

# CANADIAN Contract Record

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

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

VOL. 15.

TORONTO, MONTREAL AND WINNIPEG, NOVEMBER 23, 1904

No. 41

## THE CANADIAN CONTRACT RECORD

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Architect and Builder.  
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lishers of any irregularity in delivery of papers.

## TOWN OF EAST TORONTO PROVINCE OF ONTARIO

### TENDERS FOR POWER HOUSE

Tenders will be received by the undersigned  
up to 8 p.m. on MONDAY, DECEMBER 5TH,  
1904, for providing the materials and labor re-  
quired in making alterations and additions to the

#### BRICK POWER HOUSE

situated at the South-west corner of Gerrard and  
John Streets.

Plans and specifications may be seen and  
forms of tender obtained at the office of the  
undersigned, or at the head office of JOHN  
GALT, C.E. and M.E., Chief Engineer, Toronto.  
A certified bank cheque for \$500 must accom-  
pany each tender.

W. H. CLAY, Clerk,  
Town of East Toronto.

## TO CONTRACTORS

The C. P. R. Hotel at Victoria, B. C.

### TENDERS

Are invited by the Canadian Pacific Railway  
Company for the erection of a seven-story  
Stone and Brick Hotel at Victoria, B. C.

Plans and specifications may be seen at the  
offices of the Chief Engineer of the Company at  
Montreal and at Vancouver, also at the offices  
of F. M. Rattenbury, Architect, Victoria, B. C.

Tenders must be accompanied by a marked  
cheque equal to 5 per cent. of the amount of the  
tender; this cheque to be forfeited in case any  
contractor fails to enter into a contract and  
furnish bonds in accordance with the plans and  
specifications if called upon to do so; but will be  
returned to all contractors as soon as the con-  
tract is signed.

Tenders to be made out in duplicate upon the  
printed forms provided by the Company and  
addressed on or before DECEMBER 27TH, 1904,  
to George H. Webster, Division Engineer, Van-  
couver.

The Company reserves the right to reject any  
or all of the tenders.

An Architectural Draftsman of seven years'  
experience with best class of work desires posi-  
tion by Dec. 15th. Box 23, CONTRACT RECORD,  
Toronto.

## DEBENTURES FOR SALE

Tenders are invited by the undersigned until  
DECEMBER 31ST NEXT, for the purchase of  
fifteen thousand dollars worth of water works  
debentures of the Town of Red Deer, N.W.T.

L. C. FULMER,  
Secretary-Treasurer.

## TENDERS WANTED

Tenders for BRICKWORK, PLUMBING,  
HEATING AND ROOFING

will be received until noon on SATURDAY,  
NOV. 26th, for additions to offices on Pearl St.  
for Messrs. McGregor & McIntyre. The lowest  
or any tender not necessarily accepted.

WICKSON & GREGG, Architects,  
39 Yonge St., Toronto.

## CONTRACTS OPEN

AYER'S CLIFF, QUE. — Henry  
Place purposes building a residence.

OAK BAY, QUE. — J. & R. Sowerby  
intend rebuilding their saw mill.

DUNDAS, ONT. — The town dam  
will be repaired, at an approximate cost  
of \$1,000.

NIAGARA FALLS SOUTH, ONT.  
— K. Dell purposes building a residence  
on Allen street.

ESTERHAZY, N.W.T. — The Church  
of England congregation intend building  
a new church.

LADYSMITH, B.C. — William Nichol-  
as has prepared plans for a new city  
hall to be built here.

BRANDON, MAN. — Excavations are  
being made for a large brick addition to the  
Imperial Hotel.

PARIS, ONT. — The question of build-  
ing a ten-room central public school is  
under consideration.

PORT ARTHUR, ONT. — The  
Pittsburg Coal Company intend estab-  
lishing large coal docks here.

DAYTON, ONT. — It is understood  
that David Gordon intends installing a  
shingle mill in his saw mill.

MIDDLE SACKVILLE, N. B. —  
The Baptist congregation purpose build-  
ing a new church early next spring.

CHATHAM, ONT. — The City Coun-  
cil have requested architects to submit  
plans for a new market building.

WELLAND, ONT. — Dr. Kells and  
Mr. Stovall will each build a new cottage  
at Humberstone Club next season.

CRANBROOK, B. C. — The Cran-  
brook Electric Light Co. have decided to  
add another dynamo to their plant.

PRESTON, ONT. — Clare Bros. have  
purchased property adjoining and will

likely extend their factory. — James Eagle  
purposes building a residence on Hamil-  
ton street.

ARCOLA, N.W.T. — It has been de-  
cided to proceed at once with the erec-  
tion of a new skating and curling rink.

NELSON, B.C. — The question of pur-  
chasing additional water meters has been  
left in the hands of the City Engineer.

NIAGARA FALLS CENTRE, ONT.  
— The project for building a Methodist  
church has been postponed for the  
present.

AMHERSTBURG, ONT. — The  
time for receiving tenders for dredging  
at this place has been extended to Friday,  
25th inst.

GUELPH, ONT. — A by-law will be  
submitted to the ratepayers to raise  
\$23,000 for an addition to the Collegiate  
Institute building.

WALKERVILLE, ONT. — A by-law  
will be submitted to the ratepayers in  
January to raise \$50,000 for the purpose  
of building new schools.

HEPWORTH, ONT. — Bids for pur-  
chase of \$1,512.50 County of Bruce de-  
bentures are invited by John Robinson,  
Reeve, of this place.

SUSSEX, N. B. — The Town Council  
have decided to obtain estimates on  
building a new pumping station and in-  
stalling an electric light plant.

WINDSOR MILLS, QUE. — The  
right of way has been purchased for the  
extension of the Orford Mountain Rail-  
way from Kingsbury to this place.

WELLAND, ONT. — A by-law will  
be submitted to the ratepayers to grant  
a loan of \$10,000 to the Stephenson Car-  
riage Co. to establish a factory here.

STRATFORD, ONT. — James A. Bell,  
C.E., of Toronto, has been engaged as  
consulting engineer for the storm sewer-  
age system to be installed for this city.

GOLDEN, B. C. — Surveyors are  
making the final location for the railroad  
from the C.P.R. at this place up the  
Columbia Valley to Fort Steele Junction.

NEW LISKEARD, ONT. — Plans  
have been prepared for new railway  
stations at this place and Haileybury for  
the Temiskaming and Northern Ontario  
Railway.

BRUSSELS, ONT. — Philip Ament  
intends rebuilding his planing mill. —  
Thomas Newsome purposes building a  
residence on corner of King and James  
streets.

OWEN SOUND, ONT. — C. K.  
Baines & Son will next spring erect a  
modern storehouse for coal. — The erec-  
tion of a public library building is being  
considered.

ST. STEPHEN, N. B. — New York  
capitalists are reported to have closed

negotiations with F. H. Todd & Sons for the erection of large pulp and paper mills at Sprague's Falls.

**REGINA, N. W. T.**—The School Board are considering sites for a new school building to be built next spring and which will likely cost about \$50,000.

**PORTAGE LA PRAIRIE, MAN.**—Willis Chipman, C.E., of Toronto, has been engaged to design a waterworks system for this town, the work to be commenced next spring.

**BELLEVILLE, ONT.**—By-laws will be submitted to the ratepayers in January to raise \$10,000 for waterworks filtering system and \$10,000 as a loan to the Deacon Shirt Co.

**QUEBEC, QUE.**—M. Ragali, sculptor, has purchased the property on St. John street adjoining the Bell Telephone offices and will erect a three-storey building next spring.

**EAST TORONTO, ONT.**—Tenders are invited by W. H. Clay, Town Clerk, up to December 5th, for alterations and additions to brick power house. Plans by John Galt, C.E. and M.E., of Toronto.

**MONCTON, N. B.**—D. Pottinger, manager Intercolonial Railway, will receive tenders up to Monday, 28th inst., for construction of a station at Alton, N. S. Plans at Station Master's office at Truro.

**SEAFORTH, ONT.**—The Canada Furniture Manufacturers have submitted a proposition to the Council to erect a new factory here in consideration of a loan of \$20,000. A by-law will be submitted to the ratepayers.

**KEMPTVILLE, ONT.**—Mr. Warren has had plans prepared for a new hotel, to be 93x56 feet, 3 stories, of brick, cost \$14,000.—G. H. Harris, wholesale druggist, Chicago, will erect a concrete dwelling in this village next spring.

**PETERBORO, ONT.**—It has been decided to build a collegiate institute to cost about \$50,000, and a deputation last week went to Windsor, London and Chatham for the purpose of obtaining information regarding such buildings.

**PARRY SOUND, ONT.**—The Parry Sound Steamboat Co. has been organized, to build two steamboats to ply between Parry Sound and Georgian Bay ports. The contract for the construction of one of these steamers will be let very shortly.

**KAMLOOPS, B. C.**—P. Burns & Co. will next spring erect a brick block on the corner of Second ave. and Victoria street. They are also maturing plans for a cold storage plant, packing house and abattoir to be built on their property here.

**PEMBINA, MAN.**—Superintendent Sovereign, of the St. Paul and Pembina Division of the Northern Pacific Railway, has taken steps towards the building of a bridge across the Red river to connect the line between Pembina and St. Vincent.

**PORT HOPE, ONT.**—R. S. Weston, sanitary expert, has submitted a report to the Town Council on the water supply, and it is likely that a by-law will be submitted to the electors to raise \$20,000 for carrying out his recommendations for improvements.

**KINGSTON, ONT.**—The Fire and Light Co. committee have decided in favor of submitting a by-law to the ratepayers to raise \$150,000 for improvements and extensions to the gas and electric plants. Of this amount it is proposed to expend \$36,000 on the electric plant.

**PRINCE ALBERT, N.W.T.**—Revillion & Freres have purchased the building of J. E. Sinclair, general merchant, and the Campbell block adjoining, to-

gether with an additional 60 feet of land, it being their intention to erect on the property a large departmental store.

**HANTSPORT, N. S.**—George D. Comstock has given notice that the town proposes to establish a waterworks system if the necessary legislation can be obtained, and contractors wishing to tender on the work are invited to go over the ground before winter sets in.

**WATERLOO, ONT.**—The Town Clerk is offering debentures for sale.—James Grant, of Toronto, has offered to erect a factory here for condensing milk in consideration of a loan of \$7,000.—The Canada Furniture Manufacturers have commenced building operations.

**NIAGARA FALLS, ONT.**—The Board of Works have decided to construct a number of extensions to water mains.—It has been decided to incorporate the Niagara Falls Hospital Trust, for the purpose of acquiring a site and building a hospital. F. W. Hill and James Wilson are among the promoters.

**MARYSVILLE, B.C.**—James Finlay and F. J. Weeks have applied for the incorporation of a company to construct a tramway from Sullivan Hill, South-East Kootenay, to the North Star branch of the Crows Nest Pass railway, and to maintain and operate telegraph and telephone systems.

**FORT WILLIAM, ONT.**—The J. I. Case Manufacturing Co. have acquired a site in West Fort William upon which they intend to build a large factory next spring.—The C.P.R. have commenced work on a large dock extension commencing at the upper end of elevator B and extending 640 feet up the river.

**CHARLOTTETOWN, P. E. I.**—The City Council have commissioned the DeLano-Osborne Engineering Co., of Toronto and Montreal, to prepare plans and estimates for a civic lighting and power plant.—L. B. McMillan, Secretary Department of Public Works, will receive tenders until Wednesday, November 30, for rebuilding the Haldimand bridge, Egmont Bay.

**BRANTFORD, ONT.**—Two Waterford men are said to have purchased from Mr. Jolly property on Dalhousie street on which they will build a livery stable to cost \$15,000.—Stewart, Taylor & Witton, architects, are preparing plans for a residence and office to be built by Dr. T. H. Bier at corner of Wellington and Charlotte streets.—At a meeting of the City Council on Monday last by-laws were passed to provide \$60,000 for the purpose of erecting a new city hall and \$62,000 for the construction of a drainage system.

**OTTAWA, ONT.**—L. K. Jones, Secretary Department of Railways and Canals, will receive tenders up to Thursday, December 1, for woodworking and ironworking machinery for the canal workshop at Cornwall, Ont. Plans at the above department and at the office of the Superintendent of Operation, Morrisburg, Ont.—The Model Bakery Co. purpose again enlarging their bakery.—Woods, Limited, are considering the erection of a large addition to the south side of their Slater street building. The manager is James W. Woods.

**HAMILTON, ONT.**—The new shops to be built by the Toronto, Hamilton & Buffalo Railway on Garth street will be 206x36 feet and will cost about \$5,000.—The International Harvester Co. will next year make extensive additions to their plant in this city, the plans for which are now being prepared.—E. D. Cahil is preparing plans for ten new houses.—John Stuart will build a \$2,200 residence on Queen street, between Markland streets and Aberdeen ave.

**NEW WESTMINSTER, B.C.**—The

Blackman-Ker Milling Co. are about to erect a grain elevator on Front street, also a large wharf with the storage accommodation necessary to handle the traffic from Fraser River points.—The Fraser River Tannery Co., incorporated some time ago, have secured a site at South Westminster for their proposed tannery.—Small & Bucklin, of Ithaca, N.Y., are negotiating for the purchase of a site in this city on which to build a large saw and planing mill.

**VICTORIA, B.C.**—James Townsley has submitted a proposition to the City Council to establish rice mills in this city.—The Water Commissioner is about to submit an exhaustive report to Council in connection with proposed improvements to the waterworks system. The plan will embody the construction of a reservoir in connection with Elk lake.—W. Ridgeway Wilson, architect, has taken tenders on the erection of a three-storey residence on St. Charles street for A. E. Todd.

**ST. CATHARINES, ONT.**—Tenders will be received by the Department of Railways and Canals, Ottawa, up to Wednesday, 30th inst., for the repairing of the foundations of locks Nos. 12, 15 and 16 of the new Welland canal. Plans at the office of the Superintending Engineer in this city.—James B. Nolan has submitted a proposition to the City Council to establish a plant here for the manufacture of woolen goods, the expenditure on plant to be \$35,000.—The Hamilton, Grimsby and Beamsville Railway Co. will obtain estimates on a high level bridge over their tracks as soon as the location has been agreed upon.

**FERNIE, B. C.**—L. Crawford, a Scotch mining engineer representing Mr. Fernau, states that it is the intention to immediately construct a zinc smelting plant, the location of which will be decided upon within the next two weeks.—D. V. Mott will shortly commence the installation of a telephone system here.—The Elk Lumber & Manufacturing Co. are building the foundation for their new mill, which will have a capacity of 125,000 feet of lumber in ten hours. A burner will be built to dispose of the refuse and an electric light plant installed.—Preliminary steps are being taken towards the installation of waterworks and sewerage systems.

**VANCOUVER, B. C.**—The Board of School Trustees have prepared an estimate showing that the sum of \$75,000 will be required for new buildings during the coming year, and a by-law to provide this amount will likely be submitted to the ratepayers.—The City Engineer estimates that in addition to the available surplus, about \$100,000 will be required in 1905 for waterworks extensions.—Dalton & Eveleigh, architects, are preparing plans for a two-storey brick and stone building to be erected on Hastings street, adjoining the Woodward departmental stores. The building will cost about \$50,000 and will be commenced in about a month.—The British Columbia Electric Railway Co. are taking tenders on a large addition to their office building on corner of Carrall and Hastings streets.

**LONDON, ONT.**—A. L. McEvoy, County Treasurer, will receive bids up to Monday, December 5, for purchase of \$33,000 4 per cent. debentures.—Building permits were granted last week as follows: J. A. Sutherland, 1½ storey brick veneer dwelling on Pall Mall street; J. F. Moralee, 1½ storey brick dwelling on Gleebe street; J. G. Orchard, brick office on York street west; John Richards, 1½ storey brick house on Lorne ave., near Adelaide street.—W. T. Jennings, C.E., of Toronto, has been engaged to report on the best means of

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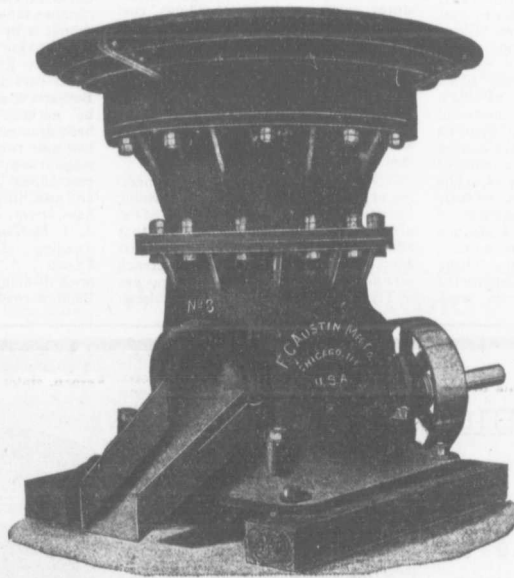
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**MONTREAL**

protecting West London from floods.—It is understood that G. M. Miller & Co., architects, of Toronto, are preparing plans for the power house to be built near this city by the Southwestern Traction Company.—Funds are being raised by the congregation of Chalmers church for the erection of a new edifice.

WINNIPEG, MAN.—The Board of Management of St. Andrew's Society are inviting offers of suitable sites for their new building.—The time for receiving tenders for erection of a post office building in this city has been extended to Wednesday, November 30.—By-laws have been passed in council to raise \$400,000 for a municipal gas plant and \$100,000 for a central police station and patrol service.—The following works are about to be undertaken by the city: Asphalt pavement on Princess street and Donald street, from Notre Dame ave. to Portage avenue, cost \$14,360; on Shore street, from Portage ave. to Broadway, cost \$3,714; on St. James place, cost \$3,829; on Sutherland ave., from Aikins street to King street, cost \$14,200; cedar block pavement on first lane east of Main street, cost \$14,200; cedar block pavement on first lane east of Main street, cost \$1,280; macadam pavement on lane between River ave. and Spadina ave., from Nassau street to Wellington Crescent, cost \$2,410; also a number of sewers and granolithic sidewalks.—The Great West Development Co., recently organized, intend building upwards of 100 houses next spring, also a \$60,000 block adjoining the Clarendon hotel.—The Manitoba Gypsum Co. are cutting ties for their tramway to be constructed from Westbourne to the quarries, work

on which will be commenced next spring.

MONTREAL, QUE.—Sir Wm. Macdonald purposes establishing an agricultural college at St. Anne, where he has purchased 700 acres of land. The college, it is understood, will cost \$1,000,000.—The Road Committee will invite tenders for the construction of a sewer at Cote de Neiges.—Sewers will be constructed on the following streets: Dufferin street, from Comte street to city limits; Sanguinet, from end of sewer south of St. Louis square southwards; Taillefer street, from Roland street southwards.—The following building permits have been granted: Laframboise & Guimond, Hotel de Ville, pair three-storey wood and brick dwellings, cost \$3,000; E. Archambault, Notre Dame street, two-storey wood and brick dwelling, cost \$1,500; Fr. Geo. Crepeau, Visitation st., pair three-storey wood and brick dwellings, cost \$1,500; H. N. Monks, Charron st., pair three-storey wood and brick dwellings, cost \$2,500; Lewis Bros. & Co., St. Sulpice st., six-storey stone dwelling and warehouse, cost \$10,000; Jas. Strachan, Hotel de Ville, two-storey brick house and stable, cost \$2,000; J. Longpre, Beaudry st., pair two-storey wood and brick dwellings, cost \$2,000; Henry Gareau, Boyer st., two-storey wood and brick dwelling, cost \$1,900.

TORONTO, ONT.—At a recent meeting of prominent members of the Masonic Society, it was decided that it was advisable to erect a Masonic Hall and that efforts should be made to raise at least \$200,000 for the purpose.—A conference was held last week between the Trustees of Toronto University and the Trustees

of Toronto General Hospital in regard to the proposal to establish a new hospital to replace the general hospital. The conference was the outcome of Mr. Cawthra Mulock's gift of \$100,000.—The City Engineer has recommended the construction of a pavement on Queen street east of the Woodbine, also a bitulithic pavement on Gerrard street, from the Don bridge to Broadview ave., at a cost of \$6,443. A number of concrete walks was also recommended.—Wickson & Gregg, architects, 59 Yonge street, are taking tenders up to the 26th inst. for additions to offices on Pearl street for McGregor & McIntyre.—Tenders are wanted at 37 Marion street for erection of a small house in Parkdale.—The Board of Control have recommended to the City Council that ten acres of land on Ward's Island be leased to C. C. Van Every and others as a site for a large summer hotel.—The City Council on Monday last adopted the recommendation of the Board of Control to submit a by-law to the people to raise \$700,000 for increased fire protection.—The City Engineer has reported that if street cars are to be operated over the Bathurst street bridge, a new bridge will be necessary.—Building permits have been granted as follows: White & Co., two pair two story brick dwellings, Ossington ave., near Northumberland street, cost \$8,000; A. C. Gray, pair two story and attic brick and stone dwellings, Markham street, near Herrick, cost \$6,000; A. J. McCauley, pair two story brick dwellings, 181 and 183 Howland ave., cost \$3,000; A. Bedford Jones, 2½ story brick dwelling, Prince Arthur ave., near Bedford road, cost \$3,200; Purty Mfg.

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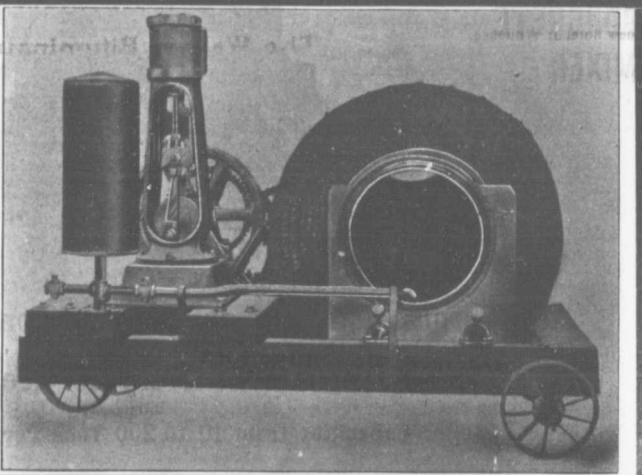
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Co., brick soap factory, corner Florence and Brock ave., cost \$5,000; C. H. Westwood & Co., five story brick office building, 72 Bay street, cost \$20,000; W. W. Hiltz, pair 2½ story brick and rough-cast dwellings, Smith street, cost \$4,000; S. R. Hughes, 2 story and attic stone and brick dwelling, Portland street, near King, cost \$6,600; Fred Ingram, three pair two story and attic roughcast dwellings, West ave., cost \$9,600; Alfred Addison, 2½ story brick and stone dwelling, Maddison ave., near Dupont, cost \$5,000; Macpherson Trustees, 2 story and attic brick dwelling, Roxborough ave. east, cost \$5,500; Chas. Mould & Co., pair 2 story and attic roughcast dwellings, Montrose ave., cost \$3,500.

**FIRES.**

Saw mill of J. D. Sowerby & Co., Oak Bay, Que.—Sash and door warehouse of the Rat Portage Lumber Co. at Brandon, Man.; loss \$20,000.—Wringer works and tool factory of the James Smart Manufacturing Co. and the Central Canada Coal Co.'s sheds at Brockville, Ont.; total loss, \$200,000.—Dry kiln of the Hazelmere Lumber Co., Hazelmere, B. C.; loss \$2,000.—Residence of Dr. Bolduc at Montmorency Falls, Quebec.—Warehouse of Walter H. Barry & Company and John A. Barry, corner Notre Dame street and Dollard lane, Montreal, damaged to extent of \$40,000.

**CONTRACTS AWARDED.**

PRESTON, ONT.—Residence for James Eagle; Masonry, Fach Bros.

NELSON, B. C.—Addition to Hudson's Bay Co.'s building; John Burns, contractor.

FORT WILLIAM, ONT.—John King has let the contract for building a new hotel at Whitefish.

BRIDGEPORT, ONT.—Residence for Moses Hunsberger; John Wirsching, of Preston, contractor.

FREDERICTON, N. B.—Rebuilding drill hall here; C. J. B. Simmons, contractor, price about \$13,000.

MALDEN, ONT.—C. Thomas and R. Hart are the successful tenderers for the Malden portion of the Long Marsh drain, at \$5,225.

WINDSOR, ONT.—Residence on Victoria ave. for J. H. Kenning; George Haugh, contractor; cost about \$5,000.

STRATFORD, ONT.—Erection of new armories; Nagle & Mills, of Ingersoll, successful tenderers, \$47,703. Work will be started next spring.

HALIFAX, N. S.—Donald Sutherland, of this city, has secured the contract for digging 27 miles of trench at the new Marconi station at Port Morien.

LETHBRIDGE, N.W.T.—The Irrigation Co. have awarded to H. S. Allen,

of Raymond, a contract for the enlargement of the canal to nearly three times its present capacity.

BROCKVILLE, ONT.—The James Smart Manufacturing Co. have secured the contract for heating and ventilating Bank street Baptist church, Ottawa, using two Kelsey generators.

VICTORIA, B. C.—Hotel at Oak Bay; George Mesher, this city, contractor, price about \$13,000.—J. H. McLaughlin has been awarded the contract for extension of wharf at the Giant Powder Co.'s works at Telegraph Bay.

OTTAWA, ONT.—Contract for erection of the Royal Victoria Museum has been awarded to George Goodwin, of this city. It is understood that his tender is slightly above \$1,000,000.—The contract for stopping certain leaks in the Galops Canal bank has been awarded to John O'Leary, of this city, for about \$40,000.

BRANDON, MAN.—Heating and ventilating West Ward school; Brown & Mitchell, this place, contractors, price \$6,436. Heating to be the Paul vacuum system.—Erection of school at Bradwardine; John Gray, of Bradwardine, contractor, \$5,300. W. A. Elliott is architect for the above works.

ST. THOMAS, ONT.—For purchase of \$15,000 Alma College debentures tenders were received as follows: G. A. Stimson Co., Toronto, \$15,011.00; H. O'Hara & Son, Toronto, \$14,850; W. C. Brent, Toronto, \$15,127.50 (accepted); Aemilius Jarvis & Co., Toronto, \$15,075-

50; Dominion Securities Corporation, Toronto, \$15,123.

WINNIPEG, MAN.—Excavation for new post office on Portage ave.; W. F. Lee, contractor.—The tender of Buchanan & Gordon has been accepted for supply of 5,000 of 15,000 pound barrels of Samson cement of 62.57 cents per 100 pounds.—City debentures have been disposed of as follows: \$250,795.94 to N. W. Harris & Co., of Chicago; \$297,849.70 to E. H. Gay & Co., of Montreal.

WOODSTOCK, ONT.—The following tenders were received for purchase of county debentures: H. O'Hara & Co., Toronto, \$34,616.50 (accepted); Brouse, Mitchell & Co., Toronto, \$33,450; Dominion Securities Co., Toronto, \$34,225; Aemilius Jarvis & Co., Toronto, \$34,249; Montreal City & District Savings Bank, Montreal, \$33,910; Wm. C. Brent, Toronto, \$34,078.

Cook & McKay, painters, Toronto, have dissolved, and the business will be continued by Mr. McKay.

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## NEW COMPANIES.

Miller-Morse Hardware Company, Limited, Winnipeg, Man., incorporated, capital \$1,000,000. Promoters, Hyman Miller, F. W. Morse, F. M. Morse, merchants, Alfred Reed, accountant, and Hugh A. Robson, barrister.

International Bolt Company, Limited, Montreal, incorporated, capital \$100,000. Promoters, H. W. Dinning, of Lachine; Wm. Eckenstein and Alexander Hendry, of Montreal, and others.

Windsor Gas Company, Limited, Windsor, Ont., incorporated, capital \$200,000. Directors, S. A. King, William C. Kennedy and Isaac C. Backster, of Windsor.

Toronto Cast Stone & Concrete Company, Limited, Toronto, incorporated, capital \$40,000, to manufacture and deal in cements, limestone and other builders' supplies. Directors, John R. Marshall, Andrew Nelson, John Michael, W. R. Payne, and W. E. Sampson, all of Toronto.

Canada Machinery Company, Limited, Point Edward, Ont., incorporated, capital \$100,000, to manufacture machinery. Directors, David Milne, Thomas Kenny, Charles S. Ellis, and others, of Sarnia.

King Suspender Company, Limited, Toronto, incorporated, capital \$40,000. Directors, A. M. Macdonell, Thomas H. Barton, and F. D. Byers.

Imperial Construction Company, Limited, Toronto, incorporated, capital \$40,000. Directors, A. M. Macdonell, Thomas H. Barton, and F. D. Byers.

Barclay Sound Cedar Company, Limited, incorporated at Victoria, B.C., capital \$50,000, to conduct a logging and lumber business.

New Brunswick Iron Company, Limited, seeking incorporation, capital \$1,000,000, to develop iron deposits in the vicinity of Lepreaux, N.B. Applicants, John S. McLennan and C. W. Wetmore, of Sydney, N.S.; L. B. Knight, of St. John; C. W. Young, of St. Stephen, N.B.; and A. D. Whitmore, of Truro, N.S.

David & Colas, painters, Montreal, have dissolved.

The large concrete gathering dam of the Toronto & Niagara Power Company across the bed of the Niagara river has been completed.

Mrs. Demase Boileau has registered as proprietress of the business of DeBoileau & Cie, contractors, Isle Bazard, Que.

The City Engineer of Toronto has been authorized to test the efficiency of the California plan of sprinkling the streets with oil to keep down the dust.

The shareholders of the Fort William Contracting Company, Limited, Fort William, Ont., will hold a meeting on November 28th, for the election of officers and to make arrangements for the commencement of business.

The Mira Brick Company, Mira Ferry, N. S., have manufactured about 1,000,000 bricks this season.

Mineral paint in paying quantities has been discovered on the premises of Alfred Cooper, near Fort William, Ont. The exact location of the paint bed is in the Slate River district, and experts who have examined the article pronounce it to be first class.

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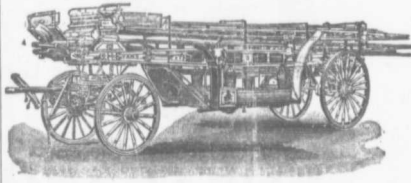
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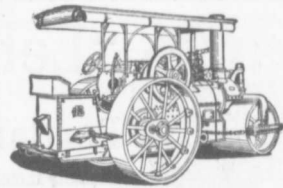


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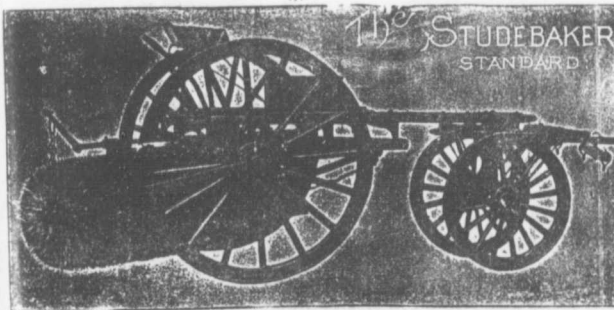
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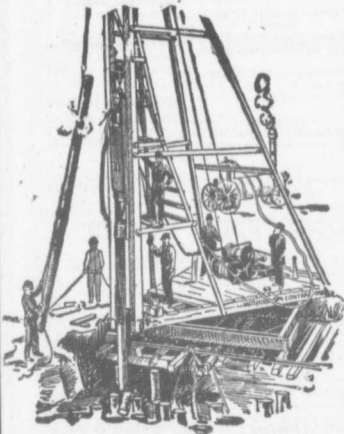
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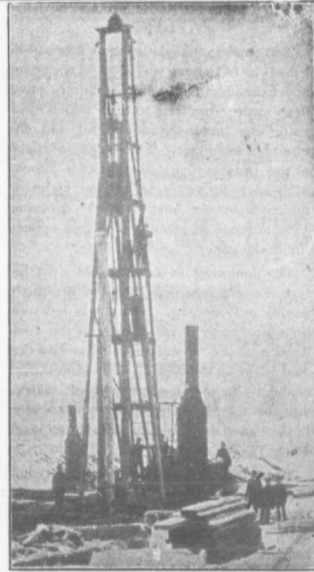
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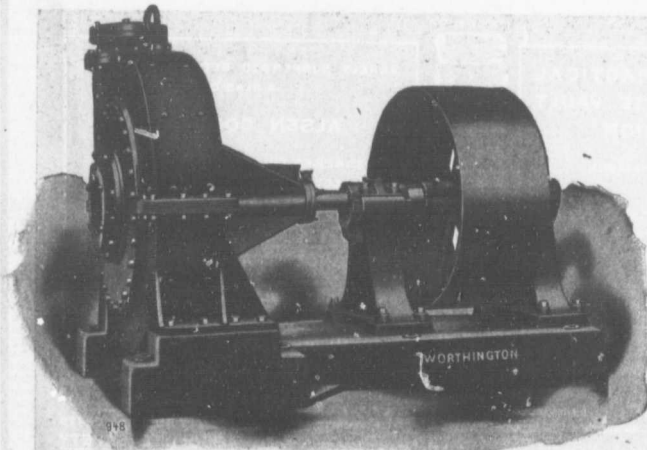
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The following is a condensed description of operations connected with asphalt paving in Winnipeg. The city is situated on a practically level prairie at the confluence of the Assiniboine River and the Red River of the North. The street level is about 7 ft. above extreme high water, and about 33 ft. above extreme low water in the river, the elevation above sea level being 754 ft.

The climate is sometimes extremely hot in summer, and in winter the thermometer occasionally reaches the forties below zero. The snow fall, considering the latitude, is light, the pavements in places, particularly in the car tracks, for the entire winter being almost or quite bare of snow.

From the above, it is evident that conditions are particularly unfavorable for asphalt pavements. Notwithstanding the

\* A paper read before the American Society of Municipal Improvements by Lieut.-Col. H. N. Rutan, city engineer of Winnipeg.

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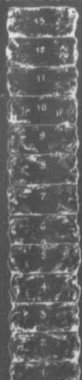
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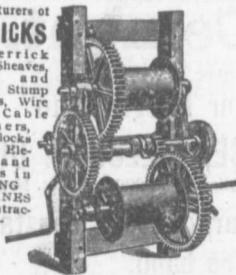
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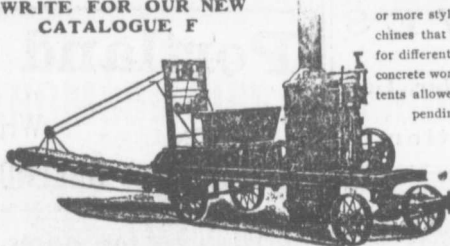
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disadvantages, the pavements, with one or two exceptions, show very few cracks.

[The work is done in accordance with specifications which are given in full in an appendix to the paper. They call for the following general construction: The roadbed is graded and rolled to a depth of 11 in. below the proposed street surface. The curb is placed in trenches graded toward catchbasins and containing at least 6 in. of broken stone below the curb. The roadbed is covered with 3 in. of sand, which is rolled and then covered with 4½ in. of Portland cement concrete. The binder course consists of ¾ in. stone and asphaltic cement, mixed in the proportion of about 15 imp. gal. of the latter to 1 cu. yd. of the former. This is laid hot, rolled and covered with the wearing surface, 2 in. thick at the crown and 1½ in. thick at the gutters. This surface is composed of 10 to 12 per cent. pure bitumen, 75 to 78 per cent. sand, and 5 to 10 per cent. pulverized limestone, the exact composition depending on the character of the asphalt and the fineness of the sand and limestone. The powdered limestone must all pass a No. 80 screen, and 25 per cent. must pass a No. 200 screen. Of the sand, 25 per cent. must pass a No. 200 screen, 25 per cent. a No. 100 screen, 25 per cent. a No. 50 screen, 15 per cent. a No. 20 screen, and 10 per cent. must be retained on the last screen. The contractor is required to give a 10-year guarantee of the pavement, and the city retains 20 cents per square yard of the final estimates as surety.]

Broken stone is used for drains, because tile, if used above the frost line, is destroyed by ice.

The 3 in. of sand and gravel on top of

the clay foundation prevents the concrete from adhering to the clay and being cracked or pulled apart, when frost cracks open in the latter. The frost penetrates to a depth of from 6 to 8 ft., and cracks, sometime 6 in. in width, open on the surface. It has not been found that any of these cracks show through the asphalt.

Apart from the above, the methods are those which prevail in most American cities.

The cost of materials f.o.b. cars Winnipeg, 1904, have been as follows: Portland cement, \$0.74 per 100 lb.; broken stone, \$1.30 per cubic yard; sand and gravel, average about \$1; crushed granite, \$5 per cubic yard; asphalt, \$26.37 per ton; maltha, .12 per imperial gallon.

The cost per square yard of asphalt is as follows: Grading, including cross drains, \$0.15; sand foundation, \$0.15; concrete, 4½ in., \$0.65; binder, \$0.28; surface, \$0.60; plant charges, \$0.05; total for construction, \$1.88; maintenance fund, \$0.20; engineering and collection expenses, 10 per cent., \$0.20; total cost, \$2.28.

This cost is divided in different proportions (depending upon the location and character of the street) between the city funds and property fronting on the improvement. In the residence portions the city contributes, out of the general funds, an amount equal to half the cost of a 24-ft. wide macadam, the property fronting paying the balance. The 24-ft. macadam was adopted some years ago as the standard pavement of the city, the city paying half the cost and the property the remainder.

There are a few special streets, business and leading thoroughfares to which the city contributes out of the general funds, one-third of the whole cost. On

streets occupied by the street railway, the company pays for 8 ft. width of pavement for each track, and in the case of double tracks for 17 ft. width in all.

Twenty-year bonds are issued for the original cost of the pavements, the interest and sinking fund for their payment being collected each year.

[An appendix gives the following information concerning the organization engaged on the asphalt work. At the asphalt plant: 1 superintendent chemist, \$8 per day; 1 foreman, \$3; 1 engineer, \$3.50; 1 night engineer, 25 cents per hour; 1 mixer, 30 cents; 1 tankman, 25 cents; 1 dustman, 25 cents; 1 feeder, 25 cents; 1 miller, 25 cents; 1 temperature man, 20 cents; 1 fireman, 25 cents; 7 laborers wheeling sand and stone, 20 cents; 2 laborers on the tanks, 20 cents; 1 night tankman, 20 cents; 7 laborers unloading sand and stone, 20 cents; 1 sandbox man, 25 cents; 1 dipper, 20 cents; 1 laborer for wood, 20 cents; 1 boy at \$1 a day, and 1 clerk, \$2. The asphalt street gang is organized as follows: 1 racker, \$2.75 per day; 2 rackers, \$2.50; 2 tamper, \$2.50; 1 watchman, \$2; 1 water boy, \$1; 2 smoothers, 22½ cents an hour; 10 laborers, shoveling asphalt, sweeping, etc., 20 cents. The concrete gang has the following organization: 1 sprinkler, 22½ cents an hour; 7 wheelers, 22½ cents; 7 wheelers, 20 cents; 2 tail carrier tenders, 22½ cents; 1 concrete feeder, 22½ cents; 2 track plank carriers, 22½ cents; 2 stone feeders 22½ cents; 1 machine mover, 22½ cents; 2 sand feeders, 22½ cents; 3 concrete levelers, 22½ cents; 4 concrete levelers, 20 cents; 1 hydrant tender, 20 cents; 8 graders, 20 cents; 1 oiler, 20 cents; 1 pounder, 20 cents; 1 water feeder, 20 cents; 1 cement man, 20 cents; 1 machinist, 25 cents; 1 foreman, \$4 per day; 1 water boy, \$1; 1 watchman, \$2. The working day is 9 hours.]

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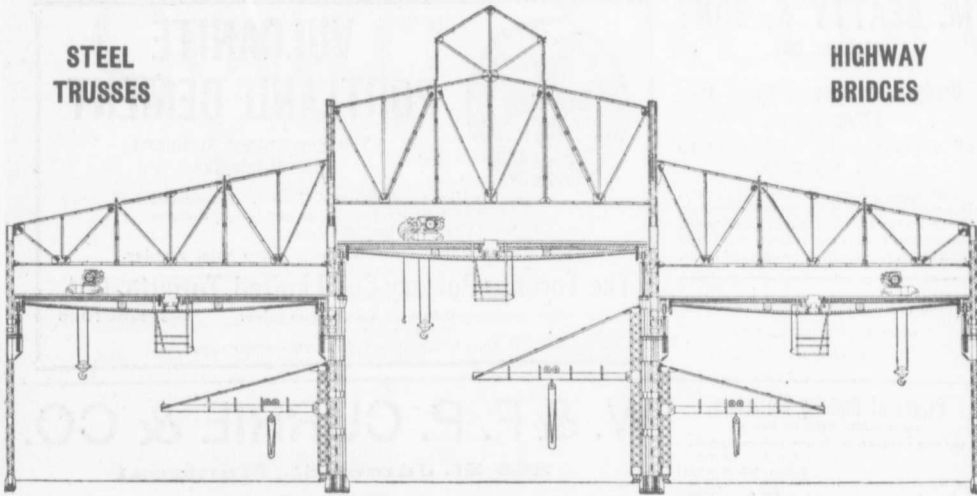
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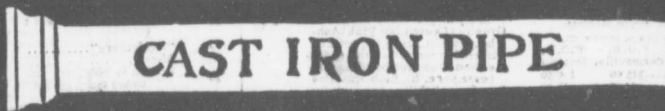
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