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# CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL

EVERY

PUBLIC WORKS • TENDERS •  
ADVANCE INFORMATION •  
AND MUNICIPAL PROGRESS

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.

OCTOBER 17, 1900

No. 37.

## 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.



Sealed tenders, addressed to the undersigned, and endorsed "Tender for Works at Port Colborne," will be received at this office until FRIDAY, THE 9TH OF NOVEMBER, inclusively, for the construction of a breakwater and for Rock Excavation at Port Colborne, Welland County, Province of Ontario, according to a plan and specification to be seen at the offices of H. A. Gray, Esq., Engineer in charge Harbour and River Works for Ontario, Confederation Life Building, Toronto; the Resident Engineer, room 41, Merchant's Bank Building, St. James St., Montreal; and Mr. P. H. Beland, Clerk of Works, Post Office, Quebec; on application to the Postmaster at Port Colborne, Ont., 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 tenderers.

An accepted cheque on a chartered bank payable to the order of the Minister of Public Works, for Thirty Thousand Dollars (\$30,000), 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, October 10th, 1900.

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

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Iron Superstructure, Des Joachim's Interprovincial Bridge," will be received at this office until FRIDAY, 19TH OCTOBER, 1900, inclusively, for the construction of an Iron Superstructure for the Interprovincial Bridge over the Ottawa River at Des Joachim's, County of Pontiac, P. Q., according to a plan and a specification to be seen at the office of F. S. Rees, Esq., Dockmaster, Dry Dock, Kingston, Ont., at the Public Works Office, Montreal Post Office, Que., on application to the Postmaster at Hamilton, Ont., 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 tenderers.

An accepted cheque on a chartered bank, 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, 25th September, 1900.

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

DEPARTMENT OF RAILWAYS AND CANALS

## Sault Ste. Marie Canal

### NOTICE TO CONTRACTORS

Sealed Tenders, addressed to the undersigned, and endorsed "Tender for Deepening the Lower Entrance of the Sault Ste. Marie Canal," will be received at this office until 12 o'clock on WEDNESDAY, THE 27TH DAY OF OCTOBER, 1900, for the works connected with the Widening and Deepening of the Lower Entrance of the Sault Ste. Marie Canal.

Plans and specifications of the work can be seen on and after the 10th day of October, 1900, at the office of the Chief Engineer of the Department of Railways and Canals, Ottawa, and at the Engineer's office at Sault Ste. Marie. Printed forms of tender can also be obtained at the places mentioned.

In the case of firms there must be attached to the tender the actual signatures of the full name, the nature of the occupation and residence of each member of the same, and, further, an accepted bank cheque for the sum of \$7,500 must accompany the tender. This accepted bank cheque must be endorsed over to the Minister of Railways and Canals, and will be forfeited if the party tendering declines entering into contract for the work at the rates and on the terms stated in the offer submitted.

The accepted bank cheque thus sent in will be returned to the respective parties whose tenders are not accepted.

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

Contractors are specially notified that the conditions requiring the works to be wholly completed by the 1st day of October, A.D., 1902, will be rigidly enforced, and all penalties for delay exacted.

By order,  
L. K. JONES,  
Secretary.

Department of Railways and Canals,  
Ottawa, 4th October, 1900.

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

Geo. Gregory, brick manufacturer, St. Thomas, Ont., is announced to have assigned to John C. Lindcop.



## SAULT STE. MARIE CANAL

### NOTICE TO CONTRACTORS.

Sealed tenders, addressed to the undersigned, and endorsed "Tender for Lock Gates," will be received at this office until 12 o'clock on THURSDAY, THE EIGHTEENTH DAY OF OCTOBER, 1900, for the construction and setting in place in working order of one pair of Lock Gates at the Sault Ste. Marie Canal.

Plans and specifications of the work can be seen on and after the 16th day of September, 1900, at the office of the Chief Engineer of Railways and Canals, Ottawa, where forms of tender can be obtained.

In the case of firms there must be attached to the tender the actual signatures of the full name, the nature of the occupation and residence of each member of the same, and, further, an accepted bank cheque for the sum of \$2,000 must accompany the tender. This accepted bank cheque must be endorsed over to the Minister of Railways and Canals, and will be forfeited if the party tendering declines entering into contract for the work at the rates and on the terms stated in the offer submitted.

The accepted cheque thus sent in will be returned to the respective parties whose tenders are not accepted.

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

By order,  
L. K. JONES,  
Secretary.

Department of Railways and Canals,  
Ottawa, 15th Sept., 1900.

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

Contractors will confer a favor upon the publishers by mentioning the CONTRACT RECORD when submitting tenders for works advertised in this paper.

### CONTRACTS OPEN.

MYRTLE, ONT.—Manly Briggs is about to erect a residence.

MELROSE, ONT.—C. Haight will build a residence on his farm.

BALDERSON, ONT.—A Presbyterian church will be built here.

SHAWVILLE, QUE.—Pontiac county will purchase a stone crusher.

WALLACE, N. S.—A brick manufactory is about to be established here.

THORNLOWE, ONT.—It is proposed to build a school house here next year.

NEW GLASGOW, N. S.—The ratepayers have voted \$3,000 for a fire alarm system.

ST. STEPHEN, N. B.—The building of a Presbyterian manse has been commenced.

FITZROY HARBOR, ONT.—The construction of a waterworks system is being advocated.

ST. ANDREWS, N. B.—Wm. Hope, of Montreal, intends to build a summer residence here.

NEWMARKET, ONT.—Tenders close 25th inst. for purchase of \$10,000 electric light debentures.

ARNPRIOR, ONT.—S. R. Rudd will erect a show room and office building adjoining his factory.

ATWOOD, ONT.—W. F. Forrest is about to build a sash and door factory, two stories, 40x60 feet.

LION'S HEAD, ONT.—Henry Pedwell, of Thornbury, has purchased a site at this place for a saw mill.

SYDNEY, C. B.—It is understood that

the American Steel & Wire Co. will establish a plant here.

**SMITH'S FALLS, ONT.**—The Perrin Plough Company are about to build an addition to their works.

**BRADFORD, ONT.**—Mrs. C. Magee has purchased a site on Barrie street upon which to build a residence.

**MARLBANK, ONT.**—The Canadian Portland Cement Co. have made arrangements for rebuilding their works.

**GALT, ONT.**—The proposed factory for Getty & Scott will be built near the Albion Hotel, and will be 30 x 60 feet.

**SOUTHAMPTON, ONT.**—It is probable that the tannery of Bowman & Zinkan will be rebuilt on a larger scale.

**ST. LAMBERT, QUE.**—By-laws providing for street macadamizing and extension of the waterworks in this village, were carried last week.

**OSHAWA, ONT.**—The question of constructing a waterworks system will be submitted to the ratepayers in January.

**PERTH, ONT.**—Drummond township council has passed a by-law to borrow \$775 for the purchase of a stone crusher.

**NORMAN, ONT.**—It is reported that eastern capitalists will erect works here for the utilization of the waste of the saw mills.

**WHITBY, ONT.**—R. E. Speakman, C. E., of Toronto, has been engaged to report on a waterworks system for the town.

**THOROLD, ONT.**—The Thorold Pulp Co. have commenced the excavation for proposed pulp mill. Plans by Chas. H. Vogel.

**KINGSVILLE, ONT.**—E. Bailey has leased the Boss-Washer building and will enlarge it for the purposes of a tobacco factory.

**NORTH TORONTO, ONT.**—Mr. Awde has decided to build a large henney on the property now occupied by Mr. John Smith.

**CRYSLER, ONT.**—J. A. Cockburn, clerk township Finch, wants bids by 20th inst. for construction of the Lagrove-McIntyre drain.

**NIAGARA, ONT.**—Bids are invited by J. H. Burns, village clerk, up to December 1st, for purchase of \$10,000 of debentures.

**WINDSOR, ONT.**—Tenders have just been taken by B. G. Davis, chairman Property Committee, for plumbing in the city hall.

**PORTAGE LA PRAIRIE, MAN.**—Some eastern capitalists are said to be considering the erection of a large flour mill at this place.

**DURHAM, ONT.**—Geo. Lawrence has purchased a portion of the McKenzie property on which he will erect a two story building.

**WALNUT, ONT.**—A by-law has been passed by the township council of Brooke providing for the borrowing of \$1,000 for drainage work.

**DESERONTO, ONT.**—Plans of post office to be built here may be seen on application to John Dalton. Tenders close 23rd inst.

**CAMPBELLTON, N.B.**—Willis Chipman, C. E., has presented to council his report on a sewerage system. He estimates the cost at \$25,000.

**COOKSHIRE, QUE.**—Cox & Amos, architects, of Montreal, have completed plans for proposed nurses' cottage at Protestant Hospital.

**VICTORIA, B. C.**—Work has commenced on a brick block on Government street, between Cormorant and Fisgard streets, for On Hing.

**HINTONBURG, ONT.**—Robt. Surtees, C. E., of Ottawa, has been engaged to superintend the extension of the waterworks in this village.

**GUELPH, ONT.**—W. F. Colwill, architect, wants tenders by 6 p.m. of 17th inst., for alterations to residence on Woolwich street for Dr. Coghlan.

**FORT FRANCES, ONT.**—It is reported that a new route is about to be surveyed by A. E. Morris, C. E., for a railroad from this place to Emo.

**PORT HOPE, ONT.**—J. W. Sanders, town clerk, asks bids up to October 22nd, at 8 p.m., for purchase of \$20,000 thirty year 4 per cent. debentures.

**CARLETON PLACE, ONT.**—The Beckwith township council have granted right of way for proposed electric railway from Carleton Place to Lake Park.

**PORT ARTHUR, ONT.**—Work on the round house of the Canadian Northern Railway has commenced, and a portion of the building will be built this fall.

**ANDOVER, N.B.**—The bridge over the St. John river between this place and Perth is in a dangerous condition, and may be replaced by a new structure.

**GORRIE, ONT.**—The trustees of the new public school have taken tenders for a bell to weigh not less than 400 pounds. W. E. Binning, of Listowel, architect.

**ROSSLAND, B. C.**—The erection of another smelter on Crawford creek, in the Slocan district, is being discussed by the London Consolidated & Richelieu Mining Co.

**EDMONTON, N. W. T.**—Plans are wanted by the School Board for a ten roomed brick school building to accommodate fifty scholars. Particulars from S. G. Jelfitt.

**BELLEVILLE, ONT.**—J. F. Thompson, city treasurer, invites bids up to November 5th for purchase of \$90,000 consolidated debt debentures, forty years, 4 per cent.

**GRAVENHURST, ONT.**—Mr. Fletcher states that the electric light plant, destroyed by fire last week, will be replaced immediately, and that a brick power house will be built.

**COLLINGWOOD, ONT.**—The Board of Governors of the John H. Stratford Hospital have decided to modify the plans for isolation hospital and ask for new tenders.

**DARTMOUTH, N. S.**—Alfred Elliott, town treasurer, will receive bids up to October 22nd for a loan of \$5,000 for the purpose of extending the waterworks and sewerage systems.

**MAISONNEUVE, QUE.**—The town council has passed by-laws granting bonuses of \$10,000 each to the Slater Shoe Co. and the Royal Shoe Co. to establish factories here.

**L'ORIGNAL, ONT.**—Bids are invited by E. A. Johnson, clerk of the united counties of Prescott and Russell, up to October 31st, for purchase of \$8,000 fifteen year 4 per cent. debentures.

**BROCKVILLE, ONT.**—The Brockville and Belleville Health Board will make a proposition to the Provincial Board of Health for the establishment of a consumptive sanitarium in the vicinity of the above cities.

**DUNDAS, ONT.**—The authorities of the House of Providence have decided to rebuild the institution on the old site. Architect Clohocy, of Hamilton, has been instructed to prepare the necessary plans.

**KINGSTON, ONT.**—Arthur Ellis, architect, is preparing plans for new coach houses and stables to be built at the summer residence of Sir Richard Cartwright, on the banks of the St. Lawrence, near this city.

**CARDINAL, ONT.**—Willis Chipman, C. E., of Toronto, has submitted to the council a report on a system of sewerage for the village. He estimates the cost at \$20,700 for a 9 inch main pipe. A by-

law authorizing the work will be submitted to the ratepayers shortly.

**OWEN SOUND, ONT.**—The Canadian Litholite Company has been organized here, to manufacture Portland cement and concrete.—The council will construct cement walks on Canning and Leshe streets, cost \$800.

**NIAGARA FALLS, ONT.**—James Wilson, superintendent of the Queen Victoria and Niagara Falls Park, wants tenders by 22nd inst. for erection of drive shed, the frame to be wrought iron piping, covered with corrugated iron.

**ST. THOMAS, ONT.**—Surveyors have been laying out the site for the proposed Lake Erie and Detroit River railway bridge across the ravine south of this city. It will be 1,236 feet in length, and the abutments will be built this fall.

**WESTMOUNT, QUE.**—The council has decided to accept the offer of the municipality of St. Henri in the matter of diverting the Glen brook; estimated cost \$5,800.—A granolithic sidewalk will be constructed around the Merchants Bank.

**SHERBROOKE, QUE.**—Improvements will likely be made to the street railway system.—The plans prepared by Cox & Amos, of Montreal, for proposed opera house to be built here by M. Clement, have been adopted, and the building will be proceeded with.

**FREDERICTON, N.B.**—A survey will likely be made immediately for the proposed railway between this city and Woodstock. The charter is held by New York capitalists.—T. C. Allen and A. J. Gregory are forming a company to build a large skating rink.

**SAULT STE. MARIE, ONT.**—The construction of a sewerage system is being advocated.—Tenders have just been taken for building an addition to the Canal mission on Cathcart street.—The Argona Supply Co. have commenced the foundation of a new store.

**WALKERVILLE, ONT.**—F. C. McMath and B. S. Colburn, recently of the Detroit Bridge Co., have formed the Ontario Bridge Co., and are erecting in this town large works, of steel construction, entirely fire proof, to cost in the neighborhood of \$200,000.

**WIARTON, ONT.**—Plans of wharf to be built at this place by the Dominion government are on view at the post office. Tenders close Friday, Nov. 2nd.—Tenders are invited by G. Kastner, Chairman, Finance Committee, up to Thursday, 25th inst. for the purchase of \$3,434,13 twenty year four per cent. debentures.

**ST. JOHN, N. B.**—Persons interested in the Y. M. C. A. are taking steps to secure the erection of a new building, to cost upwards of \$30,000.—G. E. Fairweather, architect, wants tenders by Friday, 19th inst., for builders' work, plumbing and furnace fitting required in alterations to the Madras school building on Duke street.

**QUEBEC, QUE.**—The Provincial government has purchased the Chicnic property on St. Foye road as a site for a Normal school.—It is understood that an engineer will be appointed by the council to report on the required improvements to the waterworks system.—Tenders are invited by the city up to October 23rd for the supply of 1,000 feet of cotton fire hose.

**PARRY SOUND, ONT.**—A by-law may be submitted to the ratepayers asking authority to raise \$20,000 by debentures for the purpose of taking over the electric light plant.—It is understood that the Belvidere Hotel will be enlarged before next season.—Certain members of the council are in favor of submitting a by-law to the ratepayers to raise \$5,000 by the issue of debentures for building bridges and extension of waterworks.

**LONDON, ONT.**—A movement has been

inaugurated for the establishment of a sanitarium for consumptives. An effort will be made to secure the co-operation of the county councils of Middlesex and Elgin.—Building permits have been issued as follows: Thomas Hill, brick veneer residence on Tecumseh avenue; J. E. Vanderburgh, brick residence, corner Elizabeth street and Queen's avenue; Dean & Co., brick addition to bake shop, 579 Richmond street.

WINCHESTER, ONT.—T. H. Wiggins, C.E., of Cornwall, last week presented to the Winchester township council a report on the Petite, Castore and Annable creek drainage scheme. The drain and its branches is estimated to cost over \$77,000, and it is proposed to provide for the work by issuing debentures. The council passed a resolution in favor of proceeding with the work. The council also authorized the engineer to prepare plans and specifications for the Lough and other drains in the municipality.

ST. CATHARINES, ONT.—It is said that the Niagara, St. Catharines & Toronto Railway Company are about to commence a survey of the proposed electric road to Beamsville.—An arrangement has been made with the McBurney-Beattie Co., of Toronto, under which the bicycle factory now being built by the Nott Bicycle Company will be increased to three times the size at first intended. Plans for the additions are now being prepared.—Shelly Bros., bakers, have purchased property on Queen street on which they will erect a double store.—Mayor Keating is in favor of an improved drainage system. His proposal is to issue debentures for \$20,000 for carrying out the work.

HAMILTON, ONT.—A. W. Feene has been granted a permit for a brick dwelling on York street for Henry Dingman, to cost \$1,200.—The Park Commissioners have decided not to make alterations to Dundurn Castle.—A deputation of civic officials recently interviewed the Ontario Premier in connection with a proposition to acquire the Dundas marsh and water lots for the purposes of sewage disposal.—The following building permits were granted last week: E. B. Patterson, brick dwelling on Erie avenue for John Cruickshank, cost \$1,500; J. A. Arms, brick dwelling on Catharine street, between Simcoe and Ferry streets, for Chas. Marriott, cost \$1,100; Chas. Mills, rebuilding the weave room of the cotton mill on Mary street, cost \$2,000.

WINNIPEG, MAN.—The city will advertise for tenders for 1,000 to 1,500 cords of paving blocks—Engineers have completed a survey of the territory between Sprague and Warroad, Minn., for the purpose of draining and improving the lands in the district.—The following works are about to be undertaken: Granolithic walks, north side Mayfair avenue, from Main street to end of street, cost \$1,760; on east side of Garry street, cost \$924; on south side of Broadway, from Main to Kennedy streets, cost \$5,110, and on north side of same street, cost \$5,320; sewer on Gunnel street, from Logan avenue to Henry avenue, cost \$1,040; on Nena street, from William street to Elgin avenue, cost \$1,270, and on Elgin avenue from Nena street west, cost \$1,160; cedar block pavement on lane between Smith and Donald streets, cost \$2,740, and on Tache street, from River avenue to south end, cost \$1,450.

OTTAWA, ONT.—The authorities of St. Matthew's church have decided to have plans prepared immediately for a new Sunday school room.—The Ottawa Investment Company, it is understood, will build a foundry on the Victoria foundry site.—Ald. Davidson will propose in council a vote of \$75,000 for a traffic bridge across the river from Hull to Bank street.—The Department of Pub-

lic Works invites tenders up to Tuesday, 23rd inst., for erection of post-office at Deseronto, and until Friday, November 2nd, for construction of wharf at Warton. Plans of the latter at above Department, at post-office at Warton, and at office of H. A. Gray, Confederation Life Building, Toronto.—The residents of Mepean township have objected to level railway crossings on the Richmond road, and ask for the construction of a viaduct.—The Hebrew residents of the city will likely take steps next spring to erect a commodious synagogue.

TORONTO, ONT.—Tenders are wanted for stone and brick work for pair of houses. Plans at 235 Robert street.—F. H. Herbert, architect, invites bids up to 5 p.m. of 18th inst. for all trades, including heating, for erection of pair of semi-detached residences on Howard street.—The Bell Piano Company have secured the building at 146 Yonge street, now occupied by the Bazaar Company, and intend converting it into retail piano ware rooms. Contracts for furnishings and remodelling will shortly be let.—Building permits have been granted as follows: Canada & Western Permanent Company, reconstruction of warehouse, 135 Victoria street, cost \$5,500; David Ward, alterations for hotel, corner Yonge and Alice streets, cost \$4,500; P. & G. Griffin, hair factory, west side St. Helen's avenue, near Bloor street, cost \$6,000; James A. Rutherford, two-story brick dwelling, 340 Manning avenue, cost \$1,000; Thos. Mounce, two-story brick dwelling, 336 and 338½ Parliament street, cost \$2,800; James D. Young, brick and stone three-storey dwellings, 329-331 Markham street, cost \$5,000.

MONTREAL, QUE.—Negotiations are reported for the purchase of St. George's church and the adjoining Methodist church properties as a site for a proposed palace hotel.—Plans are being prepared by a New York architect for a new building for the Bank of Montreal, to be erected on the property on Craig street recently purchased by the Bank. Work will commence next spring.—The Catholic School Commissioners will invite new tenders for a \$100,000 loan.—W. E. Doran, architect, has been instructed to prepare plans for the new St. Gabriel school, which is to cost \$25,000.—The Civic Level Crossings Committee have decided upon a plan for the elevation of the level crossings from the Bonaventure station to the city limits. The scheme includes an incline track, running on a level, from Lusignan street, and the total cost of execution is estimated at \$1,500,000.—At a conference of representatives of the Montreal General, Notre Dame and Royal Victoria Hospitals, held last week, it was resolved to ask the city council to submit a by law to the ratepayers to provide for the erection of a modern civic hospital for contagious diseases.—Building permits have been issued as follows: T. Goulet, three storey building, 147 Panet street, cost \$2,000, Chas. A. Reeves, architect; Jules Hone, four storey building, 62 Victoria street, cost \$1,100, C. Dufort, architect; Wm. Clark, two storey building, 53 Amherst street, cost \$8,000, Wm. E. Doran, architect; Dme. Max Deslauners, three storey house, 213 Lamontagne street, cost \$7,000; Rev. J. Williamson, two storey building, Sherbrooke street, cost \$10,000, Hutchison & Wood, architects; H. Gariepy, six two-storey houses, Bayer street, cost \$7,500.

#### FIRES.

Brick residence of Robt. Miller at Pickering, Ont.; loss \$2,000.—Store of J. M. Richmond at Portage la Prairie, Man., damaged to extent of \$1,500.—Electric light plant at Gravenhurst, Ont., owned by Mr. Fletcher; loss \$7,000, insurance \$3,000.—Residence of Mr. Dutcher at Bishopgate, Ont.—Lumber

yard of Alex. McLaren on Papineau avenue, Montreal, damaged to extent of \$5,000.—Steamer City of Parry Sound, burned at Collingwood, Ont., on Oct. 9th; loss \$30,000, insurance \$15,000.—Last factory of O. Chalifour on Prince Edward street, Quebec, totally destroyed.

#### CONTRACTS AWARDED.

PAISLEY, ONT.—The sewer contract has been let to A. Devine.

RIVIERE DU LOUP, QUE.—Addition to I. C. R. station; Emile Dube, contractor.

AMHERSTBURG, ONT.—G. A. Stimson & Co., of Toronto, have purchased the town debentures.

ST. THOMAS, ONT.—Local brick will be used in the addition to the Amasa-Wood hospital.

PERTH, ONT.—John Dittrick has secured contract for heating the Drennan block with hot water.

ST. PHILIPPE, QUE.—The contract for completion of church here has been let to St. Denis & Lafond.

OTTAWA, ONT.—McKinley & Company have secured contract for heating hospital for contagious diseases.

ST. JOHN, N.B.—George McArthur has secured contract to build I.C.R. round house at Campbellton.

PARRY SOUND, ONT.—Seating of St. Andrew's church; Valley City Seating Co., of Dundas, successful tenderers.

GRAVENHURST, ONT.—Town hall and sidewalk debentures have been sold to G. F. Marter, of Toronto, for \$9,715.

STELLARTON, N. S.—Roundhouse for Intercolonial Railway; Rhodes, Curry & Co., contractors; price about \$50,000.

AMULREE, ONT.—The contract for improvements to Central drain has been let to August Beltz, of Ellice, for \$1,680.

COLLINGWOOD, ONT.—The tender of J. H. Duncan for heating the Collegiate Institute by steam has been accepted; price, \$1,425.

MONTREAL, QUE.—John Watson has secured the contract for ornamental iron work and stairs in the addition to the C. P. R. Windsor street station.

PETERBORO, ONT.—The William Hamilton Manufacturing Company have secured contract for water wheel plant for new cement works at Lakefield.

YARMOUTH, N. S.—Three tenders were received for purchase of \$7,000 of debentures, as follows: John Lovitt, \$7,070, (accepted); E. H. Gay & Co., Toronto, \$7,018; T. V. B. Bingay, \$7,040.

HULL, QUE.—The tender of the Ottawa Electric Company for lighting the streets of the city by arc lights, has been accepted.—Viau & Lachance, contractors for the post-office building, have commenced work.

BLENHEIM, ONT.—Blight & Fielder, of Chatham, have been awarded the contract for public school to be erected here; cost \$10,500; dimensions, 77x59 ft. J. L. Wilson & Son, architects, of Chatham, prepared the plans.

MORRISBURG, ONT.—Tenders for light and power plant for the municipality have been accepted as follows: Electrical apparatus, Canadian General Electric Company, Toronto; water wheels and steel work, Wm. Hamilton Mfg. Co., Peterboro; hydraulic development, R. H. Hill, Toronto.

TORONTO, ONT.—The tender of the city engineer has been accepted for asphalt pavement on Manning avenue, from Harbord street to Bloor street, at \$9,002, and on Spadina crescent, at \$13,229. A. Gardner & Co. have secured contract for cement walk on John street, from Richmond to Queen, at 54 cents a foot. The contract for fitting the law library, vaults and other departments for

the county in the municipal building has been divided between R. Dennis & Son and Chas. Rogers & Co.

SANDON, B. C.—The following tenders were received for the G. W. Grinnett building:—Swift & Pfeiffer, \$2,775; Duffy & Soper, \$2,500; Folliott & McMillan, 2,484.85; D. J. McLachlan, \$2,448; Chas. Lambert, \$2,280; Karr & Wilson, \$1,900 (accepted). The building will be 28x50 ft. and will consist of two stores below and two four-roomed dwelling houses above; flat roof.

#### BUILDING SUPPLIES IN MONTREAL.

The imports of cement to Montreal last week were 780 barrels English and 5,600 Belgian and German, as against 1,660 English and no Belgian or German for the previous week, making a total to date of 43,367 English and 117,933 Belgian and German. The market is without any new feature to note, except that the demand for small lots has improved some and a fair amount of business in a jobbing way is reported. The tone is steady and prices show no change.

The arrivals of firebricks for the past week were 26,000, as against 127,000 for the previous one, making a total to date of 1,829,599. A fair trade is reported in a small way and prices are unchanged at \$17 to \$24 per 1,000 as to brand, ex wharf.

A very satisfactory volume of business is reported in paints and oils. Orders from all points are coming forward freely so as to enable importers and dealers to make shipments before the advance in railway freights goes into effect, consequently the market, generally speaking, is active and prices fully maintained. A feature of the week has been the stronger feeling in steam refined seal oil; prices have been marked up 2½c. per gallon owing to the limited supply on spot and the improved demand for the same.

Glass is firm, and since the cool weather has set in the demand has improved considerably.

#### BRICKWORK.

In estimating for brickwork several things are to be taken into consideration before the price per M is determined, says the St. Louis Builder. It is usual among bricklayers in country towns to set a price on brick work in the wall at so much a thousand, without taking into consideration the style of openings or the quality of work required; and this price is generally the lowest given for work of the cheapest sort, a fact that often places the contractor in a false position, for it frequently happens that the better kind of brickwork costs double that of the common sort—the kind the contractor figured on—and this should be provided for when the estimate is first prepared. Openings having semi-circular or curved heads cost twice as much to construct as those having square heads and lintels over them, and gauged arches with rubbed joints cost nearly twice as much as an arch made up of chipped bricks. Again, an elliptical or a four centered gothic arch costs much more to build and prepare the bricks than either of the foregoing. Circular work of any kind, bay windows or oriels, octagonal

work, panels, belt courses, cornicing, gables, chimneys and offsets, take much more time to construct than ordinary running work, and should be provided for in the estimate. Hollow walls should be measured as per actual thickness of the brickwork, with ample allowance for bonding and for extra labor. Half of all openings should be counted as solid wall under 110 feet face measure, to cover waste and extra labor. Bricks laid up in cement should be charged for extra labor and extra cost of cement. All wrought iron bonding when used must be charged extra, as well as extra time employed in setting same. Building in fire-places, setting in grates, placing in jamb tiles, and laying hearths should all be charged extra apart from the cost of materials. Piers for steps or for verandahs having two or more faces are extras and should be priced accordingly. When colored mortar is used there should be added to price of labor from 5 to 8 per cent., besides extra cost of material; black mortar being the most costly to handle.

Cleaning down the walls, while generally considered by contractors as run in with the price per thousand, is really an extra, and should be charged as such when closing the estimate, so also should be the cleaning up of the grounds and removal of waste and rubbish. In topping off walls or finishing copings where cement is employed, the extra cost should be included in the estimate. In figuring up for the number of bricks required to complete any given quantity of work, the following rules may be of service: As before stated all openings having 100 or more square feet are not counted, but all having less than 100 feet are measured as one-half solid wall, therefore an opening having 90 square feet surface should be measured to contain 45 square feet of solid wall. This is allowed to cover waste and extra cuttings. Openings should all be measured at their greatest height and width. In measuring for a nine inch wall it is usual to allow 12 bricks for every square foot on the face of the wall, and for a 13 inch wall 22 bricks for each square foot, and 29 bricks for an 18 inch wall. In an experience of many years the writer has found these figures to be a trifle under the mark, and found that about 5 per cent. added to the result was nearer the correct thing. Chimneys having 9x9 or 9x13 flues are generally measured solid throughout, but for chimneys having larger flues some reduction may be allowed. No reduction should be allowed for stone trimmings, such as caps, quoins, sills or stone belt courses, if the bricklayer sets the stones, but if the stones are set by a mason or other contractor. One barrel of lime contains three bushels, which with one yard of sand, will make one yard of 1 to 3 mortar, which will lay about 80 feet cubic of rough brickwork or common

rubble. One yard of colored mortar should lay about 90 cubic feet of fine brickwork. There should always be a damp course in brickwork, and the estimator should provide for this in his estimate. It may be of slate, asphalt or cement.

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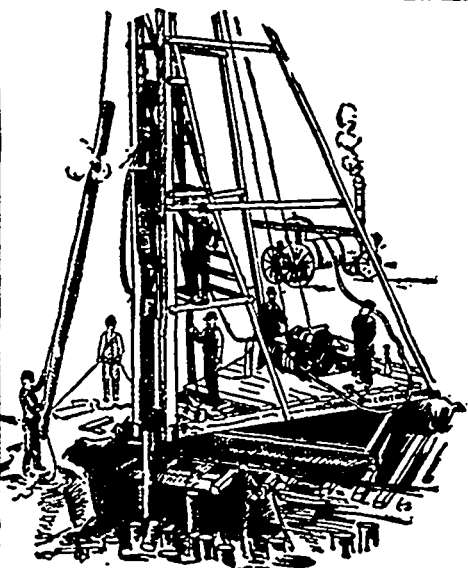
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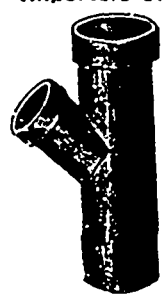
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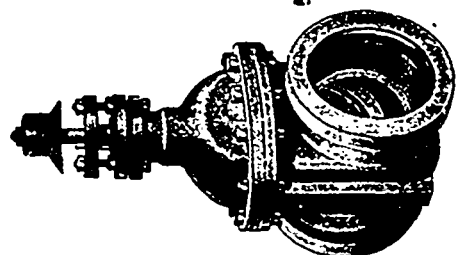


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## MUNICIPAL DEPARTMENT

### THE USE AND WASTE OF WATER.\*

(Continued.)

Waste in domestic use.—The efforts toward the restraining of waste have been confined to reducing the amount which is willfully wasted by placing meters on the services of business consumers, and making them pay by measure for the water they use. The placing of meters on private residences is not permitted by law, or, more properly speaking, the compelling of the private consumer to pay for a meter for the water which passes through it is not authorized by the city charter.

For several years a considerable reduction of waste from unseen and not readily discovered sources, such as leaking fixtures and main pipes, was effected by reducing the head of water in the pipes. This did not, as is generally supposed, diminish the quantity a consumer could use legitimately, but it did lessen the quantity lost by leakage, and so increased the quantity available for actual use.

Reduction of pressure.—It was by a skillful application of the reduction of head that the supply of necessary water was kept up for the whole city during the years from 1883 to 1890, while the new aqueduct was building. The gates at the reservoirs and the stop-cocks in the distributing mains were partly closed, so that just enough water would pass through them and into the several districts of different elevations to rise not higher than the first or second stories of the houses, thus furnishing water enough for use and also for supplying the diminished leakage caused by the lessening of the head on the orifices which were constantly open, whether they were underground or in the plumbing of the houses. The deterioration of the pipes kept on increasing with little or no effort to stop it, and the defective plumbing was not repaired except when it caused inconvenience to the occupant of the house. The increasing loss from invisible leaks was overcome by decreasing the pressure on the pipes.

Then in July, 1890, the water from the new aqueduct was turned on and the throttled gates and stop-cocks were opened up, and the full pressure from the water in the reservoirs was turned on the pipes. The head on the distribution mains increased 20 to 25 feet. The result was an immediate enormous increase in the consumption of water. In the first half of 1890 the consumption was about 105 million gallons a day. In 1891, 153 million gallons a day were used, and by 1895 the consumption of water had increased to 180 million gallons a day.

Additional leading mains from the reser-

voir to the lower portions of the city were laid, and the increase during the next year was 20 million gallons a day; and in 1897 and in 1898 the laying of a line of large mains from the reservoir to Chambers street enabled the head of water in the lower part of the city to be increased still more, and the consumption of water advanced to 226 million gallons a day in 1898 and 246 million gallons in 1899. That this increased consumption was not due to an increase in the actual rate of use of water by consumers is shown by the fact that the water used by 25 per cent. of the consumers was measured during the entire period from 1889 to 1899, and the rate of use by that 25 per cent. of the consumers was not materially increased, if at all.

In 1889 there were 19,040 consumers taking water through meters, and the average use of water by them was 1,428 gallons per day each. In 1899 there were 35,755 consumers taking water by meter, and they used 1,417 gallons per day each. There is no reason to suppose that the average actual use of water by consumers of any class increased materially during that period of ten years. The number of unmetered consumers increased about 40 per cent., but the amount of water furnished to them which disappeared somewhere increased 160 per cent. Dividing the total unmeasured water by the number of unmetered taps, the daily rate increased from 907 gallons a day in 1889 to 2,248 gallons in 1899. It is not unreasonable to say that it was impossible that 75 per cent. of the watertakers doubled their use of water in about seven years, when it was proved that the remaining 25 per cent. taking water under the same conditions, except as to

measurement of the use, did not appreciably increase their use. If the increase of pressure had increased the legitimate use of water in the metered buildings, it would have shown in the records of the measured water. That it did not increase such legitimate use, but merely increased the waste from orifices either undiscovered or left open by design, is clearly established by the fact that where such orifices did not exist the use of water did not increase.

Newton Kerr has been appointed city engineer of Ottawa, Ont., as successor to Mr. John Galt.

Mr. T. O. Bolger, city engineer of Kingston, Ont., died in that city on September 17th, after a long illness. Mr. Bolger was appointed city engineer in 1887.

A Provincial Good Roads Association for British Columbia was formed at a meeting held at Kamloops recently. Mr. F. J. Deane was elected president, Mr. J. R. Anderson vice-president, E. T. W. Pearsen secretary. The Provincial Government will be asked to make a grant to enable the association to distribute literature bearing on road making.

The cost of cleaning asphalt pavements in Minneapolis during 1899 is analyzed by City Engineer G. W. Sublette, as follows: Cleaning, machine sweeping and washing, 1.45 cents per square yard; hand sweeping 5.74 cents; total 7.19 cents. There were 199,978 square yards cleaned by hand by the block system. The sweepings were put into galvanized iron cans at street corners, from which they were collected by teams. Five teams paid \$3 and \$3.50 a day, and 31 men paid \$1 to \$1.75 per day were employed on the work.

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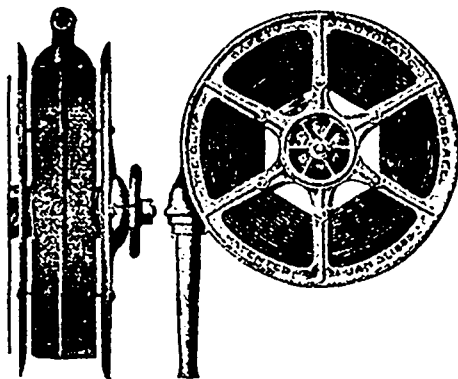
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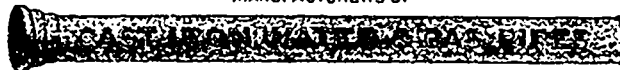
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Prices of Building Materials.

Table with columns for material types (Red No., Buff No., Roman Red, etc.), prices per unit, and locations (Toronto, Milton, Beamsville, etc.).

Table listing various building materials like Sandstone, Paving Blocks, Masillon, Granite, Rubble, Slate, Portland Cement, and their prices per unit.

Table listing hardware and iron pipe prices, including Cut nails, Steel, Iron Pipe, Galvanized Iron, and Structural Iron.