

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

EVERY

PUBLIC WORKS • TENDERS •
ADVANCE INFORMATION •
AND MUNICIPAL PROGRESS

THURSDAY

THIS PAPER REACHES EVERY WEEK THE TOWN AND CITY CLERKS, TOWN AND CITY ENGINEERS, COUNTY CLERKS AND COUNTY ENGINEERS THROUGHOUT CANADA.

Vol. 5.

APRIL 19, 1894

No. 11

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 2299.

Information solicited from any part of the Dominion regarding contracts open to tender.
Advertising Rates on application.

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. Ferrault, 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.

Notice to Contractors

CANADIAN CONTRACTOR'S HAND-BOOK

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.

Price, \$1.50; to subscribers of the CANADIAN ARCHITECT AND BUILDER, \$1.00. Address

C. H. MORTIMER, Publisher,
Confederation Life Building, TORONTO.
Montreal Office:
64 Temple Building.

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, 1 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 reply. Advertisements for this department must be prepaid.

FOR SALE—Wood and glass partition, 9 feet high, 18½ feet long, including door 3 x 3 feet. Pine, natural finish, ground glass in panels. In use little more than a year. Cost over \$50. Will be sold at a sacrifice. Box 50, CONTRACT RECORD office.

TENDERS

will be received by the undersigned until noon of SATURDAY, APRIL 28TH, for the erection of Galleries and for other alterations to Chalmers' Church, Guelph.

Plans and Specifications may be seen at our office. No tender necessarily accepted.
LANGLEY & LANGLEY, Architects,
Canada Life Chambers, Toronto.



NOTICE TO CONTRACTORS

Tenders will be received by registered post, addressed to the City Engineer, Toronto, up to 11 o'clock a.m., Saturday, May 22, 1894, for the following works:—

A SEWER

on Avenue road, from Boswell Avenue to Tannery Creek sewer.

ASHPALT PAVEMENT

on Bleecker street, from Carlton street to Wellesley street.

Plans and specifications may be seen and forms of tender obtained on and after Saturday, May 5th, 1894, 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 work tendered for under \$1,000, and 2½ per cent. for the work tendered for over that amount, must accompany 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 Committee on Works.

Committee Room, Toronto, April 17, 1894.



NOTICE TO CONTRACTORS

Tenders for Annual Supplies.

Tenders will be received by registered post, addressed to the City Engineer, Toronto, up to 11 o'clock a.m. on SATURDAY, 28TH APRIL, 1894, for the supply of

PORTLAND CEMENT AND BRICK

required by the Works Department for the year ending 31st May, 1895.

Specifications may be seen and forms of tender obtained on and after Saturday, April 21st, 1894, 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 5 per cent. on the value of the material tendered for under \$1,000, and 2½ per cent. for 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 Committee on Works.

Committee Room, Toronto, April 13, 1894.

NOTICE TO CONTRACTORS.

Tenders will be received at my office, 15 Gerrard Street, East, up to SATURDAY, the 28th inst., for alterations and additions to the Union Bank Building, Wellington street.

The lowest or any tender not necessarily accepted.
S. H. TOWNSEND, Architect.

NOTICE TO CONTRACTORS.

Whole or separate tenders will be received at the office of the undersigned, where plans and specifications may be seen, until 6 p.m. on SATURDAY, APRIL 28TH, 1894, for the erection of a BRICK SCHOOL BUILDING at Woodbridge, Ont. Persons tendering for the heating and ventilating will be required to give a guarantee of the efficiency of the system which they propose to employ.

No tender necessarily accepted.
JAMES A. ELLIS, Architect,
J. G. HALLETT, Toronto Junction.
Sec. Public School Board, Woodbridge, Ont.

TENDERS.

Sealed tenders will be received at my office up to 6 o'clock on TUESDAY, MAY 15TH, for the

ELECTRIC LIGHTING

of the City of London, for a term of 1, 3, 5 or 8 years. Plans and Specifications may be seen at my office.
A. J. E. PARNELL, A. ORMSBY GRAYDON,
Chairman No. 3 Committee. City Engineer.

CONTRACTS OPEN.

CHANTRY, ONT.—Mr. S. M. Seaman will erect a new brick residence.

HOLLAND, MAN.—The residents have decided to erect a new town hall.

PORT ELGIN, ONT.—The dredging of the harbor here is being agitated.

SELKIRK, MAN.—Mr. Mitchell, of Millwood, will erect a saw mill here.

SUDBURY, ONT.—The question of constructing a system of waterworks is under consideration.

PRESCOTT, ONT.—A by-law will be voted on by the ratepayers to raise \$5,000 for fire appliances.

PENETANGUISHENE, ONT.—Mr. Joseph Dusome intends building a new hotel on the site of his present building.

WESTON, ONT.—Messrs. D. Rowntree, John Boylan, J. Best, and J. Irwin will each erect a new residence this summer.

LONDON, ONT.—Mr. F. H. Stoneman has taken out a building permit for a brick residence on Dundas street, to cost \$2,100.

HARROWSMITH, ONT.—The Bay of Quinte Railway Company will join the K. & P. R. Company in the erection of a union station here.

HINTONBURGH, ONT.—A committee has been appointed by the Council to engage an engineer to survey a route for a system of drainage.

KINGSTON, ONT.—Mr. Arthur Ellis, architect, is receiving tenders for the erection of a house on Yonge street, and an addition to a residence on King street.

ST. BONIFACE, MAN.—The town proposes to build another bridge across the

Red River, and has asked the Winnipeg City Council to vote \$10,000 towards the cost of construction.

HALIFAX, N. S.—Tenders are invited by Wm. T. Reilly, on behalf of the Board of Works, until the 23rd inst. for the excavation of trenches for sewers on a number of streets.

PORTAGE LA PRAIRIE, MAN.—A resolution has been passed by the Town Council recommending that steps be taken at once to secure the construction of a bridge across the Assiniboine river.

NIAGARA FALLS, ONT.—The Niagara Falls Park and River Railway company will shortly commence the construction of an inclined railway from the river bank opposite the Clifton House to the Maid of the Mist landing.

VICTORIA, B. C.—Mr. W. J. Dowler, City Clerk, invites tenders on behalf of the corporation until the 18th of June for the purchase of \$55,000 worth of debentures.—Plans have been prepared for extensive alterations to the City Hall.

SLINGTON, ONT.—Tenders are invited by Mr. J. D. Evans, Reeve, until the 7th of May, for a steel bridge over the Mimico river on the Lake Shore road. Plans may be seen at the office of Mr. J. McDougall, C. E., Court House, Toronto.

GUELPH, ONT.—Mr. D. Sturton, Chairman Board of Managers, will receive tenders until Saturday, the 28th inst., for the erection of galleries and for other alterations in Chalmers' church. Plans may be seen at the store of Mr. Peter Anderson, Wyndham street.

RENFREW, ONT.—Mr. James K. Rochester, town clerk, will receive tenders until Tuesday, the 1st May, for the erection of a girder iron bridge over the Bonnechere river, in this village. Plans may be seen at the offices of the town clerk or Mr. J. L. Morris, C. E., of Pembroke.

TORONTO JUNCTION, ONT.—Mr. J. A. Ellis, architect, is preparing plans for a residence for Mr. W. Hasking, of Port Arthur, to cost about \$3,000, to be constructed of brick; also for a residence for Mr. Luther Anderson, of Lowther ave., Toronto, to cost about \$3,000.—The erection of a market building is again being agitated.

COLLINGWOOD, ONT.—Tenders are invited by the Collingwood Meat Company until the 25th inst. for erecting a three story brick and stone building 200 x 80 ft. in this town. Plans may be seen at the office of Messrs. Taylor Bros.; Thos. Long, president; F. F. Telfer, secretary-treasurer.

WINNIPEG, MAN.—A company of English capitalists will shortly make a proposition to the City Council to take over the city waterworks, to develop the Assiniboine water power and to light the city. A company of Montreal capitalists are also said to be desirous of securing the franchise.—It has been decided by the Trustees to enlarge Point Douglas Presbyterian church. An addition will

be erected to accommodate 200 persons.—Messrs. Crotty & Cross, who are acting as agents for Mr. Davis, have received instructions to proceed with the erection of his business block on the corner of King and Market streets. Mr. Wheeler's plan has been accepted for the building, which will cost about \$18,000, and will be 100 feet x 60 feet in size, built of brick, with stone basement. Tenders for erection will be invited at once.

OTTAWA, ONT.—The foundation is being laid for the new Y. M. C. A. building, also for the E. B. Eddy Company's new pail factory.—Mr. T. Lindsay has acquired the old Troveller property on Kent street and has decided on the erection of new buildings thereon.—A deputation recently waited on the Minister of Public Works for the Dominion urging that a sum be placed in the estimates for the construction of a bridge over the canal at Maria street. Some three years ago the Government voted the sum of \$105,000 for the construction of this bridge, but the work had never been carried out. Consideration was promised.—It is reported that the Dominion supplementary estimates will contain an item of \$75,000 for the construction of a new cruiser for the fishery protection service.—A deputation from Wolfe Island recently waited on the Minister of Public Works urging that the canal through Wolfe Island be thoroughly dredged. The island is about 21 miles long and 7 miles wide.—At a meeting of the City Council held on Tuesday last, it was decided to prepare a by-law for submission to the ratepayers asking for authority to issue debentures for \$315,000 for constructing a trunk sewer, and for \$50,000 for the purchase of an electric light plant.

HAMILTON, ONT.—It is thought that an appropriation will be granted by the Dominion Government for dredging the Burlington Canal. Three by-laws involving an expenditure of \$300,000 will shortly be voted upon by the ratepayers. One provides for \$150,000 for the laying of asphalt pavements on James and King streets, the second for from \$100,000 to \$150,000 for the purchase of electric light plant for the city, and the third for \$50,000 for the erection of a new House of Refuge. The City Engineer is preparing three estimates of the cost of laying permanent pavements on the above named streets. Each plan will provide for a stone curbing and a stone gutter-flag beside it. One plan is for Trinidad asphalt from the gutter flag to the street car rails, finished at the outer rail with vitrified brick. Vitrified brick will be used between the rails in the second plan, and the third provides for Trinidad asphalt on the entire track.—Messrs. Wm. Stewart & Son, architects, are receiving tenders until the 24th inst. for the erection of a residence at Burlington Beach.—The Building Committee of the Board of Education has decided to erect the new school for the west end on a portion of Victoria Park. The location for the new school in the east end has not yet been decided.

MONTREAL, QUE.—The question of proceeding with the erection of a contagious diseases hospital is being urged by the Health Committee of the City Council.—The Harbor Commissioners have appointed a deputation to interview the Dominion Government asking for authority to issue debentures to the amount of \$40,000 for the improvement of the harbor. It is proposed to construct wharves at Maissoneuve, at the western portion of the harbor, and an immense basin at Hochelaga.—A supplementary report has been prepared by the engineer on the estimated cost of deepening 800 feet in length of the upper end of Windmill point basin to a depth of 22 feet at low water, and also to 28 feet, the figures being \$189,000 and \$242,000 respectively. It has been decided by the Board that it would be desirable to have it deepened to 28 feet, but that in the meantime the engineer be instructed to proceed with the work, so as to secure a depth of 22 feet at the earliest possible date.—The Grand Trunk Railway Company are said

to be considering the question of installing an electric light plant to light the passenger station and freight shed on Bonaventure street and their shops at Point St. Charles.—The Fire Committee have adopted a report asking for \$60,000 for a new station in the West Ward and \$16,000 for another station in Hochelaga ward. The Committee also ask for an appropriation of \$7,500 for a new steam fire engine.—A petition has been presented to Council asking that the permanent pavement on Sherbrooke street be continued from St. Dominique street westward.—Messrs. Perrault & Mesnard, architects, have completed plans for repairing St. Antoine market. The cost is estimated at \$19,000.

TORONTO, ONT.—The City Engineer has recommended the construction of the following pavements: an asphalt pavement on Adelaide street, from the east side of Yonge street to the west side of Church street, cost \$14,800; brick pavement on Wellesley place, from the north side of Wellesley crescent to the north end, cost \$3,350; brick pavement on Cecil street, from the east side of Spadina avenue to the West side of Beverley street, cost \$9,570; cedar block pavement on Amelia street, from the east side of Parliament street, cost \$3,900. The work has been approved of by the Board of Works, and will in all probability be carried out.—Mr. Edmund Wragge will receive tenders at the Union Station until Tuesday, the 24th inst., for the steel work, galvanized iron work, painting and glazing, and other work required in the construction of a foot bridge through the present train shed at the Union Station. Plans may be seen at the office of Messrs. Strickland & Symons, architects, 18 Toronto street.—Plans are in course of preparation for the construction of the City and Suburban electric railway from Toronto Junction to Weston.—At a meeting of the Senate of Toronto University held a few days ago, the expenditure of \$40,000 was approved of to equip the proposed chemical laboratory, to furnish the biological museum and to complete the gymnasium.—A by-law has been passed by the Council of the Township of York, providing for the issue of debentures for \$1,058 for constructing a cedar, macadam and gravel roadway on Mackenzie ave., and for \$4,420 for constructing a sewer on Grace Terrace and Pleasant avenue.—The Board of Works will recommend to Council that the widening of the Queen street subway be proceeded with. The plan approved of is for the widening of both sides and diverting Dufferin avenue to the intersection of Queen street and Gladstone avenue. The estimated cost is \$1,411,000.—The commissioners of the Counties of York and Peel have decided to build a new iron bridge across the Etobicoke river at Silverthorn's, near Summerville. Mr. J. McDougall, C. E., has received instructions to prepare plans and tenders will be invited within the next two weeks.—Preliminary steps have been taken for the erection of a large summer hotel at the Humber. The option of 85 acres of land has been secured, and it is proposed to erect an hotel building, pavilion and boat house.—Tenders are invited by the City Engineer until Saturday, the 28th inst., for supplying the following water meters of the Siemens and Adamson pattern: ten $\frac{3}{4}$ inch; twenty 1 inch, eight 2 inch, five 3-inch, four 4-inch and three 5-inch meters.—Building permits have been granted as follows: Robt. Grant, pr. 2 story and attic bk. dwellings, n. w. cor. Dovercourt Road and Dewson st.; Separate School Board, 2 story bk. add. to school, w. side Manning ave., n. of Arthur st., cost \$3,500; Post & Holmes, architects, 3 story wing and alterations to St. Michael's Hospital, cost \$50,000; Mrs. C. Ruthven, 377 Parliament st., 2 story extension and shop front, 346 Parliament st., cost \$1,000.

FIRES.

A dwelling house on Coleman street, Belleville, Ont., owned by James McGuire, was destroyed by fire on Monday

last.—The Singer Sewing Machine Company's factory on Notre Dame street, Montreal, was damaged by fire to the extent of \$20,000, a few days ago.—A large building at St. Nicholls, Que., owned by Mr. Vallerand, was burned recently.—A fruit storage building at Winona, Ont., owned by George Cline, was burned on the 14th inst. Loss, \$6,000; insurance, \$4,000.—The residence of Neil McPhee, at Collingwood, Ont., was destroyed by fire last week. Loss, \$1,200.—Russell's hotel at Rednersville, Ont., was consumed by fire a few days ago.—Mr. A. Judd's store at Sterling, Ont., was burned recently. Loss, \$1,000; insurance, \$500.—A brick block at the corner of St. Henri and William streets, Montreal, owned by J. E. Mullin, was badly damaged by fire recently. The total loss will reach \$50,000.—The Central hotel at Clinton, Ont., owned by Mrs. F. Cooper and the hotel adjoining, owned by John Lea were completely destroyed by fire on the 17th inst. Insurance \$3,000 and \$2,200 respectively.—James Flatt's store at Greenway, Man., has been destroyed by fire. Loss, \$3,000.—Sparks & Bailey's saw mill at Vancouver, B. C., was burned last week. Loss, \$2,000.—A disastrous fire occurred at Huntsville, Ont., on the 18th inst., by which the business portion of the village was almost completely destroyed. The burned buildings comprise Thompson's hotel, Pugh's grist mill, the Episcopal church, the telegraph and telephone offices, the post office, and thirty-two business places, together with the steamer Elcelsior, owned by G. F. Marsh. The total loss is estimated at about \$120,000; and the insurance \$40,000.

CONTRACTS AWARDED.

OAKVILLE, ONT.—The contract for the masonry work of a large swing bridge across the sixteen mile creek in this town has been awarded to Mr. Wm. Gibson. The engineer is Mr. J. McDougall, of Toronto.

WINNIPEG, MAN.—Mr George Browne, architect, has awarded the following contracts: improvements to Mrs. Clark's house on Edmonton street, near Broadway, to W. A. Charlesworth, contract price \$6,600; Dr. Grey's residence on Hargrave street, near Ellice, to Bruce and Madden, price \$4,700.

TORONTO, ONT.—The Board of Works of the City Council on Saturday last awarded the contract for a brick pavement on Dovercourt road, from College to Bloor streets, to Messrs. Shannon and Whillans, at the price of \$10,887.30.—The Harbor Commissioners have awarded the contract for dredging to the Toronto Dry Dock Company, at 15 cents per yard.

NEW COMPANIES.

NIAGARA FALLS, ONT.—Colonial Telegraph and Telephone Co., seeking incorporation; capital \$25,000; applicants, J. Dilcher, Buffalo, Joseph Bampffield and John James Bampffield, of Niagara Falls, and others.

TORONTO, ONT.—Heintzman & Co., seeking incorporation; capital stock, \$205,000; to manufacture pianos and other musical instruments; incorporators, T. A. Heintzman, H. Heintzman, Wm. Ray and others.

MONTREAL, QUE.—Citizens Gas Co., seeking incorporation; capital \$62,500; applicants, F. C. Henshaw, F. E. Nelson and others.

AYR, ONT.—Goldie Milling Co., seeking incorporation; capital stock \$180,000; incorporators, D. Goldie, J. Goldie, G. E. Goldie and R. Neilson, of Ayr, and Hugh McCulloch, of Galt.

BUSINESS NOTES.

Strathy, McRae & Co., contracting carpenters, Montreal, have assigned at the demand of J. W. Lewis.

A. Sigonin & Co., masons, Montreal, have dissolved partnership.

Fabien & Lussier, plasterers, Montreal, have dissolved partnership.

John Graham & Sons, planing mill owners, Inglewood, Ont., have assigned.

MUNICIPAL DEPARTMENT.

SANITARY INSPECTORS.

At an examination for inspectors of nuisances, held at Manchester, the following were the questions:

(1) Give a summary of the clause relating to the sanitary conveniences of factories contained in Part III. of the Public Health Acts Amendment Act, 1890.

(2) State the chief provisions of the Canal Boats Acts, and of the regulations made under them by the Local Government Board.

(3) State in detail the observations and enquiries you would make in investigating a smoke nuisance, and the further evidence required to obtain an order for its permanent abatement.

(4) On receiving (as sanitary inspector) a complaint of nuisance arising from defective house drainage, and having found on inspection that the house drain is defective, state the subsequent action that should be taken.

(5) Explain in detail how you would proceed if instructed to take a sample of drinking water for analysis.

(6) Describe a cistern so constructed as to prevent pollution of water; give details as to materials, situation and pipes discharging from it.

(7) Show how you calculate the cubic contents of a room 10 ft. in height, 18 x 25 ft. in length through the centre and sloping to 6 ft. in width at one end. How many adults should be allowed to sleep in it.

(8) How should the isolation of a case of measles be carried out in a patient's own home? What conditions are necessary for its successful accomplishment?

(9) Describe in detail and sketch the best form of closet for a rural district without a sewerage system.

LEGAL DECISIONS AFFECTING MUNICIPALITIES.

TOWN OF ST. HENRI VS. L'UNION DES ABATTOIRS.—Plaintiffs by the present action claimed a sum of \$517.05, amount of special taxes for the years 1889, 1890 and 1891, upon the immovable property of defendants. The defence was to the effect that by a resolution of the 30th of November, 1880, the council of the municipality, plaintiffs, for the purpose of encouraging the construction of a public abattoir in the municipality, had granted an exemption of twenty years from taxes. In answer to this the plaintiffs alleged that the exemption was personal to Mr. Bickerdike, and did not pass to the defendants. The court held that the defendants' pretension was established, and the action was therefore dismissed.

MCNAMEE VS. CITY OF TORONTO.—By a contract between the plaintiff and the corporation of the City of Toronto, for laying a conduit pipe across Toronto Bay, it was provided that all differences, etc., should be referred to the award, order, arbitrament, and final determination of H., the superintendent in charge of said work. Held, by Chancellor Boyd, that the fact that H. being such superintendent did not disqualify him from acting as arbitrator.

E. D. MORRIS

Direct Importer and Dealer in

Best English and Canadian

PORTLAND CEMENTS

Vitrified, Paving and Fire Bricks,
Fire Clay, &c.

Offices: 36 Victoria St. - TORONTO

MUNICIPAL ENGINEERS, CONTRACTORS, AND MATERIALS.

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.

J. M. SHANLY,
M. AM. SOC. C. E.
M. CAN. SOC. C. E.
J. M. McCARTHY,
B. A. S. C.
A. M. CAN. SOC. C. E.
SHANLY & McCARTHY,
CIVIL ENGINEERS,
STANDARD BUILDING MONTREAL.
Bridges, Waterworks, Sewerage, Railways, &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.

JOHN GALT

C. E. AND M. E., M. CAN. SOC. C. E.,
Consulting Engineer.

20 Years' Practical Experience in England, United States and Canada in Civil, Sanitary, Hydraulic, and Mechanical Engineering.

SPECIALTIES:
WATERWORKS, SEWERAGE, ELECTRIC RAILWAYS.
Office: Rooms 99 and 100,
CANADA LIFE BUILDING, - TORONTO.

ALAN MACDOUGALL

M. Can. Soc. C. E. M. Inst. C. E.

Telephone
1838.

Cable Address:
M. I. C. E.

**CONSULTING CIVIL, SANITARY AND
HYDRAULIC ENGINEER**
32 East Adelaide St. - TORONTO

CEMENT

Since first manufactured, in 1811, over ONE MILLION BARRELS of the Thorold Cement have been used in the important public works constructed by the Canadian Government. Thorold Cement was used exclusively in the construction of the old and new Welland Canals.

10,000 BARRELS

of our Thorold Cement were used in the construction of the great St. Clair Tunnel, Joseph Hobson, Esq., Grand Trunk Railway, chief engineer; Wm. Gibson, Esq., M.P., contractor.

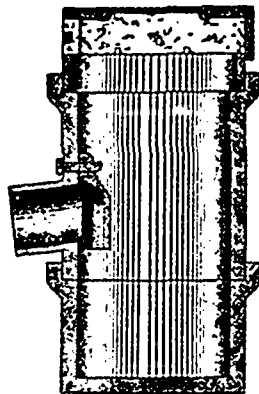
It is the best Hydraulic Cement for Abutments and Piers for Bridges, Concrete for Foundations, Cisterns, Cement Drain Pipe, Floors for Cellars and Stables, Sewers, and all Mason Work in moist or wet places.

MANUFACTURED BY

ESTATE OF JOHN BATTLE,
Thorold, Ontario.

Municipal Officers, Contractors and others are requested to mention the CONTRACT RECORD when corresponding with advertisers.

**THE "IMPROVED"
ST. GEORGE CULLEY
OR STREET DRAINING WELL.**



PATENTED 1835
AND 1893.

Made of cast iron
and
vitrified tile.
OVER 1000 NOW
IN USE.

Not ONE com-
plaint.

For further par-
ticulars, apply

LEWIS SKAIFE, Manager
707 New York Life Bldg. - MONTREAL.

PORTLAND CEMENT

BEST AND CHEAPEST IN TORONTO.

JOSSON, PETERS and BURHAM Brands for highest class work.
WHITE HORSE, R. W., IMPERIAL, &c., FROM \$2.00 PER BARREL.

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

CANADA PIPE AND FOUNDRY CO.

MANUFACTURERS OF

Cast Iron Pipes and Special Castings

Works: MONTREAL AND ST. HENRI, QUE.

CORRESPONDENCE SOLICITED.

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 Seals and Reservoir Indicators.

Send for Price Lists and Testimonials. Highly endorsed by leading Engineers.

All information furnished on application to

TORONTO STREET, TORONTO.

OFFICE: Union Loan Buildings,

A. C. WINTON, Secretary-Treas.

THE STANDARD DRAIN PIPE CO.

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



Manufacturers of

Salt-Glazed,
Vitrified

**SEWER
PIPES**

Double Strength
Railway Cul-
vert Pipes,
Inverts, Vents,

AND ALL KINDS OF FIRE CLAY GOODS.

HAMILTON AND TORONTO SEWER PIPE CO.



SEWERS,

GULVERTS,
AND

WATER PIPES.

INVERTS

Fire Brick Sewers

Write for Discounts.

HEAD OFFICE AND FACTORY: HAMILTON, CANADA.

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. A. COWAN, Room 23, 204 St. James St.

GEO. R. THOMPSON & CO.,

Agents, Winnipeg, Man.

STEVENS & BURNS

London, Ont.

To Municipal Corporations and Contractors:

... WE MANUFACTURE ...

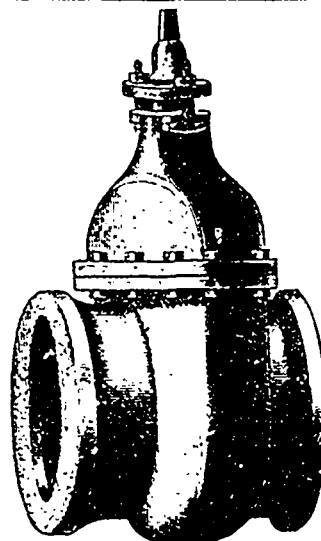
Hydrants, Valves, Valve Boxes

and Water Works Supplies generally,

INCLUDING

Tools for tapping mains under pressure

and Service Brass Work of all descriptions.



THE G. & J. BROWN MFG. CO.

Railway and Contractors' Plant.

BRIDGE BUILDERS

BELLEVILLE, ONT.

GENERAL 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.

D. BAER & CO.
 BUILDERS OF THE
 ... Bear Patent ...
COMBINATION - BRIDGE
DOON, ONT.

All communications promptly answered.

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 Officers, Contractors and others are requested to mention the CONTRACT RECORD when corresponding with advertisers.

Prices of Building Materials.

CONDITION OF THE MARKET.
 Trade in builders' supplies is assuming an aspect of brightness. The prospects for the lumber business are said to be fairly good. The feature of the cement market has been the sale of 5,000 casks of English brand for shipment during the coming season. A fair local demand is also reported. Business in paints and oils is somewhat brisk and is gradually improving, as is also the case with plumbers' supplies. A fair amount of business is reported in fire bricks, at \$18.00 to \$22.50 per thousand. Hardware and window glass are quiet, with no special feature to announce.

LUMBER.
 CAR OR CARGO LOTS.

	Toronto.	Montreal.
1 1/2 to 2 clear picks. Am ins.	33 00	36 00
1 1/2 to 2 three uppers. Am ins.	37 00	40 00
1 1/2 to 2, pickings, Am ins.	26 00	27 00
1 inch clear	52 50	60 00
3 x 4 and 12 dressing and better	20 00	20 00
1 x 10 and 12 mill run	16 00	17 00
1 x 10 and 12 dressing	20 00	20 00
1 x 10 and 12 common	13 00	14 00
1 x 10 and 12 spruce culls	10 00	11 00
1 x 10 and 12 culls	9 00	10 00
1 inch clear and picks	28 00	32 00
1 inch dressing and better	20 00	20 00
1 inch siding, mill run	14 00	15 00
1 inch siding, common	12 00	13 00
1 inch siding, ship culls	11 00	12 00
1 inch siding, mill culls	9 00	10 00
Call scantling	8 00	9 00
1 1/2 and thicker cutting up plank	24 00	26 00
1 inch strips, 4 in to 8 in. mill run	14 00	15 00
1 inch strips, common	11 00	12 00
1 1/2 inch flooring	16 00	17 00
1 1/2 inch flooring	16 00	17 00
XXX shingles, saw, per M	2 50	2 60
XX shingles, saw	1 50	1 60
Lath	2 40	2 70

YARD QUOTATIONS.

Mill cull boards and scantling	10 00	10 00
Shipping cull boards, promiscuous widths	13 00	13 00
Shipping cull boards, stocks	16 00	16 00
Hemlock scantling and joist up to 16 ft.	11 00	12 00
Hemlock scantling and joist up to 18 ft.	12 00	13 00
Hemlock scantling and joist up to 20 ft.	13 00	14 00
Cedar for block paving, per cord	5 00	5 00

Toronto. Montreal.

Cedar for Kerbing, 4 x 14, per M	14 00	14 00
Scantling and joist, up to 16 ft	14 00	14 00
" " " " " " " "	15 00	15 00
" " " " " " " "	16 00	16 00
" " " " " " " "	17 00	17 00
" " " " " " " "	19 00	19 00
" " " " " " " "	20 00	21 00
" " " " " " " "	22 00	23 00
" " " " " " " "	24 00	25 00
" " " " " " " "	27 00	27 00
" " " " " " " "	29 50	29 50
" " " " " " " "	31 00	31 00
" " " " " " " "	33 00	33 00
" " " " " " " "	34 00	36 00
Cutting up planks, 1 1/2 and thicker, dry	25 00	28 00
Cutting up planks, 1 1/2 and thicker, board	18 00	24 00
B. M.		
1 1/2 in. flooring, dressed, F. M.	26 00	30 00
1 1/2 inch flooring, rough, B. M.	18 00	22 00
1 1/2 " " " " " " " "	28 00	30 00
1 1/2 " " " " " " " "	19 00	18 00
1 1/2 " " " " " " " "	20 00	20 00
1 1/2 " " " " " " " "	18 00	18 00
1 1/2 " " " " " " " "	15 00	12 00
1 1/2 " " " " " " " "	12 00	15 00
Beaded sheeting, dressed	20 00	35 00
Clapboarding, dressed	12 00	12 00
XXX sawn shingles, per M	2 60	2 70
Sawn lath	2 50	2 60
Cedar	2 90	2 90
Red oak	30 00	40 00
White	37 00	45 00
Basswood, No. 1 and 2	28 00	30 00
Cherry, No. 1 and 2	70 00	90 00
White ash, No. 1 and 2	35 00	35 00
Black ash, No. 1 and 2	30 00	18 00
Dressing stocks	16 00	22 00
Picks, American inspection	30 00	40 00
Three uppers, Am. inspection	50 00	50 00
BRICK - M		
Common Walling	7 50	6 00
Good Facing	9 00	8 50
Sewer	8 50	9 00
Pressed Brick, Per M:		
Plain brick, f. o. b. at Milton	16 00	14 00
" " " " " " " "	14 00	14 00
" " " " " " " "	9 00	9 00
Hard Building	6 50	6 50
Moulded and Ornamental, per 100	3 00	10 00
Roof Tiles	24 00	24 00
Diamond locking tile	16 00	16 00
Red "A" f. o. b. Don Valley	18 00	25 00
Red "B" " " " "	16 00	20 00
Red "C" " " " "	15 00	17 00
Trojan and Corinthian	21 00	28 00
Pompeian	22 00	29 00
Athenian and Egyptian	25 00	31 00
Tyrian	35 00	41 00
Sicilian	40 00	45 00
Roman	35 00	40 00
Carthaginian	40 00	45 00
Ornamental	30 00	100 00
1st quality, f. o. b. at Port Credit	14 00	18 00
2nd " " " "	12 00	15 00
3rd " " " "	8 00	12 00
Hard building brick	6 50	6 50
Ornamental, per 100	3 00	10 00
SAND.		
Per Load of 1/2 Cubic Yards	1 25	1 25
STONE.		
Common Rubble, per ton, delivered	14 00	14 00
Large flat Rubble, per ton, delivered	18 00	18 00
Foundation Blocks, per c. ft.	50	50
Kent Freestone Quarries, Moncton, N. B., per cu ft., f. o. b.	1 00	1 00
River John, N. S., brown Freestone, per cu. ft., f. o. b.	95	95
Ballochmyle	80	90
New York Blue Stone	65	75
Granite (Stanstead) Ashlar, 6 in. to 12 in., rise 9 in., per ft.	25	25
Moat Freestone	70	80
Thomson's Gatelawbridge, cu. ft. Credit Valley Rubble, per car of 25 tons, at quarry	8 00	8 00
Credit Valley Brown Coursing, up to 10 inch, per sup. yard, at quarry	1 75	1 75
Credit Valley Brown Dimension, per cu. ft. at quarry	60	60
Credit Valley Grey Coursing, per superficial yard	1 50	2 00
Credit Valley Grey Dimension, per cubic foot	75	85
Madoc Rubble, delivered, per ton	14 00	14 50
Madoc dimension floating, f. o. b. Toronto, per cubic ft.	70	32
Ohio Freestone, No. 1 Blue Promiscuous, f. o. b.	60	60
No. 1 Blue Dimension	65	65
No. 1 Buff Promiscuous	80	80
No. 1 Buff Dimension	85	85
The above prices means freight and duty paid.		
2 in. sawed flagg per sq. ft.	11	13 1/2
2 1/2 " " " "	11	16 1/2
3 " " " "	11	19
4 " " " "	11	22
5 " " " "	11	27 1/2
6 " " " "	11	33
Duty to be added to these prices.		
Quebec and Vermont rough granite for building purposes, per c. ft. f. o. b. quarry	33	1 50
For ornamental work, cu. ft.	35	2 0
Granite paving blocks, 8 in. to 12 in. x 6 in. x 4 1/2 in., per M	50 00	50 00
Granite curbing stone, 6 in. x 20 in., per lineal foot	70	70
SLATE.		
Roofing (8 square)		
" " red	16 00	30 00
" " purple	9 00	10 00
" " unglazing green	8 50	6 00
" " black	8 00	7 50

Toronto. Montreal.

Terra Cotta Tile, per sq.	22 00	22 00
Ornamental Black Slate Roofing	8 00	8 00
PAINTS. (In oil, 1/2 lb.)		
White lead, Can., per 100 lbs.	6 25	6 50
" zinc, Can., " " "	6 50	7 50
Red lead, Eng.	5 1/2	6 1/2
" venetian, per 100 lbs.	1 60	1 75
" vermilion	90	1 00
" Indian, Eng.	10	12
Yellow ochre	5	10
Yellow chrome	15	20
Green, chrome	7	12
" Paris	2	40
Black lamp	15	25
Blue, ultramarine	15	20
Oil, linseed, raw, 1/2 Imp. gal.	65	68
" " boiled	68	72
" " refined	78	85
Putty	2 1/2	2 1/2
Whiting, dry, per 100 lbs.	75	1 00
Paris white, Eng., dry	90	1 25
Litharge, Am.	6 1/2	8
Sienna, burnt	15	20
Umber, " "	8 1/2	12
CEMENT, LIME, etc.		
Cement, Portland, per bbl.	2 50	2 50
" English	2 75	2 05
" Belgium	3 25	1 90
" Thorold	1 50	1 50
" Queenston	1 50	1 50
" Nanpance	1 50	1 50
" Hull	1 50	1 50
" German	2 65	2 85
" London	2 45	2 90
" Newcastle	2 35	2 50
" Belgian	2 30	2 40
" Canadian	2 25	2 30
" Roman	2 75	2 75
" Parian	4 50	4 75
" Superfine	6 50	7 00
Keene's Coarse "Whites"	4 50	4 75
Calcined plaster, per barrel	1 55	1 70
Fire Bricks, Newcastle, per M Scotch	17 50	22 00
Lime, Per Barrel, Grey	40	40
" " White	55	55
Plaster, Calcined, N. B.	2 00	2 00
" " N. S.	2 00	2 00
Hair, Plasterers', per bag	80	1 00
HARDWARE.		
Cut nails, 5c and 6c, per keg	2 40	2 25
Steel " "	2 50	2 35
CUT NAILS, FENCE AND CUT SPIKES.		
40d, hot cut, per 100 lbs	5	5
30d, " " "	10	10
20d, 16d and 12d, hot cut, per 100 lbs	15	15

Toronto. Montreal.

rod, hot cut, per 100 lbs.	20	20
8d, 9d, " " " "	25	25
6d, 7d, " " " "	40	40
4d to 3d, " " " "	60	60
3d, " " " "	1 00	1 00
2d, " " " "	1 50	1 50
4d to 3d cold cut, not polished or blued, per 100 lbs.	50	50
3d to 2d cold cut, not polished or blued, per 100 lbs.	90	90
FINE BLUED NAILS.		
3d, per 100 lbs.	1 50	1 50
2d, " " "	2 00	2 00
CASING AND BOX, FLOORING, SHOOK AND TOBACCO BOX NAILS.		
1ad to 30d, per 100 lbs.	50	50
10d, " " "	60	60
8d and 9d, " " "	75	75
6d and 7d, " " "	90	90
4d to 3d, " " "	1 10	1 10
3d, " " "	1 50	1 50
FINISHING NAILS.		
3/4 to 2 1/2 inch, per 100 lbs.	85	85
2 to 2 1/2 " " "	1 00	1 00
1 1/2 to 2 1/2 " " "	1 15	1 15
1 1/4 to 1 1/2 " " "	1 35	1 35
1 1/2 " " "	1 75	1 75
1 " " "	2 25	2 25
SLATING NAILS.		
5d, per 100 lbs.	85	85
4d, " " "	85	85
3d, " " "	1 25	1 25
2d, " " "	1 75	1 75
COMMON BARREL NAILS.		
1 inch, per 100 lbs.	1 50	1 50
3/4 " " "	1 75	1 75
3/8 " " "	2 25	2 25
CLINCH NAILS.		
1/2 and 3/4 inch, per 100 lbs.	85	85
2 and 3/4 " " "	1 00	1 00
1 1/2 and 1 3/4 " " "	1 15	1 15
1 1/4 and 1 1/2 " " "	1 35	1 35
1 1/2 " " "	2 00	2 00
1 " " "	2 50	2 50
SHARP AND FLAT PRESSED NAILS.		
3/4 inch, per 100 lbs.	1 35	1 35
2 1/2 and 2 3/4 " " "	1 50	1 50
2 and 2 1/4 " " "	1 65	1 65
1 1/2 and 1 3/4 " " "	1 85	1 85
1 1/4 " " "	2 50	2 50
1 " " "	3 00	3 00
Structural Iron:		
Steel. csm, per 100 lbs.	2 75	2 90
" channels, " "	2 65	2 60
" angles, " "	2 50	2 30
" tees, " "	2 80	2 65
" plates, " "	2 55	2 35
Sheared steel bridge plate	2 25	2 35

INDEX TO ADVERTISEMENTS

In the "Canadian Architect and Builder."

Architects.	Cements.	Hydraulic Engines	Roofing Materials
Ontario Directory... III	Bremner, Alex. iv	Guest & Co. xii	Merchant & Co. ii
Quebec Directory... ii	Currie & Co., W. & F. P. ... xii	Heating.	Metallic Roofing Co. vii
Architectural Sculptors and Carvers.	Estate of John Battle iv	McClary Mfg. Co. xi	Warren Chemical & Mfg. Co. ii
Maguire Bros. i	Maguire Bros. i	Gurney Foundry Co. xii	Roofers
Morris, E. D. vi	Morris, E. D. vi	King & Son, Warden. xi	Douglas Bros. II
Vokes Hardware Co. viii	Vokes Hardware Co. viii	Miller Bros. & Toms. xii	Duthie & Sons, G. II
Church Reflectors	Church Reflectors	Toronto Radiator Mfg Co. v	Hutson, W. D. II
Frink, I. P. II	Frink, I. P. II	Lime.	Metallic Roofing Co. vii
Contractors' Plant and Machinery	Contractors' Plant and Machinery	Currie & Co., W. & F. P. xii	Rennie & Son, R. II
Rice Lewis & Son. IV	Rice Lewis & Son. IV	Morris, E. D. vi	Stewart, W. T. II
Rowe, Geo. II	Rowe, Geo. II	Legal.	Williams & Co., H. II
Cut Stone Contractors.	Cut Stone Contractors.		