

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. 17.

TORONTO, MONTREAL — DECEMBER 19, 1906 — WINNIPEG, VANCOUVER

No. 42

THE CANADIAN CONTRACT RECORD PUBLISHED EVERY WEDNESDAY

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Canadian patent rights, covering patent collapsible steel center for concrete culvert and other viaduct construction. Information given on application.

BLAW COLLAPSIBLE STEEL CENTERING CO.,
717 Westinghouse Bldg., Pittsburg Pa.

WANTED

Capable man who understands sewer construction to represent us in Canada. Information given on application.

BLAW COLLAPSIBLE STEEL CENTERING CO.,
717 Westinghouse Building, Pittsburg.



OTTAWA, ONT.

Architectural Competition for Departmental and Justice Buildings.

Competitive drawings are invited for Departmental and Justice Buildings to be erected for the Dominion Government at Ottawa, Ont.

The author of the best design will be awarded a premium of \$3,000, the second best \$2,000, the third best \$1,000 and the fourth best \$500. Drawings will be received not later than April 1st, 1907, and are to be addressed to the Secretary of the Department of Public Works, Ottawa.

This competition is open to Canadian Architects who have been resident in Canada for one year or more.

Conditions of competition stating requirements of buildings and maps showing site &c. may be had on application to the undersigned.

By order,
FRED. GELINAS, Secretary.

Department of Public Works,
Ottawa, December 12, 1906.

Newspapers will not be paid for this advertisement if they insert it without authority from this Department.

TENDERS FOR SUPPLY OF 30 MILES OF WATER PIPE

Scaled tenders addressed to the Chairman of the Fire, Water and Light Committee for the supply of thirty miles of assorted water pipe and quantity of specials for the City Water Works, will be received at the office of the undersigned up to 2.30 p.m. on

FRIDAY, MARCH 1, 1907.

Specifications and forms of tender may be obtained at the office of H. N. Ruttan, City Engineer, Winnipeg, Man.

Each tender must be accompanied by an accepted cheque or draft payable to the order of the City Treasurer, or cash deposit for the sum called for in the form of tender supplied, which will be subject to forfeiture in case of failure on the part of the contractor to enter into a written contract with approved sureties if called upon to do so.

The city reserves the right to reject any or all tenders or to accept any bid which appears advantageous to the City of Winnipeg.

C. J. BROWN,
City Clerk.

City Clerk's Office, Winnipeg, December 8, 1906.



TENDERS FOR MUNICIPAL ASPHALT PAVING PLANT AND EQUIPMENT.

Tenders will be received by registered post only, addressed to the Chairman of the Board of Control, City Hall, Toronto, Ontario, up to noon on TUESDAY, JANUARY 8th, 1907, for the supplying and erection of a municipal asphalt paving plant and equipment for the City of Toronto.

Envelopes containing tenders must be plainly marked on the outside as to contents. Specifications may be seen and forms of tenders obtained at the office of the City Engineer, Toronto.

The usual conditions relating to tendering, as prescribed by city by-laws, must be strictly complied with.

The lowest or any tender not necessarily accepted.

EMERSON COATSWORTH, Mayor,
Chairman Board of Control.
City Hall, Toronto, December 12th, 1906.

W. Mars and F. J. Jugo, contractors, of Montreal, Que., have registered as Mars & Jugo.

H. R. Ritchey Company, Limited Montreal, Que., incorporated, to manufacture engineer's plumber's and electrical supplies, capital \$20,000. Incorporators, H. R. Ritchey, A. L. Ritchey, G. W. Elliott, and T. P. Butler, all of Montreal.

CONTRACTS OPEN.

WHITBY, ONT.—The National Car Company will locate their works here.

PICTON, ONT.—W. V. Spencer will build a residence on Ferguson street next spring.

ST. HYACINTHE, QUE.—It is reported that the Barsalou bridge is to be rebuilt.

BERLIN, ONT.—Debentures will be issued for \$9,000 for improvements to sewer farm.

PORT ARTHUR, ONT.—W. A. Burrows will erect a 40 foot brick addition to his block.

CHILLIWACK, B. C.—The trustees of the Methodist church have decided to erect a new edifice.

PEMBROKE, ONT.—The Town Council have decided to spend \$50,000 for a new intake pipe.

HESPELER, ONT.—Alderman Groh has purchased property on which to erect two three-storey blocks.

DURHAM, ONT.—The National Cement Company will erect a storage building 250 by 50 feet.

OWEN SOUND, ONT.—Debentures will be issued for \$5,000 with which to establish a live stock yard.

FRASERVILLE, QUE.—J. O. Landrey and F. X. Berube are about to open a foundry and machine shop here.

ST. CATHARINES, ONT.—Improvements will be made to the International block by Thomas Irvine, of St. Paul.

ELMIRA, ONT.—The by-law to raise \$25,000 for installation of a waterworks system has been carried by the ratepayers.

REVELSTOKE, B. C.—The Canadian Pacific Railway are taking tenders for the erection of shops, cost of which will be \$20,000.

CARLYLE, MAN.—G. W. Stockton Company have purchased property on which to erect a two storey brick block.

LIVERPOOL, N. S.—Tenders will be received up to January 5, 1907, for the purchase of \$11,200 4½ per cent. 30-year debentures.

NIAGARA FALLS, ONT.—John Logan has purchased property here, and will erect a two storey office and lodge room thereon.

LONDON, ONT.—The Council of the County of Middlesex will issue debentures for \$20,000 to redeem those outstanding at present.

FERNIE, B. C.—Reports are being made for the Crow's Nest Pass Coal Co. as to the feasibility of developing power from the Elk river.

LONDON, ONT.—The City Council in conjunction with the County Council, will erect a new court house and city hall, to cost \$100,000.

ARTHUR, ONT.—The Village Council are having a report prepared by an engineer in reference to the installation of a waterworks system.

MEDICINE HAT, ALTA.—Tenders are being taken by J. L. Brown, Royal Hotel, for brick work and foundation for the new Great Northern Hotel.

BRANTFORD, ONT.—Willis Chipman, C.E., Toronto, Ont., is about to prepare a report on the proposed work to be done at the pumping station.

NAPANEE, ONT.—The ratepayers will vote on January 7th next on the question of spending \$5,000 for the laying of a sewer on Dundas street.

TWEED, ONT.—A by-law will be voted on by the ratepayers to provide for the construction of a trunk sewer and the issuance of \$10,000 debentures therefor.

WATERLOO, ONT.—The ratepayers will be asked to authorize the issuing of \$23,000 debentures for extending and improving the sewerage system.

ARVA, ONT.—The Council of the Township of London will issue debentures for \$15,000 for construction and repair of bridges throughout the township.

VIRDEN, MAN.—Providing the ratepayers authorize the erection of a new school house at a cost of \$5,000, debentures for that amount will be issued.

MEDICINE HAT.—L. H. Shepley, Winnipeg, Man., representing a party of capitalists who recently visited this town contemplating investing \$50,000 in a greenhouse plant.

HAMILTON, ONT.—F. H. Hall is about to erect two houses on Pine street to cost \$3,200.—The Y.M.C.A. authorities are considering the question of erecting a new building.

ST. JOHNS, QUE.—The question of either purchasing the present waterworks system or installing a new one at a cost of \$125,000, is being discussed by the Town Council.

STRATFORD, ONT.—The ratepayers will vote on a by-law for the construction of a trunk sewer, cost \$16,000.—The Grand Trunk Railway will erect a new station here.

PORT PERRY, ONT.—A deputation from this town recently waited on the Provincial Government seeking permission to develop power at Buckhorn Rapids on the Trent river.

MORRISBURG, ONT.—A deputation representing the County of Dundas recently waited on the Provincial Government in reference to the installation of a drainage system in the country.

FORT FRANCES, ONT.—The Town Council will submit a by-law to the ratepayers for a further expenditure of \$12,500 in connection with the installation of the waterworks system.

SASKATOON, SASK.—Plans have been prepared for a stone and brick block to be erected by Sutherland & Jordon, to have a frontage of 50 feet and to consist of two stories and basement.

RICHMOND, QUE.—It is probable that the Boston Last Company will erect two new buildings, install new engines and a 500 h. p. boiler, in connection with proposed extensive improvements.

LISTOWEL, ONT.—The ratepayers will vote on a by-law on January 7, 1907, for the construction of four bridges in the town at a cost of \$14,500. If carried, debentures for this amount will be issued.

GLACE BAY, N. S.—The question of erecting a public building here has

been brought before the Dominion Government and it is reported that a site has been already been acquired therefor.

KENORA, ONT.—It is probable that a large hotel will be erected here at a cost of \$100,000. C. C. Delridge, on behalf of the promoters, having applied to the Town Council for several concessions.

WOODSTOCK, ONT.—By-laws will be submitted to the ratepayers for authority to expend \$20,000 for extensions and improvements to the Collegiate Institute and \$15,500 for the surface drainage scheme.

TRURO, N. S.—The Dominion Carriage Company have had plans prepared for the erection of several large buildings.—The Streets Committee have recommended the purchase of a stone crusher and steam roller.

VICTORIA, B. C.—Plans are about to be prepared for a large apartment house to be erected for J. M. McLuckie and A. J. Kappelle, of Vancouver.—The building will be six stories, reinforced concrete with trimmings of pressed brick, estimated cost \$75,000.

GODERICH, ONT.—At the meeting of the Council of Huron County held recently, the County Engineer recommended the construction of two bridges, one at Buevale, the other north of Bayfield. The bridges are to be steel with cement abutments, and tenders are to be called for shortly.

PRINCE ALBERT, SASK.—C. H. Mitchell, C.E., Niagara Falls, Ont., is making a report as to the feasibility of developing power from Cole Falls, Shell river and Little Red river.—The School Board will erect an addition to the present school house, and intend building a new brick school house in the near future.

CALGARY, ALTA.—Wade & McGiffin are about to erect a four storey brick block corner of First street west and Eleventh avenue.—A brick block is also to be erected corner of First street west and Tenth avenue by T.S.C. Lee.—The E. B. Eddy Company, Hull, Que., are considering the question of establishing a branch factory here.

NEW WESTMINSTER, B.C.—It is reported that the town council for next year will deal with the question of constructing a bridge to Lulu Island, at an estimated cost of \$10,000.—The Victor Cement and Machine Company, of Vancouver, are negotiating for the purchase of a site on which to erect a building for the manufacture of cement blocks.

QUEBEC, QUE.—N. Dion has taken a permit for the erection of a building, cost \$2,000.—The demolition of the Chateau Frontenac is to be commenced about January 15, 1907, in order to have the new building finished by June, 1908.—The City Council are discussing the question of spending \$325,000 for paving streets, and improvements to waterworks drainage systems.

MONCTON, N. B.—The Intercolonial Railway will develop power in the Petitcodiac river. By the use of a system of basins it is thought that continuous power can be obtained at all stages of the tide. Besides developing power for the workshops, sufficient will be developed to supply the city for lighting purposes.

HALIFAX, N. S.—Negotiations are on foot for the establishment of large car works here.—The wood-working business of Siliker & Company, Amherst, will be brought here and operated in connection therewith. The Silikers will be heavy shareholders.—The Board of Works have decided not to accept any of the tenders submitted for the erection of an engine house on Morris street.—Tenders will shortly be taken for electric lighting.

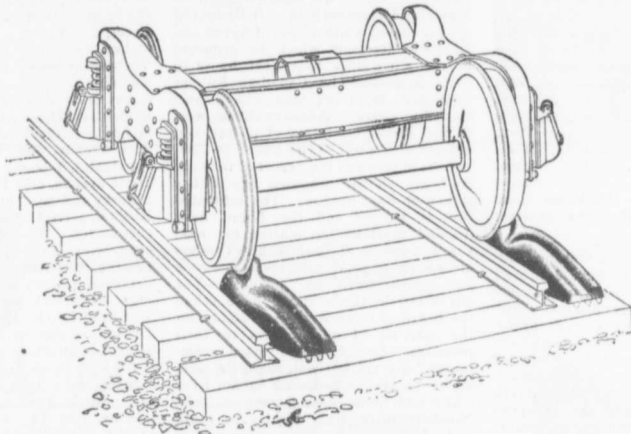
ST. JOHN, N. B.—Capitalists, among whom are T. H. Estabrooks, J. A. Likely, R. G. Haley, J. Pender and W. S. Fisher, are interested in the proposed car works to be operated here. Options have been secured on several blocks of land and matters are ready for taking a definite shape.—A large block of land opposite the Customs House has been purchased by J. F. Gleeson, real estate agent, who is acting for local and Montreal capitalists.

WINNIPEG, MAN.—Plans have been prepared for large additions to be made to the buildings of the Western Canada Flour Mills.—The Provincial Government have decided to grant \$125,000 for the building of a bridge across the Red river.—V. W. Horwood, architect, has prepared plans for an apartment house for James Ryan, jr.—The J. Leslie Furniture Company's building has been sold and will be converted into a hotel.—Tenders will shortly be taken by the Board of Works for the following improvements: Sewer, Arnold avenue, Pembina to John streets, cost \$3,578; crosstod block pavement, Dufferin avenue, Parr street to Sinclair street, cost \$27,875; granolithic walk, Oakwood avenue, Pembina to Fisher streets, cost \$2,480; cedar block pavement, on Government road allowance, Notre Dame avenue to Nuisance ground, cost \$6,300.—It is announced that the Canadian Pacific Railway will construct a branch from Bredenburg, via Stoney Creek, to Kamsack.—The members of St. Andrews society, of this city, have decided to erect a new hall.—W. A. Irish has purchased property corner Notre Dame avenue and Princess street on which to erect a block of buildings.

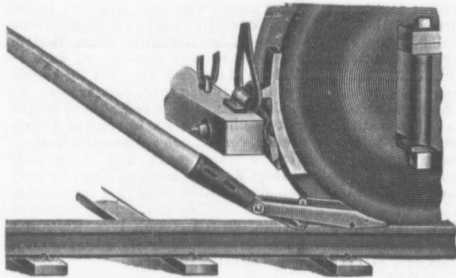
VANCOUVER, B. C.—Tenders will be received up to December 21 by the Market and Industries Committee for construction of a wharf.—Tenders will shortly be taken for the supply of valves, galvanized fittings and pig lead.—The following building permits have been issued: W. Walsh, brick block, cost \$26,000; D. E. Harris, two houses, cost \$3,000; flour mill for Vancouver Flour and Milling Company, Smith street, cost \$25,000; Provincial Government, addition to courthouse, \$2,500; Captain Tatlow, additional storey on block adjoining Bank of British North America, Hastings street, cost \$4,500.—The City Engineer, has recommended the laying of a sewer on Heather street, from Twelfth to Sixteenth avenue, cost \$2,300.—The Windsor hotel is to be remodelled into a Salvation Army home.—The King Edward hotel is to be enlarged at a cost of \$15,000.—Parr & Fee, architects, are taking tenders for the construction of a brick block to be erected on Pender street for W. H. Massey.—The same architects, have prepared plans for three dwellings for W. McNeish. The houses will be erected corner Melville and Thurlow streets, and will cost \$10,000.—A. E. Carter has taken a permit for the erection of a three storey garage for the Vancouver Automobile Company, to cost \$15,000.

MONTREAL, QUE.—The Grand Trunk Railway are considering the advisability of raising their tracks from Bonaventure station to the city limits, in order to do away with level crossings. If this scheme is carried out the probability is that a new station will be erected. The total cost of the improvements will be about \$3,000,000.—Allis-Chalmers Bullock, Limited, have purchased a piece of property at Rockfield, having a frontage of 400 feet, for extensions to their premises.—Tenders have been taken for steel, galvanized iron and stone work, timber, painting and glazing, in connection with erection of steel shelters at Bonsecours market.—The Montreal Dispensary have purchased a building, corner

Railroad Supplies



Alexander Car Replacers.



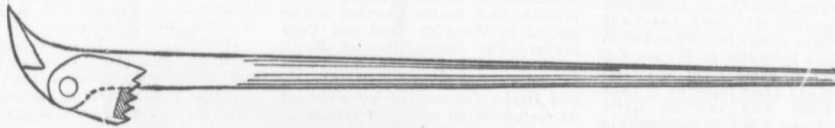
Atlas Car Movers.



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PUSH CARS
VELOCIPEDES

LIGHT RAILS
RAILWAY SPIKES
TRACK BOLTS

TRACK DRILLS
TRACK TOOLS
WHEELBARROWS

W.H.C. MUSSEN & CO.

MONTREAL

Inspector and St. Antoine streets, and will extend same at a cost of \$10,000.—The Catholic School Board have taken over the St. Joseph Parish school, which will be demolished and a more modern building erected.—The Crescent Turkish Bath Company have signified their intention to erect a building to cost \$100,000.—It is reported that the Canadian Pacific Railway will construct a double track on their line from Vandreuil to Smith's Falls.—The Ottawa Valley Railway will construct a road from here to Ottawa and westward, a total distance of over 300 miles.—Building permits have been issued as follows: Montreal Amusement Company, house, St. Catharines, cost \$10,000; Comte Phil, dwelling, Drolet street, cost \$1,200; Chas. Dagenais, office building, Marquette and Marie Ann, cost \$5,000; J. Chaput, dwelling, Montgomery street, cost \$1,500; T. J. Taubin, dwelling, Hunly street, cost \$1,800.—L. E. Ouimet recently purchased 5,000 square feet of land on St. Catherine street east.

OTTAWA, ONT.—The Ontario Railway & Municipal Board have approved of the by-law for extensions to the Civic Electric plant, to cost \$50,000.—The plans for the proposed Grand Trunk hotel and central depot have been submitted to the Government.—Architect Noffke has submitted five sets of plans for the reconstruction of the City Hall.—The cost ranges from \$40,000 to \$150,000.—The Transcontinental Railway Commission will shortly invite tenders for the construction of 390 miles of new road.—F. Gelinas, Secretary of the department of Public Works, will receive tenders as follows: Up to December 22, for heating system, for post office at Iberville, Que.; up to December 27, for heating system, for Immigration building, Edmonton, Alta.; up to January 7, 1907, for construction of landing pier at Doucet's Landing, Que.; up to January 5, 1907, for construction of a breakwater at Phinney's Cove, N. S.; up to January 7, 1907, for construction of a wharf at Point Prim Island, P.E.I.—Competitive drawings will be received up to April 15, 1907, for Departmental and Justice buildings to be erected for the Dominion Government here. The competition is open to Canadian architects who have been residents in Canada for one year or more. The author of the best design will be awarded \$8,000; second \$4,000; third \$2,000, and fourth \$1,000.—The Department of marine and Fisheries have under consideration plans for lighting of St. Lawrence river from Quebec to the gulf. They propose to erect steel towers with powerful lights along the north and south coasts, place lightships at Matane and on the reef at Fame Point and erect lighthouses and place foghorns at Cape George, Point Rich and St. Marys Islands.—A new Y.M.C.A. building is to be erected at corner Metcalfe street and Laurier avenue. The building will consist of five storeys and basement and plans are now being prepared by an American firm of architects who are represented here by J. H. Ewart.

TORONTO, ONT.—Thos. Ogilvie & Sons are about to erect a five-story fire proof warehouse corner Bay and Wellington street to cost \$100,000.—The Board of Control have authorized the City Engineer to call for tenders for a hydraulic dredge.—Tenders will be received up to January 8th, for the supply and erection of a municipal asphalt paving plant.—Extensive alterations will be made to the lodging house corner Peter and Wellington streets, which was recently purchased by the Government for the accommodation of immigrants.—The Toronto Musical Protective Union have purchased property on Simcoe street

on which to erect a headquarters building.—The City Council give notice that the following works will be carried out: Asphalt pavement, Manning avenue, Bloor street to north end, cost \$20,192; Macdonell avenue, Queen street to north end, cost \$15,112; resurfacing, Mincing lane, Wellington street to 218 feet north, cost \$967.00.—The date for the reception of tenders for the erection of the grand stand and horticultural building on the exhibition grounds has been extended to Thursday, December 20th.—H. Weinburg has purchased a site corner of Agnes and Elizabeth streets on which he proposes to erect a five story apartment house to cost \$40,000.—The Canadian Rubber Company, Montreal, Que., have purchased property on Adelaide street west of Bay, having a frontage of 35 feet and a depth of 104 feet.—The Board of Control have received the report of the City Architect on the proposed new Police station on Pape avenue. The estimated cost is \$23,500 and the Board have decided to leave the matter for next year's Council to deal with.—Tenders are wanted at 77 Victoria street for brick and stone work on a house.—The officials of the Girl's Home have asked the Board of Control to grant \$6,000 for the erection of an addition to their premises.—City Engineer has recommended that the following concrete sidewalks be laid:—Yarmouth road from Christie to Shaw streets, cost \$1,208; Northern place, from Shirley to south end, \$281; Dearbourne avenue, from Broadview to Bowden, \$1,254; Barrett avenue, from Conduit to 265 feet south, \$423; Summerhill avenue, from 180 feet east Ottawa to Shaftesbury \$661; Pembroke, from Wilton Crescent to Shuter, \$1,046.00; Bahurst, from Arthur to College, \$2,134.00; Clinton, from Yarmouth to Dupont, \$817.00; Cornwall, from River to 450 ft. east, \$745; and also the following pavements: Asphalt, Lennox street, from Bathurst to Borden, cost \$3,559; Clinton street, Bloor street to Barton, cost \$5,437; Delaware avenue, from Stanley to Hallam, \$7,094; Dearbourne avenue, from Broadview avenue, to Bowden street, \$7,224; Brick Lane 13 feet wide, between Edward and Elm streets, from Chestnut to Centre, \$959; Foster place, from Elizabeth street to east end, \$1,151; Bitulithic, Henderson avenue, from Clinton to Grace, \$2,834; Dagmar avenue, from Paper to 175 feet east, to Brooklyn avenue, \$5,020; Macadam, Queens Park crescent, from College to Bloor, \$5,993; Hogarth avenue, from Broadview to Logan, \$15,514.—It is probable that Baptist churches will be erected on Waverley Road and Pape avenue.—The congregation of Kemilworth avenue Baptist church will erect an edifice to cost \$12,000.—Dr. Sheard, City Health Officer, has recommended the erection of an additional crematory, and also the enlargement of eastern stables. The estimate cost of the works

is \$48,000.—Two lots on corner of Huron and Cecil streets have been sold to J. J. Walsh, who proposes erecting houses thereon.—The following building permits have been issued: Hunt Bros., 3 attached 2 storey brick dwellings, 18 Lynd avenue, cost \$6,000; Kay Bros., 2 pair semi-detached 2½ storey brick dwellings, Delaware avenue, cost \$10,000; Macpherson Estate, 2 storey brick and stone dwelling, Roxboro street, cost \$5,500; Mrs. Lester, one pair semi-detached two storey brick stores and dwellings, Bloor street, cost \$4,700; John Elloner, 4 detached 1½ storey roughcast dwellings, Withrow avenue, cost \$2,000; F. R. Baumhard, pair semi-detached 2½ storey brick dwellings, 11-13 Rusholme road, cost \$7,000; Geo. Phillips, 3 detached 2 storey brick dwellings, Brunswick avenue, cost \$10,000; Home for Incurables, 1 storey brick addition, 130 Dunn avenue, cost \$6,700; R. H. Smith, 2 storey and attic brick dwelling, corner Rusholme road and Hepbourne street, cost \$2,700; Wm. Murray, 2 storey and attic brick dwelling, Kendall avenue, cost \$4,000; Geo. Phillips, 4 pair semi-detached 2 storey and attic brick dwellings, Brunswick avenue, cost \$22,000; B. Cheadle, 2½ storey brick dwelling, Ossington avenue, cost \$3,000; King Bros., 6 attached 2 storey roughcast dwellings, brick fronts, Perth avenue, cost \$9,000; John Bell, 2 storey and attic brick dwelling, 35 Humber side avenue, cost \$2,500; S. D. Rainey, 3 storey brick hotel, corner Queen and Carroll streets, cost \$15,000; H. M. East, 2 storey brick dwelling, Sussex avenue, cost \$2,000; Walter Davidson & Co., 1 storey brick factory, 139-141 Front street east, cost \$19,400; James Paul & Sons, pair 2 storey frame dwellings, brick fronts, corner Hallam street and Preston avenue, cost \$2,800; William Halls, 2 storey and attic brick dwelling, Indian road, cost \$4,000; W. P. Campbell, 2 detached 2 storey roughcast dwellings, brick fronts, 130 Bolton avenue, cost \$3,000; Alexander Bowling Club, 2 storey brick and stone club house, Kendall avenue, cost \$2,500; Canadian Oil Company, 2 storey brick addition to factory, 2-12 Strachan avenue, cost \$20,000; Wm. Rutlege, 2 storey and attic brick and stone dwelling, Grace street, cost \$3,000.

CONTRACTS AWARDED.

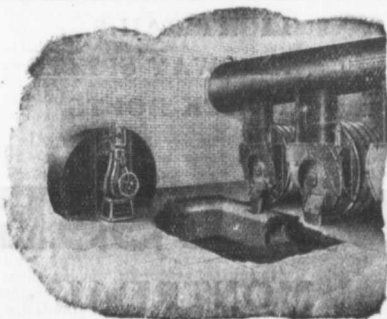
SASKATOON, SASK.—Excavation necessary for new hospital building: J. Davies, Saskatoon, contractor.

ROSTHERNE, SASK.—\$3,000 to year 5% debentures: awarded to W. S. Evans, Winnipeg, Man., at \$3028.40.

STRATHCONA, ALTA.—Switchboard for electric light plant: Canadian Westinghouse Company, Hamilton, Ont.

SYDNEY MINES, N. S.—Erection of a gymnasium building for Y.M.C.A.: Mr. King, successful tenderer at \$1,910.

COATICOOK, QUE.—Erection of a d



MECHANICAL DRAFT

Short Stacks
Positive Draft
Saves Fuel
Burns Cheap Coal
Constant Steam
Pressure
Independent of Weather
Catalogue P

CANADIAN BUFFALO
FORGE COMPANY, LTD.
MONTREAL, QUE.

dition to convent: Woodwork, Simoneau & Dion, Sherbrooke at \$12,750; stonework, Mr. Walsh, this place, \$6,300

PRINCE ALBERT, SASK.—Supply of 1,500 feet of "Broncho" fire hose: Canadian Rubber Company, Montreal, Que., successful tenderers at 70 cents per foot.—Supply of hook and ladder fire wagon with necessary apparatus: W. E. Seagrave, Walkerville, Ont., successful tenderer, at \$2,160.

TORONTO, ONT.—The Property Committee of the Board of Education has awarded the following contracts: Electric fixtures in Jamieson Avenue Collegiate Institute, McDonald & Wilson, for \$334.85; fitting up teachers' room and lavatories, Elizabeth street school, Maxwell & Johnston, for \$282; in Palmerston avenue and

Dovercourt schools, Fred Armstrong, for \$115 and \$175 respectively; gas fixtures in Huron street and Cottingham street schools, Fred Armstrong, for \$127 and \$75 respectively.

BIDS.

The following tenders were received for the supply of steel pipe for the city of Vancouver: G. A. Walkem & Company, 15 inch, \$3.60 per foot, 10 inch, \$2.10 per foot, fittings 6½ cents per pound; Boyd, Burns & Company converse lock joint pipe, 15 inch, \$205.95 per hundred pounds, specials, .06¼ cents per pound; C. F. Jackson & Company, 10 inch, \$4,570 for 4,600 feet; cast iron nine foot lengths, \$5,200, 12 foot lengths, \$5,324, specials, \$185.00; Vancouver Engineering Works,

15 inch, \$2.28 per foot, specials \$5.00 per hundred pounds.

J. H. Rich and J. P. Regan, contractors, of Hosmer, B.C., have dissolved partnership.

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LIMITED
TORONTO, CANADA.
IRON



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forged from one piece of High Carbon Bar Steel without weld or rivet, solid neck and blade, tempered in oil, straight chucked handle can be replaced when broken.

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Sectional View of finished One-piece Shovel, showing gauge or thickness of steel at different points

Note Solid Shank

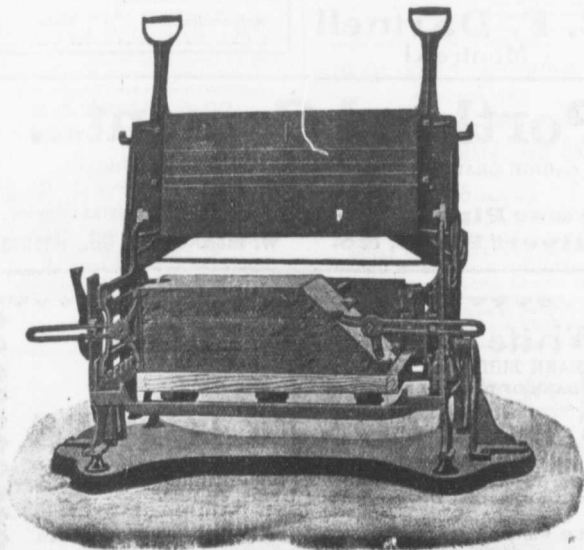
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THE MILES CONCRETE BUILDING BLOCK MACHINE

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

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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.

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M'fg. Co.
 Niagara Falls, Can.

BURNT CLAY FOR HIGHWAYS.

The United States Congress some time ago established an office of public roads, which is instructed to conduct experiments and device methods for improving the roads of the United States. The office has done a great deal to arouse interest throughout the country in the necessity of good roads and has originated several means of making good roads economically. The latest discovery is that of burning clay roads in Mississippi.

In large areas in the south, particularly in the valleys of the Mississippi tributaries, sedimentary clays are found very generally. In these areas there is little or no sand and the clays are of a particular plastic and sticky variety. These sticky clays are locally known as "gumbo" and "buckshot." In such localities traffic is absolutely impossible during the wet season, as the wheels of heavy vehicles will sink to the hub.

The clay is black, owing to the high percentage of organic or vegetable matter it contains. It is particularly sticky in its nature and is all most wholly free from sand and grit. After it has been burned, however, the plasticity is destroyed and a light clinker formed, which though not particularly hard, when pulverized, forms a smooth surface and seems to wear well.

CONCRETE IS FREE FROM INSECTS

Sudden and permanent conversions to the use of concrete are being made by men who have much to do with pile-driving in salt water, particularly on the western coast of America. It is estimated in California that a stick of timber, rough sawed, will

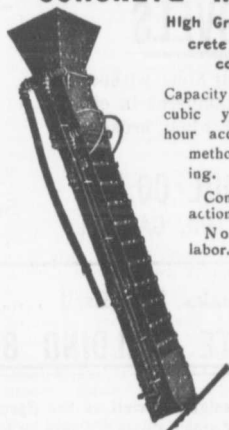
endure about eight months; a pile that is peeled has a year's lease of life; with the bark on, this period is increased to eighteen months, and creosoting gives wood a life of from fifteen to as many years.

Even creosote is not potent to resist the attacks of the teredo, or "borer," and the limnoria. These organisms play havoc with any wood placed in salt water and frequently cause the utter destruction of the fibres. They seem at times to thrive on creosote, which speaks well for the strength of their digestions. There is a great uncertainty about their attack, as of two piles standing comparatively near together one may be riddled, while the other escapes. These considerations are another reason for using

concrete piles when there is underpinning to be done, on land or sea.

Mr. A. E. Killam, Inspector of Bridges and Building I.C.R. Moncton, N. B., was elected Chairman of the Executive Committee of the Association of Railway Superintendents of Bridges and Buildings, at the annual convention recently held at Salt Lake City, Utah.

Young Wife—"The landlord says he'll paper the bedroom, but will have to put it on over the old paper and not scrape the walls." Husband—"Well that's all right." Young Wife—"But think, that room is much too small already."—American Spectator.

THE PORTABLE GRAVITY CONCRETE MIXER

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FIRES.

Whitewater Hotel, Whitewater, B. C., loss \$2,000.—Residence and outbuildings owned by A. Saveria, Waterloo, Que., loss \$10,000.—Factory of Winnipeg Saddlery Company, Winnipeg, Man., loss \$60,000.—Building owned by Forman Estate, Londonderry, N. S., loss \$20,000.—Warehouse of Lake of the Woods Milling Company, Winnipeg, Man., damage \$10,000.

Drug store of M. Albert, 273 St. Law.

rence street, Montreal, damage \$2,000.—Commercial Hotel, Campbellton, N. B., loss \$6,000.—Buildings owned by F. B. Miller, W. R. Rice and others, Bear River, N. S., loss \$7,300.—City incinerator, Winnipeg, Man., damage \$4,000.—Hotel Belmont, St. Agathe, Que., loss \$8,000.—

The Parish block, Strathcona, Alta., totally destroyed.—Feinbrook's dry goods store, Chatham, Ont., owned by J. Desmond, loss in neighborhood of \$1,200.—A. E. McDermott's liquor store, Cranbrook, B. C., building owned by J. Jackson, loss \$5,000.

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CONCRETE DAM AT HESPELER, ONTARIO

We present herewith views of a concrete dam recently constructed for the R. Forbes Company at Hespeler, Ont. The bed of the stream at the site of the dam is a formation of hard unstratified limestone, forming an ideal sub-base for the concrete structure.

in height. The clear length of the spillway is 204 feet.

One abutment of an average thickness of 3 ft. 6 in. was built at the eastern end, up against the wall of the mill, and at the western end an abutment, 10 ft. in width, was provided with a 6 x 9 foot opening,

of dams for low heads, and authorizes this journal to state that the use of the design can be had for the asking, although fully protected in the patent office.

Metal reinforcement was used in a horizontal plane at base of the dam, and also in the vertical and



FIG. 1.—VIEW OF FACE OF R. FORBES DAM.

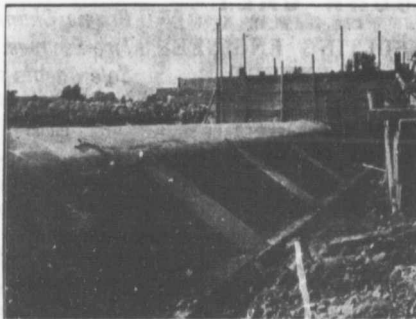


FIG. 2.—UPSTREAM SIDE OF DAM BEFORE BACKED UP WITH STONE.

The old dam was a modern structure with knee frames and stone filling and was thought to be unsafe, and also leaked and failed to hold the water at a time when most needed.

The new dam was built immediately below the old one, the latter serving the work as a coffer dam. The work was carried down to hard rock, all the weathered or deteriorated rock near the surface being removed. The depth necessary to

controlled by stop-logs six feet in length, to enable the reservoir to be emptied when desired.

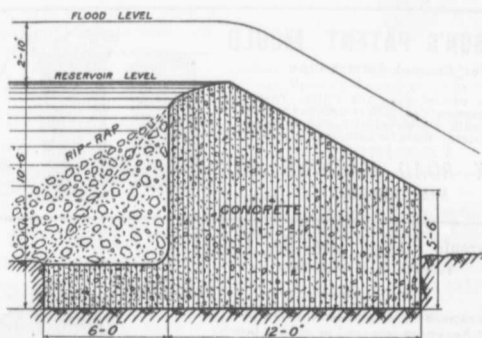
The design of the dam is by Mr. Jno. S. Fielding, C.E., of 15 Toronto Street, Toronto, and contains a special feature in the use of an up-stream floor or toe, extending 6 feet under the reservoir, and loaded with the stone out of the old dam. The connection of this toe to the dam is increased by the addition of ribs, as shown in the

sloping faces, the total cost of such not exceeding \$80, but giving an extra strength to the structure to resist temperature stresses, and to enable it to act as a unit. The total cost of the work, including the stone filling and removal of the old dam, was \$4,100, and one unique feature being that the engineer's estimate of 777 cubic yards as necessary to complete the work was only exceeded by 1 yard, the actual amount being 778 cubic yards.

The safety factors against-sliding with a coefficient of friction of .65 are as follows:

Main portion with water at crest level.....	2.73
Total section with water at crest level.....	3.64
Main portion with 2-10 of flood.....	1.70
Total section with 2-10 of flood.....	2.465
Total section with 4-6 of flood.....	2.10

Messrs. Frazer and Eickle, of New Hamburg, were the contractors.



SECTION OF R. FORBES DAM.

secure a good bed varied from 18 inches to 6 feet.

The concrete used was in the proportion of 1:2½:5, with an addition of 20 per cent. of rubble stones in the interior of the mass. The aggregate used was pit gravel, from ground owned by the company, and sand was obtained by screening.

The height of the dam varies from 12 feet to 8 feet. Fig. 1 shows a section of 10 feet 6 inches

up-stream view Fig. 2, the photo of same having been taken before the stone filling was placed in position.

During flood time the vertical pressure of the water on this toe is increased as the horizontal pressure on the the up-stream face of the dam is increased, and in this way the safety factor remains satisfactory at all conditions of the flood. Mr. Fielding claims this device to be a distinct advance in the design

Mr. G. E. Cooper, has been appointed Assishant City Engineer of the city of Vancouver.

Mr. H. L. Jordan, Canadian Pacific Railway divisional engineer, Montreal, died at St. John, N. B., November 8, aged 35.

J. Galt, C. E., of Toronto, has purchased a property at Vernon, B. C., and will reside for a considerable part of the year there in future.

Building Inspector Capt. G. McSpadden, who has for several years been connected with the building department of the Vancouver city council, and Assistant Commissioner H. T. Devine, have resigned there appointment and will enter the real estate business.

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HEAD OFFICE: CANADA LIFE BUILDING, MONTREAL

Dominion Government Estimates for Year Ending March 31, 1908

(Continued from last week.)

Ontario.—Reconstruction of portions Alexandria public building destroyed by fire, \$3,000; Belleville armoury, \$30,000; improvements to Brantford public building, \$4,000; Chatham armoury, \$19,000; P. O. renewals, repairs, etc., Dominion public buildings, \$16,000; additional accommodation, alterations to P. O. fittings, etc., Galt public building, \$2,500; Guelph armoury, \$50,000; addition to Hamilton drill hall, \$100,000; alterations to building, etc., Hamilton post office, \$10,000; barracks for R. C. field artillery, Kingston military buildings, \$18,000; magazine, London military buildings, \$3,000; new stores building, London military buildings, \$12,000; additions and improvements, London post office, \$7,000; North Bay public building, \$25,000; Oshawa public building, \$2,000; additional stores building, Ottawa military buildings, \$7,000; fittings, etc., Ottawa departmental buildings, \$40,000; reconstruction of Nepean stone facing, Ottawa departmental buildings, \$5,000; Owen Sound public building, \$30,000; Peterboro armoury, \$30,000; improvements, etc., to St. Catharines public building, \$4,000; St. Mary's public building, \$20,000; grading grounds, St. Thomas drill hall, \$3,000; Sandwich public building, \$1,000; Simcoe public building, \$10,000; Stratford armoury, \$5,000; alterations and additions to Toronto custom house, \$15,000; government share of paving E-planade in front of custom house property, Toronto custom house, \$3,315; improvements, renewals, repairs, etc., Toronto dominion buildings, \$5,000; additional accommodation for new corps, Toronto drill hall, \$150,000; government share of paving University and Chestnut streets, Toronto drill hall and armouries, \$1,900; magazine, Toronto military buildings, \$3,000; barracks for permanent corps, to replace property sold to the city, Toronto military buildings, \$50,000; works of restoration to make good damage by fire, 29th April, 1906, etc., Toronto post office, \$15,000; land, building, pneumatic plant and machinery, Toronto post office, \$20,000; additional postal station "F", Toronto post office, \$37,000; government share of pavements, etc., Toronto postal station "C", \$500; Wingham public building, \$1,000; Woodstock armoury, \$7,000.

Manitoba.—Brandon Drill Hall, \$30,000; Renewals, improvements, repairs, etc., Dominion public buildings, Man., \$10,000; Neepawa public buildings, \$12,000; Selkirk public building, \$18,000; St. Boniface public building, \$12,000; Winnipeg district military stores

building, \$10,000; improvements, repairs, etc., Winnipeg dominion public buildings, \$5,000; Winnipeg new immigration building, including additional land, \$40,000; Brick veneering and fitting up hospital quarters in attic, including accessory improvements, Winnipeg old immigration building, \$3,500; quarters for non-com officers, including guard room, etc., Winnipeg military building, \$6,000; land and building, Winnipeg new post office, \$250,000; north of C. P. R. track, Winnipeg postal station, \$35,000; Saskatchewan and Alberta.—Alameda land office, \$2,000; Barracks for permanent corps (Strathcona Horse), \$40,000; enlargement for post office and examining warehouse purposes, changes, fitting, etc., Calgary public building; \$35,000; renewals, improvements, repairs, etc., Dominion public buildings, \$7,000; Edmonton immigration building, \$7,000; Edmonton public building, \$40,000; Medicine Hat public building, \$27,000; Regina post office, custom house, etc., \$100,000; Saskatoon public building, \$25,000.

British Columbia.—Cumberland public building, \$12,000; renewals, improvements, repairs, etc., Dominion public buildings, \$8,000; Fernie public building, \$20,000; Ladysmith public building, \$10,000; New Westminster public building for marine and fisheries and Indian affairs agencies, \$5,000; Vancouver public building, \$100,000; improvements, repairs, supplies, etc., Williams head quarantine station, \$10,000.

HARBORS AND RIVERS.

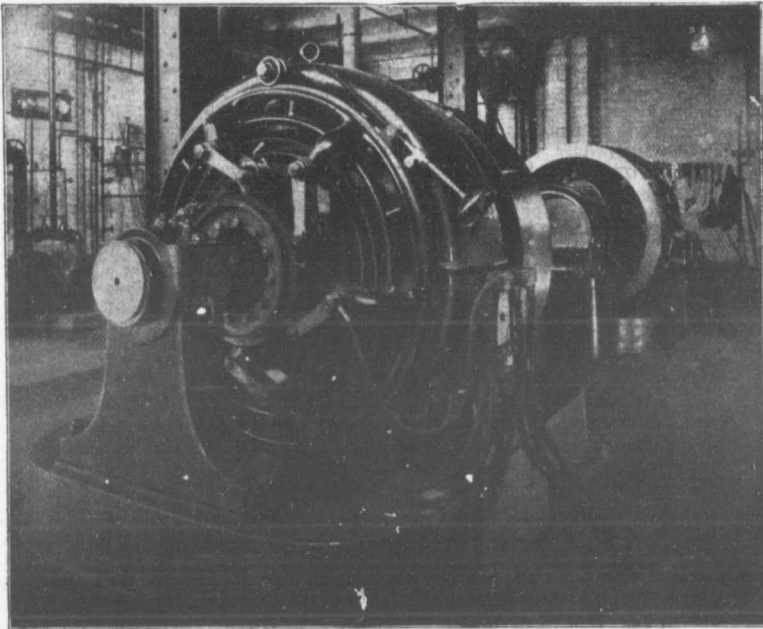
Nova Scotia.—Repairs to Queen's wharf, Annapolis, \$1,300; wharf, Baddeck, \$7,000; Bay St. Lawrence boat harbor, \$10,000; dredging entrance channel, Big Lorraine Harbor, \$3,600; breakwater, Charlo's Cove, \$14,200; extension of groyne and repairs to wharf, Church Point, \$2,000; repairs to breakwater, Cow Bay, \$10,000; breakwater, Culloden, \$6,500; harbor improvements including repairs to pier, Digby, \$2,000; wharf, Eskasoni, \$1,000.38; wharf enlargement, Frude's point, \$2,500; assistance towards harbor improvements, Glace Bay, \$6,910; repairs to and part reconstruction of channel protection works, Grand Etang, \$2,800; breakwater, Half Island Cove, \$7,500; repairs to eastern wharf and main breakwater, Hall's Harbor, \$8,300; harbor improvements, Inverness (Broad Cove) Mines, \$10,000; wharf, Jersey Cove (or Eel Cove), \$5,200; repairs to breakwater, L'Ardoise, \$1,000; extension breakwater,

Litchfield, \$2,100; repairs to harbor works, Mabou, \$2,000; wharf, Marble Mountain, \$3,100; wharf, Middle County Harbor, \$3,000; breakwater, Moose Harbor, \$1,200; ballast wharf in Kelley's Cove, New Campbellton, \$7,700; improvements, Parker's Cove, \$8,000; harbor improvements, Parrsboro, \$14,000; improvements Petite Riviere, \$3,000; breakwater, Phinney's Cove, \$6,800; landing pier, Poirierville, \$8,500; boat channel to Three Fathom Harbor, Porters Lake \$4,000; Restoration of shore end, Port George Breakwater, \$3,150; wharf, Port Hastings, \$4,000; closing northern entrance with brush and stone work, Port Hood Harbor, \$15,000; to complete, Round Hill wharf, \$1,000; Breakwater, Scotch Cove (White Point), \$10,000; wharf, Tatamagouche, \$3,000; wharf, West Head (Cape Sabie Island) \$5,000; improvements, Yarmouth Harbor, \$10,000; repairs and improvements, harbors, rivers and bridges, generally, 30,000.

Prince Edward Island—Part reconstruction of and repairs to pier, Higgins' Shore pier, \$1,500; extension of northern breakwater inwardly and repairs, Miminegash Harbor, \$2,000; repairs to breakwater, etc., New London, \$1,000; wharf, Point Prim Island, \$5,000; repairs and improvements, harbors, rivers and bridges, generally, P. E. I., \$8,000; breakwater on Robinson's Island, south side of entrance to harbor, Rustico harbor, \$2,500; repairs to breakwater on north side of entrance, dredging, etc., Rustico harbor, \$1,500; breakwater on east side of entrance to harbor, St. Peter's Bay, \$7,000; breakwater, Summerside harbor, \$75,000; general repairs to breakwaters, etc., Tignish, \$1,000; improvements and repairs to harbor works, Wood Islands, \$3,750.

New Brunswick—Channel through beach, Buctouche, \$3,500; wharf extension, repairs, etc., Campbellton, \$15,000; improvements and repairs, Cape Tormentine, \$5,000; approach, ice breakers, etc., Carquet Wharf, \$2,000; improvement of outlet of river, Chockfish, \$1,500; improvements and repairs, Clifton (Stonehaven) breakwater, \$2,000; harbor improvements, Dalhousie, \$7,000; extension of eastern or outer breakwater, Mispick, \$6,000; wharf, Grand Manan, North Head Breakwater, \$10,000; wharf, Oak Point, \$8,000; breakwater, including connection with shore, Petit Rocher, \$6,500; repairs to breakwater, Pointe du Chene, \$5,000; extension of east pier, Quaco Harbor, \$10,000; extension of north

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pier, etc., Richibucto \$8,500; including tributaries, River St. John, \$6,000; contribution to local government not to exceed one-half the first cost of wharfs built by it, River St. John, wharfs in tidal water, \$5,000; dredging, St. Andrews, \$6,000; improvements, repairs and dredging, St. John Harbor, \$200,000; improvements at Shippegan Gully, Shippegan Harbor, \$6,000; wharf, at terminus of Caraque Railway, Shippegan Harbor, \$5,000; repairs and improvements, harbors, rivers and bridges, generally, \$17,000.

Quebec—Landing pier, Anse a l'Ilot, \$2,500; breakwater, Anse du Cap (Cape Cove), \$7,750; improvements to wharf at Cap aux Corbeaux, Baie St. Paul, \$1,800; training piers, etc., Barachois de Malbaie, \$8,700; wharf at Pointe a Cote, Bic Harbour, \$10,000; wharf on south shore of Lake St. Louis between Woodland and Bellevue, Chateauguay, \$1,000; improvements and repairs, Chicoutimi pier, \$5,000; extension, Cross Point wharf, \$10,000; wharf on river Saguenay, Descente des Femmes, \$1,000; pile wharf, Doucet's Landing, \$5,000; extension, Escoumains pier, \$20,000; wharf repairs and breakwater, Father Point, \$24,000; wharf, Grande Riviere de Beupre, \$3,500; breakwater, Grands Mechins, \$30,000; wharf extension, Grosse Isle, Quarantine Station, \$24,000; repairs and improvements, harbors, rivers and bridges generally, \$32,000; slip on west side, Isle Verte wharf, \$1,500; repairs, etc., Lake St. John Wharfs, \$3,500; dredging, Lake St. John, \$4,000; wharfs, Lake St. Francis (Beauce) \$7,000; wharf, Lavaltrie, \$5,000; repairs to wharf and shed, Les Eboulements, \$1,100; removal of rocks, L'Ile d'Alma, \$1,000; renewals and repairs, Longueuil wharf, \$4,000; improvements of approaches, Lotbiniere and Portneuf Counties Government Wharfs, \$1,200; piers, Magdalen Islands, \$1,600; wharf, Marsouin, \$3,500; landing pier, Mille Vaches, \$4,000; wharf on the 'Bassin,' Montmagny, \$9,000; renewals and repairs, Murray Bay Wharf, \$5,000; to complete, Notre Dame du Portage wharf, \$2,400; Perce Wharf (North Cove) \$9,000; removal of boulders, Petites Bergeronnes, \$1,500; Pointe aux Trembles Wharf (County Portneuf) \$15,000; wharf improvements, Rimouski, \$25,000; training dykes, etc., Rivers Ashouapmouchouan Peribonka, \$5,000; Riviere aux Renards Breakwater Pier, \$8,000; extension and repairs, Riviere aux la Pipe Wharf, \$4,000; dredging channel at mouth, Riviere Batiscan, \$8,000; harbor improvements, Riviere du Loup (Fraserville) \$15,000; dredging and other improvements at mouth, Riviere du Loup (en haut), \$15,000; dredging, Riviere Maskinonge, \$15,000; repairs, etc., Riviere Ouelle Pier, \$4,500; dredging and other im-

provements, Riviere Saguenay, \$60,000; improvements, Riviere St. Louis, \$7,000; channel between Grandes Piles and La Tuque, Riviere St. Maurice, \$16,500; dam at Grand Piles, Riviere St. Maurice, \$40,000; dredging channels at mouth, Riviere St. Maurice, \$20,000; harbor of refuge at mouth of Grand Riviere Ste. Anne, Ste. Anne des Monts, \$5,500; wharfs, St. Charles Borromeo, \$2,000; wharf and protection wall, St. Charles de Limoilou, \$3,000; approach to isolated block, island of Orleans, St. Francois, \$14,500; wharf, St. Fulgence, \$1,500; repairs, St. Irenee wharf, \$1,200; St. Jean des Chaillons wharf, including dredging, \$9,500; wharf extension, St. Jean, island of Orleans, \$13,500; repairs to wharf, St. Laurent, \$8,500; wharf extension, St. Simeon, \$1,200; wharf, St. Sulpice, \$7,000; wharf, St. Valier, \$4,000; Sorel deep water wharf, \$50,000; additional deep water wharfs, Three Rivers Harbor, \$100,000; repairs, Trois Pistoles wharf, \$2,500; dredging, Yamaska River, \$15,000.

Ontario.—Dredging entrance, etc., and close piling, etc., Belle River, \$1,450; harbor improvements, Beaverton, \$1,500; improvements, Blanche River, \$8,000; dredging, Bonte, \$4,000; wharf, Colborne Harbor, \$8,000; harbor improvements, Collingwood, \$22,000; improvements, Goderich Harbor, \$50,000; repairs and improvements, generally, harbors, rivers and bridges, \$25,000; harbor improvements, Hamilton, \$41,000; repairs to piers and dredging, Kincardine Harbor, \$4,500; improvement of northern channel in Georgian Bay, Little Current, \$50,000; improvements, Meaford harbor, \$21,000; dredging, Midland harbor, \$40,000; wharf at foot of Rideau Canal, Ottawa, \$5,000; dredging and pile protection work, Owen Sound Harbor, \$20,000; dredging, Point Edward, \$29,000; improvement of harbor, Port Burwell, \$60,000; repairs to piers and dredging, Port Hope, \$8,000; harbor improvement, Port Stanley, \$75,000; dredging, River Otonabee, \$10,000; wharfs at mouth, River Thames, \$1,800; improvements, Rondeau harbor, \$60,000; improvements at mouth, Saugeen river, \$7,600; dredging approaches, Sault Ste. Marie wharf, \$50,000; improvements and repairs, Toronto Harbor, \$100,000; improvements, Winnipeg river, \$10,000.

Manitoba.—Harbor of refuge, Big Sandy Point (Lake Manitoba), \$1,500; improvement of entrance channel, Grand Marais harbor (Lake Winnipeg), \$1,500; repairs and improvements, harbors, rivers and bridges, generally, \$6,000; lowering of lake by removing obstructions from bed of Mossy river, Lake Dauphin, \$7,000; improvements at mouth of river, Red river, \$10,000; extension of wharf, Sel-

kirk, \$1,500; dredging channel at mouth of Mossy river, Winnipegosis (Lake), \$5,000.

Saskatchewan and Alberta.—Repairs and improvements, harbors, rivers and bridges, generally, \$5,000.

British Columbia.—Clearing outlets, Anderson and Kennedy lakes, \$1,000; improvements, Columbia river, \$30,000; removal of obstructions, Coquitlam river, \$1,000; improvements of ship channel and protection works, Fraser river, \$30,000; repairs and improvements, harbors, rivers and bridges, generally, \$5,000; improvement of North Channel, etc., Nanaimo harbor, \$2,500; improvements, North Thompson river, \$1,000; improvements, Skeena river, \$10,000; removal of sand and gravel bars, Thompson river, \$5,000; dredging and removal of rocks, etc., Victoria harbor, \$30,000; improvements, Williams Head quarantine station, \$10,000.

NEW COMPANIES.

Dominion Carbonic Company, Limited, Toronto, Ont., incorporated, capital \$40,000. Directors, R. J. Quail, H. W. Allen, and A. J. MacLellan.

Maple Leaf Flour & Mills Company, Limited, have been granted a license to do business in the province of Ontario. P. E. MacKenzie, Kenora, Ont., attorney.

Calumet Cobalt Mines Company, Limited, Haileybury, Ont., incorporated, capital \$500,000. Directors, J. F. Gillies, J. Mackay, and J. F. H. McCarthy.

Norfolk County Telephone Company, Limited, Waterford, Ont., incorporated, capital \$40,000. Directors, E. S. Barber, H. Bartholomew, J. H. McIlroth, S. L. Squire, P. G. Pearce, C. H. Glover, and F. L. Culver.

Esperanza Cobalt Mines Company, Limited, Windsor, Ont., incorporated, capital \$1,000,000. Directors, W. E. Parker, F. S. Osborne, H. B. Bennett, A. M. Holden, and B. S. Warren.

Elliott-Fisher, Limited, Toronto, Ont., incorporated to manufacture billing machines and book writers, capital \$40,000. Directors, E. R. Lynch, Alice Scott and Edith McLellan.

Cobalt Silver Ores, Limited, Toronto, Ont., incorporated, capital \$1,000,000. Directors, J. R. L. Starr, J. H. Spence, Lillian Heal, Ada M. Duncan, and Ada A. Rogers.

Ross Cobalt Silver Mines Company, Limited, Cobalt, Ont., incorporated, capital \$1,500,000. Directors, D. Ford, W. T. Ross, and P. O'Reilly.

G. W. Murray Company, Limited, Winnipeg, Man., incorporated, to carry on a general lumber business, capital \$200,000. Incorporators,

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G. W. Murray, J. D. Mather, G. M. Elliott, R. D. Macdonald, and E. Newell, all of Winnipeg.

McCann-Knox Milling Company, Limited, Toronto, Ont., incorporated, capital \$100,000. Directors, W. McCann, J. E. Knox and C. P. Chisholm.

Latchford Silver Mining Company, Limited, Toronto, Ont., incorporated, capital \$100,000. Directors, P. J. Montague, R. F. Wilks, and F. Pottage.

Elgie & Jarvis Lumber Company, Limited, Toronto, Ont., incorporated, capital \$40,000. Directors, R. B. Elgie, J. B. Jarvis and Mary Elgie.

National Car Company, Limited, Toronto, Ont., incorporated, capital \$300,000. Directors, A. Steward, T. H. Kilgore, and Louise Williams.

The Cuyahoga Silver Cobalt Mines Limited, Toronto, incorporated, capital \$1,000,000. Directors, H. S. Pritchard, F. Watt, and F. C. Jarvis.

The Thyle Meat Company, Limited, Winnipeg, Man., incorporated, capital \$250,000. Incorporators, A. C. Johnson, S. Jonasson, L. Sturgess, all of Winnipeg, and others.

Anima-Silver Mines, Limited, Cobalt, Ont., incorporated, capital \$300,000. Directors, W. Black, L. E. Hambly, and J. K. Leslie.

James Burgess & Sons, Limited, Grand Falls, N. B., are seeking incorporation to carry on a general lumber business.

A license has been granted Penmans Limited, to do business in Ontario. O. R. Whitby, Paris, Ont., attorney.

The Canada Lighting Fixtures, Limited, Winnipeg, Man., incorporated, capital \$100,000. Incorporators, J. Stuart, R. H. Mainer, R. G. Mainer, R. J. Cole, and E. C. White, all of Winnipeg.

The Western Rubber & Apparatus Company, Limited, Winnipeg, Man., incorporated, capital \$25,000. Incorporators, S. MacK. MacLeod, A. A. Andrews, J. H. Anderson, G. D. Minty, all of Winnipeg, and W. P. Kearney, of Montreal, Que.

A license has been granted the International Marine Signal Company, Limited, to do business in Ontario. T. L. Wilson, Ottawa, Ont., attorney.

A license has been granted the British America Elevator Company, Limited, to do business in Ontario. W. Gow, Toronto, Ont., attorney.

A license has been granted the Monterey Waterworks & Sewer Company, Limited, to do business in Ontario. Z. A. Lash, Toronto, Ont., attorney.

Southern Belle Cobalt Silver Mining Company, Limited, Cobalt, Ont., incorporated, capital \$1,000,000. Directors, T. Langton, M. J. O'Neill and J. Martin.

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H.E. Simpson Building Company, Limited, Niagara Falls, Ont., incorporated, capital \$50,000. Directors, H. E. Simpson, B. J. Coulson, and J. J. Bampfield.

NOTES.

J. Benoit and P. Benoit, brick-makers, of St. Dominique, Que., have registered their business as Benoit & Fils.

The Sydney Cement Company, Sydney, N. S. have received an order for 700 barrels of cement to be delivered in Mexico.

Collectors' and treasurer' bonds filed with the clerk of a municipality become official records of the office and should not at any time be removed therefrom. We notice that councils in changing officers, or when acceptance new bonds, sometime without a proper auditors' report, order the clerk by resolution to give up the old bonds. A bondsman is liable for misappropriation of funds during the term of the bond no matter when the same may be discovered. Bondsmen for Ontario municipal officers are not often called on to make good, but when the circumstances are such as to render this necessary the bonds should be available.

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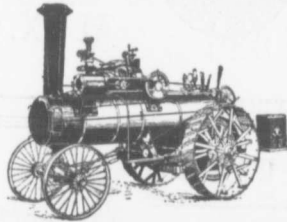
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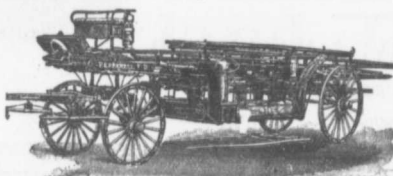
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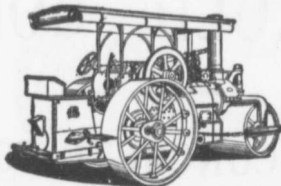
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NOTES.

The contracting firms of M. Brodeur & Company and H. Crocheteire & Company, Montreal, Que., have been registered.

Building permits for 402 build-

ings, having a value of \$1,087,692 were issued during November by the city of Toronto. For the same period last year the figures were 238 buildings valued at \$788,771. The eleven months ending Novem-

ber 30th saw 3288 permits issued for the erection of 4,487 structures at a cost of \$12,190,615, while for the same eleven months of 1905, 2933 buildings were erected costing \$9,743,560.

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					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	*
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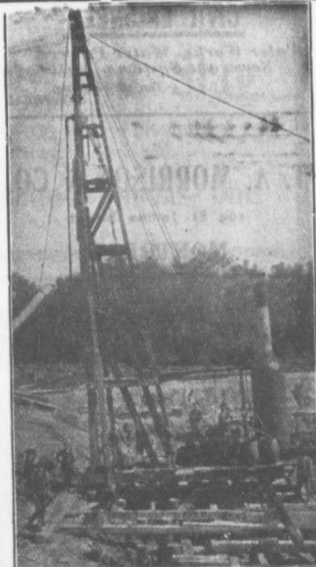
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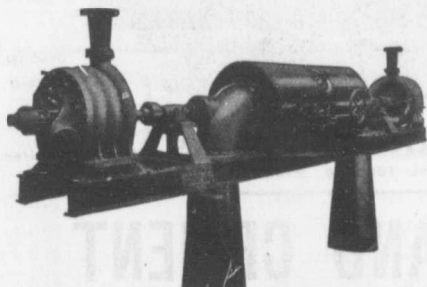
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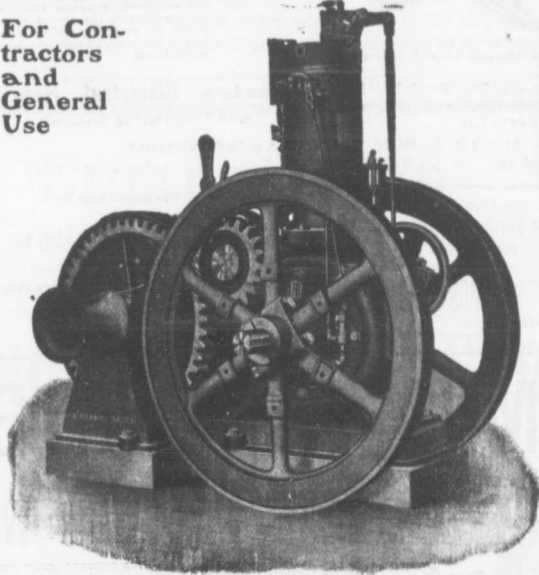
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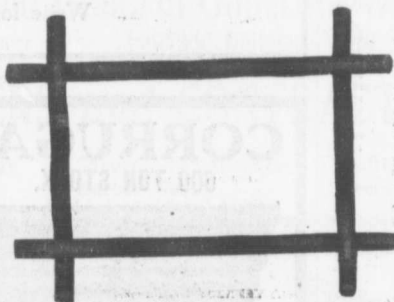
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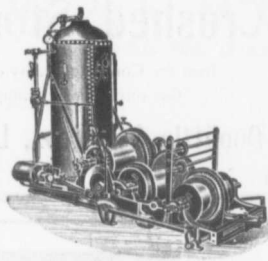
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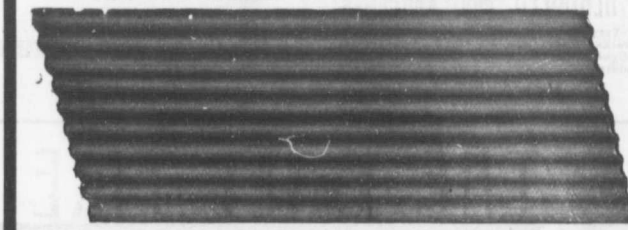
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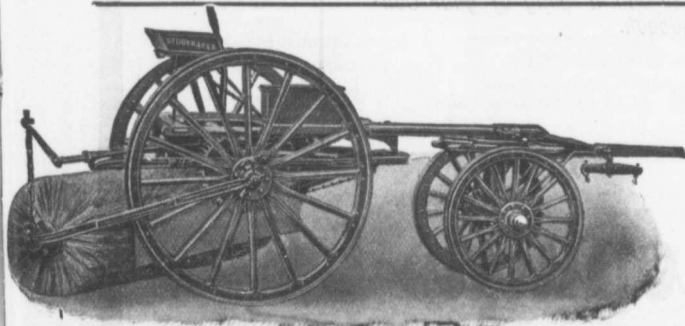
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