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CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL OF CONTRACTING 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.

JUNE 1, 1898

No. 18.

THE CANADIAN CONTRACT RECORD, PUBLISHED EVERY WEDNESDAY

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CONFEDERATION LIFE BUILDING, TORONTO.
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NOTICE FOR TENDERS

Sealed tenders will be received by the undersigned Secretary of the Andover Water Commissioners up to SATURDAY, THE FOURTH DAY OF JUNE NEXT, at 4 o'clock p.m., for the furnishing of all necessary material and construction of a SYSTEM OF WATERWORKS for Andover Village, in accordance with plans and specifications to be seen at the office of said Commissioners in Andover, N.B.

The Commissioners do not bind themselves to accept the lowest or any tender.
Estimated cost of work, \$8,000.00.

F. J. CARTER,
Secretary.

Andover, N. B., May 9th, 1898.

CITY OF WINNIPEG WATERWORKS

Proposals, addressed to W. G. Bell, Chairman Fire, Water and Light Committee, Winnipeg, Man., will be received at the office of the undersigned up to 2 30 o'clock on

MONDAY EVENING, THE 25TH DAY OF JULY, 1898,

FOR THE

Construction and Supply of a System of Wells and Pumping Plant

for the supply of 4,000,000 gallons of water daily to the reservoirs of the City.

Information and specifications may be obtained from H. N. Ruttan, City Engineer.

C. J. BROWN,
City Clerk.

WANTED PARTNER WITH CAPITAL.
Freestone Quarry, north of Georgetown.
Wm. IRVING, Lincoln, Ont.

WANTED.—COMPETENT ARCHITECTURAL Draughtsman. Apply personally. F. H. HERBERT, Architect, 9 Toronto Street.

MCINTYRE BLOCK, WINNIPEG

Arrangements are being made for erection of a new building, 124 ft. (frontage) x 92 ft. deep x 5 stories high, with modern improvements, to replace the old one lately destroyed by fire. Manufacturers and others who can quote such prices for building materials, etc., as will allow them being laid down in Winnipeg at a satisfactory cost, are invited to send me descriptive price lists of their specialties. In case of orders, satisfactory guarantees as to payment will be given. Address, JAS. H. CADHAM, Builder and Contractor, Winnipeg.

CONTRACTS OPEN.

ESSEX, ONT.—Diebel & Bricker will build a large warehouse.

CHILLIWACK, B. C.—G. R. Ashwell & Son are rebuilding their store.

WHEATLEY, ONT.—F. McIntyre will probably erect a large boarding house.

STRATFORD, ONT.—The Public School Board want \$14,000 for school purposes.

MILLBROOK, ONT.—William Thexton intends making improvements to building.

PERTH, ONT.—A site has been purchased on which to build a new public school.

LACHUTE, QUE.—It is said that J. C. Wilson contemplates building a residence.

DAUPHIN, MAN.—A Baptist church, with a seating capacity of 350, will be built here.

PORT DOVER, ONT.—Steps are being taken to secure funds to remodel the Methodist church.

THORNBURY, ONT.—The citizens are discussing the question of providing fire protection.

TILBURY, ONT.—The contract has not yet been awarded for the new separate school and convent here.

ALLISTON, ONT.—A deputation has asked the Minister of Public Works to erect a new post-office here.

WOLFVILLE, N. S.—An effort is being made to secure the location of the proposed court house in this town.

WATERFORD, ONT.—The plans of the new Alice block have been completed, and tenders are now being taken.

MIDLAND, ONT.—The public school trustees have decided to erect a four room addition to one of the schools.

GODERICH, ONT.—Agent Straton, of the G.T.R., has submitted plans to the company for alterations to the depot.

SARNIA, ONT.—Shipe & Avery, of Toronto, were in town recently looking for a suitable site for a bicycle rim factory.

AGRICOLA, N.W.T.—W. Walker wants tenders for building a school house. Plans at office of F. Fraser Tims, Edmonton.

ROSSLAND, B. C.—It is stated that the owners of the Monarch mine, at Field,

contemplate building a smelter in the valley below the mine.

GIBSON, N. B. The trustees of the Methodist church are considering the advisability of building a new parsonage.

WHITE'S COVE, N. B. J. A. Molasky is taking out the foundation for a large residence for Mrs. E. Chase, of Upper Gagetown.

RAT PORTAGE, ONT. Debentures amounting to \$20,000, issued for the purpose of building a new school, will be offered for sale.

RICHMOND CORNER, N. B. Charles Campbell has invited tenders for building a tower and making repairs to Presbyterian church here.

OAKVILLE, ONT.—The Minister of Public Works has intimated that the necessary funds will be forthcoming for repairs to the harbor here.

RUTHVEN, ONT.—E. R. Wigle has purchased property on which to build a residence. Solomon Fox will also build a residence this summer.

TWEED, ONT. Gordon & Phillips, of Chatham, will establish a factory here for the manufacture of woollen goods, and put in an electric light plant.

KINGSTON, ONT. Power & Son, architects, this city, have invited tenders for the erection of a school building for St. John's church, Portsmouth.

MINNEBOSA, MAN.—Proposals for the purchase of \$5,000 of school debentures will be received by E. W. Pearson, secretary-treasurer, up to Thursday, June 10th.

BERLIN, ONT.—The town having decided to take over the waterworks plant, it is probable that the corporation of Waterloo will contract for a water supply.

VALLEYFIELD, QUE.—The ratepayers have decided to grant a bonus of \$10,000 to the Northrop Loom Co., and \$5,000 to the Cie Generale des Boissons Canadienne.

HINTONBURG, ONT.—A by-law to raise \$7,000 for building an addition to the public school building, and for alterations in the old building, has been read the third time in council.

TAVISLOCK, ONT. New tenders have been invited for remodelling the public school, in accordance with plans prepared by H. Powell, architect, of Stratford. The award has not yet been made.

PORT ARTHUR, ONT.—The Emmerson block, for which plans are being prepared by Simpson & Ellis, of Toronto, will have Vert Island cut stone for the first story and pressed brick for the upper stories.

INGERSOLL, ONT. Information has been received that work is to be commenced at once on the new post-office to be built by the Dominion government, the plans for which have already been prepared.

ORILLIA, ONT.—The ratepayers will shortly be asked to vote the sum of \$75,000 for the proposed Ragged Rapids power scheme. It is estimated that this

sum will be sufficient to install the necessary plant, which is calculated to produce 800 horse power.

TOBIQUE, N. B.—The Tobique Mfg. Co. now has a bill before the Dominion Parliament asking for power to do a lumbering, pulp and plaster manufacturing business on the Tobique river near Plaster Rock.

NEEPAWA, MAN.—Mr. H. Fieldhouse, Box 100, will receive tenders up to June 4th for building a central school with eight rooms.—The town offers for sale \$15,000 of Dominion debentures. Tenders close July 1st.

ST. JOHNS, QUE. It is expected that work will shortly commence on the proposed skating and curling rink. Mr. Mackenzie has prepared a rough plan of the skating rink, 170 x 60 feet, and of the curling rink, 170 x 38 feet, cost \$3,000.

WINDSOR, N. S.—W. J. Harris, architect, this town, is preparing plans for a commercial bank at Middleton, of brick and stone, with hot water heating and for a dwelling house for M. N. Gauze, this town.

BROCKVILLE, ONT.—Rev. C. H. Gauthier will receive tenders up to Saturday, 4th inst., for the building of a two-storey and basement extension to the St. Vincent de Paul Hospital in this city, from plans prepared by Liston & Liston, architects.

PARRY SOUND, ONT.—Steps will be taken at once to form a joint stock company to build an hotel to cost \$10,000. The promoter is Mr. Hogben, owner of the Seguin House property in this town. J. R. Booth, of the Ottawa, Arnprior and Parry Sound Railway, contemplates the erection of another grain elevator here.

HALIFAX, N. S.—H. Trenaman, city clerk, will receive tenders up to Tuesday, 14th inst., for the supply of 2,000 feet of 2½" rubber fire hose, with couplings complete, and 100 feet rubber hose for chemical engine.—Thomas Craven, architect, is preparing plans for three brick stores, with dwellings above, for J. W. Borden, cost about \$6,000.

VICTORIA, B. C.—The ratepayers will vote on a by-law to raise the sum of \$15,000 for completing the waterworks system.—A local architect is taking tenders for a large hotel, containing 60 rooms, to be built at Glenora.—The provincial government has invited tenders for a highway bridge across the Thompson river at Kamloops.

SHERBROOKE, QUE.—The council has decided to erect a stone wall to the approaches of St. Francis bridge. The directors of the Eastern Townships Agricultural Association have decided to erect an additional building for poultry. A new machinery hall, 250 by 40 feet, is also to be built between the main building and the dining hall.

HULL, QUE. Tenders close this week for the new factory building of the Toronto Rubber Company, which will cost about \$40,000. The main building will be 250 feet long and five stories high, with a large tower in the centre, and built of solid brick. There are, in addition, two other brick buildings, one for the cement house and the other for the store house.

BRANTFORD, ONT. Scarfe & Co. are about to commence the erection of a factory building, from plans prepared by George W. Hall, architect.—The Cockshutt Plow Company intend erecting an addition, 145 x 40 feet, to be used as a shipping room and for other purposes, and will put in more plant and machinery. The improvements will cost between \$10,000 and \$15,000.

ST. THOMAS, ONT.—The by-law granting a bonus of \$20,000 to the Lake Erie & Detroit River Railway Co., for the construction of its line from Ridgetown to

this city, was defeated by the ratepayers last week.—N. R. Darrach and J. Z. Long & Son, architects, whose plans have been accepted for new school buildings, will proceed at once to prepare working drawings and specifications, after which tenders will be invited.

CHATHAM, ONT.—At the last meeting of the Harwich council, the question of building an iron bridge, with 90-foot span, at the Tobin site, was considered.—J. L. Wilson & Son, architects, are preparing plans for the proposed city hall at Stratford.—Plans are being prepared by Powell & Carswell, architects, for an addition to the General Hospital, cost \$3,000, and new building for the Ursuline Convent, cost \$8,000.

GUELPH, ONT.—John Kennedy, Chairman Board of Works, has invited tenders for rebuilding the Paisley street culvert, and also for cutting down and building a retaining wall on the Paisley street hill.—It is probable that a syndicate will be formed to take over and improve the plant of the Norway Iron & Steel Co.—R. McIntosh and Allan Stewart, county commissioners, want tenders by Saturday next for the annual supply of gravel.

ST. JOHN, N. B.—R. C. John Dunn, architect, wants tenders by Tuesday, June 7th, for addition and alterations to residence for H. H. McLean.—A public meeting was held in this city last week to consider the question of starting a pork packing establishment. Dr. Gilchrist and others were appointed a committee to obtain particulars as to plans, estimated cost, etc.—The plans for the Kings county alms house are being prepared by G. E. Fairweather, architect. The building, which will be erected about a mile from Norton station, will be a wooden structure 64 x 42 feet and two and one-half stories high.

KEMPTVILLE, ONT.—W. H. Anderson will erect a brick residence to cost \$4,000.—G. E. Hanna will also erect a brick residence at same cost.—The church wardens of St. James church are asking for tenders for the construction of a brick rectory, cost about \$2,500.—Mr. Bowen, president of the Kemptville Milling Co., has purchased two lots on which he proposes erecting two brick dwellings at once.—The municipal council will submit a by-law to the ratepayers on June 3rd to authorize an issue of debentures for \$10,000 to construct granolithic sidewalks and permanent street improvements.

LONDON, ONT.—Oimsby Graydon, city engineer, will receive tenders up to Thursday, June 2nd, for the construction of 37 brick catch basins.—Herbert Matthews, architect, wants tenders for the erection of an addition to the factory of the McCormick Mfg. Co. on Wellington street.—The city council has given notice of its intention to construct a number of tile sewers and asphalt and artificial stone sidewalks.—The Water Commissioners have found it necessary to lay another conduit across the river in order to obtain an ample water supply and have invited tenders for laying a tile conduit.—Arrangements have not yet been completed for the purchase of new seats for the Wellington street Methodist church.

VANCOUVER, B. C.—On Saturday, June 18th, the ratepayers will vote on a by-law to grant a bonus of \$50,000 to H. W. Treat, of New York, for the erection of a smelter in this city.—The question of securing a site for the new library building was brought up at a recent meeting of the Finance Committee of the City Council.—Mr. Hagle, Q.C., representing the Vancouver Smelting Co., of London, England, states that it is proposed to erect a smelter near this city, to cost \$1,000,000.—Parr & Fee, architects, have taken tenders for a large residence.—The B. C. Sugar Refinery will shortly commence work on a large warehouse.—T. H.

Tracey, city engineer, has presented a report to the city council on the question of disposing of the sewage of the city, in which he recommends its discharge into the water.—A. E. Clark, who has secured the contract from the city for the supply of crushed rock, has leased the quarry at Granite Falls and intends to operate it.—Engineers of the Dominion government are now surveying the Stukine river, with a view to deciding what improvements are necessary.

QUEBEC, QUE.—A new parish has been created, of which Rev. Abbey Desfoy will be curate. It has not yet been decided where the new church will be erected.—The city engineer is obtaining figures as to the cost of asphalt paving in other cities.—David Ouellet, architect, is taking tenders for a church at St. Samuel, Quebec county.—A bill is now before the Dominion parliament to authorize the harbor commissioners to borrow \$350,000 for harbor improvements, in order to give accommodation for ships of 10,000 tons burden.—The present season promises to be an unusually busy one in this city. The corporation has \$250,000 to spend on improvements, the Harbor Commissioners will build a \$350,000 wharf, while the amalgamation of the Quebec District Railway with the Quebec, Montmorency & Charlevoix Railway will necessitate extensive works, the cost of which is not yet known. Local architects also have on hand contracts amounting to over half a million dollars.—David Ouellet, architect, has received instructions to prepare plans for a church, sacristy and presbytery for the parish of Sagayac. Same architect will ask tenders in a few days for the completion of the Church du Sacre Coeur de Marie.

WINNIPEG, MAN.—A committee meeting of the University was held last week, at which the question of erecting a new building was considered. The Dominion Government has granted to the University six acres of land, and upon this University buildings and probably a Normal and Model school will be erected. A sub-committee was appointed to make arrangements and report.—The city council has given notice of its intention to construct a sewer on Macdonald street, from Maple street to Argyle street, cost \$1,100, and a macadam pavement on Rupert st., from Main street to Victoria park, cost \$2,880.—It is expected that construction on the Northern Pacific railway extension from Belmont westward will be commenced in the course of a week.—Plans of a bridge to be built in the municipality of Kildonan, on Bunn's Creek, are on view at the office of Munroe & West in this city.—George Browne, architect, is taking tenders this week for alterations and improvements to the Imperial Bank block.—The Ogilvie Milling Co. have purchased S. Nairn's oatmeal mills in this city and will double their capacity.—Dow & Currie, of Pilot Mound, will likely erect an oatmeal mill in this city.—S. Hooper, architect, has invited tenders for the erection of the new Exchange Building for N. Bawlf.

HAMILTON, ONT.—A. W. Peene, architect, is preparing plans for a factory building on King William street for Arthur James. He has also prepared plans for a Presbyterian church to be built in Carluke.—The Fire and Water Committee have recommended that 121 water meters be purchased, at a cost of \$2,904.—It is reported that Senator Sanford intends to improve his property on King street by remodeling the houses and building a row of new ones.—The County Roads Committee have decided to request the Provincial Road Inspector to go over the county roads, with a view to ascertaining the cost of macadamizing the same.—Regarding the cost of remodelling the heating and ventilating apparatus of the city hall, Mr. Adam Clark reports as follows: New boilers, brickwork, etc., \$600; new

grates, \$209; additional radiators, steam fitting, etc., \$1,000; ventilating ducts, \$1,000; carpenter work and painting, \$300.—Building permits have been granted as follows: J. W. Blaisdell, two brick cottages on Garth street, cost \$1,200; R. J. Larkin, two-story brick dwelling, corner Locke and Oak streets, cost \$1,600; E. B. Patterson, alterations to Volunteer Hotel for P. Nelson, cost \$800; Geo. H. Milne, two storey bk. dwelling on East ave., for Robt. Rodgers, cost \$1,300.—Tenders are asked by W. A. Edwards, architect, up to June 2nd, for building a brick store and dwelling on Locke street.

MONTREAL, QUE.—The Finance Committee will this week consider the question of plans for the new fire station to be built on Beaudry street.—The officials of the Grand Trunk Railway state that the company have not yet decided to extend their line from Burk's Falls to Sault Ste. Marie, as rumored.—L. O. David, city clerk, will receive tenders up to Friday, 10th inst., for renovating toilet rooms, etc., at the city hall. Plans at office of M. Perrault and A. Gendron, architects, 15 St. Lambert street.—A dispatch from Montreal states that the C.P.R. will open tenders on the 17th inst. for the construction of a standard gauge railway from Robson, B. C., to Midway, via Dog Creek and thence across the pass to the Yukon. This extension will be built under the charter of the Columbia & Western Railway, and will be 100 miles in length. The cost of construction will therefore be about \$3,000,000.—The Dominion Government will advance \$2,000,000 to the Montreal harbor commissioners for the completion of the harbor works here.—Turgeon & Lafrinere, architects, are asking for tenders for a house at Cote St. Luc, 34 x 34 feet, with a green-house, 30 x 40 feet, for J. M. Beyries.—J. A. Chausse, Shaw street, is taking tenders for a house on St. Hubert street for Louie Guerin.

TORONTO, ONT.—A meeting of the authorities of St. Thomas church, on Huron street, is being held to-day (Wednesday) to further consider the question of enlarging the edifice.—The specifications for the elevators for the municipal building have been completed, and tenders for same will be invited shortly.—The Property Committee of the Public School Board will advertise for tenders for building new schools as soon as the plans and specifications can be completed.—Ratepayers on Spencer avenue will petition for a brick pavement and granolithic sidewalks.—It is probable that an addition to the Davenport Methodist church, and a parsonage adjoining, will be built at an early date. The recommendation of the Board of Works for a 12-inch water main on King street, between Close ave. and Jamieson ave., has been struck out by the Board of Control.—The following building permits have been granted: W. J. Gage & Co., extension to warehouse, north side Front street, cost \$1,200; John W. Coates, two-story and attic brick residence, 36 Morse street, cost \$1,000; Consumers Gas Company, brick and stone retort house, Parliament street, near Esplanade, cost \$5,000; Wm. Scott, two-story and attic brick dwelling, 92 Cowan ave., cost \$2,000; H. Greisman, two-story brick additions, 45 to 57 Chestnut street, cost \$1,100; J. Herdon, pair two-story and attic brick dwellings, corner Spadina ave. and Spadina crescent, cost \$5,000; Shepard Publishing Company, one storey addition to the Saturday Night building, cost \$1,400; W. R. Johnston, one storey stable, s. e. cor. Isabella and Huntley sts., cost \$2,500 (G. M. Miller & Co., architects); Wm. Booth, two storey and attic bk. dwelling, 132 Bedford rd., cost \$4,500 (G. M. Miller & Co., architects, W. Booth, builder); John Labatt, one storey vault and two storey residence and stable, on Elm street, cost \$12,000 (T. Cannon & Son, builders); H. E. Sheppard, pair s.d.

bk. dwellings, 29 and 21 Bellau st., cost \$2,400, also alterations 71 75 Yorkville ave., cost \$1,200 (C. J. Gibson, architect); T. W. Horn, two storey and attic stone residence, north-west corner St. George street and Prince Arthur avenue, cost \$18,000 (F. H. Herbert, architect).—Bond & Smith, architects, Temple building, are taking tenders this week for alterations and additions to a house in Rosedale.—The congregation of St. James Presbyterian church, at a meeting to be held to-day, will consider the question of improvements.

OTTAWA, ONT.—A scheme is now on foot among the business men of Sussex street to build a large modern hotel on a central site. Buildings at the corner of Mosgrove and George streets, in rear of Charleson's hardware establishment, are being torn down to provide a site for a new building to be erected shortly.—The congregation of Knox church have decided upon improvements, to cost \$4,500. A galvanized iron roof will be put on, the main entrance improved, the basement, including Sunday school room, remodelled, and the interior of the auditorium painted.—The Minister of Public Works has announced that tenders for the reconstruction of the Maria street bridge will be invited. The Dominion Government was last week asked to incorporate the Lake Champlain and St. Lawrence Ship Canal Co., to build a canal on the south shore of the St. Lawrence river to a point on the Chambly Canal or Lake Champlain. This work is estimated to cost \$6,000,000.—The sum of \$2,000 has been placed in the Dominion estimates for repairs to Sapper's bridge.—Hewitt & McLaren, architects, have made application to be appointed architects for the new buildings to be built by the Separate School Board.—Douglas Stewart, Inspector of Penitentiaries, wants tenders by June 20th for annual supplies, including hardware and lumber.—The City Council has decided upon a system of main drainage for the city, and at an early date the ratepayers will be asked to sanction an expenditure of \$404,000 for the purpose of carrying out the work.—Senator Cox, of Toronto, has offered to furnish the necessary funds for the purpose of providing a building in Ottawa to be used as the headquarters of the Victorian Order of Nurses.—The city offers for sale a limited number of debentures of the denominations of \$200, \$500 and \$3,000, running for thirty years and bearing 3½ per cent. interest.—The Dominion supplementary estimates for the fiscal year ending June 30th, 1898, were laid on the table on Monday last. Among

the items are the following: Repairs to piers and dredging at Port Hope, \$8,500; graving dock electric light at Kingston, \$1,500; harbor dredging at Kingston, \$15,000; harbor dredging at Picton, \$7,000; dredging and repairs to piers at Newcastle, \$1,750; repairs to pier at Oshawa, \$8,000; harbor dredging at Jordan, \$5,000; harbor dredging at Rondeau, \$2,500; repairs to pier at Rondeau, \$3,500; to provide new rifle range at Victoria, \$6,000; repairs to walls of military properties at Quebec and Kingston, \$10,000; rolling stock, I.C.R., \$600,000; increased accommodation on the I.C.R. at St. John, N. B., \$250,000; elevator at St. John, \$75,000; elevator at Halifax, \$75,000; station house and siding at Humphrey's, \$2,000; Soo Canal construction and equipment, \$60,000; plate drainage works and culverts at St. Johns, Que., canal, \$14,000; Welland Canal, renewal of superstructure at Port Dalhousie piers, \$20,000, to continue the renewal of swing bridge fender cribs, \$8,300; to renew the bridge over the Welland raceway and clean the raceway, \$3,000; to renew the Dunnville dam and bridge, \$39,000; to remove slides, \$6,000; steam communication between Prince Edward Island and Cape Britain, \$5,000; to provide a marine biological station in the Gulf of St. Lawrence, \$7,000; construction of a new observatory car at Toronto, rendered necessary by electric currents in Toronto destroying observations, \$3,000; Halifax drill hall revote, \$20,000; new vote, \$6,000; Windsor, N. S., public building revote, \$11,000; drill sheds, Windsor, N.S., additional amount, \$3,000; artesian well, Partridge Island, N.B., \$1,500; Winnipeg custom house, repairs and improvements, \$1,800; Regina land titles office, \$12,000; Medicine Hat court house, \$6,000; Vancouver drill hall, \$20,000; rebuilding laboratory, Experimental Farm, Ottawa, \$4,000; examination and improvements, Sukine river and Hootalinqua river, \$16,000; trail from Edmonton towards Yukon district, \$15,000.—John Henderson, City Clerk, will receive tenders up to June 6th for hot water heater for city hall, with heating capacity of 7,500 feet of inch pipe.—The following building permits were granted last week: Holbrook & Sutherland, alterations and repairs to shops; Mrs. Cecil Birkett, brick veneered cottage, Florence street, cost \$1,400; William Borthwick, brick warehouse, Besser street, cost \$1,500; F. X. Groulx, frame building on stone foundation, Church street, cost \$600; T. Cleary, two brick veneered houses, Concession street, cost \$4,400.

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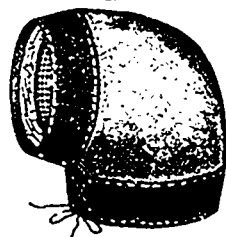
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FIRES.

The following buildings have been destroyed by fire: Irwin's store, post-office and dwelling, and Mrs. Forbe's residence at Chelmsford, Ont.—Thornbury's Woollen Mills at Thornbury, Ont.; insurance \$5,000.—Saw mill owned by H. Marsh at Maple, Ont.; loss \$1,000. It is improbable that the building will be rebuilt. Brick shop and residence of Richard Copeland at Mechanicsville, Ont.; loss \$1,500.—The MacKague block at Wellandport, Ont., owned by Wm. Summerfeldt, totally destroyed, insurance, \$1,000.

CONTRACTS AWARDED.

CHATHAM, N. B.—\$10,000 of debentures: George A. Schofield, of St. John, purchaser.

MOOSE JAW, N.W.T.—C.P.R. station: James McDiarmid, of Winnipeg, contractor, cost \$30,000.

MONCTON, N. B.—New Merchant's Bank of Halifax: Paul Lea, of Moncton, and Joseph Reid, of Dorchester, contractors.

MAIDEN, ONT.—Residence for Frederick Pigeon, frame, two storeys: James Campeau, of Amherstburg, contractor, cost \$1,600.

BROCKVILLE, ONT.—George Ross, this town, has contract for plumbing in residence for manager of Union Bank, Smith's Falls.

ST. THOMAS, ONT.—James Finney, this city, has been awarded the contract for building a bridge over the Otter creek between Elgin and Oxford.

QUELMI, ONT.—Building 30 x 30 feet for C. Klopfer, M. P.: D. Kelehar, stone work; H. Scriven, painting; Kerr Bros., tin-smithing; Mr. Beckman, carpenter work; cost \$3,000.

MILTON, ONT.—Charles Hughes, Milton freestone quarries, has been awarded the contract for four stone abutments for two bridges for Trafalgar township, one at Drumquin and one at Wilmott's second line.

TORONTO, ONT.—W. Mashinter & Co. have contract for plumbing of two houses on Murray street for A. W. Allan, and for hot water heating of residence on Ossington avenue for J. C. McLachlan.

ST. JOHN, N. B.—Bakery for Shaw Bros. (H. H. Mott, architect): R. Maxwell, general contractor. Sub-contractors: J. Drury, carpenter work; Stanton Bros., stone cutting; James Pullen, painting; J. E. Wilson, galvanized ironwork.

OTTAWA, ONT.—Improvements to St. Patrick's church. Joseph Bourque, of Hull, contractor for the two wings, spire, mason and carpenter's work and painting, price \$25,700; P. J. Conolly & Son, for heating, price \$2,000.—\$262,000 of debentures: Bank of Ottawa, purchaser.

WINNIPEG, MAN.—Building for the Winnipeg Lodging & Coffee House Association: Spencer Bros., contractors. The sub-contractors are: Carpenter work, Andrews & Robinson, plumbing, Plaxton Bros., painting, Mr. Anley; roofing, heating and metal work, Douglas & Co.

WINDSOR, N. S.—W. C. Harris, architect, has awarded contracts for the following work: R. C. church and presbytery, this town, to be constructed of sandstone, with metallic roofing, heating and interior finishings of which has not yet been arranged for; residence in wood, heated by hot water, for Walter Lawson; interior completion of St. James Presbyterian church, Charlottetown, P. E. I., H. & S. Lowe, contractors; new Anglican church, in wood, at Milton, P. E. I., P. J. Conolly & Son, contractors; additions to Roman Catholic church at Fort Augustus, P. E. I.

MONTREAL, QUE.—The following are the accepted tenders for a villa residence for Rev. James Green, Westmount: Masonry and brick work, John Hague; wood work, Dan. Green; roofing, Campbell & Gilday; plastering, Krook & Goodner; painting and glazing, C. O'Brien; plumbing and heating, Alex. McKay. James Smith, architect.—J. B. Resther

& Sons, architects, have accepted the following tenders for house, 6 tenements and store, on Wellington street for Mrs. L. H. Belanger: Masonry, Alph. Charette; brick work, Jos. Beland; wood work, Chapleau & Lebroeuf; roofing and plumbing, Lessard & Harris; plastering, Jos. Fabien; painting and glazing, T. Lenoir.

QUEBEC, QUE.—Asphalt paving: Sicilian Asphalt Company, of Montreal, successful tenderers, \$2.30 per square yard.—Paving hills in granite blocks, Ignace Bilodeau.—The contract for the new building for the Quebec Exposition Company has been awarded to P. A. Lalonde. This building will be 575 x 100 ft., with 5 towers. The board of directors has decided to build immediately the pavilion for the administration, 40 x 40 ft., with towers, domes, verandahs, etc.—Labelle & Payette have been awarded the contract for the pulling down of the old buildings on the property of Hon. Justice Chauseau, and rebuilding the masonry and wood work, Vandry & Matte getting the plumbing and roofing.—Emile Cote has the contract for a \$2,000 residence at Sillery for Mr. Evans.—Contracts have been

given as below for alterations to bank Hochelaga: Wood work, De Farennes; plastering, Emile Cote; plumbing and heating, Vandry & Matte; painting and decorating, Jos. Gauthier & Frere; furniture, Can. Office & School Furniture Co., of Preston, Ont.

ARCHITECTURAL COMPETITION.

An invitation has been issued to architects and engineers to enter a competition, proposed by the Royal Administration of the Swedish State Railways, for designs for a railway station, junctions, etc., for the city of Stockholm. The first prize is equal to about \$3,250, second \$2,150 and third \$1,074. Plans must be submitted by August 31st, 1898. Particulars will be furnished by the Swedish Norwegian Legation, 2011 Q street Washington, D. C., or by the vice-council of Sweden and Norway, Mr. August Peterson, corner F. and Eighth street Washington.

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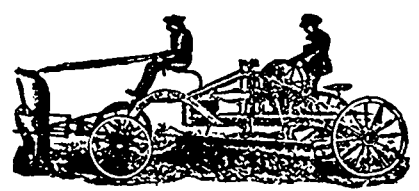
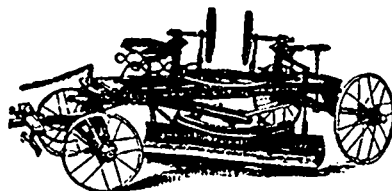
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"According to the 'Theorie des Construction,' by Rondelet, the thrust of a pointed arch compared to that of a semi-circular one is ceteris paribus as three to seven, and, again, the weight of a pointed arch upon its supports as compared with that of a semi-circular arch is as three to four—a result due to the sharp form of its summit and its tapering sides. From these facts it follows that the substitution of the pointed for the semi-circular form rendered it possible to construct churches both lighter and higher than before, without any increase either of expense or of labor, and increased height was the great object of desire. The Orientals, with the exception of the Babylonians, sought to obtain effect by greatness of detail and immense horizontal dimensions; the nations of the west, on the other hand, pinned their faith to grandeur of vertical lines and proportions. Another improvement, not perhaps so striking at first sight, but nevertheless very considerable, contributed to increase the advantage offered by the pointed form of construction. The Romans very frequently employed ribbed vaults; but they did not place the ribs where they were most wanted—along the angles of the diagonal groins so they were compelled to build all their vaults, even minor ones, with heavy materials, the formidable thrust of which demanded walls and piers of great thickness. The introduction of diagonal ribs gave a double advantage—first, it permitted the employment of very light materials; and, secondly, it enabled all the weight to be so arranged as to fall upon four predetermined points.

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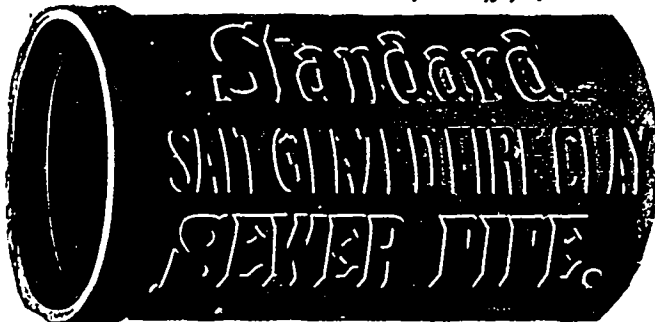


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WATERPROOFING WALLS.

An interesting test of materials said to render walls and floors impermeable to moisture has been conducted by the military authorities at Saarburg. A wall, total length 70 ft., height 7 ft., thickness 1 ft., was especially erected for this purpose, and divided into ten sections, which were impregnated or treated with the different waterproofing materials. After standing for eight weeks, the wall was thought sufficiently dry to start the experiments. To a hydrant supplying water at a pressure of 150 lbs., a hose was fixed and directed for 15 minutes against each of the sections from a distance of 35 ft. Seven of the sections proved badly soaked, in some the water was actually dripping when they were taken down. Three sections were perfectly dry. Upon these the hose was once more turned for two hours, when the walls were found perfectly dry, not a trace of moisture having penetrated. The "Zeitschrift für die Gesamte Kälte-Industrie" does not say anything about the other materials and their mode of application, but states that the three intact sections had been coated with Wunner's patent mortar, which is also supplied as an admixture to white-wash and mortars. This substance forms a hard shell, perfectly impenetrable to moisture, and not affected by atmospheric action. The mortar is recommended for any kind of building, water reservoirs, walls, floors, conduits, and has the advantage over asphalt cloth and tar coatings, which are also impermeable, that it is not injured by heat.

STRENGTH OF CONCRETE.

Experiments on a large scale to discover the strength of concrete are rarely undertaken, and in consequence the utility of the material is not sufficiently realized. The Law Library of Columbia University has a concrete dome, and prior to its construction one on a smaller scale was tested. The experimental dome was 15 feet diameter and 6 inches throughout, the rise at the centre being 6.44 inches. The material was made of four parts of stone, two of sand and one of Portland cement. It was built up within a circular tie of angle iron 6 inches by 6 inches by $\frac{1}{2}$ inch. After completion, the dome was covered with 2 inches of damp sand for fifty-eight days. A bed of sand was then laid over it to support a circular platform 5 feet in diameter. About 60,000 lbs. of bricks were laid on the platform before any deflection could be detected, and 80,000 lbs. were supported for six days without any sign of failure becoming apparent. It was intended to test the dome to destruction, but more than 80,000 lbs. could not be applied without danger to the men employed.

BUSINESS NOTES.

Boutillier & Cadieux, plasterers, Montreal, have dissolved partnership.

The assignment is announced of A. Lebeau & Co., a contracting firm of Montreal.

T. Holliday has purchased the interest of Tobias Foley in the Stratford Bridge & Iron Works Co., and is now sole owner.



MUNICIPAL CONTROL IN GERMANY.

Municipal ownership of electric light and power is in operation in the following cities of Germany: Bremen, Cassel, Darmstadt, Dusseldorf, Elberfeld, Hanover, Colonge, Konisberg, Lubeck and Pforshem. Except Hanover, all these cities also own the gasworks. Aix-la-Chapelle, Chemnitz, Frankfurt, Strasbourg and Stuttgart have all built their own electric works, but lease them for operating to private corporations; and with the exception of Chemnitz the gasworks are also managed by private companies. In the following cities private corporations have built electric works, with the understanding that the cities can purchase them under certain conditions: Altoona, Dessau, Gera, Hagen, Heilbronn, Leipzig, Mulhausen, Settin, and Zwickau. The gasworks are owned by private companies in Dessau, Hagen, Mulhausen and Zwickau.

COST OF BRICK PAVEMENTS.

The following table, showing the number of miles of brick pavement and the cost per square yard in 1897, is an extract from a report of a committee on street paving appointed by the American Society of Municipal Improvements:

Name of city.	Population.	Miles of brick pavement.	Cost per sq. yd. in 1897.
Albany, N. Y.	95,000	12.76	\$1.76
Alton, Ill.	10,000	1.34	1.19
Altoona, Pa.	30,000	58	1.60
Atlanta, Ga.	66,000	2.00	1.88
Bloomington, Ill.	20,000	10.50	1.40
Bradford, Pa.	10,500	6.50	1.70
Brooklyn, N. Y.	806,000	2.00	2.16
Carbondale, Pa.	10,800	3.75	1.90
Cedar Rapids, Mich.	18,000	12.26	.99
Cincinnati, O.	296,000	38.58	1.70
Cleveland, O.	261,000	38.32	1.12
Columbus, O.	88,000	72.74	1.00
Dayton, O.	61,000	11.99	1.29
Detroit, Mich.	206,000	13.80	1.56
Erie, Pa.	40,600	5.97	1.50
Evansville, Ind.	50,700	17.00	1.51
Grand Rapids, Mich.	60,000	5.46	1.50
Lafayette, Ind.	16,000	2.23	1.48
Newark, N. J.	182,000	3.09	2.05
Rochester, N. Y.	134,000	4.68	1.50
Troy, N. Y.	60,000	2.35	1.81
Toledo, O.	81,000	25.42	{ 1.25 95

The committee reported that the average cost of brick paving in one hundred and forty-four cities in the United States was \$1.36 per square yard. In different cities different classes of foundations for brick pavement are used, some on macadam, some on brick pavement laid flat, and some on concrete foundation. The report does not show what foundations were used in making up the cost as shown in the table.

COST OF BROKEN STONE ROADS.

The cost of broken stone for building roads is not so great as many suppose. It can be bought at the crushers for 40 cents per solid yard, and the railroad will freight it forty miles, or less, at about 50 cents per cubic yard making a total of 90 cents; but suppose we call it \$1. Then if the roadbed is nine feet wide and the stone is piled on a foot deep, a cubic yard will cover three feet linear at a cost of \$1, making one mile (1,760 yards) cost as many dollars. But as only about nine inches are necessary, one-fourth of this amount, or \$440, should be deducted, making the exact amount only \$1,320, which is cheap enough for a first class road, the material for which must be brought forty miles by rail.—Indiana Farmer.

PAVING BRICK FROM COPPER SLAG.

A concern in Germany, the Mansfield Copper Company, at Eisleben, Thuringia, has placed a paving brick upon the market made from copper slag. The slag is led directly from the smelting furnaces into iron molds, each possessing a capacity of 36 bricks. The bricks have to be carefully annealed by very slow cooling. If allowed to cool off at once in the air they would become useless, brittle, glassy masses, which would break up under traffic. The molds are therefore, first well heated, then, so soon as the slag is poured in, the whole is thickly covered with sand and is not uncovered for at least 72 hours. By this time the bricks are cool enough to be taken out of the mold with tongs and are sufficiently annealed. When quite cool, each brick is tested by a strong blow with a hammer, which cracks those that are not sound. There is no probability of copper slag or any other slag bricks being very serious competitors with vitrified clay, but we would do well to let one point in the manufacture of these bricks impress us. A point which we all know very well but sometimes neglect, that is the desirability of well annealing, that is to say, of very slowly cooling our bricks.

ASSESSMENT OF A FACTORY CHIMNEY.

The question whether a factory chimney is real estate or part of the machinery is now occupying the attention of the city assessors of Montreal. The Montreal Street Railway Company claims that its chimney, which is now assessed as real estate, is an important part of the mechanical plant and, as such, is exempt from taxation. The company's power house cost about \$75,000, and fully one-third of this sum was expended upon the erection of the chimney. The assessors themselves are not agreed upon this point, as in some of the wards chimneys are assessed as real estate, while in others they are exempt.

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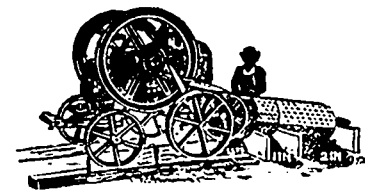
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INDEX TO ADVERTISEMENTS
In the "Canadian Architect and Builder."

LUMBER.

VAID QUOTATIONS.

Toronto. Montreal.

Table with columns for material types (Mill cull boards, Shipping cull boards, Hemlock scantling, etc.) and prices for Toronto and Montreal.

BRICK—M

Table listing brick types (Common Walling, Good Facing, Sewer) and their prices.

SAND.

Table listing sand types (Per Load of 1/2 Cubic Yards) and their prices.

STONE.

Table listing various stone types (Common Rubble, Large flat Rubble, Foundation Blocks, etc.) and their prices.

OHIO FREESTONE.

Table listing Ohio freestone types (No. 1 Buff Promiscuous, No. 1 Buff Dimension, etc.) and their prices.

CREDIT VALLEY STONE.

Table listing Credit Valley stone types (Rubble, Brown Coursing, Brown Dimension, etc.) and their prices.

LONGFORD STONE.

Table listing Longford stone types (Rubble, Ashlar) and their prices.

Large index table listing various building materials and services such as Architects, Cements, Interior Decoration, Roofers, Builders' Supplies, etc., with associated company names and page numbers.

Table listing materials like Dimension, Kent Free stone, River John, Quebec and Vermont rough granite, etc., with prices.

Table listing slate types (Roofing, red, purple, unflading green, black) and their prices.

Table listing paint types (Wh'te lead, zinc, red lead, vermilion, etc.) and their prices.

Table listing cement and lime types (Portland Cements, German, London, Newcastle, etc.) and their prices.

Toronto. Montreal.

Table listing materials like Hydraulic Cements, Thorold, Queenston, Napanee, Hull, Ontario, etc., with prices.

HARDWARE.

Table listing hardware items (Cut nails, steel, cut nails, fence and cut spikes) and their prices.

Iron Pipe:

Table listing iron pipe types (Iron pipe, 1/2 inch, per foot, etc.) and their prices.

Lead Pipe:

Table listing lead pipe types (Lead pipe, per lb., Waste pipe, per lb.) and their prices.

Galvanized Iron:

Table listing galvanized iron types (Adam's-Mar's Best and Queen's Head, 16 to 24 gauge, etc.) and their prices.

Structural Iron:

Table listing structural iron types (Steel Beams, per 100 lbs., channels, angles, etc.) and their prices.