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Vol. 3.

Toronto and Montreal, Canada, April 9, 1892.

No. 9

THE CANADIAN CONTRACT RECORD,

A Weekly Journal of Public Works, Ten-ders, Advance Information and Municipal Progress.

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

Subscription price of "Canadian Architect and Builder" (including "Canadian Contract Record"), \$2 per annum, payable in advance.

C. H. MORTIMER, Publisher,

14 KING St. WEST, - TOKONTO, CANADA.
Telephone 2362.

64 Temple Building, Bell Telephone 2299. Montreal.

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

ADVERTISING RATES ON APPLICATION

At its Convention held in Toronto, Nov. 20 and 21, 1889, the Ontario Association of Archifects signified its approval of the UANADIAN CONTRACT RECORD, and pleaged its members to use this journal as their medium of communication with contractors with respect to advertisements for - Tenders.

The following resolution was unanimously adopted at the First Annual Meeting of the Province of Quebec Association of As tlects, held in Montreal, Oct. 10th and 11th. 1890: "Moved by M. Perrault, seconded by A. F. Dunlop, that we the Architects of the Province of Quebes now assembled in Concention being satisfied that the CANADIAN CONTRACT RECORD affords us a direct communication with the Contractors,—Resolved, that we pleage our support to it by using its columns when calling for Ton-

The publisher desires to ensure the regular and prompt delivery of this Journal to every suburiber, and request that any cause of complaint in this particular be reported at once to the office of publication. Suburibers who may change their address should also give prompt notice of same and in doing so, should give both old and new address.

TENDERS

Will be received by the undersigned until 5 p.m. on MONDAY, THE 18TH INST., for making additions and alterations to a Warehouse on Ray Street, Toronto.

GORDON & HELLIWELL, Architects, 26 King St. East.

Tenders will be received at the office of the Tenders will be received at the office of the Town Clerk, Chatham, Ontario, up to 12 o'clock noon, of THURSDAY, THE 25TH DAY OF APRIL. INST.. for lighting the streets of the Town of Chatham by electricity.

The number of lights required; number of times to be lit during the year, how long each night, and duration of contract, will be made known on application at this office.

The Council will reserve the right to purchase the plant at any time after completion, and also the right to reject any or all tenders.

10 HN TISSIMAN.

JOHN TISSIMAN,

Town Clerk's Office. Chatham, Ont., April 7th, 1892.

LOCAL IMPROVEMENT.

lenders wanted by the undersigned for a SIDEWALK on Woodbine Avenue, Norway Side Road, in Township York. Specifications, &c., can be seen and scaled tenders received at my office from April 181 to 5 jum. on Saturday, 16th April, 1892.

Lowest or any tender not necessarily accepted. Specifications can be seen after 18t April at Room 18th Yong Street Areals.

Yonge Street Areade.

PETER S. GIBSON, C.E. & P.L.S., Township Engineer.

Willowdale, Tp. York, Mar. 28, 1892.



NOTICE TO CONTRACTORS.

Tenders will be received by registered post, addressed to the City Engineer, Toronto, up to Eleven oclock a.n. on TUESDAY, APRIL 19, 1892, for the following works

SEWERS

On St. Helen's avenue, from 125 feet north of College street (produced) to Bloor street. On Hazleton avenue, from Yorkville avenue to

On lane north of Elm, east of Tenuley street.

PAVEMENTS

On Roxboro street, from Yonge street westerly (cedar block on tarred board foundation).

On lane, easterly from George street, between ucen and Britain streets (cobble).
On lane south from Adelaide, between Vonge

On lane south from Attestate, between Yonge and Victoria street (cobble).

On lane between St. Patrick and Grange arenue, 1st east of Spadina avenue (cobble).

Plans can be seen and forms of tender obtained on and after April 13th, 1892, at the office of the City Engineer.

A deposit in the form of a marked cheque, payable to the order of the City Treasurer, for the sum of 5 per cent. on the value of the work tendered for under \$1,000, and \(\frac{1}{2} \) per cent. over that amount, must accompan each and every tender, otherwise it will not be entertained. All tenders must bear the bona fide signatures of the contractor and his sureties (see specifications), or they will be ruled out as informal.

The Committee do not bind themselves to accept the lowest or any tender.

JOHN SHAW, Chairman Committee on Works.

Committee Room, Toronto, April 8th, 1892.

AGENGY

BUILDING MATERIALS

-- AND ---

CONTRACTORS' SUPPLIES

We invite correspondence from a reliable firm, who have good connections amongst architects, and are open to undertake above.

TULLOCH & CO.,

8: GRACECHURCH St., . LONDON, ENGLAND.

TENDERS

Will be received until SATURDAY, APRIL 16TH, for Additions to a Warehouse on York Street,

CHAS. I GIBSON, Architect,

95 Adelaide St. East

CONTRACTS OPEN.

OAKVILLE, ONT. - The east pier in the barbor is to be repaired.

TWEED, ONT. - A telephone line will be built from this town to Flinton.

PARENHAM, ONT.-A new Roman Catholic church is to be erected here.

WINDSOR, ONT .- The electric light company will shortly increase its plant.

PETERBORO, ONT .- A new school house will be erected in section 2, North Monahan. PORT ELGIN, ONT .-- The sum of \$2,500 will be

expended in dredging the harbor this year. RAT PORTAGE, Ont .- The sum of \$60,000 will

be expended in repairs to the smelting works. BERLIN, ONT, -Messrs, Walper Bros, are call-

ing for tenders for the erection of a new hotel. HOLLAND LANDING, OST. - An iron bridge.

to cost \$1,500, is to be built on the York Road. KINGARF ONT -Mr E. A Hall is calling

for tenders for the erection of a new brick church at this place. HUMBERSTONE, ONL -- Messrs, Dickinson &

Suess are preparing plans for several new build ings in Ridgeway.

FORT WILLIAM, ONT. Mr. F. Mircault is having the site prepared for the erection of his three storey hotel.

ST. JOHN, N.B. -- The city council has decided to advertise for 700 feet of fabric hose and 300 feet of rubber hose.

METCALE, ONL, - Mr. W. S. Caiver is calling for tenders up to the 16th inst, for the construction of the Watt drain.

SARNIA, UNT. - A mission chapel will be crecied in the Fourth Ward by the congregation of the Congregational church.

UNIONVILLE, ONT .- Lenders will be received by Mr. Davison, Markham, up to the 23rd inst., for the erection of a new school.

DUNDALK, ONT -Messrs, Post & Holmes, or. chitects. Toronto, have prepared plans for a Roman Catholic church to be erected in this town.

On Springs, Our -The town has granted Mr. Hayne, of Brigden, a bonus of \$2,000 and a site for a new roller flour mill of fifty barrels capacity.

THREE RIVERS, QUE,-Tenders are wanted for the purchase of debentures to the amount of \$78,006. In In Desaulniers, secretary and trea

PEMBROKE, ONT .- The C. P. R. will likely construct a number of large stone culverts along the line between this village and Mattawa during the coming summer.

LONDON, ONT. -The plans for the rebuilding of the Talbot street school building have been prepared, and are now awaiting approval by the Board of Education.

5) Johns N. B. The ratepayers will rote on a by-law granting the Porcheron North American Tolxicco Co., the sum of \$15,000 to establish their factory in this town.

GALT, ONT - The Grand Trunk has decided to replace the present wooden bridge over Mill Creek, near the Dumines, mills, Galt, with an iron structure during the coming summer.

THORNBURY, ONT .- The town council have taken steps to compel the county council of the county of Grey to assist in the construction of a bridge over the Beaver over in this village.

ACHIL, ONT -A Roman Catholic church is to be erected at a cost of about \$5,000 to take the place of the building lately destroyed by hre, Post & Holmes, architects Toronto, are preparing the plans

ACTON, ONT. - The council will be asked at its part meeting to provide the sum of \$5,500 for the Percetion and furnishing of a new school building. - A new house is to be erected on John Matthew's property on Mill street

WHITAY, OST, -At a recent meeting of the town council, a committee was appointed to select a site for the new custom house and post office, an appropriation for which has been granted by the Dominion Government,

TOROUTO JUNCTION, ON L .- A resolution has been passed by the Property Committee of the Council recommending that the Dominion Goverriment be requested to build a post office on Reele st, the town giving the necessary land.

HALIFAX, N. S .- The city council has decided to extend the sum of \$200,000 in laying a dunitcate water main Mr. W. R. Mct urdy has purchased property on Cobourg road on which to erect two cottages during the coming summer.

ROMNEY, ONL. The ratepayers have carned a by-law granting a bonus of \$10,000 to the Lake Erie and Detroit River railway for the construction of their time from Learnington through the townships of Romney. Lilbury East and Raleigh.

NEW WESTMISSTER, B.C. Mr. G. W. Graph. architect, has prepared plans for a new building to be erected by the Freemasons on the corner of Lorne and Columbia streets. Mr. Towle. architect, has prepared plans for the erection of a new hall for the Oddfellows' Society.

BRANTFORD, ONT. - A deputation will shortly interview the Dominion Government with regard to the granting of a subudy for the construction of the Brantford and Tisonburg radway to Port Burwell.-A movement has been commenced towards securing railway connection with Lake Enc.

GUELPH, ONT. Plans are being prepared for a new skating and cutling rink. - The City Councit have decided to erect a new brehalf, at a cost of \$9,000,--The erection of a new huilding for the Second Baptist church will be commenced shortly.-A deputation representing the City Council and Fat Stock club recently wasted upon the Ag. neultural and Arts Association at Toronto, regarding the erection of joint buildings in this city.

VANCOUVER, B.C. - The congregation of Zion Church have not yet selected a site for their new building. - The Canadian Pacific Railway Company are now calling for tenders for the erection of a store, warehouse and offices for the master mechanic and store-keeper, car wood workshop, and car shops.—The C.P.R. are now considering the advisability of erecting cement works here in order to supply the cement required for the buildings they are erecting.

ST. THOMAS, ONT.—Mr. W. E. Idsardi has written to the city council offering a free site for a new city hall, provided the building would cost not less than \$15,000.

KINGSTON, ONT.—The city council has decided to advertise for tenders for the supply of 1,000 feet of hose.—The Collegiate Institute Board have applied to the city council for an appropriation of \$25,000, with which to erect a new building.—A movement has been commenced towards the erection of a House of Refuge.—A fine summer hotel will be erected at Kingston Mills.—The different Catholic societies propose to erect a large building.—Col. Anderson, chief engineer of the Manne Department, Ottawa, was in the city recently making final arrangements for the erection of range lights in the harbor.

WINNIPEG, MAN -The Board of 'tanuoba college have accepted plans for improvements to the building to cost \$40,000.-The Regina and Long Lake railroad will be extended this season from Saskatoon to the Saskatchewan river.-Mr. T. Waddell is building a residence on Sargent street from plans prepared by J. Greenfield, ar chitect.-The following items appear in the estimates of the Provincial Legislature for 1892 additional building for Winnipeg hospital \$2.500. St, Boniface hospital, \$5.640; Brandon hospital. \$2,500; Deaf and Dumb institute, construction, etc., \$6.500; Court buildings, Winnipeg. \$2.500. For railway aid the sum of \$60 000 is voted for the Souris extension, and for Red River valley milway \$55,000

HAMILTON, ONT .- Plans for the new Maternity Hospital have been submitted to the Building Committee for approval,-The capitalists interested in borng for natural gas have applied for incorporation under the name of the Mining and Natural Gas Company with a capital of \$50,000. So far \$0,000 has been subscribed towards sinking several experimental wells -E. F. E. Roy, Secretary Department of Public Works. will receive tenders until Tuesday, the 19th inst. for dredging the harbor at this place. Plan and specification to be seen at the office of the Ham! ton Steamboat Company, this city, and at the Department of Public Works, Ottawa Mr Cha-Mills, architect, is preparing plans for a new par sonage for the Simcoe street Methodist church,-The sum of \$5,500 has been subscribed towards the erection of a monument in this city to the late Sir John A. Macdonald. - Building permits have been granted as follows: J. S. Hossack one twostorey brick dwelling on Herkimer st, between Caroline and Hess streets, cost \$2,500 : A Smith. for two one and a half storey brick dwellings on Tisdale street, between Cannon and Wilson sts.

MONTREAL, QUE.-The Road Committee will receive tenders until Wednesday, the 27th inst., for the supply of the following materials for the Vitrified clay pipes, vitrified clay inverts, lumber, spikes and hardware, brick, cement, coal and castings.-Messrs. Fowler & Bowe, architects, are calling for tenders for a fireproof building for the Bushnell Oil Co. at Mile End. Montreal terra cotta and Hayes metallic lath to be used. Also Strathy's cement plaster. -A. Gendron, architect, is calling for tenders for the erection of two cottages on Seymour ave., for Peter Gellespies. He is also preparing plans for the following buildings. Dwelling for James Douglas, Cote St. Antoine, four houses on Durocher street for Messrs, Wilson & Frost, five houses on St. Charles Borromee street for the Land & Loan Co. and two stores and dwellings on Bleury street for Estate of O. Durand.-J. H. Bernard, architect, is preparing plans for two dwellings on Sherbrooke street for W. Roberts. - Building permits have been granted as follows: E. N. St. Jean, alterations to dwelling on Lagauchetiere st., cost \$1,500; Perrault & Mesnard, architects; Mrs. R. S. Chestnut, 11/4storey brick and wood dwelling. Gain st., cost \$1,600; Estate Bermingham, additions to a store and dwelling on Commissioner st., cost \$2,000, W. H. Hodson, architect; masonry, Thomas &

Mailbot; carpentering, E. Mooney & Co.; Frank W. Newman, 3-storey brick and stone dwelling. Crescent st., cost \$10,000.

OTTAWA, ONT -A deputation recently interviewed Hon. Mr. Abbott and urged the granting of an appropriation for the purpose of constructing a traffic bridge across the North Saskatche-nan river at Edmonton, NWT.-EF E Roy Secretary Department of Public Works, will receive tenders until Friday, the 22nd inst., for dredging in the Kaministiquia river. Plans and specifications to be seen at the office of W. Murdoch, Resident Engineer, Port Arthur, and at the office of the Public Works Department, this city.-A deputation recently interviewed the Government urging the granting of the subsidy of \$3,200 a mile to the Parry Sound Colonization Railroad for the full length of the road, 49% miles. Twenty miles of the road are now completed and the balance will be built the coming summer. - The following are among the new buildings to be erected in this city during the present year. St. Andrew's church, school house, cost \$20,000; Bell Telephone building, Queen street, cost \$20,000; P. Thackray, six houses, cost \$8,000, Miss Harmon, school building, Elgin street, cost \$10,000, W. W. Brown, three-storey building, Sparks street, ost \$16,000. Johnston Brown, warehouses, Bank street, cost \$4,000; Harry Cluff, four stores, Bank street, cost \$2,500; Mr. Rogers, building, corner Concession and Somerset streets, cost \$3 600. Copping, building on Florence street, cost \$2,500, Ald. Campbell, building on Somerset street, cost \$9.850; Kirby's (branch) drug store, corner Somerset and Arthur streets, cost \$3.000 , J. A. Browse, fruit warehouse, O'Connor street, near Slater, cost \$4,000.-A deputation from Penetanguishene recently waited upon the Minister of Public Works asking for an appropriation towards dredging the harbor at that

TORONTO, ONT,-A company has been formed for the purpose of establishing smelting works in the province, with the following provisional directors Elias Rogers, H. S. Howland, Robert Jaffray, J. K. Kerr, H. N. Baird, A. S. Irving, W D. Matthews, Geo. A Cox, John I Davidson, G. T. Blackstock, H. L. Hime, and T. D. Ledyard. The cost of the buildings and plant is estimated at \$200,000. A deputation will wait on the Ontairo Government at an early date to endeavor to secure some assistance in the undertaking,- The Board of Works has decided to advertise for tenders for the supply of 600 feet of rubber hose. - The University authorities have written to the city council stating that they were willing to be assessed for their portion of the cost of paving Adelaide street, and the work will be proceeded with at once.-At a meeting of the Board of Health reld on Wednesday last, it was resolved to have plans prepared for a new isolation hospital, the cost not to exceed \$20,000.-The City Engineer has recommended the construction of sidewalks on Norfolk street, Avenue road, Springhurst, Logan, Pears, Tecumseth, Abbs, Parliament, Avenue, Victoria, Galley, Ontario, Bryon and King streets, at a cost of \$2,265 -Mr. H O Bennett, 26 Wellington street east, wants tenders until noon on Monday for the painting of certain island cottages.-At a meeting of the Public School Board held on Thursday last, a motion to provide funds for the erection of a new school on the corner of Sheridan avenue and Marshall street was referred to the Finance Committee for a report.-Mr. Thos. Pells has decided on the erection of a new theatre building. Two sites are under consideration, one at the corner of King and Frederick streets, and the other that of the old Royal Theatre, on the south side of King street, between Bay and York streets, -Mr. Willmot, architect, is preparing plans for a school to replace present buildings in Davisville, cost about \$8,000 -Alterations are to be made to the school premises at Eglinton, under direction of the same architect.-Building permits have been issued as follows: Jos. Sheard, new plate glass fronts and additions to rear of stores, 419 to 421 % Yonge st., cost \$1,500; Geo. Rennie, pair s.d. 2-storey and attic bk. dwellings, n. w. cor. Logan and First ave., cost \$4,800; C. C. Witchall, pair s. d. 2-storey and attic bk. dwellings, e. side Dovercourt road, s. of Dundas st., cost \$6,000; J. Bears, alterations and addi-

tions to house, n. w. cor Douro and Ningara sts., cost \$4,000: Wm. Milne, pair s.d. 2-storey bk, dwellings, n. side Douro st., w. of Portland st., cost \$4,000. W. H. Millichamp, pair s.d. 2-storey and attic bk, dwellings, e. side Howland ave., just n. of Bloor st., cost \$3,000; Allan Mfg. Co., 4-storey and basement bk, factory, s.e. cor. Simcoe and Pearl sts., cost \$9,000; Pairick Midqueen, mansard roof and bk, casing store, n. w. cor. Wilton ave. and Betkeley st., cost \$1,500.

FIRES.

The Grand Trunk engine house at Galt, Ont., was burned on Thursday last. - The Proctor House at Trenton, Ont., owned by Thomas Ventress, was damaged by fire to the extent of \$3,000 on Wednesday last.—A brick hotel at Birr, Ont., owned by Wm. O'Niel, of London, Ont., and occupied by L. J. Scott, was destroyed by fire on the 1st inst .- The Bousecours market at Montreal, was destroyed by fire on Sunday last. The loss is estimated at \$20,000, - The residence of George Flora, at Brockville, Ont., was destroyed by fire on Monday last. Loss, \$1,200; insurance, \$5,000.—The machine shop of Mr. J. E. Needham at Millbrook, Ont., was burned on the and inst. Loss, \$2,000, partially covered by insurance.-The post-office building at Barriefield. Ont., was destroyed by nre recently. Loss. \$3,000.-The residence of Mr. David Patter at Drumbo. Ont, was burned on Saturday last. Loss. \$1,000.

CONTRACTS AWARDED.

VANCOUVER, B. C.— The contract for erecting the new Vancouver Club house has been awarded to Mr. E. Cook.

QUEREC, QUE.—Mr. David Ouellet, architect, has awarded a contract to Messrs, J. Labruque and O. Michaud for the erection of a new hospital at Point Levis, opposite Quebec. The Hotel Dieu of Quebec, proprietor.

GUELPH, ONT,—Contracts have been awarded as follows for the creetion of a two-storey residence on Stewart street for Mr. W. Coon Bruckwork, Mr. Chubb, carpentry, Mr Mahoney, tinsmithing, Mr. Rudd, painting, Mr. Goss.

HAMILTON, ONT. — Contracts have been awarded as follows for the erection of a residence for Mr. Chas. Gurney: Masonry George Webb. carpenter work, Suge & Smail, plastering, Clapham & Sons, painting and decorating. Campbell & Co. Mr. W. A. Edwards will have charge of the work.

OTTAWA ONT.—Messrs Stewart and O'Toole, of this city, have signed contracts with the raiway department for the construction of two new bridges over the Rideau canal at Merrickville The amount is in the neighborhood of \$20,000.—Messrs. Provincau, Turcott & Martineau, of Montreal, have been awarded the contract for masonry and brickwork of St. Joseph's Church.

masonry and brickwork of St. Joseph's Church.
TORONTO, ONT.—The Water Works Committee of the City Council have accepted the following tenders for supplies: Special castings, Treloar, Blachford & Co., hydrants, Charles Smith & Co.; stop-valves, Charles Smith & Co.; stop-valves, Charles Smith & Co., pig lead, Ontario Lead and Barb Wire Company at \$3.12 per 100 pounds; brass castings, Wilson & Cousins; bronze castings, Thos. Dean; iron stop cocks, St. Lawrence Foundry Company lead pipe, Samuel, Benjimin & Co. at \$3.14 per 100 pounds, iron piping, Alexander Gartshore, Hamilton, at \$32 and \$31.25 per 10n; rubber work, Toronto Rubber Company, valve chambers, Burns & McCormack; oak tops, C. K. Rogers.

Rogers.

Montreal, Que.—Messis. Fowler & Bowe, architects, have awarded contracts as follows for the erection of a building on Bleury street for the Darling Estate, masonry, W. G. Tamer & Co., brickwork, Alex Wand; carpentry, J. F. Henderson; plumbing, W. P. Dockrill; plasterer, O. A. Vidal, painting, J. B. Owens; steel beams, Dominion Bridge Co., iron columns, Day & Deblois.—J. B. Gardner, architect, has awarded the contract for masonry for a toission church at St. Henri to Mr. J. Lewis. Other trades not let yet—W McLea Walbank, architect, has awarded the contracts for two three-story buildings, corner of Bleury and Craig streets, as follows Masonry, J. B. St. Louis; brickwork, T. W. Peel. Other trades not let.—W. E. Doran, architect, awarded the contracts for a 3-story dwelling for Wm. Strachan, at Valois, Que.—J. H. Bernard, architect, has awarded contracts as follows for two stores below St. Catharine street, for Jas. Baxter, Esq.: Masonry, A. Guilbault; brick work, J. Morache; plumbing, roofing and heating, D. Ouimet; painting, Delage & Co.; plastering, O. A. Vidal. Carpenter work not yet let. Also for two dwellings for Wm. Roberts on Sherbrooke street, as follows: Masonry, Picard & G. Mesnard; carpentry, Matheu & Vallancourt, plumbing and roofing. F. Duclois; plastering, O. A. Vidal; painting, D. Delarge.

MUNICIPAL DEPARTMENT.

CITY GOVERNMENT IN GERMANY.

With us, municipal offices are the spoils of successful politicians, says the Journal of the Telegraph; in Germany they are the prizes of successful experts. It seems to a German as incredible to hear of a city governed by men who are just pausing on their way to some higher place as it would be to hear of a railroad or of a cotton-mill thus superintended. Good city administration with us is an accident. It occurs because the man with the appointing power happens to appoint a good agent. In Germany, city work is a science as far from politics as is the science of engineering or architecture. Each salaried alderman is responsible for a single department, or for several closely allied parts of the public business. He does not serve, as do our alderman, on three or four-scattered committees schools, licenses, and sewers-about none of which he has any scientific knowledge. He is elected to his office because of his knowledge and skill in a special field of municipal work, and takes charge of that department. Thus, city work offers to a young German a life career, just as railroading or manufacturing does in America. An educated man makes a special study of water-works or building-laws or poor-relief. He learns the methods of the best European cities. He serves his time in the administration of some small town, and perhaps gets a place at the head of his chosen department in some small city, and tries to make that department a model of efficiency and economy; finally, he finds the end of his professional ambition in being promoted to the same work in one of the great cities of the kingdom. Here he has a place of dignity in the social world, and if successful, holds a life office with the assurance of a pension for himself and his family.

GROUND-WATER SUPPLIES.

The percentage of available groundwater that comes direct to the supply from borders of water or streams that may be adjacent to the source of supply of any particular place, was the subject of a recent short address by Mr. Albert F. Noyes, City Engineer of Nepton, before the New England Water-Works Association. The speaker stated that it had been assumed for some time that the infiltration from a body of water to the ground was very small, and, in fact, that engineers of considerable experience had pronounced it absolutely nothing. He stated that in some of the tests for suits for water damages, a test had been made to show that no water was taken from these bodies of water by driving a tube well in the stream. When the water was observed to rise above the level of the stream and flow out of the pipe, the conclusion was that there was no infiltration. Nevertheless, when the ground-water is drawn, the water table is usually several feet below the level of the stream. In such cases, the speaker was convinced that there is a very considerable percentage of infiltration from the adjoining body of water into the ground, which very largely increases the quantity that is available to that supply.

The favorite wood for paving purposes in London is the jarrrah wood, imported

from Australia. An inquiry has recently been set on foot to determine whether some other of the Australian woods notably red gum would serve as well as jarrah wood, but the testimony goes to show that while substitutes are used in some Australian cities for jarrah nothing that is offered is quite as satisfactory. They all lack the lasting qualities of jarrah. The inquiries further show that there need be no apprehension of the supply running short for many years to come. Wood paving grows more and more in favor in

the European cities.

Steam should never be put into a brick or cement sewer, as it has an injurious effect on the same, causing disintegration and collapse within a very short time; neither should it be led into a brick chimney for the same reasons. In some places it is the practice of engineers to turn the exhaust from pump or small engine into the sewers, but this is bad tractice, and, we believe, an illegal act in some cities, tor it will not only destroy the sewers, but the heat of the steam makes the malarial gases more active, while at the same time it produces a contain summer to the same time. produces a certain amount of pressure that will force the gas back into the buildings through the water traps commonly in ings through the water traps commonly in use. In these traps there is seldom more than three inches of water, and very little pressure is necessary to force the gas through them. Wherever gas is forced back through buildings in this or a similar manner the death rate in that locality will contain be greatly increased.

All hydrants in Ottawa, Ont., are examined daily during the winter to prevent freezing. They are only slightly moved, water not being allowed to pass the valve, and if found frozen, a steam hoiler is at once sent to them them out the valve, and it found frozen, a steam boiler is at once sent to thaw them out, while they are also steamed after use at all fires. During this season, the blowoffs are allowed to run continually at the dead ends and all exposed places, and no mains have been frozen for the last three or four years. Superintendent Robert Surfees writes that in cold weather consumers are advised to allow their taps to sumers are advised to allow their taps to run a small stream the size of a straw, and when they have dramage so that this causes little inconvenience to the consumer, there is little trouble. The most cases of freezing occur where the houses are not connected with the sewer, and during the last of February and March. During a than and soft weather in early spring or late winter, more trouble is experienced than when the temperature is 20 degrees below zero; the frost seems to go down when the weather is mild Two steam boilers on runners are kept ready all the time to visit and thaw out any hydrant or service that is found to be frozen.

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