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CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL OF THE BUILDING INDUSTRY

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.

SEPTEMBER 28, 1898

No. 35.

THE CANADIAN CONTRACT RECORD,

PUBLISHED EVERY WEDNESDAY

As an Intermediate Edition of the "Canadian Architect and Builder."

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Bell Telephone 2299.

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

Advertising Rates on application.

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TOWN DEBENTURES

Tenders will be received by the undersigned up to 1st OCTOBER, 1898, inclusive, for the purchase of DEBENTURES of the Town of Deseronto for \$25,013.66, bearing 4 per cent. interest, repayable in thirty yearly instalments.

The lowest or any tender not necessarily accepted.

F. S. RATHBUN, Treasurer,
Town of Deseronto.

CITY OF BRANTFORD

FLOOD PREVENTION WORK

Sealed tenders, endorsed "Tender for Flood Prevention Work," and addressed to Charles Whitney, Esq., Chairman of the Board of Works, Brantford, Ont., in care of the City Clerk, will be received till two o'clock in the afternoon on

SATURDAY, OCTOBER 1st, 1898,

for the following work:

- Section "A"—Concrete Pier, Abutment of Stone and Concrete.
- Section "C"—River Excavation, Embankments and Rip Rap Walls.
- Section "D"—Timber Sluiceway Dam, 169 Feet in Length.

Plans and specifications may be seen, and forms of tender obtained, at the office of the City Engineer, Brantford, on and after Sept. 17th, 1898.

A deposit in the form of a marked cheque, payable to the order of the Town Treasurer, for the sum of 5 per cent. on the value of the work tendered, must accompany each and every tender, otherwise they will not be entertained.

The lowest or any tender not necessarily accepted.

CHARLES WHITNEY,
Chairman Board of Works.

T. HARRY JONES,
City Engineer.

City Hall, Brantford, Sept. 13th, 1898.

TENDERS WANTED

Tenders will be received by Secretary W. H. Williamson, Picton, up to noon of OCTOBER 10TH, for

Seating First Methodist Church

Plans and specifications may be seen and all information had at the offices of the undersigned. Lowest tender not necessarily accepted.

POWER & SON, Architects,
Merchants Bank Chambers, Kingston.

Tenders for Masonry

Tenders will be received by the undersigned up to 11 a.m. of SATURDAY, OCTOBER 1st, 1898, for the construction of a QUARRY STONE ABUTMENT under the eastern end of the Bridge over Mimico Creek, in the Village of Islington, on Dundas Street, in the County of York.

Plans and specifications may be seen and all necessary information obtained at the office of the undersigned, Court House, Toronto.

The lowest or any tender will not necessarily be accepted.

By order,
J. McDOUGALL,
County Engineer.

Court House, Toronto, Sept. 20th, 1898.

TENDERS

FOR

Granolithic Sidewalks

Tenders will be received by registered post only, addressed to the Chairman of Public Works Committee, Goderich, up to 6 o'clock p.m.,

Friday, October 7th, 1898,

for the construction of about 6,500 Square Feet of GRANOLITHIC SIDEWALKS. Tenderers to furnish all material and do all the necessary excavating, etc. Specifications may be seen and forms of tender obtained at the office of the Town Clerk, Goderich. Tenderers may submit their own specifications and figures for same, the Committee reserving the right of adopting or rejecting them as they see fit.

A deposit in the form of a marked cheque, payable to the order of the Town Treasurer, for the sum of 2 1/2 per cent. on the value of the work tendered for, must accompany each tender.

The work to be proceeded with at once.
The lowest or any tender not necessarily accepted.

DAVID CAULETON,
Chairman.

Goderich, Sept. 19th, 1898.

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.

Dowse & Knox, carpenters, Winnipeg, have dissolved partnership.

CONTRACTS OPEN.

APPLE RIVER, N.S.—C. T. White is about to rebuild his saw mill here.

PETROLEA, ONT.—It will be necessary to repave Front street at an early date.

MANITOWANING, ONT.—Mr. Smith contemplates building a creamery here.

ACTON, ONT.—It is probable that a large rink will be built here by a local syndicate.

FORT WILLIAM, ONT.—Joseph King will build an annex to his Victoria avenue block next spring.

BRANDON, MAN.—W. J. McClement has commenced the erection of a Presbyterian church.

BURK'S FALLS, ONT.—R. J. McDougall is excavating for a dwelling house, with stone foundation.

HALIFAX, N.S.—The council will construct a concrete sidewalk on Granville street, cost \$1,200.

KINGSVILLE, ONT.—George Jasperson, of this place, is building a residence on his farm near here.

CHICOUTIMI, QUE.—J. F. Peachy, architect, Quebec, is preparing plans for a new chapel to be built here.

LAKE MEGANTIC, QUE.—The municipality is considering the question of a site for an electric lighting station.

SAWYERVILLE, QUE.—It is proposed to build a Methodist church here, to cost \$5,000. Rev. J. D. Ellis is pastor.

STRATFORD, ONT.—The City Council has authorized the preparation of plans for a system of sewage disposal.

CORNWALL, ONI.—It is probable that the Ottawa and New York railway bridge, which collapsed, will be rebuilt on a new site.

MITCHELL, ONT.—The Council will submit a by-law to the ratepayers to borrow \$5,000 for improving the electric light plant.

PARRY SOUND, ONT.—The Freemason's Society will commence work at an early date on an addition to their brick block.

COLLINGWOOD, ONT.—A. D. Knight, town treasurer, will receive proposals up to October 19th for the purchase of debentures.

ST. AGATHA, ONT.—Tenders are wanted by Henry Zimmer, up to 5 p.m. of October 10th, for the erection of a church in this village.

KINGSTON, ONT.—Tenders are invited by F. C. Ireland, city treasurer, up to Tuesday, October 4th, for the purchase of \$75,000 of debentures.

CANNINGTON, ONT.—A site has been purchased for the new Baptist church, the plans for which have been prepared by Mr. J. F. Brown, architect, Toronto.

RICHMOND, QUE.—A committee has been appointed by the Board of Trade to interview the C.P.R. authorities regarding an extension of that railway to this place.

LINDSAY, ONT.—On October 17th a by-law will be voted on to grant a bonus to the Sylvester Bros. Mfg. Co. to assist them in enlarging their premises.

BELLEVILLE, ONT.—The city council has decided to offer Mr. F. A. Mitchell, of Norwich, Conn., a bonus of \$50,000 to remove his rolling mills to this city.

CHARLOTTETOWN, P.E.I.—The Council has authorized the issue of debentures for \$3,500 for the purpose of putting in a new boiler and pump at the waterworks pumping station.

BEETON, ONT.—The contract for an electric light plant for the town having been awarded, steps will be taken at once to erect a power house and purchase an engine and boiler.

BOLTON, ONT.—A vote is being taken to-day on a by-law to provide \$16,500 for the construction of a system of waterworks. Mr. John Galt, of Toronto, is consulting engineer.

MASSON, QUE.—Rev. Father Mangin has founded a new order of nuns known as Servants of Jesus and Mary, and in a short time a large convent will be built on the Aylmer road.

ST. CASIMIR, QUE.—The church wardens have decided to build a new church, to be 170×98 feet, and to cost \$27,500. Mr. Alfred Givoux, architect, of this place, will have charge of the work.

STIRLING, ONT.—A by-law to raise \$20,000 for a system of waterwork received the sanction of the ratepayers on the 24th inst. The supply will be obtained from Somerset Lake, two miles distant.

WIAKION, ONT.—Proposals are wanted by S. A. Perry, chairman Finance Committee, up to 8 p.m. of October 1st, for the purchase of \$7,339.13 of debentures, bearing interest at 4 per cent. per annum.

VERDUN, QUE.—The town will construct sewerage and water works systems, plans for which are being prepared by Messrs. McConnell & Marion, engineers, of Montreal, who will superintend the work.

INGERSOLL, ONT.—The Town Council have appointed a committee to negotiate for the purchase of the waterworks and electric light plant, and to arrange for the construction of a trunk or main sewer on Thames street.

LACHINE, QUE.—Mr. de Martigny has asked the council for a bonus to secure the establishment of a shirt factory. The firm which he represents agrees to erect a four storey building, 200×40 feet, at a cost of \$50,000.

QUEBEC, QUE.—Several wealthy Americans have purchased property at Pointe au Pic and Cap à l'Aigle on which to build cottages. It is as yet uncertain whether the proposed hotel at Pointe au Pic will be commenced this fall.

PETERBORO, ONT.—The town council will vote on a by-law on October 18th to loan the Wm. Hamilton Mfg. Co. the sum of \$30,000. In return for this the company agrees to spend \$40,000 in the erection of new buildings.

THURSO, QUE.—The Stadacona Water, Light and Power Co., of Montreal, of which L. H. Tache is manager, has made arrangements for the construction of a system of waterworks for this town. The estimated cost is \$14,000.

BISHOP'S CROSSING, QUE.—J. O. Gilbert & Son are preparing to build a new office and make repairs and additions to their saw and planing mill. They intend putting in a large engine and machinery for dressing pulpwood.

GANOQUE, ONT.—The Parmenter & Bullock Co. have taken tenders on the erection of a large warehouse and office building. The contract for mason work has been let to R. Wilson and the carpenter work to Mitchell Bros.

BRANTFORD, ONT.—The W. G. Nott Bicycle Co. has been organized here, with a capital stock of \$20,000. Mr. W. G. Nott, hardware merchant, is the chief promoter. It is proposed to erect a building suitable for the company.

ST. CATHARINES, ONT.—The Board of Works have recommended that a sewer be constructed on Centre street.—Should the Niagara Central Railway be extended to Beamsville, as is under consideration, considerable bridge work will be required.

LONDON, ONT.—The Lake Erie and Detroit River Railway Co. will erect a new steel bridge over the Thames river, on the Erie and Huron division.—H. C. McBride, architect, wants tenders until September 28th for the erection of four semi-detached houses.

CASTLEMORE, ONT.—The contract for the erection of abutments for new steel bridge was let by the Toronto Gore council to James Murray, but he refused to enter into the contract. Mr. M. Harrison, township clerk, is therefore taking tenders on steel cylinder piers.

DARTMOUTH, N. S.—A scheme is on foot to construct an electric railway from Waverley to this place, thence to Musquodoboit Harbor. A meeting of the promoters will be held at an early date.—The question of extending the waterworks system is still under consideration.

HULL, QUE.—At an early meeting of the city council, the question of establishing a municipal electric light plant will be considered.—The Stadacona Water, Light and Power Co. has made a proposition to the city to construct a system of sewerage. If approved, construction will commence within thirty days thereof, and be completed before the 1st of December, 1899.

ST. JOHN, N.B.—H. H. Mott, architect, is preparing plans for a church at Chipman, N.B., and a store and office building for Miss Quigley at Newcastle, N.B., on which work will be commenced at once. Same architect has invited tenders for a tenement house for M. McGolderick, this city.—The Board of Works will install an electric light plant in the ferry steamer "Western Extension."

WOODSTOCK, ONT.—The vestry of old St. Paul's church have decided to build a rectory. The interior of the church will also be renovated, and a new pipe organ purchased.—W. M. Davis, town engineer, is taking tenders this week on an extension to the Burch street drain.—The town will issue debentures to the amount of \$913 for the purpose of constructing and extending the water main.

WINNIPEG, MAN.—John Baird, of the Seymour House, will erect an addition to his hotel, corner Market and King streets.—C. W. Mellican, government engineer, is making surveys and estimates for a new steel bridge to be built at Manitou.—The following works have been recommended to be carried out by day labor: Macadam pavements on King street, cost \$4,245; Colony street, \$4,853; Furnby street, \$9,793; artificial stone sidewalk on McDermot avenue, cost \$390.

OWEN SOUND, ONT.—The Board of Works has decided to undertake further road improvements, and to invite tenders for 100 yards of fine stone for top dressing.—J. T. McBeah, promoter of a proposed chair factory, has asked for a free site and exemption from taxation. He agrees to erect a main building 100×45 feet, with wing and boiler house. Creasor & Smith have submitted a similar proposition to the City Council for the establishment of a furniture factory.

FREDERICTON, N.B.—At a meeting of the promoters of the proposed shoe factory, it was decided to have plans prepared at once for the building. The city has granted a bonus of \$10,000 towards the enterprise. John Black, M.P.P., Willard Kitchen, and others, are inter-

ested.—A meeting of the shareholders of the Grand Falls Water Power & Boom Co. will be held in this city on the 28th of October. This company proposes developing the water power of Grand Falls. Mr. Hugh H. McLean is secretary.

CHATHAM, ONT.—Powell & Carswell, architects, invite tenders up to noon of Saturday, October 1st, for the erection of a two-story frame house on King street west, to have hot water or hot air heating, improved plumbing, etc.—The question of building a new market house is being considered by the City Council.—Tenders for improving the Hyatt drain, constructing the O'Mara and improving part of fourteenth concession drain, in the township of Dover, will be let by the commissioners on October 6th.

HAMILTON, ONT.—The city engineer estimates the cost of a brick sewer on Aberdeen avenue, from Locke to Garth street, at \$3,900, and a 24 inch pipe sewer on Wood street at \$2,250. Both these sewers will be proceeded with. At a recent meeting of the Board of Works, a petition was presented for a new pavement on York street. The cost of paving the street with asphalt is estimated at \$25,000. The matter is yet undecided.—It has been decided to spend \$1,500 in repairing the street leading to the Toronto, Hamilton & Buffalo freight shed.—Ratepayers in the district of Vineland and township of Louth have asked the Hamilton, Grimsby and Beamsville directors to extend the road from Beamsville to St. Catharines.

OTTAWA, ONT.—L. K. Jones, secretary Department Railways and Canals, has invited tenders for the supply of 6,000 cubic yards of building stone. Plans have been prepared by the Department of Public Works for a fireproof building for the Geological Survey of Canada, to be built adjacent to the Parliament buildings.—It is understood that steps will be taken at once to erect a large plant in this city for the manufacture of calcium carbide from sawdust. The promoters of the scheme are Mr. W. C. Edwards, of this city, and Mr. V. L. Emerson, of Baltimore.—Building permits have been granted as below: F. W. Walsh, brick veneered addition to dwelling, Cambridge street, cost \$900; D. M. Vinnie, brick dwelling, Chapel street, cost \$6,000.

MONTREAL, QUE.—P. W. St. George, City Surveyor, is taking tenders this week for the construction of an asphalt pavement on Maissonneuve street, between Dorchester and St. Catharines street.—Mr. W. G. Reid, of this city, who was recently granted an extensive franchise by the Newfoundland government, has laid before that government plans for a large pulp mill to be built at Grand Lake. It is said that the necessary capital of \$2,000,000 has been subscribed, and that the mill will have a capacity of 160 tons of dry pulp per day.—A report of the Road Committee on the drainage of St. Denis ward recommends that the sewage be carried to a sewage farm, and that a system of sewerage be established connecting that part of the city with farm property, one and one-half miles distant from the city limits. The cost of this system is estimated at \$105,000.

TORONTO, ONT.—Mr. J. W. Hirst, of the Elliott House, is reported to have decided upon the erection of a large summer hotel at Balmy Beach.—Estimates are being prepared of the cost of dredging the slips at the eastern end of the harbor.—At the last meeting of the Board of Works, the City Engineer recommended the construction of the following pavements: James street, from Yonge to Albert, asphalt, cost \$6,190; Isabella street, Yonge to Jarvis, macadam; Wellesley street, Parliament to Sumach, macadam; Maple Grove avenue, Brock to O'Hara, 21-foot cedar block; track allow-

ance on Queen street west, from Bathurst to Niagara, scoria block, cost \$1,000; from Niagara to subway, brick, cost \$9,800; King street east, Sherbourne to River, brick, cost \$7,800.—An asphalt pavement is to be constructed on Colborne street, between Yonge and Church street. A petition is being circulated for an asphalt roadway on King street, from Simcoe street westward.—The Toronto Street Railway Co. is considering the advisability of extending the Toronto & Scarboro Railway seven miles from its present terminus, to the west side of the Highland Creek hill. Mr. James McDougall, C.E., has made a survey of the proposed extension.—Steps are now being taken to establish near this city a consumptive sanatorium, similar to the one at Gravenhurst. An early meeting of the promoters will be held.—Mr. Aemilius Jarvis is reported to have been successful in interesting New York capitalists in the palatial hotel to be erected on King street. The new building will be built on the south side of that street, between Potter's optician store and Cato's drygoods store, having a frontage of 207 feet and a depth of 107 feet. It will be of fireproof construction, the first story of cut stone. The plans as prepared by the architects, Messrs. Geo. Edward Harding & Gooch, of New York, show seven stories, with a roof garden on top, 90 x 200 feet, flanked on either side by towers. The cost will be about \$2,000,000.—A building permit has been granted to Alex. Manning for a salesroom, rear 28 King street west, cost \$1,200 (S. H. Townsend, architect; S. B. Bagshaw, builder).—Tenders are invited by the city up to Friday, 30th inst., for the following. Asphalt pavement on Queen street, from Bathurst street to Niagara street, cedar block pavement on Bathurst, Humbert, Clinton, Elliott and Queen streets; filling at the Lakeside Hospital.—Mr. J. A. Ellis, architect, is preparing plans for a three-story brick addition, 150 x 50 feet, to the Lozier factory at Toronto Junction. He is also preparing plans for the reconstruction of a factory on Williams street for W. J. Harris, to be of brick and three stories.—Mr. Henry Simpson, architect, is preparing plans for an addition to a bank at Markham, and for an addition to the Masonic block at Parry Sound. The excavation and foundation contracts for the latter building have been let, and it is the intention to proceed with the other trades immediately.

FIRES.

The fires of the past week included the following: Flour mill at Burford, Ont., operated by R. P. Boyes & Co.—Methodist parsonage at Oakland Village, Ont.—Residence of Edward Hamilton at St. Cunegonde, Que., partially destroyed; loss \$1,500.—Saw and shingle mill of W. W. Carter at Fesserton, Ont.—Roman Catholic rectory at Sussex, N.B.—Carding mills of Mr. Methot at St. Antoine de Tilly, Que.; insurance \$1,300.—College of the Marist Bros. at St. Romuald, Que., completely destroyed; loss \$14,500, insurance \$6,000.—Cheese factory at Mayfair, Ont., owned by W. Tanner, insurance \$1,100.—Residence of Patrick McClaskey at Lower Maugerville, N.B., insurance, \$1,200.—Murdock McKirron's residence at Caledonia, C.B.

CONTRACTS AWARDED.

ARNPRIOR, ONT.—The tender of H. F. Drummond, of Kingston, has been accepted for the purchase of town debentures.
 FORT WILLIAM, ONT.—Waterworks debentures have been purchased by Ray, Street & Co. for \$38,000, being at the rate of 108½.
 BEETON, ONT.—The Johnson Electric Co., of Toronto, have secured the contract for an electric light plant for the town; price, \$1,900.

HALIFAX, N. S.—The contract for grain elevator in connection with the I.C. railway has been let to E. Keefe, local contractor.

GUELPH, ONT.—The Royal Artificial Stone Paving Co. have been awarded the contract for about 30,000 sq. feet of pavement in Mount Forest, Ont.

ST. JOHN, N. B.—The offer of D. W. Clark & Sons to install an electric light plant in the west side Ferry building has been accepted by the Board of Works.

QUEBEC, QUE.—P. Pouliat & Gervais have secured the contract for painting the church at Beauport and for the interior decoration of the new church at Somerset.

STRATFORD, ONT.—City debentures running twenty years and bearing 3½ per cent. interest have been sold at par to Frank Thompson & Co., of Sherbrooke, Que.

MONTREAL, QUE.—The Dominion Government has awarded to the Dominion Bridge Co. the contract for the superstructure required to remove the obstruction at the Sault Ste. Marie canal.

PETERBOROUGH, ONT.—Tenders for additional sewer extension were received by the town as below:

	Construction Only.	Whole Work.
James Bogue.....	\$3,583 88	\$5,000 53
Connections, each.....	12 50	13 50
W. J. Grant & Co.	4,089 23	5,839 36
Connections, each.....	14 85	14 85
Clark & Connolly.....	4,451 20	5,854 20
Connections, each.....	13 90	16 20

The tender of James Bogue has been accepted.

WESTMOUNT, QUE.—Tenders for the building of a town hall have been accepted by the Council as below. Masonry, Heggie & Stewart, \$5,029; brick, William Lavers, \$5,925; plumbing, Lessard & Harris, \$2,500; iron work, Dominion Bridge Co., \$1,467; painting, G. E. Blackwell, \$710; carpentering, A Strang, \$5,719; plastering, Knott & Gardner, \$1,700; roofing, Campbell & Gilday, \$1,211; electric wiring, Scott, \$275; mosaic work, McNeil, \$137; Kingsley boiler, \$700.

CHATHAM, ONT.—Tenders for sewers were received by the City Council as follows. Richmond street—John Besant, \$745; Horne Bros., \$209; Geo. J. Fielder, \$305; Richard Stevens, \$256 (accepted); Thomas Martin, \$355. Cross street—John Besant \$20 (accepted); Horne Bros., \$20; Richard Stevens, \$21.50, \$284; Thomas Martin, \$280. Lacroix street—Horne Bros., \$2,272; Geo. J. Fielder, \$2,573; Thomas Martin, \$2,220 (accepted). Colborne street—Richard Stevens, \$231

(accepted); G. J. Fielder, \$249; Horne Bros., \$284; Thomas Martin, \$280.

NIAGARA FALLS, ONT.—The tender of A. Graham, of London, Ont., for the construction of sidewalks and curbs has been accepted. Following is a list of the tenders received: Concrete sidewalks—A. Graham, London, 12½ cts. per square foot; J. B. Hill & Co., Niagara Falls, N. Y., 17 cts.; Newman Bros., St. Catharines, Ont., 14 cts.; Grant & Co., Toronto, 13 cts.; Breen & Bennett, St. Catharines, 15 cts. Brick sidewalks—A. Graham, 12½ cts. per square foot; J. B. Hill & Co., 12 cts.; Newman Bros., 16 cts.; Grant & Co., 12½ cts. Breen & Bennett, 15 cents. Stone curbs—A. Graham, 38 cts. per lineal foot for straight and 42 cts. for circular; J. B. Hill & Co., 40 and 75 cts.; Newman Bros., 45 and 85 cts.; Grant & Co., 42 and 72 cts.; Breen & Bennett, 55 cts for each. Stone crossings—A. Graham, 22 cts. per square foot; J. B. Hill & Co., 31 cts.; Newman Bros., 35 cts.; Grant & Co., 33 cts.; Breen & Bennett, 60 cts. Furnishing and laying concrete—A. Graham, \$5.50 per cubic yard; J. B. Hill & Co., \$4.00; Newman Bros., \$4.50; Grant & Co., \$5.00. Rubble stone masonry—A. Graham, \$6.00 per cubic yard; J. B. Hill & Co., \$3 50; Newman Bros., \$4.50; Grant & Co., \$7.00.

TORONTO, ONT.—The Board of Control last week awarded contracts for local improvements as follows: Concrete sidewalks—Front street, south side, Scott to Church streets, and York street, from Front street, Gardiner & Co., \$1.70 per foot, Carlton street, Church street to Jarvis street, 93 cents per foot. Brick pavement on Prospect street, Rose avenue to Parliament street, Clarke & Connolly, \$1,712. Macadam roadway on Macpherson avenue, from Yonge street west, Warren, Scharf Co., \$2,736. Three tenders were received for furniture for the council chamber of the city hall, as follows: Globe Furniture Co., desks, chairs, tables, railing, dais, platform and gallery benches, \$8,700. Charles Rogers & Sons Co., desks, chairs, etc., \$3,700; dais, platform and railing, \$2,976. R. Dinnis & Sons, desks, chairs, etc., \$8,052; platform, dais and railing, \$2,968. The tenders of the Charles Rogers Co. for desks, chairs, etc., and R. Dinnis & Son for dais, platform and railing, were accepted.—Messrs. Bond & Smith, architects, have let the contract for St. Clement's church to John E. Webb. Sub-contracts have been let as follows: Carpentry, P. Curtis; plas-

(Continued on page 4.)

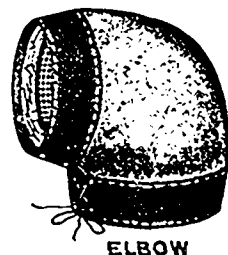
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tering, W. J. Hynes; painting, C. Chawner; tinsmithing, Wheeler & Bain; plumbing, Fiddes & Hogarth; heating, Toronto Furnace Co.—Same architects have accepted the following tenders for alterations to residence, 17 Hayter street: Masonry, John E. Webb; carpentry, P. Curtis; painting, C. Chawner; gas-piping, Mr. Clark; heating, Toronto Furnace Co.—Mr. Henry Simpson, architect, has let contracts as follows for a row of seven houses on Arthur street: Brickwork, James Nurse; carpenter work, J. C. Scott & Co.; other trades not let. For alterations to a hotel, corner Simcoe & Queen streets, the contract for carpenter work has been given to William Simpson and that for brickwork to John McClue. Mr. Simpson has also accepted the following tenders for alterations on Bay street for James Crowther: Masonry, James Crang, carpenter work, J. B. Baker.

THE CEMENT MARKET.

The imports of cement at Montreal last week were 30,745 barrels Belgian and German and 850 English, as against 1,366 English and no Belgian and German for the previous week, making a total to date for the season of 193,083 Belgian and German and 23,640 English. Although the arrivals have been large, yet there is still a scarcity of spot supplies, owing to the fact that out of the above quantity received fully 25,000 barrels had to be delivered on government contracts, leaving only about 6,000 barrels to be distributed on other contracts and late orders. A feature of last week was a sale of 8,000 barrels of Belgian on western account for delivery this month. The demand is good, and an active trade is reported for the season. The tone of the market is strong, and the advance in prices of 5c. to

10c. per barrel noted two weeks ago for stock for prompt delivery is still maintained. We quote: English brands, \$2.25 to \$2.35; German, \$2.35 to \$2.50, and Belgian, \$1.85 to \$2.05 per barrel, ex wharf Montreal. The receipts of fire bricks at Montreal last week were 10,000, as against 78,000 for the previous one, making a total up to date of 710,650. Business in this line continues fairly active, there being a good demand for small lots at prices ranging from \$16 to \$21 per thousand as to brand.

THE DECAY OF NATURAL MATERIALS.

Whoever expects to find a stone that will stand from century to century, deriding alike the frigid rains and scorching solar rays without need of reparation, will indeed search for "the philosopher's stone." There is scarcely a substance which, after having been exposed to the action of the atmosphere for a considerable time, does not exhibit proofs of "weathering"; it may even be observed on the most densely compacted siliceous rocks. The fullest extent of this inquiry can only be to elucidate relative duration and comparative labor of appropriation to useful or ornamental purposes.

By examining the various productions of nature we find evident proofs of her industry in all ages; changes have been going on from the remotest antiquity to the present time on every substance that comes within our observation. All the actual combinations of matter have had a former existence in some other state. Nothing exists in nature but what is likely to change its condition and manner of being. No material is so durable as always to retain its present appearance, for the most solid and compact bodies have not such a degree of impenetrability and so close a union of the parts which compose

them as to be exempted from ultimate dissolution.

Even in the great globe which we inhabit nothing is more evident to geologists than a perpetual series of alterations; there can be discovered no vestige of a beginning, no prospect of an end. In some bodies these changes are not so frequent and remarkable as in others, though equally certain at a more distant period. The venerable remains of Egyptian splendor, many of them executed in the hardest granite between 3,000 and 4,000 years since, exhibit large portions of exfoliation and gradual decay, thereby following the primitive, immutable, and universal order of causes and effects—namely, that all objects possess the materials of which they are composed only for a limited time, during which some powerful agent effects their decomposition and sets the elementary particles at liberty again to form other equally perfect combinations. Thus by divine and unerring laws order is restored amid apparent confusion.—The Architect.

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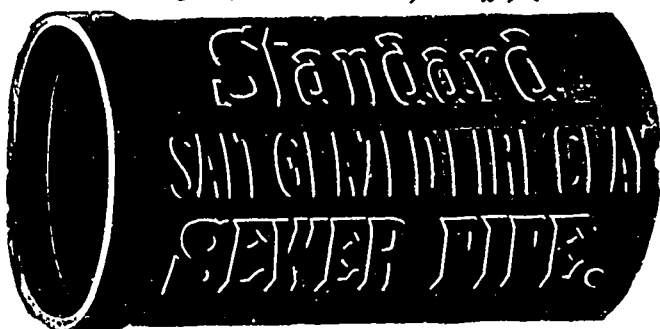


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WATER FILTRATION IN GERMANY.

The Water Commissioner of St. Louis, Mr. M. L. Holman, M. Am. Soc. C. E., spent some time lately in visiting the filtration plants of Germany, and on his return described them in a paper before the Engineers' Club of that city. This paper has just been printed in the "Journal" of the Association of Engineering Societies, from which the following abstract has been prepared:

The work in Germany which may be taken as typical of plain or natural sand filtration is that at Hamburg. The National Board of Health of the German Empire requires that filtered water shall contain less than 100 bacteria per cubic centimeter. This is an arbitrary standard first selected as the result of laboratory experiments, and then adopted as the official standard, after considerable practical experience in the larger cities and works of Germany.

The Hamburg filter basins are eighteen in number, and are each about 70 meters wide and about 100 meters long. They are rectangular in plan, with rounded corners. The sides of the basins slope at an angle of about 45 degrees, and the floor and slope are formed in the manner usual in reservoir construction. The floors and the inner slopes are covered with puddle, which is protected by concrete and brick. The brick construction covers the floor and about half of the slope. The upper half of the slope is covered by a very smooth concrete, similar to what we have here in our granitoid pavements. At appropriate places in the bottom of the reservoir channels are formed in the brick for the purpose of leading off the filtered water. For a portion of their depth these channels are countersunk in the bottom of the basin, and are afterwards completed by laying brick loosely along the sides and tiling over the top. After these channels are completed the filter is built up to the top of the channels, beginning with broken stone, following with gravel, then with fine gravel, then with coarse sand, and over all is placed the working layer of sand, one meter thick and of a fineness depending somewhat upon the character of the water, although the question of fineness has not yet been given much study in Germany. A meter in depth of sand is the working body of the filter, the materials under that simply supporting the sand. The entire depth, sand and all, acts solely as a support for the blanket or film of bacterial jelly or slime, which naturally forms while the raw or foul water rests upon the filter. Of course, in building up the filter bed great care must be taken to fill the smallest crevices, so that the entire body is sound and uniform, and

so that an even surface of sand is left on the top of the filter. The filter is then set to work at its normal rate. This rate varies in different cities, the maximum rate in any city being 125 millimeters per hour, while at Hamburg the maximum rate is 100 millimeters per hour; that is, the velocity with which the water passes through the sand.

Now, it is found that after the filter has been at work for a time varying from three days to a week or more, depending upon circumstances that are not thoroughly understood, there appears upon the surface of this sand, and in the upper portion of it, a veil or film of slime. As soon as the filter is put at work the output is examined. This examination goes on for a time, and when it is found that the output contains less than 100 bacteria per cubic centimeter the filtered water is used. Until then it is wasted. The work of the filter then goes on, examinations being made daily and recorded; and as soon as the output shows an increase up to about 75 bacteria per cubic centimeter the filter is put out of work and cleaned. At times the filter has to be cleaned because the output becomes too small, although the head on the filter has not reached the maximum, and although the output of filtered water is still within the required limit of purity. The maximum head allowed for forcing the water through the filter is 0.6 meter. The total depth of water above the sand is 1.1 meters. Each separate filter is examined and kept track of very carefully. At times the filter will suddenly begin to discharge water containing a surplus of bacteria. Those engaged in the practical operation of the works in Germany and in the practical study of them, and upon whom devolves the care of furnishing the city with filtered water, are as yet unable to account for this action.

When the filter needs cleaning the water is drained off and an examination is made of the upper surface of the sand. It is then found that the slime formation has penetrated to different depths in the sand, varying with the time of the year and other conditions. The cleaning is carried down to twice the depth to which the sand shows contamination, varying from a half an inch to a good stiff spading, according to the time of year and the conditions under which the filter is worked. The labor of cleaning the filter is exceedingly heavy. It is accomplished by means of small railroad cars on a narrow-gauge

track. After the filter has been cleaned it is again set to work, and this process is repeated until only about 16 inches of sand are left, when the filter is again restored to its original condition.

SPRINKLING OF ASPHALT PAVEMENTS.

The sprinkling of asphalt pavements is causing considerable controversy in Toronto now, and the attention of the city officials who wish to have the asphalt wet down with the floods too commonly discharged from sprinkling carts is called to the following extract from an article by Mr. Samuel Whinery, M. Am. Soc. C. E.: "There will be times during dusty weather when the small amount of dust that will always remain on any pavement, however well it may be cleaned, will be raised and blown about. On such days very light sprinkling, just enough to keep the dust from flying, would be desirable. This may be best done by providing the men who do the cleaning with a reel of garden hose, say, 100 feet long, and making suitable connection with the city water pipes at distances of, say, 250 feet apart, to which the hose may be attached when required. The street can thus be sprinkled lightly as frequently as may be necessary, at little or no expense, in addition to the cleaning. Under no circumstances should the pavement be flooded by water carts. There are, it is true, sprinkling wagons fitted so that the amount of water discharged upon the street can be nicely regulated, but even then the drivers are likely to be careless and to flood the pavement. It will be found better and cheaper to keep the sprinkling wagons off of asphalt pavements altogether. Another objection to excessive sprinkling is that it greatly reduces the life of pavements of all kinds. Every one who has visited stone-working machinery has observed that, where stone is to be sawn into or ground away, a constant stream of water is kept dropping upon the part to be cut; and if one asks why this is done, he will be told that it greatly expedites the work, and that without water the process of sawing or grinding the stone would be a very slow one. So with pavements, whether of stone or other material, if they are kept constantly flooded with water their life will be greatly shortened, and for this reason alone, if for no other, sprinkling should be avoided wherever it is possible to do so."

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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	2 00	12 00
Hemlock scantling and joist		
up to 20 ft..... 12 00	13 00	13 00
Cedar for paving, per cord....	5 00	5 00
C dar for kerbing, 4 x 14,		
per M..... 14 00	14 00	14 00
Scantling and joist, up to 16 ft	14 00	14 00
" " " " 18 ft	15 00	16 00
" " " " 20 ft	16 00	16 00
Scantling and joist, up to 22 ft	17 00	17 00
" " " " 24 ft	19 00	19 00
" " " " 26 ft	20 00	21 00
" " " " 28 ft	22 00	23 00
" " " " 30 ft	24 00	25 00
" " " " 32 ft	27 00	27 00
" " " " 34 ft	29 50	29 50
" " " " 36 ft	31 00	31 00
" " " " 38 ft	33 00	33 00
" " " " 40 ft	35 00	36 00
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thicker, dry..... 25 00	28 00	25 00

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1 1/2 " " undressed, B M.	18 00	19 00	18 00	19 00
1 " " dressed.....	18 00	20 00	18 00	22 00
1 " " undressed.....	12 00	13 00	12 00	15 00
Beaded sheeting, dressed.....	20 00	35 00	22 00	35 00
Clapboarding, dressed.....	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 20		
Sawn lath, No. 1.....	1 75	2 00	2 50	2 60
Cedar.....		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
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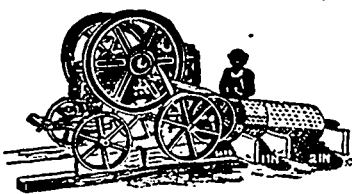
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Table listing pressed brick prices for various types like Red No. 1, Buff No. 1, etc.

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Table listing sand prices per load of 1 1/2 cubic yards.

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Table listing Credit Valley stone prices for Rubble, Brown Coursing, etc.

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Stained and Decorative Glass.

Shingles and Siding.

Soil Pipe.

Storm Doors.

Ventilators.

Wall Paper.

Water Pipes.

Windows.

Wire.

Wood.

Yarn.

Zinc.

Other materials.

Various other items.

Additional materials.

More materials.

Final materials.

End of list.

Summary.

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Reversible Windows.

Table listing reversible windows and other items like Duval & Co, Campbell & Gilday, etc.

Roofers.

Roofing Materials.

Sanitary Appliances.

Stained and Decorative Glass.

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