

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- Additional comments:
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Continuous pagination/
Pagination continue
- Includes index(es)/
Comprend un (des) index
- Title on header taken from:
Le titre de l'en-tête provient:
- Title page of issue/
Page de titre de la livraison
- Caption of issue/
Titre de départ de la livraison
- Masthead/
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

| | | | | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 10X | 12X | 14X | 16X | 18X | 20X | 22X | 24X | 26X | 28X | 30X | 32X |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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 THROUGHOUT CANADA.

Vol. 4. JULY 20, 1893 No. 29

THE CANADIAN CONTRACT RECORD,
 PUBLISHED EVERY THURSDAY
 As an Intermediate Edition of the "Canadian Architect and Builder."
 Subscription price of "Canadian Architect and Builder" (including "Canadian Contract Record"), \$2 per annum, payable in advance.
 C. H. MORTIMER, Publisher,
 CONFEDERATION LIFE BUILDING, TORONTO.
 Telephone 2362.
 64 Temple Building Montreal.
 Bell Telephone 2499.
 Information solicited from any part of the Dominion regarding contracts open to tender.
 ADVERTISING RATES ON APPLICATION.



NOTICE TO CONTRACTORS.
 Tenders will be received by registered post addressed to the City Engineer, Toronto, up to 11 o'clock a. m. on SATURDAY, JULY 22, 1893, for the construction of the following work.

A SEWER
 to carry storm water, on Queen Street, from DeGrassi Street to the Don River.
 Specifications may be seen and forms of tender obtained on and after Monday, July 17, 1893, at the office of the City Engineer.
 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 material tendered for under \$1,000, and 2 1/2 per cent on the value of the material tendered for over that amount, must accompany each and every tender, otherwise it will not be entertained.
 All tenders must bear the bona fide signatures of the contractor and his sureties (see specifications) or they will be ruled out as informal.
 The Committee do not bind themselves to accept the lowest or any tender.
 DANIEL LAMB,
 Chairman of Committee on Works.
 Committee Rooms, Toronto, July 7, 1893.

NOTICE TO CONTRACTORS
 Reception of Tenders for Sewer Postponed.
 Notice is hereby given that the time for the reception of tenders by the City Engineer for the construction of a sewer on Queen street east, from De Grassi street to the Don river, has been extended from the 22nd instant, to
SATURDAY JULY 29, 1893
 at 11 o'clock a.m.
 DANIEL LAMB,
 Chairman Committee on Works.
 Committee Room, Toronto, July 14, 1893.

NOTICE TO CONTRACTORS.
 Tenders addressed to the undersigned will be received through registered post at the office of the City Clerk up to noon of WEDNESDAY, JULY 26TH, 1893, for the construction of a
System of Drainage and a Cement Floor
 at the new Isolation Hospital. Plans and specifications may be seen and all other information obtained upon application at the office of Mr. Henry Simpson, Architect, No. 9 1/2 Adelaide street east.
 Each and every tender must be accompanied by a cash deposit or a marked cheque, made payable to the order of the City Treasurer, to the amount of \$15, which will be forfeited to the city in the event of the party whose tender is accepted failing to execute the necessary contract and bond. The deposits accompanying unsuccessful tenders will be returned forthwith. The lowest or any tender not necessarily accepted.
 WILLIAM CARLYLE,
 Chairman Local Board of Health.
 Board Room, Toronto, July 17th, 1893.

NOTICE TO BUILDERS.
 Whole or separate tenders will be received up to 6 o'clock p.m., SATURDAY, JULY 29TH, 1893, for the various works in the erection and completion of a SEPARATE SCHOOL, in the town of Barrie. Plans and specifications can be seen at the office of the Architects, Thos. Kennedy & Co., to whom tenders must be addressed and marked "Tender for School." The lowest or any tender not necessarily accepted.
 F. N. MARRIN,
 Chairman Building Committee.

NOTICE TO CONTRACTORS.
 Tenders will be received by registered post addressed to the City Engineer, Toronto, up to 11 o'clock a. m. on SATURDAY, JULY 22, 1893, for the construction of the following works:—
CEDAR BLOCK PAVEMENTS.
 On Northumberland street, from Ossington avenue to Preston avenue.
 On Olive avenue, from Bathurst street to Palmerston avenue.
 On Bleeker street, from Wellesley street to Howard street.
 On Victoria Crescent, from Dunn avenue to Jameson avenue.
 On Dundas street from Queen st. to Arthur st.
 Specifications may be seen, and forms of tender obtained, on and after Tuesday, July 18, 1893, at the office of the City Engineer.
 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 material tendered for under \$1,000, and 2 1/2 per cent on the value of the material tendered for over that amount, must accompany each and every tender, otherwise it will not be entertained.
 All tenders must bear the bona fide signatures of the contractor and his sureties (see specifications) or they will be ruled out as informal.
 The Committee do not bind themselves to accept the lowest or any tender.
 DANIEL LAMB,
 Chairman of Committee on Works.
 Committee Rooms, Toronto, July 11, 1893.

NOTICE TO CONTRACTORS.
 Sealed tenders, addressed to the undersigned, and endorsed "Tender for Coal, Public Buildings," will be received until MONDAY, 31ST JULY, for Coal Supply for all or any of the Dominion Public Buildings.
 Specification, form of Tender and all necessary information can be obtained at this Department on and after Monday, 10th July.
 Persons tendering are notified that tenders will not be considered unless made on the printed form supplied, and signed with their actual signatures.
 Each tender must be accompanied by an accepted bank cheque, made payable to the order of the Honourable the Minister of Public Works, equal to 5 per cent of the amount of the tender, which will be forfeited if the party decline to enter into a contract when called upon to do so, or if he fail to supply the coal contracted for. If the tender be not accepted, the cheque will be returned.
 The Department will not be bound to accept the lowest or any tender.
 By order,
 E. F. E. ROY,
 Secretary.
 Department of Public Works,
 Ottawa, 7th July, 1892.

CONTRACTS OPEN.
 KILLARNEY, MAN.—The proprietors of the flour mill propose to erect another elevator.
 HALIFAX, N. S.—The City Council has decided to advertise for tenders for another loan of \$40,000 for the construction of the new pipe line.
 KALSO, B. C.—Mr. A. Wasser, of Spokane, proposes erecting a brewery here, 50-80 feet, three stories high, with capacity of 2000 barrels.
 FORT WILLIAM, ONT.—Mr. Mathewson, solicitor, contemplates erecting a brick residence on Syndicate avenue, to cost in the neighborhood of \$3,000.

CREDITVILLE, ONT.—J. G. Goble, Chairman of Committee, will receive tenders until the 20th inst. for the erection of a brick chapel on the site of the one recently burned.
 GALT, ONT.—It is reported that the C. P. R. intends, at an early date, to build five additional piers below the iron superstructure carrying their line across the Grand River.
 KINGSTON, ONT.—It has been decided to have plans prepared for a new residence for the governor of the jail. These plans will be submitted to Dr. Chamberlain, inspector of jails and prisons, for approval.

MORLEN, MAN. W. F. Morlen, Secretary Treasurer, will receive tenders until the 24th inst for the erection of a public school building in this town. Plans may be seen at the office of Hugh McGowan, architect, Winnipeg.
 ELKHORN, MAN.—The voting for granting of a bonus of \$4,000 in aid of the erection of a flour mill at this place, resulted in a majority for the bonus. It is reported that Mr. Koester, of Virden, has offered to erect the mill.
 TORONTO JUNCTION, ONT.—Mayor Pears is advocating the construction of a reservoir in Prospect Park, to cost \$30,000. Should the Engineer approve of the scheme a by-law to raise funds will be submitted to the ratepayers.

RIBAUD, QUE.—Tenders are invited by J. M. Lefebvre until the 27th inst. for the construction of an iron and steel bridge, one hundred feet long by sixteen feet wide, and for the construction of two abutments in stone or otherwise in this village.
 SARNIA, ONT.—The Board of Education has appointed a committee, consisting of Dr. Maclean and Messrs Palmer & Smith, to procure plans for the erection of a gymnasium at the Collegiate Institute, the cost of erection not to exceed \$1,500.

BOISSEVAIS, MAN.—Tenders are invited by Mr. F. L. Schaffner, Secretary P. S. B., until Tuesday next, the 25th inst., for the erection of a stone schoolhouse in this village. Plans may be seen at the office of E. Lowery & Son, architects, Winnipeg, and at Mr. Schaffner's office.
 PETERBORO, ONT.—A by law to raise the sum of \$3,800 for the construction of the Elison drain will be submitted to the ratepayers on the 9th of August.—Tenders will be asked shortly for the reconstruction of the Smith street bridge, towards which the County Council has granted \$1,250.

OWEN SOUND, ONT.—Work will be at once resumed on Mr. Speer's new block to replace the destroyed American Hotel block. It will be a fine structure and will be devoted to financial, commercial and legal purposes.—A new survey is to be made for the proposed Grand Trunk branch line from Parkhead.
 ST THOMAS, ONT.—Tenders are invited by the Board of Works until 6 p.m. to-morrow (Friday) for furnishing material, labor, etc. and constructing 500 feet of brick sewer three feet in diameter, and 1,700 feet of brick sewer two feet in diameter. Tenders are to be addressed to the City Engineer, Mr. A. W. Campbell.
 BRANTFORD, ONT.—A special meeting of the water commissioners was held recently to consider the city water supply. The commissioners decided to construct two large reservoirs in the vicinity of the present works. The water will, it is expected, filter through about 300 feet of gravel.

At its Convention held in Toronto, Nov. 20 and 21, 1889, the Ontario Association of Architects signified its approval of the CANADIAN CONTRACT RECORD, and pledged its members to use this journal as their medium of communication with contractors with respect to advertisements for Tenders.
 The following resolution was unanimously adopted at the First Annual Meeting of the Province of Quebec Association of Architects, held in Montreal, Oct. 10th and 11th, 1890: "Moved by M. Perrault, seconded by A. F. Dunlop, that we the Architects of the Province of Quebec now assembled in Convention being satisfied that the CANADIAN CONTRACT RECORD affords us a direct communication with the Contractors,—Resolved, that we pledge our support to it by using its columns when calling for Tenders."
 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.

BARTER AND EXCHANGE.
 This department has been opened for the speedy barter and exchange of second-hand plant or material or small lots of new or second-hand materials by builders and others not regularly engaged in the sale of such articles. Advertisements other than those of the above description will not be inserted.
 RATES—12 words and under, 15 cents; each additional word, 2 cent (three figures count one word); on two or more subsequent insertions a discount of 10 per cent. will be allowed. Not more than four insertions of an advertisement can be granted.
 Replies to advertisements may be addressed to a box at this office, in which case necessary stamps must be sent for re-mailing replies. Advertisements for this department must be prepaid.

TO DRAUGHTSMEN.—About 1 1/2 quires of Whatman's Drawing Paper for sale (Imperial size), only \$3.50 for the lot. Box 151 at this office.

COUNTY OF RENFREW
 The corporation of the County of Renfrew propose to heat their buildings at Pembroke, consisting of the COURT HOUSE, (including all the offices therein), GAOL and REGISTRY OFFICE, with steam or hot water, this fall. Plans may be seen at the office of Wm. O'Neira Esq., Chairman of the County Property Committee, Pembroke, by whom Tenders will be received up to the 15TH DAY OF AUGUST NEXT. Tenders must state price for both systems. Persons desiring to tender are invited to examine the buildings thoroughly before tendering.
 S. E. MITCHELL,
 County Clerk.
 Pembroke, 3rd July, 1893.

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.

MUNICIPAL ENGINEERS, CONTRACTORS, AND MATERIALS.

ISAAC USHER & SON,
THOROLD, ONT.
Manufacturers of
QUEENSTON CEMENT
Proved by Government tests to be the best Canadian natural cement. Write for prices, &c.

WILLIS CHIPMAN, B. A. Sc.,
M. Can. Soc. C. E., M. Am. Soc. C. E.,
M. Am. W. W. Ass'n.
CIVIL AND SANITARY ENGINEER
Water Works - Sewerage
Sewage Disposal
103 BAY STREET - TORONTO.

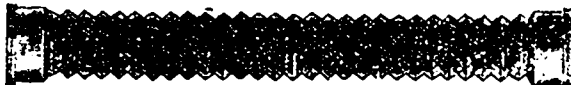
J. McDougall, C. E.,
ENGINEER COUNTY OF YORK,
Consulting Engineer for Municipal Work.
Electric Railways and Bridges.
COURT HOUSE, - TORONTO.

Municipal officers, contractors and others, are requested to mention the **CONTRACT RECORD** when corresponding with advertisers

JOHN GALT
MEM. CAN. SOC. C. E.,
CONSULTING ENGINEER AND EXPERT
WATERWORKS, SEWERAGE, ETC.
Twenty-five years' practical experience in Great Britain, United States and Canada.
Office: Rooms 99 and 100,
CANADA LIFE BUILDING, - TORONTO.

A. & E. LOIGNON,
CIVIL ENGINEERS.
Bridge and Structural Iron Work. Steel Beams kept in stock.
Plans, Estimates and Specifications.
WORKS: ST. COLUMBAN ST. AND CANAL SIDE, MONTREAL.
OFFICE: 7 PLACE D'ARMES. Telephone 9277.

CORRUGATED SOIL PIPE AND FITTINGS (PATENTED)



This improvement marks an era in sanitary reform. Universal certificates in its favor from Architects, plumbing inspectors, master plumber associations, and others. Costs no more: more economical to use.

H. R. Ives & Co. - Montreal.

MUNICIPAL OFFICIALS should see to it that in the erection of town and city **PUBLIC BUILDINGS**, the installation of water works plant, etc., the advantages of **MINERAL WOOL**



are made use of for deadening sound in floors and partitions, insulation of heat and cold, fireproofing, etc., also **SECTIONAL MINERAL WOOL COVERING** for steam pipes, boilers, exposed water pipes, etc.

CANADIAN MINERAL WOOL CO., Limited, 122 Bay Street, Toronto.
Montreal Agent: **GEO. R. THOMPSON & CO.,**
GEO. A. COWAN, Room 23 204 St James St. Agents, Winnipeg, Man.

STEVENS & BURNS
London, Ont.

To Municipal Corporations and Contractors:

... WE MANUFACTURE ...

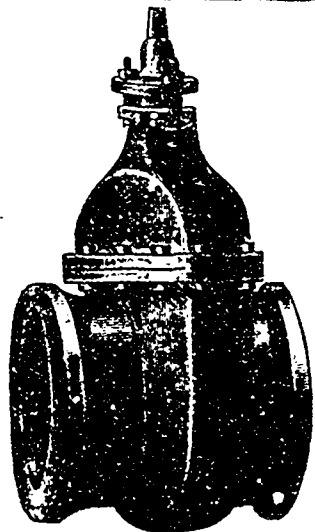
Hydrants, Valves, Valve Boxes

and Water Works Supplies generally,

INCLUDING

Tools for tapping mains under pressure

and Service Brass Work of all descriptions.

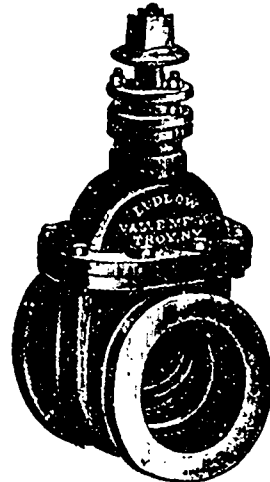


TAR FOR SALE.

A quantity of coal tar made from the best bituminous coal.
THE STRATFORD GAS CO.
John Reid, Manager.

To Corporations and Contractors

THE CELEBRATED LUDLOW VALVES



Double Stuffing Box,
Compound Wedge,
Double Dish,
made on the most modern principles and of the best material.

.....
MATTHEWS AND LUDLOW
Hydrants,
Valve and Service Boxes
at bottom prices.

Doherty Mfg. Co.
SARNIA, ONT.

PORTLAND CEMENT

23,353 Barrels of **Burham Brand** were sold in Toronto in 1892, amounting to two-thirds of our total sales.

Nichols, Smythe & Co., - 25 George St., Toronto.
CEMENT CONTRACTORS TO THE CITY OF TORONTO.
Telephone 1948 or call and see us.

HAMILTON AND TORONTO SEWER PIPE CO.



- FOR -
SEWERS, CULVERTS, AND WATER PIPES. INVERTS
Fire Brick Sewers

Write for Discounts.

HEAD OFFICE AND FACTORY, HAMILTON, CANADA.

Drummond McCall Pipe Foundry Company,
MONTREAL

MANUFACTURERS OF

CAST IRON WATER AND GAS PIPES
WORKS: LACHINE, QUE. PRICES ON APPLICATION.

Ontario Water Meter Co., Ltd.

MANUFACTURERS OF



WATER METERS

Meter Supports, Dial Extensions, Fixture Locks, Water Cart Registers, Strainers, Coupling Seats and Reservoir Indicators.

Send for Price Lists and Testimonials. Our meters are adopted and in use in over 500 cities and towns in Canada and the United States. Highly endorsed by leading Engineers. A guarantee for five years given with all Meters. All information furnished on application to

A. C. WINTON, Secretary-Treas.

Office: No. 23 Toronto Street, Toronto, Ont.

CANADA PIPE AND FOUNDRY CO.

MANUFACTURERS OF

. **Cast Iron Pipes and Special Castings**

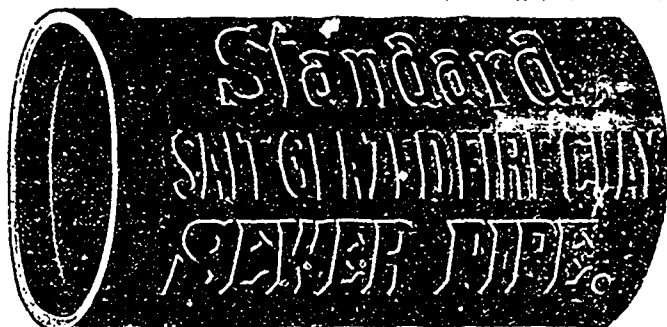
Works: MONTREAL AND ST. HENRI, QUE.

CORRESPONDENCE SOLICITED.

THE STANDARD DRAIN PIPE CO.

OF ST. JOHNS, P. Q., (LIM.)

Manufacturers of



Salt-Glazed, Vitrified
SEWER PIPES

Double Strength Railway Culvert Pipes, Inverts, Vents,

AND ALL KINDS OF FIRE CLAY GOODS.

THE G. & J. BROWN MFG. CO.

Railway and Contractors' Plant.

BRIDGE BUILDERS

BELLEVILLE, ONT.

CENTRAL BRIDGE AND - - ENGINEERING COMPANY, (LIMITED)

Peterborough, Ont.

WM. H. LAW, Manager and Engineer.

MANUFACTURER OF

RAILWAY AND HIGHWAY BRIDGES

Viaducts, Piers, Roofs, Turntables and Girders in Steel and Iron.

Tension members forged without welds. Riveting done by hydraulic or compressed air machines. Specialties: Good workmanship and strict adherence to specifications and drawings.

CAPACITY: 2,000 TONS PER ANNUM.

OUR SALES OF

"BURHAM"

Portland Cement

for the past 8 months have been

25,499 CASKS.

"Burham" Brand outranks all others.

Try it and be convinced.

Sole Consignees for Canada:

McRAE & CO., OTTAWA

Canada Pipe Foundry,

HAMILTON, ONTARIO.

ALEX. GARTSHORE, Proprietor.

Manufacturer of

CAST IRON WATER, GAS AND SEWER PIPES.

- ALSO -

Special Castings of every description.

CAPACITY: 50 TONS PER DAY.

In use from Vancouver to Sydney, Cape Breton. Correspondence solicited.

Prices of Building Materials.

LUMBER.

CAR OR CARGO LOTS.

Toronto. Montreal.

Table listing lumber prices for various types of wood, including clear picks, pickings, Amits, and various sizes of planks and shingles.

YARD QUOTATIONS.

Table listing yard quotations for mill cull boards, shipping cull boards, Hemlock cantling and joist, and various sizes of shingles.

Toronto. Montreal.

Table listing prices for various building materials including cutting up planks, cedar for block paving, flooring, brick, sand, rubble, and various types of stone.

Toronto. Montreal.

Table listing prices for various building materials including black lamp, oil, putty, cement, lime, plaster, hair, cut nails, steel, and various types of iron and hardware.

Toronto. Montreal.

Table listing prices for various building materials including cold cut, pink blue nails, finishing nails, slating nails, common barrel nails, clinch nails, sharp and flat pressed nails, and structural iron.

INDEX TO ADVERTISEMENTS

In the "Canadian Architect and Builder."

Table listing various advertisements and services, including architects, church and school furniture, architectural sculptors, iron work, brick makers, builders' supplies, and various construction materials.