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## A Weekly Journal of Advance Information and Public Works.

ITS PURPOSE. TO SUPPLY TO CONTRACTORS ADVANCE INFORMATION RESPECTING CONTRACTS OPEN TO TEN-DER. AND TO ARCHITECTS, ENGINEERS, MUNICIPAL AND OTHER COMPORATIONS, A DIRECT MEDIUM OF COM-MUNICATION WITH CONTRACTORS.

ITS MERIT: ECONOMICAL AND REFRCTIVE SERVICE.

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satisfactory basis. He then referred to the

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## THE CANADIAN CONTRACT RECORD,

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Information from any part of the Dominion regarding contracts open to tender sent exclusively to this journal for publication, and not elsewhere published, will be liberally paid for.

ADVERTISING RATES ON APPLICATION.

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

The following resolution was unanimously adopted at the First Annual Meeting of the Province of Quebec Arsociation of Archtects, hold in Montreal, Oct. 10th and 11th, 1890: "Moved by M. Perrault, seconded by A. F. Dunlop, that we the Architects of the Province of Quebec now assembled in Convention being satisfied that the CANADIAN CONTRACT RECORD affords us a direct solved, that we pledge our ""pport to it by using its columns when calling for Tenders,"

The publisher of the "Canadian Contract Record" desires to ensure the regular and promps detivery of this Journal to every subscriber, and requests that any cause of complaint in this particular be reported at once to the office of publication. Subscribers who may change their address should also give prompt notice of same, and in doing so, should give both old and new address.

### SEWER VENTILATION.

At a meeting of the Society of Engineers, held at the Town Hall, Westminster, on Monday evening, a paper was read by Mr. W. Santo Crimp, M.Inst. C.E., F.G.S., on "Sewer Ventilation."

The author first pointed out that much had been written with regard to sewer ventilation, but that few experiments had been made, and as a result methods had been suggested that would almost certainly result in failure. It had, for instance, been constantly assumed that the movements of sewer-air were almost entirely due to temperature, an assumption which the author found did not subsist upon a

experiments of Miller, Beetz, Carnelly, Miquel, and Holdane, which were made more especially with a view to ascertaining the number of micro-organisms present in sewer-air, relatively to those in the atmosphere. In the result it was found that sewer-air contained fewer; but the author pointed out that their nature might probably differ widely. With regard to the excess of carbonic acid generally found in sewers, the author suggested that it was probably largely due to the mingling of the ground air with the sewer-air in cases where sewers were not air-tight. Refering to other gases found in sewers, he pointed out that these gases were in themselves incapable of producing fevers of the zymotic type, and argued that such fevers when caused by sewer-air, were due to the germs of disease present in the sewer-air, and suggested that it was undesirable to set up rapid air currents in sewers, in the absence of which these germs would fall back into the sewage from which they arose. Dividing sewers into two classes -namely, those into which men could not enter, and the larger ones in which they were frequently employed, he suggested that the smaller ones should be provided with vents, carried high over head, and sufficient in number to prevent the house traps being forced; although a properly drained house should be proof against the most severe test. The large sewers, of course, had to be very fully ventilated-at any rate whilst men were employed in them. The author then proceeded to a consideration of the forces causing movements of sewer-air, and presented an epitome of the experiments made by him at Wimbledon during the year 1888. The experiments were carried on continuously throughout the year, and were made on sewers of all sizes up to 4 ft. by 2 ft. 8 in. One pipe sewer, constructed in a hilly road, was continuously experimented upon, whilst tests were constantly made on others, including also surface-water sewers when these were free from water. In the result, the author found that the only currents measureable by an anemometer were those produced by the wind, being sometimes uphill and as frequently downhill. The amount of movement of the sewer-air was also in accordance with the velocity of wind. Having regard to the facts, he suggested that in the ventilation of sewers the fullest advantage should be

taken of the wind as a motive power, and that it should be deflected into the sewers, or made to induce out-currents, as may be found desirable.

# Notice to Contractors.

Sealed Tenders, endorsed "Tender for the Construction of Terminal City Railway," and addressed to the undersigned, will be received until 1 p.m. on SATURDAY, NOV. 15711, 1890, for the construction of about 6½ inless of railroad from Mulgrave to Terminal City on the Strait of Canso, Nova Scotia.

Plans and specifications can be seen at the Company's office, 31 Milk Street, Boston, Mass., or at Terminal City. No tender will be considered unless on printed forms to be obtained of the company. Each tender is to be accompanied ered unless on printed forms to be obtained of the company. Each tender is to be accompanied by a certified bank cheque for \$2,500, payable to the Treasurer of the Terminal City Railroad Company (Limited), said cheque to be returned to each tenderer unless he fails to execute the contract and give a satisfactory bond for the fulfilment of the same if awarded to him. The Company reserve the right to reject any and all bids should they deem it for the interest of the company to do so.

WM. H. ALLEN. Treas, Terminal City Railread Company, 31 Milk Street, Boston, Mass.

FREDERIC R. PAGE, Chief Engineer.



#### TENDERS

For the Election of a Crematory for the Destruction of Garbage and Night Soil.

Tenders addressed to the undersigned will be received through registered post at the office of the City Clerk, up to noon on FRIDAY, THE 14TH DAY OF NOVEMBER, 1890, for:

The erection of a Crematory for the destruc-tion of garbage and night soil, on a site to be provided by the city.

2. The collection and disposition of the gar-bage and night soil of the city, the contractor to find his own site and creet and maintain his own Crematory.

Copies of specifications, giving full information as to requirements of the above, may be had at the office of the City Engineer and City Commissioner (City Hall).

sioner (City Hall).

Each and every tender must be accompanied by a marked cheque made payable to the order of the City Treasurer or a cash deposit equal to 2½ per cent. of the amount thereof, which will be forfeited to the city in the event of the party whose tender is accepted failing to execute the necessary contract and bond.

The deposits of the unsuccessful tenderers will be returned.

The lowest or any tender not necessarily accepted.

G. F. FRANKLAND, Chairman Markets and License Committee, City Hall.

Committee Room, Toronto, Oct. 20th, 1890.