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CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL
OF
PUBLIC WORKS • TENDERS • ADVANCE INFORMATION • AND MUNICIPAL PROGRESS

EVERY THURSDAY

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. 7. AUGUST 6, 1896 No. 27.

THE CANADIAN CONTRACT RECORD,
PUBLISHED EVERY THURSDAY
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.

Notice to Contractors

A new and thoroughly revised edition of the *Canadian Contractor's Hand-Book*, consisting of 150 pages of the most carefully selected material, is now ready, and will be sent post-paid to any address in Canada on receipt of price. This book should be in the hands of every architect, builder and contractor who desires to have readily accessible and properly authenticated information on a wide variety of subjects adapted to his daily requirements.

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C. H. MORTIMER, Publisher,
Confederation Life Building, TORONTO

TENDERS WANTED

Separate Tenders will be received up to NOON, TUESDAY, THE 18TH INST., for the

Enlargement of a Brick Church

in Parkdale. Plans and specifications can be seen at the office of Mr. E. Terry, 31 to 41 George St., Toronto, on and after Tuesday, the 12th inst.

Tenders to be addressed to Mr. Chas. Sneath, 161 Spadina Avenue, Toronto.
The lowest or any tender not necessarily accepted.

TENDERS FOR STEEL BRIDGE

Tenders will be received by the undersigned till August 10th, which will be opened at Cargill on August 11th, 1896, at 10 a. m., for the erection of a

STEEL BRIDGE

over the Yorksippi River at Cargill. Bridge to be 108 feet c. to c. of end piers. Roadway 16 feet clear. Moving load 120 pounds per square foot. Cylinders, 3 ft. 6 in. diameter, about 12 feet high, set on piles, filled with concrete, and protected with cribwork filled with stone. Also for about 150 cubic yards of coursed rubble masonry, at same place and time.

Contractors to give separate price for superstructure, and cylinders with cribwork. Also furnish their own plans and specifications.

A cheque marked good for \$200, payable to the Treasurer of the Township of Brant, to accompany each tender.

The lowest or any tender not necessarily accepted. Further information can be obtained from James Warren, Engineer, Walkerton, or from the undersigned.

WILLIAM LITTLE,
Reeve, Brant,
Walkerton P. O.

Walkerton, July 27th, 1896.

GRANOLITHIC SIDEWALKS

Sealed Tenders will be received by the undersigned up to the 10TH DAY OF AUGUST NEXT, for building Granolithic Sidewalks in the Town of Wingham, in all about 10,000 square feet

Plans and specifications may be seen at the office of the Town Clerk on and after the 29th day of July, instant.

Tenderers must be prepared to give a satisfactory bond for the completion and guaranteeing of the work. The lowest or any tender will not necessarily be accepted.

J. B. FERGUSON,
Clerk.

Wingham, July 23, 1896.

STEAM HEATING

Sealed Tenders will be received by the undersigned up to 4 p. m. on AUGUST 15TH, instant, for heating by Steam the Central Public School, Orillia, Ont.

Plans and specifications may be seen at the office of F. G. Evans, Orillia, on and after the 8th day of August, instant.

Tenderers must be prepared to give a satisfactory bond for the completion and guaranteeing of the work. The lowest or any tender not necessarily accepted.

W. GRANT,
Secretary.

Orillia, August 3rd, 1896.

DESERONTO WATER WORKS

NOTICE TO CONTRACTORS

Sealed Tenders will be received by the Mayor of the Corporation of Deseronto, until 6 p. m. August 8th, 1896, for the construction of a Water Works System for the Town as follows:

- 1st. Excavations and back filling of trenches.
- and. Laying and jointing of about 8,400 feet of 6 inch cast iron pipe.
- Laying and jointing of about 2,300 feet of 10 inch cast iron pipe.
- Laying hydrants, valves, etc.

Plans and specifications may be seen and blank forms of tender may be had by applying to the Mayor, Deseronto, Ont.

Contractors are required to inform themselves fully of the nature and character of the excavation at their own risk and cost. All bids to be subject to the carrying of the by-law now under consideration by the ratepayers. This action is taken to save time.

The lowest or any tender not necessarily accepted.

E. W. RATHBUN,
Mayor.

GODERICH WATER WORKS

Sealed Tenders marked "Tenders for Water Works," will be received by the Chairman of the Water and Electric Light Committee of Goderich, until 5 o'clock p. m. on the

11th Day of August, 1896,

for the laying of an intake pipe into Lake Huron and the construction of an intake crib, according to plans and specifications.

The total length of pipe from pumping station to crib being about 1,430 feet, of which about 900 feet will be in the lake.

Sealed Tenders, marked "Tenders for Stand Pipe," will also be received by the said chairman until the same hour and date, for the erection of a stand pipe 100 feet in height at the Town of Goderich.

Specifications and profile may be seen at the office of W. C. Brough, Esq., C. E., No. 61 Victoria Street, Toronto, or at the office of the Town Clerk, Goderich.

Copies of specifications and form of tender may be obtained from Wm. Mitchell, Esq., Town Clerk, Goderich.

The lowest or any tender not necessarily accepted.

PHILIP HOLLY,
Chairman Water and Light Committee,
Goderich, Ont.

Goderich, 23rd July, 1896.

FOR SALE

The proprietors of the Brockville Pressed Brick & Tile Company's Works, situated at Brockville, Ont., having other large business interests to look after, offer for sale their entire plant and property, consisting of 6 acres of land, clay suitable for making red and buff brick, sand tile and roofing tile, two up-draft kilns, capacity 300,000 each, engine, boiler, one Simpson four-mould brick press, one ornamental brick press, one Williams machine, elevators, shafting, pulleys, belting, &c., &c., also trucks and barrows, clay shed, engine house, &c., together with 600 cords of wood and about 600,000 brick. Plant situated convenient for shipping by G. T. and C. P. Railways, also by water. The plant is in good running order and can be now seen in operation. For further information apply to

THE BROCKVILLE PRESSED BRICK CO.,
Brockville, Ont.



NOTICE TO CONTRACTORS

GCHERRY STREET SWING BRIDGE

Alternative tenders will be received by registered post only, addressed to the Chairman of the Board of Control, City Hall, Toronto, Ont., up to 5 o'clock p. m. on WEDNESDAY, AUGUST 12TH, 1896, for the construction of a

SWING BRIDGE AT CHERRY STREET.

Plans and specifications may be seen and forms of tender obtained at the office of the City Engineer, Toronto.

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 it will not be entertained.

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

The lowest or any tender not necessarily accepted.

BERNARD SAUNDERS,
Chairman Committee on Works.

R. J. FLEMING, Mayor,
Chairman Board of Control.

Toronto, July 23rd, 1896.

PETROLEA WATER WORKS

Sealed Tenders will be received by the Chairman of the Water Works Committee of Petrolea, until 10 a. m. MONDAY, AUGUST 10TH, for

ONE DUPLEX PUMPING ENGINE,

AND

ONE HIGH DUTY PUMPING ENGINE,

each of about one million gallons capacity per day.

ALSO FOR TWO BOILERS.

A marked cheque in favour of the Corporation for 10 per cent. of amount of the tender is to accompany each tender.

For further information address either of the undersigned at Petrolea.

ALBERT DUNCAN,
Chairman W. W. Committee, Petrolea, Ont.
WILLIS CHIPMAN,
Chief Engineer, Toronto, Ont.



NOTICE TO CONTRACTORS

QUEEN-STREET SUBWAY WIDENING

Alternative tenders will be received by registered post only, addressed to the Chairman of the Board of Control, City Hall, Toronto, Ont., up to 5 o'clock p. m. on WEDNESDAY, AUGUST 11TH, 1896, for the

Widening of Queen Street Subway.

Plans and specifications may be seen and forms of tender obtained at the office of the City Engineer, Toronto, on and after Wednesday, 29th inst., 1896.

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 it 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.

BERNARD SAUNDERS,
Chairman Committee of Works.

R. J. FLEMING, Mayor,
Chairman Board of Control.

Toronto, July 23rd, 1896.



NOTICE TO CONTRACTORS

TENDERS FOR ASPHALT AND BRICK PAVEMENTS, AND CONCRETE SIDEWALK

Tenders will be received by registered post only, addressed to the Chairman of the Board of Control, City Hall, Toronto, Ont., up to 5 o'clock p. m. on WEDNESDAY, AUGUST 12, 1896, for the construction of

A Brick Pavement on Wellesley Place, from Wellesley Crescent to Wellesley Lane;

An Asphalt Pavement on Brunswick Ave., from College Street to Ulster Street;

And a Concrete Walk on Queen's Park Crescent.

Specifications may be seen and forms of tender obtained at the office of the City Engineer, Toronto, on and after Wednesday, July 29th, 1896.

A deposit in the form of a marked cheque, payable to the order of the City Treasurer, for the sum of 5 per cent. on the value of the work tendered for up to \$1,000, and 2 1/2 per cent. on the value of the work tendered for over that amount, 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.

BERNARD SAUNDERS,
Chairman Committee on Works.

R. J. FLEMING, Mayor,
Chairman Board of Control.

Toronto, July 23, 1896.

TOWN OF GODERICH

Tenders will be received by the undersigned not later than 5 o'clock p. m. on the 24TH DAY OF AUGUST, 1896, marked "Tender for Electric Light," for the supply of electric lighting and steam plant as under:

"A"—Steam Plant and Shafting.

"B"—Electric Plant (alternating).

"C"—Transformers.

"D"—House Wiring not less than 500 lights.

Steam plant may be new or second hand Electric plant must be new. Separate tenders will be received for each of the four heads.

Tenders may be for all or any of the four heads. Lowest or any tender not necessarily accepted. Copies of specifications and information may be obtained from the Town Clerk, Goderich, or from George White-Fraser, Esq., Consulting Engineer, 18 Imperial Loan Building, Toronto.

PHILIP HOLT,
Chairman Water and Light Committee.

Goderich, 3rd August, 1896.

CONTRACTS OPEN.

NORWOOD, ONT.—H. G. Buck will erect a brick residence.

CHATHAM, ONT.—Fred Tremblay will erect a brick residence on Emma street.

NAPANEE, ONT.—Harvey Warner will erect an office building opposite the post office.

PRESCOTT, ONT.—The grain elevator will be enlarged to a capacity of 1,000,000 bushels.

BLENHEIM, ONT.—The contract has not yet been let for placing furnaces in the town hall.

WHITNEY, ONT.—The St. Anthony Lumber Company are preparing to build a dry kiln here.

WELLINGTON, B. C.—The town has under consideration the construction of a waterworks system.

SELKIRK, MAN.—Tenders are invited by Rev. C. R. Littler for the erection of a brick and stone building.

BONDVILLE, QUE.—The Anglican church congregation are considering the enlargement of the edifice.

TILBURY, ONT.—The contracts will probably be let this week for the new Wilson block and Masonic hall.

MORDEN, MAN.—It is estimated that there will be between \$50,000 and \$75,000 spent in building here this season.

RAT PORTAGE, ONT.—The ratepayers will vote on a by-law in September to raise \$15,000 for local improvements.

GLENCOE, ONT.—Tenders are invited until the 8th inst. for erecting a parsonage. Address J. N. Currie, Box 180.

NORWICH, ONT.—An addition will be built to the broom factory here and a twenty horse power boiler and engine put in.

GRAND MANAN, N. B.—Gilbert W. Ganong, M. P., has located a site at White Head Island for a cold storage plant.

CALGARY, N. W. T.—The by-laws granting \$5,000 each to the general hospital and to the Agricultural society have been defeated.

SHERBROOKE, QUE.—The by-law granting a bonus of \$30,000 to the Talbot Brussels Carpet Co. has been sanctioned by the ratepayers.

THREE RIVERS, QUE.—An American syndicate is said to be considering the erection of pulp and paper mills here on an extensive scale.

PORT HOPE, ONT.—The Port Hope Preserving and Canning Company will shortly commence the erection of an addition to their factory.

NEWMARKET, ONT.—On the 10th inst. the ratepayers will vote on a by-law to

raise \$10,000 to purchase and install an electric light plant for the town.

GALT, ONT.—George Bernhart, owner of the Iroquois hotel, has purchased the Stoddart property adjoining, and will shortly commence the erection of an addition.

CHARLOTTETOWN, P. E. I.—Parkman & Crabbe are erecting a brick and stone building, four stories, 90 x 29 ft., to be fitted with all modern improvements. Cost \$12,400.

FREDERICTON, N. B.—The vote on a by-law authorizing the construction of a system of sewerage resulted in the defeat of the scheme. The system is considered too expensive.

ROSSEAU, ONT.—It is reported that a syndicate has been formed for the purpose of erecting a large hotel on the site formerly occupied by Pratt's hotel, destroyed by fire some years ago.

NIAGARA, ONT.—Nearly \$3,000 has been subscribed towards an Episcopal residence for Bishop Dumoulin. It has not yet been decided whether a new house will be built or a residence leased.

NORTH SYDNEY, N. S.—Tenders for the construction of reservoir, valve well and gate house in connection with the water works are invited by J. N. Armstrong, town clerk, until the 8th inst.

KINGSTON, ONT.—Power & Son, architects, are preparing plans for a new opera house, which it is intended to build on the corner of Johnson & King streets. Ex-Ald. McLeod is working up a stock company.

HINTONBURG, ONT.—On the 10th inst. a by-law will be submitted to the ratepayers providing for the borrowing of \$8,000 to wipe out the existing village debt and for a number of local improvements.

WOODSTOCK, ONT.—F. W. Ure, P. L. S., has prepared plans for the clearing out of the Allwood drain in Dereham and also Mud Creek drain, 3rd con., E. Oxford. The latter work will be proceeded with this fall.

MADAWASKA, ONT.—Several hundred acres of land have been purchased here by the Ottawa, Arnprior & Parry Sound Railway, which will be largely utilized for workshops, roundhouses, offices, station buildings and sidings.

LETHBRIDGE, MAN.—Application will be made to Parliament for the incorporation of the Crow's Nest Pass Railway Company, with power to build a road from Lethbridge, through the Rocky Mountains to Nelson, B. C.

ST. THOMAS, ONT.—The city council will submit a by-law to the ratepayers for the establishment of a city electric light plant.—The city council are considering the use of vitrified brick for paving Talbot street, which is to be repaved next year.

BELLEVILLE, ONT.—A by-law has been passed by the council providing for the issue of debentures to the amount of \$8,500, for the purpose of making permanent improvements in the Central and High School buildings. Geo. Denmark, city clerk.

VANCOUVER, B. C.—McLean Brothers, of this city, and J. H. Brownlee, C. E., are interested in a proposed railway, to extend from Vancouver through South British Columbia to Kootenay, with branches. The erection of a smelter is also a part of the project.

GRAVENHURST, ONT.—Work has been commenced on the consumptive sanatorium here. There will be required for it an electric light plant with a capacity of 400 lights, and a steam plant to supply power for same and for operating laundry machinery, ventilators, etc.

ST. JOHN, N. B.—F. W. Holt, C. E., who recently wrote the C. P. R. as to the dredging which will have to be done at

Sand Point, had a conference with the advisory committee. Mr. Holt will make a proposition to the city.—It is said that the C. P. R. will erect a new depot.

BUCKINGHAM, QUE.—The mill site and water power of the Buckingham Pulp Company has been purchased by Walter Williams. The site will be used for the building of an electrolytic chemical establishment.—The McLaren Match Co. has been organized here to manufacture matches.

ST. CATHARINES, ONT.—Notice is given that the St. Catharines & Niagara Central Railway Company will apply to parliament next session for an act authorizing the company to extend its line of railway and branches to connect with the Toronto, Hamilton & Buffalo railway east of Smithville.

NIAGARA FALLS, ONT.—John Robinson, Town Clerk, will receive proposals until the 19th inst. for the purchase of \$49,917.57 sewer debentures, bearing interest, payable in thirty years, also tenders for the whole issue of sewer debentures of \$109,000.—Wm. Nichols, architect, is preparing specifications for an improved system of heating in the public schools.

PETERBORO', ONT.—Tenders for street lighting have been received from the Auburn Light & Power Co. and the Peterboro' Light & Power Co. No award has as yet been made.—The Auburn Light & Power Company has been organized here, the promoters being Messrs. James Kendry, M. P., John Carnegie and W. H. Meldrum. The company will supply light and power.

WINDSOR, ONT.—The Sandwich Land Improvement Company has been organized here. J. H. Pendleton, of Detroit, is president, and H. T. W. Ellis, of Windsor, vice-president. The company owns 700 acres of land, and it is the intention to expend a considerable sum on improvements.—Tenders are asked by the city council for the construction of the Giles avenue main sewer. Estimated cost, \$9,000.—The city engineer has been instructed to prepare plans, etc., for a system of sewers in the southwest part of the city, to cost about \$8,000.

CARP, ONT.—The directors of the proposed Carp, Almonte and Lanark Railway held a meeting on Wednesday last, when it was decided to begin preliminary surveys at once. It is proposed to have the line run from Carp to Bridgewater, a distance of some 68 miles, passing through Almonte and Lanark. From Bridgewater the line will connect with the Central Ontario R. R. and the Grand Trunk. Among the promoters are Mr. T. W. Rains, president, and Messrs. W. H. Stafford, D. M. Fraser, D. Shaw, Dr. Groves and J. W. McElroy.

OTTAWA, ONT.—Surveys of the Trent Valley canal are being made from Trenton to Frankfort, and from Lake Simcoe to Georgian Bay. Between four and five million dollars will be the cost of completing the system from Lake Ontario to Georgian Bay.—The directors of the Protestant hospital have decided to engage Mr. A. C. Hutchison, architect, of Montreal, to take charge of the erection of an addition to the building.—P. W. Resseman, superintendent of the Pontiac and Pontiac and Pacific Junction railway, states that the road will be extended from Aylmer to Hull at once.

QUEBEC, QUE.—Building permits have been granted as follows: One house on d'Sigulbon street, brick, for Jos. Gilbert; contractor, Eden Cote. One house on St. Ambroise, wood; contractor, Eudore Delisle.—The building of the la Banque Nationale at St. Francis de la Beauce has been adjudged to Jean Turcotte, contractor, of Ste. Marie. Architects, Tanguay & Vallee. The granite will be furnished by

the Whitton Co.—David Ouellet, architect, is calling for tenders for a church to be erected at Rimoulou. Plans can be seen at the architect's office. Tenders will be received until the 15th inst.

MONTREAL, QUE.—The directors of the Exhibition Company will take steps at once to rebuild the structures burned last week.—Henry Sampson King has submitted a proposition to the city council to build complete gas works for the city, including 110 miles of mains, all service pipe, and 10,000 meters.—The Montreal Board of Trade has submitted a resolution to the Dominion Premier asking that the ship channel between Quebec and Montreal be deepened thirty feet and widened to five hundred feet. Consideration has been promised.—J. H. Macduff, architect, is calling for tenders for a house on Selby street, Westmount, for P. Lalonde.—The reconstruction of the Crystal Palace has been commenced by the Montreal Exhibition Company. The work is in the hands of Mr. A. C. Hutchison, architect.

LONDON, ONT.—The annex to the Kensington bridge will not be built this year. The cost will be about \$7,000.—Messrs. Chipman and Horetzky, of Toronto, and Mr. Goodenough, of Boston, have presented their report on the extension of the sewerage system. The proposition is to carry the sewage to the lands on the south side of the river at the western limit of the city and adjacent thereto, and dispose of it by intermittent filtration. The complete cost, including plans and preparation of beds, is estimated at \$207,000.—A by-law has received its first reading in council to raise \$150,000 for sewerage purposes.—It is unofficially stated that tenders will be asked this month for the construction of the G. T. R. car shops.—The city solicitor will prepare an agreement between the city and the Dominion Cold Storage Co., by which the latter agree to erect a building and plant to cost \$100,000.—Mr. Fensom, of Toronto, proposes to take up the project of building an incline railway at Springbank from the waterworks park to the summit of the height.

HAMILTON, ONT.—Plans are in readiness for the new Y. W. C. A. building, and it is expected that work will commence early next spring. It is proposed to make the building three storeys in height, of brick and stone; estimated cost \$35,000.—The promoters of the Hamilton, Chedoke and Ancaster Electric Railway, which it is proposed to build from the corner of Queen and Herkimer streets via the Beckett mountain drive to Ancaster, have asked that the city buy the mountain drive and take \$10,000 stock in the railway, which will cost about \$10,000 per mile.—Tenders are invited until noon to-day (Thursday) for the erection of a boiler house and coal house at the city hospital. The cost of installing an electric light plant at the hospital has been placed at

\$2,500 for 250 lights, with a 27 h. p. boiler and dynamos.—Contracts will be awarded this week for materials required for the extension of the Hamilton, Grimsby and Beamsville railway to Beamsville.—The shareholders of the Hamilton and Dundas railway have approved of the conversion of the road into an electric line. The City Engineer and Mr. Ten Eyck have returned from Alliance, Ohio, where they inspected the sewage interception system in operation there.

TORONTO, ONT.—The time for receiving tenders for a telephone service for the citizens of Toronto has been extended until 12 o'clock, noon, on Thursday, the 1st of October.—The Dominion government will be asked to make a grant towards the monument to Governor Simcoe, which is to be erected by the York Pioneer's Society. A grant of \$2,000 has been passed by the Ontario Legislature, and a further sum has been raised by private subscriptions.—City Engineer Keating will report in favour of the construction of cellars under the stalls of the gardeners at the St. Lawrence market.—The work of constructing a bridle path in Queen's park is to commence at once. The appropriation for the work is \$2,000.—The erection of a brick structure for the Eglinton Presbyterian church is said to be under consideration.—The City Engineer is again urging that work be commenced on the John street bridge. The remaining spans of 150 and 72 feet will probably be completed this year, and the building of the ramps will then be all that remains to finish the bridge.—Mr. W. R. Gregg, Toronto, is the architect for the rebuilding of the Page building on Yonge street, formerly occupied by McKendry & Co. The cost of the work is about \$15,000.—Estimates are being prepared by the City Engineer of the cost of constructing new roadways throughout the city in place of those that are absolutely worn out and beyond further repair.—Mr. Wm. McKenzie, President of the Toronto Railway Company, and Mr. McCulloch, electrical engineer, recently inspected a portion of the road between Long Branch and Hamilton, with the object, it is said, of extending the electric line to Hamilton.

FIRES.

A large canning factory at Black's Harbor, N. B., owned by Connors Bros., has been burned. Loss, \$6,000; no insurance.—The steam saw mill of J. G. Simonson, at Centreville, N. B., was burned last week. Loss, \$3,500; no insurance.—Inches & Moulton's planing factory at Sudbury, Ont., was totally destroyed by fire last week. Loss \$3,500, no insurance.—Captain Robinson's saw mill on the Bad Throat River, Manitoba, was completely consumed by fire last week. Loss, \$6,000; insured.—The works of the Canadian General Electric Com-

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BRIDGE BUILDERS

BELLEVILLE, ONT.

pany at Peterboro', Ont., were recently damaged by fire to the extent of \$100,000.—Snobb's hotel at French Pêche, Ont., about seven miles from Wakefield, was burned last week. Small insurance.—The residence of Narcisse Courtemanche, 1321 Papineau avenue, Montreal, was gutted by fire on the 26th ultimo. The loss is placed at \$3,000.—A disastrous fire occurred in the exhibition grounds, Montreal, on the 30th of July, destroying the main building or Crystal Palace, the annex, the carriage building, machinery hall, Lorne restaurant, the swine building, and the fodder barn, with its contents, including the electric plant and twelve cars of the Park & Island Railroad Co. The loss to the Exhibition Company is about \$90,000, two-thirds of which is covered by insurance. The loss to the Montreal Park and Island railway, \$40,000, is covered by insurance.—A five storey building on St. Peter street, Montreal, occupied by Messrs. Howden, Clarke & Co., wholesale hardware merchants, has been badly damaged by fire.—The residence of John Collins at Waterford, Ont., was burned on Monday last; small insurance.—A building at Whitby Junction, Ont., owned by Wm. Foy, was destroyed by fire a few days ago. Insurance on building, \$2,500.

CONTRACTS AWARDED.

TORONTO, ONT.—The tender of Smith Bros. has been accepted for the supply of fire wagons.

HAMILTON, ONT.—Malcolm & Souter have been awarded the contract for putting in a bar fixture for W. F. Coudon's new hotel.

LONDON, ONT.—The McClary Mfg. Co. has been awarded the contract for putting in two furnaces at the Strathroy public schools.

GRAVENHURST, ONT.—Mr. R. Robson has been given the contract for the erection of the new consumptive hospital, and is here superintending the work.

MONTREAL, QUE.—L. R. Montbriant, architect, has awarded the contract for one cottage at St. Vincent de Paul for Henri Boisimenu to H. Papineau.

HALIFAX, N. S.—Rhodes, Curry & Co. have commenced the building of the \$6,000 residence for J. A. Leaman at the corner of South and Pleasant streets.

QUEBEC, QUE.—The contract for the presbytery of Bienville village has been signed by the village authorities and Calixte Dion and John Turgeon, contractors. D. Ouellet is the architect.

BRANTFORD, ONT.—The Waterous Engine Works Company have shipped a No. 7 McCully rock crusher to Carroll Bros., Sherkston, Ont., to crush limestone for the Buffalo Furnace Co. It weighed 63,000 pounds and required 2 cars for shipment.

WINNIPEG, MAN.—Tenders have been accepted by the Board of Works as follows: Sewer pipe, J. H. Ashdown, \$784.80; block pavement on Main street, east side, from Point Douglas avenue to Jarvis avenue, \$2,780; also Elgin avenue and Wesley street, \$2,200; sewer on Nena street, Dobson & Jackson, \$1,937.60.

ST. JOHN, N. B.—The following firms tendered for the purchase of \$16,500 of school bonds: H. O'Hara & Co., Toronto. The Bank of British North America, R. Wilson Smith, and Hanson Bros., of Montreal. The tender of H. O'Hara & Co. has been accepted. The

bonds will be issued for 25 years at 4 per cent. The premium is 3½ per cent.

OTTAWA, ONT.—J. R. Douglas & Co. have the following contracts for sheet metal and cornice work: Stores for Slater Sherwood; store for A. J. Stephens; stores for J. C. Brennan and H. N. Bate; store for P. J. Taeger; block of stores in Renfrew, Ont., for Wm. McKey; block of stores at Hawkesbury for J. McGibbon; store for Wm. Conroy, Aylmer; government buildings, Portage la Prairie, Man.—The Russell house are putting in a horizontal multi-tubular boiler made by Powers & Co., Ottawa, to carry 125 lbs. steam.—The Canadian Granite Co. have a \$50,000 contract with the city for sidewalks.—Contracts for buildings have been let as follows. Frame building on Augusta street, C. Hopwell; frame dwelling on Centre street, Wm. Hogan; two rough-cast houses on Ann street, R. Taylor; brick veneer house on Gloucester street, S. Scott.

BUSINESS NOTES.

Z. Riopel & Co., contractors, Montreal, have dissolved.

R. Donaldson & Sons, machinists, Montreal, have assigned.

Charest & Desjardins, painters, Montreal, have formed new partnership.

Charles Lawler, painter, Watford, Ont., is reported to have assigned to J. P. Taylor.

Albert Simennes and Elzeur Curvat,

architects, Montreal, have formed a partnership.

The stock of the Erie Iron Company, of St. Thomas, valued at \$5,990, has been sold to James Wright & Co., London, at 26 cents on the dollar. Wright & Co. will continue the works.

J. W. Quipp, plumber, Montreal, is said to be offering to compromise at 35c. on the dollar.

Joseph P. Tetreault and Joseph Marchotte have formed a partnership in Montreal as contractors.

Honore Bolduc and Thomas Laudry, painters, Montreal, will carry on business under the name of Bolduc & Laudry.

Edward S. Cowley, Edward Halley, Michael P. McGoldrick and Patrick J. Carrott, contractors, have formed a partnership in Montreal and will do business under the name of E. S. Cowley & Co.

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The walls of a stone house and sometimes of a brick house are covered with dampness. This is due to the very same causes by which dew is deposited on grasses or moisture on the side of a glass or pitcher that is filled with ice water and brought into a warm room. The walls become cold, and as stone is a non-conductor of heat, they remain cold for a long time. When the weather changes suddenly from cold to warm the air becomes filled with moisture, for the warmer the air is the more moisture it will absorb. When the warm air strikes the cold wall, the moisture is deposited on it from the air, which is suddenly cooled by contact with them, the dampness accumulates until it appears like a dew upon them, and pours down in streams at times. It is easily prevented. No plaster should be put directly upon brick or stone, but furring strips should be nailed to the wall and the laths put on these.

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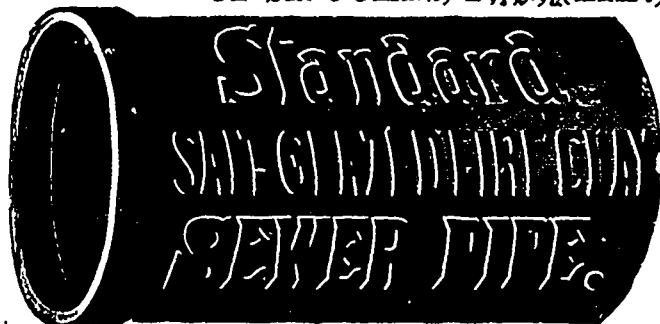
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MUNICIPAL DEPARTMENT

ROAD MAKING.

At a convention of the Illinois Society of Engineers and Surveyors, Mr. Arthur Lagron, City Engineer of Freeport, Ill., read an interesting paper on "Road Making and Road Maintenance," in which he gives some hints on road construction. Mr. Lagron was at one time in the service of the Department of Bridges and Highways of France, and was accustomed to construct roads by spreading on a good earth foundation a course of about 9 inches of good limestone, broken in pieces not exceeding 2½ inches in their greatest dimension, and giving the top a crowning of one-fiftieth of the width of the metaled highway. Beyond the stone the roadway is sloped away at the rate of 4 per cent. to a ditch on each side, so as to secure perfect drainage. He has built about a mile of macadamized road in Freeport, which compares favorably with the best of these French roads, and as a result of his American test of French methods advises the following method of construction:

A good earth foundation can be secured anywhere in the state of Illinois by grading up the centre of the road enough to get a good surface drainage by means of side ditches. Then it will be seen that the roadbed is all right; if there is anywhere a roller that can be had, the expense being but a trifle, we may roll it. Telford, corduroy, drain pipes, etc., are generally spoken of in connection with this, although there is no use for them except in a very insignificant proportion where a road has to go through a pocket of quicksand or some marshy spot. This will not occur on over 1 mile in 1,000. Next in order comes the spreading of 9 inches of broken stone. There is a prevailing idea that the bottom course ought to be of coarse stones, varying with individual ideas from 2 feet to 6 inches. I acknowledge that the idea has puzzled me, not because I have any doubt about the subject, but because I am about alone of my opinion. Nevertheless I will most emphatically say there is no earthly use of a coarser layer of stone at the bottom of the macadamized road. One may construct very nice looking roads with coarse bottom and fine topping, but the engineer that will have charge of the maintenance will have a job of it. After fighting chuck holes for a while he will probably have the whole picked loose, rebroken and relaid.

The only shadow of an excuse, however, would be if it is found more economical to crush two grades of stone, I would then put a first course of 4 inches, no more, and a top of 2½-inch stones. The next question is the rolling and the topping. I have seen roads that

were never rolled and became as hard as adamant and as smooth as a floor, but as we are here a nation of progress it is certainly advisable to roll rather than to wait for years of traffic to do the work. As for topping with screenings, gravel, or sand, that is a luxury which can be indulged in in the cities where we want the roadbed to be complete at once, but the cost attached to it is more to please the eye and show that the engineer knows his business than to benefit the road.

If a macadam is properly rolled, wagons, buggies, or bicycles can travel over it with ease; it is smooth but not compact at first, but it will be seen that the weather, assisted by the traffic, and perhaps an occasional rolling, will soon crush and pulverize enough of the angular corners of the stones to form a regular cement, and before one will be aware of it the whole thing will be a solid mass of concrete, so compact indeed that, if properly crowned, it will be impervious to rain.

If it is wrong, as I claim it is, to exaggerate the work necessary to make good roads, it is equally wrong to lead people to understand that when a road is done once it is done forever. Macadamized roads need constant repairs, the first year's ruts must be prevented, then we have to spread new stone to replace the wear, and that has to be done, and done judiciously. In fact the maintenance of roads is a branch of engineering by itself and requires no little experience. I cannot go into details here, but will simply quote our maxim: "That it is cheaper to maintain a good road at any expense than to let it go to wreck and then repair it."

I will conclude by stating briefly that before a road is improved it should be as carefully surveyed as a railway, with plans and profiles, the importance of the road being the basis to determine the maximum grading to be done or to what extent it should be straightened, whether right of way should be secured through private property or whether the road should be surveyed around every corner of everybody's farm. The construction should be in all cases under the strict direction of a civil engineer.

DANGERS OF CHEAP PAVING.

It will be of value to municipal officers in towns where the cry of monopoly has been raised against reliable paving companies to read the following extract from the annual report for 1895 of Water Purveyor Edward P. North to the Department of Public Works of New York City: "One of the most serious questions presented to the department grew out of the dilapidated condition of the asphalt pavement on Eighth avenue. Through a lack of skill or some other cause the pavement did not wear well, the reserve for its maintenance had been expended, the company which laid it had disappeared, and the sureties would not advance money to continue the repairs. Under these circumstances an effort was made to convince you that asphalt was unfit for a street of such heavy traffic.

The entire question of noiseless pavements, permitting increased loads and greater speed of circulation for our main thoroughfares, hinged on the decision as well as the continued liabilities of the sureties for that pavement."

Fear of newspaper criticism often induces public officers to award a contract to the lowest bidder even when every consideration of experience and prudence indicates that a higher bid would secure the cheapest article in the long run. Competition has its value and at the same time its limitations; which fact should not be lost sight of in awarding contracts for pavements, as well as any other public work, and especially so when durability and maintenance are the essential features required.—Engineering Record.

THE FIELD OF MUNICIPAL ENGINEERING.

In the 1896 issue of "The Technician" Mr. C. C. Brown, M. A., Soc. C. E., discusses the qualifications which a municipal engineer ought to possess and touches upon a number of important matters connected with his subject, which it is well for civil engineers and many others to consider carefully. He states, among other things, that many city engineering positions are filled with occupants without the requisite training either of an educational character or in suitable fields of experience, and he is undoubtedly correct. The inevitable and indeed natural results, constantly follow such a state of things. The disqualified engineer is capable of performing in an indifferent manner only that portion of the full duties belonging to his position which are of a subordinate character. The city officials whom he ought to guide by his professional advice and council at once assume the higher functions of his office, as is quite natural under such conditions, and practically treat him as a technical clerk. What is still worse, such officials necessarily acquire low esteem or no esteem at all for even the well-qualified engineer in the municipal field.—Engineering Record.

BRICK FOR PAVING.

The Clay Record in recent issues is laying great stress on the number of cities and towns in the Union that are adopting vitrified brick for permanent paving for streets, and the number of such cases recorded in each issue bears out the statement. This general adoption of vitrified brick is the result of trials made in many localities, the test having proved that this style of pavement is well adapted to the requirements of heavy traffic, and that its life, if properly laid, is long enough to make it economical.

The town of Sudbury, Ont., has taken over the waterworks, sewerage and electric light systems.

John N. Gamewell, the inventor of the Gamewell fire alarm system, died at his home in Hackensack, N. J., on the morning of the 20th July, at the age of 73 years. He was born in South Carolina, and during the civil war was superintendent of a powder mill in Columbia, S. C. He had lived in Hackensack thirty-five years. Mr. Gamewell made a fortune from his invention, but met reverses a few years ago in a railroad speculation.

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Prices of Building Materials.

CONDITION OF THE MARKET.

TORONTO: There are few new features to note in building material. The demand is falling off in many lines as a result of the summer quietude. In wire nails there is some movement, principally for small lots. A few orders are also being received for galvanized iron and iron pipe. An advance on glass has taken place in Belgium, but local trade is slow.

MONTREAL: The building supply trade has changed but little. Buyers are purchasing very lightly, and business is therefore restricted. The feature of the cement market has been the awarding of the contract to a local firm for 10,000 barrels by the Lachine Rapids Hydraulic and Land Co. The demand is principally for small lots, and business on the whole rules quiet and of a jobbing character. The arrivals for the past week were 1,900 barrels English, as against 2,498 for the previous week, making a total to date of 36,268 barrels of English and 24,561 Belgian. There is little activity in cut nails. Paints and oils are quiet and prices unchanged. For iron pipe there is a moderate demand.

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CAR OR CARGO LOTS.

Toronto. Montreal.

Table with columns for quantity and price for various types of clear picks, pickings, Am ins., and other lumber products.

YARD QUOTATIONS.

Table listing yard quotations for mill cull boards, shipping cull boards, Hemlock scantling, and other lumber items.

Table listing prices for various types of flooring, sheathing, and other lumber products.

Toronto. Montreal.

BRICK-M

Table listing prices for various types of bricks including Common Walling, Good Facing, Sewer, and Pressed Brick.

SAND.

Table listing prices for sand per load of 1 1/2 cubic yards.

STONE.

Table listing prices for various types of stone including Common Rubble, Large flat Rubble, Foundation Blocks, and Granite.

OHIO FREESTONE, FROM THE GRAFTON STONE CO.'S QUARRIES.

Table listing prices for Ohio freestone in various sizes and types.

SLATE.

Table listing prices for roofing slate in red, purple, and untinting green.

PAINTS. (In oil, per lb.)

Table listing prices for various types of paint including White lead, Red lead, Yellow ochre, and others.

ORMENT, LIME, etc.

Table listing prices for Portland Cements in German and London brands.

Toronto. Montreal.

Table listing prices for various types of Portland Cements including Newcastle, Belgian, English, and Canadian.

Table listing prices for Hydraulic Cements including Thorold, Queenston, Napanee, Hull, and Ontario.

Table listing prices for Keene's Coarse Whites, Fire Bricks, Lime, Plaster, and Hair.

HARDWARE.

Table listing prices for cut nails, steel nails, casing and box, and finishing nails.

FINE BLEWED NAILS.

Table listing prices for fine blewed nails in various sizes.

FINISHING NAILS.

Table listing prices for finishing nails in various sizes.

SLATING NAILS.

Table listing prices for slating nails in various sizes.

COMMON BARREL NAILS.

Table listing prices for common barrel nails in various sizes.

CLINCH NAILS.

Table listing prices for clinch nails in various sizes.

SHARP AND FLAT PRESSED NAILS.

Table listing prices for sharp and flat pressed nails in various sizes.

STEEL WIRE NAILS.

Steel Wire Nails, 70c. and 5% discount from printed list.

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Table listing prices for iron pipe in various sizes.

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Table listing prices for galvanized iron in various gauges.

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Table listing prices for structural iron including steel beams, channels, and plates.