

Letters to the Editor

Glare from Concrete Sidewalks

Sir,—We note the inquiry of Mr. A. Crumpton in your issue of August 16th, as to the removal of the glare from concrete sidewalks. It may interest you to know that there is an ordinance in the city of Los Angeles, as also San Diego, to incorporate a color to remove this glare. A black has been used, as the greens, even though a chrome green is used, are not permanent, while a proper black is unaffected by the sun's rays. It is likewise common practice in New York to produce a blue-stone effect by the addition of a carbon black (carbon black is produced from the combustion of natural gas).

A. E. HORN,

Sales Manager, A. C. Horn Co.

New York City, August 24th, 1917.

"Outline the Terms of Arbitration"

Sir,—In your editorial of August 23rd, entitled "Outline the Terms of Arbitration," in connection with the taking over of the C.N.R. by the Dominion government, you express the opinion that if the physical value of the road is to be considered in the transaction, it should be determined upon the basis of the cost of reproduction less depreciation, and not upon the basis of the cost of reproduction alone.

That the depreciation of the road must be deducted from the reproduction cost in order to arrive at the physical value of the existing property as it is at present, can hardly be disputed. Cost of reproduction is usually understood to mean something like this:—

If, on the identical spot where the present road is located, we were to build under present conditions and market prices, a new road with new bridges, new rails and ties, and new equipment and rolling stock, what would be the cost of the road?

It is evident, therefore, that the cost of reproduction does not represent the value of the existing property which includes many old, worn-out rails, partially decayed ties and bridges that may have reached the limit of their services and would have to be renewed soon. All such physical items in the existing road can only give service for a certain number of years, after which they must be completely renewed.

If, therefore, a portion of their probable life is already gone, a like portion must be deducted from their value new, in order to arrive at their present value. This depreciation of the various items which is due to age, wear and tear, and other destructive agencies, is usually determined either by the use of mortality tables which are based on an assumed length of life for each item, or by personal inspection in the field and an examination of the actual condition of these items.

But, while it is realized that depreciation should be taken into account in determining the value of the road, it seems fair that appreciation of such items as have a tendency to improve in value as time goes on, should also be considered. There are several such items in a railroad, but the condition of the roadbed serves as a good example. Railroad engineers are quite familiar with the fact that the roadbed of a newly built railroad frequently

keeps on settling for a time and requires occasional filling until it finally solidifies. Thus the existing roadbed would represent a greater value than the cost of reproducing the new roadbed which would, strictly speaking, be a non-finished product.

Frequently reproduction cost based solely on present-day condition does not represent a fair valuation. Certain conditions may have existed prior to the building of the road which may have considerably affected the cost of the original construction, but which may not be evident to-day, such as unusually deep cuts or the building of trestles for filling. Such costs should surely receive certain considerations. It is, therefore, desirable to investigate records as far as possible, and consider original conditions as well as present-day conditions.

In the case of some railroad valuations in the United States, with which the writer was connected, a complete study of the history of the road had first been made. All records that were available were examined and all information that could be procured was noted. A complete survey and inspection of the road was then made, and upon the combined information from all these sources was then based the physical valuation.

H. A. GOLDMAN, C.E.,

Assistant Designing Engineer,

Toronto Harbor Commission.

Toronto, Ont., August 27th, 1917.

The Railway Problem

Sir,—On both sides of the House of Commons, the discussion of the railway problem seems to have drifted further and further from the real issue, the economic one, the consideration of the capital and the operating burden which Canada may be saddle-galled with.

The question as to what may or may not be paid for the Canadian Northern Railway stock is one of equity to be determined, comparatively small.

The big issue is what does the sole acquisition of the Canadian Northern Railway, *exclusive* of the other two (G.T.R. and G.T.Pac.) mean?

All the authorities who have dealt with the question, the Drayton-Acworth report, W. F. Tye's paper, also Sir Thos. Tait's contribution, have assumed without hesitation that *consolidation* was fundamentally indispensable to any scheme of redemption or of recuperation from the unfortunate financial muddle these railways now find themselves in. The following quotation from W. F. Tye's paper illustrates the principle very clearly:—

"1. The National Transcontinental, the Grand Trunk Pacific and the Canadian Northern Railways are unable to earn their operating expenses and their fixed charges. Canada has built, and is operating, the first of these roads, and Canada and the various provinces have guaranteed the principal and interest of most of the bonds of the other two. As the roads are unable to earn their fixed charges they must, of necessity, be paid by the country.

"2. The failure of these roads is due to the duplication of lines by all the railways, encouraged and bonused by the government; to the excessive cost of the Grand Trunk Pacific and National Transcontinental Railways; to the failure of the Grand Trunk Pacific to provide itself with an adequate system of feeders in the West; and to the construction, by the Canadian Northern, of the long and unproductive stretches of road across British Columbia and Northern Ontario, without feeders, terminals, etc.