

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 OF
PUBLIC WORKS • TENDERS • ADVANCE INFORMATION • AND MUNICIPAL PROGRESS

EVERY WEDNESDAY

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. 9.

DECEMBER 14, 1898

No. 46.

THE CANADIAN CONTRACT RECORD, PUBLISHED EVERY WEDNESDAY

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 PUBLISHING COMPANY
of Toronto, Limited,
Publishers,

CONFEDERATION LIFE BUILDING, TORONTO.
Telephone 2552.

Branch Office:
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.

TENDERS WILL BE RECEIVED AT THE office of the undersigned until WEDNESDAY, DECEMBER 21ST, for the various works required in the Erection and Completion of a Summer Hotel near Toronto. The lowest or any tender not necessarily accepted.

SYMONS & RAE, Architects,
35 Adelaide St. E., Toronto.

DATE OF PUBLICATION.

Architects, Engineers, Municipal Authorities and others are reminded that the **CONTRACT RECORD** is printed every Tuesday afternoon, and that advertisements should reach the office of publication not later than 2 o'clock p.m. on that day to ensure insertion in the issue of the current week. Advertisements are frequently received too late for insertion, to avoid which special attention is directed to this announcement.

CONTRACTS OPEN.

LOGAN, ONT.—D. Smith intends building next summer.

AGNES, QUE.—A grist mill will be erected here next spring.

ALTHORPE, ONT.—George Fournier intends erecting another building.

WATERLOO, ONT.—It is probable that a fire alarm system will be installed.

MAGOG, QUE.—L. A. Audit wants tenders for the purchase of \$10,000 of bonds.

GRAVENHURST, ONT.—Improvements to the steamer Muskoka are contemplated.

DRUMMOND, ONT.—The trustees of S. S. No. 15 have decided to build a new school.

BRAESIDE, ONT.—It is reported that Gillies Bros. are preparing to build a new saw mill.

BOTHWELL, ONT.—W. A. Scott, town

clerk, wants tenders for the purchase of debentures.

NEW WESTMINSTER, B. C.—George Adams, grocer, will erect a three-storey brick block.

BERLIN, ONT.—The council is about to let the contract for a sewer on Alma and Neber streets.

VERNON, B. C.—There is a probability that the construction of a waterworks system will be undertaken.

VICTORIA HARBOR, ONT.—Dan Robins will erect stables and sheds adjoining his hotel in this place.

BRACEBRIDGE, ONT.—It is probable that S. H. Armstrong will erect a brick block at an early date.

WILMOT, N. S.—The government intends building an iron bridge over the Black river at this place.

GOULDSVILLE, N. B.—Work will shortly be resumed on the new R. C. church, to be completed by May, 1899.

OXFORD MILLS, ONT.—The trustees of St. Johns church intend building a tower and chancel next spring.

MIDDLETON, N. S.—The Nova Scotia Pork Packing Company will commence work at once on their new buildings.

GANANOQUE, ONT.—The question of constructing a system of waterworks is under consideration by the town council.

HALIBURTON, ONT.—F. Austin & Sons, lumber merchants, of this place, will establish a saw and shingle mill at Baptiste.

SYDNEY, N. S.—C. M. O'Dell, C. E., engineer for the Dominion Coal Company, is locating a site for the proposed iron works.

PORT GREVILLE, N. S.—H. L. Elderkin & Co. intend building next season a three-masted schooner of about 350 tons register.

PRESOTT, ONT.—James Fowler, of Arnprior, has been endeavoring to secure for this town a franchise for electric lighting.

PORTAGE DU FORT, QUE.—No steps have as yet been taken to rebuild the bridge at this place which collapsed recently.

FORDWICH, ONT.—J. Gregory has leased Cook's saw mill here, and intends starting a planing mill in connection therewith.

TRENTON, N. S.—A project is on foot to build an electric railway between Trenton and Westville, via New Glasgow and Stellarton.

CARP, ONT.—The members of the Holiness movement have purchased property and purpose erecting a church next spring.

ST. JOHN, N. B.—The C. P. R. will, it is stated, demolish the old elevator and build a new one near the street railway power house.

BRIGHAM, QUE.—Robert Lafontaine contemplates erecting a sash and door

factory.—Thomas E. Smith is about to erect a store.

SOURIS, P. E. I.—The merchants are considering the advisability of having the town lighted by electricity. Water power will probably be used.

ORILLIA, ONT.—It has been found impossible to take the vote on the proposed electrical power transmission scheme at the municipal election.

WOODSTOCK, ONT.—Perrin & Co., of Chicago, are considering the establishment of a pork-packing factory in this city, at a cost of \$40,000.

STEWIACKE EAST, N. S.—A site has been purchased, and other necessary arrangements are being made, for the erection of a new church.

MITCHELL, ONT.—Offers have been asked by James Barnett, town clerk, for the purchase of \$4,068.40 of ten-year and \$2,957.68 of twenty-year debentures.

ROSSLAND, B. C.—Manager White, of the C. P. R., is credited with the statement that the company will erect a 1,000 ton smelter in the Boundary creek district.

LENNOXVILLE, QUE.—It is proposed to reconstruct the art building of Bishops College, as a memorial of the late Robert Hamilton. The estimated cost is \$15,000.

OSHAWA, ONT.—Arrangements are being made for the building of a new Presbyterian church in the spring. Already the sum of \$2,400 has been subscribed.

BELLEVILLE, ONT.—The engineers of the Mitchell-Abbott Iron & Steel Works arrived in the city last week, and are making arrangements for the erection of their buildings.

THOROLD, ONT.—An American syndicate have purchased five acres of land here and purpose erecting buildings for the manufacture of caustic soda and bleaching powder.

SMITH'S FALLS, ONT.—The question of establishing a hospital in this town is under consideration.—Voting on a by-law to raise \$29,520 by the issue of debentures will take place on January 2nd.

FORT WILLIAM, ONT.—Zeph. Malhoite, C. E., with a staff of engineers, left here last week to make a topographical survey of the proposed Thunder Bay, Lake Nepigon and St. Joe Railway.

GALT, ONT.—Matthew Wilks, of Blair, has donated \$500 towards building a nurses' cottage in connection with the hospital here.—H. A. Kribs, M. P. P., purposes establishing a box factory here.

PETROLIA, ONT.—A representative meeting in the interest of road and street improvement was held here on the 7th inst. A determined effort will be made to secure funds for necessary improvements.

THESSALON, ONT.—Samuel Hagan, town clerk, desires tenders by 6 p.m. on Thursday, 15th inst., for the purchase of debentures.—Some of the ratepayers are

in favor of taking steps to secure electric light.

LONDON, ONT.—The city council, at a meeting held last week, voted the sum of \$75,000 for a breakwater to protect West London. The by-law will be submitted to the ratepayers at the municipal elections.

ELORA, ONT.—The Wellington county council have adopted the report of a special committee recommending that a new steel bridge be built at this place, at a cost of \$3,100. Tenders for the bridge will be asked.

UNBRIDGE, ONT.—The council is considering the question of constructing waterworks and sewerage systems. An expert will likely be engaged to report upon the prospects of obtaining a water supply from wells.

KINGSVILLE, ONT.—It is rumored that the Michigan Central Railway authorities have in view the extension of their road from Essex to Kingsville, and that the government will be asked to deepen the harbor at the latter place.

SARNIA, ONT.—As a result of a tour through this county by Mr. A. W. Campbell, Provincial Road Instructor, it is likely that statute labor will be abolished and the money for improving roads raised by the issue of debentures.

VALMORIN, QUE.—The pulp mill at this place, which was recently destroyed by fire, had recently passed into the hands of an American company, who will likely rebuild at once. The former proprietor was Mr. J. H. Nault.

ARUNDEL, QUE.—William Thompson, secretary-treasurer of the municipality, will receive tenders up to 10 a.m. on the 15th inst. for the superstructure of an iron bridge over the Rouge river, also for two stone piers at same place.

CHARLOTTETOWN, P.E.I.—C. B. Chappell, architect, is receiving tenders for skating rink, 80 x 170 feet. Same architect has prepared plans for remodelling residence of Dr. McLeod, this city. Tenders will be called for shortly.

HINTONBURG, ONT.—The estimate made by C. H. Keeler, C.E., for the construction of a waterworks system did not include the cost of the service pipes from the street main to the street line. This will bring the total cost up to \$60,000.

CHESTER, N.S.—The Chester Hotel Company has issued its prospectus, the capital being placed at \$15,000. L. G. Blair and Charles A. Smith are provisional directors. It is hoped to commence the erection of a building at an early date.

SHERBROOKE, QUE.—It is stated that the street railway has been purchased by Frank Thompson & Co., who will probably extend the road to North Hatley and other points. The new proprietors have acquired the Brompton Falls water power.

OWEN SOUND, ONT.—The county council has decided to place a new roof on the court house and improve the ventilation, at a cost of \$1,600. Plans will be prepared by J. C. Forster, architect, of this town, and tenders will shortly be called for.

TRENTON, ONT.—A vote of the ratepayers on a by-law to grant a bonus of \$10,000 to Gilmour & Co., to increase the capacity of their sash, door and blind factory and establish a box factory in connection therewith, will be taken on January 2nd.

DARTMOUTH, N.S.—The council has appointed a sub-committee to prepare a by-law authorizing the town to supply its own electric light and operate an electric railway. The Acadia Sugar Refining Co. has purchased a site on which to build a large distillery.

FREDERICTON, N.B.—Proposals for the purchase of \$7,000 of debentures are

invited by Charles A. Simpson, secretary of the municipality, up to 21st inst.—A proposition is being discussed to construct a system of electric railways from this town to adjacent points.

LAKE MEGANTIC, QUE.—The Lake Megantic Pulp Company is asking authority to increase its capital stock, to permit of the construction of pulp and paper mills, saw mills, electric tramways, etc. Taschereau, Lavery & Rivard, of Quebec, are solicitors for the company.

HALIFAX, N.S.—A proposition has been submitted to the Board of Trade by Messrs. Campbell, Shearer & Co., of London, Eng., to establish an abattoir and refrigerator plant in this city.—It is understood that a site for the proposed market building has been decided upon.

WALLACEBURG, ONT.—The council have extended the time to February 1st next for the installation, by the Wallaceburg Electric Light Company, of an incandescent system of lighting.—A vote of the ratepayers will be taken on January 2nd to provide funds for erecting a new fire hall.

QUEBEC, QUE.—Messrs. Paradis & Belly, of this city, are about to establish a factory at Chicoutimi for the manufacture of boxes for butter, cheese and condensed milk.—According to report, the Montmorency Cotton Company will make further additions in the spring to their buildings at Montmorency Falls.

VICTORIA, B.C.—The council is moving in the direction of strengthening the Point Ellice bridge. The city engineer has been asked to report thereon.—A sub-committee has recommended that the city council construct a number of concrete sidewalks, with granite curbs, and Douglas fir pavements on concrete foundations.

HULL, QUE.—Legal advice has been secured by the city as to its right to install an electric light plant, from which it appears that the city is justified in installing a plant to be used only for civic lighting. Therefore, a vote of the ratepayers will be taken on the 27th inst. on a by-law to raise debentures to the amount of \$8,000 for the purpose.

INGERSOLL, ONT.—W. R. Smith, town clerk, wants tenders by Thursday, 15th inst., for the purchase of \$3,849 of local improvement debentures, bearing interest at 4%, payable yearly.—A by-law to provide for the issue of twenty-year 4% debentures for \$2,500 for the purpose of building a fire hall will be submitted to the ratepayers in January.

MERRITTON, ONT.—On January 2nd the ratepayers will vote on by-laws to raise by debentures the following sums: \$2,700 to purchase a steam road roller and appliances for use in constructing, rebuilding and improving the highways; \$6,000 to extend the waterworks system, and \$20,000 to improve, rebuild, construct and maintain the highways.

PENBROKE, ONT.—On January 2nd the ratepayers will vote on a by-law to raise \$12,000 to construct sewers in the town. It is probable that a by-law will also be submitted to raise funds for the construction of a stone or iron bridge on Mary street.—An electric railway between Pembroke and Bryson is again talked of.—Borchman & Hoelke have purchased property on which to build a steam carding mill.

NIAGARA FALLS, ONT.—There has been an agitation for some time to connect Grand Island with the mainland by means of a bridge, which would involve the construction of two spans, one on the American side of the island and the other on the Canadian side. It is now stated that the Grand Trunk Railway Company has offered to build the Canadian section, and it is believed that the scheme will be carried out.

FERGUS, ONT.—Regarding the proposed Presbyterian church, it is learned that it is intended to spend about \$12,000. The walls will be of stone, and the building will have a seating capacity of 700, with separate Sunday School rooms for 200. Plans are now being prepared, and will be completed in a couple of weeks, after which tenders will be invited. Mr. Hugh Black is chairman of the Building Committee.

STRATFORD, ONT.—The Collegiate Institute Board have appointed a committee, consisting of Messrs. McPherson, Crow and McMillan, to solicit subscriptions and take other necessary steps for the erection of a gymnasium building. The cost is estimated at \$5,000.—A by-law granting a bonus of \$30,000 to the Whyte Packing Company for the establishment of a pork packing factory here, has been given its first reading in council.

ST. CATHARINES, ONT.—The syndicate which has taken over the old Niagara Central railroad consists of S. B. Colvin, of Glenn Falls, N.Y., J. A. Powers, of Albany, N.Y., and Hon. C. D. Haines, of New York city. A meeting of the syndicate was held in Toronto last week, at which the extension of the road three and one-half miles, to Port Dalhousie, and its conversion from steam to electricity, were considered.—A deputation has requested the county council to make a grant to Louth township council to assist in building a bridge over a creek. The cost is given as \$2,000.

KINGSTON, ONT.—The Montreal Fit-Reform Shoe Co. has asked the city for a bonus of \$40,000, as an inducement to remove to this city. Should the bonus be granted, the company will probably build a factory.—A company is said to be in process of formation to build a new opera house.—It is proposed to establish an opera house, library and other public institutions in the same building, with stores on the ground floor.—The city engineer has recommended the construction of a large storm drain on Victoria and Collingwood streets to the lake.—James Swift will probably build a residence on King street.

HAMILTON, ONT.—A glass company in Muncie, Indiana, is said to have decided to establish a branch in this city, with James Hayes as foreman.—In connection with the improvement of the waterworks system, the Cataract Power Company have agreed to pay the cost of constructing the third main, to be reimbursed in twenty, thirty or forty years, conditional upon the company being given the contract for pumping the water for the high level district.—The city council have given certain concessions to the Sawyer-Massey Company on condition that they extend their works, expending about \$30,000 on improvements.

CHATHAM, ONT.—Powell & Carswell, architects, are preparing plans for a residence for C. C. Greening, corner Wellington and West streets, also for bar-room fixtures for the Hotel Vendome at Sarnia.—The county council is considering improvements to the jail and court house. Some of the councillors believe that extensive improvements, including a modern system of heating and lighting, should be carried out.—Tenders are wanted by Park Bros. up to 17th inst. for erection of brick residence for J. M. Park.—A motion to grant \$1,500 to assist in building a bridge over the Sydenham river at Dawn Mills was introduced in the county council last week and referred to the finance committee.

VANCOUVER, B.C. A six inch pipe, half a mile long, will be laid to the marine railway headquarters.—It is understood that Johnston & Kerfoot will erect a warehouse, store and packing room, for which plans are now being prepared.—J. J. Banfield has purchased three lots at the

corner of Hornby and Georgia streets, and will probably build thereon.—Mr. Warsap, manager of the cement works on False Creek, will leave shortly for the east to purchase new machinery. It is probable that an electric plant for operating and lighting the works will be installed. The street railway line is to be extended to English Bay beach, the city council having granted the necessary franchise.

ST. THOMAS, ONT.—The by-law to raise \$33,000 to establish an arc lighting plant for the city will be voted upon in January.—The city council has received a largely signed petition asking that a new bridge be constructed over the ravine at Elmira street.—A joint committee from the city council and the county council of Elgin has submitted the following estimate of the cost of building two bridges: Fingal bridge—Concrete abutments, \$1,700; steel superstructure and solid floor, \$2,200; total \$2,900. Kains' bridge—Concrete abutments, \$1,850; steel superstructure and solid floor, \$2,200; total, \$4,050. This committee has also recommended that the bridges be constructed.

CORNWALL, ONT.—J. A. Cockburn, clerk of Finch township, wants tenders by to-day (Wednesday) for the construction of the Blue Creek drain east of Berwick village, as well as for the Butternut Creek drain, advertised in last issue of CONTRACT RECORD.—D. P. McKinnon has called a meeting at South Finch, on the 16th inst., to consider the question of erecting a cold storage warehouse for dairy products at some point on the Ottawa and New York Railway.—Steps are being taken to establish a meat packing and canning factory in this town, the cost of which is placed at \$25,000. A committee has been appointed, including D. B. McLennan, G. C. Smith, John McLaughlin, M.L.A., and others, to canvass for stock.

WINNIPEG, MAN.—Tenders will be called for the construction of sewers on the following streets: Aikins street, from Dufferin avenue to Flora avenue, cost \$2,300; Henry avenue, from Maple to Argyle street, cost \$1,240; Main street, Selkirk avenue to Alfred avenue, and on Alfred avenue to Aikins street, cost \$6,600. The construction of macadam pavements on Selkirk avenue, from Main street to the Red river, cost \$3,000, and on Edmonton street, from Portage avenue to Cumberland avenue, and Gertie street, from Cumberland avenue to Notre Dame avenue, cost \$5,820.60, has been recommended.—The Winnipeg Electric Railway Company has been asked to equip their cars with fenders.—Mr. Peavey, an extensive grain buyer of the United States, will next year build a number of elevators in this province.

OTTAWA, ONT.—George Sleeman, of the Silver Creek Brewery, will shortly make extensive improvements in his establishment.—The by-law providing for the paving of Sussex street, between St. Patrick and Clarence street, has been read a third time in council.—Excavating is now in progress for a large addition to the Bank of Commerce building on Wellington street, to be of brick, with board room finished in white oak.—The Dominican Fathers intend removing their house of study from St. Hyacinthe to this city, and will erect a large building, probably on Primrose Hill.—E. F. E. Roy, secretary Department of Public Works, will receive tenders up to Thursday, 22nd inst., for a new block at the northern breakwater at Miminegash, Prince County, P.E.I.—The Ottawa Railway Company are said to have definitely decided to extend their road to Britannia.—A company is seeking incorporation to build a railway from Lake Winnipegosis to Edmonton, N. W. T. Another

company seeks power to build a steam or electric railway from Ottawa to Meach's Lake, Que., with branches to Aylmer, Hull, etc. The scheme includes the construction of a bridge across the Ottawa river.—The council of Ottawa East will petition the government to construct a bridge across the canal opposite Main street.—A scheme will be submitted to the House next session for building a solid fire-proof record office, arranged to contain all the archives and records.—Building permits have been granted as follows: Ferdinand Brisbois, dwelling on Nelson street, cost \$1,200; H. J. Ferguson, three brick veneered dwellings on Gilmour street, cost \$3,500.—The Metropolitan Light Company has been granted letters patent of incorporation, and have purchased the Britannia water power. The canal to be constructed will be 180 feet wide, 9 feet deep and 2,000 feet long. The power house will be located at the foot of the rapids.

MONTREAL, QUE.—Plans of an iron bridge to be built over the Rouge river at Arundel are on view at the office of W. A. Weir, M.P.P., 138 St. James street.—At a recent meeting of the executive committee of the Grand Trunk Y.M.C.A., the question of enlarging the present quarters was discussed.—The management of the Church of St. Louis de France have decided to purchase a new pipe organ.—Mr. St. George, city surveyor, has submitted to the Road Committee plans of an elevated passage connecting Notre Dame street with the Place Viger depot. The cost is estimated at \$7,000.—Mr. R. G. Reid and his sons, who have been given extensive privileges by the Newfoundland government, and are now asking incorporation for the Newfoundland Bleached Pulp Company, purpose erecting the mill on the shore of Grand Lake. It is probable that over \$1,000,000 will be expended in plant.—The Montreal Street Railway Company is seeking permission to increase its capital stock from time to time, and to extend its line to any point within ten miles of the city.—The chief of the fire brigade is of the opinion that four new fire stations are required, one in the upper part of Hochelaga ward, one about La-gauchetiere street, and two to replace the central station and No. 14 station.—The Diamond Glass Company will at once commence the reconstruction of their building, damaged by fire last week.—Plans have been prepared for a two-storey addition to the building of the Merchants' Bank of Canada, corner St. Peter and St. James streets.—Alex. Robinson, secretary Harbor Commissioners, will receive tenders up to Tuesday, 20th inst., for the construction of a dipper dredge, with steel hull. Plans at office of John Kennedy, chief engineer.

TORONTO, ONT.—The Board of Control has decided to call for new tenders for the annual supply of sewer pipe, as only one of the tenders submitted was accompanied by a sample. The city engineer has also advised that new tenders be invited for gravel east of Yonge street, as he considers \$1.80 per yard an excessive price.—The Orange Society contemplate building a new hall in North Toronto.—Tenders are wanted at Manning Arcade, up to Friday of this week, for the brick work, carpenter work and roofing of a storehouse.—Senator George A. Cox has offered to erect a cottage in connection with the proposed consumptive sanatorium near Toronto. This makes four cottages and an administration building assured.—It is reported that a company has been formed, with a capital of \$250,000, to manufacture paving brick near Mimico. Mr. J. W. McBride is said to be the manager.—Mr. James Chewitt will leave for England this week to consult the English shareholders in the Rossin House Company, Limited, with reference to the remodelling of the hotel.

It is proposed to construct a large rotunda and dome in the centre of the area occupied by the hotel.—The city council has decided to submit a by-law to the rate-payers at the January elections to provide \$150,000 for market improvements. In order to verify his estimate, Mr. W. L. Symons, who recently made an estimate of the cost of carrying out the proposed alterations to the market, obtained tenders for the several trades, which are as follows: Carpenter work, George Rathbone, \$30,750; masonry, brickwork, etc., Oakley & Holmes, \$32,042; steel and cast iron work, Dominion Bridge Co., \$37,093; heating and plumbing, Purdy & Mansell, \$9,910; galvanized iron, A. B. Ormsby, \$17,000; painting and glazing, F. E. Phillips, \$6,725; tiling, C. C. Cuff, \$3,700; elevators, Fensom & Son, \$1,400; total, \$138,620. The report of Mr. Matthew Sheard, architect, on the plans has not yet been presented to council.—The Presbyterian congregation at Eglinton have decided to make alterations to the interior of the building.—A movement has been commenced among the Scotchmen of this city to erect a monument to the Scottish poet, Robert Burns. Hon. G. W. Ross is honorary-president of the committee.—Plans are being prepared in the City Engineer's department for a ferry boat to provide a service from the Queen's wharf to the Island. The cost of the boat will be about \$4,000, and of the slips and cribbing about \$3,500.

FIRES.

The fires of the past week included the following: Saw mill of W. W. Trumbel, located on lot 12, concession 4, Maidstone, Ont.—Merritt's saw mill at Blenheim, Ont.; loss \$4,000, insurance, \$1,400.—Four stores at Coaticook, Que., known as the O'Neil block; loss \$10,000.—At Manitou, Man., Gordon's general store, loss \$25,000; Sparling & Lander's hardware store, loss \$5,000; Curtison's hotel and livery stable, loss \$5,000.—Residence of Richard Johnston at Palmerston, Ont.; partially insured.—Adams Bros.' harness and shoe shop at Virden, Man.—Glue factory of Ulric Maisque, at St. Sauveur, Que.; loss \$10,000, no insurance.—Residence of Thomas F. Wills at Belleville, Ont.—Grand Opera House at Kingston, Ont., owned by the Ontario Loan and Building Society, of Oshawa; loss \$6,000.—The Londonderry Hotel at Great Village, N.S.; insurance, \$2,300.—One-storey brick residence of John Waudby, of Glencoe, Ont.

CONTRACTS AWARDED.

NORTH BAY, ONT. The contract for the construction of the wharf here has been let to Burdett & Lindsay, of Collingwood.

CHESLEY, ONT.—Washburn & Co. have been awarded the contract of building a dry kiln and boiler house at Warton.

INGERSOLL, ONT.—J. H. McKnight, of Toronto, has been given the contract for an addition to the New Daly hotel, owned by W. L. Cameron.

HALIFAX, N. S.—The contract for repairing the steamer Turret Chief has been let to McCaldin Bros., of the Ross Iron Works, New York; price, about \$40,000.

CARLINGFORD, ONT.—Contracts for building a new iron bridge at Knot's Mills have been let as follows: Masonry, James Davidson, \$775; iron work, A. Hill & Co., of Mitchell, \$489.

MONTREAL, QUE. It is reported that Connolly Bros., of this city, are the successful contractors for the Intercolonial deep water wharf at St. John, N. B., their tender being about \$300,000.

VANCOUVER, B. C.—The contract for the building of the Nelson & Bedlington Railway has been let to Foley Bros.,

Larson & Stevens. The distance is 50 miles, and the work is to be completed by July 1st, 1899.

KEMPTVILLE, ONT.—The town is building an iron bridge with concrete and stone abutments, the engineer being J. H. Moore, of Smith's Falls, and the contractor John Flannigan, of this place. The price is about \$2,410.

ST. THOMAS, ONT.—Tenders for the electric wiring of the new city hall were received as follows: Rodgers & Co., London, \$395; Matthew Stearns & Son, St. Thomas, \$558; H. L. Grey, Toronto, \$409. The latter tender has been accepted.

TORONTO, ONT.—The city engineer has recommended that the contract for brass work for the Waterworks Department be awarded to the Toronto Brass Manufacturing Company.—The Metropolitan Railway Company have let the contract for a steel bridge over the G.T.R. crossing at Aurora to the Hamilton Bridge Works Company.

LISTOWEL, ONT.—The following tenders were received for \$6,333.99 of debentures, for 20 years, at 4 per cent.: Bank of Hamilton, \$100.65 bonus (accepted); Ontario Mutual Life Association, \$6,425 and accrued interest; Geo. A. Stimson & Co., \$6,410 and accrued interest; Jas. A. Mackay, Toronto, \$6,375 and accrued interest; Imperial Bank, \$6,333.99, or par value; Andrew T. Drummond, Kingston, 98 cents on the dollar.—Mr. Gunther has let contracts as follows for building vault and putting in stone front for Imperial Bank: Masonry, Neuert Bros.; carpentry, Bamford Bros. W. E. Binning is resident architect.

BIDS.

TORONTO, ONT.—Eight tenders were received by the Board of Control for blinds for the 1,144 windows in the new municipal buildings, as follows; No. 1, rollers, \$1,230; No. 2, Venetian, \$3,385; No. 3, shades opaque, \$966; No. 4, Venetian, \$4,361; No. 5, rollers, \$1,409.29; No. 6, opaque, \$944; cords, \$1,000; No. 7, opaque, \$1,050; No. 8, rollers, \$795. A report on the tenders will be made by the architect. Three tenders were submitted for fittings for nine departments in same building, the lowest complete tender, that of R. Dennis & Son, being \$20,335. The tenders were as follows:

Department.	No. 1.	No. 2.	No. 3.
Engineer	\$2,953	\$2,776	\$3,070
Street Commissioner.	825	810	850
Medical Health.....	1,050	1,037	1,173
Park Commissioner.	500	474	497
Treasurer.....	.....	4,464	4,528
Water Works.....	.....	4,341	4,628
City Commissioner..	812	771	852
City Clerk .....	.....	2,715	2,796
City Solicitor.....	.....	2,957	3,355

Total..... \$6,140 \$20,335 \$21,766

None of the above tenders have as yet been accepted.

The city council of Stratford, at its last meeting, offered the Water Supply Company \$75,506 for their plant. Two estimates of its value had been prepared, one from the books of the company, by Mr. A. C. Nuff, chartered accountant, the other by Messrs. Davis & VanBuskirk, based upon the present value of the plant. The former's estimate was \$95,349.06 and that of the latter \$88,372.88. The offer made by the council does not include the statutory 10 per cent. to which the company is entitled for the franchise, which would make the total about \$83,000.

TESTS OF STONE FOR ROAD-MAKING.

The experimental work of testing road-building stone, which has been carried on at Harvard University under the supervision of L. W. Page, a geologist, is described in the report of the highway commissioners of Massachusetts. The commission is composed of T. C. Mendenhall, W. E. McClintock and C. W. Ross. In making these enquiries the aim has been to determine the nature of the qualities which constitute fitness or unfitness of the different kinds of rocks for use in road-making, the effects of diverse methods of treatment used in the process of construction, and the relative value of the bed rocks and gravels which are found in the several parts of the state. The abrasion and the cementation tests have proved most useful thus far. The machine used in conducting these tests was designed by William Page, under the direction of the commission. The abrasion machine was modeled after the Deval machine, such as is used in making similar tests at the national school of roads and bridges of France. In making the abrasion tests with the Deval machine the stones employed are of such sizes as will pass through a screen with a 2½-inch mesh and not through a screen with a ½-inch mesh. In making the test eleven pounds of stone, previously cleaned, are placed in the cylinder; the air tight cover is then screwed on and the cylinder rotated at the rate of two thousand revolutions an hour. The rotation of the cylinder throws the fragments of stone from one end of the cylinder to the other twice in each revolution. At the end of five hours, or ten thousand revolutions, the machine is stopped, the cylinder opened, and the contents emptied into a basin. The cylinder and cover are carefully washed and the water used is poured into a basin. Each stone is then washed and brushed under the water, and is thus cleaned from the adhering dust which remains in the water as a sediment. After it is dry the detritus is emptied into an automatic sieve which separates that below one-sixteenth of an inch from that above. The per cent. of the 1/16 inch dust may be taken as a coefficient of wear, or the coefficient adopted by the French school of roads and

bridges may be adopted by the formula—

$$\text{Coefficient of wear} = \frac{w}{w_0}$$

where w is the weight in grammes of the detritus, less than one-sixteenth of an inch in diameter obtained per kilogramme of stone.

The tests on all specimens are made under precisely similar conditions, so that all results are comparable. The tests on the more common rocks show the following results:

Kind of Stone.	Highest result.		Lowest result.	
	Coeff. of wear*	Per cent. of wear.	Coeff. of wear*	Per cent. of wear.
Diabase (trap).....	30.40	1.31	9.28	4.31
Granite	21.16	1.90	8.41	4.76
Felsite	19.91	2.01	12.30	3.25
Gneiss	23.02	1.73	5.01	7.98
Limestone	17.20	2.33	6.31	6.34
Schist	12.52	3.19	4.87	8.20
Quartzite	20.34	1.97	9.07	4.41
Field stone (erratics). 19.19	2.08	5.43	7.30	

* On the French system.

For testing the cementing value of stone, a machine consisting of a 2.2-pound hammer arranged like the hammer of a pile driver on two vertical guides, is used. The hammer works automatically and can be dropped any desired height upon a plunger under which the briquette to be tested is placed. The plunger is held in two guides and attached to it is a lever, pivoted at one-sixth of its length from the plunger and carrying a pencil at its free end. The pencil has a vertical parallel movement five times as great as that of the plunger, and its movement is registered on a drum against which the pencil presses. The drum rotates through a small angle at each stroke of the hammer; thus an automatic diagram is taken of the behavior of the briquette throughout the whole test. The point brought out by this machine is the fact that, when the hammer falls on the plunger, if the material beneath it can stand the blow, the plunger recovers from the downward thrust given it by the hammer; if not, the plunger stops at the point to which it is driven. In this way the number of blows previous to the critical blow, which destroys the bond of cementation, are accurately recorded on the drum.

The briquettes for the cementation test are made by reducing the stone to a dust that will pass through a sieve of 1/100 of an inch mesh. The powder is put into a slightly tapered steel die of circular section, about 1.35 inches in diameter, and .98 inches in height, mixed with water and subjected to a pressure of 4,400 pounds. The briquette resulting from this is put aside for at least one week, in order to become thoroughly dry.

CHARLES HUGHES - Milton West, Ont.

All Kinds of Municipal Work

CURBING, CROSSING, CHANNELLING, FLAGGING, ETC.

Rough Heavy Lime-stone for Breakwater Cribbing, Etc.

Credit Valley Grey Dimension, any size, Sills, Steps, Coursing, Bridge Blocks, Engine Beds.

— Estimates Given for All Kinds of Cut Work —

JOSSON CEMENT .. Manufactured at. NIEL ON RUPELL

Is the Highest Grade Artificial Portland Cement and the Best for High Class Work. Has been used largely for Government and Municipal Works.

TO BE HAD FROM ALL CANADIAN DEALERS

C. I. de Sola, Manager in Canada :: 180 St. James Street, MONTREAL

MUNICIPAL DEBENTURES wanted for foreign clients. We can place Debentures direct with foreign clients without charge to municipalities.

ÆMILIUS JARVIS & CO. (Member Toronto Stock Exchange) Stock and Bond Brokers. Investment Agents. 23 King St. West, TORONTO

ELECTRIC RAILWAY BONDS PURCHASED.

STOCK EXCHANGE ORDERS PROMPTLY EXECUTED

MUNICIPAL ENGINEERS, CONTRACTORS AND MATERIALS

BUSINESS NOTES.

O. Martineau & Sons have registered partnership as general contractors at Montreal.

Waterman & Bates, painters, Bridgewater, N.S., have dissolved, H. O. Bates continuing.

A demand of assignment is reported to have been made on Joseph Douillet, contractor, Montreal.

Napoleon and Thomas Rochon have registered proprietors of the business of Rochon & Bro., brick manufacturers, Montreal.

J. C. Scott, F. J. Russel, C. F. Rice and Elizabeth Jane Scott have been incorporated as a company to carry on a building, contracting and lumber business in Toronto, with a capital of \$60,000.

DEBENTURES BOUGHT

Municipalities saved all possible trouble.

G. A. STIMSON & CO.

Investment Dealers

24 and 26 King St. W. - TORONTO

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, Limited.

WALTER MILLS, General Manager. Head office: INGERSOLL, ONT.

ENGINEERS

WILLIS CHIPMAN

B. A. Sc. (McGill).

Mem. Can. Soc. C. E.

Mem. Am. Soc. C. E.; M. Am. W. W. Ass'n.

Civil and Sanitary Engineer
TORONTO

RODERICK J. PARKE

Consulting Electrical Engineer

MUNICIPAL ELECTRICAL LIGHTING
COMMERCIAL POWER INSTALLATIONS

Isolated Electrical Lighting and Power Plants for Manufacturers. Estimates, Specifications, Advice on Tenders, Valuating.

310 Temple Building - TORONTO, CANADA

VAUGHAN M. ROBERTS

Civil and Sanitary Engineer

Waterworks, Sewers, Electric Light,
Electric Railways.

Plans and Specifications prepared.—Work Superintended. 18 Ontario Street,
ST. CATHARINES

E. A. WALLBERG, C.E.

BRIDGE ENGINEER

Bell Telephone Building, MONTREAL

Bridges, Buildings, Foundations, Plans, Specifications, Superintendence and Expert Reports on existing structures . . .

DAVIS & VAN BUSKIRK

Graduates Royal Military College of Canada.

CIVIL ENGINEERS

SPECIALTY: Municipal Engineering, including Drainage, Sewerage, Sewage Disposal, Waterworks, Roadways and Bridges.

W. F. Van Buskirk, A. M. Can. Soc. C. E., Strathford.
Wm. Mashon Davis, M. Can. Soc. C. E., Woodstock.

THE PHOENIX BRIDGE & IRON WORKS

Civil Engineers and Contractors

BLACKSMITHS AND MACHINISTS

STEEL AND IRON STRUCTURAL AND ARCHITECTURAL WORK

Beams, Channels, Angles and
Tees always in stock.

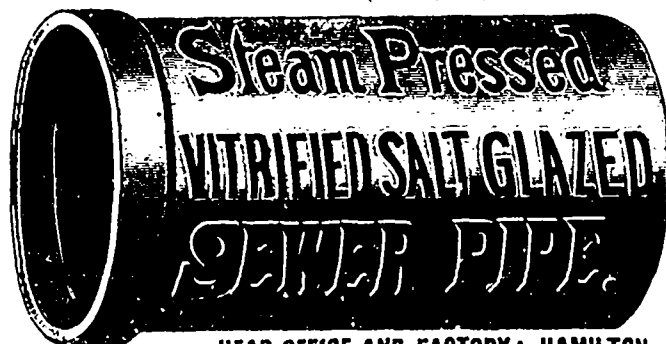
29 to 49 McGill Street,

P.O. Box 893.

MONTREAL

THE HAMILTON AND TORONTO SEWER PIPE CO.

(LIMITED.)



— FOR —
**SEWERS,
CULVERTS
AND
WATER PIPES.
INVERTS**
For Brick Sewers

Write for Discounts

HEAD OFFICE AND FACTORY: HAMILTON, CANADA

THE STANDARD DRAIN PIPE CO.

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



Manufacturers of
Salt-Glazed
Vitrified

**SEWER
PIPES**

Double Strength
Railway Culvert Pipes,
Inverts, Vents,

AND ALL KINDS OF FIRE CLAY GOODS

When corresponding with Advertisers of THE CONTRACT RECORD, kindly mention where you saw their advertisement.

For Artificial Stone Pavements, Roofing Gravel,
Concrete, Etc.

USE "CRUSHED QUARTZITE"

LAURENTIAN SAND & GRAVEL CO.

Telephone 2491.

MONTREAL

13 St. John Street.

Write for Prices delivered in your town.

**CANADIAN
CONTRACTORS'
HAND-BOOK**

(SECOND EDITION)

Contains 150 pages of the most valuable information, substantially bound in cloth. Price, \$1.50; to subscribers of the "Canadian Architect and Builder," \$1.00.

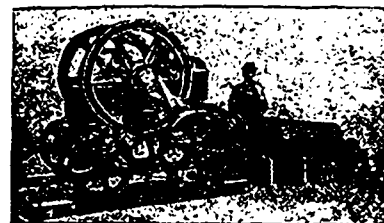
The C. H. Mortimer Publishing Co.
of Toronto, Limited,

Confederation Life Building,
TORONTO.

Branch Office:
New York Life Building, Montreal.

THE JENCKES MACHINE CO.

31 Lansdowne Street - SHBRBROOKE, QUE.



Builders of

STONE AND ORE CRUSHERS
and Macadamizing Machinery.
Complete Plants Planned and Erected.

Write us for Catalogue of Crushing Machinery,
and Prices, stating requirements.

MUNICIPAL DEPARTMENT

THE PAVEMENTS OF TORONTO.

The annual report of the city engineer of Toronto for the year 1897 contains some figures regarding pavements in that city which may be interesting to other municipalities. Table No. 2 shows the mileage of different classes of pavements and sidewalks laid from 1890 to 1897, and is as follows :

Class of Pavement.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.
Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Asphalt.....	1.73	1.635	6.216	5.607	3.067	1.156	0.366	0.460
Cedar block on sand and plank foundation.....	15.51	9.186	3.349	3.249	0.852	1.753	0.428	2.459
Macadam.....	0.10	0.123	0.494	.....	0.059	1.663	1.661	0.510
Cobble.....	0.192	0.069	0.366	.....	.....	.....	.....	.....
Tamarac on concrete.....	0.077	.....	.....	.....	.....	.....	.....	.....
Cedar block on concrete.....	.....	.....	8.416	2.185	0.826	0.227	0.038	.....
Stone setts on concrete.....	.....	.....	6.703	3.743	2.563	0.085	.....	.....
Scoria block on concrete.....	0.138	.....	0.028	.....	.....	0.117	.....	.....
Brick on concrete.....	.....	.....	.....	3.964	0.787	0.744	1.032	5.803
Brick on gravel.....	.....	.....	.....	.....	.....	.....	0.028	0.838
Concrete pavements in lanes.....	.....	.....	.....	.....	.....	0.071	.....	.....
Gravel.....	.....	.....	.....	.....	.....	.....	.....	3.138
Total of pavements.....	17.670	11.090	19.574	18.748	8.154	5.816	3.553	13.208
SIDEWALKS.								
Concrete.....	1.426	1.930	1.508	2.259	1.137	1.918	0.612	1.050
Stone flag.....	1.273	0.398	0.104	0.035	0.011	.....	.....	.....
Brick.....	.....	.....	.....	.....	.....	.....	0.204	0.823
Total of sidewalks.....	2.699	2.328	1.612	2.294	1.148	1.918	0.816	1.873

In Table No. 4 is shown the percentages of the different classes of pavements in the city, it being as follows :

	Per cent
Cedar block.....	39.24
Stone and scoria.....	0.31
Asphalt.....	5.84
Brick.....	1.37
Wood on concrete.....	0.21
Macadam.....	15.68
Gravel.....	1.25
Cedar block with asphalt between tracks	2.10
Cedar block with brick between tracks.	3.21
Macadam with stone setts between tracks	0.42
Unpaved.....	30.37
Total.....	100.00
Total.....	258.30 miles.

Regarding the different pavements the City Engineer says :

CEDAR BLOCK.—There seemed to be a revival in the popularity of cedar block pavements this year, as seven streets were relaid with them, and only three the year before, and it is to be hoped that the people of this city will get over the prejudice they have long had against this class of roadway. Their seeming failure arose through allowing the payments for them to extend over too long a period of time, which resulted in the ratepayers being obliged to pay a local improvement tax on these pavements for several years after they were completely worn out and beyond repair. Under our present system, the time for payment only extends over five years, a period well within their lifetime; and considering their cheapness, quietness and freedom from dust, I do not think that the residents on streets where

there are worn-out cedar block pavements existing, can do better than have the streets relaid with new blocks, if the amount of travel is moderate and the property not valuable enough to permit of the tax for a pavement on concrete foundation.

BRICK.—The mileage of brick pavement constructed during 1897 shows quite a large increase over that of the two previous years. The greater part of it was laid on a foundation of Portland cement concrete four inches in depth. On a few streets the bricks were laid on gravel foundation, and it remains to be seen whether those on gravel will give entire satisfaction. From present indications I do not think they will, as several

durability of the pavement, the small increase in expense incurred is money well expended. It is claimed by some that the noise caused by the vehicles passing over brick pavements can be greatly reduced by filling the joints with paving pitch, instead of grout, but I do not think that this condition is true, as I have stood on brick pavements where part of the filling was grout and part pitch, and could not detect any difference in the noise as the vehicles passed over them.

GRAVEL.—These roads are very good during dry weather, and much nicer to drive or wheel on than pavements, but when the weather is wet they become very muddy and are easily cut up when subjected to heavy travel, consequently they will require to have much more labor expended on them than pavements do to avoid ruts forming. Of course, these ruts are not as likely to become dangerous as the holes in cedar block pavements, but they will give the roadway more the appearance of a country road than a city street. Since the people have seen their condition during the wet weather of winter, they do not seem to be so much in favor of them as they were a few months ago, so I do not think that there will be many more constructed.

An important motion was presented recently in the Superior Court at Hull, Que., before Justice Lavergne. Some time ago the corporation of Gatineau Point deposited in the hands of Notary Labelle debentures to the amount of \$10,000 issued by the Stadacona Light and Power Company, of Montreal, for the construction of the waterworks in Gatineau Point. A few days ago a dispute arose between the company and the corporation as to the amount of work performed. The result was that the company claimed 80 per cent. of the debentures on the work done, as per estimate prepared by engineer Farley, of Hull. On the other hand, the corporation refused the request on the ground that the amount of work performed was not sufficient to guarantee 80 per cent. Notary Labelle therefore made an application to be relieved of the guardianship of the debentures. Judge Lavergne contended that the council of Gatineau Point had not done its duty in not appointing a regular engineer to prepare the estimates, and refused to grant Notary Labelle's motion, giving him power, however, to pay over percentage of debentures to the company when he finds it necessary.

Portland Cements...

HIGH GRADE GERMAN BRANDS FOR GRANOLITHIC AND ARTIFICIAL STONE SIDEWALKS.

Sewer Pipes, Best English Cements. Best Belgian Cements.
Culvert Pipes, &c. W. McNally & Co., Montreal.

BELLHOUSE, DILLON & CO., 30 St. Francois Xavier St., Montreal
Sole Agents for the Compagnie Generale des Asphaltes de Franco (Rock Asphalt).

PORTLAND CEMENT NORTH'S CONDOR
Paving and Fire Brick a Specialty SITTING LION and WHITE-CROSS Brand
NORTH'S "CONDOR" BRAND AWARDED FIRST PRIZE AND GOLD MEDAL AT THE ANTWERP EXHIBITION

MUNICIPAL ENGINEERS, CONTRACTORS AND MATERIALS

Prices of Building Materials.

LUMBER.

MARK QUOTATIONS.

	Toronto.		Montreal.	
	\$	\$	\$	\$
Mill cullboards and scantling 9 00	10 00	10 00	12 00	
Shipping cull boards, pro-				
miscuous widths.....12 00	13 00		13 00	
Shipping cull boards, stocks 15 00	16 00		16 00	
Hemlock scantling and joist				
up to 16 ft.....10 00	12 00		10 00	
Hemlock scantling and joist				
up to 18 ft.....11 00	12 00	12 00	13 00	
Hemlock scantling and joist				
up to 20 ft.....12 00	13 00	13 00	14 00	
Cedar for paving, per cord....	5 00		5 00	
Cedar for kerbing, 4 x 14,				
per M.....14 00	14 00		14 00	
Scantling and joist, up to 16 ft				
" " " " " " " " " " " "	18 ft	15 00	14 00	
" " " " " " " " " " " "	20 ft	16 00	16 00	
Scantling and joist, up to 22 ft				
" " " " " " " " " " " "	24 ft	17 00	17 00	
" " " " " " " " " " " "	26 ft	20 00	19 00	
" " " " " " " " " " " "	28 ft	22 00	21 00	
" " " " " " " " " " " "	30 ft	24 00	23 00	
" " " " " " " " " " " "	32 ft	27 00	27 00	
" " " " " " " " " " " "	34 ft	29 00	29 00	
" " " " " " " " " " " "	36 ft	31 00	31 00	
" " " " " " " " " " " "	38 ft	33 00	33 00	
" " " " " " " " " " " "	44 ft	39 00	36 00	
Cutting up planks, 1 1/2 and				
thicker, dry.....25 00	28 00	25 00	30 00	

B. M.

1 1/2 in. flooring, dressed, F. M.	34 00	36 00	28 00	31 00
1 1/2 inch flooring, rough, B. M.	18 00	22 00	18 00	22 00
1 1/2 " " " " " " " " " " " "	dressed, F. M.	25 00	27 00	30 00
1 1/2 " " " " " " " " " " " "	undressed, B. M.	18 00	18 00	19 00
1 " " " " " " " " " " " "	dressed.....18 00	20 00	18 00	22 00
1 " " " " " " " " " " " "	undressed.....12 00	15 00	12 00	15 00
Beaded sheeting, dressed.....	20 00	25 00	22 00	25 00
Clapboarding, dressed.....	14 00	14 00	8 00	12 00
XXX sawn shingles, per M				
16 in.....2 40	2 35		3 00	
XX sawn shingles.....1 60	1 50			
Sawn lath, No. 1.....1 75	2 0	2 50	2 60	
Cedar.....2 90	2 90		2 90	
Red oak.....30 00	40 00	30 00	40 00	
White.....37 00	45 00	35 00	55 00	
Basswood, No. 1 and 2.....28 00	30 00	18 00	20 00	
Cherry, No. 1 and 2.....70 00	90 00	70 00	80 00	
White ash, No. 1 and 2.....24 00	35 00	30 00	35 00	
Black Ash, No. 1 and 2.....20 00	30 00	18 00	30 00	
Dressing stocks.....16 00	22 00	16 00	22 00	
Picks, American inspection..	30 60		40 00	
Three uppers, Am. inspection	50 00		50 00	

(Continued on Page 8.)

SCORIA PAVING BLOCKS are the Best All-Round Paving Material yet discovered.

W. H. KNOWLTON & CO.,
Dealers in Contractors' Supplies, 36 King St. E., Toronto

Paving Granite

Granite Sets for Street Paving. — CURBING cut to any shape ordered. — Fine Rich Colors for Building and Monumental Purposes.
Quarries, St. Phillippe a Argenteuil, P. Q.

Address all communications to

JOS. BRUNET - COTE DES NEIGES, MONTREAL.

Notice to Contractors

WE can save you money on.....

Granolithic or Crushed Stone

of any size, as we have the most complete plant in Canada. You will consult your own interests by getting our prices. We also make a speciality of Slate, Tile, Granite and all kinds of Stone. Crusher at Jarvis street wharf.

THE POWELL GRANITE & MARBLE CO'Y,
Phone 3440. Office, 482-484 Yonge St., Toronto

Est. 1852
St. Lawrence Foundry Co.
OF TORONTO, LIMITED.

ARCHITECTURAL IRON & STEELWORK
ROOFING, GIRDERS, BEAMS, TRUSSES, SPIRES, AREAS, LINTLS.
STRUCTURES OF
FORGINGS & CASTINGS
OF EVERY DESCRIPTION FOR BUILDERS, MACHINISTS & RAILWAYS. HEAVY CASTINGS A SPECIALTY.

CAST-IRON GAS, WATER & SEWER PIPES.
SPICES & BOLTS.
PATTERNS & MODELS.

REPAIRS & MACHINE TURNING DONE WITH DESPATCH. ESTIMATES GIVEN BY WORK. EXECUTED IN SHORTEST PERIOD.

262 TO 268 FRONT ST. EAST. **TORONTO.**

WATER CRANES
INDICATOR VALVE POST
FOOT AND CHECK VALVES
INDICATOR AND GATE VALVES
2-3 & 4 WAY HYDRANTS

MONTREAL PIPE FOUNDRY CO., Limited

Successors to
DRUMMOND McALL PIPE FOUNDRY CO., LGD.
Manufacturers of

CAST IRON WATER and GAS PIPES

and General Water and Gas Special Castings.

Prices on Application.

Offices, Canada Life Building, MONTREAL.

To Municipal Authorities, Engineers and Others

Owing to the excellent reputation which our "STAR" Brand of Portland Cement has acquired, and which trade mark is protected by government registration at Ottawa, foreign manufacturers have been sending cements into Canada under the name of "Star," which we believe to be inferior in quality, weight per barrel, etc., to our goods; hence, to ensure the use of the genuine article, we respectfully suggest that in framing specifications you be careful to see that RATHBUN'S "STAR" BRAND is specified and used. We guarantee it.

THE RATHBUN COMPANY - DESERONTO, ONT.

EVERY ENGINEER AND CONTRACTOR

Should possess a copy of the Second Edition of the Canadian Contractors' Hand-Book, a compendium of useful information for persons engaged on works of construction, containing upwards of 150 pages. Price \$1.50; to subscribers of the CANADIAN ARCHITECT AND BUILDER, \$1.00.

C. H. MORTIMER PUBLISHING COMPANY
OF TORONTO, LIMITED, Publishers,

Branch Office: New York Life Building, MONTREAL

Confederation Life Building, TORONTO.

ALEX. GARTSHORE, President. J. G. ALLAN, Secretary and Treasurer. JAS. THOMSON, Vice-President and General Manager.

THE GARTSHORE-THOMSON PIPE & FOUNDRY CO. LIMITED.

Manufacturers of....

Flexible and Flange Pipe,
Special Castings and all kinds of
Waterworks Supplies.



3 inches to 60 inches diameter.

For Water, Gas, Culvert and Sewer

HAMILTON ONT.

Prices of Building Materials.

INDEX TO ADVERTISEMENTS
In the "Canadian Architect and Builder."

(Continued.)

Toronto. Montreal.

BRICK—M

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Common Walling, Good Facing, and Sewer.

PRESSED BRICK, PER M.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Red No. 1 f.o.b. Milton, Buffalo No. 1, and Hard building.

P. O. B. DON VALLEY.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Red A, Red B, Trojan and Corinthian, and various styles of brick.

P. O. B. BEAMSVILLE.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Peebles Facing, Red No. 1, Buffalo, and various styles of brick.

SAND.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Row: Per Load of 1 1/2 Cubic Yards.

STONE.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Common Rubble, Large flat Rubble, Foundation Blocks, and various types of stone.

OHIO FREESTONE.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include No. 1 Buff Promiscuous, No. 1 Buff Dimension, and various types of stone.

CREDIT VALLEY STONE.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Rubble, Brown Coursing, and Grey Coursing.

LONGFORD STONE.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Rubble, Ashlar, and various types of stone.

Main index table listing various categories: Architects, Creosote Stains, Drain Pipe, Elevators, Electrical Apparatus, Engravers, Fire Brick and Clay, Folding Partitions, Galvanized Iron, Grilles and Railings, Heating, Interior Decoration, Iron Pipe, Lumber, Machinery, Metal Roofing, Mortar Colors and Shingle Stains, Ornamental Iron, Paints and Varnishes, Parquet Floors, Plate Glass, Pressed Brick, Plumbers, Reflectors, Roofers, Sanitary Appliances, Stained and Decorative Glass, Storm Doors, Typewriters, Ventilators, Wall Plaster.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include For ornamental work, Granite paving blocks, Granite curbing stone.

SLATE.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Roofing, Red, Purple, Unslating green, Black, Tessi Cotta Tile, and Ornamental Black Slate Roofing.

PAINTS. (In oil, per lb)

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include White Lead, Zinc, Red lead, Venetian, Vermillion, Indian, Yellow ochre, Yellow chrome, Green chrome, Paris, Black lamp, Blue, ultramarine, Oil, linseed, raw, by bbl., Imp. gal., Oil, linseed, b'd, by bbl., Imp. gal., Oil, linseed, refined, Imp. gal., Putty, Whiting, dry, per 100 lbs., Paris white, Eng., dry, Litharge, Eng., Sienna, burnt, Turpentine.

CEMENT, LIMK, etc.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Portland Cements, Germar, per 100 lbs., London, Newcastle, Joson's Brand Portland, North's "Condor", English, artificial, per bbl., Belgian, natural, per bbl., Canadian, artificial, Roman, Parian, Superfine, Hydraulic Cements, Thorold, per bbl., Queenston, Napance, Hull.

Toronto. Montreal.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Ontario, Keene's Coarse "Whites", Fire Bricks, Newcastle, per M, Scotch, Lime, Per Barrel, Grey, White, Plaster, Calcined, N. B., N. S., Hair, Plasterers', per bag.

HARDWARE.

The following are the quotations to builders for nails at Toronto and Montreal: Cut nails, 5d & 6d, per keg 1 80 1 85 Steel " " " " 1 90 1 95

CUT NAILS, FENCE AND CUT SPIKES.

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include 40d, hot cut, per 100 lbs, 10 to 12 1/2, hot cut, 8d, 9d, 6d, 7d, 4d to 3d, 3d, Cut spike, 10 cents per keg advance, Steel Nails, 1 c. per keg extra, Wire nails, 185 base price.

Iron Pipe:

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Iron pipe, 1/2 inch, per foot, 3/4 inch, 1 inch, 1 1/2 inch, 2 inch, 2 1/2 inch, 3 inch, Toronto, 65 per cent. discount, Montreal, 70 per cent. discount.

Lead Pipe:

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Lead pipe, per lb., Waste pipe, per lb.

Galvanized Iron:

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Adam's—Mar's Best and Queen's Head, 16 to 24 gauge, 26 gauge, 28, Gordon Crown—16 to 24 gauge, 26 gauge, 28, Note.—Cheaper grades about 1/2 c. per lb. less.

Structural Iron:

Table with 4 columns: Description, Price in Toronto, Price in Montreal, Price in Montreal. Rows include Steel Beam, per 100 lbs., channels, angles, tees, plates, Sheared steel bridge plate.