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# CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL OF THE CANADIAN ARCHITECTURE

PUBLIC WORKS • TENDERS • ADVANCE INFORMATION • AND MUNICIPAL PROGRESS

EVERY WEDNESDAY

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. 11.

JUNE 27, 1900

No. 21.

**THE CANADIAN CONTRACT RECORD,**  
PUBLISHED EVERY WEDNESDAY  
As an Intermediate Edition of the "Canadian Architect and Builder."

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Information solicited from any part of the Dominion regarding contracts open to tender.

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

## Tenders for Bridge

Tenders will be received by the Council of the Corporation of the Township of Waterloo, until SATURDAY, JUNE 30TH, at 2 o'clock p.m., at the Township Hall, for the erection of a New Bridge (either Steel or Combination) over the River Speed, near Ellis' Lime Kilns north of Hespeler, consisting of two spans each 53 feet in length, with 16 foot roadway.

The Corporation will furnish flooring.  
Contractors to submit their own plans and specifications.

Bridge to be completed by September 1st, 1900.  
The lowest or any tender not necessarily accepted.

**GEORGE A. TILT,**  
Township Clerk.

Clerk's office, Blair,  
June 18th, 1900.



SEALED TENDERS, addressed to the undersigned and endorsed "Tender for Superstructure Maria Street Bridge," will be received at this office until

Friday, the 29th June, 1900,

for the construction of the superstructure of a general traffic bridge at Ottawa, Ont., according to plans and a specification to be seen at the office of C. Desjardins, Clerk of Works, Post Office Building, Montreal, at the Department of Public Works, Ottawa, and on application to the Postmaster at Hamilton

Tenders will not be considered unless made on the form supplied and signed with the actual signatures of the tenderers.

An accepted bank cheque, payable to the order of the Minister of Public Works, for seven thousand dollars (\$7,000.00), must accompany each tender. The cheque will be forfeited if the party decline the contract or fail to complete the work contracted for, and will be returned in case of non-acceptance of tender.

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

By order,  
**JOS. R. ROY,**  
Acting Secretary.

Department of Public Works,  
Ottawa, June 12th, 1900.

Newspapers inserting this advertisement without authority from the Department will not be paid for it.

## TENDERS

Sealed tenders will be received by the undersigned up to SATURDAY, THE 30TH INST., for the construction of about 15,000 square feet of Granolithic Walk in the Village of Glencoe. Work to be guaranteed for five years. No tender necessarily accepted.

**GEO. M. HARRISON,**  
Village Clerk.

Glencoe, June 12th, 1900.

## TENDERS

Will be received by the undersigned up to 8 o'clock p.m. of WEDNESDAY, JULY 4TH, 1900, for the construction of Cement Sidewalks in the Municipality of the Village of Watford, Ont.

Plans and specifications may be seen at the office of the Village Clerk.

The lowest or any tender not necessarily accepted.

**ALEX. SAUNDERS,**  
Clerk of Watford.

## TO CONTRACTORS

Tenders will be received by the Secretary of the Board of Cobourg Methodist Church up to noon of TUESDAY, JULY 3RD, for the several trades' works (separate or in bulk) required in the Enlargement and Remodelling of Division Street Methodist Church for Trustee Board.

Lowest or any tender not necessarily accepted.

Plans and specifications may be seen at the offices of

**R. WILSON,** Secretary,  
Corner King and Division Sts., Cobourg, and  
**POWER & SON,** Architects,  
Merchants Bank Chambers, Kingston

## Tenders for EXTENSION LADDERS

Sealed tenders will be received at the office of the Director of Public Safety of the City of Saint John, N.B., up to 12 o'clock, noon, of FRIDAY, THE 29TH INST., for

### TWO 65-FOOT HAND EXTENSION LADDERS

Tender to give full specifications and particulars of proposed ladders.

Not bound to accept the lowest or any tender.

**ROBERT WISELY,**  
Director Department Public Safety  
Saint John, N. B., June 12th, 1900.

## IMPERIAL STARCH FACTORY, PRESCOTT.

Tenders for Machinery and Plant for the starch and glucose works of the Imperial Starch Co., Limited, at Prescott, Ontario, Canada, for a 500 bushel starch and 500 bushel glucose plant, will be received up to Monday evening, JULY 10TH, 1900, marked "Tenders," addressed to the undersigned.

These tenders may be for the whole or any part of the plant.

This plant includes mills, presses, shakers, pumps, filters, converters, triple-effect vacuum pan, steam engine and boilers, shafting, and all connecting parts.

The lowest or any tender not necessarily accepted. For further information apply to undersigned, or to Dr. Geo. Archbold, expert, 14 King St. West, Toronto.

**HUGH BLAIN,** President,  
Toronto, Canada.

## FOR SALE

300 ft. 16 inch flexible ward joint cast iron pipe for submerging under water. Price \$35 per ton. Apply **McQUILLAN & CO., 1457 Queen St. West, Toronto.**



SEALED TENDERS, addressed to the undersigned and endorsed "Tender for Flooring Maria Street Bridge," will be received at this office until

Friday, 29th June, 1900,

for the construction of a Concrete and Iron Floor for the Maria Street Bridge at Ottawa, Ontario, according to plans and a specification to be seen at the office of C. Desjardins, Clerk of Works, Post Office Building, Montreal, on application to the Postmaster at Hamilton, and at the Department of Public Works, Ottawa.

Tenders will not be considered unless made on the form supplied and signed with the actual signatures of the tenderers.

An accepted bank cheque, payable to the order of the Minister of Public Works, for two thousand dollars (\$2,000.00), must accompany each tender. The cheque will be forfeited if the party decline the contract or fail to complete the work contracted for, and will be returned in case of non-acceptance of tender.

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

By Order,  
**JOS. R. ROY,**  
Acting Secretary.

Department of Public Works,  
Ottawa, June 12th, 1900.

Newspapers inserting this advertisement without authority from the Department will not be paid for it.



## NOTICE TO CONTRACTORS

## TENDERS FOR ROADWAYS AND SIDEWALKS

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, July 3rd, 1900, for the following works:

Brick pavements (track allowances) - Broadview avenue, from Queen street to Gerrard street; Gerrard street, from Parliament street to Broadview avenue; King street, Dufferin street to Roncesvalles avenue; Spadina avenue, from College street to north side of Crescent.

Concrete walk—Church street, west side, from Queen street to Shuter street.

Contents of envelopes containing tenders must be plainly marked on the outside.

Conditions and specifications may be seen and forms of tender obtained at the office of the City Engineer, on and after Monday, June 25th, 1900.

A deposit, in the form of a marked cheque, payable to the order of the City Treasurer, for the sum of 2½ per cent. on the value of the work tendered for, must accompany each and every tender, otherwise they will not be entertained.

Tenders must bear the bona fide signatures of the contractor and his sureties, or they will be ruled out as informal.

Lowest or any tender not necessarily accepted.

**E. A. MACDONALD** (Mayor),  
Chairman Board of Control.  
City Hall, Toronto, June 21st, 1900.

# Toronto Public School Board

## TENDERS WANTED

Sealed tenders, addressed to the Secretary-Treasurer of the Board, will be received until

**TUESDAY NOON, JULY 3RD, 1900,**

for the several works required for enlarging the following schools:—

**DOVERCOURT SCHOOL.  
DEWSON STREET SCHOOL.  
GRACE STREET SCHOOL.  
PARK SCHOOL.  
WINCHESTER STREET SCHOOL.**

Also for the balance of the

**REPAIRS, ALTERATIONS AND  
IMPROVEMENTS**

required to be done during the mid-summer vacation

Plans and specifications may be seen and all information obtained at the office of the Superintendent of Buildings, corner of York and Richmond Streets.

Each tender must be accompanied by the deposit mentioned in the said specifications and forms of tender. The lowest or any tender will not necessarily be accepted.

W. W. HODGSON,  
Chairman of Committee.

W. C. WILKINSON,  
Secretary-Treasurer T P S B



SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Lock and Dam, St. Andrew's Rapids, Red River, Man.", will be received at this office until

**Monday, the 16th Day of July, 1900,**

for the construction of a Concrete Lock and Dam at St. Andrew's Rapids, Red River, Province of Manitoba.

Plans and specifications can be seen at this Department, at the offices of Mr. Zeph. Malhot, resident engineer of the Department at Winnipeg; Mr. H. A. Gray, resident engineer, Confederation Life Building, Toronto; Mr. C. Desjardins, Clerk of Works, Post Office, Montreal, and Mr. Ph. Beland, Clerk of Works, Post Office, Quebec. Forms of tender can also be obtained at the above mentioned places.

Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied, and signed with their actual signatures.

The contractor will be required to conform to regulations to be made by the Governor-General-in-Council, respecting the accommodation, medical treatment and sanitary protection of the working men employed on the work.

Each tender must be accompanied by an accepted bank cheque made payable to the order of the Honourable the Minister of Public Works, equal to ten per cent. of the amount of tender (10 p. c.), which will be forfeited if the party decline to enter into a contract when called upon to do so, or if he fail to complete the work contracted for. If the tender be not accepted the cheque will be returned.

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

By order,  
JOS. R. ROY,  
Acting Secretary

Department of Public Works of Canada,  
Ottawa, June 23th, 1900.

Newspapers inserting this advertisement without authority from the Department will not be paid for it.

### DATE OF PUBLICATION.

Architects, Engineers, Municipal Authorities and others are reminded that the CONTRACT RECORD is printed every Tuesday afternoon, and that advertisements should reach the office of publication not later than 2 o'clock p.m. on that day to ensure insertion in the issue of the current week. Advertisements are frequently received too late for insertion, to avoid which special attention is directed to this announcement.

### CONTRACTS OPEN.

OSHAWA, ONT.—Dr. McKay proposes to erect a residence and office.

ACTON, ONT.—Mr. R. D. Warren will probably erect a business block.

HUNTSVILLE, ONT.—J. T. Flemming is preparing to erect a brick store.

BEAVER, MAN.—It is reported that two elevators will be erected here this season.

JOHNVILLE, QUE.—A. F. Swan invites tenders until July 7th for repairs to school house.

HINTONBURG, ONT.—James Campbell has had plans prepared for a new residence.

VANCOUVER, B. C.—Plans are being prepared for additions to the Fairview school.

WESTMINSTER, B. C.—A rice mill is to be established in the vicinity of Lulu Island.

MIDLAND, ONT.—The town clerk has been instructed to advertise for tenders for school debentures.

DANVILLE, QUE.—Dr. Cleveland, of this place, is erecting a handsome residence on Main street.

THORNTON, ONT.—A. Torrence invites tenders for bank barn, 80x16 feet, stone stable, cement floor.

ST. CATHARINES, ONT.—The congregation of Knox church will spend \$4,000 in renovating the building.

HAMILTON, ONT.—A proposition is under consideration for the erection of an abattoir at the stock yards.

REVELSTOKE, B. C.—It is proposed to expend \$4,200 for street purposes and \$1,000 for fire bells and fire halls.

GODERICH, ONT.—Wm. Mitchell, town clerk, invites bids up to July 5th for purchase of \$10,000 of town debentures.

WHITBY, ONT.—Messrs. Miller & Co., architects, Toronto, are preparing plans for a pavilion at Heydenshore park.

STRATFORD, ONT.—Council have adopted a by-law to issue debentures for \$20,000 for extension of gravel roads.

HAWKESBURY, QUE.—A new pulp mill is to be established between Papineauville and this place in the near future.

LISTOWEL, ONT.—Offers are invited by Wm. Bright, town clerk, up to July 3rd, for the purchase of \$10,000 of debentures.

LINDSAY, ONT.—W.A. White architect, will receive tenders until 28th inst. for the erection of a brick school in the township of Fenelon.

ARNPRIOR, ONT.—Township council of McNab township will advertise for tenders for repair of a bridge on the 9th concession.

CANNINGTON, ONT.—The council will submit a by-law to raise \$7,000 with which to establish a municipal electric lighting plant.

EAST TORONTO, ONT.—H. F. Strickland invites tenders until noon of the 3rd prox. for a complete electric light plant for this village.

MITCHELL, ONT.—The town council purpose constructing about 70,000 feet of cement walks this season. Further particulars later.

DAWSON CITY.—Commissioner Ogilvie has forwarded plans and estimates to Ottawa for a bridge across the Klondyke river in this city.

BROCKVILLE, ONT.—The council will issue debentures to the amount of \$15,000 for the erection of a jailer's residence and remodelling the jail.

LYN, ONT.—Tenders for the erection of a brick manse on Presbyterian property will be received up to 30th inst. G. C. Cummings, secretary.

PORTAGE LA PRAIRIE, MAN.—Tenders are invited for the construction of a new bridge over the Assiniboine river. The

estimated cost is \$18,000.—Mr. Mellon is preparing to erect a residence on Anne street.

SMITH'S FALLS, ONT.—The Public School Board will apply to the council for the sum of \$5,000 to build an addition to the present Central school.

HULL, QUE.—Architects are working on plans of a new city hall and police and fire station, which will be submitted to the council at the middle of July next.

VICTORIA, B. C.—The city council have decided to construct a number of permanent and wood sidewalks, and to extend the sewer on Quadra street.

ST. VINCENT, QUE.—A by-law has been passed by the municipal council for the issue of \$1,000 of debentures for the purpose of building a school house.

CHATHAM, ONT.—J. L. Wilson & Son, architects, are preparing plans for a new church at Bentany, cost \$3,000, and for residence for Chas. Raymond, cost \$1,000.

BELLEVILLE, ONT.—Tenders are being received up to 30th inst. for tearing down and rebuilding grand stand at Agricultural park, also for removing two buildings.

MIDLAND, ONT.—The corporation invites tenders up to July 14th for the purchase of \$4,000 of 30 year school debentures. Particulars from S.A. Mulligan, Mayor.

WOODSTOCK, ONT.—A by-law has been carried authorizing the establishment of an electric fire alarm system.—A by-law authorizing the paving of Dundas street was defeated.

WINDSOR, ONT.—The M. C. R. will build an iron bridge on Loudon street.—A new clerical residence in connection with St. Alphonsus parish will shortly be erected here.

ORILLIA, ONT.—The issuing of town debentures for the sum of \$2,000 will probably be authorised, the money to be used for the erection of a gymnasium for the Collegiate Institute.

RAINY RIVER.—Plans and specifications have been approved for the construction of a bridge at the mouth of the Baudette to carry the tracks of the Canadian Northern Railway Co.

WATERLOO, ONT.—The county council have adopted a by-law authorizing the issuing of debentures to the amount of \$5,000 for an addition to the House of Refuge and improvements to the jail.

BERLIN, ONT.—The council have authorized plans and specifications to be prepared by Mr. Knechtel, architect, and tenders to be invited for the building of a park pavilion, cost about \$3,500.

WHITBY, ONT.—The Board of Education invites tenders up to July 3rd for heating the Collegiate Institute by hot air, hot water, or steam, also for repairs to the Institute and to the Henry street school. Particulars from D. Ormiston, Secretary.

LONDON, ONT.—Mr. Wile, of Leamington, has intimated to the council that if favorable terms can be arranged he will start a tobacco factory here.—Moore & Henry, architects, invite tenders until 5 p. m. on the 29th inst. for alterations to Cronyn Memorial Church.

QUEBEC, QUE.—Council have authorized the sale of \$500,000 new debentures.—Waterpowers to the value of \$15,000 have been purchased by some American gentlemen at Lake St. John. They purpose erecting pulp and other factories at the Grand Discharge to the value of \$4,000,000.

BRACEBRIDGE, ONT.—Two by-laws will be voted on in this town on Monday, 16th day of July next, to raise the sum of \$27,600 in all by the issue of debentures for the purpose of acquiring additional power and installing additions to the municipal lighting plant. Should the by-

laws carry it is intended to proceed with the work at once. The present plant is proving quite inadequate to the needs of the town, and it is therefore hoped by-laws will carry by a big majority.

**LEAMINGTON, ONT.**—Considerable building will be carried on here this season. The following are erecting residences. Wallace McKenzie, Gordon Roach, R. L. Horton, James Mannery, Wm. Rymal, Edgar McClatchey, Edgar Jeffrey, also the Wm. Irwin block and R. Sloan's factory.

**GUELPH, ONT.**—The city clerk will receive tenders, until noon of the 29th inst. for all trades required in the erection of buildings for market and fire hall purposes.—The Robertson-Taylor Co., of Galt, have asked the council for assistance towards the erection of manufactory.—A. B. Petrie, invites tenders to be delivered at the office of the city clerk until noon of the 29th inst. for excavating, masonry, brickwork, carpentry, tinsmith, roofing and painting required in the erection of a building for the Fat Stock Show.—The city council have authorized a by-law for the issue \$2,000 of debentures for permanent improvements to James Ward school.

**BRANTFORD, ONT.**—The county clerk has been instructed to advertise for tenders for the purchase of \$5,000 of debentures for the building of an addition to the House of Industry and Refuge.—Mr. W. T. Jennings, C. E., of Toronto, has reported to the Provincial Government on the methods to be adopted for preventing the recurrence of floods at Brantford. He recommends the removal of the Power Company's dam and sluiceway and the extension of the railway companies' bridges, or failing this means for rapidly unwatering the canal, the raising and extension of the Grand Trunk and Toronto and Hamilton railway bridges, the extension of the dyke on the left bank of the river, the replacing of the Cockshutt bridge by a new structure and the construction of 600 feet of dyke from a point near Wattle dam. Plans with estimates of cost of these improvements are to be submitted shortly.—The Adams Watson Co., of Paris, are considering the question of establishing a factory here.

**MONTREAL, QUE.**—G. W. Stevens will shortly commence the erection of a large factory on St. David's Lane.—It is in contemplation to make a number of repairs and improvements to the Boys' school of St. Mary's church.—The city council have decided to obtain a report from an outside engineer as to which of the plans submitted by the city's engineers for draining St. Denis ward should be adopted.—Plans have been prepared by Messrs. Hutchison & Wood, architects, and contracts awarded to Messrs. Labelle and Payette for the erection of a new office building for the C. P. R. Telegraph Co.—The city clerk invites tenders until noon of the 29th inst., for supplies for 1900, consisting of cast iron pipes, special castings, lead pipe, pig lead and tin, brass castings, lumber, general stores, cement, meters, etc.—The Harbor Board has approved of the plans and specifications of the Connors syndicate for the erection of elevators at this port, and the work can now be commenced immediately.

**WINNIPEG, MAN.**—Plans have been prepared for a new power station for the Lac du Bonnet Company, showing a building 317 feet x 50 feet.—Mr. J. S. Prentiss, of Petrolea, has asked a small bonus from the council to establish a corset factory.—Stewart Mulvey, secretary of the Public School Board, invites tenders until 6 p. m. of the 28th inst. for improvements and additions to Albert school.—A delegation recently waited upon the Provincial Government to request aid for the construction of a bridge at Swan River.—The city council recommend that tenders be invited for the construction of a number of new sewers, pavements and sidewalks.—

The secretary of the Public School Board invites tenders until 4 p. m. July 20 for the purchase of \$60,000 of school debentures, bearing interest at 4 per cent.—The president of the Lake of the Woods Milling Company states that notwithstanding the poor crop conditions in Manitoba this season, his company will proceed with the erection of a number of new elevators.

**OTTAWA, ONT.**—Mr. S. Shore is about to erect a large warehouse at the corner of Sparks and Wellington streets; cost about \$7000.—It is reported that a firm of American manufacturers of electrical machinery and supplies are considering the advisability of establishing branch works here.—Mr. A. W. Fleck will erect a fine residence on Sandy Hill.—Building permits have been issued as follows:—S. R. Poulin, brick veneered terrace, Russell avenue, \$7,000; Xavier Clairmont, brick veneered terrace, Lorne avenue, \$2,000; Albert Dunn, two frame dwellings on Henderson avenue, \$2,500; James Hope, new brick building, and alteration to the present buildings, Sparks street, corner of Elgin street, \$15,000; Robert Carpenter, solid brick dwelling, Albert street, \$2,000.—The C. P. R. propose to build a line across the city to give them entrance to the Central Depot. A subway would probably be required at Bank street.—The Ottawa Investment Co., has been given a permit to erect a brick and stone foundry to cost \$10,000.

**ST. JOHN, N. B.**—The Public School Board propose to erect a new building to replace the present Elm street school.—A site has not yet been selected for the proposed new school at Carleton.—The city council have recently had under consideration the extension of the city water mains to Loch Lomond at an estimated cost of \$500,000.—Tenders will be received by the Board of School Trustees up to June 30th for \$26,500 3½ per cent. and \$39,600 4 per cent. 40 year school bonds.—R. J. Wilson, secretary school commissioners, will receive tenders until 8 p. m. on July 2nd, for stoves and stove-pipe, coal, glass and glazing, white and color washing.—E. Manning, secretary Board of School Trustees, invites tenders until noon of the 30th inst. for \$26,500 40 year Redemption Bonds, interest at 3½ per cent. half yearly.—Land has recently been purchased about twelve miles above the Grand Falls of the St. John river, on which it is proposed to erect a number of mills for the manufacture of pulp and various wood products. The names of Lord Strathcona, Frank Stetson of New Brunswick and Mr. Burpee, Bangor, Maine, are mentioned in connection with the enterprise.

**TORONTO, ONT.**—The Public School Board invites tenders in this issue for additions to several schools, also for certain alterations and improvements.—Plans of a four-roomed school to be built at Sturgeon Falls are on view at the office of Henry Simpson, architect, 9½ Adelaide street east, this city.—The council propose to appropriate the sum of \$50,000 for the furnishing of the county buildings.—The council are considering the advisability of submitting a by-law to the rate-payers as recommended by the city engineer to authorize the expenditure of \$459,460 for the extension and improvement of the water works system.—The Property Committee have recommended the city council to rebuild St. Lawrence market at an additional expenditure of \$50,000.—Mr. Henry Simpson, architect, is taking tenders this week for a large residence for Mr. William Harris to be erected on Pape avenue.—The city council gives notice of its intention to issue debentures to the amount of \$203,500 for the erection of buildings and for new boilers in the machinery hall at the Industrial Exhibition grounds.—The council have decided to straighten and widen Piper street.—It is understood to be the inten-

tion of the T. Eaton & Co., Limited, to make extensions and improvements on Yonge street.—The York township council have been asked to appoint an independent engineer to confer with an engineer appointed by the Scottish Ontario Land Company, to report the cost of putting the second Rosedale bridge in proper condition for vehicular and pedestrian traffic, and to carry an electric railway service.—E. R. C. Clarkson, Scott street, invites tenders until 3 p. m. July 4th, for Ontario Government annuities.

**FIRES.**

Tannery at Barrie, Ont., totally destroyed June 22nd, loss \$20,000.—Summer cottage near Brockville, property of G. F. Benson, Montreal, destroyed; insurance \$3,000.—A fire which occurred in Quebec June 20th destroyed property valued at \$10,000.—Large barn belonging to W. A. Lea, Winnipeg; loss \$4,000, insurance \$2,500.

**CONTRACTS AWARDED.**

**ST. JOHN, N. B.**—Hose tower: Adams & Belyea.

**LYNEDECH, ONT.**—Iron bridge: Mr. Montgomery, contractor.

**BROCKVILLE, ONT.**—New drill hall: Booth & Haggarty, contractors.

**PORT ARTHUR, ONT.**—St. Joseph hospital: Mr. Heymar, contractor.

**LUCAN, ONT.**—Iron bridge: Stratford Bridge & Iron Company, contractors.

**MONTREAL, QUE.**—Remodelling Theatre Royal: Simpson & Peel, contractors.

**BERLIN, ONT.**—Automobile and gasoline engine factory for Tuerk Bros.; A. Denig, contractor.

**PEMBROKE, ONT.**—Improvements to high and public school James Stewart, contractor, price \$1,294.

**BRANTFORD, ONT.**—Bricks for street crossing: G. W. Elliott, contractor, price \$15 and \$19 per thousand.

**VANCOUVER, B. C.**—The tender of Messrs. Nixon & Co. for building three septic tanks has been accepted; price \$13,000.

**ST. MARY'S, ONT.**—Residence for David Maxwell: Carpentry, Jacob Near; stone work, John Elliott; plastering, Fred Patterson.

**HULL, QUE.**—New factory for the Eddy Co.: Holbrook & Sutherland, contractors.—Christian Bros.' college: James Bourque, contractor; price \$17,750.

**PARIS, ONT.**—South ward school: Plastering, W. Fraser, \$250; carpentry and slating, W. E. Watson, Hamilton, \$1,537; brick and stone work, \$2,144.

**HESPELER, ONT.**—The Guelph Pavement Co. have received contract for cement walks at 11 cents per foot, also for macadamizing a portion of Queen street.

**SUSSEX, N. B.**—The contract for erection of three-storey brick and stone building for the Bank of Nova Scotia has been let to Rhodes, Curry & Co., of Am-

**CENTRAL CANADA** LOAN AND SAVINGS COMPANY

Cor. King and Victoria Sts., TORONTO

Highest Market Prices paid for—

**Municipal Debentures**

F. W. BAILLIE, Secretary. E. R. WOOD, Managing-Director.

herst, N.S.; hot water heating, estimated cost \$12,000. Architects, Bond & Smith, Toronto.

CHATHAM, ONT.—Residence for W. R. Phillimore; Carpenter work, Robinson & McKie; masonry work, James Lang; plumbing, Westman Bros.; painting, W. Palmer; architect, T. J. Rutley.

TRURO, N. S.—Sewerage works, brick, Jas. Miller & Son, Shubenacadia, contractors, \$7 per M f. o. b. Truro; cast iron work, Brown Machine Co., New Glasgow, N. S., contractors, \$706.40; construction work of section 1 A, A. C. MacKenzie, contractor, \$10,381.24; section 1 B is to be done by day labor by the corporation.

WINNIPEG, MAN.—J. Greenfield, architect, has let the following contracts in connection with an apartment house on Notre Dame ave.: Brick and plastering, Davidson Bros.; galvanized iron and copper work, Douglas Bros.; steam heating and plumbing, Cotter Bros.; painting and glazing, C.B. Scantlebury; carpenter work, Tom Ritchie; electrical work, E. S. Harrison.

#### INEQUALITIES OF LIME MANUFACTURE.

It has frequently been remarked, says the British Clayworker, that the lime produced in kilns of identical build, using the same fuel, and made from the same limestone, varies a great deal in quality. The cause of this has been mainly attributed to carelessness in burning, or in some other part of the mode of manufacturing the material. A more careful examination of the question, however, frequently

reveals the fact that it is the raw material which is at fault. A piece of chalk looks very much like another piece, even whilst it may be very different in many ways; two fragments of crystalline limestones may also present the same peculiarities. The bulk of the chalk has been subjected to the unceasing action of carbonated waters for ages, and in certain localities (even within very limited areas) much of the lime has been removed and a kind of marly residue is all that is left, together, it may be, with some minute spicules of flint. In order to get the best results in burning, the proportion of this marly material to the comparatively unaltered chalk must be taken into account, for that is where the mischief mostly lies.

#### A RUST PROTECTIVE PAINT.

A new German process is based on the idea that a varnish mixed with cement does not take up any moisture, an admixture of water merely causing a hardening of the cement. As an example of the composition of the paint, the following is given: 30-40 parts of varnish or a suitable drying oil, 40 parts cement or 30 parts cement and 10 parts of silicic acid and 20-30 parts of pigment, such as red lead, lampblack or barium sulphate.

The city council of Montreal has appointed Mr. S. J. Marrion, C. E., superintendent of waterworks, at a salary of \$4,000 per year.

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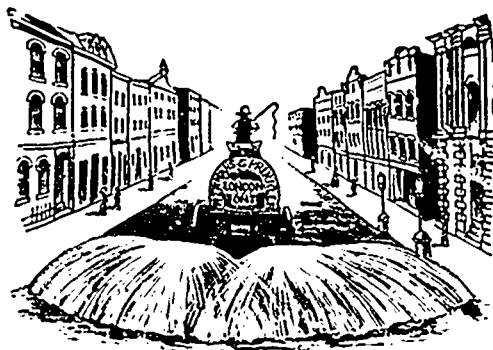
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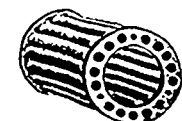
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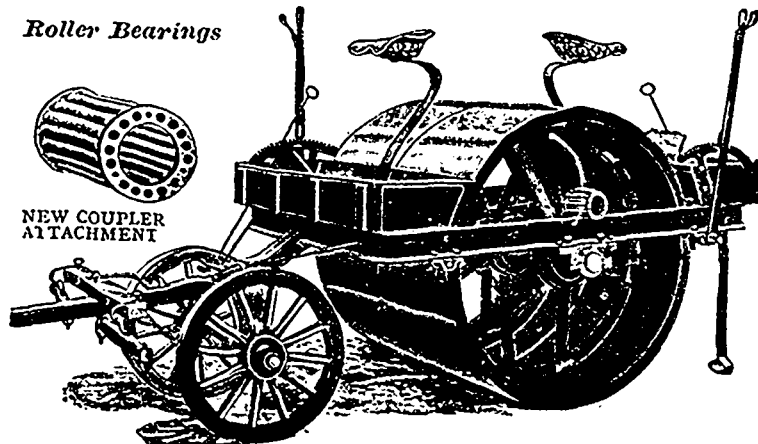
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Carpentry and building describes a kind of concrete without cement that is said to be in favor with Parisian architects. It is composed of eight parts of sand, gravel and pebbles, one part burnt and powdered common earth, one part of pulverized clinkers and cinders, and one and one-half parts of unslacked hydraulic lime. These materials are very thoroughly interspersed while dry into a homogeneous mixture, which is then worked up and well beaten. The result of this is a hard and solid mass, which sets almost immediately, becoming very strong in a few days. It may be made still stronger by addition of a small proportion—say one part—of cement. Among other constructions to which this material has been applied is named, as an example, a house 65 x 45 feet, three stories high, standing upon a terrace which has a retaining wall 200 feet long and 20 feet high. Every part of this structure was made of the hard, economical concrete, including foundations, cellar vaulting, retaining wall, and all exterior and interior walls, together with the cornices, moldings, string courses, balustrades and parapets. There was no bond iron used in the walls, and no wooden lintels, beams or posts were required. It is claimed for this material that it is not liable to crack or scale, while it is extremely cheap, as it can be made almost wholly from material to be found anywhere.

The quarry of the Toronto & Orillia Stone Quarry Co., Ltd., has recently changed hands. Mr. Ed. C. Wainwright, formerly secretary-treasurer of the company, is now the owner of this fine quarry, which is situated one mile north of Longford Station. The stone is popularly known as Longford stone. Mr. Wainwright intends devoting his whole attention to the quarry business, and will open an office in Toronto at an early date.

A good protection for wood against acids and superheated steam is said to be obtained by making a mixture of gypsum with half its weight of pulverized asbestos into a stiff paste with fresh ox blood. The wood must be coated when quite dry, and a second coat is applied, this mixed with a little boiled oil. When the second coat is perfectly dry the wood is very carefully steamed, to make the varnish set. The stuff is cheap, innocuous, and quite free from smell. Used for the insides of casks it has no effect upon liquids which may be placed in them.

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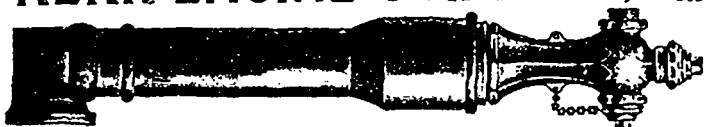
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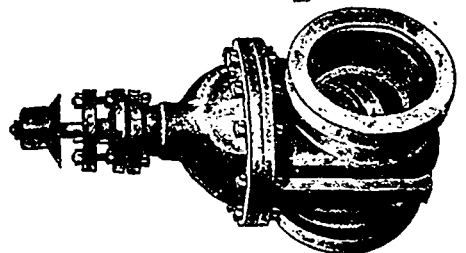
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## MUNICIPAL DEPARTMENT

### CAUSES OF DEFECTIVE SIDEWALKS.\*

By A. W. CAMPBELL, C. E.

The advisability of replacing old plank sidewalks in very many cases with the more permanent concrete has been frequently urged, and a specification was included in the report of this department for 1898. In so doing, however, it has not been advocated that an inferior quality of concrete would be preferable to a good quality of plank walk, the comparison being, in every case between good quality of both plank and concrete.

The first cost of plank walks is about five cents a square foot. The life may be extended to about fifteen years, but for the last ten years repairs will have been many. Each repair requires that a man be sent with material so that the patching process is very expensive in proportion to the first cost. The result is to about double the first cost of the work in a term of fifteen years, making the cost ten cents a square foot.

Cement concrete walks are being laid for eleven and twelve cents a square foot, although, in the circumstances of some cases, the difficulty of obtaining broken stone, gravel, or sand, may require a slightly increased outlay. The life is indefinite for we really do not know how long concrete work will endure, but we do know concrete structures of the Romans, built 2,000 years ago, are still in existence. It is not too much to expect that the concrete walks now being laid will do service for fifty years if laid as they should be. The cost after a term of fifteen years is very little more than that of plank walks, so that their life beyond a term of fifteen years is a practical saving to the municipality.

The use of concrete is far from being properly understood by those who have charge of side-walk construction in some municipalities, and the result has been in many instances, that most unsatisfactory work has been attained.

Cement concrete in walks, culverts and other structures of a like nature, is lasting and serviceable, when properly mixed and rightly put in place, is in the best sense economical. But defective work shows itself quickly. Wherever there has been careless or "scamped" work, it is very likely to show itself after exposure to a winter's frost and dampness. Work which stands for two years without signs of cracking, shaling or crumbling is likely to be permanent, its life conditional upon the actual wear which it receives.

\* From the fourth annual report of the Provincial Instructor of Road-Making for Ontario.

Among the most frequent causes of poor concrete is the use of an inferior brand of cement. A cheap sidewalk obtained by the use of cheap cement will, in the end, prove exceedingly costly. Cement is a material of widely varying degrees of excellence, and experiments should not be tried by the smaller municipalities. There are good and reliable brands of Canadian Portland cement which have proven their qualities in large Government works, and in other extensive contracts, and to go beyond these is unnecessary and in many cases entirely unsafe.

Just as to how cement can be of poor quality is not understood by many, and it may be pointed out, as one example, that the presence of free lime causes what is known as "blowing" in the finished concrete, and rapidly results in decomposition of the sidewalk.

Again among causes of inferior side-

walks is the use of gravel and cement to form the entire work, in place of a proper mixture of sand, cement and stone. In the composition of concrete, first prepare a mortar of sand and cement with just sufficient water to make a plastic mass; this mixed with a quantity of stone in such proportion that the mortar will completely fill the voids between the stones, with a proper excess of mortar for safety. There are certain definite proportions of cement, sand and stone which must be uniformly mixed in producing a good quality of artificial stone.

(To be Continued.)

Mr. George F. Keefer, C. E., has been appointed resident engineer of the Dominion public works department in British Columbia, to succeed Mr. J. R. Roy, C. E., who was recently appointed secretary of the above department.

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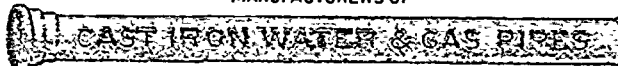
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" Scotch Paving Blocks, 8" x 3 1/2" x 4".....	45 00	
Masilton.....	30 00	
Quebec and Vermont rough granite for building purposes, per c.ft. f.o.b. quarry For ornamental work, cu. ft. Granite paving blocks, 8 in. x 12 in. x 6 in. x 1/2 in. per M. Grao te curbing stone, 6 in. x 20 in. per'lineal foot.....	40 40 70	1 00 50 00

CREDIT VALLEY STONE.  
F.O.B. Quarries.

Rubble, per car of 15 tons... Brown Coursing, up to 10 in., per sup. yard.....	7 00	1 50 to 1 75
Brown Dimension, per cub. ft. Grey Coursing, per sup. yard Grey Dimension, per cub. ft.	60 1 00 45	

LONGFORD STONE.

Rubble, per 30 M. car..... Ashlar, per cub. yd..... Dimension, per cub. ft.....	5 00 2 00 18	
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**SLATE.** Toronto. Montreal.

Roofing (7 square)..... " red..... " purple..... " adding green..... " black..... Terra Cotta Tile per sq..... Ornamental Black Slate Roofing	17 50 8 50 8 50 7 50 20 00 8 80	20 00 10 00 8 00 6 50 25 00 6 80
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**CEMENT, LIME, etc.**

Portland Cement - German per bbl..... London "..... Newcas le "..... " Jossan " Brand Portland " Dyckerhoff " North's " Concor " English, artificial, per bbl. Belgian, natural, per bbl. Canadian, artificial, " Roman " Parian " Keene Superfine " Whites " Keene's Coarse " Whites " " Karlstadt " (German) " " Germania " (German) " " Rooster " (Belgian) " Keystone " (Belgian) " " Anvil " (Belgian) " " Burham " (English) " Hydraulic Cements - Thorold, per bbl..... Queenston, ".....	2 90 3 10 2 95 3 00 3 00 3 25 3 25 2 85 3 05 2 85 3 25 3 25 3 25 3 05 3 05 2 95 3 00 2 50 3 10 2 55 2 45 2 45 1 95 2 10 3 25 3 25 2 75 2 90 2 85 2 80 3 35 2 45 2 75 2 60 2 70 2 20 2 25 5 25 5 25 8 00 10 00 8 50 9 00 3 05 3 25 2 75 2 90 2 05 2 20 1 95 2 05 2 25 2 45 2 50 2 60 1 50 1 50 1 60	2 65 2 45 2 45 2 10 2 90 2 90 2 80 2 80 2 45 2 45 2 60 2 70 2 20 2 25 5 25 5 25 10 00 10 00 8 50 9 00 2 90 3 25 2 75 2 90 2 05 2 20 1 95 2 05 2 25 2 45 2 50 2 60 1 50 1 50 1 60
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Napanee, ".....	1 50	1 50
Hull, ".....	1 50	1 50
Ontario, ".....	1 50	
Fire Bricks, Newcastle, per M.....	30 00 35 00	16 00 21 00
" Scotch.....	30 00 35 00	19 00 21 00
Lime, 100 lbs., Grey.....	35	30
" " White.....	30	30
Plaster, Calcined, N. B.....	2 00	1 50
" " N. S.....	2 00	1 50
Hair, Plasterers', per bag....	80	1 00 0 00

**HARDWARE.**

The following are the quotations to builders for material at Toronto and Montreal.

Cut nails, 50d & 60d, per keg	2 85	2 85
Steel " " " "	2 95	2 95

CUT NAILS, FENCE AND CUT SPIKES.

40d, hot cut, per 100 lbs.....	2 85	2 85
10 to 12d, hot cut.....	2 95	2 95
8d, od, " ".....	3 00	3 00
6d, 7d, " ".....	3 15	3 15
4d to 5d, " ".....	3 25	3 25
3d, " ".....	3 50	3 50
2d, " ".....	3 85	3 85

Cut spikes, 10 cents per keg advance.  
Steel Nails, 10c. per keg extra.  
Wire nails, 3 1/2 base price.

**Iron Pipe:**

ron pipe, 3/4 inch, per 100 feet.....	3 50
" " 1/2 " " ".....	3 75
" " 3/4 " " ".....	4 25
" " 1 " " ".....	5 00
" " 1 1/2 " " ".....	5 75
" " 2 " " ".....	6 50

**Lead Pipe:**

Lead pipe, per lb.....	7c.	15 per cent. ds
Waste pipe, per lb.....	7 1/2c.	

**Galvanized Iron:**

Adam's-Mar's Best and Queen's Head and Opello: 16 to 24 gauge, per lb.....	4 1/2c.	4 3/4c.
26 gauge, " ".....	4 3/4c.	5c.
28 gauge, " ".....	5c.	5 1/2c.
Gordon Crown— 16 to 24 gauge, per lb.....	4 1/2c.	4 3/4c.
26 gauge, " ".....	4 3/4c.	5c.
28 gauge, " ".....	5c.	5 1/2c.

Note.—Cheaper grades about 1/4c. per lb. less.

**Structural Iron:**

Steel Beams, per 100 lbs.....	2 75	1 1/2
" channels, ".....	2 85	1 1/2
" angles, ".....	2 50	1 1/2
" tees, ".....	2 80	1 1/2
" plates, ".....	2 55	1 1/2
Sheared steel bridge plate.....		1 1/2