

# CANADIAN Contract Record

*A Weekly Journal of Public Works, Tenders,  
Advance Information and Municipal Progress*

This Paper Reaches Every Week the Town and City Clerks, Town and City Engineers, County Clerks and County Engineers, Purchasers of Municipal Debentures and Leading Contractors in All Lines Throughout Canada

VOL. 15.

TORONTO, MONTREAL AND WINNIPEG, AUGUST 3, 1904

No. 25.

## THE CANADIAN CONTRACT RECORD

**PUBLISHED EVERY WEDNESDAY**  
As an Intermediate Edition of the Canadian Architect and Builder.  
Subscription Price, \$2 per annum, payable in advance.

## THE C. H. MORTIMER PUBLISHING COMPANY

of Toronto, Limited,  
CONFEDERATION LIFE BUILDING, TORONTO.  
Telephone Main 2362.  
Branch Office:  
36 Alliance Building, Montreal,  
Telephone Main 2909.  
310 McIntyre Block, Winnipeg.  
21 Great St. Helen's, London, England.

Subscribers who may change their address should give prompt notice of same. In doing so give both old and new address. Notify the publishers of any irregularity in delivery of papers.

## Bridge Tenders

will be received by the undersigned on behalf of the County of Huron, at Wingham P.O., Ont., until 5 o'clock p.m. on **TUESDAY, the 16TH DAY OF AUGUST, 1904**, for the erection of the superstructure of three bridges in the said county.

First one known as Stanlake Bridge to be erected over the Aux Sauble River on the boundary between Hay and Stephen; to be one span 80 feet clear between the abutments; Pratt truss 17 feet high of 6 panels; roadway 16 feet wide; steel joists 2 feet centres; floor of rock elm or tamarac 3 inches thick; wheel guards 5 x 5 inches of pine or cedar; railing 4 feet high of 4 tiers of 1 1/2 inch gas pipe; strength required 125 lbs. to the square foot of floor surface and large safety factors; to be strong enough for concrete floor; about 13 feet from bed of stream to floor; gravel bottom and little water; completed on or before 25th day of October, 1904. About 3 1/2 miles from G.T. station at Exeter.

Second bridge to be erected over Black Creek about 80 rods from Stanlake Bridge; on span of 80 feet clear between abutments; Pratt truss 8 feet high of 3 panels; roadway 16 feet wide; steel joists 2 feet centres, floor of 3 inch rock elm or tamarac; wheel guards 5 x 5 inch of pine or cedar; railing 4 feet high of 3 tiers of 1 1/2 inch gas pipe; strength 125 lbs. per square foot of floor surface and large safety factors; to be strong enough for concrete floor. Completed on or before 25th day of October, 1904.

Third bridge to be erected over the Maitland river at Zealand, on boundary between East Wawanosh and Turnberry; 3 spans 93 feet each clear between supports; Pratt truss 18 feet of 6 panels, roadway 10 ft. wide; steel joists, 2 feet centres; floor of 3 inch rock elm or tamarac; wheel guards, 5 1/2 inches of pine or cedar; railing 4 feet high of 4 tiers of 1 1/2 inch gas pipe; strength required 125 lbs. per square foot of floor surface, and large safety factors; to be strong enough for concrete floor; about 18 feet from bed of stream to floor; gravel bottom and little water; about 3 miles from railway station at Wingham. Completed on or before 25th day of October, 1904.

Tenders must be accompanied by a marked cheque payable to the County Treasurer equal to 5 per cent. of amount of tender. Should any party whose tender is accepted fail to execute the necessary contract and bonds, and give satisfactory security for the due fulfilment of the contract, the deposit accompanying the tender will be forfeited to the County of Huron. The deposits of unsuccessful tenderers will be returned.

The lowest or any tender not necessarily accepted.

**JOHN ANSLEY,**  
County Commissioner for County Huron,  
Wingham, Ont., July 30th, 1904.

## Derrick For Sale

I have a first-class Derrick, suitable for handling stone or any other heavy material, which I would sell or rent. For particulars apply to  
**WALTER CLARK, Contractor,**  
Sarnia, Ont.

## DESIGNS FOR ERECTION OF MEMORIAL TABLET IN CITY HALL.

Competitive designs, addressed to the undersigned, will be received at the City Clerk's Office up to noon on

**Monday, August 22, 1904,**

for a suitable tablet, to be erected in the main corridor of the City Hall, in memory of the Toronto soldiers who lost their lives in South Africa. Competitors are at liberty to suggest the kind of material proposed to be used, such as Mosaic, Embellished Marble or Bronze Work, or a combination of materials, which must be of a permanent nature.  
The size of the space to be filled is about 15 feet by 6 feet.  
In submitting designs approximate estimates and description are to be furnished with same.  
The cost of the work to be limited to the sum of \$700.00.

The name of the competitor is not to be attached to the design, but in lieu thereof each design shall contain a motto, and a copy of such motto, together with the name of the competitor, shall be submitted in a separate envelope.  
A first prize of forty dollars and a second prize of ten dollars will be given for the first and second selected designs, which are to be submitted in the form of colored drawings, made to a scale of not less than one inch to the foot. Designs selected to become the property of the city.

Any further information may be obtained upon application to the City Clerk's Office, City Hall, Toronto.  
**F. S. SPENCE,**  
Chairman Committee on Property,  
Toronto, July 6th, 1904.

## SEWERS NIAGARA FALLS, CANADA

Sealed proposals, addressed to John Robinson, City Clerk, will be received by the Corporation of the City of Niagara Falls, Canada, until 12 o'clock noon, **MONDAY, AUGUST 15TH, 1904**, for the construction of Sections No. 11, 12, 13, and 14 of the Niagara Falls Sewerage System.

The works to be built under these sections are approximately as follows: About 3,000 feet of 24 and 30 inch sewers, about 17,000 feet of 12, 15 and 18 inch sewers, and about 8,000 feet of 9 and 10 inch sewers, including all rock excavation and appurtenances.

Proposals are to be made for each section separately and must be on the proposal sheets supplied. Each proposal must be accompanied by a certified check for six (6) per cent. of the amount of the bid, payable to the City Treasurer, said check to be returned to the person making the proposal unless he fail to execute the contract should it be awarded to him.

A Bond by a Surety Company will be required from the successful bidder for the faithful performance of the work.

Plans and specifications may be seen and form of proposal may be obtained at the office of the Engineer, Niagara Falls, on and after Wednesday, August 3rd, 1904.

The City reserves the right to reject any or all proposals.

**GEORGE HANAN, Mayor,**  
**JOHN H. JACKSON, Engineer.**  
Niagara Falls, Canada, July 15th, 1904.

## Wanted--Hand Fire Pump--Second-Hand

Give particulars, how long in use, capacity, how many men required to operate, and price. Apply Box 155, CONTRACT RECORD

## City of Moose Jaw, Assinibola

### Tenders for

## CITY HALL AND POWER HOUSE

Sealed Tenders will be received by the Secretary-Treasurer of the City of Moose Jaw until 6 p. m. on

**MONDAY, AUGUST 15TH, 1904**

for the construction of the following buildings:

(a.) A City Hall  
(b.) A Power House for Waterworks and Electric Lighting System.

Plans and Specifications for both buildings may be seen at the office of the Secretary-Treasurer, Moose Jaw, Assinibola, and at the office of Mr. E. H. Bissett, 339 Main Street, Winnipeg, also at office of Mr. W. C. Alpaugh, Architect, Fargo, North Dakota, Architect for City Hall, and of Mr. Willis Chipman, Engineer, Toronto, Ontario, Engineer for Waterworks System for (a) and (b) respectively.

No tenders necessarily accepted.  
**JOHN D. SIMPSON,**  
Secretary-Treasurer.

## To Sewer Contractors

### City of St. Catharines, Ont.

Sealed tenders will be received by the City Clerk, St. Catharines, Endorsed "Tender for Sewers, Sections I, II and III," separately or in bulk, until 8 o'clock p. m., on **MONDAY, THE 8TH DAY OF AUGUST, INST.**, for the construction of the following sewers, approximately:—

Section I	
Carlton St., Main Sewer, 6500 lineal ft.	
George St., " "	2500 "
Henry St., " "	2500 "
Section II	
Welland Ave., " "	4000 "
Church St., " "	3500 "
Court St., " "	1000 "
Geneva St., " "	1800 "
Niagara St., " "	900 "
Section III	
Salena St., " "	1200 "
King St., " "	570 "
William St., " "	1200 "
James St., " "	500 "
St. Paul St., " "	5000 "

Plans and specifications may be seen and forms of tender obtained at the office of R. E. Speakman, C.E., City Engineer, St. Catharines. The City of St. Catharines will provide all pipes and specials which will be delivered upon the streets upon which they are required.

A deposit in cash, or an accepted bank cheque for \$500.00 for each section must accompany each tender.

The lowest or any tender not necessarily accepted.

**JNO. S. McCLELLAND, City Clerk,**  
City Engineer's Office, St. Catharines,  
August 1st, 1904.

[FOR ADDITIONAL ADVERTISEMENTS FOR TENDERS SEE NEXT PAGE.]

## TOWN OF OSHAWA, ONT.

## TENDERS FOR DEBENTURES

Sealed tenders will be received by the Town Clerk, up to noon of the 20TH DAY OF AUGUST, 1904, for the purchase of the whole or part of \$30,000 of Waterworks and Sewer Debentures, payable in 40 equal annual instalments of Principal and Interest at 4% per annum, from 1st August, 1904. Said debentures bear date 1st August, 1904, and are payable at the office of the Treasurer, Oshawa. Any accrued interest to be paid by the purchaser.

The highest or any tender not necessarily accepted.

THOMAS MORRIS, Oshawa, Ont., Clerk.  
Dated 23rd July, 1904.

## CONTRACTS OPEN.

SHELBOURNE, N. S.—A new post office building is about to be erected.

ELORA, ONT.—New furnaces are to be installed in the Methodist church.

RAINY RIVER, ONT.—It is reported that another big saw mill is to be built.

CARLETON PLACE, ONT.—Arthur Brown purposes erecting two residences on Erie street south.

CHILLIWACK, B. C.—The Electric Light & Power Co. are about to build a power plant on Vedder Creek.

THOROLD, ONT.—Mrs. Lawie is having extensive improvements made to her house on Chappell street.

MERRITON, ONT.—The City Clerk invites tenders up to August 6 for the construction of a trunk sewer.

TILSONBURG, ONT.—J. A. Wilson purpose building a residence on Harvey street.—Charles Parker will erect a new store.

WALLACEBURG, ONT.—Tenders are invited up to 7 p. m., Friday, August 12th, for the erection of a brick school house.

REVELSTOKE, B. C.—The architect of the Lawrence Block will erect a block 100x50 feet wide on McKenzie avenue.

BORDEAUX, QUE.—The City has decided to borrow \$25,000 for the installation of a waterworks and sewerage system.

FINCH, ONT.—A vote was taken on August 1st by the electors of this town on a \$21,000 by-law to provide for new bridges.

KINCARDINE, ONT.—A by-law to raise \$4,500 to extend the electric light and waterworks systems was carried here last week.

MELFORD, N. W. T.—Turner McMichael & Co., are about to build an up-to-date 100 barrels flour mill and a 40,000 bushel elevator.

THAMESVILLE, ONT.—Tenders are invited up to 12 o'clock noon Monday, August 8th, for the construction of granolithic sidewalks.

VANCOUVER, B. C.—Phillip White, of Ymir, purposes erecting a first-class store building opposite the Opera House on Granville street.

PILOT MOUND, MAN.—James Gibbs is open to receive tenders for the erection of a brick addition to his livery stable, to be 110 by 30 feet.

CALGARY, N. W. T.—A syndicate of American capitalists has submitted to the C. P. R. a proposition to build a beet sugar factory, at a cost of \$800,000.

WINCHESTER, ONT.—Dunn & Fullerton, civil engineers, invites tenders up to 10 a.m. August 8 for the construction of the Berkeley Creek drain.

HALIFAX, N. S.—R. J. Wilson,

Secretary School Commissioners, has just taken tenders on installation of a hot water heating system in new school building on Kave street.

SARNIA, ONT.—Tenders are invited up to 5 p.m., of Wednesday, August 10th, for the construction of a vitrified paving block pavement on Christina street, between George and Cromwell streets.

STRATFORD, ONT.—W. J. Ireland, architect, has prepared plans for a church building to be built on corner of Waterloo and Dours streets, also for a residence for James Player.

FAIRVILLE, N. B.—Thomas H. Wilson, City Clerk, invites tenders for the erection of a school building up to August 13. Tenders for a gravel and cement foundation are now being submitted.

BRANTFORD, ONT.—Mr. Johnson, representing Chicago capitalists, is looking for a site on which to erect a large plough factory.—The Board of Works have decided to entirely repave Dalhousie street.

BERWICK, ONT.—The Baptist congregation invite tenders for the enlarging of the church, building of a modern baptistry, and the enlarging of the school room. They are prepared to expend \$1,200.

SASKATOON, N. W. T.—The Qu'Appelle, Long Lake & Sachatchewan Railway Co. are to replace the Saskatoon bridge with a steel structure to cost \$250,000. Other extensive improvements are proposed on the Prince Albert branch of the C. P. R.

WINDSOR, ONT.—American capitalists have made a proposal to purchase the property of Samuel Stover with the object of converting it into recreation grounds.—The Syndicate contemplates building an electric railway connecting Windsor and Oshamam.

HAMILTON, ONT.—J. F. Rastrick & Sons, architects, have completed plans for a 2-storey brick stable, 150x60 feet, to be built at the wood market.—\$15,000 has been offered by one of the city's wealthy men towards the proposed new Home for Incurables now under consideration.

LACOMBE, ALTA.—A meeting of the ratepayers lately passed a resolution in favor of a telephone line between Bentley and Lacombe. Steps are being taken towards organizing a company to build and operate the line.

LITTLE CURRENT, ONT.—A vote of the ratepayers is to be taken on a by-law to raise by debenture \$1,200 for the purpose of purchasing a site and building thereon a fire hall.—The Manitoulin Portland Cement Co. are about to build cement works as soon as they have acquired sufficient local capital.

ST. LOUIS DU MILE END, QUE.—The Dominion Government is asking for tenders by August 12th for erection of a post office building here. Plans at the Department of Public Works, Ottawa, and at offices of Perrault & Lesage, architects, Montreal.

GRANTHAM, ONT.—L. S. Bessie, Town Clerk, invites tenders up to August 6 for the excavation and reconstruction of the water course on the easterly side of the township line between Grantham and Niagara. Approximate quantity of earth to be removed, 1,587 cubic yards.

LONDON, ONT.—A. O. Graydon, City Engineer, invites tenders up to August 4th for a tile sewer on Lorne avenue.—The project for the building of the long promised hotel has just passed into the hands of a firm of Toronto brokers who are assured the necessary

funds to insure the success of the venture.

FORT WILLIAM, ONT.—Tenders are invited up to 5 p.m. of August 5th, for opening up, cleaning, grubbing and grading the following streets in the Vickers addition: Catharine and Marks from Arthur to Moodie streets; Ridge-way, Isabel and Moodie, from Vickers to Marks streets.

TORONTO JUNCTION, ONT.—The Dominion Government is asking for tenders up to Friday, August 5th, for installation of heating apparatus in the public building here. Plans on application to John Patterson, Clerk of Works.—W. A. Wark has had plans prepared for a brick residence on Pacific avenue, to cost \$2,800.—Tenders are invited up to Friday, August 5th, for the construction of a heating apparatus in the public building.

QUEBEC, QUE.—Building permits have been granted as follows: G. Perrin, repairs to building on Chenier street; M. Brunet, repairs to building on Hermine street; C. P. R. for construction of a building on St. Peter street; F. Carrel, repairs to building on Tresor street; J. Rodrigue, for repairs to building on Commission street; M. Duga, repairs to building on St. Francois street; Madame Emile Blouin, repairs to building on King street.

ST. CATHARINES, ONT.—The Treasurer has been authorized under by-laws passed by the Council to advertise the debentures for the Queenston street bridge, sewers and waterworks.—Tenders are invited up to 9 p.m. of August 6th, for the excavation and reconstruction of the water course on the easterly side of the township line between Grantham and Niagara.—W. B. Allan, architect, invites tenders up to August 10th for the brick work required in the erection of several buildings for the J. M. Ross & Sons Co.

WINNIPEG, MAN.—James Chisholm, architect, has just taken tenders on a frame residence on stone foundation on College avenue for J. H. Erb, hot water heating, plumbing, electric wiring, etc., cost \$3,500.—L. Jage, 642 Logan ave., wants tenders for building a house, store and stable.—The following works are about to be undertaken by the city: Asphalt pavement from Sargents street, from Yonge to Maryland street, cost \$9,448, and on Logan avenue, cost \$35,275; sewer on Poison avenue, from Main street to Red river, cost \$42,500.—John Beaton, residence corner of Elwood and River Ave., invites tenders for tin for five houses in Fort Rouge.—J. H. G. Russell, architect, invites tenders up to August 10th for a frame church for the Norwood Presbyterian congregation.

OTTAWA, ONT.—The Separate School Board have passed a by-law to borrow \$80,000 for new schools.—They have purchased sites for the St. Joseph school on Wilbrod street, the Guignis school, Our Lady's school and the school in St. Georges Ward.—R. S. Kelch, the Montreal electrical expert, is here in connection with proposed improvements to the plant of the Hull & Ottawa Power Co. It is proposed to install a new set of water wheels, a 2,000 horse power generator and a new switchboard.—Tenders are invited up to noon of August 10th for the construction of an asphalt pavement with stone setts in the track allowance on Elgin street.—Building permits have been granted as follows: John D. Robertson, brick veneered dwelling, south side of Fourth ave., cost \$1,600; Trefle Lavigne, double brick veneered dwelling, west side of Lett street, to cost \$1,300; Trustees of Second Congregational church; a frame Sunday school, to cost \$1,400.

August  
S  
CO  
M  
ARE  
OVER  
ALL  
CRET  
Do you w  
W. H. C.  
M  
MON  
been gra  
houses,  
Ryde str  
& Co., 2  
551 St. P  
Petreault  
at 220 Du  
Hemond  
Papineau  
Paton, or  
Richmond  
Gauthier  
three dwel  
lier street  
3-story b  
feet, on  
Fabrien C  
containin  
62-68 Cr  
Dominion  
175x125  
cost \$75  
road pur  
here a 15  
be compl  
crop.  
TORO  
Permane  
tenants a  
three mo  
tentation  
office bui  
has been  
to co-ope  
of Health  
upon a sa  
the city.  
ported th  
manently  
road are  
water cos  
struction  
\$50,000.  
but does  
commenc  
wanted a  
of a pair  
has been  
for the K  
side of Q  
bine ave  
bridge w  
sent one  
Turner's  
mates the  
at from  
adian K  
extension  
of the Oa  
negotiat  
ties for a  
building i

ONT.—Tenders of August 5th, grubbing and streets in the fine and Marks streets; Ridge- from Vickers to

ION, ONT.—ent is asking for August 5th, for apparatus in the plans on appli- son, Clerk of has had plans lence on Pacific Tenders are in- st 5th, for the apparatus in the

uilding permits ews: G. Perrin, Chenier street; ilding on Her- onstruction of a eet; F. Carrel, resor street; J. uilding on Com- iga', repairs to treet; Madame to building on

ONT.—The rized under by- cil to advertise ueenston street erworks.—Ten- p.m. of August 1 reconstruction ie easterly side een Grantham lian, architect, ust 10th for the e erection of J. M. Ross &

— James Chis- taken tenders stone founda- for J. H. Erb, nging, electric —L. Jage, 642 s for building a -The following ertaken by the from Sargent's aryland street, n avenue, cost 1 avenue, from , cost \$42,500. corner of Elis- ites tenders for Rouge.—J.H.G. tenders up to church for the agregation.

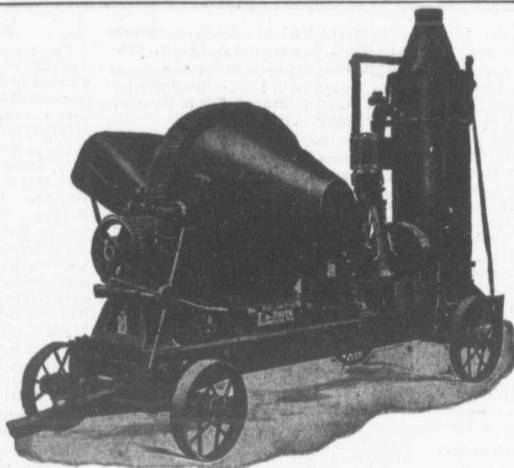
The Separate d a by-law to schools.—They for the St. od street, the school and the Ward.—R. S. nical expert, is proposed im- of the Hull & proposed 10 in- wheels, a 2,000 l a new s witch- ed up to noon nstruction of an ne setts in the street.—Build- granted as fol- brick veneered 10th ave., cost double brick side of Lett stees of Second frame Sunday

# SMITH CONCRETE MIXERS

ARE STANDARD ALL OVER CANADA FOR ALL KINDS OF CON- CRETE WORK. . . .

Do you wish our new Catalogue?

W. H. C. MUSSEN & CO. Montreal



Smith Concrete Mixer on truck with engine and boiler.

# SMITH CONCRETE MIXERS

ARE UNEQUALLED FOR THEIR LARGE CAPA- CITY, DURABILITY AND SIMPLICITY OF DESIGN

Do you wish our new Catalogue?

W. H. C. MUSSEN & CO. Montreal

MONTREAL, QUE.—Permits have been granted as follows: W. Clark, two houses, 2-stories high, 46x34 feet, on Ryde street, to cost \$3,500; A. C. Leslie & Co., 2-story warehouse 58x121 feet, at 551 St. Paul street, cost \$14,500; J. N. Petreault, two houses, 25x30 feet, 2-stories at 220 Dufferin street, cost \$2,200; George Hemond, 2-storey building 29x36 feet, on Papineau avenue, cost \$2,000; Hugh Paton, one-storey factory, 256x50 feet, on Richmond street, cost \$30,000; Philip Gauthier, 3-storey building containing three dwellings 25x36 feet, at 783 Cuvillier street, cost \$3,000; O. E. Massay, 3-story building of three dwellings 25x40 feet, on Huntley street, cost \$3,000; Fabrien Groulx, two buildings 3-stories, containing five dwellings 50x40 feet at 62-68 Craig street, to cost \$6,000; The Dominion Oil Cloth Co., 5-storey factory 175x125 feet, on Parthenais street, to cost \$75,000.—The Grand Trunk Rail- road purpose building in the harbor here a 1,500,000 bushel elevator. It is to be completed and ready for next season's crop.

TORONTO, ONT.—The Canada Permanent Loan Co. have given the tenants at 8 and 10 Queen street west three months' notice to vacate, the intention being to erect a seven storey office building on the site.—A committee has been appointed by the City Council to co-operate with the Provincial Board of Health with the object of deciding upon a satisfactory sewerage system for the city.—The City Engineer has reported that the only methods of per- manently preserving the Lake Shore road are by the construction of a break- water costing about \$85,000, or the con- struction of groynes costing about \$50,000. He favors the former method, but does not advise that the work be commenced this year. — Tenders are wanted at 20 Victoria street for erection of a pair of semi-detached houses.—It has been decided to build a new fire hall for the Kew Beach district on the north side of Queen street, just east of Wood- bine ave.—It is probable that a new bridge will be built to replace the present one leading from Hanlan's Point to Turner's baths. The City Engineer estimates the cost of a light steel structure at from \$15,000 to \$20,000.—The Cana- dian Kodak Co. are about to erect an extension to their factory.—The Council of the Ontario College of Pharmacy are negotiating with the University authori- ties for a site on which to erect a new building in the Queen's Park.

# Portland Cements

Highest Grade Canadian, German, English and Belgian

DRAIN PIPES and Connections of all kinds. PAVING BRICKS, ENAMELLED BRICKS, FIRE BRICKS, FIRE CLAY, Etc., Etc.

## F. HYDE & CO.,

31 Wellington Street - - - MONTREAL



Moulds and the Tile they make.

### STEEL MOULDS

Latest Improved Making 4' to 36"

### CONCRETE TILE

All kinds of ROAD MAKING MACHINERY and CONTRACTORS' SUPPLIES.

SAWYER & MASSEY CO., Limited Hamilton, Canada.

# Portland Cement...

HIGH GRADE GERMAN BRANDS FOR GRANOLITHIC AND ARTIFICIAL STONE SIDEWALKS.

Sewer Pipes, Best English Cements. Best Belgian Cements Culvert Pipes, &c. W. McNALLY & CO., Montreal

# THE Canadian Casualty and Boiler Insurance Co.

Head Office: N.E. Cor. Adelaide and Victoria Streets, TORONTO.

The Steam Boilers of Civic and Municipal Steam Plants, and Corporation and Public Works, Power and Electric Light Plants regularly inspected.

### A STEAM BOILER POLICY

in the Canadian Casualty and Boiler Insurance Company, includes the services of Consulting Engineers free of cost. Write for book to Steam Users.

ALEXANDER SUTHERLAND, D.D., President. H. N. BATH W. S. DINNICK, Vice-Presidents.

A. G. C. DINNICK, Managing Director A. M. WICKENS, Chief Engineer

**FIRES.**

Coffin factory of Girard & Godin, at Three Rivers, Que., totally destroyed; loss \$35,000.—Foundry of H. Dixon, at Collingwood, Ont., loss \$8,000. Mr. Dixon will rebuild.—Saw mill of J. M. Reaume and planing mill at Hugh Johnston, at Essex, Ont., almost totally destroyed.—Wholesale grocery warehouse of Eby, Blain & Co., corner of Scott and Front streets, Toronto, building and stock damaged to extent of \$50,000.—Building at Somerset, Man., owned by J. Decosse, and the Town Hall; loss \$40,000.—The temporary premises of Messrs. Warwick Bros. & Rutter, printers, were damaged by fire on Friday last to the extent of \$5,000.—The Morrissey Brewery, at Morrissey, B.C., was totally destroyed by fire on July 24th.

**CONTRACTS AWARDED.**

**WHITBY, ONT.**—Pavement walks: Guelph Paving Co., contractors.  
**FREDERICTON, N.B.**—Gymnasium building: Mr. Maxwell, builder.  
**ST. JOHN, N. B.**—Intercolonial Railway store house: Flood & Bates, contractors.  
**DIGBY, N. S.**—Repairs to house of Captain E. J. Snow: George Keen, successful contractor.  
**BADDECK, N. S.**—Heating and ventilating of new school: Charles D. Kirk, successful contractor.  
**TORONTO JUNCTION, ONT.**—Track grading for the Hamilton and Toronto Electric Railway: William Mahar, this place, contractor.  
**HANOVER, ONT.**—Concrete sidewalks: Forest City Paving Company, London, Ont., contractors.

**NEW HAMBURG, ONT.**—Concrete culvert: B. Eithler and A. Fraser, contractor, \$6.45 per cubic yard.

**VANCOUVER, B. C.**—Residence for J. T. Fife, of the firm of Fife & Hunter: Theo. Horrobin, contractor.

**NEW GLASGOW, N. S.**—Supply of water mains: Montreal Pipe Foundry Co., successful contractor, Thomas Cook, North Sydney, \$31 per ton.

**OTTAWA, ONT.**—A contract has been awarded for the erection of a two-storey addition to the new Princess annex. The work is to cost \$34,000.

**TORONTO, ONT.**—Six-storey warehouse at 54 Wellington street west for John W. Cown: F. H. Herbert, architect; John McLeod, of Kingston, contractor. Exterior will be stone and light buff pressed brick, with granite piers and capitals.

**QUEBEC, QUE.**—Building on St. Peter street for C. P. R.: W. J. Peters, contractors; repairs to building in Tresor street, for F. Carrel, Cote & Co., contractors; repairs to building on Commissioners street for J. Rodrigue; L. Morency, contractor; repairs to building on King street for Madame Blouin, Edward Buchard, contractor.

**WINNIPEG, MAN.**—Woodworking machinery for Canadian Northern car shops: J. L. Neilson & Co., contractor.—Departmental store for the T. Eaton Co., Toronto: Architect, J. C. Woodman; excavation, masonry and brick work, Thomson Bros., Toronto. The iron and steel work will be in charge of G. W. Thompson, and the carpentry work will be superintended by G. S. Hanna. Building will be 266x150 feet, 6-stories, of iron, steel, pressed brick, and Bedford stone.

**NEW COMPANIES.**

The Canadian Michigan Gold Mines, Limited, of Sault Ste Marie, have been granted an Ontario charter, with \$1,000,000 capitalization. The directors are William Cohen, Charles J. Brown, and J. A. McPhail, of Sault Ste Marie, Ont.

The Silver King Gold & Copper Company, Limited, capital \$2,000,000, divided into shares of \$1 each; head office, Toronto. Directors, Harvey Lawson Holmes, William Hiram Merrill and George Wellington Morris.

The Canadian Talking Scale Company, Limited, incorporated, capital \$100,000; head office, Toronto. Directors, Alexander McLean Macdonell, Robert Walker Ball and Thomas Herbert Barton.

The Canadian Cement Brick Company, Limited, incorporated, capital \$150,000; head office, Toronto. William Williamson, Charles Duff Scott and James Turner Scott, directors.

The Twin City Real Estate & Construction Company, Limited, Berlin, Ont., incorporated, capital \$100,000. Directors Simeon Brubacher, Joseph Bingemar, and James Henry Dudgeon.

The Fort William Contracting Company, Limited, incorporated, capital \$40,000. Charles William Jarvis, Alexander Snelgrove, and Colin Beaton.

The Dominion Cement Brick Company, Limited, Toronto, incorporated, capital \$50,000. Directors, William James McMurtry, John Edward Webb, Alfred Parker Ingrams, Charles Nieuhaus and John Draper Dobie.

**Speight & Van Nostrand**  
**LAND SURVEYORS, ETC.**

Room 405 Temple Building, TORONTO, CAN.  
 Field Notes of the late F. F. Passmore.

... NEW and RELAYING ...

# STEEL RAILS

45 lb. Relayers . . . . Immediate Delivery.

— ALSO —  
 LIGHT RAILS ALL WEIGHTS

## RANSOME

# CONCRETE MIXERS

WRITE FOR PRICES AND PARTICULARS.

## F. H. HOPKINS & CO.

EVERYTHING IN SUPPLIES. Successors to Late James Cooper. ....MONTREAL

**PORTLAND CEMENT, HYDRAULIC LIME, CHINA CLAY**  
**E. FREEMAN, 20 Bucklersbury, LONDON, ENG.**


 [Sole Agent for U.K. and Colonies for Oldest Continental Works]
 

Supplying to Contracts on the Principal Railways, Large Sewage and Sea Defence Works, etc., in England. Will be Pleased to Quote to the Wholesale Trade Only.

CORRESPONDENCE INVITED FOR CONTROL OF BRANDS

**A MODE**

The desirability of having a more permanent structure just as it is although well located in some places the more worthy an recent issue there are at small masses to form a permanent farm land. of a gorge, being built rock slopes above the level of the 100 feet water bonded into The dam crest being forms the crest long a rising 10 feet of the dam gorge. The ed and is portions of wide. The crest curve and is tical curve the Rankine thickness successive The unit is the use tively thin masonry, ly being large storage face for a mately, at blocks of The crest concrete is 3 feet. T and the the stream overflows of heavy the rock

**JOH**  
 M  
 CON  
 Dams,  
 Roc  
 20 Ki

J. A. L. W  
 Mem. C  
 Mem. I  
 Mem. A

**W.**  
**Gonsu**

Canadian  
 Manni  
 Montr

**A MODERATE-COST STONE DAM.**

The design of a masonry dam sometimes has to be adapted to the expenditure which can be afforded in view of the benefits to be derived from the works, just as is true of manufacturing plants, although when one looks at the monumental structures built, and justified, in some locations, he almost forgets that the more modest examples are also worthy an engineer's attention. In a recent issue of "Indian Engineering," there are reproduced the drawings for a small masonry dam built in New Zealand to form a reservoir with a capacity sufficient to irrigate about 10,000 acres of farm land. The dam closes the mouth of a gorge, known as the Idaburn gorge, being built on schist rock between steep rock slopes, and is about 50 feet high above the floor of the gorge, which at the level of the top of the dam is only about 100 feet wide. Disintegrated and loose rock was removed and the structure was bonded into the sound ledge.

The dam is of the gravity type, the crest being straight in plan. A spillway forms the central portion; its crest is 46 feet long and its sides have slopes of 1:1 rising 10 feet to the tops of the portions of the dam built into the sides of the gorge. The top of the spillway is rounded and is about 9 feet wide; the other portions of the dam are flat on top, 6 feet wide. The upstream face is battered 1 in 24, and the downstream face is a vertical curve, the cross-section resembling the Rankine type. The maximum thickness at the bottom is 42 feet, and the thicknesses at 10 foot intervals above are successively 27, 19, 13, 8 1/2 and 6 feet.

The unusual feature of the construction is the use of cement only in a comparatively thin outside and bottom shell of the masonry, the heart of the dam apparently being of dry rubble containing many large stones. The bottom and upstream face for a thickness of 2 to 4 feet approximately, and the toe are of roughly squared blocks of stone laid in cement mortar. The crest and the downstream face are of concrete having a minimum thickness of 2 feet. To protect the toe of the spillway and the adjacent rock in the bottom of the stream from erosion by the water overflowing from the reservoir, an apron of heavy stones was placed so as to cover the rock for a number of feet, and extend

up 12 or 15 feet on to the face of the dam.

For the purpose of scouring sedimentary deposits from the bottom of the reservoir, a 3x3-foot concrete conduit was built through the bottom of the dam under one end of the spillway. This conduit is controlled by a sluice gate at its upstream end operated by rods and chains led over pulleys to a screw-stand on top of the dam set several feet to one side of the gate because of the slope of the end wall of the spillway. For the regular supply water is drawn through a 24-inch cast-iron pipe laid through the opposite end of the dam and about 10 feet above the scour conduit. This pipe is encased in a mass of concrete.

**COST OF CONCRETE WALLS.**

The Central Railroad of New Jersey has built car shops at Elizabethport, N. J., and the most noticeable feature in the construction of these buildings was the liberal use of concrete, with but one exception all the walls being of that material. From an article in a recent issue of the Railroad Gazette on this plant we take the following items in regard to the proportions of the concrete and the cost per cubic yard:

The concrete use in this work was in some cases made with an aggregate of engine cinders, in general with the proportion of one part of cement, three of Edison sand and six of cinders. Gravel aggregate was also used, composed of gravel as it came from the bank, mixed with sand and unscreened. About one per cent was in cobble-stones two inches in diameter and over, the balance all sizes of gravel and sand to the smallest. When this was employed it was mixed with cement only, the amount of cement used being determined by experiment. In all cases the concrete was mixed very wet, so that no ramming was required. After being deposited it was pulled with a light wooden rammer to secure an even distribution. No attention was paid to the weather, concrete being mixed and deposited in any weather in which the men could work.

When the temperature dropped below 25 degrees all water used was brought nearly to the boiling point and salted; using one pound of salt for eighteen gallons of water. When the work stopped at night it was covered with canvas between the forms and sprinkled with salt. The forms for the work below ground were of rough hemlock; above ground, of yellow pine painted with soft soap, which gave a

smooth surface. No provision was made for expansion and contraction from temperature changes with cinder concrete. This is good practice, but in gravel concrete a joint should be made about once in 150 feet. Some of the concrete was mixed by hand, some of it in mixing machines. Wherever the walls were less than eighteen inches thick it was found that hand mixing was more economical, the labor cost for mixing and depositing the concrete being frequently as low as 50 cents per cubic yard. Where the machines were used the cost of mixing was reduced; but the cost for handling and depositing was so much increased as to overbalance it. In general, it may be said for building work that no machine mixer is economical that can not be transported as easily as a wheelbarrow. — National Builder.

The value of water meters in checking water waste in a city where the capacity of the works is reached and any unusual draft produces unpleasant consequences, was well indicated at the recent convention of the American Water Works Association by Mr. Jerry O'Shaughnessy, superintendent of the Columbus, Ohio, water department. The same facts are mentioned as follows in the last annual report of Mr. Charles E. Bolling, superintendent of the Richmond, Va., water department: "Had we not adopted the meter system, Richmond would undoubtedly have experienced a water famine this winter, due to the constant stoppage of the water-power pumps from ice and the excessive waste in fixtures to prevent bursting of pipes. For comparison, in 1893, during a long cold spell, the average pumpage per day was 17,000,000 gallons. Our reservoirs were nearly empty, and there was little or no pressure along some of our principal streets. During this long cold season the daily pumpage has been 14,000,000 gallons, at no time a scarcity of water in the reservoirs, and the pressure on the mains has been ten times greater than in 1893"

The Best Sand to withstand Fire is the Sand that is all Sand, namely, **Water Washed Sand.** It is the Best. It is the Cheapest. **SAND & DREDGING, Limited** Tel. M. 4507 John Street Dock, TORONTO

**PALMERSTON BOULEVARDE, Toronto**

is to be paved with the Bitulithic pavement. It has been laid in London, Chatham, Montreal and Glace Bay and contracts have been awarded to us for 16,000 sq. yds. in Walkerville, Ont., also for the Driveways around the Dominion Parliament Buildings in Ottawa; Write for particulars and estimates to

**The Warren Bituminous Paving Co., Limited** Head Office: 164 Bay Street, TORONTO.

**THE LAKEFIELD PORTLAND CEMENT CO., LIMITED**

Manufacturers and Sales Agents of **MONARCH BRAND PORTLAND CEMENT** One grade only—Straight Portland. Unexcelled for Strength, Color and Uniformity. **The Recognized Standard Canadian Brand** Used by the Dominion Government, large Corporations and leading Contractors throughout Canada Phone, wire or write for prices to **THE LAKEFIELD PORTLAND CEMENT CO. Limited,** Lakefield, Ont. Long distance phone No. 79.

**JOHNS. FIELDING**

Mem. Soc. C. E. West Penn. '87. **CONSULTING ENGINEER.** Dams, Mills, Bridges, Machinery. Room 41, National Trust Building, 20 King Street East, TORONTO, ONT. Telephone Main 3488.

J. A. L. WADDELL, Mem. Can. Soc. C. E. Mem. Inst. C. E. Mem. Am. Soc. C. E. IRA G. HEDRICK, Mem. Can. Soc. C. E. Mem. Inst. C. E. Mem. Am. Soc. C. E.

**Waddell & Hedrick** Consulting Bridge Engineers KANSAS CITY, MO.

Canadian Head Office: Manning Chambers, TORONTO, ONT. Montreal Office: 185 St. James Street.

it 3, 1904  
old Mines, have been with \$1,000,000, rs are Wil, and J. A. nt.  
pper Com- 000, divided ead office, y Lawson ferrill and  
e Company, d \$100,000; tors, Alex- bert Walker ton.  
k Company, d \$150,000; Williamson, nes Turner  
ite & Con- Berlin, Ont., oo. Direct- 1 Bingemar,  
cting Com- apital \$40-, Alexander  
k Company, ited, capital James Mc- Alfred Par- us and John  
ostrand TO.  
TORONTO, CAN. Passmore.  
S  
S  
TREAL  
CLAY  
s.  
rks, etc., in

**LEAD ROOFS**

For many classes of roof, lead is suitable says the Metal Industry, and in England and on the continent it has been used for a long time. Some beautiful examples of architectural designs in lead now exist in England, but in our own country the use of lead does not seem to have made such headway. A recent writer makes the following comments on the subject: He says that in a steep pitch roof, and which shows conspicuously against the sky, lead is hard'y suitable, unless the building is lofty and monumental. When the roof is flattish and not conspicuous, lead is undoubtedly the best material for the purpose. It is particularly suited for roofs of a highly decorated nature. Special devices are used to keep the lead from creeping. In order that the lead should resist the action of the atmosphere as much as possible it is best to make the sheet from scrap, which gives a metal better suited for this purpose. Pure lead soon becomes covered with a white coating, but lead which con-

tains a small amount of tin or antimony does not corrode as readily. Scrap lead is sure to contain considerable of these metals and so gives a better material than the pure metal.

Couture Bros., of St. Boniface, Man., are doubling the output of their brick yard, having purchased an equipment of "American" Martin brick machinery from J. L. Neilson & Company, of Winnipeg.

**M. BEATTY & SONS**  
WELLAND, ONT.

**Dredges, Ditchers, Derricks and Steam Shovels**  
of various styles and sizes to suit any work.

Submarine Rock Drilling Machinery, Hoisting Engines, Suspension Cableways, Horse-Power Hoisters, Gang Stone Saws, Centrifugal Pumps for Water, Sand and Gold Mining, and other Contractors' Plant.

**McGREGOR & McINTYRE, LIMITED**

67 to 91 Pearl Street, Toronto, Ont.

**STRUCTURAL IRON WORKS**

Fire Escapes, Library Racks, Sidewalk Door, Jail Cells, Iron Stairs, Railings, Etc. to.

WRITE FOR ESTIMATES.

**Surveying  
and  
Drawing  
Instruments***Best English Quality*

Manufactured by

**A. G. Thornton**  
Manchester, Eng.Surveyors' and  
Engineers' SuppliesWrite Us For Catalogue  
and Prices <<<<<<

Sole

**C. H. MORTIMER  
PUBLISHING CO.**

of Toronto, Limited

AGENTS FOR CANADA

Confederation Life Bldg., TORONTO  
Imperial Building, MONTREAL**LARGEST GLAZED  
VITRIFIED SEWER PIPE and FITTINGS**

HIGH-GRADE  
**FIRE BRICK & FIRE CLAY**  
WHOLESALE ONLY

Sewer Pipe Factories at

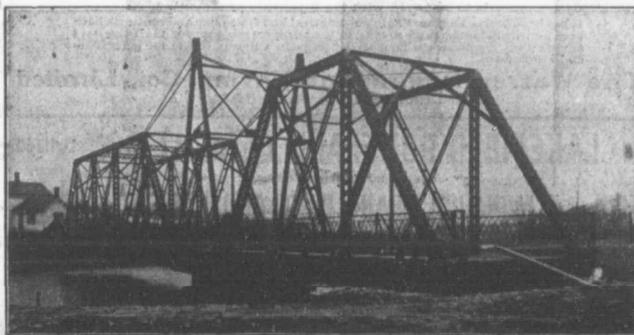
Mimico, Hamilton, St. Johns, Que., and New Glasgow, N. S.

Shipments will be made from nearest factory or freight equalized.  
Ask for Discounts and Prices. Address**TORONTO POTTERY CO., Toronto, Ont.**

Telephone North 1787

**Concrete Mixers and  
Concrete Mixing Machinery**

Send for Catalogues.

**E. F. Dartnell, Agent, Montreal****The Hamilton Bridge Works Company, Limited**  
HAMILTON, CANADA**GENERAL STEEL  
CONTRACTORS****HIGHWAY  
BRIDGES  
A SPECIALTY**Large Stock I BEAMS, CHANNELS  
ANGLES and PLATES always on hand

Established 1898.  
**The Hanover Portland Cement Co., Ltd**  
 Hanover, Ontario.  
 Manufacturers of the Celebrated  
**"SAUGEEN" Brand of PORTLAND CEMENT**  
 Prices on application.

**Paving Granite**

Granite Sets for Street Paving - CURBING cut to any shape ordered. - Fine Rich Colors for Building and Monumental Purposes. Quarries, St. Philippe d'Argenteuil, P.Q.

Address all communications to  
**JOS. BRUNET - COTE DES NEIGES, MONTREAL**

**TUNNEL CITY BRIDGE & IRON WORKS**

Steel Bridges and Structural Work.  
 Works: Port Huron, Mich., and Sarnia, Ont.

**HIGHWAY BRIDGES**

Roofs, Steel Buildings and Structural Iron Work of all Descriptions.

**ARTIFICIAL STONE PAVEMENTS**

**SIDEWALKS A SPECIALTY**  
 Will do well to consider our work and prices before letting contracts  
**The Silica Barytic Stone Company of Ontario, Limited.**

WALTER MILLS General Manager. Head Office: **INGERSOLL, ONT.**

**T. A. Morrison & Co.**

**PURVEYORS TO**  
 Municipal Corporations  
 Architects  
 Engineers  
 Mines  
 Railway and Building  
**CONTRACTORS**

ROAD MACHINERY  
 STONE CRUSHERS  
 STEAM ROAD ROLLERS  
 STEAM AND GASOLINE  
 FIRE ENGINES  
 BRICK AND STONE  
 CONCRETE STONE  
 ROOFING GRAVEL  
 ROCK DRILLS  
 BOILERS AND ENGINES  
 CONTRACTOR'S PLANT

204 St. James Street  
**MONTREAL**

**PORTLAND CEMENT**  
**SAMSON BRAND MAGNET BRAND**

MANUFACTURED BY  
**THE OWEN SOUND PORTLAND CEMENT COMPANY, Limited, Owen Sound, Ont.**  
 Works at **SHALLOW LAKE, ONT.** Write us for prices

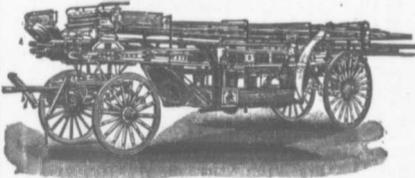
**THE CANADIAN PORTLAND CEMENT COMPANY, LIMITED**

Manufacture **"RATHBUN'S STAR" Brand**  
 The Leading Canadian Portland Cement.  
 Capacity of Works: 500,000 Barrels Per Year.

**The HATHBUN CO.** St. Lawrence Portland Cement Co.  
 310-312 Front Street West, TORONTO, ONT. 202-203 Board of Trade Building, MONTREAL.

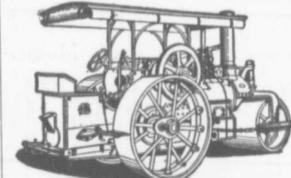
**LIGHTNESS, STRENGTH AND ECONOMY**

Seagrave Patent Trussed Ladders, Trussed Aerial, City Service and Village Hook and Ladder Trucks, Combination Hook and Ladder Trucks and Chemical Engines, Trussed Trucks and Hand Pumps, Combination Hose Wagons and Chemical Engines, Hose Wagons, Combination Hook and Ladder Trucks and Hose Wagons, Chemical Engines, Fire Extinguishers, Hose Reels, Patrol Wagons, Ambulances, Specialty Wagons, Patent Sleigh Runners, and other Modern Fire Fighting Tools.



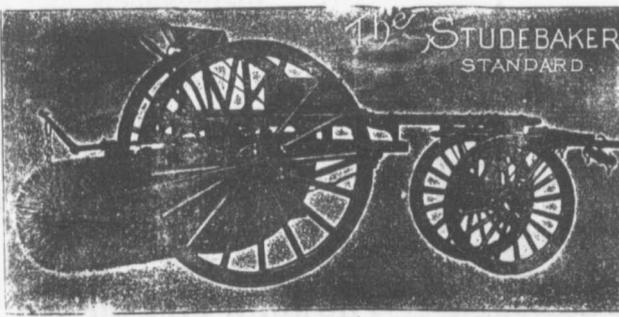
Prompt attention given all inquiries. All goods built to order.  
 Long Distance Phones 686 and 684 **W. E. SEAGRAVE, WALKERVILLE ONT.**

**"WATEROUS" ROAD MACHINERY AND FIRE APPARATUS**



**FIRE ENGINES** in five sizes, with a full line of fire-fighting goods  
 We Rebuild other makes of Fire Engines with our patent Boiler.

**BRANTFORD PITTS DOUBLE ENGINE STEAM ROAD ROLLER**  
 IN THREE SIZES—10, 12 and 15 ton.  
 CORRESPONDENCE SOLICITED.  
**HUGH CAMERON & CO., Selling Agents, 72 Queen St. West, Manning Chambers, TORONTO**



Stackpole Patent Improved **Street Sweeping Machine** Is the Standard of Perfection  
 Because no sweeper so effectually does the work for which it is designed as "The Studebaker." It Sweeps Clean. No sweeper is constructed with the same degree of care and mechanical precision. It Wears Well. "The Studebaker" has the smallest number of working parts, and has less gearing than any other sweeper made. It is free from all unnecessary complications. With reasonable care it does not get out of order. Send for complete descriptive catalogue.

**Studebaker Sprinkler**  
 (PATENT IMPROVED.)  
 Does not clog or get out of order. Greatest width of spray Can be graded from driver's seat to any volume. We also make an . . .  
**IMPROVED VERTICAL SPRAY**  
 for Pavements.  
**Geo. Heaman, Mnfr., London, Ont.**

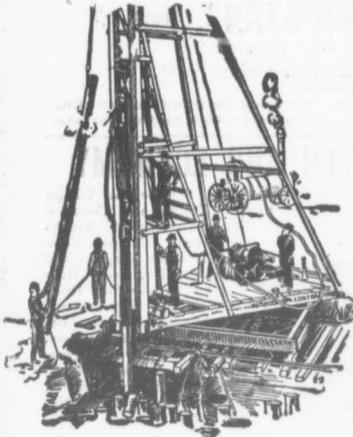
# The Canadian Bridge Co., Limited

WALKERVILLE, ONT.

MANUFACTURERS OF

## RAILWAY AND HIGHWAY BRIDGES

Locomotive Turn Tables,  
Roofs, Steel Buildings and  
Structural Iron Work of all descriptions



### PILE DRIVING

on land or water by Steam Pile Drivers or Drop Hammers.

**Portable Boilers  
Hoisting Engines  
Pumping Machinery**

**TO LET**

Bridge Building, Trestle Work, Wharves,  
Dams, Diving Submarine Work and  
General Contracting.

**WM. HOOD & SON**  
10 Richmond Sq. - MONTREAL

When Re-Babbitting your  
Machinery order

### MANGANESE ANTI-FRICTION METAL

Every pound guaranteed  
Syracuse Smelting Works, Montreal.

### Notice to Contractors.

*The Niagara Falls Machine &  
Foundry Co., Limited,*

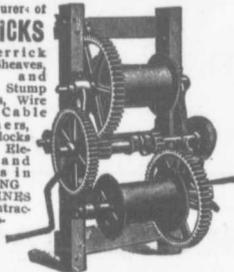
*Niagara Falls, Ont.,*

are making a speciality of improved

**HOISTING AND BUILDING ENGINES.**

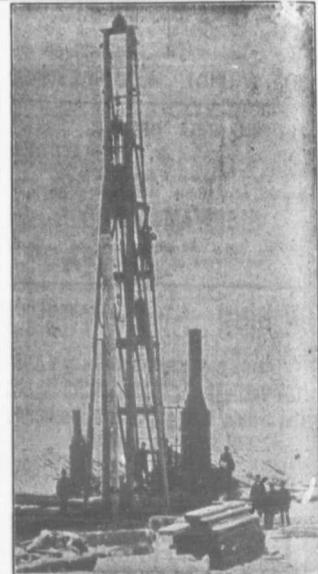
Write for Prices.

Manufacturer of  
**DERRICKS**  
and Derrick  
Irons, Sheaves,  
Hooks and  
Chains, Stump  
Pullers, Wire  
and Cable  
Stretchers,  
Tackle Blocks,  
Material Ele-  
vators, and  
Dealers in  
HOISTING  
ENGINES  
and Con-  
tractors' Sup-  
plies.



**National Hoist & Machine Co.**  
463 West 22nd Street, Chicago

If you want to reach Municipa-  
lities advertise in the  
**CONTRACT RECORD.**



### PILE DRIVING

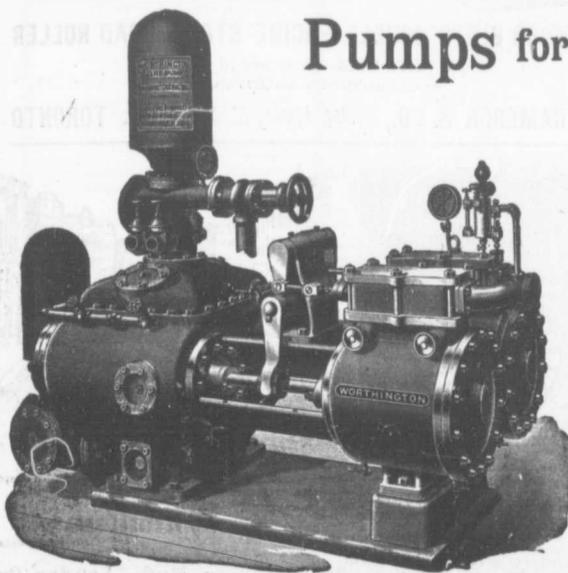
and Foundation Work.

By 5-ton Automatic Steam Pile Hammer,  
Water Jet or Drop Hammers, Dock Build-  
ing, Submarine Work and Dredging.

**BUILDING MOVER AND WRECKER**

General Contracting.

**JNO. E. RUSSELL, - Toronto**  
908 Queen St. E.—Phone M. 2007.



## Pumps for Waterworks

**Waterworks Systems  
Installed**

*Steam, Hydraulic, Electric,  
Gasoline, Air Lift and  
Automatic Rams.*

**Steam Boilers and  
Filters**

*Write for Prices and Particulars*

**The John McDougall**

CALEDONIAN IRON WORKS CO., LIMITED

MONTREAL, P. Q.

### DEBENTURES

Municipalities contemplating the issue of Debentures will find it to their advantage to communicate with

**G. A. STIMSON & CO.**

Investment Dealers  
24 and 26 King St. W. TORONTO

**THE GREY AND BRUCE PORTLAND CEMENT COMPANY**  
of Shallow Lake, Limited.

Manufacturers of  
**"HERCULES" PORTLAND CEMENT**

Very finely ground. Unsurpassed for Sidewalks, Floors and all work requiring the Highest Grade of Portland Cement. For prices address,

A. D. CREASOR, Sec'y-Treas.  
Head Office, Owen Sound, Ont

Please mention this paper when corresponding with advertisers.

## THE PHOENIX BRIDGE & IRON WORKS, LIMITED MONTREAL GENERAL STEEL CONTRACTORS

Large Stock I BEAMS, CHANNELS, ANGLES, TEES, ZEES and PLATES always on hand.

## Dominion Bridge Co., Ltd.

P. O. Address, MONTREAL, P. Q.  
Works at LACHINE LOCKS, P. Q.

## STEEL BRIDGES

For Railways and Highways  
Piers, Trestles, Water Towers  
Tanks, Buildings, Roofs, Girders,  
Beams and Columns

Toronto Agent: **GEO. E. EVANS,**  
38 Canada Life Bldg. TORONTO, ONT



The Highest Grade of American  
Portland Cement is "Iron Clad"

It is the most finely ground (97 per cent. passing No. 100 sieve) and most uniform, having a Ten Year's Record. Used on some of the most important work in Canada and U. S. A.

Prices on application to all dealers, or to

**The Glens Falls Portland Cement Co.,**  
224 Board of Trade, MONTREAL, P. Q.  
**W. A. COOK, Agent**

## PORTLAND CEMENT

**T. M. Morgan**

Manufactures the

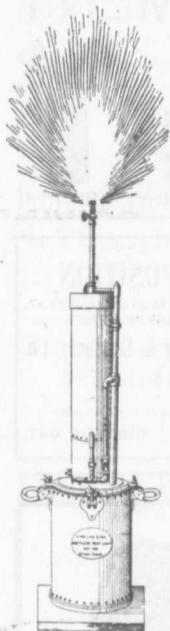


**CRESCENT & DIAMOND BRANDS**



AS GOOD AS THE BEST FOR ANY PURPOSE

Office and Works: Longue Point, MONTREAL, QUE.  
Long Distance Phone R. 436 King 2.



**THE BEST LIGHT**  
For Contractors,  
Railways, Mines,  
Steamboat Lines,  
Etc.

is the  
**HOLLAND PORTABLE LIGHT**

Cheaper to operate and cheaper to buy than any other gives 300 candle-power of light and costs less than 3 cents an hour to operate. Suitable for any cut-of-door work in any weather. Delivered at any railroad station in Canada for \$42.00.

**HOLLAND PORTABLE LIGHT WORKS**

17-19 Busby Lane,  
Montreal, P. Q.  
Phone Main 2399.  
P. O. Box No. 229



## "Lehigh" Portland Cement

Capacity 11,000 Barrels every Day in the Year.

For Sidewalks and all other work requiring the highest quality Portland Cement used by the U. S. Government and the largest contractors and users of Portland Cements in the United States.

Absolutely the most popular Cement in Canada on account of its merits  
For Prices, etc., address

**THORN CEMENT CO. - Buffalo, N. Y.**

## The Locomotive and Machine Company OF MONTREAL, LIMITED

NEW YORK OFFICE:  
25 BROAD STREET  
N. Y.

## Structural Steel

FOR ALL PURPOSES

WORKS:  
LONG POINT  
MONTREAL

Principal Office: Imperial Bank Building, MONTREAL

**SUPPLEMENTARY ESTIMATES.**

The supplementary estimates for the current fiscal year submitted to the House last week amount to \$11,839,276, which, added to the previous estimates brought down, give a total of \$74,774,608. The details are as follows:

**PUBLIC BUILDINGS.**

Barrie public building, rearrangement of post-office fittings and other improvements; also repairs, \$4,800; Brockville public building, alterations and additions in post-office, including new fittings, etc., \$4,500; Brantford public buildings, alterations and additions in post-office, including new fittings, etc., also renewal of plumbing throughout the building, \$4,700; Cornwall public building, repairs, renewals, etc., revote, \$1,500; Chatham public building, repairs, fittings, etc., \$700; Chatham public building, replacing furnaces and overhauling heating apparatus,

\$1,400; Chatham armory, \$20,000; Galt public building, alterations to post-office, fittings, etc., \$2,500; Hamilton Drill Hall, addition to, \$50,000; Kingston military buildings, barracks for Royal Canadian Field Artillery, revote, \$25,000; Kingston R.M.C. Drill hall, revote, \$6,000; Kingston Royal Military College, servants' quarters, \$8,000; London military buildings, new stores building, \$10,000; London military buildings, magazine, revote, \$3,000; London post-office, addition to building and improvements, \$20,000; North Bay, public building, \$3,000; Ottawa Parliament Building, improvements in main entrance hall, renewal of skylights and windows, etc., \$21,000; Ottawa Parliament Building, cleaning and renovating walls, ceilings, seats, etc., in Senate, and improvements in Commons, \$7,500; Ottawa, Government Printing Bureau, improvements in electric light installation, \$3,000; Ottawa, Government

Printing Bureau, to replace the present wooden roof by a fireproof roof and raise the walls for one additional storey, and additional stories on annex, \$70,000; Ottawa public buildings, improvement to western block, \$2,500; Ottawa Experimental Farm, bacteriological lavatory for the cattle quarantine branch of the department of agriculture, to complete buildings, \$600; Ottawa post-office, restoration of burned building and addition of two storeys, \$80,000; Ottawa public buildings, grounds, retaining wall, and fence around Lovers' Walk, \$10,000; Ottawa public buildings, paving in front of Parliament building, \$3,000; Ottawa public buildings, steel drawers and rollers, shelves, etc., (revote \$25,000,) \$50,000; Ottawa Parliament buildings, electric clocks connected with astronomical observatory, \$5,000; Ottawa public buildings, paving Wellington street, opposite building, \$28,000; Ottawa departmental

**THE CANADIAN INSPECTION COMPANY, LIMITED**

Main Office and Laboratories:  
46 St. James Street, MONTREAL  
SPECIALTIES: Inspection of RAILS and all material for BRIDGES, BUILDINGS, and other structures, cast iron pipe, wood and steel railroad cars.  
MANUFACTURE AND ERECTION.  
Expert examination and reports, chemical analyses and physical tests of all kinds.  
Cement Testing.

**FIREMEN'S LADDERS  
—AND—  
LADDER TRUCKS**

We make the lightest, quickest, strongest and cheapest. Every Town and Village needs them and can afford them. They will save 50 times their price in insurance premiums. Write for circulars and quotations.

**THE WAGGONER LADDER CO., Limited**  
LONDON - ONT.

**PORTLAND CEMENT**



- SEWER PIPES  
FIRE BRICKS  
FIRE CLAY  
**ALEX. BREMNER**



50 Bleury Street, MONTREAL



**A HUMILIATING POSITION**

To have a friend decline to go on your Bond, but why should any man go on a Bond.

**The United States Fidelity & Guaranty Co.**

Issues all kinds of Bonds.

**A. E. KIRKPATRICK, Manager for Canada.**  
6 COLBORNE STREET, - TORONTO, ONT.

THE STANDARD In ALL COUNTRIES  
Where Cement is Known.

**ALSEN**

"THE ABSOLUTELY SAFE CEMENT"  
48 BROADWAY, NEW YORK

Yearly Capacity Over Two Million Barrels

MUNICIPAL ENGINEERS, CONTRACTORS AND MATERIALS

**WILLIS CHIPMAN**

Hon. Grad. McGill University.  
M. Can. Soc. C. E. M. Am. Soc. C. E.  
Mem. Am. W. W. Ass'n.  
**WATERWORKS, SEWERAGE WORKS, GAS  
WORKS, ELECTRIC LIGHT AND  
POWER PLANTS**  
Reports, Surveys, Construction, Valuations  
**103 BAY STREET - TORONTO**

**R. E. SPEAKMAN, C.E.**

A. M. Inst. C. E., 1878.  
**CONSULTING ENGINEER**  
Waterworks, Sewerage and Sewage Disposal.  
Municipal Improvements.  
Granolithic Pavements.  
Electric Light Plants.  
Drainage and Irrigation of Land.  
Coal Handling Plant and Machinery.  
Plans, Specifications and Estimates.  
Construction and Valuations.  
**Canada Life Building - TORONTO**

**WM. H. BREITHAAPT, C.E.**

M. AM. SOC. C. E. M. CAN. SOC. C. E.  
**CONSULTING STRUCTURAL ENGINEER**  
Foundations, Bridges, Buildings.  
**BERLIN, ONT.**

**JAMES C. KENNEDY,**

MEM. CAN. SOC. C. E.  
**Civil and Hydraulic Engineer**  
Examinations, Reports, Plans, Estimates,  
Supervision of Construction of Water  
Powers, Waterworks, Sewerage, etc.  
P. O. Box 131, HAWKESBURY, ONT., and  
877 Dorchester Street, MONTREAL, QUE.

**ROSS & HOLGATE**

**Consulting and  
Supervising Engineers**  
Water Towers, Electric Light and Power  
Plants, Structural Work, Reports,  
Estimates, Arbitrations.  
**86 ST. FRANCOIS XAVIER ST. - MONTREAL**

**E. VON DER OSTEN & CO.,**

**Consulting Engineers**  
Industrial Plants, Waterworks,  
Lighting and Power Plants  
Sewerage and Sewage Disposal  
Garbage Reduction Plants  
Municipal Improvements  
**73 Queen Street West,  
307 Manning Chambers, TORONTO, ONT.**

Cable: Ackcoll

**J. J. COLLINS**

**B.A.S., C.E., M.E., E.E.**  
**Consulting Engineer**  
Ottawa, Ont., Canada

**EDWARD B. MERRILL**  
**ELECTRICAL & MECHANICAL  
ENGINEER**

**16 KING ST. W. TORONTO**

**RODERICK J. PARKE**

A.M. Can. Soc. C.E. A.M. Amer. Inst. E.E.  
**CONSULTING ELECTRICAL ENGINEER.**  
Electrical Light and Power.  
Steam Plants, Gas Power Plants, Water  
Power Plants  
Estimates, Tests, Reports, Valuations.  
**88-89 James Building - TORONTO, CAN.**  
Long Distance Telephones-Office and Residence  
Cable Address: R.P. Parke (27, 28, 29)

**John H. Jackson**

**CIVIL ENGINEER**  
WATER POWER, ELECTRIC RAIL-  
WAYS, STRUCTURAL STEEL.  
**Niagara Falls, Canada**  
Associated with Charles H. Mitchell,  
C. E., Hydraulic Engineer.

**CEMENT TESTING**

**Dr. J. T. Donald**  
Official Analyst to the Dominion Government.  
Established 1880.  
Physical and Chemical Tests on all kinds of  
CEMENTS and RAW MATERIALS. Prompt  
returns and lowest rates consistent with ac-  
curate work.  
**112 St. Francois Xavier Street, Montreal, Canada**

**CHARLES BRANDEIS**

A. M. Can. Soc. C. E., A. M. Amer. Inst. E.E.  
Mem. Amer. Electro-Chemical Soc., Etc.  
**CONSULTING ENGINEER**  
Estimates, Plans and Supervision of Hydraulic  
and Steam-Electric Light, Power and Railroad  
Plants. Specifications, Reports, Switchboard  
Designs, Complete Factory Installations, Elec-  
tric Equipment of Mines and Electro-Chemical  
Plants.  
Long Distance Telephone Main 32-6.  
Cable Address: Brandeis-Montreal.  
W. U. Code, Univ. Edition.  
**Liverpool & London  
& Globe Building. MONTREAL**

**RAILS**

For Contractors, Switches, Gir-  
ders, &c.  
New and Second Hand.  
**LOCOMOTIVES AND CARS**  
**John J. Gartshore**  
83 Front St. West,  
Opposite Queen's Hotel.) **TORONTO**

**THE ONTARIO ASPHALT BLOCK CO., L'T'D.**

MANUFACTURERS OF  
**ASPHALT BLOCK PAVING**  
Information and samples furnished municipalities on application.  
Main Office: WINDSOR, ONT. Works: WALKERVILLE, ONT.

**'IMPERIAL BRAND' PORTLAND CEMENT**

You will surely admit that the best is none too good, and if you are  
requiring Cement give "IMPERIAL BRAND" a trial. We guarantee  
our product and can ship a quantity at once. Write for prices, etc., to

**The Imperial Cement Company, Limited**  
OWEN SOUND, ONT.

**THE CANADIAN SEWER PIPE CO.**

MANUFACTURERS OF  
  
FOR  
**Sewers, Culverts and Water Pipes**  
**Inverts for Brick Sewers**  
WRITE FOR DISCOUNTS  
**ST. JOHNS, P.Q. HAMILTON, ONT. TORONTO, ONT.**

**The Greatest Concrete Mixer Yet Made**

WRITE FOR OUR NEW CATALOGUE F  
This is only one of 30 or more styles of machines that we make for different kinds of concrete work. 10 patents allowed, others pending

**DRAKE STANDARD MACHINE WORKS**

Factory, 79-11-13 Garden Street, Chicago.  
Office and Salesroom, 208-300-302 W. Jackson Bond Chicago, Ill., U. S. A.

Also Mortar and Asphalt Mixers

NUMBER OF PATENTS
33,664
672,934
675,036
675,036
675,037
698,182
698,910
699,667
699,668
701,312

buildings, new passenger elevator for western block, to complete, \$2,600; Peterboro public building, improvements in post-office, including fittings, \$4,000; Pembroke public building, alterations and repairs, \$2,000; Port Colborne public building, improvements, including fittings, \$1,200; Rideau Hall, renewals and repairs to make good damage caused by fire on April 3rd, 1904, and additional fire protection, \$15,000; Sandwich public building, \$10,000; St. Thomas public building, alterations, etc., \$1,000; St. Catharines drill hall, \$60,000; Simcoe public building, \$10,000. Toronto—military buildings, building for storage of wagons, etc., of Engineer Company, revote, \$3,000; additional postal station, revote, \$75,000; post-office, vault fittings, \$2,300; military building, new stores building, \$10,000; postal station C, quarters for caretaker, \$1,100; Customs House, government share of paving esplanade in front of Customs House property, \$3,315; drill hall, addition for riding, school, gun shed, armouries, etc., revote, \$20,000; barracks for permanent corps to replace property sold to the city, \$50,000; addition to examining ware house, \$20,000; Customs House, alterations and additions, \$25,000; post-office, alterations and additions, including elevator and fittings, balance due on contract, \$886; Windsor public building, improvements, \$2,000.

#### HARBORS AND RIVERS.

Amherstburg, improvements of channel and purchase of land, \$5,000; Barrie, landing pier and dredging, \$2,500; Bayfield harbor, repairs to north pier and dredging, \$3,200; Bayville, pile wharf, \$1,200; Beaverton, harbor improvements, \$12,000; Belle River, dredging entrance channel, etc., and renewing close pile protection work, \$6,500; Blanche River, improvement of, \$7,000; Blind River, dredging and completion of wharf, revote \$1,000, \$7,000; Bracebridge wharf, additional amount, \$1,200; Bronte, harbor improvements, revote \$5,000, \$7,000; Burleigh, wharf, \$1,200; Burlington channel piers, to complete works of renewal and repair, \$7,000; Cape Croker, landing pier, \$2,400; Cobourg harbor, to complete repairs to piers, \$3,000; Colborne harbor, repairs and renewals to wharf, to complete, \$2,500; Colchester, improvements, \$1,200; Cumberland, wharf, \$1,500; Dunnville, dredging Sunfish Creek, \$3,000; Echo Bay, wharf, \$5,000; Goderich harbor, improvements, revote \$6,400, \$15,000; Gore's Landing, wharf, to complete, \$1,000; Grand Bend, breakwater, pier, \$8,400; Grand River, dredging at mouth, etc., \$10,000; Haileybury wharf, Lake Temiskaming, addition, \$3,000; Hamilton harbor improvements, \$30,000; Hawkesbury, dredging, \$2,500; Hilton, wharf, repairs, \$600; Huntsville, wharf, approach, \$500; Indian River, cutting channel through the Devil's Elbow, \$3,000; Leamington, wharf, repairs to wharf, and erection of warehouse, \$4,200; Little Current, improvement of northern steamboat channel in Georgian Bay, additional amount, \$10,000; Mallorytown, landing pier and dredging, \$3,300; Matchedash Bay, improvements of channel between Fesserton and Waubashene, \$12,000; Meaford, harbor, new breakwater, additional amount, \$10,000; McCracken's Landing, wharf, repairs and improvements, \$900; Oliphant, wharf, \$1,000; Osawa, harbor, dredging and repairs to sheds, \$4,500; Ottawa, Government Wharf at foot of Rideau canal, \$5,000; Owen Sound, improvement of harbor, \$10,000; Petewawa, wharf, \$6,000; Pike Creek, improvements at mouth of creek, \$3,150; Port Dover, harbor improvements, revote,

\$10,000; Port Bruce, wharf, \$1,000; Port Burwell, harbor improvements, revote \$5,000, \$45,000; Port Elgin, dredging, \$2,000; Port Stanley, harbor improvements, \$25,000; Rondeau harbor, improvements, \$25,000; Saugeen River, improvements at mouth, \$10,000; Sault Ste. Marie, harbor improvements, compensation to W. H. Plummer in full and final settlement of all claims in connection with the transfer of his wharf property to the Crown, \$7,000; Severn River, improvements, \$2,000; Severn River, removal of obstruction at Macdonald's chute, \$3,400; Shrewsbury (Rondeau), pile wharf and dredging, \$5,000; Stokes Bay, wharf, \$7,500; Tenby Bay, St. Joseph's Island, wharf, \$1,500; Thessalon, breakwater, to complete, \$5,500; Thora Island, Lake Simcoe, harbor improvements, \$660; Thornbury, harbor, dredging, \$3,200; Treadwell, wharf, \$5,000; Whitby Harbor, dredging, \$10,000; Wiarton Harbor, dredging, \$9,325. On the Trent Canal \$300,000 is

to be expended, and on the Welland \$830,000, of which \$400,000 is for the Port Colborne elevator and \$250,000 for improvements at Port Colborne entrance, besides \$55,000 for the eastern breakwater, \$70,000 is included for the enlargement of the Galops Canal, and \$50,000 for the extension of the Rideau Canal; the new Archives building will cost \$50,000; the Winnipeg Immigration Buildings are to cost \$55,000; for new dredging plant the appropriation is \$256,000 to provide for a steamer to replace the Aberdeen, to be constructed as an ice-breaker for the River St. Lawrence, \$300,000.

### JOHN GALT, C.E. & M.E.

MEM. CAN. SOC. C.E. AND C.E.A., ETC.

#### CONSULTING ENGINEER and EXPERT

National Trust Building  
20 King Street East Toronto  
Specialties—Water Supply and Sewerage.

## JOSSON CEMENT .. Manufactured at NIEL ON RUPELL

Is the Highest Grade Artificial Portland Cement and the Best for High Class Work. Has been used largely for Government and Municipal Works.

TO BE HAD FROM ALL CANADIAN DEALERS

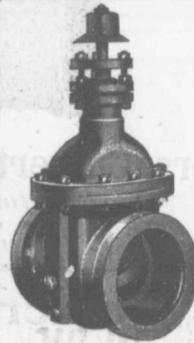
C. I. de Sola, Manager in Canada .. 180 St. James Street, MONTREAL

## BLAST .. SLAG A MOLTEN FURNACE ROCK ...

Cement Sidewalks, Road Foundation and Concrete Work

STRONG AS STONE  
CHEAP AS GRAVEL

Doolittle & Wilcox, Hamilton, Ont.



### KERR'S WATERWORKS VALVES

Are tested to 300 pounds hydraulic pressure before being stocked. They are of good substantial weight and design, and can be relied upon.

Write for catalogue, and we will tell you more about them.

THE KERR ENGINE CO., LIMITED  
Walkerville Ont.

## Portland Cement..

ALL GRADES.

Write or Telegraph to

BELLHOUSE, DILLON & CO.

201-203 Coristine Building, St. Nicholas Street, Montreal

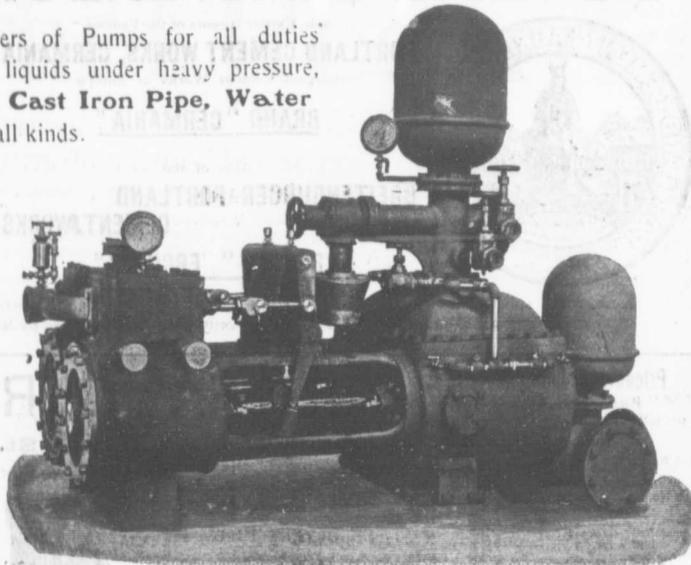
for prices—Large stock constantly on hand.



Largest Makers in the World.

# UNDERWRITERS' PUMPS

We are manufacturers of Pumps for all duties requiring the delivery of liquids under heavy pressure. **Valves, Hydrants, Cast Iron Pipe, Water Works Supplies** of all kinds.



**STEAM BOILERS**

—AND—

**RIVETED STEEL  
PLATE WORK**

of every description.

## CANADA FOUNDRY COMPANY, LIMITED

Head Office and Works: TORONTO, ONT.

District Offices: MONTREAL HALIFAX OTTAWA WINNIPEG VANCOUVER ROSSLAND

THOS. J. DRUMMOND, President.

JAMES T. McCALL, Secretary-Treasurer.

C. ED. GUDWILL, Vice-President.

### Montreal Pipe Foundry Co., Limited

Special Castings  
Flange Pipe  
Branches  
Hydrants  
Valves



#### CAST IRON PIPE

Valve Boxes and general Water Works Supplies

Works at: LACHINE, QUE.  
THREE RIVERS, QUE.  
LONDONDERRY, N. S.

Combined daily capacity: 175 Tons Pipes and Castings.

HEAD OFFICE CANADA LIFE BUILDING, MONTREAL

JAMES. THOMSON, President. JAMES. A. THOMSON, Secretary. JOHN GARTSHORE, Treasurer. J. G. ALLAN, Vice-President.

### THE GARTSHORE-THOMSON PIPE & FOUNDRY CO. LIMITED.

Manufacturers of:



#### CAST IRON PIPE

Flexible and Flange Pipe,  
Special Castings and all kinds of  
Waterworks Supplies

3 inches to 60 inches diameter.

For Water, Gas, Culvert and Sewer

HAMILTON, ONT

