

Editorial

MECHANICAL HANDLING OF ASPHALT.

Under the above title an article appeared in the August 3rd, 1916, issue of *The Canadian Engineer*, descriptive of a tank erected in Toronto by the Commissioner of Works, to enable the city to handle asphalt in bulk instead of in packages. The operation of this tank has been so successful, and has so materially reduced the cost of asphalt to the city of Toronto, that the subject will prove of interest to all municipal engineers who purchase any quantity of asphalt.

The Toronto tank cost, with steam coils, \$1,270; the cost of the pump was \$337, and the cost of the pipe lines, steam jacket and foundation for tank was \$400. The total cost, therefore, was only approximately \$2,000, but prices of steel structures have increased considerably since the contract for this tank was awarded, and another similar tank would no doubt cost more to-day. The Toronto tank can handle one hundred tons of asphalt at a time, which is approximately three tank-carloads.

The Department of Works of Toronto is required each year to keep in repair an increasing area of asphalt and other bituminous pavements, and in addition lays a certain number of new pavements by day labor in addition to those laid by contractors. To carry on this work approximately 2,000 tons of asphalt are used each year.

Upon the basis of 2,000 tons, all received in tank cars, a direct saving of from \$5,000 to \$6,000 is effected, as there is usually a differential in price between tank and package shipments of from \$2.50 to \$3.00 per ton in normal times. At present cost of metal packages, the differential is even higher. The average differential on all bids received by the city of Toronto for the past three years is \$2.68.

To this initial saving should be added the saving in labor of stripping and of unloading and handling of packages. The saving in stripping is particularly noticeable in hot weather, when it is difficult to strip barrels.

With modern equipment, such as pumps especially built for the purpose, insulating jackets which reduce the time and cost of unloading, etc., there should be little or no demurrage to pay on the tank cars, even in severe weather.

From the above facts it will be seen that, other things being equal, the erection of storage tank and purchase of material in bulk might be an attractive proposition, even to cities which use much smaller quantities of asphalt than are bought by the city of Toronto, as the cost of the tank would probably soon be made up by the savings effected.

The whole question is largely an economic one and must be carefully figured for each city separately. What is profitable in Toronto might not be profitable in, say, Halifax, and vice versa. The savings effected in Toronto, however, are so large that every city and town engineer who buys asphalt should sharpen his pencil some evening and figure carefully whether investment in a tank would be wise for his municipality, and when his figures are complete, they should be submitted to a competent consulting engineer for checking and further advice.

THE RAILWAY REPORT.

Neither Sir William Mackenzie nor Mr. E. J. Chamberlin appear to be pleased with the majority report of the Royal Commission to Enquire into Railways and Transportation in Canada. Sir William does not admit that the shareholders of the C.N.R. have no equity in their property. Mr. Chamberlin has issued a statement to G.T.R. shareholders, advising them not to be alarmed, and stating that the report contains inaccuracies and misleading statements and that the credit of the Grand Trunk is high and its financial position not at all as stated in the report.

If it is true that the majority report contains inaccurate or misleading statements, full details regarding these should be given to the public and to parliament at once by the Grand Trunk and C.N.R. presidents. The scheme suggested by Messrs. Drayton and Acworth appears sound, but it is such a close approximation of government ownership and operation, and the wall separating the trustees from parliament is so thin, that we should much prefer to see the railways continue as at present if financially possible. If the figures given in the Drayton-Acworth report are even approximately correct, however, there appears to be no possibility of the G.T.R. and the C.N.R. being able to weather the storm without such extensive government aid that it might be unfair to the Canadian people if given without any *quid pro quo*.

The heads of the two railway systems involved should present an outline of their plans for the future, showing that they are independent of undue government assistance and able to carry out all obligations. If their plans are feasible, parliament should let them work out their own salvation, but when advancing further money make certain of ample security. If the railways cannot stand fairly alone, and judging from the Drayton-Acworth report they most certainly cannot, and if the railways do not show any decided errors in the report, the government's course of action is obvious.

The Drayton-Acworth report is, of course, weakened by the fact that it is not unanimous, yet Chairman Smith's minority report cannot be taken with the same degree of confidence as is that of Sir Henry Drayton and Mr. Acworth. In its October 12th, 1916, issue, *The Canadian Engineer* said editorially that Mr. Smith controls important interests in Canada and has affiliations and competitions that cannot but unconsciously color his viewpoint. It was a foregone conclusion in the minds of some people that Mr. Smith would be sure to report exactly as he did. On the other hand, it appeared almost equally certain that Sir Henry Drayton, whose reputed public ownership sentiments were well known, would also report in the manner in which he did. Mr. Acworth was the only unknown quantity, and it is on account of Mr. Acworth's agreement with Sir Henry Drayton that we assign such great importance to the Drayton-Acworth report. Mr. Acworth has never been a champion of public ownership. The strenuous efforts made by the Drayton-Acworth report to get away from government operation, show Mr. Acworth's continued reluctance to recommend the elimination of private ownership. It ap-