

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.

AUGUST 31, 1893

No. 28

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 2399.

Information solicited from any part of the Dominion regarding contracts opens 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. 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.

Grand Trunk Railway.

UNION STATION

TENDER FOR WORKS

Sealed tenders addressed to Edmund Wragge, Union Station, Toronto, will be received up to noon on Saturday, the 9th September, for all the work (except plumbing) in the erection of an Addition to the present South Block of the Union Station and for removing the Brick Gable Ends of the Train Shed.

Plans, Specifications and form of Contract can be seen, and forms of Tender obtained at the office of Messrs. Strickland & Symons, architects, 18 Toronto Street, Toronto.

The Company does not bind itself to accept the lowest or any tender.

L. J. SEARGEANT,
General Manager.

Montreal, 30th August, 1893.

TENDERS.

Sealed tenders will be received by the undersigned up to

Monday, the 4th day of September, 1893,

for the lighting of the streets of the town of Newmarket by electricity. For particulars apply to the undersigned.

DAVID LLOYD,
Town Clerk.

August 23rd, 1893.

TENDERS WANTED

Tenders will be received at the office of the undersigned until noon on TUESDAY, SEPT. 14TH, 1893, for a BRICK AND STONE BUILDING at East Toronto. Plans, &c., can be seen on and after Tuesday, Sept. 5th. The lowest or any tender will not necessarily be accepted.

POST & HOLMES, Architects.
Manning Arcade, Toronto.



Notice to Contractors

Tenders will be received by registered post, addressed to the City Engineer, Toronto, up to 11 o'clock a.m. on MONDAY, THE 4TH DAY OF SEPTEMBER, 1893, for the construction of the following track allowance pavements:

STONE SETS ON CONCRETE FOUNDATION

Church street, from Front street to Queen street.

Front street, from Church street to Simcoe street.

Yonge street, from Front street to King street.

Specifications may be seen and forms of tender obtained on and after Wednesday, August 30th, 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 25 per cent. on the value of the work tendered for, 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, August 23, 1893.



Notice to Contractors

ASHBRIDGE'S BAY IMPROVEMENTS.

Tenders will be received by registered post, addressed to the City Engineer, Toronto, up to 11 o'clock a.m. on MONDAY, THE 11TH SEPTEMBER, 1893, for the construction of

A JETTY

IN CONNECTION WITH THE IMPROVEMENTS IN

ASHBRIDGE'S BAY.

Specifications may be seen and forms of tender obtained on and after Thursday, August 31st, 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 25 per cent. on the value of the work tendered for, must accompany each and every tender, otherwise it will not be entertained.

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

DANIEL LAMB,

Chairman Committee on Works.
Committee Room, Toronto, August 30, 1893.

CONTRACTS OPEN.

ATHENS, ONT.—A new Catholic church will be erected here this fall.

CREEMORE, ONT.—The Methodists contemplate the erection of a new parsonage.

MONTE BELLO, QUE.—The R. C. congregation have decided to erect a new church.

SPRINGHILL, N. S.—The town Council is desirous of purchasing a chemical fire engine.

SMITHS FALLS, ONT.—A by-law to raise the sum of \$5,000 for street improvements has been carried by the ratepayers.

OWEN SOUND, ONT.—The Council has decided to construct a 15 inch sewer on Paynter street, from West street to the river.

GAINSBORO, ONT.—By-laws have been passed by the Township Council to raise the sum of \$1,100 for the erection of two new schools.

MINNEDOSA, MAN.—Arrangements are being made for the erection of a combined curling and skating rink. The cost is estimated at about \$1,500.

ST. JOHNS, QUE.—The St. Johns Stone Chinaware Company have applied to Council for a bonus of \$25,000 to aid in rebuilding their pottery in this town.

GUELPH, ONT.—D. Scroggie, Chairman Finance Committee, will receive proposals until the 15th of September for the purchase of \$13,000 worth of debentures.

NIAGARA FALLS, ONT.—It is said to be the intention of Capt. Carter, of this place, to purchase a site and erect a summer residence on Lake Joseph, Muskoka.

CALGARY, N. W. T.—Tenders are invited by Wm. Short, Secretary School Board, until the 15th of September for the purchase of \$6,000 worth of school debentures.

CLINTON, ONT.—The trustees of Ontario street Methodist church, are considering the propriety of removing the present pews and seating the church with assembly chairs.

ARNPRIOR, ONT.—A movement is on foot to establish a pulp factory, American capitalists being interested. Some difficulty is experienced in securing a site.

The Methodist congregation propose building a new church to cost about \$10,000.

BEAMSVILLE, ONT.—Messrs. Wm. Tallman & Son have purchased the Henry block recently destroyed by fire and will erect a fine block of stores, with pressed brick front. Building will be proceeded with at once.

QUEBEC, QUE.—The directors of the Quebec Central Railway have decided to construct a branch line in the direction of Lake Megantic.—A shoe factory is to be established by Messrs. George Roy, A. D. Cimon and R. O. Vignala.

WINNIPEG, MAN.—It is stated on good authority that the head offices of the Hudson Bay Company will be changed from

London to this city, and that the company will erect new buildings.—The site is being prepared for the proposed new elevator.

HALIFAX, N. S.—The City Council has decided to call for tenders for lighting the streets by electricity, tenders to be received up to the 15th of September.—The City Treasurer invites tenders until the 21st of September for the purchase of \$75,000 worth of sewerage and waterworks debentures.

LISTOWEL, ONT.—W. E. Binning, architect, is preparing plans for a large foundry to be erected here this fall. The buildings will comprise a machine shop, show room, blacksmith shop and moulding room, and will be built of white brick with fireproofing. Contracts will be awarded early in September.—Mr. Binning is also preparing plans for a Presbyterian church to be erected next year at Belgrave, estimated cost, \$3,000

HAMILTON, ONT.—Messrs. Wm. Stewart & Son, architects, invite tenders this week for the erection of a three-story business building.—Building permits have been granted as follows: E. H. C. Parkin, two-story brick dwelling on Crooks street, between Barton street and the Grand Trunk Railway, cost \$1,000; John Riach two two-story brick dwellings on Young street, between John and Hughson streets, cost \$2,100; W. F. Burton, two two-story brick dwellings on Robinson street, between Caroline and Hess streets, cost \$2,700.

LONDON, ONT.—The City Council has given notice of its intention to construct a sewer on Dufferin avenue, between Waterloo and Colborne streets, cost \$375, and a tile drain on English street, between Dundas street and Carling's Creek, cost \$600.—The joint report of Engineer Jennings on behalf of the city, and Chief Engineer Hobson, of the G. T. Railway, places the estimated cost of putting the London and Port Stanley Railway into proper condition at \$127,000. This includes new iron bridges over Mill and Kettle Creeks, the raising of the Port Stanley bridge, and repairs to culverts.

TORONTO, ONT.—It is supposed that a new Lifeboat station will be erected at an early date, as the old one is to be removed. The new station will likely be a two story building.—The City Council has given notice of its intention to construct an asphalt pavement on Blecker st., from Carlton to Wellesley streets.—A movement has been commenced to establish a crematory in this city. Mr. F. E. Titus barrister, is the prime mover. It is proposed to incorporate a company with a capital of \$10,000. The building contemplated is to be built of dark brown sandstone, with square tower and steep slanting roof.—A meeting of the promoters of the Hurontario canal schemes was held on Tuesday evening last. It was announced that steps had been taken to form a company and that a conference of the ratepayers in the municipalities interested would be held at an early date.

MONTREAL, QUE.—The Minister of Public Works, after an inspection of the prison building in this city, has decided to erect an addition to the building.—Tenders are invited by the Harbor Commissioners until noon on Tuesday, the 5th. September, for supplying the following timber: 4,000 cubic feet of square pine timber; 10,000 cubic feet of square hemlock timber; 5,500 lineal feet of round and flat pine timber and 45,000 lineal feet of round and flat hemlock timber. Particulars may be obtained from Alexander Robertson, Secretary.—The Council of Cote St Antoine has passed by-laws authorizing the issue of debentures to the amount of \$250,000 for making permanent improvements.—The Board of Health, at a meeting held last week, decided to call for tenders for the construction of three incinerators, to cost between \$140,000 and \$150,000.—Tenders will be awarded in a few days for the construction of a number of sewers, tenders for which were asked during this week.

OTTAWA, ONT.—Incorporation has been granted to the Jews of Ottawa, under the name of "The Sons of Jacob." A hall will be rented until the company are in a position to build a synagogue.—Mr. H. J. Beemer, President of the Gatineau and Pontiac Pacific railways, has ordered the preparation of plans for constructing a bridge across the Ottawa river at Nepean point. A preliminary survey for this work was made some five or six years ago. It is also said that the Pontiac Pacific road will be pushed at the other end of the line, and a new bridge also constructed over the river at Pembroke.—E. F. E. Roy, Secretary Department of Public Works, invites tenders until Friday, the 29th of September for the construction of a wharf at Grand Etang, Inverness County, N. S. Plans may be seen at the post office at Grand Etang, and at the above department in this city.—The Joint Bridge Committee of the City of Hull and Gatineau Point has decided to call for tenders for the erection of the bridge across the Gatineau river, tenders to be sent in by the 15th of September.

CONTRACTS AWARDED.

GUELPH, ONT.—Mr. Thos. Matthews has secured the contract for the new buildings at the Ontario Experimental Farm.

PETERBORO', ONT.—The contract for constructing a new bridge over the Otonabee river at Smith street has been awarded to Mr. Chas. Wynne.

OTTAWA, ONT.—The contract for furnishing three new tubular boilers for the Parliament buildings has been awarded to Mr. W. J. Campbell, of this city.

PEMBROKE, ONT.—Mr. James Shearer has been awarded the contract for heating apparatus for the new County buildings. The price is in the neighborhood of \$3,000.

KINGSTON, ONT.—The contracts for the new buildings at Rockwood asylum have been awarded as follows: For the new infirmary, A. Cameron, carpentry; McKelvey & Birch, plumbing; Robinson Bros., painting; A. Chown & Co., hardware. For the root house, A. Newlands, mason work; A. Cameron, carpentry.

TORONTO, ONT.—The Board of Works awarded contracts for pavements as follows on Saturday last. Asphalt, Parliament street, from Gerrard to Carlton, Warren-Scharff Company, \$5,858; College street, from McCaul to Bathurst, Construction & Paving Co., \$23,378. Brick pavement, Dundas street, from Arthur to Jameson avenue, Shannon, Williams & Co., \$23,326. College street, from Bathurst to Dufferin, McKeown & Co., \$25,973.—The Harbor Commissioners have awarded the contract for crib work and piling at the western gap of Toronto bay to Messrs. Medlar & Arnot.

BIDS.

WILLODALE ONT.—The following were the tenders received for building 1 1/4 miles of 4 ft. sidewalk on the Davenport Road as advertised in CONTRACT RECORD on 17th inst., per hundred ft. board measure: Jones, \$22.00; Burns & McCormack, \$20.90; Cleland, \$20.00; Le Roy, \$19.95;

Hendrick, \$19.90; Hamlyn, \$19.90; Johnston, \$16.50; Ed. Graham, \$19.50; O'Brien, \$19.00; Brennan, \$18.75; Stewart, \$18.64; Kingsbury, \$18.50; T. Graham, \$18.45; Cathro, \$18.45; Kenney, \$18.00. The Engineer will make his report to the York Tp. council on Monday next, when the Council will decide to whom the contract shall be awarded.

MONTREAL, QUE.—The Road Committee have awarded contracts for the construction of sewers as follows: Chartier & Robert, Chenneville street, from Laguchetiere to Dorchester streets, 3x2 brick, \$6.47 per lineal yard, rock excavation \$3.50 per cubic yard: St. Famille street, from Prince Arthur street to Pine avenue, \$5.57, excavation, \$3.74; Metcalfe street, from Dorchester to St. Catherine streets, \$7.37, excavation \$3.50. M. Gossein, St. Hubert street, from Ray street to south line of St. Jean Baptiste ward, \$5.23, excavation \$3.50. St. Jean lane, from Fullum lane to Archambault lane, \$8.50, excavation \$4; Logan street, from Shaw street to de Lorimier avenue, \$6.99, excavation \$4, Pantaleon street, from end of existing sewer northward to Prince Arthur street, \$4.89, excavation \$4. C. Bellheumer, Dufresne street, from Logan street northward to end of existing sewer, \$6.99, excavation \$4. The contracts for Dulth ave., Rachel and St. Hubert streets, were left in the hands of the City Surveyor for a report.—Messrs. Bourgoun & Cadieux have been awarded the contract for the erection of six patrol stations, at the lump sum of \$17,800.

FIRES.

Mr. O. L. Hick's boathouse at Humber Bay was burned last week. Loss, \$3,000; partially insured.—The Edison Fitches Company's match splint factory at Etchemin, Que., was totally consumed by fire recently; insurance, \$19,700. The work of rebuilding will be commenced at once.—Miller Bros' paper mill at Glen Miller, Ont., about four miles from Trenton, was destroyed by fire on the 26th inst. The mill was valued at \$100,000, and was very lightly insured.—Latham & McCulloch's fancy goods store on Barrington street, Halifax, was burned on Monday last. Loss \$5,000, covered by insurance.—W. L. Lyall's tailor shop at Portage la Prairie, Man., has been destroyed by fire. Loss, \$2,000.—Rolph Smith, lithographing establishment, Toronto, was damaged by fire recently to the extent of \$30,000. The damage to machinery is placed at \$10,000. Insurance on building \$14,000.—The Haras National stables at Montreal, were destroyed by fire last week. Loss, \$50,000.—The large building at Montreal, occupied by the Empire tobacco factory was burned to the ground a few days ago. Loss between \$40,000 and \$50,000, said to be fully covered by insurance.—The dwelling house and store of L. H. Jenks, at Coaticook, Que., was burned on the 23rd inst. Loss covered by insurance.—R. Pincombe's oatmeal and cornmeal mill at Strathroy, was consumed by fire on the 25th inst. The building was of frame, five stories in height, with brick engine room and steam klin. Loss, \$20,000, partly covered by insurance.—John Hann & Sons' saw mill at Ten Mile Lake, near Rosseau, Ont., was burned on Tuesday last. Loss \$3,000, no insurance.—The R. & O. Company's shops at Sorel, Que., have been totally destroyed by fire. Loss on buildings and machinery, \$50,000.—A four-story building at 85 St. James street, Montreal, owned by Judge Cross, was almost completely destroyed by fire on Tuesday last. Loss on building and stock \$150,000.

SLATING FOR BLACKBOARDS.—There are quite a number of ways of doing this class of work. The great secret in putting up a good blackboard is to use no oil of any description in any of the coats. If it is plastered or papered surface you wish to slate, first give it a coat of glue size, then rub it down lightly with fine sand-paper, then give it a coat shellac varnish and lamp black enough to give it a fair body. If on wood omit the sizing. Then

give it two coats of either of the following:—1. Two quarts of alcohol, 1/2 pound shellac, 12 drachms lamp black, 20 drachms ultramarine blue, 4 ounces powdered Rochelle salts, 6 ounces powdered pumice stone. 2. One gallon of alcohol, 1 pound shellac, 1/2 pound ivory black, 5 ounces emery flour, and 4 ounces ultramarine blue. 3. Take equal parts of pumice stone and red lead, and grind them in a mixture of turpentine and best varnish; add enough lamp black to make a dark color, then thin with turpentine until it is perfectly flat. Apply with a brush and plend over. 4. One gallon of wood naphtha, 1 pound of shellac, 4 ounces ultramarine blue, 1 1/2 pounds soft water, 2 ounces pumice stone and powdered emery. The wood naphtha is cheaper than alcohol, and does as well. 5. One gallon shellac varnish, 4 pounds black manganese, 2 pounds soft water. All the above must be kept well stirred while using them, and when you are through put what you have left in a bottle and cork it up, and it will keep for a long time. If, at any time, the slating is too thick, mix with alcohol.

BUSINESS NOTES.

McGuire & Bird, plumbers, Toronto, have assigned to F. Barton.

Depatie & Pelteer will carry on a plastering business in Montreal.

The firm of John Sim & Co., plumbers and steam fitters, Toronto, has been dissolved.

Naylor & Son, plumbers, of Halifax, N. S., have opened a branch store in Dartmouth.

Henry Pepin, contractor, Montreal, has assigned, with liabilities estimated at \$30,000.

J. B. Mailhoit & Fils, contracting plasterers, Montreal, have assigned with liabilities of \$6,277.

Alexander Coallier and Louis Tauthier, Montreal, have formed a partnership as builders and contractors.

Messrs. Briggins, Clarkson & Co., contractors and builders, Woodstock, Ont., have dissolved partnership.

James McShane and James Devine, of Montreal, have formed a partnership to carry on a general plumbing business in that city.

Messrs J. B. Matson & H. W. Matson, builders and contractors, of Toronto, have dissolved partnership, Mr. H. W. Matson continuing the business under the style of Matson & Son.

MUNICIPAL DEPARTMENT.

STABLES IN CITIES.

It is justly claimed by physicians that stables in cities, unless very carefully handled, are dangerous to the public health. In the June *Sanitarian* the dangerous condition of the stables in New York and Brooklyn, as now conducted, are pointed out. It is shown by the recent report of Dr. Tracey, chief of the Bureau of contagious diseases, to the New York Health department, that the death rate is considerably higher in houses located near stables than in those further removed; this increased death rate is particularly noticeable among children.

The editor of the *Sanitarian* makes the following comment on these reports, which the *Southern Architect* desires particularly to impress upon the health authorities of Atlanta and other southern cities:

That it is in the power of the health authorities to prevent the danger of stables to health cannot be doubted by any one who will take the pains to inform himself on the subject. As frequently pointed out in these pages, the danger consists primarily, for the most part, in the construction of stables with basements and areas around the walls used for storage of manure, with open grating over, between the walls and the pavement, permitting the escape of foul odors and mephitic gases: vaults, usually under the

pavement, for mature storage; porous and commonly undrained floors; too long keeping and piling up manure in the stables, as well as in the areas and vaults until it purifies, and the most intolerable nuisance of all—the process of delivering the manure from the areas, vaults and stables, across the pavements, to carts in the streets, offending the whole neighborhood! Why, in the exercise of common sense, should not the cart be compelled to load up in the stables instead of the streets? Is it because the stirring up of the too-long-retained manure in the stables and vaults for such delivery would be stifling to the stable men and horses, and the health authorities' greater concern for the comfort and health of the stable men and horses than for the people roundabout? Have not the health authorities the power to prevent such accumulations, to prohibit storing manure in areas, vaults and piles, promotive of its putrefaction—authority to require more frequent removals, and that the carts be loaded up and covered in the stables, instead of the streets?

Gas Tar Macadam Roads are built in Harrowgate, England, in the following manner, according to the Borough Engineer, B. Stead: The foundation material is first prepared by forming a heap of 2 1/4 inch broken limestone 6 feet wide, 15 to 18 inches high, and of any convenient length. A fire of wood and cinders is then made on top and the stones gradually turned over until all are at the same temperature. The stone is then spread on an iron plate while warm and mixed with gas tar, after which it is stacked in a heap for a few months. The surface material is formed by preparing a 9-inch bed of furnace ashes. This bed is 6 feet wide and 12 to 15 feet long, and is covered by one of the same dimensions, but of 3/8-inch stone. A fire is then kindled on the stone covered with ashes and allowed to burn three or more days. A pan is afterwards formed, as in slaking lime, with 6 inches of material on the ground and tar enough poured on to thoroughly coat the separate pieces. This material is allowed to stand for about 12 hours after the tar has been mixed into it, and is then mixed again. In forming a roadway a 3-inch layer of the foundation stone is first put down and rolled with a 10-ton steam roller, after which enough 3/4-inch chippings are spread over the top to even up the surface. These chippings are rolled and then covered with a thin layer of the surface material, chippings and ashes. This is rolled and the surface finished with a thin sprinkling of fine, well rolled limestone screenings.

DEBENTURES WANTED.

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

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

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.

MUNICIPAL ENGINEERS, CONTRACTORS, AND MATERIALS.

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.

ISAAC USHER & SON, THOROLD, ONT. Manufacturers of

QUEENSTON CEMENT

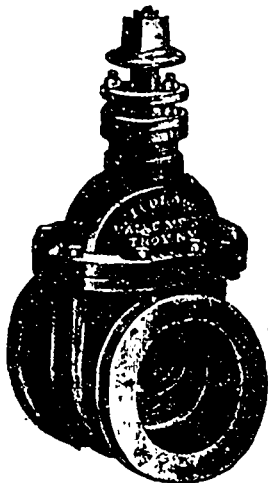
Proved by Government tests to be the best Canadian natural cement. Write for prices, &c.

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

To Corporations and Contractors

THE CELEBRATED

LUDLOW VALVES



Double Stuffing Box, Compound Wedge, Double Disk,

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.

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

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.

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.

Drummond McCall Pipe Foundry Company,

MONTREAL MANUFACTURERS OF

CAST IRON WATER AND GAS PIPES

WORKS: LACHINE, QUE. PRICES ON APPLICATION.

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 "GRANTRYX" SMOKE TEST AND DISINFECTING MACHINE.

Ontario Water Meter Co., Ltd.

MANUFACTURERS OF

WATER METERS



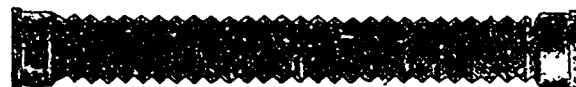
Meter Supports, Dial Extensions, Fixture Locks, Water Cart Registers, Strainers, Coupling Seals and Reservoir Indicators.

Send for Price Lists and Testimonials. 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.

CORRUGATED SOIL PIPE AND FITTINGS (PATENTED)



This improvement marks an era in sanitary reform. Universal certifies 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. 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 ...

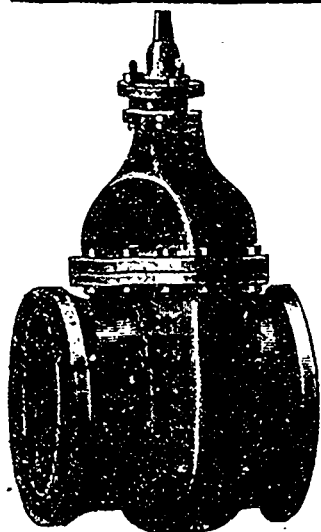
Hydrants, Valves, Valve Boxes

and Water Works Supplies generally,

INCLUDING

Tools for tapping mains under pressure

and Service Brass Work of all descriptions.



THE 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:
MORAE & 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.
1 1/2 x 12 clear picks, Am ins.	34 00	40 00
1 1/2 x 12 three uppers, Am ins.	37 00	40 00
1 1/2 x 12 pickings, Am ins.	27 00	27 00
1 1/2 x 12 clear	52 50	60 00
1 1/2 x 10 and 12 dressing and better.	20 00	18 00
1 1/2 x 10 and 12 mill run.	13 00	14 00
1 1/2 x 10 and 12 dressing.	15 00	16 00
1 1/2 x 10 and 12 common.	12 00	8 00
1 1/2 x 10 and 12 spruce culls.	10 00	10 00
1 1/2 x 10 and 12 maple culls.	9 00	9 00
1 1/2 inch clear and picks.	28 00	33 00
1 1/2 inch dressing and better.	18 00	20 00
1 1/2 inch siding, mill run.	16 00	14 00
1 1/2 inch siding, common.	13 00	12 00
1 1/2 inch siding, ship culls.	12 00	10 00
1 1/2 inch siding, mill culls.	8 00	8 00
Cull scantling.	8 00	8 00
1 1/2 inch and thicker cutting up plank.	22 00	25 00
1 1/2 inch strips, 4 in. to 8 in. mill run.	14 00	15 00
1 1/2 inch strips, common.	11 00	12 00
1 1/2 inch flooring.	15 00	14 00
1 1/2 inch flooring.	15 00	16 00
XXX shingles, sawn, per M	2 50	2 60
XX shingles, sawn.	1 50	1 60

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.	12 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
Scantling and joist, up to 16 ft	15 00	14 00
" " " " " " " "	18 00	15 00
" " " " " " " "	20 00	16 00
" " " " " " " "	22 00	17 00
" " " " " " " "	24 00	19 00
" " " " " " " "	26 00	21 00
" " " " " " " "	28 00	23 00
" " " " " " " "	30 00	25 00
" " " " " " " "	32 00	27 00
" " " " " " " "	34 00	29 00
" " " " " " " "	36 00	31 00
" " " " " " " "	38 00	33 00
" " " " " " " "	40 00	35 00

	Toronto.	Montreal.
Cutting up planks, 1 1/2 and thicker, dry.	25 00	26 00
Cutting up planks, 1 1/2 and thicker, board.	18 00	18 00
Cedar for block paving, per cord.	5 00	5 00
Cedar for Kerbing, 4 x 14, per M.	14 00	14 00
1 1/2 in. flooring, dressed, F.M.	31 00	31 00
1 1/2 inch flooring, rough, B.M.	28 00	28 00
1 1/2 " " " " " " " "	30 00	30 00
1 1/2 " " " " " " " "	19 00	19 00
1 1/2 " " " " " " " "	18 00	18 00
1 1/2 " " " " " " " "	15 00	15 00
1 1/2 " " " " " " " "	12 00	12 00
Headed sheeting, dressed.	35 00	35 00
Clapboarding, dressed.	12 00	12 00
XXX sawn shingles, per M	2 65	2 75
18 in. " " " " " " " "	2 50	2 60
Sawnlath.	2 90	2 90
Red oak.	30 00	40 00
White.	35 00	45 00
Basswood, No. 1 and 2.	18 00	20 00
Cherry, No. 1 and 2.	70 00	70 00
White ash, No. 1 and 2.	25 00	30 00
Black ash, No. 1 and 2.	18 00	20 00
Dressing stocks.	16 00	16 00
Picks, American inspection.	40 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	
" " " " " " " "	8 00	
Hard Building.	4 50	
Moulded and Ornamental, per 100.	3 00	10 00
Roof Tiles.	24 00	
Diamond locking tile.	16 00	

First quality, f. o. b. at Campbellville.

2nd quality, f. o. b.	14 00	20 00
3rd	12 00	17 00
Ornamental, per 100.	3 00	10 00
Tiles.	24 00	26 00

Plain brick, "A" f. o. b. Don Valley

" " " " " " " "	18 00	25 00
" " " " " " " "	16 00	22 00
" " " " " " " "	15 00	18 00
Trojan or Buff.	24 00	30 00
Ornamental, per 100.	3 00	60 00

Plain brick, f. o. b. Port Credit

" " " " " " " "	18 00	
" " " " " " " "	13 00	
" " " " " " " "	10 00	
Hard Building.	8 00	
Ornamental, per 100.	3 00	10 00

SAND.

Per Load of 1/4 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	
River John, N. S., brown Freestone, per cu. ft., f. o. b.	80	95
Ballochmyle.	80	65
New York Blue Stone.	1 05	75
Granite (Stanstead) Ashlar, 6 in. to 12 in., rise 9 in., per ft. Moat Freestone.	70	80
Thomson's Gatelawbridge, cu. ft.	75	80
Credit Valley Rubble, per ton, delivered.	13 00	14 00
Credit Valley Brown Coursing, per superficial yard.	2 50	3 00
Credit Valley Brown Dimension, per cubic foot.	90	90
Credit Valley Grey Coursing, per superficial yard.	1 50	2 00
Credit Valley Grey Dimension, per cubic foot.	75	80
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	
No. 1 Blue Dimension.	65	
No. 1 Buff Promiscuous.	85	
No. 1 Buff Dimension.	85	

The above prices means freight and duty paid.

2 in. sawed flagging per sq. ft.

2 1/2 "	11	
3 "	13 1/2	
4 "	16 1/2	
5 "	22	
6 "	27 1/2	
8 "	33	

Duty to be added to these prices.

Quebec and Vermont rough granite for building purposes, per c. ft. f. o. b. quarry

For ornamental work, cu. ft.	33	1 50
Granite paving blocks, 8 in. to 12 in. x 6 in. x 4 1/2 in., per M	35	2 00
Granite curbing stone, 6 in. x 20 in., per lineal foot.	50 00	

SLATE.

Roofing (8 squares)		
" " red.	16 00	20 00
" " purple.	9 00	10 00
" " unslating green.	8 50	6 00
" " black.	8 00	7 50
Terra Cotta Tile, per sq. ft.	22 00	
Ornamental Black Slate Roofing.	8 00	

PAINTS. (In oil, 1/2 lb.)

White lead, Can., per 100 lbs.	6 25	6 50
" " " " " "	6 50	7 50
Red lead, Eng.	5 1/2	6 1/2
" " venetian, per 100 lbs.	1 60	1 60
" " vermilion.	9 00	9 00
" " Indian, Eng.	10	10
Yellow ochre.	5	4
Yellow chrome.	15	20
Green chrome.	7	12
" " Paris.	25	40

	Toronto.	Montreal.
Black lamp.	15	25
Blue, ultramarine.	15	20
Oil, linseed, raw, & Imp. & Sif.	65	63
" " " " " " " "	68	71
" " " " " " " "	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	
" " English	2 75	
" " Belgium	3 25	
" " Thorold	50	
" " Queenston	2 21	
" " Napanee	1 50	
" " Hull	1 50	
" " Germar	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	
" " 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	20 00	24 00
" " Scotch	30 00	35 00

Lime, Per Barrel, Grey.

" " White.	55	
Plaster, Calcined, N. B.	2 00	
" " " " " "	2 00	
Hair, Plasterers', per bag.	80	1 00

HARDWARE.

Cut nails, 5 d & 6d, 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
10d, hot cut, per 100 lbs.	20	20
8d, 9d, " " " "	25	25
6d, 7d, " " " "	40	40
4d to 5d, " " " "	60	60
3d, " " " "	1 00	1 00
2d, " " " "	1 50	1 50
4d to 5d cold cut, not polished or blued, per 100 lbs.	50	50

	Toronto.	Montreal.
3d to 5d cold cut, not polished or blued, per 100 lbs.	90	90

PINK BLUED NAILS.

3d, per 100 lbs.	1 50	1 50
2d, " " " "	2 00	2 00

CASING AND BOX, FLOORING, SHOOK AND TOBACCO BOX NAILS.

12d to 30d, per 100 lbs.	50	50
20d, " " " "	60	60
10d and 9d, " " " "	75	75
6d and 7d, " " " "	90	90
4d to 5d, " " " "	1 10	1 10
3d, " " " "	1 50	1 50

FINISHING NAILS.

3 1/2 inch, per 100 lbs.	85	85
2 1/2 to 2 3/4 " " " "	1 00	1 00
2 to 2 1/4 " " " "	1 15	1 15
1 1/2 to 1 3/4 " " " "	1 35	1 35
1 1/4 " " " "	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.

3 1/2 inch, per 100 lbs.	85	85
2 1/2 and 2 3/4 " " " "	1 00	1 00
2 and 2 1/4 " " " "	1 15	1 15
1 1/2 and 1 3/4 " " " "	1 35	1 35
1 1/4 " " " "	2 00	2 00
1 " " " "	2 50	2 50

SHARP AND FLAT PRESSED NAILS.

3 1/2 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 beams, per 100 lbs.	2 75	2 50
" " channels,	2 85	2 50
" " angles,	2 50	2 50
" " 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. Ontario Directory... III Quebec Directory... vi	Church and School Furniture. Bostwick, Geo. F... xv Can. Office & School Furniture Co... v Office Specialty Co... v	Grates and Tiles. Bostwick, G. F... xv Holbrook & Mollington i Webster Bros. & Parkes i Rice Lewis & Son... IV	Pipe Covering. Can. Mineral Wool Co. vii
Architectural Sculptors and Carvers. Carnovsky, B. H... IV Hicks, W. Stevens... III Holbrook & Mollington... i Wagner, Zeidler & Co... xii	Cements. Adamant Mfg. Co... viii Bremner, Alex... iv Currie & Co. W & F P... xvi Estate of John Battle iv McNally & Co., Wm. iv Maguire Bros... i Morris, E. D... viii Rathbun Co... viii Usher & Son, Isaac... iv Webster Bros. & Parkes i	Heating. Bigley, R... xv Burroughes & Co. W J xi Clare Bros & Co... x Manny & Co., E. A... xv McDougal & Co. R... x Ives & Co., H. R... xii King & Son, Warden... xv McClary Mfg. Co... xiv Miller Bros. & Toms... vii Robb Engineering Co. xiv Toronto Radiator Mfg Co... xiii	Roofing Materials. Merchant & Co... II Metallic Roofing Co... ix
Architectural Iron-Work. Bostwick, Geo. F... xv B. Greening Wire Co. III Dennis, R... II Dominion Bridge Co. I Ives & Co., H. R... xii Lea, Joseph... xvi Meadows, Geo. B... II Whitfield, John... II	Contractors and Builders. Davidson & Kelly... II Turner & Co., G. W... vi	Iron Pipe. King & Son, Warden... xv	Sanitary Appliances. Malcolm, W. B... ii St. Johns Stone China-ware Co... iii S. Mfg. Co... xi Toronto Steel Clad Bath & Metal Co... II
Architects' Supplies. Hearn & Harrison... vi	Contractors' Plant and Machinery. Copland & Co... II Rice Lewis & Son... IV Rowe, Geo... II	Legal. Denton & Dods... IV	Roofers. Douglas Bros... II Duthie & Sons... II Hutson, W. D... II Metallic Roofing Co... ix Rennie & Son... II Stewart, W. T... II Williams & Co... II
Art Woodwork. Carnovsky, B. H... IV Knechtel, S... xvi Ransom & Co., C. S... xii Wagner, Zeidler & Co... xii	Contractors' Plant and Machinery. Copland & Co... II Rice Lewis & Son... IV Rowe, Geo... II	Lumber. Richardson, Walker & Co... ii	Shingle Stains. Cabot, Samuel... II
Bricks (Pressed). Beamsville Pressed Brick Co... ii Don Valley Pressed Brick Works... ix Morris, E. D... viii Toronto Pressed Brick & Terra Cotta Co...			