraser river, the total this year will be over the one million mark. --The Miner, Nelson, B.C.

The Canister Machine Company, Hamilton, Ont., has been incorporated with a capital stock of \$50,000, to manufacture canisters, packing cases, etc.

The Wm. Hamilton Manufacturing Company, Peterborough, Ont., are at present putting in five stamp mills in mines in Hastings county, Algoma and Kootenay.

The Mineral Products Company, of New York, have made a start in excavating and putting in walls at the Pictou Charcoal Company's furnace at Bridgeville, N.S. The company have purchased the woodland of the Pictou Charcoal Iron Company, who will in the future confine themselves to mining and shipping. The Mineral Products Company will manufacture Ferro-Manganese for export.

The St. Maurice Lumber Company's saw mill at Three Rivers, Que., was destroyed by fire a few days ago. Loss about \$80,000.

The Crow's Nest Mine, Melrose, N.S., have placed an order with the James Cooper Manufacturing Co., Montreal, for a duplex cross compound Ingersoll-Sergeant air compressor, drills, receiver, etc.

(From "Free Press," London, Ont., December 9th, 1896.)

"Number two Committee of the Board of Education met last night. . . . It was decided to put in two No. 25 Heeson Fire Grates in the Collegiate Institute furnaces. One of these Grates is said to have saved four tons of coal at Princess Ave. School last winter."

These Grates, 16 x 26 inches, are supplied by

The HEESON ROCKING GRATE BAR CO. OF TORONTO (Limited),
Phone 1924. 120 VICTORIA STREET.

Twelve additional sets of these bars have since been put in for the London Board of Education.

ALEX. GARTSHORE, President. J. G. ALLAN, Sec.-Treas. JAS. THOMSON, Vice-Pres. and Gen. Mgr.

THE 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.

BENT RIM WOOD SPLIT PULLEYS

(REID'S PATENT).

THE STRONGEST, LIGHTEST, AND BEST BELT SURFACE

IN THE WORLD.

No Glue, no Nails in Rim like Segment Rim Pulleys, to be affected by Steam, Dampness or Moist Temperature.

EVERY PULLEY GUARANTEED

The Reid Bros. Mfg. Co., of Toronto, 102-108 Adelaide St. West, Toronto.

JOHN J. KELLER & CO.

104 and 106 MURRAY ST.
NEW YORK

220 Church St., Philadelphia.
135 Pearl Street, Boston.

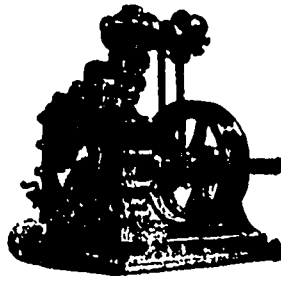
**Aniline Colors,
Dyewood Extracts,
Sumac and
Nutmeg Extracts.**

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

MANUFACTURED BY
JOHN R. GEIGY & CO.
SABLE, SWITZERLAND

The Dake Engine

For Running Dynamos in



Small Isolated Plants.

CONTRACTORS' HOISTS

STEADY AND EVEN MOTION,
ALSO FOR

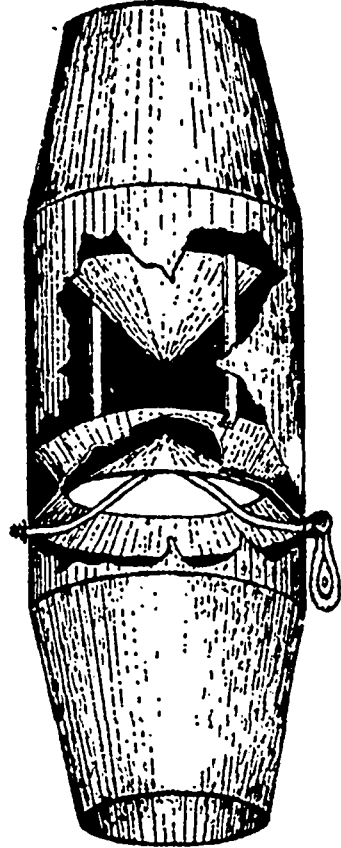
Attachment Direct to Fans, Blowers, Centrifugal
Pumps, Stokers, Steering Gear, Etc.

Correspondence Solicited.

Phelps Machine Co'y,
EASTMAN, P.Q.

THE WILSON HEAT DEFLECTOR.

The accompanying illustration represents the Wilson Heat Deflector, of which Messrs. Chas. F. Rees & Co., Toronto, are the proprietors and sole agents for Canada and the United States. The benefits to be derived from the use of this deflector as claimed by the proprietors are that there are no ashes to sift, no clinkers; will check a fire for twenty-four hours; prevent chimney from catching fire, and will save 20 per cent. in fuel. To quote from the firm's catalogue "combustion may be what is called rapid or



slow. In slow combustion the gas which is formed is laden with carbon; a hot fire consumes nearly all the carbon. The obtuse cone (or lower cone on the accompanying cut) reflects the rays of heat downwards transversely, keeping fire always hot, thus making quick combustion."

The Wilson Heat Deflector is made in special sizes for hot water or steam boilers in sizes from twelve inches to sixty inches diameter.

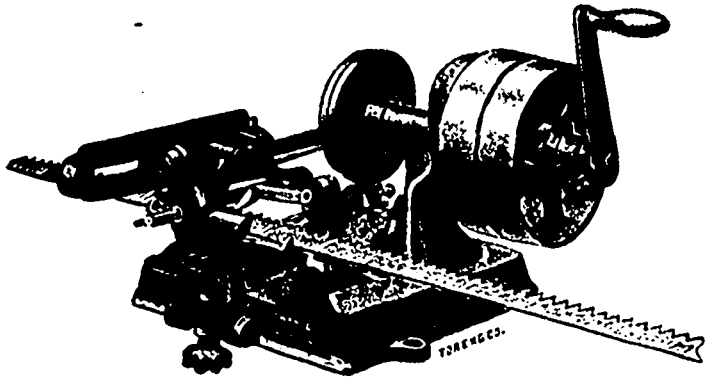
The large number of testimonials published in Messrs. Rees & Co.'s catalogue from users of the deflector go to prove that it is what the proprietors claim it to be—a real fuel saver.

The Cockshutt Plow Co., of Brantford, have bought additional premises, and are doubling the capacity of their works. Among the important changes being made is the substitution of electricity for gas. They have placed their order for a 30 K.W. generator, 250 lights, with The Royal Electric Co. The generator is to be of the "S.K.C." two-phase type, wound to deliver 110 volts direct to the mains. This system for isolated lighting is a radical departure from the old lines, and is, we are informed, the second instance in Canada where it has been placed in use for factory lighting.

BAND SAW FILING MACHINE

The Simplest, Best, Most Durable and
Accurate Machine of its Class

Every User of
Band Saws
Should Have
One



WRITE FOR
PRICE

COWAN & CO., GALT, ONTARIO

...Manufacturers of....

Saw Mills and Wood-Working Machinery of all kinds, Corliss and
Slide Valve Engines, Boilers, Moffat's Improved Feed Water
Heaters and Purifiers. We make the Best. Write and Get Our Prices
Toronto Warehouse, - - 160 King Street West

THE B. GREENING WIRE CO. LTD.
PERFORATED METALS.

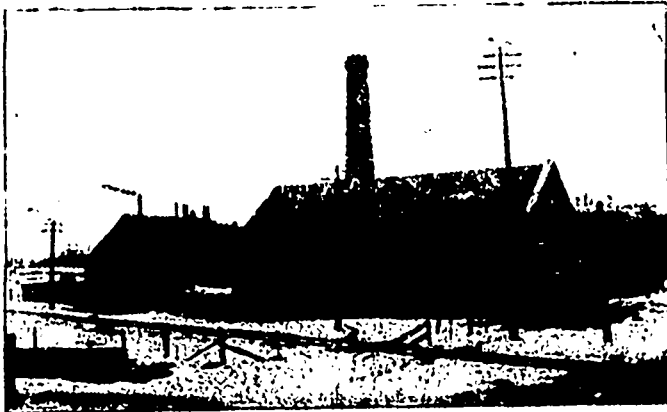
HAMILTON, - CANADA

CATALOGUE AND PRICES ON APPLICATION.....

THE SARNIA GAS AND ELECTRIC LIGHT CO.

The electric light branch of the above company was established in 1891, and the

The building, as will be seen by the accompanying illustration, is a handsome and substantial structure. It is built of red brick, with freestone trimmings and stone foundation, with basement under the engine



THE SARNIA GAS AND ELECTRIC WORKS.

plant was constructed during the summer of 1897, and dynamo room. It has a truss roof, that year. covered with iron, making the building

practically [fire-proof. Its dimensions are 34x72, with an octagon brick smoke stack seventy-five feet in height. The foundations for engine, dynamos and line shafting are of stone and brick set in cement, and extend above the main floor.



Mr. Wm. Williams, Manager.

The electric plant consists of one seventy-five light, Wood arc dynamo, with spare armature; one 30-kilowatt T. H. single phase alternator with 1 1/2 K. W. exciter and necessary switch-board apparatus. All of the electrical plant was installed by the C. G. E. Co., of Toronto and Peterboro.

The incandescence light business has developed to such an extent that it has been found necessary to increase the plant, and an order was recently placed with the C. G. E. Co. for another standard alternator of sixty kilowatt capacity. About 750 lights are now wired up and the number is rapidly increasing, which speaks highly for the efficient service given.

The arc line for street lighting required over sixteen miles of six B & S wire and ten miles of poles. There are seventy 1,200 c.p. lamps in use.

The steam plant consists of a Wheelock engine 13x30; two steel boilers, one sixty inches by fourteen feet, and one sixty-six inches by fourteen feet, both of the tubular type, which, with all necessary shafting and friction clutch pulleys, were manufactured by the Goldie & McCulloch Company, Galt, Ont.

In order to further increase the capacity and efficiency of the plant, a 300-h.p. Northey duplex condenser and a duplex boiler-feed pump were installed during the past summer, taking water supply from the river through an eight-inch pipe. These improvements add easily 25 per cent. to the economy and efficiency of the plant. Besides the addition of another



Mr. Geo. Shand, Chief Engineer.

dynamo and boiler, new steam and smoke connections have been put in.

This is now one of the best equipped plants in Canada, and too much credit cannot be given to Mr. Williams, the able manager of the company, to whose keen enterprise, good judgment and indefatigable efforts, the success of the business is due. Mr. Williams, who is well versed in electrical, mechanical and steam-engineering, personally supervised the building of the plant and outside line construction.

Mr. George Shand is the chief engineer and electrician, and his mechanical knowledge and ability have been of valuable assistance to Mr. Williams in making this a model plant.

We have pleasure in presenting with this article, excellent portraits of these two gentlemen.

The London Oil Company, London, Ont., has been incorporated with a capital stock of \$3,000, to prospect and drill for petroleum, gas, etc.

Hamilton Blast Furnace Co.

(Limited)

HAMILTON, - - ONTARIO

Manufacturers of

HIGH GRADE PIG IRON

THE . . . DOMINION WATER WHEEL

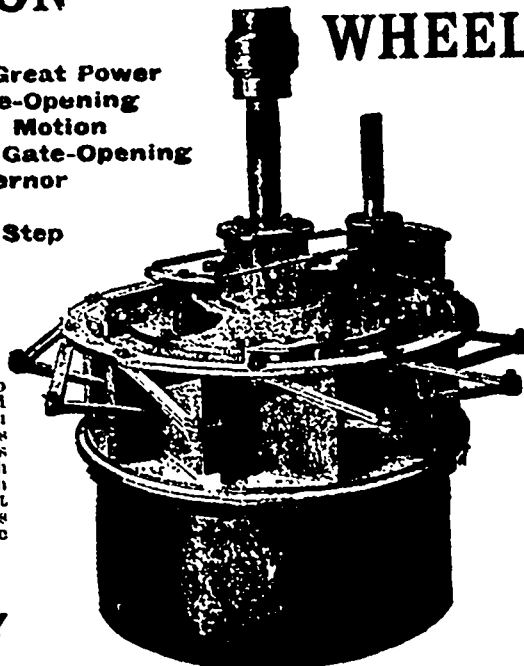
- SPECIAL FEATURES**
- Economy in Use of Water, Great Power
 - Equal Efficiency at any Gate-Opening
 - Steadiness and Strength of Motion
 - Sensitiveness to Change in Gate-Opening
 - Ease for Regulation by Governor
 - Strength and Durability
 - Freedom from Trouble with Step
 - Not Clogged by Ice
 - Accessibility to all Parts

St. Catharines, February 9, 1897

Messrs. Wm. & J. G. Greey, Toronto.

GENTLEMEN.—Your favor of the 5th to hand. Have been away from home, and hence delay in answering your letter. You ask us how your Dominion Wheel compares with the Well, sirs, the comparison is this—we have been using two 33 inch diameter, double wheels, and your 54 inch Dominion wheel we put in December last gives us as much power as both, and does not use but very little more water than one of the 33 inch wheels. Yours truly, COOK & SON

MANUFACTURED ONLY BY
WM. & J. G. GREEY
TORONTO

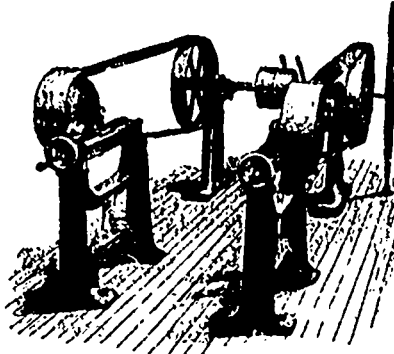


DOUBLE BELT POLISHING MACHINE.

The accompanying illustration is of a double belt polishing machine manufactured by the Defiance Machine Works, Defiance, Ohio. This machine contains several desirable features over other machines intended for the same purpose. The absence of a cumbersome frame enables the operator to work close to and reach any portion of the belts, or work on either side, and when the machine is not in use the belts can be removed and but little space is occupied. It is especially recommended for finishing spokes, neck-yokes, singletrees, wagon and carriage gearing, shafts, poles, handles and other wood work. Emery belts can be used for finishing iron or steel with equal success.

It has few and simple adjustments; the strainer stands are independent of the counter; can be placed any desired distance apart for short or long belts; the portion of

the floor occupied by the operator is entirely disencumbered, thus securing a neatness of appearance and convenience which cannot



be claimed for polishing machines heretofore used. The strainer pulleys are twelve inches in

diameter, three and a half inches face, and are fitted with a self-oiling device, which is warranted in every particular, and they are strained outward by hand wheel and screw to tighten the sand belt, having an adjustment sufficient to accommodate a variation of two feet in length of belt. The saddles supporting the strainer pulleys are fitted into angular ways and provided with adjustable gibs.

The countershaft is 1 1/2-16 inches diameter, sixty inches long, supported at either end by substantial floor stands, with ball and socket adjustable boxes. The driving pulleys are 24x31 inches. T and L pulleys 10x4 inches, speed 800 rotations per minute, giving 4,800 feet belt speed.

All the running parts are balanced on the company's patent centrifugal balancing machine, and they can be run at the rate of a mile a minute and upwards without exciting care or trouble.

The Defiance Machine Works, Defiance, Ohio, U.S.A.

THE ELECTRICAL CONSTRUCTION CO., OF LONDON, LIMITED,
LONDON, - - ONTARIO.

DIRECT-CURRENT MULTIPOLAR LIGHTING MACHINES, From 2 to 40 K.W.
BELTED OR DIRECT-CONNECTED.

MULTIPOLAR MOTORS, up to 50 k.w.

Knife Switches, all Sizes and Kinds.

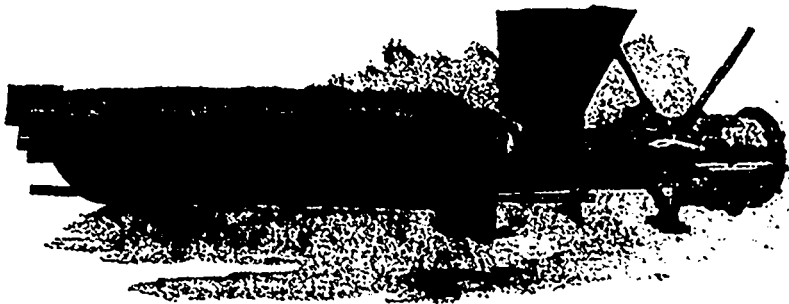
REPAIRS ON SHORT NOTICE.

Two Second-hand 150 k.w. Multipolar, and two 80 k.w. Bipolar 500 Volt Generators for Sale at a Bargain.

THE WEEKS-ELDRED CO. OF TORONTO, LIMITED

Mechanical, Civil and Sanitary Engineers

GENERAL CONTRACTORS, STEAM POWER, HEATING and VENTILATING. Sewage Disposal Plants a Specialty



Sole Canadian Manufacturers of the

Improved Jones Under-feed Mechanical Stoker

Perfect Combustion. No Smoke. No Ash.

Offices..

BOARD OF TRADE BUILDING, TORONTO, ONT.

Send for Illustrated Catalogue



S OF MONEY PATENTS

BRITISH-AMERICAN PATENT BUREAU...

PATENT DRAWINGS A SPECIALTY

PATENTS BOUGHT AND SOLD NO ATTORNEY FEES UNTIL ISSUE OF PATENT

H. F. LOWE

Strath Chambers, Corner of Adelaide and Simcoe Streets, Toronto.

PHILADELPHIA TEXTILE SCHOOL. FOURTEENTH YEAR

Most Complete in the World

ENDORSED BY EDUCATORS AND MANUFACTURERS EVERYWHERE

Teaches the **Designing and Manufacture of all Classes of Textiles.** Day Classes open October 4th. Evening Classes open October 11, 1897. Send for Catalogue. Address

E. W. FRANCE, Director, Broad and Pine Streets, PHILADELPHIA

C. G. ELRICK & CO.

MANUFACTURERS OF

HORN and RUBBER COMBS, Etc.

FACTORY—Sheppard Street, Toronto.

MONTREAL OFFICE—Fraser Building.

THE TORONTO PAPER MFG. CO. CORNWALL, ONT.

Manufacturers of....

Engine Sized Superfine Papers
White and Tinted Book Papers
Blue and Cream Laid and Wave Foolscaps, Ac.
count, Envelope and Lithographic Papers, etc.

DO YOU REQUIRE 
Rubber Belting?

IF SO, BUY THE BRANDS MADE BY

The CANADIAN RUBBER COMPANY of MONTREAL

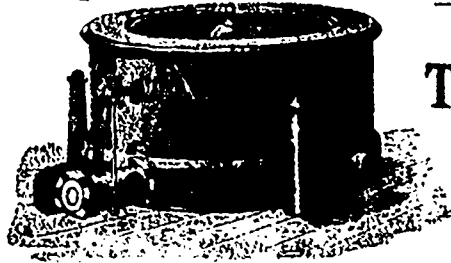
CAPITAL \$2,000,000.

Manufacturers of all Kinds of Rubber Goods

ONTARIO BRANCH—Cor. Front and Yonge Streets, TORONTO.

J. H. WALKER, - - MANAGER.

Broadbent's 
Hydro-Extractors



Adapted for

*MANUFACTORIES, DYE HOUSES,
 LAUNDRIES, CHEMICAL WORKS, SUGAR
 REFINERIES, etc., etc.*

THOMAS BROADBENT & SONS, Limited

HUDDERSFIELD, ENG.

Telegrams: "BROADBENT, HUDDERSFIELD."

Agents for Canada

SHAW BROTHERS, 164 MCGILL ST., MONTREAL

IF you would keep yourself informed regarding the Carpet, Upholstery, and Furniture Business of the United States, there is one infallible way, i.e., to subscribe for and read

**The American
 Carpet and Upholstery Journal**

Subscription Price \$2
 a year for Canada
 and the United States.

Each number contains valuable statistics as to the imports and exports of the country, and all the news relating to the allied industries.

Publicity - - It carries the advertisements of the leading firms in the business, and is regarded as a most valuable medium for reaching the entire trade of the United States.

Advertising rates on application. Address . . .

THE TRADES PUBLISHING CO.

JOHN R. KENDRICK, President.

113 N. 12th Street, Philadelphia, Penna.

ESTABLISHED 20 YEARS.

A. KLIPSTIEN & CO.

122 PEARL ST., NEW YORK.

**ANILINES, DYESTUFFS, AND
 CHEMICALS**

Of every variety, of the best quality and at the lowest prices.
 Delivery made at New York, Montreal or Hamilton

**WRIGHT & DALLYN, Agents,
 HAMILTON, ONTARIO.**

ECO **MAGNETO**
Watchman's

Without Batteries **ELECTRIC CLOCK**

Write for descriptive circular to

Eco Magneto Clock Co.

Room 71, 620 Atlantic Avenue, BOSTON, MASS.

MONTREAL ELECTRIC CO., Agents for Province of Quebec
 302 St. James Street

John Starr, Son & Co., (Limited), HALIFAX, N.S.
 Agents for the Maritime Provinces.

The LONDONDERRY IRON COMPANY

(Limited)
A. T. PATERSON,
President and Managing Director.

R. L. MILDRETH,
Secretary.

.... Manufacturers of.....

PIG IRON PUDDLED BARS
BAR IRON NAIL PLATES
WATER PIPES, ETC.

Office.... **MONTREAL**

Works .. **LONDONDERRY, NOVA SCOTIA**

CANADA IRON FURNACE CO., LIMITED

Montreal, Radnor and Three Rivers

Manufacturers of the well-known

"C.I.F." Three Rivers Charcoal Pig Iron

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

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

Offices: *Canada Life Insurance Bldg., Montreal.*

THE NOVA SCOTIA STEEL CO., LIMITED

MANUFACTURERS OF

BRIGHT COMPRESSED STEEL SHAFTING

FROM 3 TO 6 INCHES IN DIAMETER. GUARANTEED STRAIGHT AND TRUE TO WITHIN $\frac{1}{32}$ OF AN INCH.

Spring, Reeled 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

The Wellington Mills, LONDON, ENGLAND

GENUINE EMERY

Oakey's Flexible Twilled Emery Cloth.
Oakey's Flint Paper and Glass Paper.
Oakey's Emery Paper, Black Lead, Etc
Prize Medal and Highest Award Philadelphia, 1876, for Superiority of Quality, Skilful Manufacture, Sharpness, Durability, and Uniformity of Grain.

Manufacturers....

JOHN OAKEY & SONS, Ltd., Wellington Mills, Westminster Bridge Road, London, Eng.

Inquiries should be addressed to

JOHN FORMAN, 650 CRAIG ST., MONTREAL.

BICYCLE CHAINS

—MADE WITH—

HARD PINS AND HARD BLOCKS

Write for Samples and Prices

Manufactured by.....

McKINNON DASH AND HARDWARE CO.
ST. CATHARINES, ONT.

The United Alkali Company, (LIMITED), of England



CAUSTIC SODA, 60°, 70°, 74°, 76°, 77°.

SODA ASH, all strength

SAL. SODA.

PURE ALKALI, 58°.

WILSON, PATERSON & CO., MONTREAL, SOLE AGENTS.

Importers of
SULPHATE OF ALUMINA
HYPO SULPHITE OF SODA
BICHROMATE OF SODA

SILICATE OF SODA
CAUSTIC POTASH
CRYSTAL CARBONATE

BORAX
COCONUT OIL
PALM OIL

CASTOR OIL
COTTON SEED OIL
ROBIN OIL

ROSIN

ALL CHEMICALS USED BY
SOAP, PAPER, WOOLEN, AND COTTON MANUFACTURERS

New York Office
133, 135, 137 FRONT ST.

GALT MACHINE KNIFE WORKS

PETER HAY,

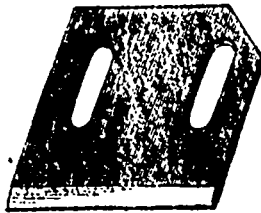


GALT, ONT.

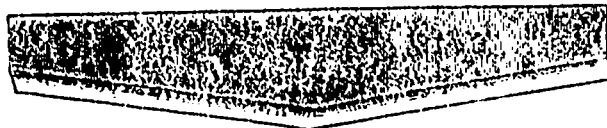
Manufacturer of every
description of...

KNIVES,

For Wood-Working, Paper Cutting and
Leather-Splitting
Machines



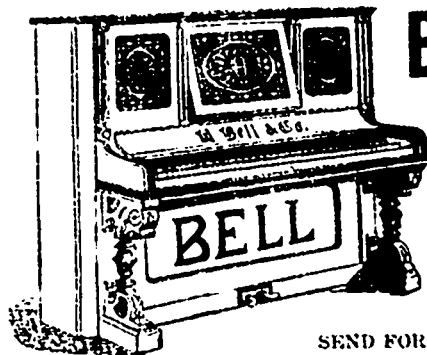
BARK KNIVES
PULP KNIVES
RAO KNIVES
Etc., Etc.



Thin Blades,
Saw Knives,
Paper Knives,
Etc., Etc.



SPECIAL KNIVES MADE TO ORDER
QUALITY GUARANTEED SEND FOR PRICE LIST



BELL -
HIGH-CLASS
INSTRUMENTS

Used and
Recommended by
Leading . . .
. . . Musicians

SEND FOR CATALOGUE.

The BELL ORGAN AND PIANO CO., Limited
GUELPH, . . . ONTARIO

IT LEADS THEM ALL

THE OLDEST THE LARGEST
THE SAFEST THE CHEAPEST

Canadian Life Insurance Company is

The CANADA LIFE ASSURANCE CO.

CAPITAL AND FUNDS OVER \$13,000,000

WRITE FOR PROSPECTUS

A. G. RAMSAY,
President.

GEO. A. & E. W. COX,
Managers for Toronto
and Eastern Ontario.

FIRSTBROOK BROS

Dovetail and Packing Boxes

Pop-Pins, Side Blocks and Cross Arms. Wood
Printers, Etc. Cigar Boxes. Shipping Cases.

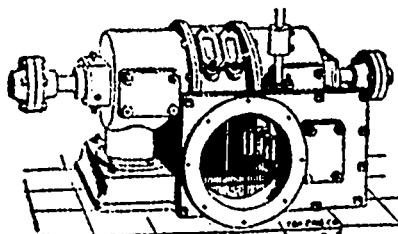
TORONTO, . . . ONTARIO
Write for Prices.

THE PARIS ELECTRO-PLATING CO.

Manufacturers of

Stove Trimmings, Organ and Piano
Trimmings, also all kinds of
Brass and Nickel Plating Done

Paris Station, . . . Ontario



Horizontal Type.

Water Wheel Governors, Machine Dressed Gearing, Pulleys, Shafting and Bearings.
Catalogue and Gear List mailed on application

"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

Correspondence Solicited

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

The Goldie & McCulloch Co., (Limited)

GALT, - - - ONTARIO

MANUFACTURERS OF

STEAM ENGINES, BOILERS, WATER WHEELS

Flouring and Saw Mill Machinery, Wood Working Machinery, Wool Machinery,
Fire and Burglar Proof Safes, Vault Doors, Wood Rim Split Pulleys,
Friction Pulleys, Friction Clutch Couplings, etc.

"Dumfries Foundry," Galt, Ontario, Canada.



The WEBBER Patent Straitway Valve

For Steam, Water or Gas.

EVERY VALVE TESTED.

The Kepp Engine Co. Limited

WALKERVILLE, ONT.

SOLE MANUFACTURERS FOR CANADA.

SEND FOR PRICE LIST



THE STANDARD DRAIN PIPE COMPANY, ST. JOHN'S, P.Q.

Manufacturers of Salt Glazed, Vitrified, Sewer Pipes, Double
Strength Railway, Culvert Pipes, Inverts, Vents, and
all kinds of Fire Clay Goods.

The Standard Drain Pipe Co. of St. John's, P.Q., Ltd. W.C. THORNTON
President.

REGISTERED... BRAND

The Sampson Brand IS A HIGH
GRADE OF

Portland Cement.

UNIFORM... FINELY GROUND... RELIABLE...

Quality equal to the best English and German Brands.
Manufactured by the

Owen Sound Portland Cement Co., LIMITED

SHALLOW LAKE, - - - ONTARIO.

The City of Toronto have contracted with us to supply
our Sampson Brand Portland Cement for the requirements
of the whole City for 1897 and 1898.

For Prices and further information address the Manager at Works,
Shallow Lake, Ont., or

JOHN LUCAS, 377 Spadina Ave., Toronto, Ont.

Correspondence Solicited.

HAMILTON COTTON CO.

HAMILTON, ONTARIO.

Yarn Manufacturers
Dyers and Bleachers

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

Twines, Lampwicks, Webbing's, Etc.

Dyeing of all colors, including GENUINE FAST BLACK.

- PHENIX -

Assurance Company,

OF LONDON, ENGLAND.

ESTABLISHED 1782. Agency Established in Canada, 1800.

PATERSON & SON,

General Agents for the Dominion,

35 St. Francois Xavier Street, Montreal.

LEWIS MOFFATT & CO., Agent at Toronto.

Canadian Colored Cotton Mills Company

1897—FALL—1897.

000

Cottonades, Tickings, Denims, Awnings, Shirtings,
Flannelettes, Gingham's, Zephyrs, Skirtings,
Dress Goods, Lawns, Crinkles, Cotton
Blankets, Angolas, Yarns, etc.

WHOLESALE TRADE ONLY SUPPLIED.

D. MORRICE, SONS & CO., AGENTS
MONTREAL and TORONTO.

USE THE McCASKILL STANDARD VARNISHES

SATISFACTION GUARANTEED

Manufactured by.....
McCASKILL, DOUGALL & CO
 Montreal, Que.

116 DUMINION KUNDBY SUPPLY CO.
 22-24 St. George Street, MONTREAL.

ALIZARINES
 —AND—
ANILINES

FAST COLORS A SPECIALTY.

Chemicals, Dyestuffs and Acids
 "LOGWOOD EXTRACTS."

**BELLHOUSE,
 DILLON & CO.**

47 Wellington Street East, Toronto
 30 St. Francois Xavier Street, Montreal



**The Ontario . . .
 Malleable Iron Co.**

(Limited)
Manufacturers of....
MALLEABLE IRON
 Casting Order for
 of

**AGRICULTURAL
 IMPLEMENTS**

....AND....
**Miscellaneous
 Purposes**

OSHAWA, - - ONT.

**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 Pow-
 ders and General Chemicals.
 Fertilizers, etc

LONDON .
 ONT.

BRISTOL'S PATENT
STEEL BELT LACING

—ONE HUNDRED SIZES—



Greatest Strength with Least Material

EASILY APPLIED and LOW IN PRICE

Saves Time, Saves Belts, Saves Money
 SAMPLES SENT FREE

THE **BRISTOL CO.**
 WATERBURY, CONN.

SMITH'S FALLS

**Malleable
 Iron
 Works**

00000

CAPACITY 2,000 TONS

00000

WILLIAM H. FROST

PROPRIETOR,

SMITH'S FALLS,
 ONTARIO, CANADA.

FOUNDRY FACINGS
 FOUNDRY SUPPLIES

STANDARD
 ALL SIZES.



Manufacturers of
FINE VARNISHES

Japanes—Asphaltum—Shellacs

Maple Leaf Brand Coach Varnishes

J. H. FARR & CO.

Armature Insulating Compound

Insulating Compound for Weather-Proof Wire, Tube
 Compound, Mica Paste, etc., etc.

6 to 16 MORSE STREET
 TORONTO



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

ENGINEERS, FOUNDERS, MACHINISTS
 BOILER MAKERS AND
 GENERAL CONTRACTORS

Montreal Branch...
 147 St. James
 Quebec Branch...
 264 St. Joseph