

and reach the well from which it is pumped into the city.

HULL, QUE.—The Bridge Committee of the Hull City Council held a conference with Mayor Sylvain, of Gatineau Point, a few days ago at the city hall. Arrangements are just about concluded, and tenders for the construction of the bridge across the Gatineau river will be called in about two weeks. The bridge when completed will cost in the neighborhood of \$9,000.

CHATHAM ONT.—Engineer MacNabb's estimate of the cost of the proposed new drain along Edgar, Queen, Wellington and Second streets to the river, is \$6,505.15. The pipe required is estimated as follows: 1350 ft. 12 inch pipe; 1317 feet 15 inch pipe; 865 feet 18 inch pipe; 1448 feet 6 inch pipe. The Council will hold a special meeting to discuss means to raise the necessary funds.

GUELPH, ONT.—A meeting of the subscribers of stock towards the proposed new opera house was held a few days ago. The sum of \$15,000 has now been subscribed. The Board was instructed to apply to the Government for a charter of incorporation at once and to procure the necessary plans and specifications, and take over the Keleher property on Upper Wyndham street. We learn that Mr. W. Blackwell architect of Peterboro', has been engaged to prepare plans.

WINNIPEG, MAN.—The City Council has given notice to its intention to construct a number of artificial stone sidewalks. The construction of sewers on the following streets has also been decided upon: on Eighth street, south from Fourth ave. south to Third avenue south; on Engle avenue north from Ninth street north to Knox street; on Ninth avenue south from Fourteenth street south to the west line of D. C. S. lot 71, St. James; and on Broadway place from Ninth avenue south northerly to a point on Broadway place, on Seventh street south from the north line of lots 647 and 680, Block 3, D. G. S. 1, St. John, to a distance of 100 feet southerly.

HAMILTON ONT.—The Finance Committee has decided to advertise for tenders for the purchase of \$2,500,000 worth of debentures. At a recent meeting of the Sewers Committee a communication was read from the Board of Health in reference to the urgent necessity of constructing a sewer on John street, north of the G. T. R. track. The City Engineer was directed to look into the matter and report. It was decided to advertise for tenders for the construction of sewers on Bold street, Crooks street and Ashley street. A building permit has been granted to J. S. Hossack, for a two-story brick dwelling on Markland street, between Hilton and Caroline streets, to cost \$2,400.

MONTREAL, QUE.—Tenders are invited at the office of John Coates & Co., New York Life Buildings, until Saturday, the 22nd inst., for the excavating and laying of seven miles of 24, 12 and 16 inch gas mains in St. Henri and Ste. Cunigonde, and in St. Ann's and St. Antoine wards in this city. The erection of a morgue in this city is being discussed, and the matter will be brought before the City Council. Mr. E. Keefe, the well known engineer, has been appointed by the city to examine the water-works system, and will shortly present an interim report. It is probable that considerable enlargements and improvements will be recommended. The authorities of both the General and Notre Dame hospitals and the Provincial Board of Health have issued an appeal to the city to provide means for the establishment of a contagious disease hospital.

OTTAWA, ONT.—Mr. J. D. Noble, managing director of the Peterboro Oil Company, was in the city recently making arrangements for the erection of additional works. J. H. Balderson, Secretary Department of Railways and Canals, will receive tenders until Tuesday, the 28th inst., for about 1040 lineal feet of steel pipe, 6 feet 8 inches diameter inside measure and about 500 feet of steel pipe 5 feet diameter inside measure, with plates and flanges complete. Tenders are also invited at the above department until noon on Saturday, the 12th day of August, for the construction and setting in place in working order of five pairs of lock gates at the Sault Ste Marie Canal. Plans and specifications of the above works may be seen at the office of the Chief Engineer of Railways and Canals in this city. E. F. E. Roy, Secretary Department of Public Works, invites tenders until Monday, 2nd inst., for the erection of an addition to the post office at Quebec. Plans may be seen at the office of A. P. Lepine, post-office, Quebec. Tenders are also invited by the Secretary of the Department until Monday, the 31st inst., for quarrying and delivering dimension stone from the Penitentiary quarry, St. Vincent de Paul, specifications for which may be seen at the Department in this city. The City Council has passed by-laws providing for the issue of debentures to cover the cost of constructing sewers on the following streets: Charles, McKay and Creighton streets, cost \$9,886; Union street and Stanley avenue, cost \$2,568; Alexander, Thomas, Sussex and McKay streets, cost \$2,472; Sussex street, cost \$503; Board street, cost \$4,631; Primrose avenue, cost \$638; Gloucester street, cost \$533.50; Redpath and Sussex streets, cost \$5,157.

TORONTO, ONT.—Messrs. Williamson & Co., publishers, contemplate the erection of a new five-story building on the site of their present premises on King street, near the Dominion Bank. Mr. W. B. Whiston, of Hamilton, representing a company who propose to erect a factory on

Blair avenue, adjoining the Abell works, applied to the Council last week for permission to erect temporary wooden buildings, with sheet iron lining. The request was granted, and work will commence at once. The Parks and Gardens Committee has been authorized to advertise for tenders for a concrete sidewalk in Queen's-avenue to College-avenue. The necessary by-law for the laying of permanent pavements on parts of the following streets passed its third reading in Council on Monday last: Parliament street, Queen to Gerard, Parliament street, Winchester to Carlton, College street, Yonge to McCaul, Dundas street, Queen to the bend; Queen street, Yonge to River; Carlton street, Front to Queen; Winchester street, Parliament to Sunnyside; College street, Dufferin to Lansdowne avenue; Johnson avenue, College street to Dundas; Bathurst street, King to Queen; Gerrard st., Parliament to River; Front street, Church to Frederick. The total cost will be \$199,000. The work of laying permanent pavements on these streets will now be proceeded with. The Property Committee examined the plans sent in for the remodeling of St. Lawrence market on Tuesday last. The prizes were awarded as follows: 1st, H. G. Paul, 2nd, Strickland & Symons; 3rd, A. W. Peene. The cost of carrying out the design awarded first prize is estimated at \$71,000. Building permits have been granted as follows: J. B. Smith, 66 Grenville st., 4 story bk. warehouse, n. side Esplanade st., between Yonge & Bay sts., cost \$8,000; A. & S. Nordheimer, 4 add, bk. stories to warehouse, 15 King st. east, cost \$1,000; D. Todd, 137 D'Arcy st., pair semi-detached 2 story and attic bk. dwellings, w. side Huron st., 250 ft. north of Lowther ave., cost \$13,000; R. A. Graydon, 103 St. George st., pair semi-detached 2 story and attic bk. dwellings, e. side Walmer road, 100 ft. south of Bernard ave., cost \$8,000. Wm. Carlyle, Chairman Board of Health, will receive tenders until Wednesday, 26th inst., for the construction of a system of drainage and a cement floor at the new Isolation Hospital. Plans may be seen at the office of Mr. Henry Simpson, architect, 9 1/2 Adelaide st. east.

FIRES.

On Tuesday night of last week Mr. McLaurien's saw mills at Lachine, Que., were destroyed by fire. The Argyle hotel, a three-story frame building on Lorne street, Port Arthur, Ont., was destroyed by fire last week. A Squire's building adjoining, occupied as a paint shop, was also destroyed. Fire was discovered a few days ago in the shop of A. Smith, baker, at Tara, Ont. The block being a frame building, was totally consumed. It was occupied by J. Morden, dwelling; A. Smith, dwelling and bakeshop; J. Rigg, barber; C. Knapp, shoemaker; D. D. Wark, shoemaker, and Mrs. Wark, milliner. The building, owned by W. Vandusen and A. Smith, was partly covered by insurance. The hotel of Mr. B. McCameau, at Manotick, Ont., was destroyed by fire on the morning of the 12th of July. A dancing hall attached was also burned down. Loss, about \$5,000; insurance, \$1,800. Smith & McGarvin's steam saw mill at Chatham, Ont., was burned on Tuesday last. Loss, \$4,000. Fire was discovered in a row of outbuildings between Burton and St. Gabriel streets, Quebec, on Tuesday evening last, by which damage was caused to the extent of \$30,000. Among the losers are: Eugene Trudel, Cyprien Gagnon, M. Vesin, Mr. Rechlon and Capt. Moru.

CONTRACTS AWARDED.

WALKERVILLE, ONT.—The Council has accepted the tender of Flook & Babcock for the paving of Assumption street, at the price of \$5,838.25.

MIDDLETOWN, N. S.—The contract for building the new Baptist church has been awarded to J. F. Teed of Dorchester, N. B., for \$6,000. Work will be commenced in a short time.

MERRITON, ONT.—The Public School Board has awarded the contract for the erection of the new central school in this village to Messrs. Newman Brothers, of St. Catharines, at the price of \$7,100, they to allow \$500 for the old building.

YORK MILLS, ONT.—At a recent meeting of the trustees of School Section No. 3, the contract for the new school building was awarded to Messrs. Fisher and Ramsay, of the town of North Toronto, at the price of \$5,000, which includes heating. There were altogether 36 tenders.

LONDON, ONT.—Messrs. Oakley & Holmes, of Toronto, have secured the contract for the brick and stone work of

the General Electric Co.'s power-house on York street west, and Messrs. Tambling & Jones, that for the carpentry. The local bricklayers were almost \$1,000 higher than the Toronto firm.

WINNIPEG, MAN.—Messrs. Rourke & Cass and John Girvin have received the contract for the brick and carpenter work, respectively, of the new Bank of Ottawa building. The aggregate price is \$27,000. The contract for a first-class \$9,000 store for Mayor Newman of Postage La Prairie, has been let to Messrs. Davidson Bros. and Silverthorn. Mr. Geo. Browne was the architect.

TORONTO, ONT.—At the last meeting of the City Council it was decided to divide the contracts for permanent pavements which were recently awarded to Otto E. C. Guelich, of Detroit, between the different companies. This will give the Parliament-street work to the Warren-Schiff Company at \$15,472, College-street to the Trinidad Company at \$16,130, Dundas-street from Queen-street to the bend, to the Constructing and Paving Company at \$10,499, Queen-street, from Yonge-street to River-street, to the Constructing and Paving Company at \$35,430. This leaves the Guelich Company with about \$33,000 worth of work.

MONTREAL, QUE. The Road Committee has awarded contracts for asphalt pavements as follows: Bastien and Valiquette—Albina and Ste. Denis streets, at \$3.35 and \$3.50 respectively; total \$40,900. Sicily Asphaltum Co.—Union Avenue, Viger Place, Dubord, Dorchester, Berr, Murray and McCord streets, at \$3.56 per square yard; Centre, St. Catherine and Bleury streets, at \$3.56 per square yard; total, \$175,000. The contracts for the supplying and laying of granite block stones were given out as follows: F. D. Lawrence—St. Catherine street eastward, from Harbor street, at \$1.72 per square yard. Sicily Asphaltum Co.—Bleury street at \$2.10 per square yard; St. Denis street at \$1.96 per square yard. F. H. McKenna—St. Etienne street at \$1.70, Common and Colborne streets at \$1.75 per square yard.

MUNICIPAL DEPARTMENT.

WATER BY MEASURE.

The paper by Mr. Godfrey, read at the Bury St. Edmund's meeting of the Municipal and County Engineers, will once more direct attention to a difficult point in water supply. Everyone connected with such supply knows full well, says the *Contract Journal*, that the waste is usually very great, and as the works and distribution have to supply both waste and water used, they must of necessity be more costly when the waste is great than when the requisite amount used only is passed through the pipes. We are too accustomed to look upon air and water as natural products, costing nothing, but the aggregation of a large population upon a small area means the bringing of water from a distance, or sinking wells, or purifying the water at hand which under the conditions is rendered impure. Thus, we may say that it is not the water that costs money, but the works required for obtaining, purifying, and distributing the water. So far as meters are concerned, then, if the supply is by meter there must be an additional cost, which the user has to pay. The question is simplified to the consideration of three points. What is the cost to the suppliers of supplying waste water? We assume that ordinary efforts are made to keep the waste as small as possible, and that the cost is the minimum under effectual supervision. Secondly, will it pay the suppliers to stop the waste by fixing meters at every house and charging nothing initially for the meter or for its maintenance? By this we mean, that if a supplier saves a thousand pounds a year by stopping waste, at, say, an initial cost of two thousand pounds, and an annual cost of two hundred and fifty pounds, there is little or no need to charge the customers anything for meter or mainten-

ance. The supplier soon recoups his initial outlay, and makes a good profit into the bargain. Waterworks companies, however, do not seem too eager to remedy waste by such means, so that internal evidence points the cost of prevention being greater than the cost of waste. Thus we come to the third point—what part of the cost can be charged to the customer, and what should be borne by the supplier. It will probably be found on close examination that the suppliers take little or no consideration of their gain by less waste, and in supplying by meter charge the customer fully for the meter and for its maintenance. This is good for the supplier, but hardly so for the customer, and under such circumstances one can understand the disinclination of an engineer to supply by meter to an artisan's cottage when the meter cost would be half-a-crown and the charge for water one shilling and sixpence. The supply by meter ought to be of mutual advantage, if there is, on the whole, any saving. In all cases the consumer pays for the total supply, whether that supply be used or wasted. During the discussion attention was called to the waste which usually attends a common yard tap. It is nobody's duty to turn it off, and lazy people simply let it run. Might it not be worth while in cases of this kind to use a tap that closes automatically? Again, the cost might be a little more than with the ordinary tap, but sure gain from less waste comes in somewhere, and even if customers on the whole have to pay, the suppliers might attempt to lighten their payments. As regards the question which meter is best, we have nothing to say. It is certain that a sufficiently good meter can be had, and once the question of cost of waste is settled, it will not take long to decide whether or not it will pay anybody to prevent the waste. Mr. Godfrey's paper, as we say, will call attention to the question which in this time of long-continued dry weather is more prominent than at times when "the rain, it raineth every day."

DEBENTURES WANTED.

Municipalities issuing debentures, no matter for what purpose, will find a ready purchaser by applying to G. A. STIMSON, 9 Toronto Street, Toronto, N.B.—Money to loan at lowest rates on first mortgage.

GRAND TRUNK RAILWAY,
CANADIAN PACIFIC RAILWAY,
CREDIT VALLEY RAILWAY,
ONTARIO AND QUEBEC RAILWAY,
WELLAND RAILWAY,
GREAT WESTERN RAILWAY,
NORTHERN PACIFIC
JUNCTION RAILWAY,
NIAGARA FALLS AND
QUEENSTON ELECTRIC RAILWAY,

All Used
Thorold Cement
in construction.

MANUFACTURED BY
ESTATE OF JOHN BATTLE,
Thorold, Ontario.

Fire Bricks and Cement

DRAIN AND WATER PIPES
SANITARY EARTHENWARE
LONDON PORTLAND CEMENT
GUARANTEED GENUINE.
Paving and Scoria Bricks for Stables,
Sidewalks, Yards, etc.
Large quantities on hand and to arrive. We handle
only the best quality. Prices lower than ever.

F. HYDE & CO.
31 Wellington Street, - MONTREAL,
Sole Agents for
THE "GRAHTRYX" SMOKE TEST AND
DISINFECTING MACHINE.