THE

Canadian Contract Record

A Weekly Journal of Advance Information and Public Works.

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THE CANADIAN CONTRACT RECORD,

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The purpose of this journal is to supply Contractors, Manufacturers and Dealers throughout Canada, with advance information regarding contracts open to tender, and to furnish Architects, Municipal and other Corporations with a direct medium of communication with Contractors.

Information from any part of the Dominion regarding contracts open to tender will be gratefully received.

ADVERTISING RATES ON APPLICATION.

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

The publisher of the "Canadian Contract Record" desires to ensure the regular and prompt delivery 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.

BRICK PAVEMENTS.

MR. OSCAR BRASHEAR, Mayor of Stebenville, Ohio, writes to the *Western Architect and Building News* as follows concerning the brick pavements of that city and the mode of making them :

In the spring of 1884 this city put down as an experiment one block of pavement made of hard burned firebrick, and after using it three years concluded to adopt it, and to-day our streets are all complete with brick pavement. The first block, now down five years, is to all appearances as good as those just completed. Now I will give you in detail our method of paving First—By all means know that your materials are good. Second—Excavate your street to a depth of twenty inches ; put in a good foundation of gravel or broken stone and raise to within ten inches of surface of grade, allowing in this ten inches six inches of sand and four inches depth of brick. After foundation materials have been put in place, you should get a heavy roller, not less than twenty tons. Roll and reroll until made perfectly compact, then put on your sand to depth of six inches, and shape with a broad scraper from centre of elevation to curb line, then lay your brick, and before spreading any sand on them take and roll complete and then spread on sand to close cracks. The pavements are comparatively noiseless, very durable, clean, easy on horses and vehicles, and in this country, where fire-clay is plenty, our pavements cost, complete, $1.25 per square yard.

The Canadian Contractor's Hand-Book, 50 cents to RECORD subscribers.

REMOVAL OF GREEN DISCOLORATION FROM BRICK-WORK.

An efficient method of removing green discoloration from brickwork is by the use of very weak solution of impure carbolic acid, as weak as 1 per cent., and in some cases, where the growths have just started, a still weaker solution. The mode of applying is about thus : A wineglass full of impure carbolic acid is placed in an ordinary bucket of water and thoroughly mixed before applying with a broom to all the affected surfaces. This then is allowed to remain for some little time, when the whole stoop or surface may be washed with a hose and the growths come off. The rubbing to remove the growth must not be done immediately after applying the solution, as the process going on is that of the solution destroying the growths, and thereby loosening their hold. Thus if the solution is applied a short time before a rain-storm, the rain when it arrives does the most of the after work. But should the solution be applied in the morning, for instance, the hose washing the next morning would be effectual. However, if the growths were very old and of long standing, it may require two or three such applications as the above, but in any case this operation will be found very successful.

DISCHARGE OF STEAM THROUGH ORIFICES.

While the question of steam discharge through orifices has been ably investigated from a theoretical standpoint, there is a lamentable deficiency of experimental data on the subject. The following table calculated for steam pressures ranging from 10 to 150 pounds per square inch above the atmosphere will, therefore, prove valuable. It has been calculated by means of formula given in a Report on Safety Valves in the Transactions of the Institution of Engineers and Shipbuilders in Scotland, and stated to agree with the results of experiments for pressures not lower than 10 pounds per square inch with a surprising degree of exactness :

VELOCITY OF EFFLUX OF STEAM INTO THE ATMOSPHERE.

Gauge Pressure.	Velocity of Discharge in Feet per Second.	Pounds of Steam Discharged per Minute per Square Inch of Opening.
10	861	22.2
15	867	26.6
20	871	30.9
25	874	35 3
30	877	39 5
35	880	43.8
40	882	48.0
45	884	52.3
50	886	56.5
55	888	60.7
60	890	65.0
65	892	69.3
70	894	73.5
75	895	77.6
80	896	81.9
85	898	86.0
90	899	90.3
95	900	94.4
100	902	98.6
110	904	106.9
120	906	115.2
130	908	123.5
140	910	131.9
150	912	140.2

For obvious reasons no table can be calculated for the flow of steam through pipes since the element of pipe length there must be considered, and no two cases in practice would have the same length of pipe. In Robert Briggs' "American Practice in Warming Buildings by Steam," however, extensive tables are given for different conditions to which it may be interesting to refer.—*Engineering and Building Record.*