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CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL OF
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. 9. OCTOBER 19, 1898 No. 38.

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.

Advertising Rates on application.

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

TENDERS

Will be received until 5 p.m. on MONDAY, OCTOBER 24th, for the various works required in the construction of a Store Front on King Street West.
GORDON & HELLIWELL, Architects,
Confederation Life Building, Toronto.

TENDERS

Will be received until Noon on TUESDAY, OCTOBER 25th, for the various works (except mason's and carpenter's departments) required in the erection of a RESIDENCE ON GLEN ROAD, ROSEDALE.
GORDON & HELLIWELL, Architects,
Confederation Life Building, Toronto.

TO ENGINEERS

Applications for the position of Superintending Engineer of extensive main drainage works, to be immediately constructed in the City of Ottawa, will be received up to noon of
THURSDAY, THE 27TH INSTANT.
Applications to state experience and salary, and to be addressed to Alderman Cluff, Chairman of Main Drainage Committee, Ottawa.
JOHN HENDERSON, City Clerk.
Ottawa, 13th October, 1898.

TO ENGINEERS

Applications for the position of CITY ENGINEER for the City of Ottawa, Ont., will be received up to noon of
WEDNESDAY, 2ND NOVEMBER CURRENT.
Applications to state experience and salary expected, and to be addressed to Alderman James Davidson, Chairman of Board of Works, Ottawa.
JOHN HENDERSON, City Clerk.
Ottawa, 13th October, 1898.



NOTICE TO CONTRACTORS

Tenders will be received, by registered post only, addressed to the Chairman of the Board of Control, City Hall, Toronto, up to noon on WEDNESDAY, OCTOBER 26th, 1898, for the construction of the following works:

BRICK PAVEMENT:

On Sorauren Avenue, from Queen Street to Wright Avenue.

CEDAR BLOCK PAVEMENT:

On Euclid Avenue, from Robinson to Arthur Street.

TRACK ALLOWANCE PAVEMENTS:

(Scoria and Brick).

On King Street, from Sherbourne Street to River Street.

On Queen Street, from Bathurst Street to Niagara Street.

On Queen Street, from Niagara Street to Gladstone Avenue.

Plans and specifications may be seen and forms of tender obtained at the office of the City Engineer, Toronto, on and after Wednesday, October 19th, 1898.

A deposit in the form of a marked cheque, payable to the order of the City Treasurer, for the sum of 2 1/2 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 signature of the contractor and his sureties, or they will be ruled out as informal.

The lowest or any tender not necessarily accepted.

JOHN SHAW (Mayor),
Chairman Board of Control.

City Hall, Toronto, October 13th, 1898.

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.

BRADFORD, ONT.—There is a movement on foot in favor of installing an electric light plant.

HULL, QUE.—The city council has decided to invite tenders for an arc plant for lighting the streets of the city.

LACHUTE, QUE.—The authorities of the Presbyterian church will shortly consider the question of erecting a new edifice.

THOROLD, ONT.—The submission of a by-law to raise \$7,000 for extending the lighting plant has been postponed until January next.

CORNWALL, ONT.—It is understood that some improvements will be made to the system of the Cornwall Electric Rail-

way Co., of which Mr. D. A. Starr is manager.

PARRSBORO, N.S.—Messrs. E. R. Reid and Burpee L. Tucker have purchased sites on King street on which to erect cottages.

HAMILTON, ONT.—W. W. Lachance, architect, has prepared plans for a steel and concrete dam at Stoney Creek, to have double retaining walls.

WOODSTOCK, ONT.—The Mayor gives it as his opinion that the C.P.R. will commence the building of a new station here before the close of the year.

OWEN SOUND, ONT.—Several lots in McLaughlan Park have been purchased by citizens, the intention being to erect cottages thereon next year.

ENNISKILLEN, ONT.—John P. McVicar, commissioner, invites tenders up to Monday, October 31st., for repairing the Cook drain, in the township of Brooke.

WINDSOR, ONT.—Goldstein Bros. and D. W. Ferguson, of Montreal, have submitted a proposition to the city council for the establishment of a tobacco factory here.

UXBRIDGE, ONT.—The Grand Jury, at the recent Assizes, recommended that steps be taken to secure a site and erect thereon a House of Industry for the county.

BILLING'S BRIDGE, ONT.—A plan for a system of waterworks, comprising a large tower, has been submitted to the council by a Mr. Perry, and seems likely to be adopted.

FREDERICTON, N. B.—Tenders have been invited for the erection of a brick factory for the Hartt Boot & Shoe Co., of which John Kilburn is president. Work will be commenced at once.

GRAND MERE, QUE. Thomas Gray and Alex. Turcotte have broken ground for the erection of dwellings.—A system of waterworks for the town is to be installed at once, at a cost of \$40,000.

EDMONTON, N. W. T.—White & Bellevau, of the Queen's hotel, have purchased property on Main street on which they will erect a three story brick hotel. The excavating only will be done this fall.

HALIFAX, N.S.—It is announced that the Yarmouth Steamship Co. and an English syndicate recently made an inspection of the route from Yarmouth to this city, and will likely complete the construction of the coast railway.

MAGOG, QUE.—At a recent meeting of the town council a by-law was passed, for submission to the ratepayers, to borrow \$10,000 for the improvement of the electric light plant.—The town will likely negotiate a loan in the near future.

QUEBEC, QUE.—Price Bros., lumbermen, are erecting a saw mill at Batiscan, to be equipped with modern improvements, including electric light.—Since the advertisement was published calling for tenders for the construction of the Quebec

bridge, numerous applications have been received for information upon which to base tenders. Some of these are from England, France and the United States.

SLEKIRK, MAN.—The town will issue debentures shortly for \$60,000.

ESQUIMALT, B.C.—Tenders are wanted at H.M. Naval Yard for the erection of a prison.

LEVIS, QUE.—The Council has decided upon the construction of a complete system of waterworks.

BRANTFORD, ONT.—The Bain Wagon Works contemplate making improvements to the extent of \$10,000.

WELLINGTON, ONT.—Litigation in connection with the movement to construct cement walks is threatened.

LOCHABER, N.S.—A site has been secured for a Presbyterian church, work on which will commence at once.

BOTHWELL, ONT.—The ratepayers will vote on a by-law to raise \$4,000 for the establishment of an electric light plant.

CHATHAM, ONT.—The trustees of school section No. 13, Dover township, will borrow \$1,500 for the erection of a new school.

CARLETON PLACE, ONT.—P. P. Salter, proprietor of the Queen's Hotel, this place, has begun the erection of a three-story hotel at Lake Park.

MERRITTON, ONT.—Rev. J. L. Robertson, pastor of the Presbyterian church, is endeavoring to secure funds with which to erect a new edifice.

ACTON, ONT.—The Electric Light Committee have recommended that the village install a municipal plant. A vote of the ratepayers will be taken on the matter.

MCADAM JUNCTION, N.B.—The C.P.R. contemplate building a brick machine shop. The management has decided not to build a new station at the present time.

LAGGAN, ONT.—The C. P. R. have arranged to make extensive improvements here, including the erection of a five stall stone round house and the laying of new track.

HEPWORTH, ONT.—Tenders are wanted by 28th inst. for purchase of \$21,800 of 4 per cent. debentures. Address J. E. Campbell, reeve, or R. S. Russell, treasurer Amabel township.

HARTLAND, N.B.—The erection of a new school building has been decided upon by the trustees, and a meeting will be held shortly to discuss plans. A. S. Campbell is one of the trustees.

KINGSTON, ONT.—The Hornerites will build a church on Division street, north of Princess street.—The application of the People's Telephone Co. for a franchise has been refused by the City Council.

LONDON, ONT.—The remaining portion of the Kenwick property has passed into the hands of John Labatt, M. D. Fraser and A. T. McMahon, and it is probable that buildings will be erected thereon.

CALGARY, N. W. T.—The Methodist church trustees have decided to put in a modern pipe organ.—The Manitoba Milling Company purpose erecting a number of elevators, one of them at this place.

CAMPBELLTON, N. B.—Tenders for the installation of an electric light plant for the town are wanted by Saturday, October 29th. Particulars from W. W. Doherty, M.D., chairman Electric Light Committee.

BARRIE, ONT.—On November 14th a by law will be submitted to the ratepayers to raise \$10,000 by debentures to be used in purchasing a waterworks plant and extending the system to other parts of the town.

CHESTER, N. S.—It is rumored that plans have been prepared for a large summer hotel to be built here. A number of Americans have purchased property at this place, and will likely build dwellings thereon next year.

ST. MARYS, N.B.—The municipality is discussing the question of providing more efficient fire apparatus. Quotations on steam engines are being taken. Particulars from Messrs. John Hall, George Dayton or James Hays.

WOODSTOCK, N.B.—The Town Council has resolved to engage an expert to report upon the outlook for the establishment of a pulp mill. It is probable that the town will offer a bonus of \$10,000 to secure the erection of such a mill.

ROSSLAND, B.C.—C. O'Brien Reddin, the Rossland mining operator, has purchased the controlling interest in the Spokane and British Columbia Telephone and Telegraph Company. It is announced that the policy of the new management will be to improve the system materially and build branches.

WATERLOO, ONT.—Work has been commenced on a large addition to the Waterloo Mfg. Co.'s premises, two storeys, 60x200 feet, white brick, supported by iron beams. Mr. Moogk, architect.—The ratepayers will, on Nov. 21st, vote on a \$50,000 debenture by-law for the purchase of the waterworks.

RIDGETOWN, ONT.—A meeting of gentlemen interested in securing an electric railway between Thamesville, Ridgetown and Rondeau Park was held here last week, at which it was decided to apply for a charter as soon as the necessary funds could be procured. Among those present were Robert Ferguson, M.P.P., and W. E. Gundy, barrister.

GUELPH, ONT.—The trustees of Knox church will build a branch Sunday School building in the east ward.—It is probable that at the approaching municipal elections the ratepayers will be asked to vote on a by-law to provide funds for increasing the fire protection, including the purchase of a new hook-and-ladder truck and the erection of a fire hall.

THREE RIVERS, QUE.—In connection with the development of the water power of Shawenegan Falls, on the St. Maurice river, the contract for hydraulic work has been let to Messrs. Barry, Ross & McRae, of Niagara Falls, Ont. It is probable that the scheme will include the construction of an electric railway from Shawenegan Falls to Three Rivers, a distance of nineteen miles.

PERTH, ONT.—Tenders will likely be invited for a fire alarm system.—H. M. Shaw, chairman Finance Committee, wants tenders by Tuesday, November 1st, for the purchase of \$5,000 of public school debentures.—The Council at its last meeting passed a by-law granting \$5,000 to the Board of Education to provide additional school accommodation.

SARNIA, ONT.—A rumor states that the Lake Erie & Detroit River Railway Co. are looking for a suitable site in this town on which to erect a new station.—A meeting of the Railway Committee of the town council will be held shortly to confer with the representatives of the Lambton Central Electric Railway and the Sarnia Street Railway relative to the proposed electric suburban road.

ST. JOHN, N.B.—The Building Committee of the Public School Board has been instructed to report on the cost of new school buildings to replace the Elm street school.—Mr. George Lake, of Glossog, England, arrived in this city a few days ago to report upon the proposed establishment of a pulp mill by the Cushing Sulphite Fibre Co. It is believed that his report will be favorable to the project.

ST. CATHARINES, ONT.—The negotiations for the purchase of the Niagara Central railway have been closed by the payment by Haines Bros., of New York, of the sum of \$3,500, being ten per cent. of the purchase price. Steps will be taken immediately to improve the road.—The trustees of Hodge's school, situated

on the Canboro road near Attercliffe, purpose remodelling their school buildings and making an addition thereto.

PEMBROKE, ONT.—At a meeting of the town council held a short time ago, it was decided to engage an electrical engineer to report on the cost of installing an electric light plant for lighting the town. At a more recent meeting the motion to the above effect was negatived, and it now appears that no engineer will be engaged at present.—Mr. O'Meara has submitted to the council details of a sewerage system which he considers will answer the requirements of the town.

VICTORIA, B. C.—The city council has resolved to invite tenders for the construction of a bridge across from Bay street to Rock Bay avenue.—The announcement is made that the Cariboo-Omineca Chartered Company, which was granted a charter at the last session of the provincial legislature, will shortly commence the construction of a railway from Victoria to Cariboo. Their charter also includes the improvement of the navigation of the waters of the Fraser, Nechaco and Stewart rivers. Mr. R. G. Tatlow is the company's manager in Canada.—The Albion Iron Works Co. have taken tenders on a new building, 85x33 feet.

MONTREAL, QUE.—Notice has been given by the city that it is proposed to construct sewers on the following streets: St. Andre street, from Mount Royal avenue to Perrault street; Logan street, from Frontenac to Iberville street; Pine ave., from end of existing sewer in a north-easterly direction; Rachel street, from St. Urbain street westward.—The municipalities of St. Cunegonde and Westmount are working to secure the erection of a bridge over Atwater avenue.—The Butchers' Association of Montreal have recommended the erection by the city of a new abattoir in the vicinity of Point St. Charles.—Ernest Marceau, superintending engineer of canals, invites tenders up to 22nd inst. for the supply of timber, lumber, cast and wrought iron, hardware, cement, etc., required by various canals.—J. Alcide Chausse, architect, is preparing plans for two stores and four dwellings to be erected on Ontario street for Joseph Pelletier.

WINNIPEG, MAN.—The Manitoba Trust Co. will shortly commence work on their new building to be erected on the northeast corner of Notre Dame and Main streets, at an estimated cost of \$40,000. Mr. George W. Gouinlock, of Toronto, is architect.—The Building Committee of the Public School Board have been instructed to secure plans for the erection of an eight-room school building in ward 6; estimated cost, \$25,000.—It is said to be the intention of the Winnipeg Electric Street Railway Co. to make extensive improvements to its system at an early date.—The Committee on Works has recommended the construction of the following works: Macadam pavements on Portage ave., cost \$20,370; on Broadway, from Osbourne to Maryland streets, cost \$7,125; on Pacific ave., cost \$8,380; on Elgin ave., cost \$7,500; on Alexander ave., cost \$5,400; on Cumberland ave., cost \$4,860; on Lombard street, from Main to Red River, cost \$4,100; on Graham ave., from Fort street to Vaughan street, cost \$7,600. Tenders for the above works will be invited. Sewers have been recommended on the following streets. From Red River, across St. John's park and Main street to Redwood ave., cost \$33,000; on Main street, from St. John's ave. to Redwood ave. and to Aikins street, cost \$4,850.—A meeting of the council of the University of Manitoba will be held on the 27th inst. to consider the report of the committee regarding the site for the proposed University building.

OTTAWA, ONT.—The Ottawa and New

York Railway Co. are surveying the route of the proposed independent freight terminal which the company intend establishing in this city. It is expected that the car shops will be commenced in a few weeks.—The Jail and Building Committee of the County Council have decided upon improvements to the county property.—Thomas Lindsay, of the Metropolitan Railway Co., wishes tenders by November 10th for 4,000 poles for electrical purposes, to be delivered within the city of Ottawa. The poles are required from 33 to 50 feet long and seven inches diameter at top. J. O. Charlebois, of Dalhousie street, has purchased the old McCullough property, and will build thereon a monster ice-house.—It is the intention of the Canadian Granite Co. to erect new buildings near Nicholas street.—A special committee, consisting of Aldermen Cluff, Hastey, Davis, Lapointe and Davidson, has been appointed by the city council to superintend the construction of the main drainage work in this city. This committee will be controllable by a two-thirds vote of the city council. Applications are now wanted for the position of city engineer, as well as for the position of superintending engineer of the main drainage works. It is understood to be the intention of the council to engage an engineer for the drainage work only until such time as a city engineer is chosen, thus avoiding any delay in proceeding with the work.—The following permits for buildings were granted last week: John Wright, three frame cottages, Third avenue, cost \$1,800; H. N. Bate, brick veneered dwellings, north side Theodore street, cost \$3,500; Mrs. Isabella Martin, brick house, south side Rideau street, cost \$2,000.—The Metropolitan Electric Company have purchased a water power in Britannia, and will proceed at once to install the necessary hydraulic and electrical machinery for the generation of electricity. Mr. John Aylen is hydraulic engineer for the company, Mr. Thomas Lindsay being manager.

TORONTO, ONT.—The city council has given notice of its intention to construct a 24 foot macadam roadway on Victoria avenue, from Logan to Broadview avenue, at a cost of \$5,150.—It is the intention of Mr. Hepburn, of Picton, owner of the steamer "Empress of India," to lengthen the boat by 45 feet, and to install an electric light plant and new engines and boilers.—The York County Commissioners are inspecting bridges in the neighborhood of Bradford and Holland Landing, with a view to reporting on necessary repairs.—The T. Eaton Company have applied for permission to tunnel under Albert street. This company propose to erect a new five storey factory on the north side of that street.—Messrs. George Magann and Alex. Fraser, of this city, representing an English syndicate, are reported to have purchased the Richmond, Nicholasville, Irvine and Beattyville Railroad in the Southern States. The syndicate referred to recently purchased extensive coal and timber lands in Perry County, Kentucky, and it is rumored that the railroad will be extended through to these lands.—Tenders are invited by the city up to Friday, 21st inst., for elevators, including machinery, appliances, etc., for the new city buildings, and also for wrought iron grille, enclosures and cars complete. Tenders are also asked up to the 26th inst. for brick and cedar block pavements.—It is expected that the ratepayers will, at the approaching municipal elections, be asked to provide funds for the execution of the proposed St. Lawrence market improvements and for the high level bridge over the Don river.—Mr. Henry Simpson, architect, is preparing plans for a True Blue Orphanage to be built near Picton, Ont.; frame, two storeys, with hot water

heating.—Mr. J. A. Ellis, architect, will this week let contracts for the reconstruction of the Harris factory on William street, and for a pair of semi-detached villas in Rosedale.—The interior of the buildings at 16-20 King street east is being remodelled for the Central Canada Loan & Savings Co. Mr. George W. Gouinlock is architect.—Mr. J. F. Brown, architect, is preparing plans for a small frame house to be built at Scarboro, the carpenter work of which will be done by the owner. Same architect is now taking tenders for heating and plumbing of a house on Avenue road, and will shortly invite tenders for heating the new Baptist church in East Toronto.—A petition will be forwarded to the Minister of Customs asking that an elevator be placed in the custom house in this city.—The Board of Trade will ask the Dominion government to extend the western pier at the eastern entrance to the harbor, in order to avoid accidents.—Building permits have been granted as follows: A. Horton, two-story and attic brick store, west side Crescent road, near Hill street, cost \$4,600 (C. J. Gibson, architect; A. Horton, builder); G. Valentine, two-story and attic brick residence, 472 Givens street, cost \$1,500 (C. Laurie, architect; W. Sewell, builder); Mrs. S. M. Barclay, two-story and attic brick dwellings, 83 Seaton street, cost \$1,500 (R. Smith, architect); J. E. Ellis, two-story and basement brick residence, west side Huntley street, near Elm Grove ave., cost \$3,500 (B. Jarvis, architect); C. C. Fry, three 2-story and attic rough cast, brick fronted dwellings, Shaw street, near Arthur street, cost \$4,500; C. Evans, two-story and attic brick dwelling, 443 Euclid ave., cost \$4,000 (G. M. Miller & Co., architects; Davidge & Lunn, builder).

FIRES.

Recent fires included the following: Steam, saw and grist mill of R. Hobson at Perryboro', Que.—Brick residence of George Greer at Lindsay, Ont., completely gutted; insured.—The Ott tannery at Brantford, Ont.; loss on building, \$2,000, covered by insurance.—At Kinmount, Ont., Hawkin's drygoods store, Miss Train's dwelling, Dr. Frost's drug store and office, and other smaller buildings.—Box factory at Middleton, N. S., owned by S. F. & W. E. Roop & Co.; loss \$10,000, no insurance.—Whitman Bros.' steam saw mill at Harmony, N. S.; loss \$6,000; no insurance.

CONTRACTS AWARDED.

COLLINGWOOD, ONT.—Rink building: Wilson Bros., contractors.
ANDOVER, N. B.—System of waterworks: J. B. Porter contractor, \$8,000.
CALGARY, N.W.T.—\$25,000 city debentures: Imperial Bank, purchasers, \$26,250.
ST. SAMUEL, QUE.—Stone church. D. Ouelette, Quebec, architect, Edmund Audet, Victoriaville, contractor.
PRESTON, ONT.—Desks for public

school: Canadian Office & School Furniture Co., Preston, successful tenderers.

ST. THOMAS, ONT.—Construction of sewer on Curtis street: W. J. Baker, contractor.

BROCKVILLE, ONT.—The Brockville Rowing Club will put a Kelsey warm air generator in their building.

HAMILTON, ONT.—Three-story packing factory for Laurie Packing Co.: Wm. & Walter Stewart, architects; Geo. Webb, contractor; cost \$4,000.

LONDON, ONT.—The contractors for the Gorman-Eckart building are John Hayman, Jones Bros., Pace & Fitzgerald, Stevely & Son, and Greenaway.

NEWINGTON, QUE.—Shops for Quebec Central Railway: G. D. Loomis & Son, contractors; iron work to be supplied by E. A. Wallberg, Montreal.

HULL, QUE.—Pavements. Wright Cement Works Co., successful tenderers, 12 cts. per square foot for artificial stone sidewalk, and 30 cts. for crossings.

QUEBEC, QUE.—New dome at Victoria Park; W. J. Peters, contractor, \$1,000.—Roofing building for Riverside Cotton Mfg. Co.: Napoleon Barbeau, contractor.

CHATHAM, ONT.—Residence for Ald. G. W. Cowan: Powell & Carsewell, architects; William Link, carpenter work. S. Hadley Lumber Co. will supply lumber.

VERDUN, QUE.—The contract for laying a 10-inch main for this municipality has been awarded to Matthew Dineen, contractor, of Montreal. The Three Rivers Ironworks Co. will supply the cast iron pipes and specials. Work was commenced on the 10th inst., under the superintendence of McConnell & Marion, civil engineers, Montreal.

OTTAWA, ONT.—The Eclipse Office Furniture Co. contemplate erecting a brick factory, for which a site has been purchased on Albert street. The building will be 43 x 135 feet, three stories, brick and stone, with iron columns, steel girders, etc. Contracts have been let as follows: Alex. Garock, stone and brickwork; Jas. Saegar, carpentering and woodwork; McKinley & Northwood, plumbing and galvanized iron; Victoria Foundry, iron columns; Dominion Bridge Co., Montreal, steel girders; Herbert & Son, roofing; Smith & Cox, painting and glazing.—The government is reported to have given the commission for the erection on Parliament hill of a statue of the late Hon. Alexander Mackenzie to Mr. Hamilton MacCathy, of Toronto, and Mr. P. Hebert, of Montreal, the former to supply the statue and the latter the pedestal.

MONTREAL, QUE.—The contract for supplying lumber and timber for the new pier in connection with the harbor improvements has been let to the W. H. Kelly Lumber Co., of Buckingham, price about \$54,000.—E. L. Pease, manager Merchant's Bank of Halifax, and T. J.

(Continued on page 4.)

THE HAMILTON BRIDGE WORKS CO., LIMITED.
HAMILTON - CANADA

Railway and Highway Bridges

AND ALL KINDS OF

STEEL STRUCTURAL BUILDING WORK, Observation and Water Towers, Tanks, Caissons, Piers, Buoys, Roofs, Inclines, Etc.

STEEL SHIPS. HEAVY FORGINGS a Specialty.

A Large Stock of STEEL BEAMS, CHANNELS, ANGLES and PLATES always on hand.....ESTIMATES FURNISHED ON APPLICATION.

Drummond, of Drummond, McCall & Co., are having Kelsey warm air generators, as manufactured by James Smart Mfg. Co., of Brockville, placed in their residences at St. Bruno, Que.—Heating and plumbing contracts have been let as follows: Mount & Co., heating and plumbing of two houses on Grosvenor avenue for Mr. Henderson; J. W. Hughes, plumbing and heating of store and dwelling of Mrs. Smith, St. Catharine street; P. C. Ogilvie, heating residence of Mrs. Dixon, Cadieux street, and plumbing residence for Mrs. Reid, Outremont; Blouin, Desforges and Latouralle, plumbing and heating of convent for Sisters of the Congregation of Notre Dame, Antigonish, N. S., and heating of dwelling for Mrs. Cadieux at Vercennes.

TORONTO, ONT.—Mr. J. A. Ellis, architect, has let the contract for mason work of Lozier building, Toronto Junction, to W. D. Scott, and that for carpenter work to Young & Co.—The covering of the new C.P.R. elevator at St. John, N.B., with corrugated galvanized iron is one of the large contracts recently undertaken by the Metallic Roofing Co. of Toronto. They are also supplying the well-known East-lake shingles for the roof of this building.—Contracts for heating and plumbing have recently been awarded as follows: Purdy, Mansell & Co., heating factory for George Hees, Son & Co., Davenport road; warehouse for W. J. Gage & Co., Front street, and Salada Tea Company's warehouse, Yonge street. Fiddes & Hogarth, plumbing of two residences on Bond street for Robert Davies, and heating residence of George Beardmore, George street. Bennett & Wright Co., heating and plumbing of Temple restaurant, Bay street. Guest & Co., plumbing residence on Bleeker street for Captain Andrews.

HOW TO PAINT BRICKWORK.

Painting brickwork is a matter which has not been given any considerable attention. Just how much a good coat of paint adds to brickwork is not so widely known. However, it is not difficult to distinguish between the painted and the unpainted brickwork, and it is not hard to see the improvement which the paint makes upon the brick.

Before applying the first coat to brick, care should be taken so as to clean the surface to be painted. The best priming coat for this work consists of glue size and venetian red mixed in the proportions of ten to one. Oxide of iron paint mixed with boiled linseed oil also forms a good prim-

ing coat, and a little drier can also be added to this.

In applying the priming coat care should be taken, and it should be well brushed on. The paint should not be too thick when applied. As soon as the priming coat has thoroughly dried and all the joints and cracks have been puttied up, the second coat can be applied. For the coats after the priming coat venetian red mixed with linseed oil and drier is used; considerable turpentine is also used, especially in the final coat.

The surface of painted brickwork is perfectly flat, and to effect this but little oil must be used in the last coats. An excellent final coat for this work can be made by mixing brick dust with venetian red and ochre, using varnish and turpentine. In this no oil is used. It is the brick dust that gives the surface a natural appearance.

After the wall has been painted, attention must be given to the joints. These may be painted either in white or black. This is rather fine work. A straight edge and a seamer are used in this work. There are many things in painting the joints in brickwork which require more than ordinary precaution. In this work the horizontal joints are usually painted first and then the vertical ones are easily filled in. It is a mistake to attempt to paint these joints directly upon the mortar joints. If this is attempted the result will be far from satisfactory. By painting just a little beneath the mortar joints far better results will be obtained. By doing this it will be possible to get a uniformity in the work and a satisfactory job will be the result. In some cases the joints are painted in oil colors and a glossy finish is the result, but this is not so much to be desired, especially with a dull surface like brickwork.

Oil must be used in the first coat of paint for brickwork, for it is the oil which forms the material which binds the pigments together. Certainly brickwork must be perfectly dry when the paint is applied, for otherwise it would soon scale off. If the proper precaution is observed in the work of painting this kind of work there will be little cause for complaint, and the protection added to this kind of work by paint is almost as great as is the protection added to woodwork.—Painters' Magazine.

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MARKET CONDITIONS.

The imports of cement into Montreal last week were 9,500 German, 11,258 Belgian and 750 English, as against 665 English and no Belgian or German for the previous week, making a total to date for the season of 221,563 Belgian and German and 27,555 English. The demand continues good from both local and western buyers, and the volume of business for the season is large, consequently the market is active and prices are firmly held with an upward tendency. Trade in Canadian artificial cements is unusually good. Sales are largely for bridge work and made generally of lots of 500 barrels. The factories are running night and day to fill orders, and prices have gone up 10c. a barrel, quotations now being \$2.10 per barrel.

The arrivals of firebricks last week were 198,450, as against 44,100 for the previous one, making a total up to date of 973,200. The demand for these is good and prices are unchanged at from \$16 to \$21 per 1,000 as to brand.

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MUNICIPAL ENGINEERS, CONTRACTORS AND MATERIALS

BUSINESS NOTES.

C. H. Underhill, painter, Fort Steele, B.C., is dead.

The Canadian Plate Glass Co., of Montreal, is applying for incorporation.

Kittredge, Smith & Co., contractors, Sherbrooke, Que., have registered partnership.

W. J. McGuire has registered proprietor of W. J. McGuire & Co., plumbers, Montreal.

Maria Egan, wife of John A. Peard, has registered as proprietress of the firm of A. J. Peard & Co., plumbers, Montreal.

The assets of the firm of Harris & Hatfield, plumbers and tinsmiths, Annapolis, N. S., are offered for sale by tender up to the 29th inst.

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Confederation Life Building, TORONTO.

MUNICIPAL DEPARTMENT

IMPROVED METHODS OF SEWAGE DISPOSAL.

By CHARLES G. HORBETZKY, C.E.
(Concluded).

Careful examination and inquiry as to the operation of the Reading sewage works have convinced me that this practical application of coke straining and aerated filtration is worthy of the very serious consideration of the London, Ontario, authorities, who still have the vexed (and to them doubtless most perplexing) question of their sewage disposal before them.

On account of several conditions essential to successful intermittent filtration through land which are not always obtainable, this plan is certainly far in advance of land disposal pure and simple, over large areas, as it is generally understood in Ontario by some people, and which I unequivocally recommended three years ago. But this is in reality a land disposal system in a much condensed form, with but a fractional portion of the duty imposed upon it as in ordinary cases, by reason of the prior removal of the bulk of the sludge by coke combustion as already described. Upon this account, and that of the reduced cost of construction, and future maintenance, as compared with other proposed plans, I unhesitatingly recommend it now.

The Pennsylvania Sanitation Co. of Philadelphia have offered to construct a disposal plant at the outlet of the Cove Road main sewer, much upon the same lines as that of Reading, (the London works, of course, to be a gravitation system), for the sum of \$23,000. This is upon a basis of one million and a half gallons of sewage to be treated daily.

I have carefully gone into the plan proposed by them for London, and feel certain that, with certain modifications, which include receiving chambers, coke ovens, furnace and chimney, besides provision for burning the rakings from the upper filter, an excellent system can be constructed for the sum of, say, \$53,000. The company would, I have no doubt, be glad to operate the works for one year, and guarantee a given satisfactory standard of purity in the effluent. The whole work necessary in caring for the filter beds, handling, and finally burning the clogged coke, could be performed by four men and a foreman. The weekly cost for coke (the only material requiring renewal, besides less than a couple of tons of sand daily) would be about 5 or 8 tons, the total weekly expenditure for materials for one week being: 8 tons of coke and say 12 tons of sand.

The cost of chemicals alone, per week of 7 days, would be, for the "International System," using 7 grains of "ferozone" per gallon of sewage (7 grains per gallon

of sewage are not sufficient, as I have found by actual experience; 10 grains are necessary), and estimating the cost of ferozone at 1/2 cent per pound (which is 50% less than I ever obtained it for): 10,500 lbs. at 1/2 cent = \$52.60 per week, or \$2,730 per annum.

So much for maintenance. Now for the cost of construction by either of the three plans proposed for the city of London.

LAND DISPOSAL.	
40 acres of land at \$175.....	\$ 7,000
Preparing ditto.....	24,000
Syphon and other items.....	10,000
	\$41,000

INTERNATIONAL PROCESS.	
Cost of construction as given	\$41,300
Plan now proposed.....	\$33,000

And the latter, besides being less costly, possesses the inestimable value of being entirely free from the sludge nuisance.

The interests of the city of London can be protected by the company's guarantee to keep up a certain standard of purity in the effluent during the period the works are operated by them.

The location of these works at the end of the Cove street sewer would, of course, obviate the necessity for a syphon as now proposed.

The city of Worcester, Mass., may safely be taken as a typical illustration of chemical precipitation for large cities, and the report for 1896 may be referred to, in which it is shown that, for maintenance and purification of one million gallons of sewage, the cost has been \$10.52, 53.9 per cent. of the organic matter having been removed; and yet Worcester is thinking very seriously of constructing, at great expense, a filtration plant as an auxiliary to their present method. The sludge from the Worcester works has always been found very difficult to get rid of, and when there in 1895, I saw very large areas covered with it to a depth of 12" or 18", small quantities of which the neighboring farmers could scarcely be prevailed upon to take away as a gift.

Enough has now been said on this head, and the method of precipitation as applied to large towns with its sludge concomitant may be dismissed with a quotation from Col. Waring: "The precipitation treatment buys and manipulates chemicals, coagulates the sludge, drains it, pumps it, handles it, and still has it."

It must not, however, be gathered from the foregoing remarks that the writer has

receded from his many previously stated convictions regarding "precipitation" methods.

There are, and always will be, cases arising where, in the absence of coke or suitable land, chemical precipitation will be found a powerful aid to the final filtration of sewage, either through natural or artificial media; and this applies particularly to the sewage disposal of small communities, e.g., as in some of our provincial institutions, or other small centres of population.

Since reading the above I have suggested a still further modification in the method proposed for London, which is to use 20 acres of land for the final filtration of the sewage, after straining through, and retention of the sludge by, coke.

This is a combination of the Reading plan with simple land filtration, and would effect a saving to London in cost of construction of nearly \$20,000, as compared with the original "All Land Disposal" plan and the chemical "International System."

Mr. Robert Surtees, city engineer of Ottawa, Ont., who held that position for twenty-four years, has been dismissed by the city council, owing to disagreement with certain aldermen. A successor to the position will be appointed immediately.

Referring to the appointment of Mr. W. M. Davis, of Woodstock, to the position of city engineer of Berlin, Ont., a Woodstock paper says: While we congratulate Mr. Davis on his appointment to an excellent position in the town of Berlin, we regret—in common, we believe, with all citizens—his removal as a loss to Woodstock. In connection with the engineering work of the town and of numerous municipalities of the district, Mr. Davis has been a most capable, painstaking and conscientious professional man. He is a man of ability and high character, strict, almost unbending in his ideas of professional honor. As an officer of the Dufferin Rifles, Major Davis has had few if any superiors in this district since the organization of our militia forces. He has shown himself enthusiastic and proud of his work. His removal would be a very great loss indeed to the 22nd Battalion, if he were not able to continue his connection with it, which we hope to see him do. In leaving town Major Davis will carry with him the good wishes of many friends.

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Shipping cull boards, stocks 15 00	16 00	16 00
Hemlock scantling and joist		
up to 16 ft.....10 00	12 00	10 00
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up to 18 ft.....11 00	2 00	12 00
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Cedar for paving, per cord....	5 00	5 00
Cedar for kerbing, 4 x 14,		
per M.....14 00	14 00	14 00
Scantling and joist, up to 16 ft		
" " " " " " " " " " " " " "	14 00	14 00
" " " " " " " " " " " " " "	15 00	16 00
" " " " " " " " " " " " " "	16 00	16 00
Scantling and joist, up to 22 ft		
" " " " " " " " " " " " " "	17 00	17 00
" " " " " " " " " " " " " "	19 00	19 00
" " " " " " " " " " " " " "	20 00	21 00
" " " " " " " " " " " " " "	22 00	23 00
" " " " " " " " " " " " " "	24 00	25 00
" " " " " " " " " " " " " "	27 00	27 00
" " " " " " " " " " " " " "	29 50	29 50
" " " " " " " " " " " " " "	31 00	31 00
" " " " " " " " " " " " " "	33 00	33 00
" " " " " " " " " " " " " "	34 ft	36 00
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1 " " dressed.....18 00	20 00	18 00	22 00	20 00
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16 in.....2 40	2 35	3 00		
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Sawn lath, No. 1.....1 75	2 00	2 50	2 60	
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White.....37 00	45 00	35 00	55 00	
Basswood, No. 1 and 2.....28 00	30 00	18 00	20 00	
Cherry, No. 1 and 2.....70 00	90 00	70 00	80 00	
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Mosaic Marble & Enamel Co. ii
Rice Lewis & Son... IV

Mail Chutes.

The Cutler Mfg. Co. IV

Mortar Colors and Shingle Stains.

Cabot, Samuel... IV
Muirhead, Andrew... vi

Ornamental Iron Work.

Dennis Wire & Iron Co. vi
Ives & Co., H. R. xii
Malleable Iron Co. 18
Toronto Fence & Ornamental Iron Works. vi

Painters.

Montreal Directory... xiii
Toronto Directory... xiii

Plasterers

Hynes, W. J. xiii

Paints & Varnishes

Muirhead, Andrew... i

Parquet Floors

Elliott & Son Company vi

Plate Glass

Hobbs Glass Works... ii
Lyon, N. T. i
The Consolidated Plate Glass Co. ii

Pressed Brick.

Taylor Bros. x

Plumbers

Montreal Directory... xiii
Toronto Directory... xiii

Reflectors

Frink, I. P. IV
Reversible Windows
Duva & Co., E. xiv

Roofers

Campbell & Gilday... xiii
Duthie & Sons, G. xi
Forbes, D. xiii
Nicholson & Co., D. xiii
Ormsby & Co., A. B. I
Rennie & Son, Robt. xiii
Reggin, John... xiii
Stewart & Co., W. T. xiii
Williams & Co., H. xiii

Roofing Materials

Ormsby & Co., A. B. I
Metallic Roofing Co. vii

Sanitary Appliances

Garth & Co. vi
Toronto Steel Clad Bath & Metal Co. viii
The James Robertson Co. xii
The James Morrison Brass Mfg Co. ix

Stained and Decorative Glass

Horwood & Sons, H. i
Hobbs Glass Works... i
Lyon, N. T. i
Leonard, B. i
Mackey Stained Glass Co. i
McKenzie's Stained Glass Works... i
Reardon's Art Glass Works... i
The Robt McCausland Stained Glass & Co. i
Wood & Co. i

Shingles and Siding

Metallic Roofing Co. vii
Metal Shingle & Siding Co. vi
Ormsby & Co., A. B. I

Soll Pipe.

Toronto Foundry Co. ii

Storm Doors.

Hillock & Co., John... ii

Typewriters

Archibald, Chas. E. III

Ventilators

Boston Blower Co. viii
Wallberg, E. A. iii

Wall Plaster

Albert Mfg. Co. xii
A'astatine Co. IV

Toronto. Montreal.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes items like Hull, Ontario, Keene's Coarse Whites, Fire Bricks, etc.

HARDWARE.

The following are the quotations to builders for nails at Toronto and Montreal:
Cut nails, 5 & 6 d, per keg 2 20 1 85
Steel " " " " 2 35 1 95

CUT NAILS, FENCE AND CUT SPIKES.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes items like 40d hot cut, per 10 lbs, 8d, 10d, hot cut, etc.

Cut spike, 10 cents per kg advance.
Steel Nails, 1 c. per kg extra.

Iron Pipe:

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes items like Iron pipe, 1/2 inch, per foot, etc.

Toronto, 70 per cent. discount.
Montreal, 70 per cent. discount.

Lead Pipe:

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes items like Lead pipe, per lb, Waste pipe, per lb.

Galvanized Iron:

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes items like Adam's-Mar's Best and Queen's Head, 16 to 24 gauge, etc.

Structural Iron:

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes items like Steel Beam, per 100 lbs, channels, angles, etc.