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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. 11.

JULY 4, 1900

No. 22.

### THE CANADIAN CONTRACT RECORD.

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

Subteription 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 2362.

Branch Office:
Imperial Building, Montreal,
Telephone Main 2299.

Advertising Rates on application.

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

Subscribers who may change their address should give prompt notice of same. In doing so, give both old and new address. Notify the publishers of any irregularity in delivery of paper.

# Town of Lindsay

Tenders, marked "Tender for Sewers," will be received up to 6 o'clock p.m. on the 12711 DAY OF JULY, 1900, for the construction of about 1,90 lineal feet of nine inch tile sewer with six inch cellar drair, and 56 side drains on Kent and Francis Streets.

Plans and specifications may be seen and form of tender obtained at the office of the Town Clerk, Lindsay, or from the Town Engineer, W. T. Ashbridge, C.E., Temple Building, Toronto.

A deposit, in the form of a marked cheque, for 5 per cent. of the amount of tender must accompany tender, and will be returned when contract has been awarded. The lowest or any tender not necessarily accepted.

ALEX. IACKSON.

ALEX. JACKSON, Chairman Board of Works.



SEALED TENDERS, addressed to the under signed, and endersed "Tender for Dredging, Colling. wood, Ont.," will be received at this office until

### Friday, the 20th July, 1900,

inclusively, for Dredging in the Harbour of Colling wood, Ont., according to a plan and combined specification and form of tender to be seen at the office of H. A Gray. Evg., Ergineer in charge Harbour and River Works for Ontario, Confederation Life Building, Toronto, on application to the Postmaster at C.-llingwood, Ont., and at the Department of Public Works, Ottawa. Persons tendering are notified that tenders will not be considered unless made on the form supplied, and signed with their actual signatures.

Each tender must be accompanied by an accepted bank cheque made payable to the order of the Honour able the Minister of Public Works, for five thousand (\$5,000,) dollars, which will be forfeited if the party decline to enter into a contract when called upon to do to, or if he fail to complete the work contracted for 10th tender be not accepted the cheque will be returned.

The Department does not bind itself to accept the

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

By order, DOS. R ROY, Acting Secretary.

Department of Public Works, Uttawa, June 21st, 1900.

Newspapers inserting this advertisement without authority from the Department will not be paid for it.

### WANTED

Experienced Foreman—capable of taking charge of men for Cement-Concrete Sidewalk Paving Company. Must thoroughly understand laying and finishing sidewalks. State age, experience salary required, and give reference. Address, "Paving Contract Record Office, Toronto, Ont.

## Town of Goderich

Tenders for the construction of about 113,000 feet of Granolithic Sidewalks, including Street Crossings, will be received by the undersigned up to and including SATURDAY, THE 1410 OF JULY. Copies of specifications will be sent to those desiring them No tender necessarily accepted.

WM. MITCHELL, Town Clerk.

Goderich, Ont., July 3rd, 1900.

# Notice to Contractors FORT WILLIAM

# **SEWERAGE WORKS**

Sealed tenders will be received by the Town Clerk until 7 p.m. on MONDAY, JULY 16711. 1900, for the construction of about 3000 lineal feet of Iron, Tile and Brick Sewer and Sewerage Pumping Station.

Plans and specifications may be seen at the Town Clerk's office, Fort William, or at the Chief Engineer's office, Toronto.

No tender necessarily accepted,

y accepted,

A. McNAUGHTON,

Town Clerk,

Fort William, Ont.

WILLIS CHIPMAN, Chief Engine

103 Bay Street, Toronto.

CITY OF CALGARY

\$90,000

Sealed tenders will be received by the undersigned, and marked "Tender for Debentures," up to noon, TUESDAY, JULY 24111, 1900, for the purchase of Debentures to the amount of \$90,000.

The said debentures are payable in thirty years from the first day of July, 1809, and bear interest at the rate of four per cent. per annum, payable half-yearly.

The issue of these debentures is duly authorized by an Ordinance of the North-West Territories, passed at session just closed.

session just closed.

The money to be payable in Calgary free of charge to the City.

The highest or any tender not necessarily accepted.

CHAS. McMILLAN, City Treasurer.

Calgary, June 2 ard, 1900.

### FOR SALE

300 ft. 16 inch flexible ward joint cast from pape for submerging under water. Price 5. per to Vipil, McQUILLAN & CO., 1457 Queen St. West, Toronto



SEALED TENDERS, addressed to the under-signed, and endorsed "Terder for Pier in the Lower Division of the Harbor of Montreal," will be received at this office until

### Friday, the 20th day of July, 1900.

for the construction of a High Level Pier and Bulk heads in the Lower Division of the Harbour of Mont-

heads in the Lower Division of the Harbour of Montree!, Que.

Tlans and specifications can be seen at this Department and at the offices of Henry A. Gray, Est., Resident Engineer, Confederation Life Building, J. Coronto; C. Desjardins, Esq. Clerk of Works, Post Office, Montreal; Ph. Beland, Esq., Clerk of Works, Post Office Building, Quebec. E. T. P. Shewen, Esq., Post Office Building, Quebec. E. T. P. Shewen, Esq., Resident Engineer, St., John, N.B., and C. E. W. Dodwell, Esq., Resident Engineer, Halifax, N.S.

Tenders will not be considered unless made on the printed form supplied and signed with the actual signatures of tenderers.

An accepted bank cheque, payable to the order of the Minister of Public Works, for fifty thousand dollars (\$40,000.00), must accompany each tender. The cheque will be forfeited if the party decline the contract or fail to complete the work contracted for, and will be returned in case of non-acceptance of tender.

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

By Order,

By Order,
JOS. R. ROY,
Acting Socretary.
Department of Public Works of Canada,
Ottawa, 20th June, 1900.

Newspapers inserting this advertisement without authority from the Department will not be paid for it.

### CONTRACTS OPEN.

ROBERVAL, QUE.-The Mayor invites tenders for \$8,000 worth of debentures.

CORNWALL, ONT .- The Toronto Paper Co. propose to erect a large brick addition to their paper mill.

STRATHROY, ONT.—The ratepayers have voted \$10,000 to the Strathtoy and Western Counties railway.

LUCAN, ONT .- The township council of McGillivray have decided to erect a new school building in No. 5 section of said township.

PALMERSTON, ONT -- The council, at the suggestion of the mayor, will consider the advisability of constructing a system of water works.

FORT WILLIAM, ONT.—The secretary of the Hospital Board invites competitive

plans for a hospital building to cost not more than \$10,000.

SMITH'S FALLS, ONT.—The council have granted the Public School Board \$5,000 with which to build additions to the Central school.

VERSCHOYLE, QUE.—Tenders are invited by Alex. Bell, clerk of the township of Dereham, until 2 p. m. of the 9th inst., for drainage works.

WATFORD, ONT. - Alex. Saunders, village clerk, will receive tenders until S

p. m of the 4th inst. for the construction of cement sidewalks.

SYDNEY, N.S.-A new academy building is to be erected here.

PEMBROKE, ONT.—An additional story is to be put on the convent building.

ATLIN, B. C.—Government will at once build a bridge over Pine river.

CALGARY, II. W. T.—A petition is in circulation for the construction of granolithic pavement.

ALLANDALE, ONT.—It is said to be the intention of the G. T. R. to erect new offices, to cost \$10,000.

RENFREW, ONT.—The Renfrew Power Company will, it is said, spend \$40,000 in power development works.

NANAIMO, B C.—A jockey club has been formed and a race track and recreation ground will be secured.

MARIPOSA, ONT.—J. D. Weldon, township clerk will receive tenders until the 20th inst, for construction of two stone bridge piers.

PORT ARTHUR, ONT.—The mayor is said to be endeavoring to secure government aid for the construction of a railway from Winnipeg to Duluth.

DELHI, UNT.—The town clerk has been instructed to advertise for tenders for about 1,800 lineal feet of granolithic sidewalks, and 50 or more cords of gravel.

WARWICK, ONI.—The township of Warwick propose to issue debentures for \$2,500 to be given as a bonus to the Strathroy and Western Counties Railway Company.

St. Mary's, Ont.—The council are considering the question of the construction of new sidewalks. The opinion prevails that only granolithic walks should be put down.

LAKEFIELD, ONT.—A by-law granting a bonus of \$10,000, exemption from taxes and a free site to the Lakefield Portland Cement Works has been almost unanimously adopted.

LONGUEIL, QUE.—Councillor Dennincourt will at the next meeting of council propose the adoption of a by-law granting a bonus of \$150,000 for the establishment of cotton mills.

STRATFORD, ONT.—Mr. T.J. Hepburn, architect, has prepared plans for a new Evangelical church, to be erected of pressed brick, with local stone foundation and trimmings.

PRESCOTT, ONT.—Clark Bros., of Kingston, have entered into an agreement with the council for the lease of land and the erection of a building 160 x 200 feet, two stories high.

GUELPH, ONT.—The council are asking the consent of the Canada Company to be allowed to grant a portion of the market site to a cream separator company for a new factory building.

SANDON, B.C.—The mayor announces that the rebuilding of this town, recently destroyed by fire, will be proceeded with immediately, and that a much better class of buildings will be erected.

LINDSAY, ONT.—W. F. O'Boyle, box 226, Lindsay, will receive tenders until 26th inst. for municipal debentures to the amount of \$4,287.—The town clerk invites tenders for sewer construction.

HALIFAX, N. S.—It is reported that Mrs. Dewey, wife of Admiral Dewey, has purchased Chester Island, in St. Margaret's Bay, and that it is her purpose to erect a summer residence thereon.

BALDUR, MAN.—Mr. P.F. Curbis will erect a two-storey and basement store and public hall, 33 x 80 ft., cost \$6,000. hot air heating, metal ceilings, etc. W. H Shillinglaw, architect, Brandon.

BEDFORD, N. S.—It is reported that the Belleview hotel has been purchased

by an American syndicate, who will tear down the present building and erect a large up-to-date building on the same site.

DUNDAS, ONT.—The municipality of the township of Saltsleet have passed a by-law authorizing the issuing of debentures to the amount of \$4,000 for the erection of a school house in said township.

QUEBEC, QUE An American syndicate have purchased from the Crown Lands Department two important water powers at Lake St. John, and have bound themselves to erect within four years pulp and other factories to the value of \$4,000,000.

WATERFORD, ONT.—The reeve has suggested to the ratepayers the advisability of constructing 55,000 feet of granolithic sidewalk, at an estimated cost of \$6,000. An effort will also be made to secure the construction of a new bridge on Main street.

HULL, QUE.—It is probable that the construction of the proposed new wharf, for which a grant of \$10,000 has been placed in the Dominion estimates, will be commenced this summer. All plans, soundings, etc. have been prepared. The estimated cost is \$35,000.

GALT, ONT.—The farmers of North Dumfries township met recently to consider the advisability of constructing a drain, 4 miles in length. An estimate was received from Mr. Bowman, C. E., who places the cost at \$2,500. The project has been favorably received and will probably be carried out.

WINNIPEG, MAN.—The Union Mining Co. have commenced the erection of a cement manufacturing plant on the Northern Pacific railway near Miami.—Geo. Brown, architect, will receive tenders until the 9th inst. for plumbing and steam heating for the science building of Manitoba University.

ARTHUR, ONT.—At a recent gathering the project for the construction of an electric railway from Port Dover to Berlin, was considered. The project includes electric connection between Guelph and this town. It is reported that the greater part of the money required to build the line has already been secured.

BROCKVILLE, ONT.—Mr. O.G. Staples, of the Thousand Islands Hotel, Alexandria Bay, is said to be negotiating with a New York capitalist for the erection of a large club house at cost of \$15,000.—Mr. Dillon, architect, has been instructed to prepare plans and specifications for remodelling the offices of the county officials

RAT PORTAGE, ONT.—It is reported that a large saw mill will be erected at Koochiching by Duluth business nien.—A deputation from this town have recently interviewed the Dominion and Ontario Governments with regard to the construction of dams at the head of Kainy river for the purpose of securing a reserve supply of water.

WATERLOO, ONT.—The town council give notice of their intention to pass a bylaw granting a bonus of \$9000 to aid the Port Dover, Brantford, Berlin and Goderich Railway Company.—The county council give notice of a by-law to raise the sum of \$5,000 with which to build an addition to the House of Refuge, and to make improvements to the county jail.

SAULT STE MARIE, ONT.—The rate-payers have adopted a by-law granting exemption from taxation and certain other concessions to the Lake Superior Power Co., in return for which the company agree to construct additional works, at cost of \$2,000,000, such works to include an additional water power canal, a rail-road, railway station, wharves and docks, and the building of a street railway.

Nelson, B. C.—Plans are now being considered for a Roman Catholic convent

school building.—J. Fred Hume will erect a row of tenement houses.—The C. P R are laying out a new yard,—Work will be commenced shortly on improvements to C. P. R. property. The work is estimated to cost from \$80,000 to \$90,000.—Messrs. Cane & McDonald, architects, have prepared plans for a new hotel building to cost \$40,000.

BRANTFORD, ONT.—In return for concessions from the municipality the Adams' Wagon Co., Limited, agree to purchase three acres of land in this city and erect a building and plant to cost \$4,000.—The mayor has suggested to the G. T. R. Company the necessity for an additional span to their bridge across the Grand river. The city is about to spend an additional \$25,000 for the prevention of floods.

WELLAND, ONT.—Mr. E. A. C. Pew, president of the Canadian Steel Co., states that the company will proceed at once with the erection of extensive works immediately south of the Michigan Central railway tracks. He further states that two separate manufacturing concerns, who use steel plate, are negotiating with his company for terms, with the object of locating their factories at Welland.—Mr. W. M. German states that the Ontario Power Co. will begin the construction of works this summer.

ST. CATHARINES, ONT.—The council propose to pass a by-law, granting the sum of \$4,000 per year until 1916, to assist the Welland Vale Manufacturing Co. to reconstruct its buildings and plant, recently destroyed by fire.—The city council gives notice of by-laws to grant partial exemption from taxation for ten years to Louis P. Snider. He proposes to engage in the manufacture of paper, and agrees to install a plant for this purpose not later than the 1st of October next. The council also propose to pass a by-law to authorize the borrowing of \$25,000, with which to erect a new collegiate institute building.

HAMILTON, ONT.—It is reported to be the intention of the Grand Trunk Railway to establish an uptown station at the corner of King street and Ferguson avenue.—It is thrught that the proposed Odd-Fellows' Home may be located in this city. The inatter will come up for consideration at a meeting of the Grand Lodge to be held in August.—Plans have been prepared and tenders will be invited shortly for the erection of several new buildings for the Imperial Cotton Company, including a main mill, three stories in height, two storey finishing room, large storage warehouse, boiler, machine and carpenter shops.

KINGSTON, ONT. — The ratepayers have approved of a by-law authorizing the granting of \$4,000 per year for fifteen years to a concern which promises to put up buildings to the value of \$200,000 and manufacture 1,000 tons of iron per day.— St. Mary's cemetery committee will erect a large water tank and extend the water supply pipes throughout the grounds.— The Dominion Cotton Mills Co. invite tenders for painting.—H. P. Smith, architect, will receive tenders until 5 p. m., for the erection of a bell tower, stone porch, etc., for the church of the Assumption, Ernsville, Ont.—The committee of the acult School Board have reported against the present enlargement of the Williamsvillle school, the need of increased accommodation at an early date is, however, recognized.

ST. JOHN, N.B.—The local press make reference to the unsatisfactory condition of the streets, and urge the construction of wood pavements.—A sub-committee has recommended to the council the purchase of the court block at Indiantown, to be converted into a public square.—A sub-committee of the committee of the council have recommended the macadam-

izing of Water, Smile and Pond streets, also Prince William street; the continuastreet, the immediate construction of a retaining wall on Rockland road, and new cuibing on Germain and Waterloo streets.—Wm. Pearson, of Paris, who represents English capitalists, is considering the question of erecting a pulp mill on the Tobique river.—The New Brunswick Cold Storage Co. will shortly invite tenders for a cold storage warehouse and

July 4, 1900

VANCOUVER, B. C .- The council will receive tenders until the 5th July for the construction of sewers in the Fairview section.—The council have decided to construct a number of new sidewalks.-It is reported that the government will be asked to grant an appropriation to rebuild the Lieutenant-Governor's residence.-A new police station building is required. -Capt. N. F. McKenzie has selected a site, not far from this city, on which to erect a pulp mill.—The necessity for extensive improvements to the public hospital building are being urged by members of the medical profession.-Plans of Mr. W. T. Dalton, architect, have been adopted for additions to the Fairview school. Tenders for the stone work are invited until the 6th inst .- Local architects are to be invited to submit plans for new school buildings at the east and west end to cost \$10,000 each.

MONTREAL, QUE. - Sir Wm. McDonald has made a proposition to the city council to erect and endow a crematorial building.—The Department of Public Works, Ottawa, invite tenders until July 20th, for the construction of a high level pier and bulk heads in the lower division of the harbor of Montreal.—Mr. F. H. Walker, of Walkerville, Ont., is looking for a suitable site for a distillery, and office, which his company propose to establish here.-The city clerk invites tenders, until noon of the 6th inst., for improvements to the city hall. Plans and specifications at the office of Maurice Perrault, architect, 15 St. Lambert's Hill.

The catholic school commissioners have

decided to purchase a site at the intersection of Chausse and Amity streets, on which to erect a new school building, to Plans for the building precost \$35,000. pared by Messrs. Perrault & Lasage, architects, have been approved, and tenders will be invited immediately.-The council has given notice of its intention to construct sewers on St. Andre street, and Christophe-Colomb street. - The city clerk will receive tenders, until noon of the 6th inst., for the erection of two sheds for the incineration department.-Plans have been approved and tenders will be invited for the construction of a new fire station at Hochelaga.—The building inspector has reported that No. 9 fire station is uninhabitable and unsafe and requires extensive repairs .- The Woman's Christian Association have called attention to the necessity for a reformatory for girls .plans of Aldermen Lamarche and Gagnon for the extension of Bonsecours market have been forwarded on to the council by the market committee.-The Parks committee have decided to call for tenders for the erection of a new observatory tower.

TORONTO, ONT.—The city engineer will apply to the council for \$2,000 to pave the approaches to the York street bridge.
-Hon. G. W. Ross, Premier of Ontario, stated, a few days ago, that ultimately there would be erected, in Queen's Park, a new residence for the Lieutenant-Governor.-The city engineer has recommended the following local improvements: Concrete walks—Jameson avenue, east Concrete walksside, from King to Queen, \$1,093; Bathurst street, east side, from Nassau to Alloor, \$42,70, east side from King to Adelaide, \$475; D'Arcy street, north side from McCaul to Spadina, \$2,834; Dufferin street, east side, from King to G. T. R. tracks, \$1,663. Cedar block pavements-Tecumseth street, from Queen to Walnut, \$6,030; Margueretta street, from Dundas to Bloor, \$7,660. The engineer also recommends asphalt pavements: dina avenue, 25 feet each side of railway track, from the west side of Spadina avenue, continuing all around the cresent abutting the Knox College grounds, to cost \$16,870.—Building permits have been issued as follows: William Wright, pair of two storey semi-detached dwellings, east side of Brunswick avenue, near Utster, to cost \$4,000; M. S. Kellow, two-storey brick and stone residence, north side Wells, near Albany, to cost \$3,000; William Milne, two storey brick addition to dwelling, 33 Stewart street, to cost \$1,000; C. A. Dinnick, a two-storey detached brick and stone dwelling, south side Lowther, near Spadina road, to cost \$3,000.—The Board of Control have requested the city engineer to prepare an estimate of the probable cost of installing and operating a municipal telephone system for 6,000 and 10,000 subscribers.

OTTAWA, ONT.-The Ottawa Improvement Commission propose to establish a park along side of the Ridean river in connection with the proposed driveway to Government House. — Mr. Rothwell, warden of the county of Carleton, stated in his addresss to the county council that it was necessary that a viaduct be constructed on the Richmond road.—The Collegiate Institute Board have made application for a lease of government land on which to erect an extension to the present building.—A petition has been presented to the Carleton county council asking for the appointment of an engineer to investigate and report the cause of the rise of the water each spring in the Rideau river, by reason of which much damage has been done by floods.—The Council are being urged to proceed with the extension of Slater street.—A meeting of the Board of Health and the Park Commissioners has been called to discuss the proposed change of site for the con-tagious hospital.—The Canadian Pacific Railway Co. has requested the city to build an addition to the bridge over the aqueduct, to give entrance to additional lines into their yards.-It is reported that Toronto capitalists intend to establish an automobile factory here.—The secretary of the Department of Public Works invites tenders until the 25th inst. for construction of a drill hall at Windsor, Ont. The Postmaster-General will receive tenders until the 16th inst. for 5 automobiles or locomobiles for the carriage of mails on the public highways.—An agreement has been reached between the various municipalities interested for the construction of a drain through Nepean, Marlborough and North Gower townships to the Rideau river.-A deputation from the county council have made request to the minister of railways for the usual subsidy in aid of the Ottawa and Brock-ville railway. The minister stated that in ville railway. The minister stated that in all probability the grant would be made.

—A committee of the county council has reported against the building of an addition to the court house and again recommend extensive alterations to the interior of the present building.—The city council give notice of their intention to construct a large number of sidewalks.—Building permits have been issued as follows. J. B. Souller, brick veneered dwelling, Division street, \$2,000; Mrs. E. Lagasse, brick veneered dwelling, Sherwood street, \$1,200; William Pagestand heigh beauty. 51,200; William Ranstead, brick house, Elm street, \$1,300; Joseph Evans, solid brick house, Rochester street, \$1,800; Joseph Evans, veneered barn, Rochester street, \$1,000; Nelson Blais, frame house, Rochester street, \$1,000; J. B. Davis, two brick veneered dwellings, Division street, \$1,700; John Robertson, stone and brick house, Wellington street, \$2,500.

The supplementary estimates submitted last week to the Dominion Parliament contain the following appropriations for public works :-

INTERCOLONIAL RAILWAY:-To increase facilities along the line, \$112,800; purchase of tools and machinery, \$66,000; to increase accommodation at Levis, \$110,000; additional accommodation at Levis, \$110,000; additional sidings along line, \$105,500; through travelling steam dericks, \$30,000; a new steel bridge at Etchemin, \$22,000, increase accommodation at St. John (revote, \$150,000), \$203,000; dredge and blast rock at Halifax, \$11,000; talege and blast fock at Franks, \$11,000; raise Sydney and Louisburg Railway, \$3,300; to improve ferry service at Strait of Canso, \$250,000; to extend Intercolonial Railway to Copper Crown Works, Picton, Railway to Copper Crown Works, Picton, \$20,000; rolling stock, \$400,000; steel rails and fastenings, \$420,000; grain elevator at St. John, \$2,000; towards strengthening iron bridges (revote), \$80,000; building new and enlarging old engine houses (revote, \$52,000), \$60,000; improvements at Point Tupper emarging oid engine noises (revote, \$52,000), \$60,000; improvements at Point Tupper (revote), \$7,000; towards building sea wall in Cape Breton (revote), \$8,000; to provide large turn-tables (revote), \$11,000; improvements at Mulgrave (revote), \$11,000; improvements at Mulgrave (revote), \$10,000; towards constructing subway at Christie's Crossing (revote), \$3,500; improving telegraph service (revote), \$12,000; towards building rest houses at engine stations (revote), \$3,000; to

provide drop pits (revote), \$5,000.
FOR CANALS:—Welland Canal, FOR CANALS:—Welland Canal, swing bridge at the fourth concession, Humberstone (revote), \$15,000; Lachine Canal, enlargement, \$25,000; Trent Canal, construction, \$300,000; Rapide Plat Canal, enlargement, \$155,000; Cornwall Canal, to repair what at Cornwall, \$1,000; Farran's Point Canal, enlargement, \$60,000; Galops Canal, enlargement (upper entrance), \$60,000; Welland largement, \$60,000; Galops Canal, enlargement (upper entrance), \$60,000; Welland Canal, general repairs, \$30,000; outlet drain age at Port Colborne, \$6,000; to renew entrance piers, Port Colborne (revote), \$20,000; Ottawa river, survey in view of improvement to navigation, \$10,000; military buildings at Ottawa, \$25,000, of which \$19,000 is a revote; St. Andiews Rapids, Red River, revote of \$125,000; Levis graving dock, lengthening dock (revote), \$85,000; Montreal harbor, lower division, improvements below St. Mary's current (revote), \$300,000; Port Colborne, harbor improvements (revote), \$50,000. ments (revote), \$50,000.

PUBLIC BUILDINGS :- Halifax is to receive Public Buildings:—Halifax is to receive a new building costing \$25,000, while there is \$11,000 for a rolling mill in connection with the Quebec cartridge factory; Brockville, drill hall (revote), \$9,000; Deseronto, public building, \$5,000; London, custom house, alterations and repairs, \$1,200; London, postoffice, addition to, alterations, fittings and furniture, \$2,000; Sarnia, public building (revote \$10,000), \$15,000; Picton, public building, \$13,000; Toronto, postoffice, improvements, including automobile cars (revote), \$10,000; Toronto Junction, public buildings, \$5,000; Toronto, custom house and examinprovenents, including automomie cars (revote), \$10,000; Toronto Junction, public buildings, \$5,000; Toronto, custom house and examining warehouse, paving, \$4,515; Kingston, Royal Military College, additional buildings, gymnasium and hospital (revote), \$8,000; Rat Portage, postoffice, etc. (revote), \$16,000; St. Catharines, drill hall (revote), \$10,000; Woodstock, public building (revote), \$10,000; Woodstock, public building (revote), \$10,000; Woodstock, public building (revote), \$10,000; Rideau hall, fire protection, renewals, repairs, alterations, re-metalling, etc., \$11,800; St. Thomas, drill hall and armory, \$8,000.

HARBOR IMPROVEMENTS.—Depot Harbor, breakwater, \$50,000; Sarnia dredging, \$11,250, Port Hope harbor, dredging, \$5,000; repairs to pier, \$2,000 - \$7,000, Lancaster wharf, \$5,000; Cobourg, repairs to pier and dredge, \$5,000; Nation

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River, north branch, purchase of existing riparian rights and removal of dam, parties interested contributing, \$2,500; Severn interested contributing, \$2,500; Severn and Black Rivers, improvements in connection with regulation of waters of Lakes Simeoe and Couchiching, \$2,500; Beaverton, repairs to wharf, \$1,000; Oshawa, repairs to pier provided harbor is transferred to town corporation and that the corporation and the corporation and that the corporation and the corporation and that the corporation and that the corporation and the ation will agree to maintain it in future (revote \$8,000), \$10,000; Pickering, har-bor repairs to breakwater and dredging, \$4,000; Toronto harbor, work in eastern entrance, etc., (revote), \$40,000; diversion of Don and dredging the habror, (revote), \$25,000; Bronte harbor, improvements, \$5,000; Oakville, repairs to west pier at mouth of harbor, etc., \$5,000; Burlington mouth of harbor, etc., \$5,000; Burington channel, repairs to piers (revote), \$20,000; Rondeau harbor, repairs, \$1,500, dredging, \$3,907.55; Little Bear Creek, dredging, (revote), \$2,000; Port Burwell, improvement of harbor, \$30,000; Port Stanley, wharf, \$8,000; Kingsville, repairs and improvements to wharf and breakwater, \$15,000; Point Pelec Island, wharf, (revote), \$6,000; Leamington, pier. \$15,000; voie), \$6,000; Learnington, pier, \$15,000; Sydenham River, dredging (revote), \$5,000; Bayfield, extension of piers, \$5,500; Goderich harbor, reconstruction of breakwater, etc., (revote), \$20,000; dredging, to complete. (revote), \$11,000; Port Albert, dredging, \$1,000; blasting and removing rocky shoal in vicinity of elevator, \$4,700; repairs to northern entrance pier, \$2,000; Port Elgin, breakwater, (revote), \$3,000; Port Elgin, dredging, \$1,500; Kincardine, dredging, \$2,500; Kincardine harbor, im-provements, \$5,000; Wiarton landing pier, \$10,000; Southampton, dredging, \$2,000; \$10,000; Southampton, dredging, \$2,000; Saugeen River improvements, etc., \$5,000; Lion's Head, repairs to pier, \$1,000; dredging, \$1,500; Owen Sound harbor, dredging and extension of pile protection works, (revote, \$9,000), \$30,000; Oxenden, addition to wharf, \$4,000; Meaford harbor, dredging and pile work, \$30,000; Thorn-

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bury, repairs to harbor works, \$1,000; Collingwood harbor, improvement, (revote \$30,000), \$50,000; Barrie, works of reconstruction and repairs on public wharfs, \$3,000; Hawkestone wharf, (revote \$1,500), \$3,000; Hawkestone wharf, (revote \$1,500), \$2,250; Midland Harbor, dredge, \$3,300; Bruce Mines wharf, (revote), \$3,000; Providence Bay wharf, (revote), \$5,000; Shegundah landing pier, \$2,300; Sault 5t. Marie harbor, improvements, \$10,000; Little Current, north channel improvements, \$1,000; Port Findlay wharf, (revote \$2,500), \$5,800; Port Arthur, dredging, \$3,500; Desbarats, to complete wharf, \$1,000; Hawkesbury, dredging, \$4,000; North J Bay, repairs, \$2,300; wharf on Lake Temiscamingue, (revote \$1,000), \$3,000; River Ottawa, dam on main channel above the Long Sault Rapids at the foot of Lake Temiscamingue, \$5,000; Scugog River, dredging channel, (revote), gog River, dredging channel, (revote), \$4,000; River Ottawa, improvement of steamboat channel through narrows of

Petewawa, above Pembroke (revote), \$7,-000; Otonabce River, improvement of navigation, (revote, \$2,000), \$2,500; Indian River, dredging a cut across the Devil's Elbow and also a shoal at Sandy's Landing, (revote), \$2,000; Kingston graving dock wharves, works of reconstruction and repair, \$5,000; Sparrow Lake, widening outlet, \$1,700; South Nation River, towards the improvement at the pitchoff, \$5,000: Trenton, dredging channel Murray Canal to Central Ontario Railway dock, etc., \$8,400. The sum of \$75,000 is asked for a new dredging plant for Ontario and Quebec; \$3,730 for a storage battery required for opening and closing the bridge over the Burlington channel.

### FIRES.

Three storey building at Moncton, N.B., the property of G. H. Brown, damaged June 25th; fully insured.—The

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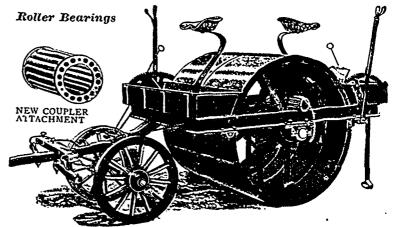
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busin - portion of the village of Ruthven, of the same of the Ont, were damaged by fire to the extent of \$ 000 on June 27th.—A fire at St. Stepnen, N.B., on June 26th, damaged the sook and machinery of the Imperial wrapper for tory to the extent of \$14,000; main inc. \$12,000. The Watson block was damaged to the extent of \$2,000; fully insured.—Craig & Madony's hat factory at Truro, N.S., destroyed June 24th. loss \$15,000, insurance \$4,000.—Wright & Spicer saw mill, Brockville, Ont., burnt June 26th; loss \$3,000, no insurance.—A bridge near Streetsville was burned a few days ago.—Fire destroyed business property at Glencoe to the value of \$7,000, partly insured.—The Union Elevator at Belleville, together with the railway car barns, were destroyed by fire on June 29th, loss about \$12,000, partly insured. the sork and machinery of the Imperial partly insured.

### CONTRACTS AWARDED.

S1. JOHN, N.B.—Steam heating public hospital. P. Campbell, contractor, \$3,500.

VANCOUVER, B.C.—Residence for C. C. Warmouth: Chas. A. Webster, contractor.

MONTREAL, QUE.—New rifle range at Pointe aux Trembles: James White, Ottawa, contractor; price \$33,000.

KEMPTVILLE, ONT. — New swing bridge: Piers, Geo. Bradford, Almonte, \$1.7'0; iron work, Hamilton Bridge Works Co., \$1,700.

OTTAWA, ONT.—Match factory for the E. B. Eddy Co.: Holbrook & Sutherland, contractors.—New C.P.R. station: White & Lyons, contractors.

KINGSTON, ONT .-- Offices on Ontario street: Arthur Ellis, architect; masonry, Watts & Morley; carpentry, Hunter & Harold; plumbing and heating, Nugent & Taylor; ainting and glazing, T. Milo.

CHATHAM, ONT .- Vitrified brick: Massillon Stone & Fire Brick Company, \$23.40 per thousand.—Laying vitrified pavement: Lynch & Lynch, 99 cents per square yard, material to be furnished by city.

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Architects, Engineers, Municipal Authorities and others are reminded that the thorites and others are reminied 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.

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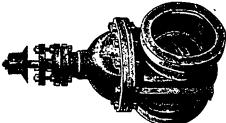
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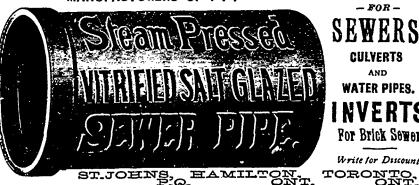
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CAUSES OF DEFECTIVE SIDEWALKS.\*

By A. W. CAMPBELL, C. E.

(Concluded)

In using gravel only, the difficulty anses from the fact that the cement, sand and stone are not and cannot be expected to be mixed uniformly in these proportions. Gravel usually contains sand but not in uniform quantities, nor in any definite proportions. Some pockets of so-called gravel will be almost completely sand, while adjoining it there is scarcely any sand, perhaps almost clean stone. To mix such material with cement to produce concrete while in many cases it may be successful, in always hazardous. The only safe way, where gravel is the material to be used, is to separate by screening, the sand and stone which compose the gravel, then to mix the sand and cement in proper proportions to form the mortar, to which is then added the stone uniformly, and in its proportion.

A cause of an inferior sidewalk is that the materials composing it have been carelessly mixed. The cement and sand should first be mixed dry. This should be turned over and mixed with shovels not less than ten times before the water is Water is then added in just sufficient quantity to slightly dampen the mixture, and the paste should be again turned over and mixed not less than six times. If this work is properly done, each grain of sand will be surrounded by a sufficient coating of cement. This mortar having been spread out, the stone should be added and the whole turned over and mixed not less than ten times before being used, the last mixing ensuring that each stone is completely surrounded by a coating of mortar.

The use of too much water in mixing will produce, when set, a concrete of spongy texure. Concrete when ready to be put in the work should have the consistency of freshly dug loam, and should be rammed into place until moisture appears on the surface.

Neglect to keep a newly laid walk damp, and protected from the rays of the sun, will permit the surface to set too rapidly. Minute, hair-like cracks will appear on the surface. These fill with water, which freezes in cold weather, and the expansion destroys the surface of the walk, causing a a thin layer to shale off in patches. The same shaling will result from laying concrete in frosty weather; nor should it be mixed nor laid in wet weather.

Another cause of the failure of sidewalks is that the concrete had not been properly and completly separated into flags to allow for expansion, with the result that in hot weather, when expansion takes place, the sidewalk is thrown up at points of least

resistance. The expansion of concrete is about the same as that of steel, and no railway company would contemplate for an instant the laying of a continuous steel track in which there are not joints at proper intervals to allow for this expansion. This is true to the same extent with a concrete sidewalk, care must be taken to first cut the foundation layer of concrete, then through the surface layer directly in line with the joint underneath. The entire joint should then be filled with sand to ensure complete separation.

The surface layer of the sidewalk must be laid upon the foundation layer while the latter layer is still damp and before it is set, otherwise there is not a proper union of the two, and shaling will result.

The effect of frost on a fresh sub-soil must also be guarded against by the use of under drains, otherwise the upheaval of the ground, under the expanding in-fluence of frost, is very apt to crack the walk. The separation of the sidewalk into flag divisions, however, is also of service in this respect by giving the separate divisions and opportunity to rise and subside with the soil underneath. No dependence, however, should be placed on this, as a saturated sub-soil will eventually cause a very uneven surface, since the separate flags when once upheaved seldom return exactly to their original position.

Walks are very commonly laid by contractors who furnish their own specifications and agreement. Where such is the case, the agreement should contain a clause specifying in the most stringent terms that the walk is to be kept in perfect condition, order and repair, so that at the end of the term of guarantee, usually five years, the walks shall have given satisfactory evidence of their proper construction and durability. The guarantee is generally so worded that it can be interpreted to mean that the contractor is simply to keep the walk in repair for five years, and entailing no reponsibility upon the contractor even if the walk at the end of that period is ready to crumble to pieces, demanding almost immediate reconstruction. A town, however, should not depend upon the contractor's guarantee, but should employ an experienced and reliable inspector to see that the specifications are faithfully carried out.

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Shingles and Sidin Metallic Roofing Co., Ormsby & Co., A B., Peddiar Metal Koofin, Roofers Supply Co...

Soil Pipe.
Toronto Foundry Co. li School and Church
Furniture,
Can. Office & School
Farniture Co.......
Globe Furniture Co

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Rice Lewis & Son IV	Stueber, Harry.	111	Frink, I. P III	Company	· · · · · · · · · · · · · · · · · · ·
Port Philip, N. S. Brown	)			Toronto.	Montres!
Sandstone	•		Napanee, n		Monteas
"Scorize" Paving Blocks,			Hull,	1 70	15
8"×3½"×5"	55		Ontario, "	1 50	15
"Scorize" Paving Blocks	. 22			1 50	
8"×3½"×4"	45 00		Fire Bricks, Newcastle, per M 5	3000 3500	
Masillon	30 00		Lime, 100 lbs., Grey	30 00 35 00	1900 211
Quebec and Vermont rough	3000		" White	30	_
granite for building pur-			Places Calained N D	35	. 3
poses, per c.ft. f.o.b. quarry	40	1 60	Plaster, Calcined, N. B	200	3.5
For ornamental work, cu.ft		2 00		200	1
Granite paving blocks, 8 in. t			Hair, Plasterers, per bag	80 100	20
12 in.xi in.x41/2 in. per M.		50 00	T / D D W	407	
Granite curbing stone, 6 in.	<u>'</u>	2010	HARDW.		
20 in. per lineal foot	•		The following are the quotat	ions to build	ders for all
•		70	at Toronto and Montreal:		
CREDIT VALL			Cut nails, 50d & 60d, per keg	285	28
	F.O.B. Q		Steel n in #	295	20
Rubble, per car of 15 tons		700			•
Brown Coursing, up to 10 in.	ı		CUT NAILS, FENCE AT	ND CUT SPIK	ES.
per sup. yard	15	o to 1 75	4od, hot cut, per zoo lbs	2 85	25
Brown Dimension, per cub. ft		60	To to 12d, ho: cut	2 95	20
Grey Coursing, per sup. yard		1 00	8d. od. ' u u	300	10
Grey Dimension, per cub. ft.	•	45	6d, 7d, " "	3 15	1
LONGFORE	STONE.		Ad to ed. " "	3 25	71
Rubble, per 30 M. car		5 00	3d, " "	3 50	15
Ashlar, per cub. vd	•	200	2d. " "	385	46
Dimension, per cub. it	•	18	Cut spikes, 10 cents per keg		,,,
, per cap: 10 111111	'		Steel Nails, 10c. per keg ex		
SLA	TE.		Wire nails, 3.35 base price.		
5512	Toronto. M	ontreal.	o 3.33 grase prices		
Rocting (# square).			Year Til		
ii red	17 50	-0 00	Iron Pi		
n numle	8 50	70.00	ron pipe, ¾ inch, per 100 fee	t	\$

9a, 9a		ä	!!		•••		3 oc	31
6d, 7d,	٠.	•••	"		•••		3 15	3
4d to 5	d,	**	**	•••••			3 25	3
3ď, ¯		**	"	•••••			3 50	3
ad.		**	**				3 85	1
Cut	spi	kes.	10 C	ents per	keg	advar	ice.	•
Stee	ĪΝ	ails.	IOC	per ke	z ex	tra.		
Wir	e na	ails.	3.25	dase pr	ice.			
	•	••••	3.33	<b>5</b>	••••			
				Iron	ı P	ipe:		
ron p	ipe,	. 36	igch,	, per to	o ice	: <b>t</b> .		\$
44		%	15			****	******	
4	**	% %	11	11	**			
	11	x	91	**	**			
11		11/4		r	41			
	**	234		11	- 11		*****	
17		2	ш	11		****	*****	×13
				Lead	Z P	ina :		-
Teod :	nine	. De	r lh.	••••••		opc.	~~ \	er ne
Waste	7120	., pc.	er lik				12	ocnt d
******	ħ.î	~, ₽		******	• • •		172 )	COME O
			G	alvan	ized	l Iro	»: :	
Adam'	s	Mar	's Be	st and	Que	en > ti	ead and	Opollo.
16 to	24	gus	ige,	per lb		ر جا پ	4%C.	4
26 g			•	ъ.		434	5 .	4
28				".		5	574	4
Gordo						•	• •	
16 to	24	gua	ge. I	per lb	•••	41/2	4%	4
26 g	use	e,				434	4%	•
28	"				•••	41/4	5	4
Note -	_^	hear	W 17	rades al	hant	2/6	er)h. Ies	

Structural Iron:

Tena Cotta Tile per sq.... Ortomental Black Slate Roofing CEMENT, LIME, etc. 167 150 160

purple...
ding green

Steel Beams, per 100 lbs....

" channels, " ....
" angles, " ....
" tees, " ....
" plates, " ....
Sheared steel bridge plate... CORRECTED UP TO JULY 3RD