

# CANADIAN CONTRACT RECORD

*A Weekly Journal of Engineering, 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, Leading Civil Engineers and Contractors throughout Canada,  
and Purchasers of Municipal Debentures.

VOL. 18.

TORONTO, MONTREAL — APRIL 17, 1907 — WINNIPEG, VANCOUVER

No. 7

## THE CANADIAN CONTRACT RECORD

PUBLISHED EVERY WEDNESDAY

As an intermediate Edition of the Canadian  
Architect and Builder.

THE C. H. MORTIMER PUBLISHING COMPANY  
of Toronto, Limited,

Subscription Price, \$5 per annum, payable  
in advance.

CONFEDERATION LIFE BUILDING, TORONTO  
Telephone Main 2562.

Branch Offices:

Room B34, Board of Trade Building, Montreal,  
Telephone Main 2509.

780-781 Union Bank Building, Winnipeg,  
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Davis Chambers, 615 Hastings St., Vancouver,  
B. C. Telephone 2246

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## PUBLISHERS' ANNOUNCEMENT.

To ensure publication of the CON-  
TRACT RECORD on time, advertisers  
are requested to strictly observe the  
following regulations:

Copy and cuts for change of adver-  
tisements must reach the publication  
office in Toronto not later than Sat-  
urday preceding the date of publica-  
tion. The copy should show the size  
of the cuts, if any, as sometimes  
there is delay in transmitting the lat-  
ter through the mails.

Transient advertisements for Tenders  
must reach the publication office  
by TEN O'CLOCK A. M. ON TUESDAY,  
but our patrons will confer a favor by  
forwarding advertisements earlier  
whenever possible.

## FOR SALE

Plane Gurley Transit (5 in. needle). Level and  
clamp attachment. Used three years. Good con-  
dition, \$115. F.O.B.

VICTOR HILL,  
St. Catharines, Ont.

## TENDERS FOR

## STEEL BRIDGES

Tenders addressed to the undersigned will be  
received up to noon APRIL 22ND, for the erection of  
one 22-ft. Span Steel Bridge over the Teeswater  
river, Concession 6 Greenock, also one 100-ft. span  
over the Teeswater river, Concession 14 Greenock,  
bridges to be of sufficient strength to carry concrete  
floors.

Also tenders per cubic yard for concrete work for  
abutments for said bridges.

Parties tendering for steel work to submit plans of  
same. Specifications for concrete work may be seen  
at Post Office, Pinkerton.

All tenders to be accompanied by an accepted  
cheque for the amount of 10 per cent. of tender.

J. J. DONNELLY,  
Clerk, Township of Greenock, Pinkerton, P.O.

## Tenders Wanted

Sealed tenders will be received up to Six o'clock,  
TUESDAY, APRIL 23RD, for all the trades re-  
quired in the erection of a Four Room Separate  
School Building in the town of Collingwood.  
Plans and specifications can be seen at the office of  
the undersigned.

The lowest or any tender not necessarily accepted.  
JOHN WILSON, Architect.  
Collingwood, April 2nd, 1907.

## Town of Oakville

## CONCRETE CEMENT SIDEWALKS

The Town Clerk will receive tenders, marked  
"Tenders for Sidewalks," up to 3 o'clock p.m. of  
MONDAY, APRIL 22ND, 1907, for the construction  
of Concrete Cement Sidewalks, with facings of 6 to  
12 inches as required, all within the Town of Oak-  
ville. Tenders to state price per square foot of  
Sidewalk.

Specifications may be seen at the office of the  
Town Clerk.

EDGAR BRAY,  
Town Clerk.

## CITY OF GUELPH

## TENDERS FOR SEWER PIPE

The City Clerk will receive Sealed Tenders marked  
"Tenders for Sewer Pipe" on behalf of the Corpora-  
tion of the City of Guelph, up to and inclusive of  
THURSDAY, 18TH APRIL, 1907, until 5 o'clock  
p.m., for the supply of Sewer Pipe and Specials for  
the season's work.

Specification and form of tender may be had on  
application to the City Engineer.

The lowest or any tender not necessarily accepted.  
JAMES G. LINDSAY, RICHARD MITCHELL,  
City Engineer. City Clerk.

## CALGARY, ALBERTA

## Architectural Competition for City Hall and Police Headquarters

Competitive plans and specifications are invited  
for City Hall and Police Headquarters to be erected  
for the City of Calgary.

The author of the accepted design will be awarded  
a premium of \$750.00 and the second \$500.00.

Drawings and plans will be received not later than  
12 o'clock noon on the 18TH DAY OF MAY NEXT,  
and are to be addressed to S. J. Clerks, Esq., Chair-  
man of Public Works Committee, and endorsed  
"Plans for City Hall."

This competition is open to Canadian architects  
only.

Conditions of competition stating requirements of  
building, and plan showing site, etc., may be had on  
application at the City Engineer's office, Calgary,  
Alberta.

R. E. SPEAKMAN,  
City Engineer.  
City Engineer's Office, Calgary, March 18th, 1907.

## City of Stratford

Sealed Tenders, addressed to H. Pauli, Chairman  
of Board of Works, and endorsed "Tenders for  
Concrete Walks," will be received up to 12 o'clock  
noon APRIL 22ND, for the construction of approxi-  
mately 70,000 square feet of concrete walk.

Specifications may be seen at the City Engineer's  
office, and forms of tender obtained on application.  
Each tender must be accompanied by a marked  
cheque payable to the City Treasurer for the amount  
called for in form of tender.

The lowest or any tender not necessarily accepted.

W. R. W. PARSONS,  
City Engineer.

## Tenders for Bridge

Sealed Tenders addressed to the Clerk of the  
Township of Artemesia, Flesherton, will be received  
up to 6 P.M. of WEDNESDAY, MAY 1ST, for  
following, to be built in the Village of Flesherton:

1.—A Cement-Concrete Arch Bridge, 20 foot span.  
2.—Some 30,000 sq. ft. of Cement-Concrete  
Sidewalks.

Sand and gravel can be obtained within one half  
mile of the work.

The lowest or any tender not necessarily accepted.  
Plans and specifications may be seen at Clerk's  
office.

R. McDOWALL, C.E., W. J. BELLAMY,  
Township Engineer. Township Clerk.

## TOWN OF BERLIN

## CEMENT WALKS

## NOTICE TO CONTRACTORS

Sealed tenders will be received by the undersigned  
up to noon TUESDAY, APRIL 30TH NEXT, for  
the construction of Cement-Concrete Walks in the  
Town of Berlin for the current year.

Amount of work done last year, 80,000 sq. ft.  
Specifications may be seen at the office of the  
Town Engineer.

The lowest tender not necessarily accepted.

JOHN A. LANG,  
Chairman Board of Works.

## To Builders and Contractors

Tenders will be received up to 12 o'clock noon of  
SATURDAY, THE 30TH INST., for making  
additions, etc., to Bartlett Avenue and Duffrin  
Street Schools, Section 12, York.

Plans and specifications may be seen at the office  
of the undersigned, to whom all tenders are to be  
delivered personally. A marked cheque equal to 5  
per cent. of the amount of tender is to accompany  
same, and in the event of any contractor or con-  
tractors failing to stand by his or their tenders, he or  
they shall forfeit the same to the School Board.

Unsuccessful contractors will have their cheques  
returned within two weeks after contracts have been  
signed, and the others will be returned with the first  
certificate.

MANCER WILLMOT, Architect,  
18 Toronto Street, Toronto,  
April 8th, 1907.

[FOR ADDITIONAL ADVERTISEMENTS FOR TENDERS SEE NEXT PAGE]

**TENDERS**

will be received by JOHN S. FIELDING, C.E., Consulting Engineer, 15 Toronto Street, Toronto, for Turbines of 126 h.p., also Generator, Switchboard, etc., for Power Development at Streetsville, Ont., up to TUESDAY, APRIL 30TH 1907.

**Tenders Wanted**

Tenders will be received up till 5 o'clock on WEDNESDAY, MAY 1ST, 1907, for the erection of a new Methodist Church in Parry Sound.

Tenders for the whole or any part of the work will be considered.

The lowest or any tender not necessarily accepted. Plans and specifications may be seen on application to

REV. T. DUNLOP, or J. S. RUSSELL,  
Parry Sound, Ont., Architect.  
Stratford, Ont.

**TOWNSHIP YORK, COUNTY YORK**

Sealed tenders to be received by the undersigned up to 7 o'clock p.m. on FRIDAY THE 3RD OF MAY NEXT for building two concrete culverts, each 50 feet in length and 3 1/2 feet span, and cutting large hills on Gerrard Street extension from Toronto East limit to Coxwell Avenue. The undersigned will meet contractors on site of work from 3 to 5 p.m. on Wednesday, 1st May next, to receive tenders and explain as to work. For further information apply to them.

No tender necessarily accepted.

PETER S. GIBSON & SONS,  
Engineers, Township of York,  
Willowdale, Co. York,  
on Yonge St. and Toronto & York Radial Ry.  
April 13th 1907.

**Tenders for Fire Hose**

Tenders addressed to the undersigned will be received by registered post only up to noon on

Wednesday, April 24th, 1907,

for furnishing 1,000 feet of 2-inch fire hose for the use of the Fire Department of the City of Toronto.

Specifications and forms of tenders, together with the conditions governing tenders, as prescribed by by-law, may be obtained upon application at the office of the Secretary of the Fire Department, Richmond Street Fire Hall, Toronto.

The lowest or any tender not necessarily accepted.

E. COATSWORTH (Mayor),  
Chairman Board of Control.

City Hall, Toronto,  
April 12, 1907.

**TOWN OF BATTLEFORD  
SASKATCHEWAN****Waterworks, Sewerage  
and Electric Lighting**

Sealed tenders will be received by the Secretary-Treasurer of the Town of Battleford until 5 p.m. FRIDAY, MAY 10TH, 1907, for the following works:

Contract "A"—All labor and materials necessary for constructing the Water Works Force Main, Distribution System and Intake.

Contract "B"—All labor and materials necessary for constructing a Sewer System.

Contract "C"—The supply and erection of a sixty thousand gallon Elevated Tank

Contract "D"—The supply and erection of a Water Works Pump.

Contract "E"—The supply and erection of one Return Tubular Boiler.

Contract "F"—The supply and installation of an Electric Lighting System.

Contract "G"—The supplying at Battleford of Cast Iron work for Manholes and Catch-basins.

Plans and specifications may be seen and forms of tender obtained at the office of the Secretary-Treasurer, Battleford, or at the offices of Galt & Smith, Chief Engineers, Toronto.

The town reserves the right to reject any or all tenders.

R. C. LAURIE, Esq.,  
GALT & SMITH, Secretary-Treasurer,  
Consulting Engineers, Battleford, Sask.,  
25 Jordan St., Toronto.

**WANTED**

By a thoroughly reliable and competent man, a position with an established architect, with a view to partnership if mutually satisfactory. Experienced in construction, superintendence, specifications, business management, etc. Competent to take entire charge of large and important work. Write to P.O. Box 3, Montreal.

**BRANDON WATERWORKS****Tenders for G. I. Pipe**

Sealed tenders addressed to Mr. G. R. Coldwell, Chairman of Water Works Committee and endorsed "Tender for Pipe," will be received by the undersigned until 4 o'clock p.m. of FRIDAY, MAY 17TH, 1907, for supplying about 85 tons of 6 and 8 inch C.I. Pipe and Specials. Specification and form of tender may be obtained on application to W. H. Shillinglaw, City Engineer, Brandon, Man.

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

HARRY BROWN,  
City Clerk.

Brandon, Man., April 4th, 1907.

**TOWN OF GALT****Tenders for Cement**

The Town Clerk will receive sealed tenders marked "Tenders for Cement," up to WEDNESDAY EVENING, MAY 1ST, 1907, for the supply of up to 2,000 barrels of cement more or less.

Specifications can be had on application. The lowest or any tender need not necessarily be accepted.

JOSEPH McCARTNEY,  
Town Clerk, Galt, Ont.

**CONTRACTS OPEN.**

LAKEFIELD, ONT.—The Grand Trunk Railway will build a 250 foot wharf here.

REGINA, SASK.—The Peterboro Cement Roofing Co. intend erecting a building here.

MINIOTO, MAN.—Plans have been completed for erecting of new school building here.

LACOMBE, ALTA.—R. Shilleto will erect a three-storey brick store building to cost \$23,500.

GUELPH, ONT.—Plans are being prepared for a proposed addition to St. Andrew's church.

MEDICINE HAT, ALTA.—E. H. Crandall, Calgary, will erect a number of dwellings in this town.

MUSKOKA, ONT.—The Canadian Pacific Railway will build a round house and other buildings here.

ELKHORN, SASK.—It is understood that the Canadian Bank of Commerce will erect a new building.

INGERSOLL, ONT.—N. J. Comiskey wants tenders up to April 20th for construction of cement sewer.

TRURO, N.S.—The Canadian Bank of Commerce will erect a three-storey brick and stone building.

BRECHIN, ONT.—M. H. Roach, Beaverton, wants tenders up to May 1st for erection of bank building.

HEWARD, SASK.—The Moose Mountain Lumber & Hardware Co. intend erecting a large warehouse.

LINDSAY, ONT.—J. M. Chalmers has purchased property on which to erect two detached brick dwellings.

SYDNEY MINES, N.S.—Extensive additions are to be made to the church of the Immaculate Conception.

TABER, ALTA.—It is reported that the Molsons bank have purchased a site on which to erect a new building.

SWANSEA, ONT.—The congregation of St. Olave's church are looking for a site for their new church building.

FLESHERTON, ONT.—The ratepayers have carried a by-law to construct cement sidewalks in this village at a cost of \$3,000.

KENORA, ONT.—A large packing house is to be erected in this town. G. H. Archibald, Winnipeg, is engineer.

BRANDON, MAN.—The Canadian Pacific Railway will erect a brick and concrete machine shop 200 feet in length.

HINTONBURG, ONT.—The Village Council have decided to make extensions to the waterworks system at a cost of \$10,000.

PARRY SOUND, ONT.—Rev. T. Dunlop will receive tenders up to May 1st for erection of a new Methodist church.

EDEEN MILLS, ONT.—L. C. Wideman, architect, wants tenders up to April 19th for decoration of church in this village.

DELHI, ONT.—R. Crysler, village clerk, wants tenders up to April 29th for construction of 14,000 square feet of cement walks.

FORT WILLIAM, ONT.—The Canadian Pacific Railway rebuild the elevator which was destroyed by fire a few months ago.

RENFREW, ONT.—W. E. Smallfield will receive tenders up to April 26th for supplying the town with 200 barrels of Portland cement.

ARCOLA, SASK.—The ratepayers have carried by-laws to raise \$60,000 for the waterworks system and \$12,000 to complete the Town Hall.

TORONTO JUNCTION, ONT.—The congregation of Annette street Methodist church will erect a new church building at a cost of \$20,000.

HOMEWOOD P. O., MAN.—A. Morrison wants tenders up to April 26th for erection of church. Plans at office of T. Kernighan, Carman, Man.

VICTORIA, B. C.—C. H. Cobb, C. Healy and associates of Seattle, Wash., will construct a 25 mile railroad on their timber holdings on Vancouver Island.

MONCTON, N. B.—J. Edington, City Engineer, will receive tenders up to April 25th for erection of brick fire station. Plans at City Engineer's office.

ST. CATHARINES, ONT.—It is reported that the Welland Vale Mfg. Co. have purchased 65 acres of land with the intention of erecting large factories thereon.

SELKIRK, MAN.—Wm. Fingland, architect, Winnipeg, is preparing plans for a new school building to be erected here to replace the building recently destroyed by fire.

MORRIS, MAN.—The Public School Board will ask the Town Council to submit a by-law to the ratepayers providing for erection of a new school building to cost \$10,000.

ELMIRA, ONT.—The Elmira Interior Hardwood Co. wants tenders for mason work on a three-storey brick factory. Plans may be seen up to April 20th at the Zilliox house.

WEST SELKILK, MAN.—A deputation from this town recently waited on the Dominion Government in reference to borrowing a sum of money for water works and sewerage system.

VANCOUVER, B. C.—The Hudson's Bay Co. are considering the erection of a large building.—A subscription is now being taken up for the erection of a new Y.M.C.A. building, cost \$50,000.

CALGARY, ALTA.—C. H. Mitchell, C.E., of Toronto, has been retained by the City Council to report on a project to bring water for a city supply from the mountains, a distance of about twenty miles.

BRAMPTON, ONT.—The Peel County Council will issue debentures for \$100,000 with which to improve the roads throughout the County.—A new station

# WHAT IS MIXING?

## SLIP! SLIDE! SLOSH!

That Isn't Mixing.

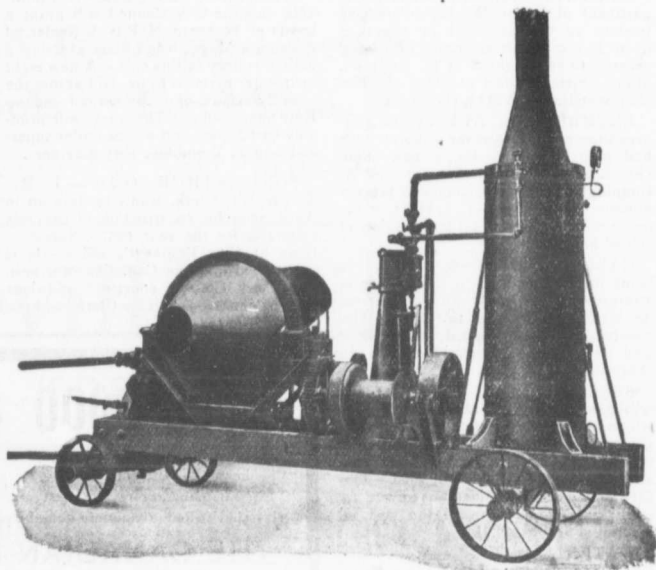
MATERIAL may have its position shifted inside a machine without its being thoroughly mixed.

The mass must be cut into, torn apart, disintegrated, turned over, lifted and poured.

That is what the blades inside the

# SMITH MIXER

do.



Spirally inclined, they cut away, lift, turn over and pour into a central tumbling chamber every particle of the material, many times per minute.

That's Mixing.

And all the while the load is contained in a nicely balanced drum, revolving on a central line of supporting rollers which travel on machined surfaces, and are situated at points where dirt and grit cannot get at them.

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is to be erected here by the Grand Trunk Railway, cost \$10,000.

**VIRDEN, MAN.**—A new company is being formed here to be known as the Virden Manufacturing Company with a capital of \$100,000. It is the intention of the company to commence at once the erection of their workshops.

**HILLSBORO, N. S.**—The Hillsboro Hardwood Flooring Co. will shortly commence the erection of a number of buildings.—A three-storey business block for J. L. Peck and a double store for J. Steeves will be erected here.

**QUEBEC, QUE.**—The Frontenac Gas Co. will install a new plant to cost \$1,000,000.—J. Gallagher, Waterworks Engineer, wants tenders up to April 29th for supply of cast iron pipe and specials, hydrants and valves. Specifications at office of Waterworks Engineer.

**OTTAWA, ONT.**—F. Gelin, Department of Public Works, will receive tenders up to April 29th for supply of from 15,000 to 20,000 barrels Portland cement, to be delivered at St. Andrews, Man. Specifications at office of Chief Engineer Public Works, this city.

**LETHBRIDGE, ALTA.**—The congregation of St. Augustine's church have had plans prepared for a new stone church building to cost \$25,000.—E. A. Cunningham and associates will erect a number of dwellings.—C. J. Hunt wants tenders up to March 1st for erection of school house.

**GALLETA, ONT.**—A company is being formed in which J. J. Ringrose is interested to develop a water power on the Mississippi river at this point. The company purpnses erecting a grist mill and will erect a transmission line to Arnprior.

**SASKATOON, SASK.**—W. Hopkins will erect a large building on property which he recently purchased.—The City Council have decided to purchase sites for two new fire halls, street sprinkler and two steel garbage waggons.—The City Council have decided not to vote an additional \$20,000 toward the cost of erecting a new hospital.

**WATERLOO, ONT.**—A. B. McBride, Town Clerk, wants tenders up to April 30th for construction of cement walks for this year.—The ratepayers will

vote on a by-law on May 14th providing for an issue of debentures for \$4,000 with which to purchase fire protection appliances and erect addition to fire hall.

**STRATHCONA, ALTA.**—Royal Hotel has been purchased by H. J. McGinnis of Iroquois, Ont., who will erect an addition to the building.—The City Secretary-Treasurer wants tenders up to April 23rd for construction of about 3,500 lineal feet of 14 foot concrete sidewalk. Plans at office of City Engineer.

**SYDNEY, C.B.**—The Sydney Cement Co. are installing new machinery and erecting a new mill.—A company is being formed to be known as Shaw & Mason, Limited, with a capital of \$100,000 to establish a brass foundry in this town. Plans for a three-storey building are now being prepared.

**SHERBROOKE, QUE.**—It is probable that the City Council will grant a bonus of \$5,000 to McRae & Keeler, of Attleboro, Mass., who intend erecting a branch factory in this city.—A new eight inch water main is to be laid across the river by means of a submerged pipe to East Sherbrooke. The work will probably cost \$6,000 and will be under supervision of T. Tremblay, City Engineer.

**PORT ARTHUR, ONT.**—J. McTeigue, City Clerk, wants tenders up to April 22nd for construction of concrete sidewalks for the year 1907. Specifications at City Engineer's office.—It is understood that the Canadian Northern Coal Dock Co. will construct additions to their docks.—The City Clerk has been

instructed to accept tenders up to April 22nd for construction of Court street bridge.

**PETERBORO, ONT.**—W. G. Morrow, Secretary Board of Education, wants tenders up to April 20th for heating of new Collegiate Institute, with option of using goods manufactured by Dominion Radiator Company, Gurney Foundry Company, Canada Radiator Company, or Taylor-Forbes Company. Separate tenders will also be received for electric wiring. Plans with Belcher & Heathcote, architects.—J. Carlyle will erect a number of dwellings this season.—The Colonial Weaving Co. will erect a brick or cement addition to their factory 100 x 60 feet.

**BRANTFORD, ONT.**—The following building permits have been issued: M. Cutcliffe, brick dwelling, cost \$4,700; P. H. Secord, brick dwelling, cost \$4,420; Cockshutt Securities Co., alterations to building, cost \$2,500; G. Foster & Sons, warehouse, Colborne street, cost \$25,000; F. B. Shaver, brick dwelling, cost \$2,500; Schultz Bros. Co., factory, cost \$2,500; Adams' Wagon Works Co., addition to factory, cost \$8,000; St. Andrews church, church building, cost \$8,000.—The Brantford Canning Company are negotiating with the City Council in reference to the establishment of a factory in this city. The estimated cost of buildings which the company propose to erect is \$20,000.

**LONDON, ONT.**—Building permits have been issued to N. Copp for a two-

## GET GOOD SEWER PIPE

Those requiring sewer pipe should see that they get the best. It is the cheapest in the end.

We manufacture the best and cheapest. It is steam pressed, salt glazed, vitrified, absolutely non absorbant and once laid will last forever.

### THE CANADIAN SEWER PIPE CO.

HAMILTON, ONT. TORONTO, ONT. ST. JOHNS, QUE.



# STAR

THE CANADIAN STANDARD

THE CANADIAN PORTLAND CEMENT CO., LIMITED

502 TEMPLE BUILDING,  
TORONTO

203 BOARD OF TRADE BUILDING  
MONTREAL

We manufacture and carry in stock at all times complete lines of

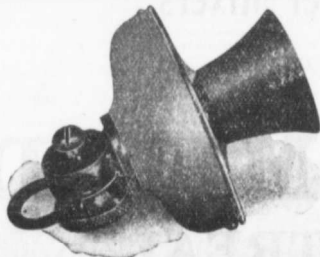
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Iron Pipe 1-8 in. to 12 in. carried in stock

Malleable Fittings Cast Iron Fittings

Lead Traps and Bends

Valves Tools Lead Pipe Pig Lead

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## Somerville Limited

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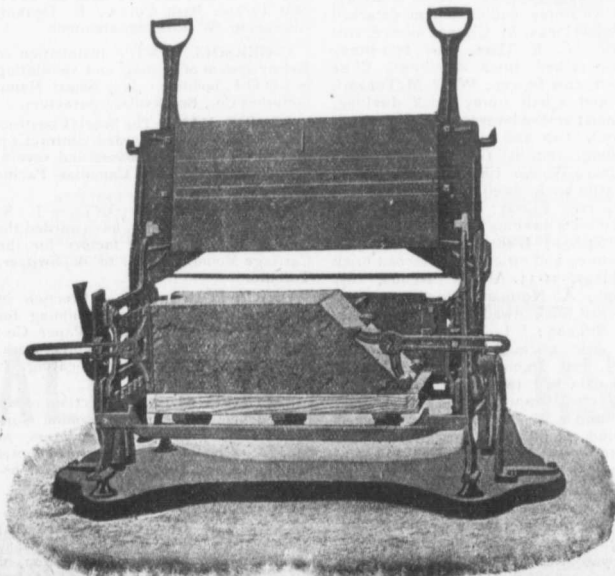
... Speaks For Itself ...

### THE MILES CONCRETE BUILDING BLOCK MACHINE

Makes 40 Different Sizes of Stone in Any Design, as well as the Specials, viz.:

Water Table, Gable, Circle, Angle, Chimney, Cornice, Pier Blocks, etc.

*Catalogues and Information Cheerfully Furnished.*



This Machine makes all blocks face down—"the only practical way"—allowing of a richer and finer facing, producing blocks that are perfect in appearance and impervious to moisture.

Let us tell you how the "Miles" will pay for itself over any other machine in three months' operation.

Manufactured and Sold by

**VINING BROS.**

**M'f'g. Co.**

Niagara Falls. - Can.

Sales Agent for Quebec:

T. A. CHADBURN, 242 St. James Street, MONTREAL.

storey brick residence and to T. Boyer for a two-storey brick residence.—W. G. Murray, architect, wants tenders up to April 27th for erection of school house in London Township.—The following building permits have been issued: G. Brown, two-storey brick residence, Wortley road south; C. H. Froggett, one and a half storey brick veneer residence, Riverview avenue; W. Bennetby, one and a half storey brick veneer residence, Lorne avenue; R. Dickinson, two two storey brick residences, Colborne street.—W. Thomas, 63 Byron avenue, wants tenders up to April 26th for erection of additions to Askin street Methodist church. Plans at above address.

**HAMILTON, ONT.**—The following building permits have been issued: S. S. Depew, four frame houses, Lotbridge street, cost \$4,400; S. McPhie, six frame houses, Barton street, cost \$3,000; A. W. Peene, two brick houses, Jackson street, cost \$3,800; T. Gilson, brick dwelling, West avenue, cost \$3,000; J. McNiel, brick house, Keekmer street, cost \$3,000; S. McPhie, brick store, King William street, cost \$10,000; Hamilton Automobile Co., brick garage, Charles street, cost \$7,000.—A new company is being organized by the Eastern Building Co. for the purpose of erecting a large number of moderate cost houses.—W. J. Thompson has purchased property on Aberdeen avenue on which to erect a large residence.—Additions are to be made to St. Thomas' church.—It is reported that the Berin Machine Works of Beloit, Wis., will establish a plant here.

**WINNIPEG, MAN.**—V. W. Horwood, architect, wants tenders up to April 22nd for erection of brick and cut stone apartment building.—The congregation of Holy Trinity church are considering the erection of a new building.—It is probable that the Winnipeg Canoe Club will erect a new club house.—The Jackson Building Co. will shortly erect ten large residences on Bannantyne and Walnut streets.—Mr. Gray is expected to arrive in Winnipeg shortly to arrange for construction of a large carriage factory on Fort Rouge. Operations are expected to start at once.—Architect Sherwood is preparing plans for a large addition to St. John's Cathedral. The same architect has completed plans for a two and a half storey residence for E. Elford to be erected on Cathedral avenue east.—Jewett & Tuttle, architects, are preparing plans for residences to be erected on Simcoe street for H. P. Wallace.—The Provincial Contracting Co. will erect 40 residences in this city at a cost of \$135,000.

**MONTREAL, QUE.**—Building permits have been issued as follows: C. J. Hodgson, residence, Pine avenue, cost \$13,000; A. Gauthier, five houses, Mitchell street, cost \$14,000; C. Larin & Co., tenement house, Lafontaine Park, cost \$5,000; O. Lamoureux, two houses, Metcalf avenue, cost \$4,500; C. J. Mercier, tenement house, Lafontaine Park, cost \$5,000; E. Demore, two houses, St. Denis street, cost \$8,000; Crescent Turkish Bath Co., building, 580 West Dorchester street, cost \$40,000.—The authorities at McGill University are having plans prepared for the rebuilding of the engineering building.—J. Jacob has purchased building at 311 Notre Dame street west on which it is understood an addition of two storeys will be made.—The City Hall Committee will ask the City Council for \$30,000 for repairs to the City Hall.—The same Committee are seeking an appropriation of \$75,000 for the erection of a civic library building.—The Canadian Pacific Railway has purchased large property in St. Louis de Merle End at a cost of 37,198.50. It was reported some time

ago that the company would erect a large station in this district, and this purchase would tend to strengthen this report.—L. O. David, City Clerk, wants tenders up to April 23rd for supply of synthetic broken stone and screenings.—The Salvation Army are endeavoring to raise \$100,000 with which to erect a new building at Point St. Charles.

**TORONTO, ONT.**—M. Willmor, architect, wants tenders up to April 20th for erection of additions to Bartlett avenue and Dufferin street schools in section 13, County of York. Plans at architect's office.—The City Council have decided to extend James street from Queen to Richmond streets.—W. F. McLean, M.P., is interested in a company who will erect a large building corner of Richmond and James streets.—The T. Eaton Co. have purchased the old Louisa street school.—Consumers Gas Co. are asking permission of the City Council to construct a bridge over the Don.—The Alexandria Yacht Club have asked the City Council for a lease on property at foot of Cherry street on which to erect a club house.—The Chairman Board of Control wants tenders up to April 24th for supply of 1,000 feet 2 inch fire hose. Specifications at office of Secretary of the Fire Department, Richmond street fire hall.—Curry, Sroatt & Rolph, architects, have prepared plans for alterations to St. Andrews church, corner of King and Simcoe streets.—The American Abel Co. are negotiating with the City Council for the purchase of Abel street with the intention of extending their premises.—Reports are current that Klaw & Erlanger, of New York, will erect a new theatre building to cost \$1,500,000 including site.—Bachrack & Co. have leased premises at 222 Yonge street, and F. H. Herbert, architect, is preparing plans for alterations to the building to cost \$12,000. The same architect is preparing plans for an addition of two stories and other improvements to F. C. Daniel's building at 10 Wellington street east to cost \$20,000.—Mr. Herbert is also preparing plans for the following residences: Chestnut Park Park Road, for W. S. Turnbull; St. George street, for W. J. G. Carroll, of Winnipeg, to cost \$20,000; Palmerston avenue, for G. Irving, cost \$7,000; Elm avenue, for R. G. M. Lean, and summer residence near Oakville for J. J. Follet.—The City Architect has issued the following building permits: Davier & Moore, pair two-storey and attic semi-detached brick dwellings, St. Clarens avenue, cost \$6,000; G. E. Case, pair two-storey semi-detached brick dwellings, Close avenue, cost \$5,000; W. O. McTaggart, two and a half storey brick dwelling, Palmerston Boulevard, cost \$6,000; J. Carroll, two and a half-storey brick dwelling, 162 St. George street, cost \$20,000; W. G. Chisholm, two-storey and attic brick dwelling, 200 Rusholme road, cost \$4,000; M. Stammers, two-storey brick dwelling, 21 Gwynne avenue, cost \$4,800; Bishop & Maybee, pair two-storey and attic semi-detached brick dwellings, 31-33 Albany avenue, cost \$6,500; A. Norman, two-storey semi-detached brick dwelling, Olive avenue, cost \$16,000; J. L. Hughes, two-storey and attic brick dwelling, Dundonald street, cost \$6,000; E. P. Atkinson, three-detached two-storey brick dwellings, 55-59 Howard avenue, cost \$7,500; H. J. and E. R. Reynolds, four detached two and a half storey brick dwellings, 161-167 Madison avenue, cost \$18,000; T. Ogilvie & Son, seven storey brick and concrete warehouse, Bay and Wellington streets, cost \$125,000; Business Systems, Limited, four storey brick warehouse, 50-52 Spadina avenue, cost \$43,000; E. Denovan, two and a half storey brick

dwelling, Glen road, cost \$7,500; G. Mansen, two storey and attic brick veneer and rough cast dwelling, Queen street east, cost \$6,000; R. C. Bustard, pair two storey and attic semi-detached brick dwellings, cost \$6,000; S. F. Duff, pair two storey and attic semi-detached brick dwellings, 103 105 Beatrice street, cost \$5,500; C. A. Scott, pair two and half storey brick dwellings, Howland avenue, cost \$4,000; T. P. Stewart, two and half storey brick dwelling, Warren road, cost \$3,000; D. Todd, three attached two storey brick veneer rough cast dwellings, Slem avenue, cost \$3,000; C. E. Proctor, pair two and half storey brick dwellings, Concord avenue, cost \$5,200; J. Hunter, pair two storey semi detached brick stores and dwellings, 1050-1052 Queen street west, cost \$5,000; J. G. Foster, pair two and half storey brick semi-detached dwellings, Bunswick avenue, cost \$5,600; G. E. Alexander, pair two and half storey semi-detached brick dwellings, Roxborough street west, cost \$5,600; T. Holmes, two storey and attic brick dwelling, Howland avenue, cost \$3,900; Dr. S. A. Weismiller, three pair two and half storey semi-detached brick dwellings, Fern avenue, cost \$14,000; H. J. O'Reilly, two pair two storey and attic semi-detached brick dwellings, 358 Crawford street, cost \$12,000; J. Morrison, two storey brick dwelling, 47 Isabella street, cost \$4,000; E. Irving, two and half storey brick dwelling, 600 Palmerston avenue, cost \$6,500; J. Sale, alterations to dwelling, 116 Boscath road, cost \$3,500; G. Bishop, pair two storey semi-detached brick dwellings, 770-772 Markham street, cost \$3,500.

#### CONTRACTS AWARDED.

**BELGRAVE, ONT.**—Erection of school building; W. Watson, contractor.

**RED DEER, ALTA.**—Completing the civic sewerage system; H. Reinhold, this town, contractor.

**SARNIA, ONT.**—Erection of church building for St. John's church congregation; J. Shenks, contractor.

**SHELburne, ONT.**—Erection of school building in township of Molder; G. B. Richardson, contractor.

**GUELPH, ONT.**—Erection of two brick dwellings for A. Hales; Masonry, J. J. Chekley; carpenter work, D. Young.

**MONTREAL, QUE.**—Erection of three storey stone and brick building for Crescent Turkish Bath Co.; C. E. Deakin, contractor. W. Rodden, architect.

**INGERSOLL, ONT.**—Installation of Kelsey system of heating and ventilating in I.O.O.F. building; Jas. Smart Manufacturing Co., Brockville, contractors.

**SOURIS, MAN.**—The Souris Construction Co. have been awarded contract for erection of 64 section houses and several large buildings for the Canadian Pacific Railway.

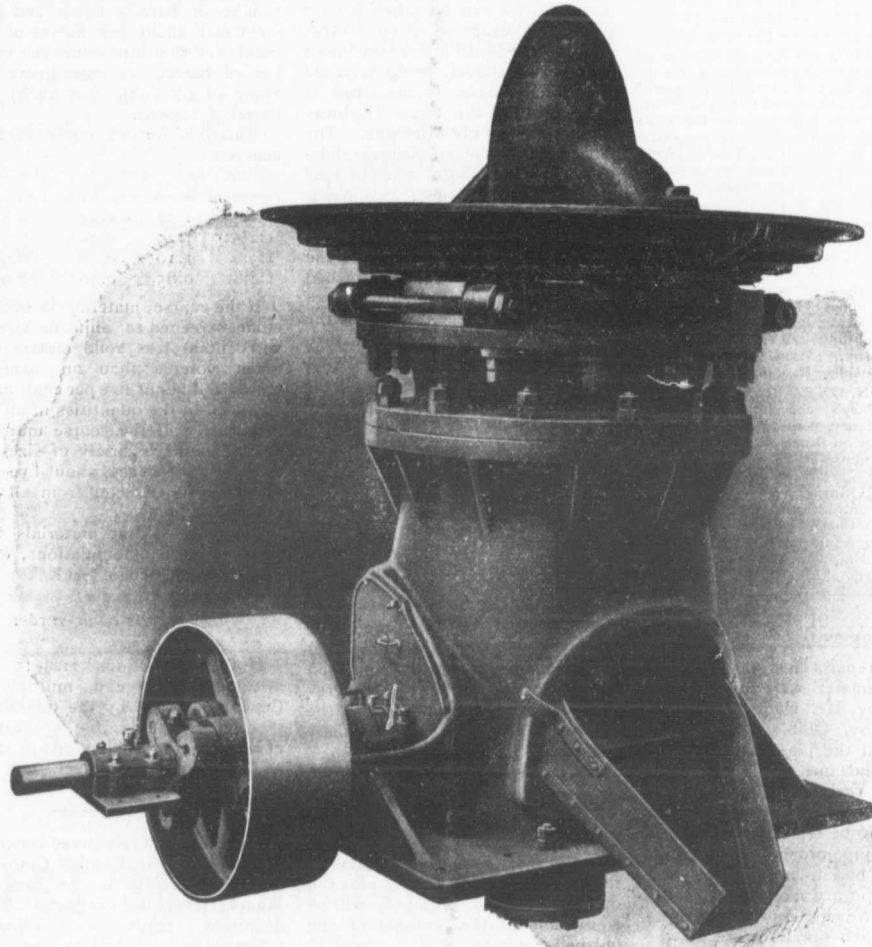
**NIAGARA FALLS, ONT.**—J. S. Fielding, C.E., Toronto, has awarded the contract for erection of factory for the Carriage Mountings Co., to A. Switzer, Toronto.

**UNION POINT, N.B.**—Erection of two-storey brick and stone building for Edward Partington Pulp & Paper Co.; Masonry, B. Mooney; carpenter work, S. Williams; plumbing and heating, J. Coughlan.

**LACOMBE, ALTA.**—Erection of 10 roomed school building; Brandon Construction Co., successful tenderers at \$40,366.—Erection of three-storey hotel building to cost \$100,000 for A. T. Inskip; G. G. Mobley, contractor.

**VICTORIA, B. C.**—Erection of Devonshire block on Governor street to cost \$40,000; Dinsdale & Malcolm, contractors. R. Wilson, architect.—Erection of

# Rock Crushing Plants



The demand for crushed rock is increasing rapidly for railroad ballast, Portland cement, fluxing purposes in smelting plants, "Good Roads," etc. Bulletin 1411 describes the machinery and appliances, including the Gates "K" gyratory breaker shown above, used in MODERN ROCK CRUSHING Plants. Included also are sectional plans of a large number of plants in active operation, from which intending purchasers may get valuable hints in preparing data for plans and specifications.

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two-storey and basement warehouse to cost \$25,000, for Brackman-Kerr Company; Luney Bros., this city, contractors.

WINNIPEG, MAN.—V. W. Horwood, architect, has let the following contracts for construction of the James Ryan apartment block on Carlton street: mason work, Brown & Baker; heating, F. H. Scholey Co.—Erection of two additional stories to W. Peck's warehouse: Carter-Halls-Aldinger Co., contractors.

TORONTO, ONT.—Furnishing of steam shovel for Temiskaming & Northern Ontario Railway; Canadian General Electric Co., contractors at \$8,500.—Furnishing of cast iron pipe for the city: Canada Foundry Co., this city, successful tenderers at following prices: 3-inch, \$3.90; 4-inch, \$5.40; 6-inch, \$7.20; 8-inch, \$10.75; 10-inch, \$14.95; 12-inch, \$19.65.

VANCOUVER, B. C.—Construction of roadway to city's dam on Seymour creek, a distance of seven miles: Boyd, Clendenen & Co., successful tenderers. Estimated cost \$40,000. The detailed tender of the contractors specifies the following figures: Clearing road, 96 cents per lineal foot; bridges, \$4 per foot; culverts, \$2 per foot; cribbing, 10 cents per foot; corduroy, 75 cents per foot. Other bidder, Ironsides, Rannie & Campbell.

LONDON, ONT.—Erection of rectory for St. Mary's church congregation: Moore & Henry, contractors.—Construction of sewer on Bruce street: C. Leathorne, contractor, at \$8,250 and 40 cents per foot for side drains.—Construction of sewer on Ottawa avenue: C. W. Dill, Toronto, contractor at \$10,454 and 65 cents per foot for side drains.—Construction of three septic tanks for city: A. E. Oakley, Berlin, Ont., successful tenderer at \$12,854.10.

#### A METHOD OF MAKING QUICK REPAIRS TO A STEAM MAIN.

Quick repairs to a steam main 6 in. in diameter were recently described by Mr. Henry Jostes, of Willoughby, Ohio. A crack developed in the pipe, running half-way around one of the flanges at its junction with the pipe. A piece of flanged cast-iron pipe about 6 ft. long had to be removed and a new length of pipe ordered. Meanwhile the plant had to be kept running and temporary repairs quickly made. The pipe was cut off by a 12-inch hack-saw as close to the crack as possible, and the end filed up smooth and square. It was then found to be just 2 in. short. Two blank flanges were then drilled to fit the flanges in the pipe line and three jackets were procured, two of them being placed between the extra flanges and the flange of the old pipe in the line, and the other was placed on the top of the two extra jackets and the cut-off end of the broken pipe was placed against the new jacket mentioned. A set of bolts long enough to pass through the remaining flange on the broken pipe and its companion flange in the line, also through the two new flanges and their jackets and through the fixed flange at the other end of the break in the steam line, was procured. The cut-off end of the broken pipe was carefully adjusted so as to be central with the extra flanges and jackets, and while held fast in that position the nuts were screwed up on the long bolts, and the broken piece of pipe

together with the extra flanges and jackets, clamped firmly together.—Engineering Record.

#### GRAVEL SCREENING DEVICE.

A gravel screening device with which gravel can be taken from a pit with a drag or scoop scraper and delivered into a wagon without the use of a shovel, being screened at the same time, is described in the report of the State Highway Commissioner of Michigan. The device consists of an inclined slide-way about 8 ft. high, made of four smooth wooden rails, two being placed so as to support the scraper and two acting as guide rails, one on each side. On each side of the scraper a small wheel is attached which runs on the outside rail of the slide-way. Near the top of the slide, the two inside rails turn sharply downward, thus allowing the scraper to pitch forward, pivoting on the supporting wheels, and allowing the gravel to slide off upon a slanting screen consisting of bars of  $\frac{1}{2}$  x 1-in. steel placed on edge and spaced as desired. The wagon is placed under the lower edge of the screen so that the gravel sliding from the latter will fall into the wagon box. The scraper is filled in the pit and drawn up the slide by horse power, the tawing rope being long enough to pass from the scraper through a pulley at the top of the slide and thence to the horse. The operations of filling and drawing the scraper up the slide do not mutually interfere.

#### QUANTITIES OF MATERIAL IN CONCRETE.

Inexperienced contractors frequently lose money by assuming that the quantity of gravel plus the quantity of sand required, will be equivalent to the volume of the finished concrete—that is, that  $7\frac{1}{2}$  cubic yards of concrete in the proportions of 1:2½:5 will require 2½ cubic yards of sand and 5 cubic yards of gravel. This is absolutely wrong, says the American Conduit Company of New York, since the grains of sand fill, to a certain extent, the spaces between the larger pebbles.

The following table is made up from Fuller's rule and represents fair averages for all classes of material. The first figure in each proportion represents the unit, or one barrel (four bags), of packed Portland cement; the second figure the number of barrels loose sand (3.8 cubic feet each) per barrel of cement, and the third figure the number of barrels of loose gravel or stone (of 3.8 cubic feet each) per barrel of cement.

Materials for one cubic yard of concrete:

Proportions.	Cement, Barrels.	Sand, Cubic Yards.	Gravel or Stone, Cubic Yards.
1:2:4	1.57	0.44	0.88
1:2½:5	1.29	0.45	0.91
1:3:6	1.10	0.46	0.93
1:4:8	0.85	0.48	0.96

If the coarse material is broken stone screened to uniform size it will contain less solid matter in a given volume than an average stone, and about five per cent. must be added to the quantities of all the materials. If the coarse material contains a large variety of sizes so as to be quite dense, about five per cent. may be deducted from all the quantities.

Example.—What materials will be required for six foundations, each containing 163 cubic feet?

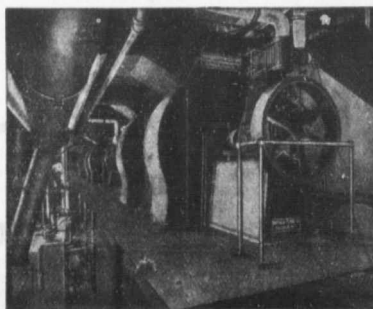
$$6 \times 163$$

$$= 36.2 \text{ cubic yards.}$$

27

If the proportions 1:2½:5 are selected, it is found, multiplying the total volume by the quantities given in the table, that 47 barrels of cement, 16½ cubic yards of sand and 33 yards of gravel, will be required.

A definition of reinforced concrete was given by the English Court of Appeals recently in the case of Mouchel versus Coignet. This definition reads as follows: "Strengthened concrete may be shortly described as concrete strengthened by the incorporation in it of rods, so arranged as to supply the power of resisting tension strains, a power possessed in a marked degree by iron, but hardly at all by concrete, which, on the other hand, possesses great power to resist compression strain."



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**THE OUTLOOK.**

Lumber continues high and British Columbia shingles are quoted at an advance of 30 cents per thousand.

The cement outlook is promising. The demand will undoubtedly be the heaviest in years and it is expected that prices will advance in consequence. The change in the tariff on cement bags will have a tendency to decrease to some extent the amount of cement imported. This will also tend to keep prices firm.

Judging from present indications no serious labor troubles will occur in Toronto. The builders' laborers, structural iron workers and sheet metal workers are the only unions making demands at present. A strike is not improbable in the case of the metal workers and the structural iron workers, who are demanding an increase of from 30 cents to 40 cents per hour, are negotiating with the Builders' Exchange at the present time. The builders' laborers have not as yet communicated with the master builders but it is thought they will demand a standard wage of 30 cents per hour instead of the present scale of 25 and 30 cents per hour. The carpenters and

bricklayers are under contract until May, 1908, so that no interruption from this quarter will occur.

In Toronto there is a scarcity in certain sizes of iron pipe at present, especially in 3/4 inch. 1 inch black pipe is quoted at \$5.12 and 1 inch galvanized, at \$6.77. Prices of lead pipe continues firm and are quoted at 5% off list price of seven cents per pound.

**NEW COMPANIES.**

Mutual Steamship Company, Limited, Port Colborne, Ont., incorporated, capital \$99,000. Incorporators, J. W. Norcross, D. McGillivray, F. K. Brown, L. Kinnear and others, all of Port Colborne.

Imperial Breweries, Limited, Montreal, incorporated, capital \$400,000. Incorporators, E. M. Lanctot, E. Belanger, F. X. Roy, O. Hebert and J. J. B. Charbonneau, all of Montreal.

Canada Carbog Company, Limited, Montreal, incorporated to carry on business of iron masters, steel makers and converters, smelters, engineers, etc., capital \$1,000,000. Incorporators, P. J. Hubert, E. Lefrancois, L. E. Martel, C. Gosse and L. O. Boisvert, all of Montreal.

Richelieu Foundry Company, Limited, Sorel, Que., incorporated, capital \$20,000. Incorporators, J. F. Moreault, J. B. Theophile, A. Lavallee, all of Sorel, and others.

Drummondville Power & Cement Company, Limited, Drummondville, Que., incorporated, capital \$100,000. Incorporators, H. Vassal, A. Mercure, N. Pelletier, E. Lafontaine and N. Garceau, all of Drummondville.

Application will be made at the next session of the New Brunswick Government to incorporate the Carelton Woodworking Company, Limited. The applicants will be J. W. Fisher, C. M. McCormac, G. A.

It seems peculiar that the "PRIESTMAN'S" EXCAVATOR AND DREDGER

is not used in Canada as it is all over the rest of the world, inasmuch as it will do more work with less labor than any Excavator at present in use and the first cost is less than most. For particulars write G. P. WALLINGTON, Canadian Representative, 11 Front Street East Toronto

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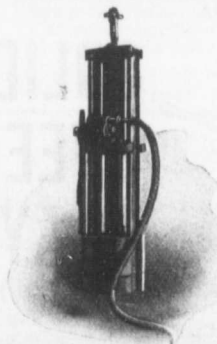
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Nevero and J. C. Hartlev, all of Woodstock, N. B., and F. H. Olmstead of Grafton, N. B.

Niagara Iron & Steel Company, Limited, Toronto, Ont., incorporated, capital \$1,000,000. Incorporators Hon. J. A. Kerr, J. A. Paterson, W. Davidson, G. F. McFarland and A. McKenzie, all of Toronto.

Industrial Development Company, of Canada, Limited, Hull, Que., incorporated, capital \$750,000. Incorporators, F. deChalot, E. P. Gingras, A. Gobeil, N. Desjardins, all of Ottawa, and others.

Northern Ontario Lumber & Milling Company, Limited, London, Ont., incorporated, capital \$250,000. Directors, C. E. Mills, C. G. Garnett, W. C. Fitzgerald, H. B. Elliot and J. W. Hobbs.

Nipissing Planing Mills, Limited, North Bay, Ont., incorporated, capital \$40,000. Directors, R. Wallace, J. Small, J. Sewell, G. W. McFarlane and W. Milne.

Stirling Telephone Company, Limited, Stirling, Ont., incorporated, capital \$10,000. Directors, C. Thompson, H. H. Alger, W. S. Martin and others.

#### PERSONAL.

Mr. A. Campbell, C. E., of Brantford, has been appointed engineer of the Township of Dumfries.

Mr. C. A. McLean has been ap-

pointed Town Treasurer of Brockville, Ont., in place of Mr. George McLean, deceased.

Mr. Barclay Parsons, consulting engineer, New York, has been engaged by the City of Toronto to look into the question of a viaduct and new Union station for the city.

#### STREET CLEANING.

The cost of cleaning paved streets in Rochester, N. Y., is given as follows in a recent report of the city engineer, Mr. E. A. Fisher: Asphalt streets were cleaned an average of 103 times during the season at an average cost of \$35.94 per 1,000 sq. yd.; brick streets required cleaning an average of 31 times at an average cost of \$19.15 per 1,000 sq. yd.; Medina block stone streets were cleaned an average of 117 times at an average cost of \$63.07 per 1,000 sq. yd.; common Medina stone streets were cleaned an average of 35 times at an average cost of \$29 per 1,000 sq. yd.; macadam streets were cleaned an average of 13 times at a cost of about \$15.40 per 1,000 sq. yd. All the work was done by day labor. The additional cost of sprinkling, which was done under contract, averaged 1.86 cents per square yard for the season, figured on a basis of 27 ft. as the average width of street sprinkled.

J. B. Cote, Town Secretary-Treasurer, of St. Boniface, Man., wants application for position of superintendent and foreman of public works.

The City Engineer of Winnipeg has issued a report to the Board of Control, showing the cost of local improvements ordered and not completed to be \$1,785,436.

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Is the Highest Grade Artificial Portland Cement and the Best for High  
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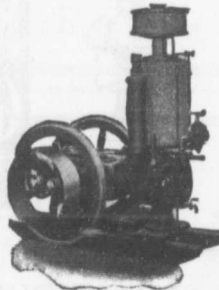
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The council of one of our large cities has recently placed itself in a rather peculiar position in connection with the awarding of a contract for supplying the municipality with certain articles.

The case which we have in mind is one where the contract was awarded to an outside firm, whose tender was considerably lower than any of the tenders submitted by local firms. After the contract had been awarded, a deputation representing the local union of workmen who manufacture the articles required waited on the city council and convinced them that the work was needed by the local workmen, whereupon the council immediately cancelled the contract. No intimation was given outside tenderers that they would not receive as much consideration as local firms, in view of which the action taken by the council was most unjust. In the case mentioned, the outside firm probably went to the expense of sending a representative to the city in order to go over the specifications, at any rate a certain amount of time was necessary to prepare their tender, and for this they get nothing. That they were quite capable of furnishing the articles was testified to by an official of the city who inspected their works.

In nearly all advertisements calling for tenders the advertisers protect themselves by inserting a clause to the effect that the lowest or any tender may not necessarily be accepted, but it is very seldom that a clause is inserted stating that

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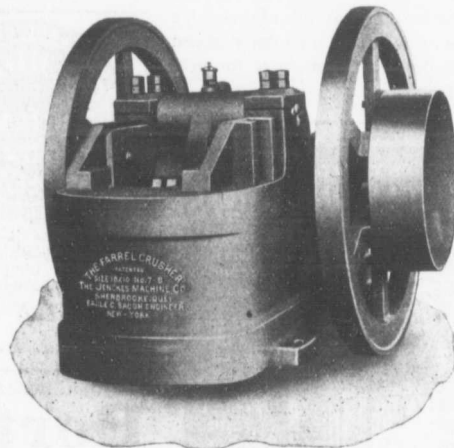
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Plants:  
Sherbrooke, Que.  
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other than local tenders will not be considered.

Of course the judgment of the council awarding the contract has to be exercised in cases of this kind, for instances may arise where it would be advantageous to the citizens to award a contract to an outside firm, while under different conditions it would be decidedly the reverse.

A strange coincidence occurred last week in another city, where the council on opening tenders for construction of a certain work found the figures very high. The two tenders received were both from local firms, and some of the aldermen lost no time in expressing their belief that the tenders had been "fixed," with the result that the council will endeavor to have outside firms tender on the work.

If municipalities wish to confine the furnishing of their supplies and construction of their works to local firms, it would be only doing justice to manufacturers of municipal supplies that the notices and advertisements should state that only local tenders would be considered, thereby avoiding injustice to outside tenderers and time and trouble for all concerned.

Since writing the above, the Council who awarded the contract to the local firm at the higher price have reconsidered their decision and have decided to advertise for new tenders.

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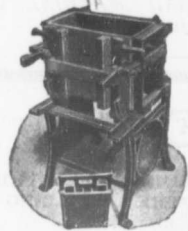
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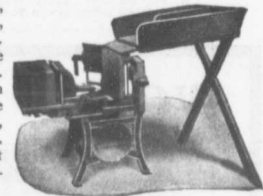
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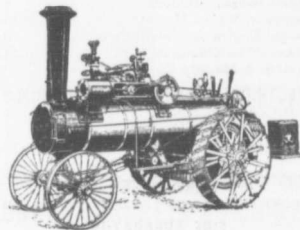
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FOR  
**REINFORCED CONCRETE**  
Manufactured by  
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Operating under Johnson Patent No. 91650 and by license of Sir Wm. Mather.  
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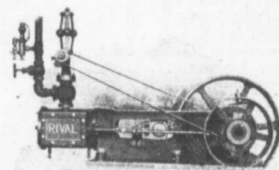


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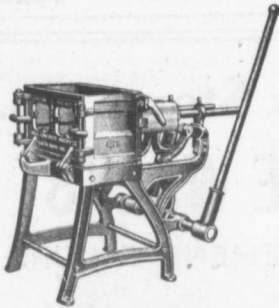
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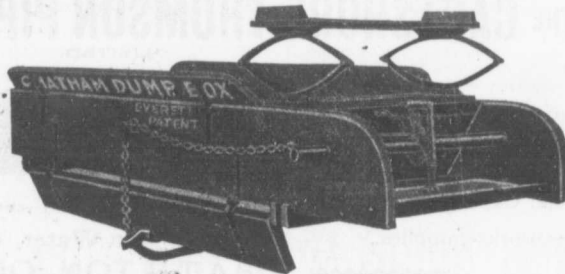
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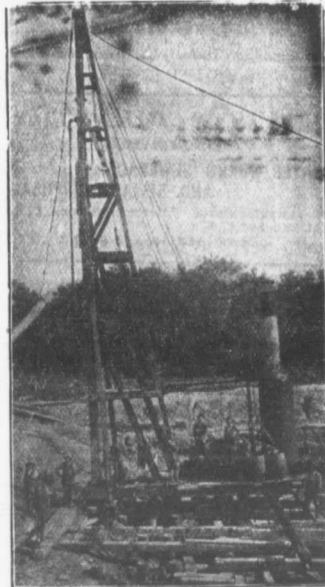
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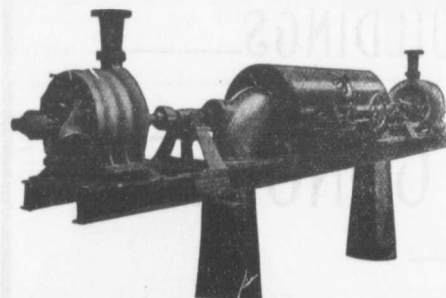
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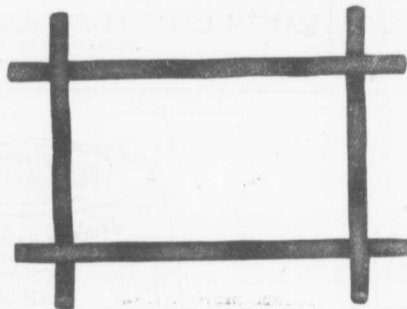
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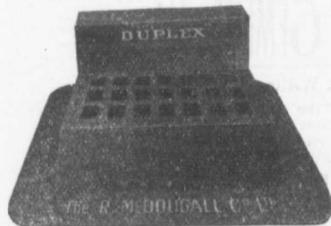
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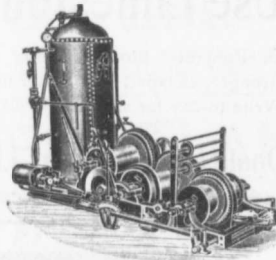
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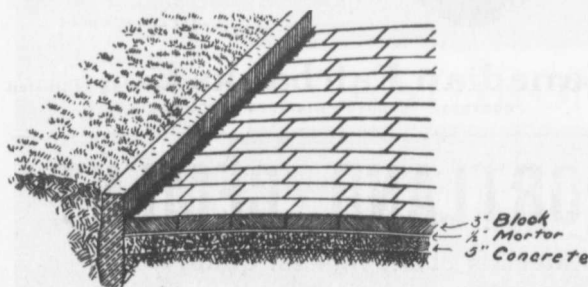
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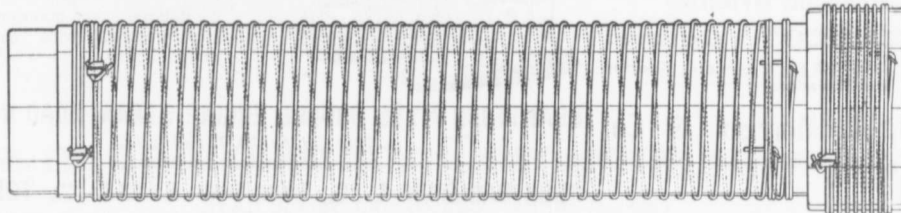
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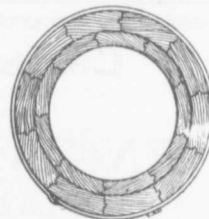
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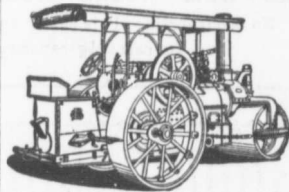
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Note the High Grade of National. Compare it with others.



Year.	No. Samples Tested.	Soundness Falji Test.	Specific Gravity	Residue in Test on No. 100 Sieve	Setting Time in Minutes		Tensile Strength in pounds per square inch.									
					Initial	Final	Neat.					3 (Sand) to 1 (Cement)				
							1 dy.	7 ds.	28 ds.	3 mos.	1 yr.	1 dy.	7 ds.	28 ds.	3 mos.	1 yr.
1903	20	O.K.	3.135	2.1	162	345	307	701	783	827	*	74	214	299	367	*
1904	44	O.K.	3.150	2.0	132	342	300	744	848	914	938	96	262	354	401	427

\* Tests for 1 year were not completed when records closed. 1905 report not yet issued.

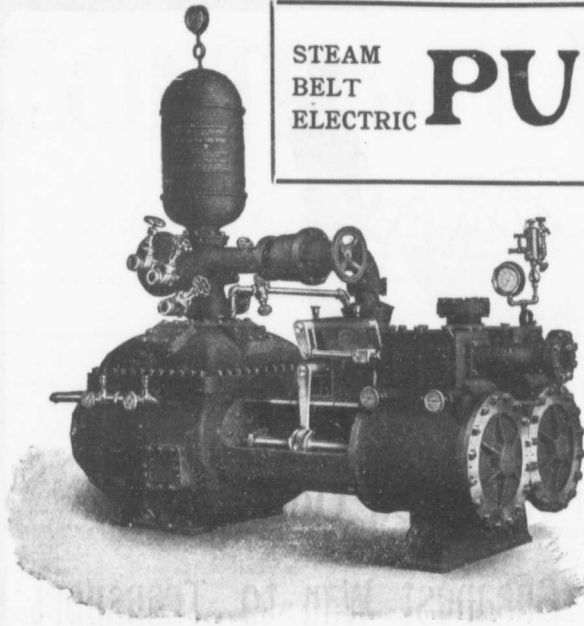
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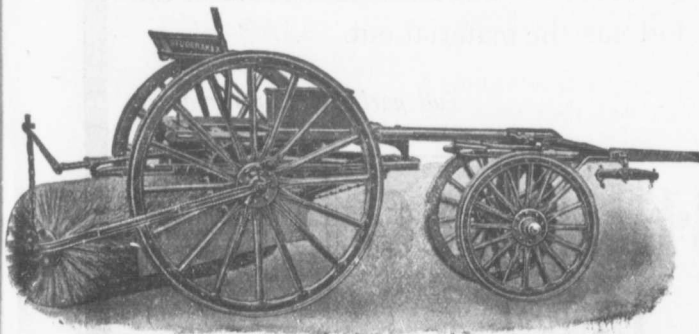
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Is the Standard of Perfection

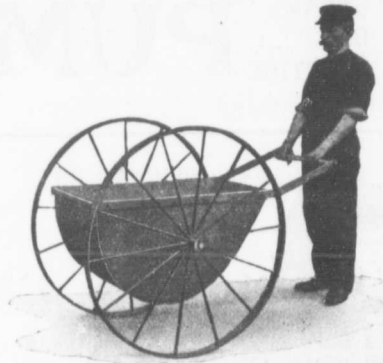
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