

MUNICIPAL DEPARTMENT

TO MUNICIPAL OFFICERS.

The CONTRACT RECORD is desirous of publishing, as far as possible, advance information regarding projected works of construction in all parts of Canada, such as sewerage and waterworks systems, railways, street pavements, public and private buildings, etc. Municipal officers would confer a favor upon the publisher by placing at our disposal particulars of such undertakings which are likely to be carried out in their vicinity, giving the name of the promoter, character of the work, and probable cost. Any information thus furnished will be greatly appreciated.

SHERBROOKE WATERWORKS ARBITRATION.

A decision has been given in the arbitration case between the city of Sherbrooke, Que., and the Gas & Water Company. The arbitrators in the case were Messrs. E. H. Keating, C.E., Toronto; Wm. Kennedy, hydraulic engineer, Montreal; and B. D. McConnell, C.E., Montreal. The Gas & Water Company were represented by Messrs. H. D. Lawrence, C. W. Cate and A. S. Hurd, Q.C., and the city by their attorney, Mr. H. B. Brown, Q.C., and Messrs. J. A. U. Beaudry, C.E., of Montreal, and C. Bailairge, of Quebec. The witnesses examined included Dr. Wyatt Johnston, bacteriologist, Montreal; Robert Arkley, millwright; D. G. Loomis, contractor; S. W. Jenckes, manager for the Jenckes Machine Company; Dr. F. J. Austin, medical health officer; Dr. W. A. Farwell; E. F. Waterhouse, secretary-treasurer of the company; A. Sangster, superintendent, and A. G. Sangster, foreman of the company; R. Davidson, chief of the fire department and officer of the health department; W. S. Dresser, insurance agent, and J. S. Mitchell, hardware merchant, all of Sherbrooke. The award places the value of the system at \$115,907.47, less the unexpired portion of their contract with the city, \$21,807.69, making the net value \$95,069.78. This award seems to be satisfactory to the citizens generally, and to the majority of the council, although the council had offered the company only \$75,000 for their plant.

COST OF STONE ROADWAYS.

In a valuable pamphlet published by the Good Roads Committee of the Canadian Wheelmen's Association, Mr. Archibald Campbell, C.E., says:

The cost of a broken stone roadway cannot be stated, as is commonly supposed, at a definite amount for a lineal foot, square yard, or mile. An estimate, to be of value, must be made entirely in view of the circumstances of each case. The grading and earthwork needed may

be very little, or may be very great. A Telford foundation may be necessary, although rarely used except in the case of a wet sub-soil, or the highest class of work. Little under-drainage may be required; or an elaborate system may be necessary. Outlets for under-drains and surface drains may or may not be easily obtained. The surface metal used may be found in the immediate vicinity, requiring little treatment, or it may be necessary to bring stone a considerable distance by rail or boat. Curbing may not be considered desirable. The management may be efficient, or it may be inexperienced and wasteful. To obtain the cost of gravel and broken stone roads from this or that municipality is apt to be very misleading. Cleveland, Ohio, has broken stone roads costing \$3.65 a square yard; but these roads have Telford foundation ten inches in depth, and are surfaced with trap rock brought from the north shore of Lake Superior. Beverley street, Toronto, an expensive form of broken stone pavement, cost about \$1.00 a square yard. Under favorable circumstances, a light but good form of driveway has been built for 25 cents a square yard; for an ordinary lot of sixty-six feet frontage, with money at 4 1/2 per cent., this would amount to \$2.78 yearly for ten years, under the frontage tax system.

SELF-CLEANSING SEWER PIPE.

A new form of sewer pipe manufactured in England is described by The Surveyor as having been tested, as to its self-cleansing capacity, by the Northern Architectural Association and the Newcastle and Gateshead Water Company. The 2-gallon flush of water for water-closets is well known to be inadequate, and the new pipe (Plummer's patent) was tested in competition with an ordinary circular 6-in. pipe.

The experiments were made for the two forms of pipe drain, which were laid under exactly similar conditions as to gradient, and similar matter was passed into each drain, which was charged 20 times. After the 14th round the ordinary 6-in. pipe was completely blocked up, while Plummer's patent pipe cleared itself throughout all the experiments.

This clearing of the pipe with a comparatively small quantity of water is due to the fact that the flush is concentrated in the narrow channel at the bottom of the pipe. We should think that this

shape is worthy of the attention of our sewer pipe manufacturers.

Drainage referee Hodgins has given judgment in the case of Cosfield South vs. Gosfield North. North Gosfield council entered into a scheme for the improvement of some drains in the township and Gosfield South was charged with a portion of the cost. The latter appealed against the plans and assessment, and the judge allowed the appeal with costs, setting aside the report and assessment.

A portable asphalt plant designed to be available for transportation by railway and capable of operation on contracts in smaller communities, where the amount of work to be done is too small to warrant the erection of a special plant, has been brought out by an inventor of Pittsburg, Pa. The plant is stated to contain all the machinery that a paving contractor requires, save the steam roller and the street tools. There are no sheds or buildings to erect, yet all parts are protected from rain and sun. The plant is carried on two specially constructed cars which are separated in operation to allow of the erection of a central tower between them on tubing standards. Three plants have been built, each of a reported capacity of over 1,500 square yards a day.

House connections with sewers are referred to in a recent report by Mr. Charles R. Cutter, Deputy Superintendent of the sewer division of the street department of Boston, Mass. He complains that while the city aims to build tight sewers that will keep out ground water and thus reduce to a minimum the volume of sewage to be pumped, the average house connection is put in as cheaply as it is possible to make a conduit leading from the house to the sewer. The work is done by a drain layer over whom the city engineers have no control, except in the joining of the sewer and drain. Where everyone is anxious to have the connection made at a minimum cost, there are apt to be many leaky joints, and in consequence Mr. Cutter recommends having the connections laid up to the house by the city's men, charging the owner for the work. He also urges giving his division the right to compel stables, factories and other places liable to discharge detrimental material into the sewers, to put in catch-basins or settling tanks to remove this material from the sewage.

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