

# 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, JANUARY 18, 1905

No. 49

## THE CANADIAN CONTRACT RECORD

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Architect and Builder.  
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in advance.

## THE C. H. MORTIMER PUBLISHING COMPANY

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should give prompt notice of same. In doing so  
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## TENDERS

will be received by the undersigned up to  
SATURDAY, FEBRUARY 4th, 1905, for the  
repair of the Waddell Creek drain in the Town-  
ship of Sarnia, a distance of about 1.426 rods.  
Plans and specifications can be seen at the  
Clerk's office.  
The lowest or any tender not necessarily ac-  
cepted.

MAGGIE LOWRIE, Township Clerk,  
Box 245, Sarnia.

## Debentures for Sale

Offers will be received at the Clerk's Office,  
Scarboro, up till noon, FEBRUARY 6th, NEXT  
for \$400 Local Improvement Debentures, pay-  
able in 15 years. Interest at 4½ per cent. pay-  
able yearly. The highest or any offer not nec-  
essarily accepted. The debentures are \$400  
each.

WM. ELLIOTT, Clerk.



## Notice to Contractors

### Construction of Hydraulic Dredge

Tenders will be received by registered post  
only, addressed to the Chairman of the Board of  
Control, City Hall, Toronto, up to noon on  
TUESDAY, FEBRUARY 7th, 1905, for the con-  
struction of an hydraulic dredge, complete.

Envelopes containing tenders must be plainly  
marked on the outside as to contents.  
Plans and specifications may be seen and  
forms of tender obtained at the office of the City  
Engineer, City Hall, Toronto, on and after  
Tuesday, January 17th.

The usual conditions relating to tendering,  
as prescribed by city by-law, must be strictly  
complied with or tenders will not be con-  
sidered.

The lowest or any tender not necessarily  
accepted.

THOMAS URQUHART (Mayor),  
Chairman Board of Control,  
City Hall, Toronto, January 12th, 1905.

## CONCRETE PILES

For Procuring Cheap Permanent Foundations  
in Filled or Soft Grounds I am prepared to  
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with the necessary cores on a Royalty basis,  
under my Patents. Estimates furnished on  
application. Address

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Toronto, Ont.

## DEBENTURES FOR SALE

Sealed tenders will be received by the under-  
signed up to 12 o'clock noon on the 2ND DAY  
OF FEBRUARY, A. D. 1905, for the purchase of  
Debentures of the Town of Simcoe, known as  
the Consolidated Debentures, for \$10,000 bearing  
interest at 4½ per cent., i. e., payable in equal  
annual instalments of principal and interest  
extending over a period of 30 years from 1st  
January, A. D. 1905, and for the purchase of  
Local Improvement Debentures of said Town of  
Simcoe to the amount of \$5,000 bearing interest  
at 4½ per cent., repayable in annual instalments  
of principal and interest extending over a  
period of 20 years from the 18th day of Decem-  
ber, 1904.

The purchaser to pay accrued interest.  
The highest or any tender not necessarily  
accepted.

FRANK REID,  
Town Treasurer.

Simcoe, 12th January, 1905.

## CONTRACTS OPEN.

SELKIRK, MAN.—A site has been  
selected for a new post office here.

GRANBY, QUE.—There is an agita-  
tion in favor of installing an electric light  
plant.

MEAFORD, ONT.—It is understood  
that the Seaman-Kent Co. purpose ex-  
tending their plant.

PARRY SOUND, ONT.—The Council  
may take up the question of building  
a new town hall.

ORILLIA, ONT.—The Mayor has  
referred to the necessity of constructing  
a sewerage system.

BRANTFORD, ONT.—The Mayor  
has advised that an expert be engaged to  
report upon storm water drainage.

WASHADA, MAN.—The school  
trustees have decided to erect a new  
school, at an approximate cost of \$5,000.

MOOSE JAW, N.W.T.—Mr. Faulkner,  
of Palmerston, Ont., has made a propo-  
sition to establish a pork packing factory  
here.

NANAIMO, B. C.—The City Council  
are likely to take steps in the near future  
to obtain an additional water supply from  
Long Lake.

STRATFORD, ONT.—The Mayor  
has suggested that the Board of Works  
should report upon a system of storm  
sewerage.

LEAMINGTON, ONT.—Alex. Baird,

C. E., will report on the cost of proposed  
bridges over the Long Marsh drain, in  
Malden Township.

BIENVILLE, QUE.—Owing to a  
legacy of \$3,000 left by the late Mr.  
Laine, work on the completion of the  
church will be resumed.

KAMLOOPS, B. C.—R. J. McNab  
has purchased the saw mill of the  
Thompson River Lumber Co. and will  
make improvements thereto.

FREDERICTON, N. B.—Tenders for  
rebuilding Eel River bridge, York County,  
will be received by the Department of  
Public Works up to January 23rd.

ESTEVAN, N.W.T.—O. H. Thomp-  
son has purchased property here on  
which he intends to erect a substantial  
building during the coming season.

VICTORIA, B. C.—It is understood  
that tenders for the C. P. R. tourist hotel  
in this city, for which F. M. Rattenbury  
is the architect, will be opened this week.

NELSON, B. C.—The project to erect  
a new school has been abandoned for the  
present.—The C. P. R. are said to be con-  
sidering the erection of a tourist hotel  
here.

CALGARY, N.W.T.—Mr. Cook is en-  
deavoring to float a company, with a  
capital of \$500,000, for the purpose of  
establishing a large chilled meat plant  
here.

ST. JOHN, N. B.—F. Neil Brodie,  
architect, is preparing plans for the re-  
building of J. & A. McMillan's premises  
and tenders will be called at an early  
date.

CLANWILLIAM, MAN.—W. G.  
Sanderson will receive tenders up to  
February 8 for the erection of a brick  
vener manse here, to be completed by  
July 15.

BARRIE, ONT.—The Mayor, in his  
inaugural address, recommends that the  
Dominion Government be petitioned to  
remodel the post office and to erect new  
armories in town.

ST. THOMAS, ONT.—The members  
of the Church of Christ have appointed a  
committee to report upon the advisability  
of building a new church. James Egbert  
and D. A. McKillop are members.

OWEN SOUND, ONT.—Some alter-  
ations will be made to the C. P. R. eleva-  
tor here.—J. C. Forster, architect, is pre-  
paring plans for remodeling the brick  
block recently purchased by Ryan Bros.

STRATCONA, N.W.T.—It is under-  
stood that the Council are prepared to  
consider petitions from the ratepayers for  
the construction of waterworks and sewer-  
age systems.

NEW LISKEARD, ONT.—The rate

payers have voted in favor of installing a waterworks system. It is proposed also to acquire the water power and develop electric energy.

**STRATHCLAIR, MAN.**—The Municipality have petitioned the Manitoba Legislature to construct certain bridges in this vicinity.

**KINBURN, ONT.**—T. H. Armstrong will receive tenders up to Wednesday, February 1st, for repairing school house in Section No. 5, Fitzroy, and building wing thereto.

**TORONTO JUNCTION, ONT.**—The Toronto Pressed Steel Co., Limited, recently organized here with a capital of \$100,000, will select a site for their works at an early date.

**REGINA, N.W.T.**—E. McAra, jr., is asking for tenders up to 25th inst. for the erection of a Presbyterian church here. — It has been decided to build a new Catholic church, to be 90 x 50 feet.

**MONCTON, N. B.**—Steps will likely be taken this year to increase the school accommodation.—F. N. Biodie, architect, of St. John, has prepared plans for a brick building to be built here by B. E. Smith.

**WIARTON, ONT.**—The Grand Trunk Railway propose to extend the Meaford branch to Owen Sound and improve the terminal facilities at this point. It is also stated that the road will be extended to Tobermory.

**EASTMAN'S SPRINGS, ONT.**—A company with a capital of \$300,000 has been formed to take over the Eastman's Springs property with the object of converting it into a first class hotel and sanitarium.

**NEW WESTMINSTER, B. C.**—It is expected that the Small & Bucklin Co. will commence work within two weeks on their saw mill to be built on the Fraser river. This company have also acquired a site on which to build a tannery.

**SARNIA, ONT.**—Officials of the Grand Trunk Railway were here last week selecting a site for the proposed electric power house.—J. A. McCrae has purchased a lot at corner of Victoria and Cromwell streets on which he will build.

**FORT WILLIAM, ONT.**—William Kennedy, C. E., and R. S. Kelsch, of Montreal, are reporting upon the Kakabeka Falls power development at this place.—John King intends building a costly residence on corner of Archibald and Arthur streets.

**HAMILTON, ONT.**—It is reported that the land recently purchased by Henry New adjoining the Grand Trunk station on East King street will be utilized as a site for a freight yard and station for the Hamilton, Grimsby and Beamsville electric railway.

**PORT ARTHUR, ONT.**—Plans have been completed for a new C.P.R. station to be built here, work to be commenced this spring. — The waterworks system will be extended this year.—Grey, Taylor & Campbell, meat dealers, have purchased sites on which to build stores.

**QUEBEC, QUE.**—Oueller & Levesque, architects, are preparing plans and specifications for two R. C. churches to be built in brick at River du Loup Station, Temiscouata county. Tenders will be called for about the 25th inst. for the one on the east side of the river and for the other one soon thereafter.

**SYDNEY, N.S.**—The bonus of \$205,000 offered by the city to establish a ship-building industry is being sought by a company recently formed here, of which J. T. Burchell is president and William Hayes, of Sydney, secretary. The company intended to erect a ship-building plant and a floating dry dock.

**PETERBORO, ONT.**—Plans for an

outfall sewer to be built under an agreement between the town and the municipality of Ashburnham were prepared some time ago by Willis Chipman, C.E., of Toronto, and the matter will likely be taken up at an early meeting of the Board of Works. The estimated cost is \$10,000.

**EDMONTON, N.W.T.**—The Edmonton Wool & Wood Co. intend enlarging their mill and installing additional machinery. D. R. Fraser, lumber merchant, is one of the directors. It has been decided to call for new tenders for the labor necessary in installing the new trunk sewer and water extensions. The Council have approved of a by-law to raise \$100,000 by debentures as a bonus to the Grand Trunk Pacific Railway.

**BRANDON, MAN.**—The directors of Brandon College are preparing to erect a building for lady students.—W. N. Luley, architect, has completed plans for the new drill hall to be built on the corner of Eleventh street and Victoria ave. Building will be brick and stone with three large towers and two small ones. Work will be commenced in the early spring.—A. R. McDiarmid and John Clark have entered into partnership and purpose establishing a planing mill to be operated by electric power.

**OTTAWA, ONT.**—L. K. Jones, Secretary Department Railways and Canals, will receive tenders up to Friday, 20th inst., for building and equipping with machinery a steel gate lifter for the Williamsburg canal. Plans may be seen at the office of the Superintendent of Operations, Morrisburg, Ont.—The Kingston and Dominion Central Railway Co. are seeking incorporation to construct an extension from a point between Brockville and Westport and the city of Montreal to Ottawa.—Incorporation is being sought by the Montreal, Quebec and Southern Railway Co. to construct a railway from St. Guillaume station, Montreal and Atlantic Railway, in Yamaska, to Sorel, in Richelieu County.

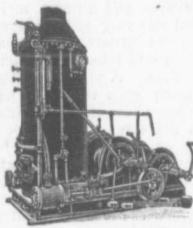
**LONDON, ONT.**—A. O. Graydon, City Engineer, has been instructed to prepare specifications and invite tenders for annual supplies for the city.—No. 3 Committee has recommended to the Council that a fire hall be built in the north end of the city.—The Council have taken steps looking to the early construction of the proposed breakwater for London West. The City Engineer is of the opinion that a special set of plans for the work will not be necessary.—H. C. McBride, architect, is preparing plans for new Methodist churches to be built at Berlin and Waterloo, Ont., also a bank building at Ingersoll.—W. G. Murray, architect, is calling for tenders for a residence for J. B. P. Tanton, King street, this city, also for a residence for Mr. Rollins at Byron, Ont.—W. G. Howlett has received a building permit for a brick residence on Marley ave. and C. Hensworth will erect a storey and a half brick residence on Kitchener ave.

**WINNIPEG, MAN.**—Thomas Kelly, contractor for the new post office, is purchasing the necessary plant, including a complete outfit of stone-cutting machinery.—The Knights of Pythias have appointed a committee to report as to suitable site on which to erect a building suitable for their purposes.—Among the works to be undertaken by the city immediately are the following: Sewer on Burrows ave., St. Clair street, McKerzie street, Prichard ave. and Parr street, cost \$12,540; macadam pavement on McMillan ave., from Pembina street to Hugo street, cost \$6,910, and macadam pavement on Nassau street, cost \$1,278.—New plans have been received for the proposed Methodist church to be built on the corner of Broadway and Kennedy street.—The Crown Elevator Co., of

Minneapolis, intend building a grain elevator about one mile from St. Boniface.—Knox church congregation are considering the purchase of a site and the erection of a new church on Portage ave.—L. B. McFarlane, of the Bell Telephone Co., was in this city last week in connection with the proposed work to be undertaken by that company in the West this year. He states that the company contemplate the erection of ten or more central exchanges in the smaller towns and villages.—The executive committee of the Catholic Club are considering the erection of a three-storey building which will contain a large auditorium, general club rooms, gymnasium, bath and bachelors' quarters. H. H. Cottingham is secretary of the club.—W. B. Laing, architect, is preparing plans for a new apartment block to be built this spring on Portage ave., between Carlton and Edmonton streets.—The excavations for the new Agricultural College have been finished.—H. R. Pugh, architect, is preparing plans for an apartment block to be built on Spence street, near Broadway.—The Royal Lumber & Fuel Co., recently organized in this city, have secured a site on Notre Dame ave. west for their proposed plant.—A large addition will be built this year to the Bank Hotel, McDermott ave. east.—Mr. Malhoit, resident engineer for the Dominion Public Works Department, has been instructed to prepare plans for a bridge to be built over the Assiniboine river at Shelmouth, Man.

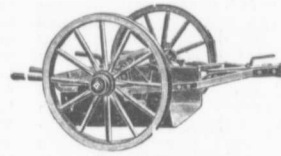
**MONTREAL, QUE.**—L. O. David, City Clerk, will receive tenders up to Thursday, 16th inst., for the supply of 200,000 scoria blocks, to be delivered by June 1st.—The Protestant School Commissioners have under consideration four sites for the new Senior School, and a decision will probably be made within a fortnight.—A movement is on foot looking to the erection of students' dormitories in connection with McGill University. A building to accommodate 100 students is spoken of.—Local capitalists have secured an option on property at north end of Dominion square, extending from Peel street to the Bellevue Flats, with the object of building thereon a large new hotel, estimated by some to cost about \$3,000,000.—The Parks and Ferries Committee have reported in favor of the city purchasing a large tract of land on Cotes des Neiges road upon which the Government may build the proposed military school.—The following building permits have been granted: J. R. Dagenais, Marquette st., pair two-storey wood and brick dwellings, cost \$2,400; Z. A. C. Murray, St. Hubert st., two-storey wood and brick dwelling and store, cost \$1,800; S. Rucci, St. Hubert st., two-storey wood and brick dwelling, cost \$1,500; Jos. Sawyer, St. Antoine st., repairs to dwelling and store, cost \$700.—Tenders are invited by the Department of Public Works, Ottawa, up to Thursday, February 9, for laying and jointing in this city 4,000 lineal feet of double line of smooth bored cast-iron piping and for furnishing and erecting the necessary special castings, elbows, fittings and receiving and transmitting machinery. Plans at the Department, Ottawa, and at the office of John Galt, chief engineer, Toronto.—The Board of Governors of the Catholic High School have secured the Archibald property at the corner of Milton and Durocher streets on which to build a new High school.

**VANCOUVER, B.C.**—The Mayor, in his inaugural address, expressed the hope that the building of a new city hall would not long be delayed.—Dalton & Eveleigh, architects, are preparing plans for a five storey business block to be erected by E. P. Davis, K.C., on his property on Hastings street, adjoining the



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# CONTRACTORS' SUPPLIES

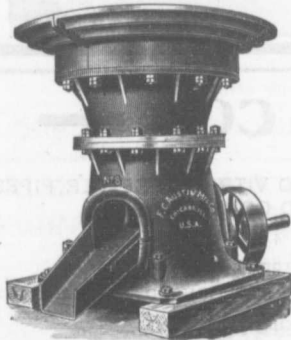
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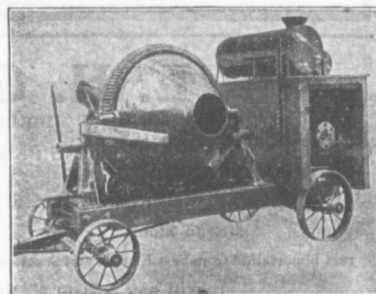
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Lefebvre block. There will be between 60 and 70 offices and the equipment will be modern, with elevators.—Dr. Powell, of Victoria, will erect a brick and stone structure at the corner of Pender and Richard streets, to cost about \$15,000.—Parr & Fee, architects, have prepared plans for the alterations to the Fader block, corner Pender and Granville streets. The brick supports are to be removed, iron pillars substituted and plate glass fronts put in.—N. Goldsmith and S. Morton Cohn, managers in Seattle and Tacoma respectively for the Northwestern Vaudeville Circuit, are in Vancouver for the purpose of selecting a site on which to build a large theatre.—S. Weaver has purchased the property on Hastings street adjoining the Rubowitz Departmental Stores and intends this spring to build a modern business block on the site.—A. Calori, proprietor of the Europe Hotel, has purchased the five fractional lots which comprise the gore at the junction of Powell and Alexander streets and having a frontage of 125 feet on each of the streets mentioned. Mr. Calori intends building on the property a large four-storey tourist hotel, containing elevators and modern equipment.—F. J. Hamilton, of Calgary, purposes building a three-storey frame hotel on Hastings street, opposite the Vancouver Club.—The C.P.R. have plans under way for important improvements to the harbor facilities here. It is said that the annual estimates will include \$250,000 for a jetty wharf and \$120,000 for additional tracks and trestles along the wharf front.—Chief Carlisle, of the Fire Department, has recommended the erection of a new station on water street and another in the west end, also

the purchase of three new steam fire engines and one hose wagon.

TORONTO, ONT.—The congregation of the Dovercourt Presbyterian Church have appointed a committee to take preliminary steps looking to the erection of a new church. George T. Graham is chairman of the committee.—George H. May, accountant, 50 Front street east, is asking for tenders up to Thursday, January 26th, for the supply of 50,000 barrels of Portland cement, in cotton bags.—The Bank of Hamilton have purchased property on the south-east corner of College street and Ossington ave. and will erect a branch bank and office building.—The Dominion Government has consented to pay its share of the cost of an asphalt pavement in front of the armories. The City Engineer has therefore recommended that an asphalt pavement be constructed on University street, from Queen street to College street, at an estimated cost of \$20,000. The Engineer reports that the cost of a foot bridge over the tracks at Wallace ave. will be \$2,500.—Plans for the new Island club house of the Royal Canadian Yacht Club have been completed and tenders will be invited at an early date.—The Burgess-Powell Co., who recently purchased Poulton's Hall on Bolton ave. and Queen street east and some adjoining houses, have decided to rebuild the latter, at an approximate cost of \$3,300.—Mr. Finney, 20 Victoria street, wants tenders for all trades for erection of a pair of brick houses.—The Department of Public Works, Ottawa, are asking for tenders up to February 9 for laying and jointing in this city 18,000 lineal feet of double line of smooth-bored cast-iron piping, to be supplied by the Government, and for furnishing and

erecting all the necessary special castings, elbows and fittings, including the terminal receiving and transmitting machinery and carriers. Plans may be seen at the office of John Galt, chief engineer for the work. A cheque for \$9,000 must accompany each tender.—The Railway Commission have issued an order approving of plans and specifications for nine bridges on the Toronto and James Bay Railway crossing the Don river, between the fourth and fourteenth mile of their line out of this city.—The congregation of Royce ave. Presbyterian Mission have purchased a lot on the corner of Royce and Perth avenues on which it is the intention to erect a church this spring.—Trustee Levee, of the Board of Education, has suggested the sale of the Parliament, Duke, Victoria and John street schools, and the building with the proceeds of two centrally situated up-to-date schools. He also suggests the improvement of the Elizabeth street school.—S. G. Curry, architect, has prepared plans for a new branch post office to be built at the corner of Yonge and Charles streets, at an estimated cost of \$50,000. It is also the intention of the Government to build branch offices in the north-western and eastern parts of the city.—It is understood that tenders will be invited next week for rebuilding the Hamilton street public school. The building will consist of 17 rooms in addition to the basement.—The following local improvements are recommended:—Filling and grading of Kew Beach, Woodbine Avenue to the East End, cost \$5,399; asphalt block pavement on Bloor street from Yonge street to Avenue road, cost \$17,368; cedar block pavement on Logan avenue,

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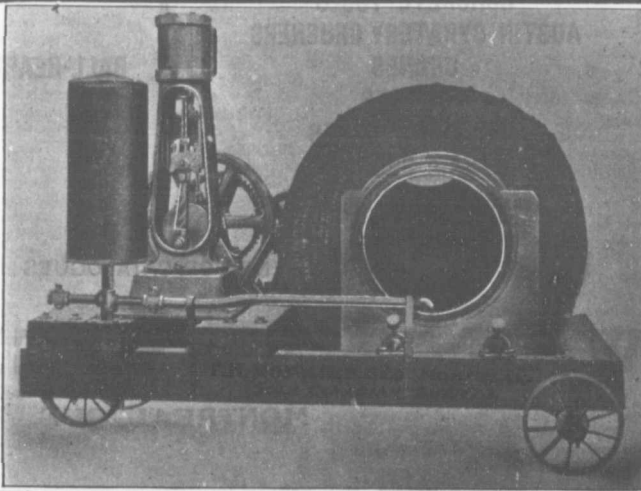
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from Queen street to 2,124 feet south, cost \$12,277; bitulithic pavement on Defoe street, from Macdonell square to Niagara street, cost \$6,064; bitulithic pavement on Scarth road, from Crescent road to Roxborough street, cost \$1,820; cement concrete sidewalks, Delaware avenue, from Hepbourne to Bloor streets; Walmer road, from north of Bernard avenue to Dupont street; Manning avenue, from Bloor street to Barton avenue; Lee avenue, from Queen to Violet avenue; Manning avenue, from Arthur street to Colledge street; D'Arcy street, from Beverley street to Spadina avenue; Czar street, from Balmuto to North street; Delaware avenue, from Colledge to Dewson streets; Victoria street, from Gould to Gerrard streets; St. Thomas street, from Sultan street to Bloor street; St. Thomas street, from Czar to Bloor street; Maple avenue, from Dale avenue north and west 440 feet.—Building permits have been granted as follows:—Emil Nerlich and Henry Nerlich, five-story brick warehouse, 135 Wellington street, cost \$40,000; John Brick, two-story brick dwelling, Victor ave. near Broadview, cost \$3,000; H. H. Hall, two-story and attic brick residence, corner Bathurst street and Barton ave., cost \$3,500; Mrs. Joseph Ken, two-story roughcast dwelling, brick front, 119 Gore Vale ave., cost \$2,000; B. H. Morehouse, two pair two-story and attic brick dwellings, First ave., near Broadview, cost \$7,000; D. Mowbray, two-story roughcast dwelling, Wallace ave., near Symington, cost \$1,000; W. H. Harlton, two-story roughcast dwelling, 662 Brock ave., cost \$1,000.

**FIRES.**

Opera house at Neepawa, Man., totally destroyed; loss \$10,000.—Saw mill of C. N. Stacey at Burks Falls, Ont.; loss \$1,200.—Four-story brick warehouse

and factory of the Hoover Manufacturing Co., Winnipeg, Man., almost totally destroyed; loss on building and stock, \$80,000.—Public school on Phoebe street, Toronto, damaged to extent of \$12,000.—Factory of the Saugeen Mineral Water Co. at Southampton, Ont.—Hardware store of Gardner & Co., Woodstock, Ont.; loss \$25,000.—Hardware establishment of Nelson Bros., Windsor, Ont., damaged to extent of \$50,000.—Building at Owen Sound, Ont., owned by John Lemon and occupied as a bakery by D. B. McColl; loss \$3,000.—Royal Victoria Hospital, Montreal, damaged to extent of \$25,000.—Woodware department and work shop of the Fensom Elevator Co., Duke street, Toronto, completely gutted; loss \$20,000.

**CONTRACTS AWARDED.**

NELSON, B.C.—Brick addition to the Burnet block; W. G. Gillett, contractor.  
NORTH SYDNEY, N.S.—Heating Trinity church; Thompson & Matheson, contractors.  
PETERBORO, ONT.—Building for the Peterboro Shovel & Tool Co; McIntyre & Hartley, contractors.  
BLACKSTOCK, ONT.—Erection of new school in Section No. 5; George McLaughlin, contractor, \$1,900.  
AMHERST, N.S.—The contract for new building for the Bank of Montreal has been awarded to James Reid, of Sydney.

WINNIPEG, MAN.—The Fire,

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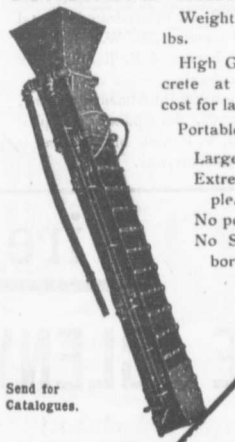
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Keenan Woodenware Manufacturing Company, Limited, Owen Sound, Ont., incorporated, capital \$100,000, to manufacture woodenware of various kinds. Directors, James E. Keenan, J. C. Keenan, W. P. Keenan and R. T. Keenan.

Premier Electric Light & Power Company, Limited, Wallaceburg, Ont., incorporated, capital \$40,000, to construct and operate works for the production and distribution of electricity. Directors, W. D. McRae, D. C. MacDonald and H. A. Stonehouse.

Canadian Shredded Wheat Company, Limited, Niagara Falls, Ont., incorporated, capital \$100,000. Directors, John Henderson, John Hewitt and David Fasken, all of Toronto.

Hamilton Incubator Company, Limited, Hamilton, Ont., incorporated, capital \$10,000. Directors, D. H. Fletcher, of Hamilton; John Fletcher, of Mount Albion, and others.

Bonanza Creek Gold Mining Company, Limited, Toronto, incorporated, capital \$1,750,000. Directors, John Payne, Richard Credicott, Alexander Foster, William Gilchrist, and Thomas Taylor, all of Toronto.

Eureka Planter Company, Limited, Woodstock, Ont., incorporated, capital \$50,000, to manufacture agricultural and other implements. Directors, J. A. Straith, S. B. Best, C. N. Choate, Archibald Mc-Nee, and P. J. Freeman, all of Windsor, Ont.

New Brunswick Iron Company, Limited, incorporated, capital \$1,000,000. Promoters, J. S. McLennan, of Sydney, N. S.; C. W. Young, of St. Stephen, N. B.; L. E. Knight, of St. John, N. B., and others.

Fraser River Saw Mills, Limited, New Westminster, B. C., incorporated, capital \$500,000. Promoters, L. W. David, of New Westminster, and E. J. Dodge, of Alameda, California.

Everett Timber & Investment Company, Victoria, B. C., incorporated, capital \$350,000. E. V. Powell, of Victoria, is attorney for the company.

Commercial Twine Company, Limited, Montreal, incorporated, capital \$10,000, to manufacture and deal in twine, cordage, paints, etc. George Hiam, John Marsden and others.

Ideal Bedding Company, Limited, Toronto, incorporated, capital \$250,000, to manufacture brass, iron and other bedsteads, mattresses, etc. M. W. Manchee, of Toronto; James H. Sharrer and Edward McDougall, of Montreal, and others.

Anglo-Canadian Leather Company,

Limited, Montreal, incorporated, capital \$2,000,000, to manufacture and deal in hides and leather of every description. Brackley Shaw, merchant, of Boston; C. T. Shaw, B. A. Shaw, T. D. Stewart and F. G. Bush, of Montreal.

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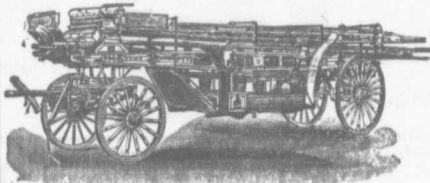
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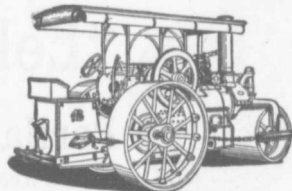


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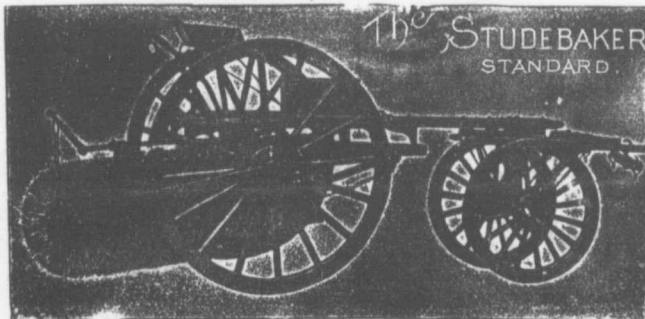
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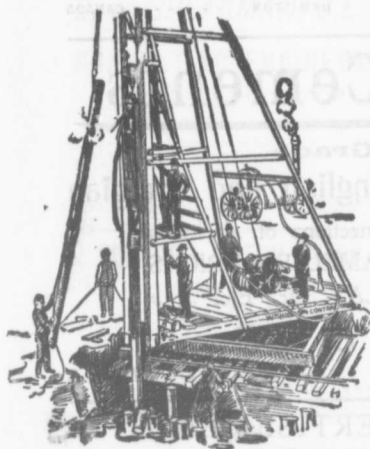


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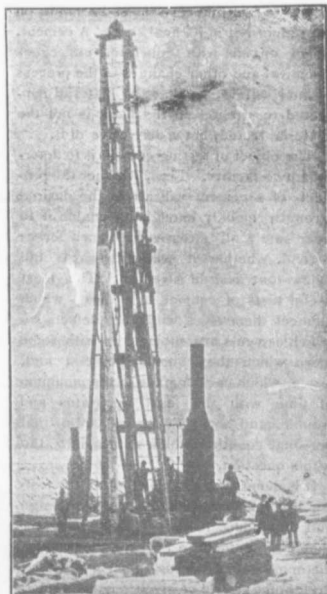
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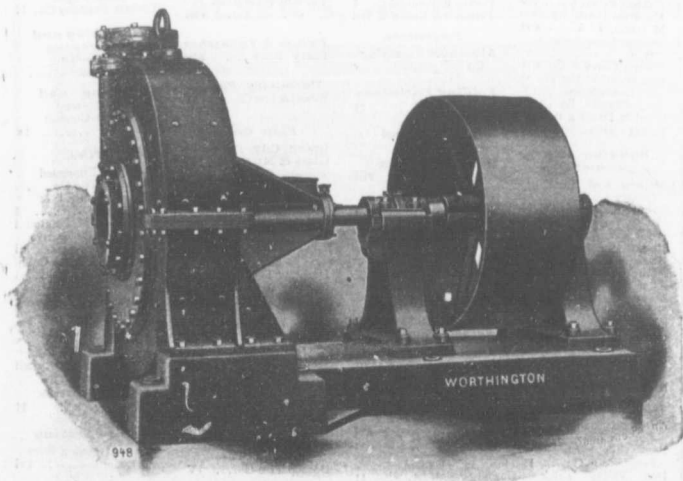
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The object of testing cement is to determine two factors. First, whether the product of a cement will attain the desired strength quickly enough to enable it to bear safely all stresses designed for it; second, whether it will afterwards fall below that desired strength. The most useful tests of cement are those which connect themselves with the defects to which cements are subject, or with some merit which they should possess; and, again, which can be made in the minimum of time with the least apparatus and trouble, and are entirely free from that personal equation which enters into the whole question.

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\* Abstract of a paper by Herbert E. Bellamy, read before the Society of Civil and Mechanical Engineers, London, Eng.

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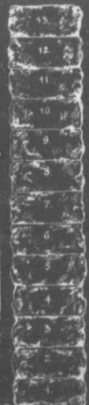
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the same cask of cement when the times were thirty six and sixty seconds for the tests respectively. The tests will be described as follows:—

- (1) Colour.
- (2) Specific gravity.
- (3) Grinding.
- (4) Setting properties.
- (5) Strength.
- (6) Soundness.
- (7) Coolness.
- (8) Miscellaneous tests.

The engineer selects samples from every tenth barrel, or from the equivalent of the tenth barrel when packed in sacks, taking care to properly mark all the casks in the batch. Each sample should fill a 4-in. airtight cubical box, and should be sent for testing immediately. No average should on any account be allowed in testing. The author has drawn up four diagrams illustrating how a complete record of tests can be kept for official reference for any period.

TESTS.

(1) Colour.—Good Portland cement should be of a grey or greenish-grey colour. A brownish colour indicates an excess of clay and shows the cement is inferior. A coarse bluish-grey cement shows that it is probably over lined. The colour may be observed by rubbing the cement on a piece of white paper.

(2) Test for Specific Gravity.—This test should always be carried out. Experiments which the author has made show that the specific gravity of good K.B. & S. English cement slightly exceeded 3.0, while an inferior cement was only 2.8. Adulterations of Portland cement most likely to be practised are made with materials which reduce the specific gravity. The test is therefore exceedingly valuable in determining a properly burned, non-adulterated Portland. No other hydraulic cement is so dense. The weight of Portland cement varies from 95 lb. to 120 lb. per struck bushel (21 bushels are equal to 1 cubic yard). The specific gravity of cements can be ascertained by Keate's specific gravity bottle, as described by Mr. Grant. The bottle consists of two bulbs, the lower somewhat exceeding the upper in capacity. The exact capacity of the lower bulb is of no importance. On the neck between the bulbs is a file mark b; on the neck of the upper bulb is a similar mark a. The capacity of the upper bulb between the marks a and b must be determined, and may conveniently be 500 or 1,000 grains in water measure at 60 deg. Fahr.

In ascertaining the specific gravity of a solid in small fragments—small shot for example—the following is the mode of procedure: Fill the bottle with distilled water up to the mark b; counterpoise the bottle so-filled in a balance; drop the substance of which the specific gravity is to be taken gradually into a bottle until the water rises from b to a. Ascertain the weight of the material so added. If the capacity of the upper bulb be 1000 grains of water the weight of the material required to raise the water from b to a is its specific gravity. If the capacity of the upper bulb be 500 grains of water the weight of the substance added must be multiplied by two. The result will be the specific gravity. The principle of the ap-

paratus is very simple. The capacity of the upper bulb is an exact measure of distilled water, and when the water is raised from b to a by dropping a solid into the bottle, the bulk of that solid, equivalent to the given volume of the distilled water, is ascertained, and the relation between the weights of the two is given by the weights of the substances added. The only precautions are that the air, which is apt to cling somewhat to the solid matter when dropped into liquid, is carefully removed, and that if a very volatile liquid be used in the place of water the bottle should be corked to prevent evaporation. With natural cements this test may be dispensed with.

(3) Test of Grinding.—It is a well-established fact that, other things being equal, the finer the cement the greater will its sand-carrying capacity be—that is, it will show much greater strength with the same charge of sand, or equal strength with a greater charge. There is no doubt but that the cementitious value of the material resides in the very fine part. Very few specifications state how much cement is to be operated on for this test, or how long the sieving process is to continue. Considerable difficulty is usually experienced in preventing the meshes of the sieve from clogging up. The author insists on the screens of all sieves being examined with a magnifying glass once a week to see that there are no apertures larger than the normal ones. The specification for the works of the Forth Bridge required that the cement should pass a sieve containing 2,500 meshes to the square inch, leaving a residue of not more than 5 per cent. by weight. The test of rubbing cement between the fingers is a

practice to be condemned. The gauge of the wire of the sieves should be clearly stated in ordering. For a sieve of 2,500 meshes the gauge should be No. 39 S.W.G.

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(Continued on page 14.)

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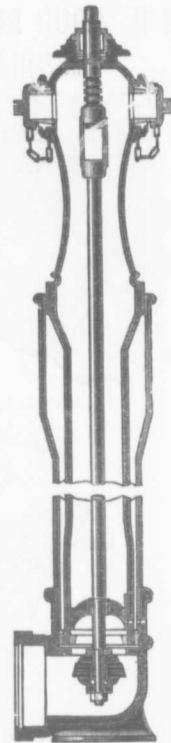
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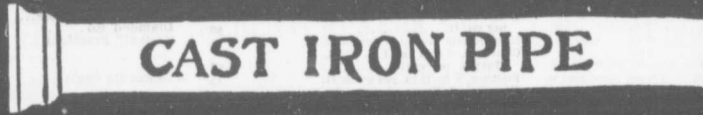
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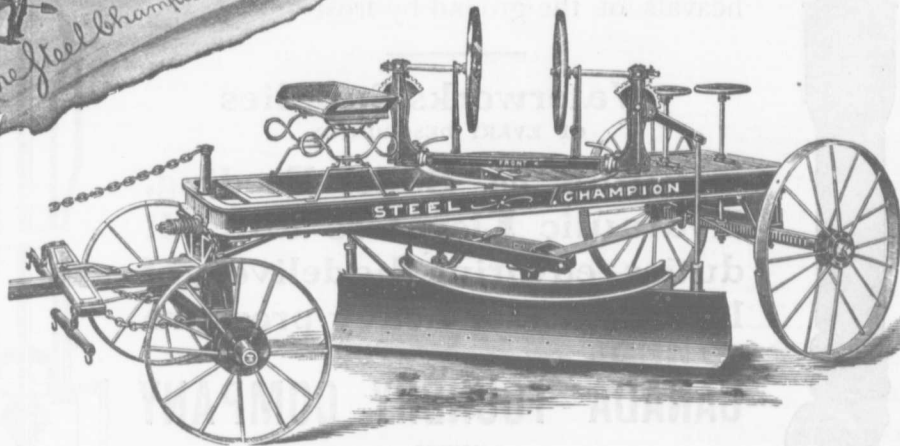
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Prices of Building Material

(Continued from page 12.)

Table listing prices for TORONTO PRESSED BRICK AND TERRA COTTA WORKS, BEAMSVILLE BRICK AND TERRA COTTA CO., and TORONTO POTTERY CO. Includes items like Peerless Facing, Roman Red, and various sizes of bricks and tiles.

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