

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.

YOL 13.

DECEMBER 17, 1902

No. 44

THE CANADIAN CONTRACT RECORD.

PUBLISHED EVERY WEDNESDAY

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Simiford Gas Co. have for sale a quantity in barrels, car lots or smaller quantities. JOHN CORRIE, President.

WANTED.

A Draughtsman. Must be good designer. Apply to W. H. SHILLINGLAW, Architect, Bran-don, Man.



ALTERATIONS TO NO. I POLICE STATION

Separate tenders, eddressed to the under-signed, will be received through registered post only up to noon on

FRIDAY, DECEMBER 26, 1902,

for each of the various works required in the proposed alterations to No. 1 Police Station, Court street.

Plans and specifications can now be seen and all information and forms of tender obtained, upon application at the office of Messrs. Smith & Gemmell, Architects, Bank of Commerce lutiding, corner of King and Jordan streets, Teronto.

huiding, corner of King and Joroan success, Toronto,
Toronto,
Tenders must be accompanied by a marked check, payable to the order of the City Treasurer or a cash deposit, equal to five per cent. on tenders one of two and one-half per cent, on tenders over that amount, should any party whose tender is accepted fail to execute the necessary contract and bonds, and give satisfactory security for the due fulfilment of the contract, the deposit accompanying the tender will be forfeited to the city.
The lowest or any tender not necessarily accepted.

The deposits of unsuccessful tenderers will be returned.

O. A. HOWLAND (Mayor), Chairman Board of Control City Hall, Toronto, Dec. 13th, 1902,

Notice to Contractors

Scaled tenders will be received by the undersigned up to NOON OF MONDAY, THE STHOF JANUARY, 1903, in bulk only, for Excavations, Stonework, Brickwork, Fireproofing, Iron and Sieel Work, Carpenter and Joiner Work, Roofing, Plastering, Painting and Glazing required in the reconstruction of the present Head Office Building of the Bank of Montrenl.

Each tender must be accompanied by an accepted cheque made payable to the Bank of Montreal for not less than 3 per cent. of the amount of the tender, which will be returned to unsuccessful tenderers, but that of the accepted tenderer will be retained until the satisfactory completion of the work, and will be forfeited in case of failure on the part of the accepted contractor to enter into a contract with approved sureties.

surettes.

Plans and specifications can be seen, and all particulars obtained at the offices of

MESSES. TAYLOR & GORDON, 43 St. Francois Navier St. Montreal. It is not guaranteed that the lowest or any tender will be accepted.

CONTRACTS OPEN.

ALMONTE, ONT.—A by-law has been introduced in council to raise \$5,000 for permanent walks.

DIGBY, N. S .- The Digby & Sydney Railway Co. is seekig a charter to build a line of railway from Digby to Sydney.

PETROLIA, ONT. — The Petrolia Electric Light Co. are considering the entire remodeling of their electric light plant.

TILBURY, ONT .- William Newman. C. E., has prepared plans for the Mack-lem Creek drain cut-off, which will cost \$1,476.

CHATHAM, ONT .- J. L. Wilson & Son, architects, are preparing plans for a residence on St. Patrick street for Mrs.

DELORIMIER, QUE.—The property owners have voted in favor of borrowing \$35,000 for civic works and road improvements.

CARLETON PLACE, ONT.—The Board of Education have asked the town council for funds for building a new public school.

SLOCAN, B C.—The Ontario-Slocan Lumber Co. have commenced work on the foundations for their saw mill, shingle mill and dry kiln.

BERLIN, ONT .- A by-law has been passed in council to grant \$2,200 to purchase a factory site for the Berlin Cooperative Furniture Co.

GODERICH, ONT. — The county council has instructed Commissioner Ansto procure tenders for a new steel bridge at Benmiller.

NORTH BAY, ONT.-Voting on the by-law to grant J. J. Watten of Toronto, and others, a bonus to build a pulp mill here will take place on January 5th.

PEMBROKE, ONT. — Tenders for construction of wing to the Convent of M. Immaculate will be received by the Lady Superior up to February 10th.

NELSON, B.C.-The Dominion Government is asking for tenders up to 30th inst. for heating drill shed here. Plans on application to Allen Macdonald.

BROOKLYN, ONT.—It is reported that C. M. English has sold an island in Chippewa Bay to Edmund Wildman, who will erect a summer residence thereon.

LEVIS, QUE.—The plans of J. C. A. Laforest, C.E., for a waterworks system for the town, have been accepted, and work will be commenced in the spring.

BRANDON, MAN.-The Hanbury Mfg. Co. of this place, are reported to have decided to build a saw mill near the mouth of the Fraser river, in British Columbia.

SANDWICH, ONT .- It is reported that the Ontario Asphalt Co., composed of Windsor and Detroit capitalists, have decided to build their plant in Sandwich

ST.HYACI NTHE QUE ... A prop s ition to assist Ames, Holden & Ca to remove their works from Montreal to this city will be submitted:to the ratepayers on the 24th inst.

KAMLOOPS, B. C. -Tenders close 20th inst. for heating drill shed at this place. Plans on application to Robt. Mackay here and to William Henderson, clerk of works, Victoria.

STURGEON FALLS, ONT .ders for building a wharf at this place are invited by the Dominion Government up to January 10th. Particulars may be obtained from the postmaster.

BARRIE, ONT.-By-laws to raise \$12,000 for purpose of constructing cement sidewalks and \$3,000 for permanent road improvements will be submitted to . the ratepayers on January 5th.

VICTORIA, B.C.—C. H. Lugrin, solicitor, gives notice of application for incorporation of the Kootenay, Cariboo & Pacific Railway Co., to construct a line of railway from Golden to Port Simpson.

BLIND RIVER, ONT.-The Department of Public Works at Ottawa will receive tenders up to January 2nd for constructio: of a wharf at this place. Plans on application to the postmasier.

PERCE, QUE. -J. H. Lavoie, of this place, is interested in the Atlantic, Quebec & Western Railway scheme, which is being promoted by British capitalists and will comprise a road 140 miles in length from Lake Metapedia to Gaspe Basin.

TIVERTON, N. S .- The Dominion Government is asking for tenders up to January 2nd, 1903, for construction of a breakwater at this place. Plans on application to C. E. W. Doddwell, Halifax, the postmaster at Tiverton and at the Programment of Public Works. Department of Public Works, Ottawa.

FORT WILLIAM, ONT.—It is announced by the C.P.R. that a steel elevator, with a capacity of 400,000 bushels. will be erected here immediately.—At a meeting of the Board of Trade and City Council last week aresolution was passed in favor of proceeding with the expenditure of \$40,000 on the proposed power plant.—It is probable that the Copp foundry here will be operated by electric power.

tric power.

OWEN, SOUND, ONT.—A by-law granting certain concessions to the Ontario Linseed Oil Co. was carried here on Saturday last. The company will establish a plant to cost \$70,000.

WINDSOR, ONT.—Newman Bros., civil engineers, of this place, have been instructed to proceed at once with the survey of the belt line of railway from Sandwich to Walkerville. The road will be known as the Essex Terminal.

ST. JOHN, N.B.—Plans are being prepared for alterations to the Intercolonial Railway offices at foot of King street.—The Elder-Dempster Steamship Co. have requested the city to provide additional warehouse accommodation at Sand Point.

SAULT STE MARIE, ONT.—On January 5th the ratepayers will vote on a by-law to provide the following funds: \$45.000 for sewer extension; \$10,000 for city hall; \$6,000 for fire hall; \$35,000 to pay shortages on sewers.

SANDY COVE, N.S.—The Dominion Government is asking for tenders up to Friday, January 2nd, for construction of breakwater here. Plans on application to postmaster and at office of C. E. W. Dodwell, Halifax, and E. G. Millidge, Antigonish.

ST.MARY'S, ONT.—Henry B. Harrison is organizing a company, to be known as the St. Mary's Portland Cement Co., for the purpose of establishing cement works in the township of Blanshard near this town. A proposition to grant the company exemption from taxation will be voted on January 5th.

TORONTO JUNCTION, ONT. — The council has agreed to sell the Davenport school site to W.J. Dalton on condition that he erect a foundry and residence to cost not less than \$4,000.—The Canada Cycle & Motor 'Co. purpose extending their factory.

NIAGARA FALLS, ONT.—Bids will be received by John Robinson, town clerk, up to 22nd inst. for purchase of \$7,400 public school debentures.—It has been announced that the Canadian Niagara Power Co. will extend their wheel pit to more than double the capacity originally intended.

OTTAWA, ONT.—The Upper Ottawa Improvement Co., at their meeting last week, decided to build two large steel tugs, two alligator tugs and one small tug.—The city engineer has submitted a statement showing that the proposed water main extensions for 1903 will cost \$36,000.—It is understood that the officers of the Ottawa Brigade have made strong representations to the Major General commanding the militia regarding the urgent necessity of building a new drill hall in Ottawa.

VANCOUVER, B.C.—Plans are being prepared for the new Presbyterian church to be built in the west end.—The erection of a Sunday School building in connection with St. Andrew's church will shortly be commenced.—The Western Canadian Fish Co. expect to commence the erection of their buildings and plant at an early date.—D. G. Macdonell, on behalf of local capitalists, has submitted to the council a proposition to establish a new telephone system.

GUELPH, ONT.—Richard Mitchell, city clerk, invites bids up to the 20th inst. for the purchase of the following: \$29,100.19 and 20 year 3% per cent. debentures; \$3,000 5 year % per cent.

road machinery debentures, \$2,984.28 1 and 2 year 3½ per cent. debentures.— J. S. Clark has submitted a proposition to the town council for an extension of the Guelph street railway to Hespeler and and for the establishment of large steel bridge works in this city.—The London Machinery Co., of Fairfield, Ohio, have decided to establish a factory in this city.

PORT ARTHUR, ONT. — Willis Chipman, C.E., of Toronto, has submitted to the council his report on a waterworks system for the town.—The Nepigon Railway Co. proposes to build a line of railway from Nepigon station, on the C.P.R., north to Lake Nepigon, a distance of 40 miles. The proposed pulp mill of the Nepigon Pulp & Paper Co. will be located on the road.—D.F. Burke has decided upon the expenditure of about \$100,000 in the exception here of dwellings, the plans for which are being prepared by M. B. Aylesworth, architect, of Toronto.

MONTREAL, QUE.—It is reported that Lord Strathcona has offered to donate \$50,000 for the establishment of a gymnasium at McGill University.—At a special meeting last week of the committee appointed to consider the civic hospital question, propositions were submitted which it is believed will result in the erection of a hospital at any early date.—Building permits have been granted as follows: Jas. Ross, alterations to two-storey house, 106 McTavish street, cost \$1,500; A. Beck & Co., factory, 46-48 St. Charles Barrommee st., cost \$2,000; Simpson & Peel, two-storey factory, 8 to 14 Phillip street, cost \$3,000; Montreal, Light, Heat & Power &0., one storey engine room, Prince street, cost \$2,500; A. Champagne, two-storey house, 852 Huntly street, cost \$1,500.

WINNIPEG, MAN. — Competitive plans for the Carnegie library are to be received by January 15th. The competition is restricted to local architects; first prize, \$300; second prize, \$200; third prize, \$100. — The proposed irrigation works to be carried out by the C. P. R. between Calgary and Medicine Hat will be under the supervision of Mr. Demers, late of the Public Works Department, Ottawa. The plans are now under consideration.—The Winnipeg Power Co. is preparing to proceed to develop a water power on the Pinawa branch of the Winnipeg river. The plant is expected to cost about \$700,000.—R. N. Jaffray, of Chicago, who is connected with the Manitoba Cement Co., states that preliminary work in connection with the erection of their mills will be commenced immediately. A railway will be built from Morden south to the marl deposit.

HAMILTON, ONT.—J. W. Jardine desires bids by Wednesday, 24th inst. for thirty debentures of \$5,496 60 each, bearing interest at 3½ per cent.—A depputation from this city recently interviewed the Minister of Miluia at Ottawa and asked that improvements and additions be made to the drill hall here.—Mr. Brooks, chief architect for the Deering Harvester Co., is expected here this week to decide upon the lucation of the additional buildings to be built by that company.—Miss Whitcombe has purchased lots on Barton street believed to be for the purpose of a site for a new Anglican church.—Eli Van Allen has purchased 73 feet of land adjoining his shirt factory on George street.—The Dominion Belting Co. will likely purchase a site on Sherman avenue.—Charles Mills, architect, has been granted a permit for a two-storey brick office building for the Hamilton Bridge Co., to cost \$4,000.

TORONTO, ONT.—Tenders are being taken at 80 Roxborough street west

on carpenter work of semi-detached houses.—It is understood that plans for the new Metropolitan Bank are being prepared by Darling & Pearson, architects. The building will likely be eight storeys and will be erected on the southeast corner of King and Jordan streets.— Plans of wharves to be built by the Do-minion Government at Blind River and Sturgeon Falls. Ont., may be seen at the office of H. A. Gray, C.E., Confederation Life Bldg., this city. Tenders for the Blind River wharf close January 2nd, and for the Sturgeon Falls wharf, January 10th.—Tenders are invited by the Board of Control up to 26th inst. for proposed alterations to No. 1 police station, Court street. Plans at office of Smith & Gemstreet. Plans at office of Smith & Gemmell, architects, Bank of Commerce Building.—Tenders are invited by the Board of Control up to Tuesday, 23rd inst., for construction of the following tile pipe sewers: Fourteen feet on Macdonell avenue; 1,283½ feet on Wallace avenue; 200 feet on Rosedale road.—It has been decided to submit a by-law to the ratepayers in January authorizing an expenditure of \$175,000 for a new 15,000,000 gallon pumping engine.—A special committee has recommended to the city council that a lease of seven acres of land at the foot of Cherry street be given to the Toronto Steel Co. on which to establish their proposed when The establish the The Establis lish their proposed plant.—The council has given notice of its intention to construct the following works: Tile pipe sewer on Bernard avenue, from Huron to sew on Senatd avenue, from Auton to St. George street, cost \$790; asphalt pavement on George street, from Queen to Gerrard, cost \$18.493; brick pavement on Ontario street, Front to King, cost \$1,525; cedar block pavement on Dundas street, from Lansdowne avenue to Bloor, cost \$11,495; tar macadam roadway on Augusta avenue, from St. Patrick to College, cost \$10,945; also a number of concrete sidewalks to cost about \$10,000. Tenders close at the city hall Friday, 26th inst., for furnishing a hook and ladder truck. Specifications at Richmond street fire hall.-The council has decided to submit 2 by-law to the ratepayers to raise \$50,000 for erection of a sanitarium for consumptives.— Building permits have been granted as follows: S. Young, pair two-storey brick dwellings, south side Yorkville avenue, near Hazelton, cost \$5 000; Philip Davis, two-storey and attic brick dwelling, also a stable, west side Admiral road, near Lowther avenue, cost \$7,000; William Davies Co., brick addition, 179 McCaul street, cost \$2,000; George Castle, brick residence, 20 Admiral road, cost \$5,000; Rev. J. R. Teefy, three-storey and attic brick addition to St. Michael's College, St. Joseph street, cost \$55,000; A.S. Rogers, brick and stone residence, Nanton Road, cost \$6,500; E. J. Nicho'son, two houses, Ritchie avenue, cost \$2,000; James Rodgers, brick store and dwelling, B'oor street, near Brunswick avenue, cost \$2,000; Canada Printing Ink Co., three-storey brick factory, corner Pearl and Duncan streets, cost \$15,000; W. L. Purvis, brick and roughcast dwelling, Simpson avenue, cost \$1,200.

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Dominion Securities

Corporation, Limited 26 King St. E., TORONTO.

Highest market prices paid for

MUNICIPAL DEBENTURES

FIRES.

Cigar factory of H. Jacobs & Company, McGill street, Montreal, almost totally destroyed; loss on building, \$10,000.— Residence of Dr. Stackhouse at Lachute, Que.; loss \$13,000.—Residence of Jones Bros. and jewellry store of P. Williams at Sundridge, Ont., partially insured.—Victoria hotel at Quebec, Que., owned by Mr. Resther; loss \$75,000.—Thorndyke Hotel at Liverpool, N.S.—Woollen mills of the Slingsby Woollen Co. at Brantford, Ont., partially destroyed; loss \$30,000.—The old "Institut Canadien" building on Notre Dame street, Montreal, interior almost entirely destroyed; loss \$20,000.—Flax mill of Clark & Co. at St. Mary's, Ont.—Broom factory of Welford Bros. on Glebe street, London, partially destroyed.—Residence at Iroquois, Ont., owned by Mr. Coulter.—Residence of Thomas Ritchie, Mayor of Aylmer, Que., loss \$3,000.—Factory of the Canadian Oak Belting Co. at Brockwille, Ont., damaged to extent of \$3,000.—Block at Vancouver, B. C., owned by Major Dupont, of Victoria.

CONTRACTS AWARDED.

CORNWALL, ONT. \$21,000 corporation debentures: W. C. Brent, Toronto, purchaser, at par.

Toronto, purchaser, at par.

LADYSMITH, B. C. — Provincial
Government buildings: George Frost, of
Nanaimo, successful tenderer.

KINGSTON, ONT. — Plumbing in geological and physics building: Mc-Kelvey & Birch, successful tenderers, \$3,000.

NIAGARA FALLS SOUTH, UNT.
—School house on Robinson street:
Painting, James Whyvra; other trades,
Spencer Bros.

HAWKESBURY, ONT. — Mr. Mc-Laughlin, of Ottawa, has secured the contract for construction of waterworks and sewerage systems in this town.

ORILLIA, ONT.—Factory for Dominion Wrought Iron Wheel Co.: J. R. Eaton, contractor. Building will be 200 x45 feet, steel and wood construction, on stone foundation.

TORONTO, ONT. — The Dodge Mfg. Company have secured the contract for entire equipment of elevating, conveying and power transmission machinery for the large elevator now under construction in the Montreal harbor.—The contract for steel rails for the Temiskaming Railway has been given to the

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Very finely ground Unsurpassed for Sidewalks, Floors and all work requiring the Highest Grade of Portland Cement. For prices address, A.B. Childen Cont.

A. D. CREASOR, Secty-Treas. Head Office, Owen Sound, Ont.

Clergue Company, of Sault Ste. Marie.—Contracts for annual supplies for the city have been awarded as follows: Cast iron pipe, Canada Foundry Company, 3 inch pipe, per length, \$4; 4 inch, \$4.80; 6 inch, \$7.20; 8 inch, \$10.80; 10 inch, \$16.80; 12 inch, \$20.60; 3 way hydrants, complete, \$45 each; 2 way hydrants, \$35 each. Lead pipe, James Robertson Co., \$4.75 per cwt. Brass castings, Keith & Fitzsimmons, 16c. per pound. Scantling and curbing, Reid &-Co., 4x4 pine, \$17.30 per 1000: 4x4 cedar, \$15.39; 4x10 pine, \$18.39. Broken stone, Alexander Douglas, \$1.30 per cubic yard. Paving bricks, Ontario Paving Brick-Co., \$15.50 per 1000 for No. 1 and \$11 for No. 2. Sewer on Ketchum avenue, City Engineer, \$4.10. Screened gravel, de-

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livered east of Simcoe street, \$1.27½ per cubic yard, E. Ashton & Son; delivered west of Simcoe street, \$1.35. John Mul lin; unscreened gravel, 80c. per cubic yard, John Foley; sand, 73c. per cubic yard, Constructing & Paving Company. Special castings, Tomlinson & Son. \$2.50 per cwt.; boiler purger, McColl Bros. & Co., 18c. per gallon; stop valves, Canada Foundry Company, from \$13.90

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to \$42.80. Lubricating oil, cylinder, 35c. per gallon, McColl Bros. & Co.; engine, 25c. per gallon, Queen City Oil Company. Wire nails, Thomas Meredith, pany. Wire 1 \$2.53 per cwt.

BIDS.

TORONTO, ONT. — The following tenders were received for installation of cold storage plant in St. Lawrence Market: De La Vergne Co., New York, \$30,600; Linde British Refrigerator Co., Montreal, \$41,200; Triumph Ice Machine Co., Cincinnatti, \$13,495; York Mfg. Co., York, Penn., \$19,000. The city engineer will report on the tenders.

BUSINESS NOTES.

The assets of D. Houle, contractor, Montreal, are to be sold.

A meeting of the creditors of Greenleaf & Doring, contractors, Winds Mills, Que., was held on the 13th inst. Windsor

The Canadian Firestop Manufacturing Co., manufacturers of fire proof articles, has been incorporated in Montreal.

The new foundry and machine shop which the Gurney Foundry Company are erecting at Toronto Junction is expected to be ready for occupation early in February.

Darling Bros., of Montreal, are opening a branch at 2 Toronto street, Toronto, under the management of Richard Dawson. This firm controls the Webster system of steam heating in Canada and are dealers also in electric, hydraulic, power and hand elevators.

COMPUTATION OF THE STABILITY OF HIGH CHIMNEYS.

Recently the Prussian Minister of Public Works has acted on a recommendation of the Prussian Building Academy and has issued a set of regulations governing the design of high chimneys. As reported by the "Deutsche Bauzeitung," these regulations are essentially as follows:

The regulations generally prescribe an assumed wind pressure of about 26 pounds per square foot on a plain perpendicular to the direction of the wind. Any possible suction on the leeward side is assumed to be included in this pressure. The wind area of the chimney is taken to be its vertical section, and if the chimney is polygonal, its greatest diametral section is to be used. The point of application of the resultant of the wind pressure is to be assumed to coincide with the center of gravity of the section, which is equivalent to assuming a uniform distribution of the wind pressure over the full height of the chimney. For circular chimneys the total wind pressure area is to be reduced to two-thirds, and for octagonal chimneys to (Continued on page 6.)

Notice to Contractors.

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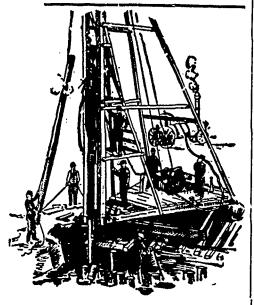
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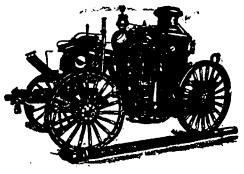
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and Hand Pumps, Combination Hose Wagons and Chemical Engines, Hose Wagons, Combination Hook and Ladder Trucks and Hose Wagons, Chemical Engines, Fire Extinguishers, Hose Reels, Patrol Wagons, Ambu'ances, Specialty Wagons, Patent Sleigh Runners, and other Modern Fire Fighting Tools.

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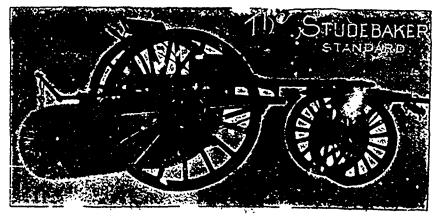
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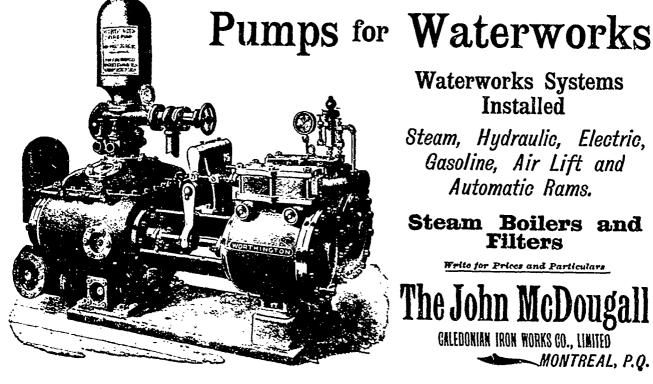
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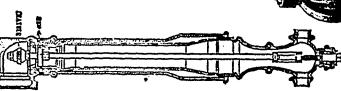
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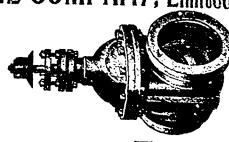
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The great municipal problem of garbage disposal, for the solution of which the crematory has been adopted in numerous instances, has seldom, if over, completely yielded to this treatment. The crematory itself, in its regular operation, usually constitutes a great public nuisance over a considerable area of which its site forms the center. Even the garbage reduction works at Barren Island, apparently so completely isolated from the cities of New York and vicinity has ever continued to be a serious offense to residents of localities at considerable distance from it. The smokeless combustion of bituminous coal is, comparatively speaking, less desirable and necessary to public health and comfort than the odorless combustion of garbage when this method of its disposal is attempted.

The difficulties attendant upon the satisfactory operation of the crematory have recently been definitely brought to notice as a result of an official investigation of the conditions existing at the garbage disposal plant at Trenton, N. J. Continued complaint forced an expert inspection, the result of which shows that the trouble lies almost entirely with the improper construction of the furances and appurtenances and the imperfect operation of the plant for complete combustion of the garbage, and very little with the methods of collection and hauling of the refuse to the crematory and its storage there for the short time sometimes occurring before it can be charged

Besides the offensive odors from unburned portions in the ashes and in the gases emitted from the chimney, dust and some burning particles escaping from the chinney created nuisance in the neighborhood of the crematory. It was found, in addition to certain defects in furnace construction, that the supposition that any fireman accustomed to burning coal could be expected to properly attend garbage fires, is quite erroneous. On the contrary, the latter work requires special training for which previous experience with coal is of surprisingly small value. That this is reasonably true may be seen from the consideration of the nature of the case. Garbage, as found at Trenton, conists of 84 per cent. kitchen refuse (animal and vegetable matter) thoroughly saturated with water, 12 per cent. paper, 3 per cent. rags, clothing, carpets, etc., and 1 per cent. boxes, barrels and similar wooden refuse; 81 per cent. of the whole being water. The difference between the firing of this heterogeneous conglomeration of trash and that of coal may easily be imagined.

The action of the garbage furnace is, of course, to free the mixture from water by passing it first through a drying chamber heated by the combustion of the previously

dried material. The presence of moisture in large quantities and the varying character of the composition burned, together with other unavoidable features, render complete combustion very difficult.

The dried garbage at times contains so large a percentage of noncombustible matters as to require the assistance of coal or other fuel in maintaining the fires, as well as in starting them. The report in the case of the Trenton plant shows, among other things, that during a period of six days, 13.7 tons of coal were used, an average of 2.3 tons per day of 14 hours, the garbage burned per ton of coal being 13.8 tons. The rate of purning was 45 pounds of garbage per square foot of grate per hour. The ashes and clinkers, including those from the coal, amounted to about 9 per cent. of the original weight of the coat and garbage. The temperature of the escaping gases was estimated as varying between 600 and 1,000 degrees F. As already stated, the garbage was 81 per cent. water, from which it appears that 25.5 tons of water were evaporated per day. This evaporation, on the basis of to lbs. of water per pound of coal, would require the combustion of 2.5 tons of coal. The amount actually used being 2.3 tons, it would seem that the daily fuel value of the garbage as burned in the Trenton plant may be considered equivalent to 0.2 tons of coal.

Various writer and authorities, whose opinion and suggestions cannot but be regarded seriously, have called attention to the availability of the waste from large cities for the production of steam power. So far as we are aware, however, no plants of this kind have been attempted nor actually projected. That such an industrial development of usefulness from garbage disposal may be successful, it is evident from what has already been said, that the operation of the plant must be rendered and maintained unobjectionable, and that the conditions of fuel value as existing in the case here cited must be improved upon before material results in steam generation for power purposes may be expected.-Steam Engineering.

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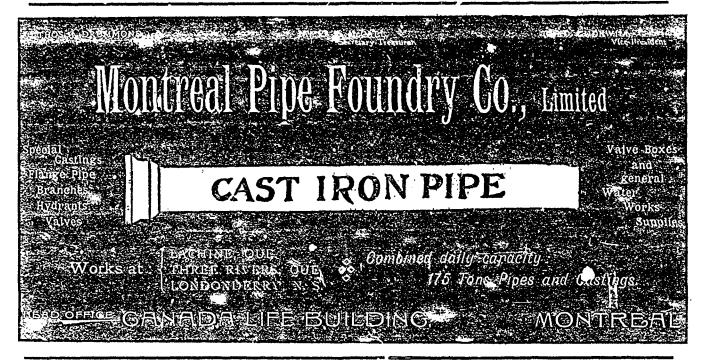
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Troy Laundry Macch pery Co vii S w bling, Wm. H xi York Mig. Co xiv	Duthie & Sons, G xv. Douglas B.cs xv. Forbes Roofing Co xv. Nicholson & C. y. D. xv. Remile & Sin, Robt xv. Ormaby & Co., A. B. Ringham, George xv. Stewart & Co., W.T. xv. Williams & Co., H. xv.
Lumber.	Rudder Tiling. Gutta Percha Rubber
Gilmour & Co ii	Co is
Mail Chutes. The Cutler Mig. Co. I	Reflectors Frink, I. P III
Toronto. Montreal Lift \$065 per cal. ft 80	Raevel's 206 lb. kbl
co.ft 6e	Raevel's 396 lb. bbl Levie Bros., "
il a b,	Offerbacher Road

ERTISEMENTS tect and Bullder."		
Maniels, Grates, and Illes.	Rooking Material Omasby & Co. A.B., 1	
Holbrook&Mollington i	Metallic Reofing all vi	
Rice Lewis & SonIV	Philip Carey Mig Ca. viii Roofers Supply Co 11	
Mouldings.	Sash Cord.	
Boynton & Co vii Decoratori Supp y	Samson Cordage Works vii	
	Mate	
S. Knechtel Wood Turning Co II Mortar Colors and	Steinbarg r. Hendry	
Mortar Colors and Shingle Stains	Stained and Decora	
Cabot, Samuel xi	tivo Giasa Bloomfield & Son.	
wantpanal Vrania 1	Henry v	
Ornamental Iron Work.	Mackay Stained Glass	
Cana 'a Foundry Co. x Dennis Wire&Iron Co viil	Co	
Geo. B. Meadows Co xvi	Glass Works v Pilkington Bros. i	
Ornamental Plaster	Qo en City Pla e	
Hynes, W J xii Freuk Walton	Qu en City Pla e Glass Co xii St George, H. E. v Robert McCausland v	
	Robert McCausland v	
Paintore. Montreal Directory. zvi	Stained Glass Co v	
Turquita Directors XAI	Sanitary Supplies James Morrison Brass	
Patent Store Fronts	Mig. Co xiii	
I. W. C alson & Co. xiv Prisms.	Shingles and Nidling	
Pilkington Bres	Metallic Roofing Co. x'	
Toronto Plate Glass co vi	Ormsby & Co., A B., I Roofers Supply Co., II	
Paints & Farnish	Boll Pipa,	
Canada Paint C xi ¹ Hollywood Paint Co. xv.	Toronto Foundry Co. II	
Muirhead, Andrew	Sash Look. A. W. Adams xii	
Parquetry Eloors	Tubing and	
Elliott & Son Co viii	FC"(614.Q#	
Plate Glass	Richmondt Conduit	
Pilkington Bres i The Consolidated Plate Glass Co II	Tiles.	
Glass Co II	American Enameled Brick & Tile Co i	
Loronto Plate Glass	Holbrook & Mollingtonii	
Queen City Plate Glass	Toronto Plat. Glas co vit	
& Mirror Co ziv	School and Church Furniture	
Plumbers Montreal Directory xvi	Turnstore. Gloic Funiture	
Toronto Pirectory avi	Can. Office & School	
doofers	Farniture Co III	
Dathie & Sons. G., xvi	Voncors. Imperial Vencer C. vii	
Dathie & Sons, G xvi Douglas B.cs xvi Forbes Roofing Co xvi Nicholson & C., D. xvi Rannie & Sm., Robt xvi Ormsby & Co A. B. 1		
Nicholson & C . D	Valves Jenkins Bros IV	
Remie & Son, Robt xvi	Wall Diagram	
Ormsby & Co., A. B. 1 Ringham, George. xvi Stewart & Co., W.T. xvi Williams & Co. H. vvi	Albert Mig. Co xiv Geo. Jackson & Sons v Wire Lething	
Stewart & Co., W.T. xvi	Geo. Jackson & Sons v	
	The B. Greening Wire	
Rudder Tiling.	Company III	

Terra Cotta Co II York Mig. Co Xiv Don Valley Brick Works: Toronto Pressed Brick & Terra Cotta Co III Milton Brick Co Xiv The Catler Mig. Co Xiv	Rubber Tiling. Gutta Percia Rubber Co
Toronto, Montreal	Toronto. Montrea
Most red mandatone, per Cu. ft \$0.65	Racrel's 396 lb. bbl 2 0
Black Parture buff stone, per Cu. ft 80	Levie Bros., " 250
Nova Scotia blue ever, per co. ft 65	
Coursers, a in. to 6 in. bed, f. o. b.,	German—
St. Mary's, per cord4 00 00	Offerbicher Brand 2 40 2 50 1 97 225
Footing, 2% to 3 in. wile, 6 in.	Alsen's, 2 75 2 85 2 20 2 45
thick, per running toot	Karlstadt 2 50 2 60 2 10 200
lindge Stone, to to 13 th. thick,	Canadian -
f.o.b. St. Mary's, per cord 6 00 9 00	Star Brand 240 300
Granite (Laurentiau Pink) Ashlar,	Beaver Brand 40 300
6in, to a in., rise 9 in., pyr ft. 25	Fasign " 315 270
Dimension Stock Granite, (Lau -	Cliadel " 200
entian Pink) for building pur-	Trowel " 3 75 2-85
poses, per cub. ft., f.o.b. quarries 40	Samson Brand 2 5 2 60
Do., for polishing purposes, up to	Ma Ret 3 05 2 40
a tons weight, per cubic foot F.O.B. Malifax.	Monarch " 2 10 Herzules " 2 10 2 25
	Herrules 2 10 2 75
Dimension stock granite for build- ing purposes, per cubic foot \$0.50	
Do., for polishing purposes, up t0 2 tons weight, per cubic foot	cotton sarks, 250 per 250 250
Paving sets, per thousand block 60 00.	
	11:200 extra
CREDIT VALLET STONE. F.O.B. Quarties.	Kyrne's uperfine "Whites" 10 00 12 00 9 00 10 00 Keene's Course "Whites". 650 700 657 700
	Kecne's Charge "Whites" 6 W 700 6 W 700
Rubble, per ton 50	Fire Bricks, Newcastle, perM 27 00 32 00 18 00 22 00 "Scotch" 23 00 33 00 17 00 22 00
Brown Coursing, up to to	" Scotch " 25 00 33 00 17 00 22 00
per sup. yard 200 Brown Dimension, per cub.ft 65	Lime, 200 lbs., Grey 30
Grey Coursing, per sup. yard	и и White
Grey Dimension, per cub. ft. 45	Plaster, Calcined, N. B 200 200
	" " N. S 200 200
	Hair, Platterers', per bag 80 100 100
Roching (# squars).	A BOXTEROWYTD AT WAD UTSYLDA
11 red 27 50 20 00 14 purple 8 50 10 00	ARCHITECTURAL YARNISHES.
dinggreen \$50 700 800	THE INTERIAL PARKISH AND COLOR CO, LINITED.
plack 7 50 6 50	(Highest grade)
Tena Cotta Tile, per sq 2000 25 00	
Orgamental Black Slate Roofing 8 80 6 70	Cans. Cass.
PORTLAND OFMENT.	9 0 0 0 4
English-	Cans free. 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
lirook's Shoobridge Brand 200 210	K
Excelsior Brand	25 47 27 27 27 27 27 27 27 27 27 27 27 27 27
	EA EA EA EA EA
Belgian -	Exterior wearing body \$2 50 \$5 74 \$5 \$5 \$6 20 \$6 60
"Josson" Brand 285 290 250 260	Exterior rabbing 350 373 385 4 30 6 00
"North's Condor 280 295 240 250 "White Cross" 275 160	Elastonia 350 375 385 470 460
"White Cross"	1707 Edimeliae 500 585 535 570 630
	Crystali e 450 475 485 580 5 60
Atlas	Yacaune
Red Cross Brand 195	ATCHICCTURAL CONCILIONAL REGISTER RECEIPED TO
Anchor " 300	Granitine floor field ago ays als 3ac - 6.
Waterloo " 285	Architectural flatting 200 225 235 270 3 20
THERMINAL OF STE CHANNE	R 18TTEN