

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL

PUBLIC WORKS • TENDERS •
ADVANCE INFORMATION •
AND MUNICIPAL PROGRESS

EVERY THURSDAY

This paper reaches every week the Town and City Clerks, Town and City Engineers, County Clerks and County Engineers, Purchasers of Municipal Debentures and leading Contractors in all lines throughout Canada.

VOL. 6.

APRIL 18, 1895

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.

*New York Life Insurance Building, Montreal.
Bell Telephone 2299.*

*Information solicited from any part of
the Dominion regarding contracts open to
tender.*

Advertising Rates on application.

*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.*

TENDERS FOR DEBENTURES

The Municipal Council of the City of Nanaimo invite proposals up to MONDAY, 29TH APRIL, 1895, endorsed "Tender for Debentures," for the purchase of

\$10,500.00 DEBENTURES

issued under the authority of the Commercial Filling By-Law, 1894. The Council reserves the right to select the highest or any proposal.

S. GOUGH, City Clerk.

Nanaimo, B. C., 22nd March, 1895.

TO CONTRACTORS



Tenders will be received by the undersigned up to noon on

Thursday, May 2nd, 1895

For the following works:

CONCRETE SIDEWALK

on Dunlop street, from Mulcaster street to Clapperton street (both sides, excepting in front of the Dominion Building and John Plaxton's store) about 2000 lineal feet of sidewalk 12 feet wide.

TELFORD PAVEMENT

on Dunlop and Elizabeth streets, from Mulcaster street to John street, about 1600 lineal feet of roadway 44 feet wide.

DRAINAGE

Nine inch tile drain on Worsley street, from Poyntz street to Mulcaster street; and from Duckworth street to Bercy street on Louisa street, and on Toronto and Elizabeth streets, from Ross street to Mary street, about 2800 lineal feet.

Specifications and conditions may be seen and forms of tender obtained at the office of the Town Clerk.

A marked check, payable to the order of the Town Treasurer, for the sum of \$200, must accompany every tender.

The lowest or any tender not necessarily accepted. Unskilled local labor as far as possible to be employed. Separate tenders for each particular work.

HENRY BIRD,

Town Clerk.

Barrie, April 9th, 1895.

TENDERS FOR SEWER PIPES

Sealed Tenders addressed to the City Engineer, Brantford, will be received till noon, May 1st, 1895, for the supply of

SEWER PIPES

required by the City of Brantford for the year 1895. Specifications and form of tender will be furnished on application at the office of the City Engineer. The lowest or any tender not necessarily accepted.

M. K. HALLORAN, Chairman Sewer Com.
T. HARRY JONES, City Engineer.

TENDERS

Sealed tenders, marked "Waterworks," will be received by the undersigned on or before the

1st of May, 1895,

For the construction of

A SYSTEM OF WATERWORKS AND SEWERAGE IN THE TOWN OF SUDBURY, ONT.

Plans, specifications, etc., can be seen and forms of tender had at the following places:

Office of Gordon & Rorke, Engineers, Sudbury.

" Montreal Star, Montreal.

" Messrs McPherson, Clark & Jarvis, Barristers, Toronto.

An accepted bank cheque, equal to 5 per cent. of the amount of tender must accompany each tender. This cheque will be forfeited if the party declines to enter into the contract and will be returned in case of non-acceptance of tender.

The lowest or any tender not necessarily accepted.

A. FERRIS,

March 18, 1895. Clerk Town of Sudbury.

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.

BUSINESS NOTES.

Barsalow & Whitehall, plumbers, Brockville, Ont., have assigned to James Smart.

F. Archambault, Ste. Cunegonde, Que., is commencing business as a plumber at that place.

The stock of Creamer & Langley, plumbers, Vancouver, B. C., has been purchased by John Boyd & Co.

Mullett & Jackson, hardware merchants and tinsmiths, Seaforth, Ont., have dissolved, J. R. Jackson retiring. The business will be continued under the style of S. Mullett & Co.

CONTRACTS OPEN.

WHEATLEY, ONT.—Fred. Fox will erect a new house this spring.

BARRY'S BAY, ONT.—The O. A. and P. S. Railway Co. will rebuild their station here.

MONCTON, N. B. J. L. Miller has purchased a site on which to erect a new residence.

GLENCOE, ONT.—The G. T. R. has decided to erect a new passenger station at this place.

BERLIN, ONT.—H. J. Powell, of Stratford, will be the architect of the proposed Opera House block.

BATH, ONT.—Mr. Babcock, of Odessa, will erect a grist and saw mill here provided a bonus of \$500 is granted.

BELLEVILLE, ONT.—The city will ask for tenders for 20,000 feet each of hemlock and pine lumber, also for the supply of nails.

WOODSTOCK, ONT.—The Council are considering the erection of a market building and fire hall, at a cost of \$10,000 to \$12,000.

TRENTON, ONT. A proposition has been made to the Council by R. Weddell, jr., to construct a system of waterworks for the town.

ANTIGONISH, N. S.—Tenders for the purchase of \$3,000 of debentures are invited by the Town Clerk, until Thursday, the 18th inst.

VICTORIA, B. C.—Ald. Bagg will move in Council that the city ask for tenders for supplying ten miles of B. D. waterproof No. 6 copper wire.

MITCHELL, ONT.—Tenders are invited by G. K. Matheson, until the 30th inst. for the Royal Hotel block, including hotel, drug store and rooms.

LONDON, ONT.—Two members of the City Council and the City Engineer will visit a number of cities to gather information respecting street pavements.

ST. JOHN, N. B.—Proposals are invited by the School Board until the 1st of May for the purchase of \$20,000 of debentures. Address Edward Manning, Secretary.

MIDLAND, ONT.—Tenders for 500 feet of 2½ inch rubber-lined cotton hose are invited by H. F. Switzer, Town Clerk, until the 20th inst., samples to accompany tender.

LISTOWELL, ONT.—William Bright, Town Clerk, will receive tenders on behalf of the corporation until the 1st of May for lighting the town with electricity; circuit about three miles.

LEAMINGTON, ONT.—M. Lefebore & Co., manufacturers of beet root sugar, are considering the erection of a large factory here, to cost \$350,000, the machinery for which will cost \$125,000.

HULL, QUE.—The School Board has decided to purchase a site and erect a new convent.—It is stated by T. Viau, the

promoter of the proposed electric railway that work will be commenced this spring.

WINDSOR, ONT.—John Sales, barrister, proposes to erect a new residence, at a cost of \$1,800.—The Canadian Pacific Railway Company has decided to build a large storehouse here with a capacity of 5,000 barrels.

NEW WESTMINSTER, B. C.—The City Council have resolved to petition the Dominion Government to proceed with the erection of a drill shed, plans for which were recently prepared and approved by the Department of Militia.

SARNIA, ONT.—Tenders are invited by J. D. Lowrie, Township Clerk, until noon to-day (Thursday), for the repair and enlargement of the Perche and Pulse drains, in the Township of Sarnia, by dredging. Plans may be seen at the clerk's office.

GANANOQUE, ONT.—The new Bennett block on the corner of King and Stone streets, and Dr. Roger's new residence and offices, on the old Roman Catholic church property, will be under way in a few days. Several cottages on the islands will also be started.

BRANTFORD, ONT.—It has been decided that the new works of the Waterous Engine Co. will be built in Eagle place, between Oneida street and the mill-race. Plans have been prepared which provide for the closing of one or two streets. If the City Council sanctions this, specifications will at once be prepared and tenders asked for.

QUEBEC, QUE.—The directors of the Quebec street railway are asking for authority from the city to substitute the electric storage battery system on its lines, provided the city grants the company permission to run through Dalhousie and St. Andrew streets.—Tenders are invited until Saturday, the 20th inst., addressed to W. R. Russell, C. E., superintendent, for making alterations and improvements to a house on Ramsay street for a railway station for the Q. M. and C. railway. Plans may be seen at the office of H. Stavely, architect.

KINGSTON, ONT.—The necessity of additional school accommodation has been pointed out by the School Board, and a new eight-roomed school is recommended. The Council will be asked to grant the necessary money for its erection.—A deputation from this city, interviewed the Ontario Government last week asking for alterations in the terms of a bonus granted by the Government to the Kingston, Napanee and Western Railway, which runs from Kingston to Tweed and from there northward. The road has been built to Tweed, and the changes requested will apply to the section yet remaining to be built.

WINNIPEG, MAN.—The Masonic Temple Association have selected a site for their proposed temple at the corner of Donald and Ellice streets. The directors will proceed at once to obtain plans, and tenders will be asked for construction within the next six weeks. The structure will be two stories with basement, and the cost about \$16,000.—The Manitoba legislature has refused to grant the application of the City Council for power to operate a tramway to Little Stony Mountain, and another to Birds Hill, and for power to give \$100,000 for assisting in improving the Red river navigation.—Tenders for the erection of a steel superstructure for Osborne street bridge are invited until Thursday, the 23rd of May. Plans may be obtained from the City Engineer and tenders are to be addressed to J. C. Sproule, Chairman Committee on Works.

HALIFAX, N. S.—The city invites tenders, addressed to the Mayor, until noon on Saturday, the 20th inst., for the supply of hardware, brick and drain pipe, required

during the season; also for grading Young avenue, and painting interior of city hall. Further information may be obtained from the City Engineer, Mr. F. W. Doane.—Tenders are invited by W. L. Brown, City Treasurer, until Monday, the 13th of May, from parties willing to loan to the city the sum of \$157,650, the money to be expended as follows: \$60,000 for sewerage purposes; \$75,000 for permanent pavements; \$5,000 for dry dock, \$10,000 for water extension; \$2,650 for new chemical fire engine, and \$5,000 for the erection of a new engine house. Tenders are also asked until the same date for a loan of \$12,553 to meet liabilities.

MONTREAL, QUE.—The City Council has adopted a resolution asking the Government to proceed with the scheme of a dry dock and basin at Hochelaga. The cost will be \$4,000,000, of which the city will contribute \$1,000,000.—A meeting of the shareholders of the Canada Paper Company was held last week to authorize the issue of the company's bonds, for the purpose of building a dam and other works, to utilize the water power on the St. Francis river on its property at Windsor Mills. The by-law was approved of by the meeting, and it is understood the works, which will involve a considerable expenditure, will at once be proceeded with.—Tenders are invited by L. J. Sergeant, general manager of the Grand Trunk Railway, until May 31st for various stores required by the railway for one year from 1st July next.—Robert Findlay, architect, is calling for tenders for a residence at Cote St. Antoine for W. M. Knowles.—Arthur J. Cooke is calling for tenders for two cottages on Wellington street for ex-Ald. Thompson.

HAMILTON, ONT.—A deputation from this city last week interviewed the Dominion Government with reference to the bridge across the Burlington canal. Parliament last session voted \$5,000 for this bridge, and tenders were called for about a month ago, but the contract has not been awarded as some changes in the plans have been asked for.—The by-law to raise the sum of \$36,000 for building a new jail will be voted on by the ratepayers on the 1st of May.—Being unable to get a satisfactory charter from the Ontario Legislature, the projectors of the Hamilton Valley, City, and Waterloo railway have applied to the Dominion Government for a charter for the International Radial Railway Company. The company wants power to build lines to Waterloo, Guelph, International Bridge, St. Mary's, Port Burwell, London, Toronto, Cooksville and Brampton.—Wm. Stewart & Son, architects, are asking for tenders until Monday, the 22nd inst. for the erection of two dwellings, one on Emerald street and the other on Bold street. The cost of each will be \$3,500.

OTTAWA, ONT.—Tenders are asked by Robert Davidson, Chairman Waterworks Committee, until the 30th inst. for the supply of oils, lead pipe, brass work, hydrants, valves, castings, cast iron pipe, iron racks and fire alarm supplies required by the Waterworks Department for the current year.—The Board of Works invites tenders until the 1st of May, addressed to Napoleon Champagne, Chairman, for the supply of plank and artificial stone sidewalks required during the year, also for the supply of cedar, plank, hardware, and vitrified fire clay sewer pipes. Specifications may be obtained from the City Engineer.—The Dominion Government has been asked to make a grant of \$3,200 a mile for the first ten miles of the Ontario, Belmont and Northern Railway Co. The road will leave a point on the C. P. R. in Hastings, passing through Peterboro', connecting with the Irondale, Bancroft and Ottawa Railway, and pass through Haliburton to

Baysville, in Muskoka. The first ten miles have been graded and are now ready for ironing.

TORONTO, ONT.—At the last meeting of the Property Committee, H. B. Wood, architect, presented estimates of cost of proposed alterations at Bay and Lombard street fire halls. The alterations to the hall on Bay street, and the erection of an addition to accommodate the water power is placed at \$3,450, while the enlargement of the Lombard street hall is estimated at \$5,500. A special meeting of the Committee will be held this week to take action in the matter.—The Parkdale Athletic Club desire to secure a site from the city for a club building.—A deputation from Pembroke interviewed the Ontario Government last week to ask for a bonus for a railway from Pembroke to Douglas, a distance of some twenty-five miles. The Government promised to consider the request of the deputation.—The supplementary estimates of the Ontario Legislature were presented to the House last week. For public buildings the sum of \$36,060 is required, among which are the following: \$10,000 for an experimental building at the Ontario Agricultural College, Guelph; \$4,600 for improvements in the Parliament buildings, Toronto; \$2,825 for furniture, fire appliances, etc., for Brockville Asylum; \$2,600 for fire protection at Hamilton Asylum; \$2,000 for a new registry office at Minden; \$1,500 revote for the lock-up at Little Current, Algoma; \$1,200 for the Port Arthur court room; \$4,070 for the School of Mining, Kingston, and \$2,300 for the Dairy School Kingston. For public works \$13,100 is asked, including \$5,000 for the Castor river improvement, the Dominion Government to give \$10,000; \$2,500 for bridging the Otonabee river; \$1,250 for the Portage du Fort bridge across the Ottawa; \$1,100 for a swing bridge at Combermere; \$2,000 for a bridge over the Nation river and \$1,000 revote for dredging in Muskrat river. The railway aid resolutions contain the following grants: Ottawa, Arnprior and Parry Sound railway, for a distance not to exceed thirty-seven miles, \$3,000 per mile; Tilsonburg, Lake Erie and Pacific railway for sixteen miles; \$2,000 per mile; Penetanguishene and Midland Electric railway, \$4,500; Ontario and Rainy River railway, for a distance not to exceed forty-five miles, \$3,000 per mile; inter-provincial railway and passenger and traffic bridge across the Ottawa river and Nepean Point, \$50,000 provided that a sum of \$600,000 or more be expended in the construction of the said bridge.—The Consumers' Gas Company invite tenders until the 29th inst. for the supply of 30,000 tons of Youghiogheny or Westmoreland lump gas coal.—Tenders are invited by Burke & Horwood, architects, 28 Toronto street, until noon on Monday the 22nd inst., for the erection of a new building for the Globe Printing Company on the corner of Yonge and Melinda streets. The building will be three stories high, built of stone and pressed brick, and will extend back only to the lane. The cost will be between \$20,000 and \$25,000.—Building permits have been granted as follows: J. Wilson Gray, architect, repairs and tower to Knox church, cost \$6,000; Gullett & Sons, one story bk. showroom and workshop, 740 Yonge st., cost \$2,000; Mrs. M. Jones, Toronto Junction, repairs and bk. add. to 182-4 Yonge st., cost \$5,500; Jas. Mannell, to rebuild 169 Yonge st., cost \$5,000; J. J. McLaughlin, 2 story bk. factory, 153-55 Sherbourne st., cost \$3,000; Wm. Jones, 93 Major st., pt. s. d. 2 story and attic bk. dwellings, e. side Rosedale rd., nr. north drive.

Wm. A. Stephenson has been registered proprietor of W. A. Stephenson & Co., plumbers, Montreal.

FIRES.

A two-story brick store at Caledon East, Ont., owned by Bradley & Clark, and a large warehouse owned by Dr. Allison, were burned on Tuesday last.—L. W. R. Terry's grist mill and the residences of A. T. Dorland and Thos. Montgomery, at Newcomb's Mills, a village about a mile north of Brighton, Ont., were destroyed by fire recently. The loss is partially covered by insurance.—The Roman Catholic church and convent at Fort William, Ont., were totally destroyed by fire on the 10th inst. The loss is placed at \$8,000, two-thirds of which is covered by insurance. The sisters of St. Joseph intend rebuilding. Cushing & Co.'s large saw mill at Union Point, near St. John, N. B., was burned to the ground on Wednesday of last week. The loss is about \$50,000, and the insurance \$28,937.—The planing mill of Lennox and Co., on Dufferin street, Toronto, was destroyed by fire on Sunday last, causing a loss of \$7,000. The building was owned by Wm. Graydon, and was valued at \$6,000. No insurance.

CONTRACTS AWARDED.

WINDSOR, ONT.—Cole & Shaw, contractors will construct the Pelissier street sewer at the price of \$1,084.50.

GANANOQUE, ONT.—The contract for the annual supply of lumber has been awarded to the Rathbun Co., of Deseronto.

OTTAWA EAST, ONT.—The Council has sold \$2,500 of 20 years debentures to Geo. A. Stimson, of Toronto. The price is \$1.01.

EXETER, ONT.—Uyer & Howard, of the Exeter planing mills, have been awarded the contract for new houses for R. Pickard and J. A. Stewart.

NORWICH, ONT.—The contract for a system of heating and ventilation, for the new Norwich public schools, has been awarded to the J. F. Pease Furnace Co., of Toronto.

TORONTO, ONT.—F. B. McNamee, of Montreal, has been awarded the contract for dredging Toronto harbor. The work will last two years.—The contract for a new boiler for the electric light plant at Island Park, has been awarded to the John Abell Engine Company, at \$930.

LONDON, ONT.—The Council received six tenders for a 70-foot aerial ladder, as follows:—"Waterous," Brantford, \$5,237.50; "Ronald," Brussels, \$3,600; Chicago firm, \$2,430; Babcock, \$4,102.50; R. Dennis & Co., "Hayes," \$3,400; Martin "Hayes," \$4,200. The tender of the Chicago firm has been recommended for acceptance.

MONTREAL, QUE.—Dunlop & Heriot have awarded contracts for a residence on Sherbrooke St., for Hugh Graham, as follows:—Mason, J. H. Hutchison; brick, T. W. Peel; carpenter and joiner's work, W. Scott & Sons; roofing, G. W. Reed; plumbing and heating, R. Mitchell & Co.; plastering, John Morrison & Son; painting and glazing, G. S. Kimber; carving, T. Moore.

OTTAWA, ONT.—The following tenders were received by the Board of Works for the asphaltting of Bank and Spark streets: Warren Scharf Co., New York, Trinidad asphalt, \$3.20 per square yard, granite tooting, 60 cents per lineal foot, dressed limestone, 55 cents per lineal foot, granite block paving, \$4.50 per square yard; Sicilian Asphaltum Paving Co., rock asphalt, \$3.54, granite tooting, 54 cents, dressed limestone, 49 cents, granite paving, \$3.73; John E. Askwith, Ottawa, rock asphalt, \$3.70, Trinidad, \$3.50, granite tooting, 50 cents, dressed limestone, 55 cents, granite paving, \$4.80; Farquhar & Co., Toronto, rock asphalt, \$3.00, granite tooting, \$1.10, dressed limestone, \$1.25, granite paving, \$4.35; Canadian Granite Co., Ottawa, rock as-

phalt, \$3.60, granite tooting, 45 cents, dressed limestone, 45 cents, granite paving, \$3.60; Patrick Burns, Ottawa, rock asphalt, \$3.75, Trinidad, \$3.75, Bermudez Lake, \$3.75, granite tooting, 60 cents, dressed limestone, 60 cents, granite paving, \$3.75; Bastien & Valiquette, Montreal, rock asphalt, \$3.88, granite tooting, 40 cents, dressed limestone, 50 cents, granite paving, \$3.60. The tender of the Canadian Granite Co. has been accepted.

THE STRENGTH OF OLD BRICKWORK.

An interesting piece of information respecting the strength of old brickwork is the result of experiments carried out by Mr. A. G. Lyster, the assistant engineer to the Mercy Docks and Harbour Board. The brickwork in question was part of a wall of the Albert warehouses in Liverpool, and was built about fifty years ago of hand-made bricks, laid in ground mortar made with lime from the Halkin Mountain, Flintshire. This lime is in a high degree hydraulic, and makes mortar of exceptionally good quality. Having to demolish the wall, Mr. Lyster conceived the happy thought of leaving a piece of it in the form of a horizontal beam, having a twelve-foot span, and measuring about two feet square in section, seven courses in height of a two-foot wall. The ends of the beam were not cut free from the rest of the work. This beam was then loaded with all the weight that could conveniently be piled upon it in iron "kentledge," without appreciable deflection or other sign of weakness resulting. Two courses were then cut off, and the whole weight again put on, but without other result. The beam was further reduced by a course, leaving it four courses, or fifteen inches deep, and the ends were also cut free from the other work, the mortar beds of the twelve-inch bearings being left untouched. A centrally placed load of five tons, fifteen hundredweight was then gradually piled upon it, and was borne for several days without apparent effect upon the brickwork. Finally, the weight was increased to six tons, nine hundredweight, twenty-three pounds, which was sustained for thirty hours, when the beam collapsed during the night, and came down in pieces more like broken timber than anything else. Other tests were made with similarly astonishing results; but the above are sufficient to show what really first rate brickwork in hydraulic lime will stand.—**BRITISH CLAY WORKER.**

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 OF THE COUNTY OF YORK
GENERAL MUNICIPAL ENGINEER
Consulting Engineer for Municipalities in regard to
Electric Railway and other Franchises.
Specialties: Bridges, Foundations, Electric Railways,
and Roads. Surveys made, Plans, Specifications and
Agreements prepared, and work superintended
COURT HOUSE, - TORONTO.

JOHN D. EVANS, O.L.S.
MEM. CAN. SOC. C. E.
LAND SURVEYOR
Civil Engineer : Architect
and Patent Solicitor.
Special attention given to Consulting and
Municipal Work.
GRASS' BLOCK, FRONT ST., TRENTON, ONT.

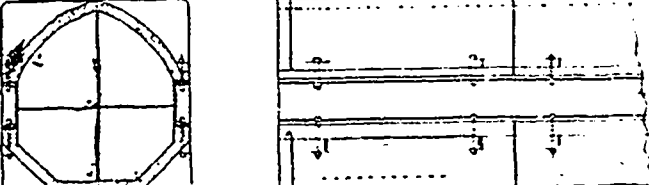
JOHN GALT, C. E. & M. E.
(Member Can. Soc. C. E.)
Consulting Engineer and Expert
Specialties.
Water Supply and Sewerage, etc.
Electric Power, Lighting, Railways, etc.
Offices:
Canada Life Building - TORONTO

ALAN MACDOUGALL
M. Can. Soc. C. E. M. Insc. C. E.
CIVIL AND SANITARY ENGINEER
32 East Adelaide St. - TORONTO

SURVEYS AND ESTIMATES PREPARED for all
classes of municipal work, water powers, road
improvement. Construction superintended.

GEO. WHITE - FRASER
C. E., D. T. S., A. AM. INST. ELEC. ENG.
CONSULTING
ELECTRICAL ENGINEER
Electric Railways and Electric Light.
SPECIALTY: Specification and Superintendence of
MUNICIPAL PLANTS.
18 Imperial Loan Building - TORONTO

HERCULES INDESTRUCTIBLE CULVERT 20 per cent. more water-way than circular form.



Unrivalled for
Strength . Durability
Cheapness.

Made in sizes of 20 in., 24 in., 30 in., 3 ft. 4 in. and 5 ft.

Write for prices to
EDWIN W. SMITH
344 Garth St., Hamilton, Ont.

ARTIFICIAL STONE PAVEMENTS.



SIDEWALKS A SPECIALTY.



CORPORATIONS

Will do well to consider our work and prices before letting contracts.

THE SILICA BARYTIC STONE COMPANY OF ONTARIO, LTD.
Head Office: Ingersoll, Ont.
WALTER MILLS, General Manager.

MUNICIPAL ENGINEERS, CONTRACTORS AND MATERIALS

SPECIFICATIONS FOR CEMENT.

Some very useful and commonsense observations on the value of tests for Portland cements are made by Mr. Frederick H. Lewis, member of the Engineers Club of Philadelphia. The ordinary specification tests are either impracticable or undesirable, for the simple reason that the architect or engineer, in specifying them, does not know all the circumstances attending the tests he prescribes, and he forgets to cover requirements which are essential. The writer truly says: "There is a disposition in specifications to adopt new requirements, and to push them to extreme rigour without having ascertained whether they are really advantageous. For example, some engineers insisted for years on requiring 52,000 lb. ultimate strength in bar iron. Certain mills were able to produce such iron, and the apparent advantage of it led to the adoption of this as a requirement. But we now know that 52,000 lb. ultimate in most cases meant 0.2 per cent. phosphorus in the iron, and that we should be better off if the high ultimate had not been required." And it was the same steel. 100,000 lb. per square inch was once demanded, but we have not been working back to a steel approaching the qualities of wrought iron with an ultimate strength close to 50,000 lb. Manufacturers, for their own interest, who can produce certain qualities often suggest these things as requirements to the profession. Mr. Lewis very cogently urges the question, and gives the following good advice: "Frame requirements to cover an essentially good article, and then add nothing whatever to limit competition or advance the price. It logically follows that specifications drafted on this principle should contain no requirements which are not intended to be enforced, and none for which a satisfactory reason cannot be given." In specifications for steel and cement, several requirements are stated, yet they are silent in regard to the methods to be followed in selecting specimens, or in testing them. The manufacturer receiving these selects his own conditions, and thus completely nullifies the requirements. A test is not an absolute fact, but a related one; it is the minor premiss of a syllogism of which the mass of recorded tests are major premises. The application of these and similar principles to the tests of Portland cement is fully shown by the author. A series of tables of tests is given, showing the reasonableness of certain requirements in drafting specifications.

STONE CEMENT. Take an ordinary resin and powder coarsely so as to melt easily, then use of the resin, one ounce; yellow wax, one ounce; venetian red, one ounce. Melt the resin, then add the wax, and lastly, stir in the venetian red. This cement may be "pulled" into sticks and used by melting into place with a hot iron on the piece of iron or stone, or both, if convenient, may be heated hot enough to melt the cement, then if held in position until the cement is cold, they will be found strongly fixed together.

DEBENTURES PURCHASED

Municipalities issuing debentures, no matter for what purpose, will find a ready purchaser by applying to

A. STIMSON, 9 Toronto Street, Toronto

Any assistance required in computing valuations in connection with sinking fund, etc., will be gladly given

N. B.—Money to loan at lowest rates on first mortgage

Imperial Trusts Company of Canada

32 CHURCH STREET, TORONTO

Capital, \$400,000.

The Company is ready at all times to purchase MUNICIPAL DEBENTURES, and has always such Securities on hand for sale. Allows 4% interest per annum on money

J. S. LOCKIE, Manager.

The London and Canadian Loan and Agency Co., Ltd.

Capital, \$5,000,000.00.

MUNICIPAL DEBENTURES PURCHASED.
MORTGAGES PURCHASED.
MONEY TO LOAN AT CURRENT RATES
103 Bay St., Toronto. - J. F. KIRK, Manager.

CEMENT

We
Manufacture
the

THOROLD
HYDRAULIC
CEMENT

the best
and
cheapest

for all kinds of Masonry work.
Used on all Government and
Municipal works, also on the
Grand Trunk Railway.

Write us for prices
or any other information
required.

ESTATE OF JOHN BATTLE

THOROLD, ONTARIO

DEBENTURES PURCHASED.

WE will pay the highest price for MUNICIPAL DEBENTURES. We tender our services to those not having books to make for them the calculations necessary when issuing debentures payable in annual instalments. **EMILIUS JARVIS & CO** (Member Toronto Stock Exchange), 23 King St. W., Toronto

EUREKA CONCRETE () PAVING COMPANY

FOR SIDEWALKS,
STABLE FLOORS,
CELLAR FLOORS,
BREWERY FLOORS, ETC.

A. GARDNER & CO.

17 Yonge St. Arcade - TORONTO
Telephone 2147

Paving Granite

Granite Sets for Street Paving.
CURBING cut to any shape ordered.
Quarries, St. Phillippe d Argenteuil, P. Q.

Address all communications to

JOS. BRUNET - COTE DES NEIGES, MONTREAL

Artificial
Granite Stone
.. Pavements

... FOR ...

STREETS, SIDEWALKS, BASEMENT
FLOORS, ETC.

The attention of municipalities and others interested is called to the excellence of this material.

A. GRAHAM

Sole Proprietor and Patentee
226 Piccadilly St., - LONDON, ONT.

Drummond McCall Pipe Foundry Company,

MONTREAL

MANUFACTURERS OF

CAST IRON WATER AND GAS PIPES

WORKS: LACHINE, QUE.

PRICES ON APPLICATION.

Cast Iron Pipe • Special Castings

HYDRANTS AND VALVES

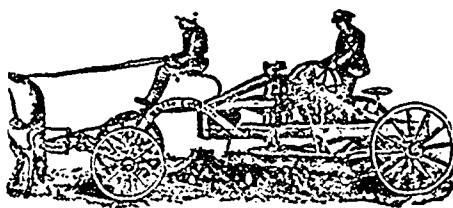
MANUFACTURED BY

THE WM. CLENDINNENG & SON CO., Ltd.

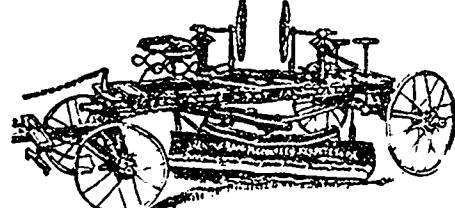
Correspondence solicited.

Montreal and St. Henry.

THE COPP BROS. CO., LTD. Hamilton, Canada, Manufacturers of both these Road Machines.



American Champion.



Steel Champion.

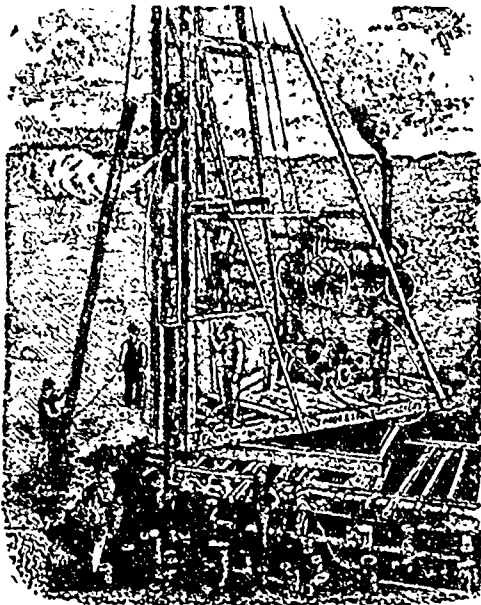
THE G. & J. BROWN MFG. CO.

Railway and Contractors' Plant.

BRIDGE BUILDERS

BELLEVILLE, ONT.

MUNICIPAL ENGINEERS, CONTRACTORS AND MATERIALS



PILE DRIVING

on land or water by Steam Pile Drivers or Drop Hammers

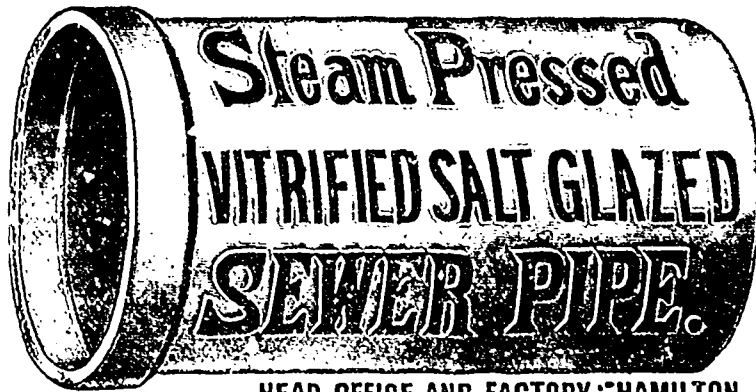
Portable Boilers, Pumping and Hoisting Machinery to Let.

WM. HOOD & SON
CONTRACTORS

10 Richmond Sq. - MONTREAL.

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

HAMILTON AND TORONTO SEWER PIPE CO.



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

Write for Literature

HEAD OFFICE AND FACTORY: HAMILTON, CANADA.

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.

STEAM AND POWER FOR ALL DUTIES

Pumps

& HYDRAULIC MACHINERY

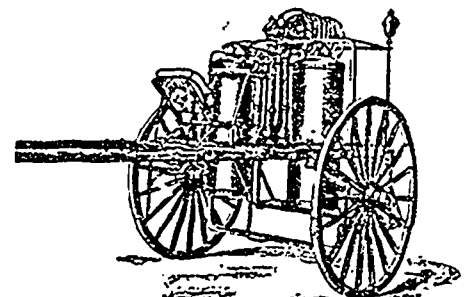
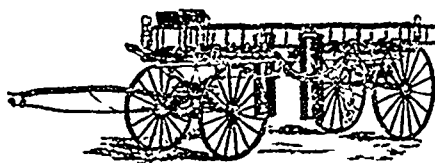
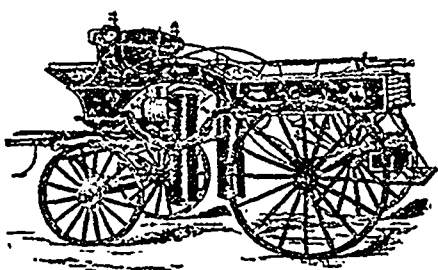
NORTHEY CO. LTD.
Toronto Ont.

Kingston Chemical Fire Engine Co.

KINGSTON, ONT.

MANUFACTURERS OF THE

WILSON PATENT CHEMICAL FIRE ENGINE



This machine is the most powerful fire fighter. It has two cylinders, 40 gallons capacity each. The combination of chemicals will not freeze, renders material with which it comes in contact non-inflammable, and will not corrode when not in use. For full particulars, write to the Head Office of the Company at Kingston.

D. D. WILSON, Managing Salesman.

JOHN BREDEN, Sec.-Treas., KINGSTON, ONT.

For reference address H. YOULDEN, Chief Fire Department, Kingston.

MUNICIPAL DEPARTMENT

STONE IN STREET CONSTRUCTION.

Stone in various forms and conditions has been used for street and walk building during all ages, but it is not keeping pace at the present with the other material that is seeking favor for such purposes. As a material for city streets stone, except granite blocks, must give way, says a writer in Stone, but the employment of crushed stone for foundations and concrete will continue to be in demand, and the more so as its cost is reduced by improved facilities for its production.

There are many uses to which a finely ground stone can be put. As these are at present furnished as the tailings from the crusher or screen, they have too great a percentage of dirt and dust in it to give the desired results in its use, especially in finishing concrete work. If this could be blown or washed out cheaply, it would be of great value.

A valuable use to which stone might be more extensively employed in smaller city and town streets, is in gutter and curb work.

Large stone dressed so as to form a combined gutter and curb makes the most desirable roadway edging yet employed, but hardness of the stone suited for such purpose has caused such forming to be too expensive. The rapid introduction of stone working machinery will ere long accomplish this at a price to greatly extend its use.

Large flat stone or flagging used for gutter bottoms in connection with cedar block paving has the double advantage of adding durability to the paving in this, its weakest point, and further in reducing the area subject to the excessive swelling of blocks in wet and freezing weather. This action is one of the most destructive to the form of wood block pavements.

There is no more pleasing display of a moderate degree of artistic taste than in stone for curbing, steps and posts along the street lines. Engineers and architects might add greatly to the stone industry in this line by a little pains in introducing some original and unique forms and designs in these matters. This latter is not properly a part of street construction, but it is so closely related thereto that it should be looked after in connection with any such improvement, as much of this work is demanded at such times.

Stone for sidewalks being apt to wear smooth and become slippery in wet and freezing weather, should be laid with only sufficient slant to run the water toward the gutter.

These may require an occasional surfacing with the bush hammer.

One defect in stone walk laying is either in having the stone of too great surface, or else of insufficient thickness.

Limestone flagging as ordinarily laid

on a sand bed, will require about one inch in thickness for each foot of greatest dimension the stone has. This much is necessary to withstand the lifting and settling action incident to freezing and thawing.

Outside of much traveled streets, there is a universal tendency in winter to have a path cleared of snow along the center of the walk, which on warm days results in the thawing under the center of the stone, while under the ends it remains frozen. As the freezing again takes place, it will be more severe under this exposed center, resulting in an upheaval and consequent splitting of the stone at such point.

Proper drainage and good bedding of broken stone and clean sand, especially the latter, will largely remedy the above difficulty by providing an opportunity for the freezing action in the bedding to exert its expansive force in compacting the loose bed of sand instead of raising the stone.

Another matter of some annoyance in flagging stone, is the tendency of the roots of trees to penetrate beneath them, and by years of growth exert an unequal pressure on some portion of the stone. This can best be prevented by having a very clean, but well drained bedding for the stone, one in which the accumulating water therein will soon find an outlet in a gutter or drain near by.

STATE REGULATION OF VENTILATION OF PUBLIC BUILDINGS.

The State of Massachusetts was the pioneer in the legal regulation of the ventilation of buildings, and the report of the Chief of the District Police, upon whom falls the enforcement of the laws, is always a document of public interest. The report for 1894, which has just appeared, is a volume of some 450 pages, together with numerous lithographic plates.

The report relates largely to the subject of ventilation and heating, the law demanding that "every public building and every schoolhouse be ventilated in such a proper manner that the air shall not become so exhausted as to be injurious to the health of the persons present therein." To the department has been left the responsibility of determining the minimum limit of proper ventilation, and they have compelled the supply of at least 30 cubic feet of air per minute per occupant. The effect of the law has certainly been to greatly improve the condition of all public buildings and schoolhouses, and the improvements introduced in those lately erected are most noticeable.

The reports of the various inspectors upon their work in the line of schoolhouse ventilation are pertinently introduced by several pages of general remarks upon the subject, showing conclusively the necessity of improved methods and most emphatically denouncing the toleration of anything but the best when that can be secured, for "filthy air is as disgusting as foul water and no more conducive to health."

The inspectors appear to be a unit in their approval of mechanical means, for "in the ventilation of buildings the natu-

ral methods of ventilation, owing to the varying conditions of temperature and barometric pressure from day to day, cannot be relied upon, as a change in the wind produces a stopping of the air in the flue. It has also been seen that when the weather is sultry and oppressive the atmosphere has not sufficient weight to disperse the air in the flues. Artificial methods or systems are now applied to secure the desired results. * * * In some of the systems which have been applied to the school buildings in the state during the past few years good results have been obtained, and they have helped to solve the problem of heating and ventilation; but with those who have made a careful study of the laws underlying the whole process it is a settled conviction that perfect ventilation cannot be reached without the aid of mechanical means."

The inspectors, in the progress of their work, have found numerous old school buildings in which the air in occupied rooms was contaminated to the extent of 30 to 50 parts of carbonic acid gas in 10,000 parts of air, while in the new buildings they frequently report 6 to 8 parts in the same volume of air, and in some cases have measured an air supply of fully 50 cubic feet per occupant per minute.

THE EFFECT OF CATCH-BASINS ON SEWER CLEANING EXPENSE.

This subject is discussed by T. Chalkley Hatton, engineer in charge of the Wilmington, Del., sewerage system, in a report issued recently. The streets paved with block stone, asphalt, or brick are 11.59 miles long, while of the remaining 71.41 miles of streets in the city only 26.63 miles have a cobble or broken-stone surface, which naturally results in considerable street detritus finding its way to the sewer inlet during storms. On one system of sewers where the inlets are turned into catch-basins nearly all the street washings were intercepted and the sewer has needed cleaning but once, which was done at a cost of \$67, the catch-basins have been kept clear at a cost of \$66 annually. On another system of sewers, located almost the same as the first as regards grades, nature of street surface, and relation to tide water, which have been finished but a short time, cleaning was soon required at a cost of \$144, and the sewers were as badly choked as before one week after the work was done, owing to lack of catch-basins. The first system drains an area of 120 acres, the second drains one of 28 acres.

A Mexican paper states that a new project for the sanitation of the sewers of the city of Mexico, at a cost of about £5,000, calls for the building of some twenty-five windmills in different parts of the city to rotate paddle-wheels in the sewers and quicken the current to 1 metre per second.

The highest death rate of any town in the civilized world is that of the City of Mexico—40 per 1,000. The city is 7,000 ft. above sea level, but in spite of this fact its defective drainage makes the mortality very great. Mr. Romero, the Mexican Minister at Washington, explains in a recent article that when the water in Lake Texcoco is high it backs up into the sewers until the soil under the houses and in the streets is saturated with sewage.

**CENTRAL BRIDGE AND -
- ENGINEERING COMPANY,**
(LIMITED)

Peterborough, Ont.

WM. H. LAW - Manager and Engineer.

MANUFACTURERS OF

**RAILWAY AND HIGHWAY
BRIDGES**

Viaducts, Piers, Roofs, Turntables, Girders
and Architectural Work.

CAPACITY: 5,000 TONS PER ANNUM.

Water Works

Fire Hydrants

Stop Valves

3" to 36"

BOILERS, TOWERS & C, ENGINES AND GENERAL WORK

JNO. PERKINS CO'Y

Toronto Engine Works TORONTO

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.**

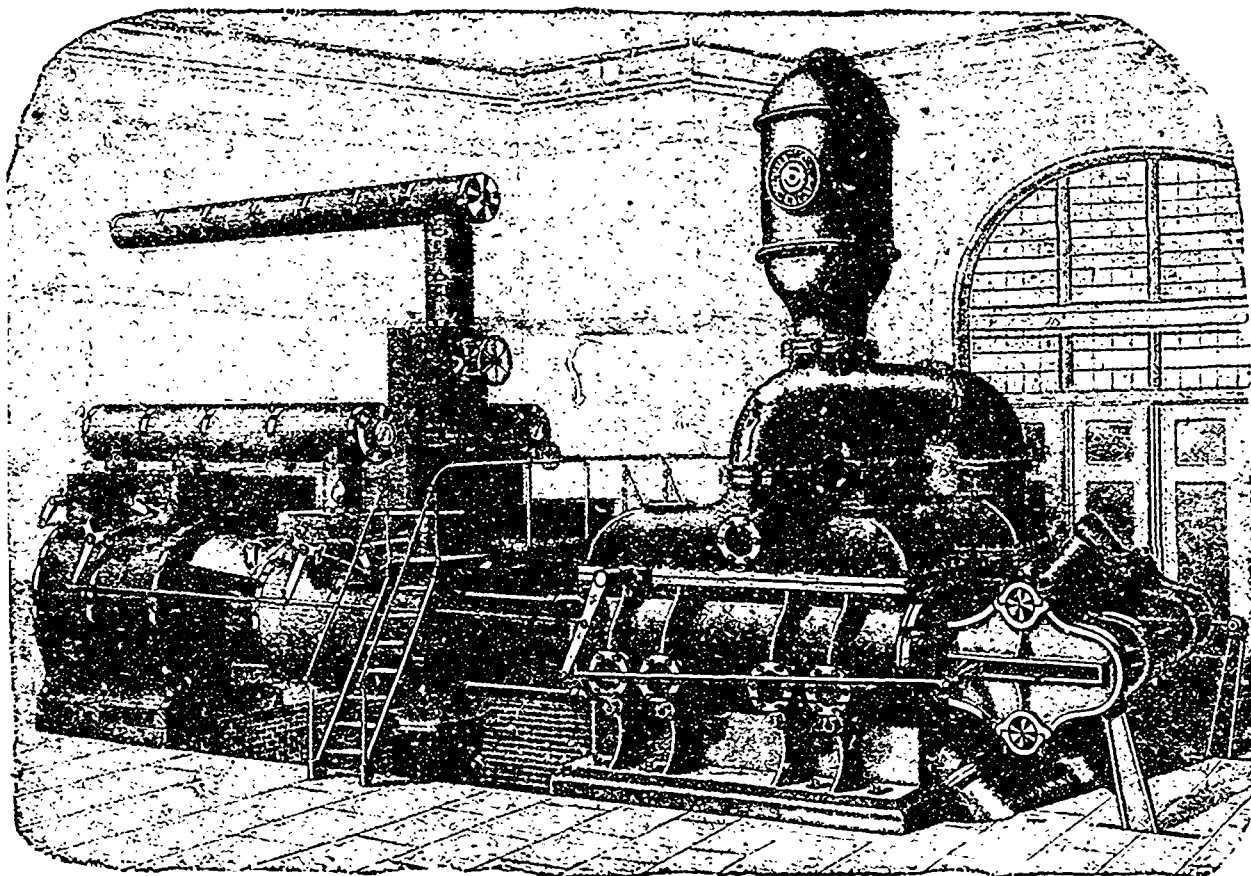
INDEX TO ADVERTISEMENTS

In the "Canadian Architect and Builder"

Architects. Ontario Directory... III Quebec Directory... II Architectural Sculptors and Carvers. Holbrook & Mollington... I Architectural Iron-Works. Dominion Bridge Co. I Lea, J.S. vi Shipway Mfg Co. ... II Whitfield, John... III Art Woodwork. Knechtel, S. III Bricks (Pressed) Beamsville Pressed Brick Co. vi Burlington Pres'd Brick & Terra Cotta Co. vi Dartnell, E. F. ix Port Credit Pressed Brick & Terra Cotta Co., Limited... xi Builders' Supplies. Bremner, Alex. iv Currie & Co., W & F.P. xiv Clatworthy, Geo. iii Maguire Bros. i Ontario Lime Association... viii Rice Lewis & Son... IV Springer, O T. ix Building Stone Dealers. Carroll, Vick & Co. vii Clark, Wm. viii Dartnell, E. F. ix Hood & Son, Wm. xii Builders' Hardware. Rice Lewis & Son... IV Cresote Stains Cabot, Samuel... IV Church and School Furniture. Can. Office & School Furniture Co. iv Globe Furniture Co. ix Office Specialty Co. Snider, J. B. iv Church Reflectors Frink, I. P. II Contractors' Plant and Machinery Rice Lewis & Son... IV	Cements. Bremner, Alex. iv Currie & Co., W. & F.P. xii Dartnell, E. F. ix Maguire Br. s. i Owen Sound Portland Cement Co. III Rathbun C., The ... x Out Stone Contractors. Isaac Bros. III Oakley & Holmes... III Chimney Topping. Bremner, Alex. iv Currie & Co., W & F.P. xii Drain Pipe Bremner, Alex. iv Currie & Co., W & F.P. xii Hamilton and Toronto Sewer Pipe Co. ... xii Maguire Bros. i Standard Drain Pipe Co. II Dumb Waiters King & Son, Warden iii Electric Wiring Rogers & Doss... IV Elevators Fensom, John IV Leitch & Turnbull... I Williams, A. R. xi Engravers. Can. Photo-Eng Bureau... iii Fire Brick and Clay Bremner, Alex. iv Currie & Co., W & F.P. xii Maguire Bros. i Standard Drain Pipe Co. II Floor Deafener Lazier & Sons, S. A. ix Galvanized Iron Workers. Tucker & Dillon... viii Douglas Bros. viii Ormsby & Co., A. B. I Grates and Tiles. Holbrook & Mollington i Rice Lewis & Son... IV	Granite Brunet, Jos. III Heating. Gurney Foundry Co II King & Son, Warden... iii Ormsby & Co., A. B. I Pease Furnace Co. ii Toronto Radiator Mfg Co. v Williams, A. R. xii Lime. Currie & Co., W & F.P. x. Ontario Lime Association... viii Legal. Bentley & Co., W. B. ... II Denton & Dods... II Mortar Colors and Shingle Stains. Cabot Samuel... IV Maguire Bros. i Muirhead, Andrew... I Ornamental Plasterers. Baker, J. D. vi Hynes, W J vii Paints & Varnishes. Muirhead, Andrew... i Painters. Gilmer & Casey... III Plasterers Hynes, W. J. vii Plumbing Supplies Campbell & Purvis. xi Dominion Sanitary Pottery Co. xi McRae & Co. ix Plate Glass Hobbs Mfg. Co. iv McCausland & Son... iv The Consolidated Plate Glass Co. ii Parquetry Floors Elliott & Son... I Elliott, W. H. vi Plumbers Ballantyne, James... II Roofing Materials Metallic Roofing Co. viii Pedlar Roofing Co. vii	Roofers Douglas Bros. viii Duthie & Sons, G. viii Hutson, W. D. viii Rennie & Son, R. viii Stewart, W. T. viii Tucker & Dillon ... viii Williams & Co. H. viii Sanitary Appliances Campbell & Purvis. xi Dominion Sanitary Pottery Co. xi McRae & Co. x Sanitas Mfg. Co. xi Toronto Steel Clad Bath & Metal Co. vii Shingle Stains Cabot, Samuel... IV Stained and Decorative Glass Castle & Son. iv Dominion Glass Co. iv Elliott & Son. I Grimson, G. & J. E. iv Hobbs Mfg. Co. iv Horwood & Sons, H. iv McCausland & Son... iv McKenzie's Stained Glass Works iv Longhurst, H. iv Lyon, N. T. iv Quesnel, Sharpe & Co. iv Shingles and Siding Collins Mfg. Co. ix Metallic Roofing Co. viii Pedlar Roofing Co. viii Terra Cotta Rathbun Co., The... x Wall Paper and Ceiling Decorations Elliott & Son. I Elliott, W. H. vi Wire Manufacturers Shipway Mfg Co. II Wall Plaster Albert Mfg. Co. i Hannaford Bros. Mfg. Co. x Nowell & Co. B. L. vii Rathbun Co., The ... x Window Blinds Clatworthy, Geo. iii Seaman, Kent & Co. vii
--	--	---	---

JOHN McDOUGALL

• • Caledonian Iron Works • •



Office:
Corner William and
Seigneurs
Streets,
MONTREAL

**HYDRAULIC
MACHINERY
CONDENSERS
AND
WATERWORKS
SUPPLIES
WATER METERS**

and Meters for all
services

MANUFACTURERS
OF

Machinery for Elec-
trical Work, etc., etc.
Boilers, Engines,
Loggings, Girders,
Castings, Shafts, Pul-
leys, Gears, Bearings,
etc.

AGENTS IN CANADA FOR THE

Famous Worthington Pumps

Prices of Building Materials.

CONDITION OF THE MARKET.

TORONTO: The volume of business is steadily increasing, and activity is anticipated as the season advances. Hardware is moving freely, and a number of car loads of cut nails have gone forward during the past week. At a recent meeting of the Cut Nail Association it was decided to fix the price at \$2.10 per keg, delivered at any point in Canada. This change is having a good effect. Trade in plumbers' supplies is improving, but slowly. Cement and firebricks are quiet and quotations unchanged.

MONTREAL: Shelf hardware is active, and the past week has been satisfactory. The demand for cement is small lots has been good, and it seems probable the supply here will be well exhausted before the first importations come to hand. Firebricks are active, and some large lots have changed hands at \$15 to \$22 per thousand. Discounts on iron pipe and galvanized iron remain unchanged.

LUMBER.

CAR OR CARGO LOTS.

Toronto. Montreal.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes items like clear picks, Am ins., pickings, Am ins., 1 inch clear, etc.

VAID QUOTATIONS.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes items like Mill cull boards, Shipping cull boards, Hemlock scantling, etc.

B. M.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes items like 1 1/2 in. flooring, dressed, F.M., 1 1/2 inch flooring, rough, B.M., etc.

Toronto. Montreal.

BRICK—M

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes items like Common Walling, Good Facing, Sewer, Pressed Brick, Per M, Red, No. 1, f.o.b. Beamsville, etc.

SAND.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes Per Load 1/2 Cubic Yards.

STONE.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes Common Rubble, Large flat Rubble, Foundation Blocks, Kent Freestone Quarries, River John, N.S., brown Freestone, etc.

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

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes No. 1 Buff Promiscuous, No. 1 Buff Dimension, No. 1 Blue Promiscuous, etc.

SLATE.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes Roofing (per square), Terra Cotta Tile, Ornamental Black Slate Roofing, etc.

PAINTS. (In oil, per lb.)

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes White lead, Can., per 100 lbs., Zinc, Can., per 100 lbs., Red lead, Eng., etc.

CEMENT, LIME, etc.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes Cement, Portland, per bbl., German, per bbl., London, per bbl., Newcastle, per bbl., etc.

Toronto. Montreal.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes Cement, Belgian, per bbl., Canadian, per bbl., Keene's Coarse Whites, Calcined plaster, Fire Bricks, Newcastle, per M, etc.

HARDWARE.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes Cut nails, 5d & 6d, per keg, Steel, 40d, hot cut, per 10 lbs, etc.

FINE BLUED NAILS.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes 3d, per 100 lbs., 2d, per 100 lbs., etc.

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

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes 12d to 30d, per 100 lbs., 10d, per 100 lbs., etc.

FINISHING NAILS.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes 3 inch, per 100 lbs., 2 1/2 to 3 1/2, per 100 lbs., etc.

SLATING NAILS.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes 5d, per 100 lbs., 4d, per 100 lbs., etc.

COMMON BARREL NAILS.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes 1 inch, per 100 lbs., 3/4 inch, per 100 lbs., etc.

CLINCH NAILS.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes 3 inch, per 100 lbs., 2 1/2 and 2 3/4, per 100 lbs., etc.

SHARP AND FLAT PRESSED NAILS.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes 3 inch, per 100 lbs., 2 1/2 and 2 3/4, per 100 lbs., etc.

STEEL WIRE NAILS.

Steel Wire Nails, 75, 10 and 5 % discount from printed list.

Iron Pipe:

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes Iron pipe, 1/2 inch, per foot, 3/8 inch, per foot, etc.

Lead Pipe:

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes Lead pipe, per lb., Waste pipe, per lb., etc.

Galvanized Iron:

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes Adam's Mar's Best and Queen's Head, 16 to 24 gauge, per lb., etc.

Structural Iron:

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes Steel Beams, per 100 lbs., channels, per 100 lbs., etc.