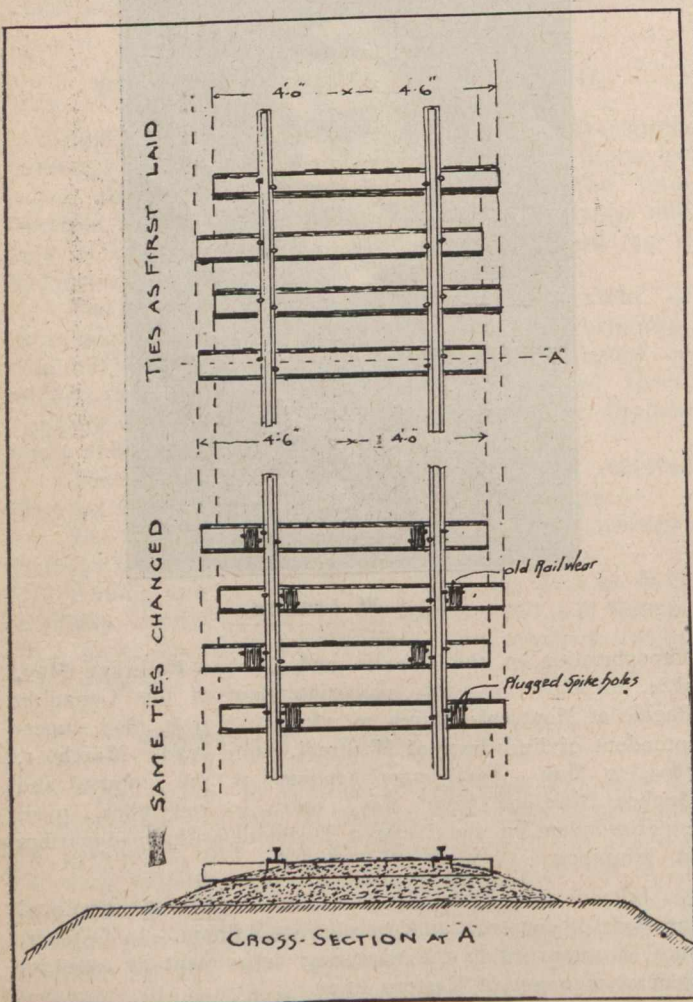


CORRESPONDENCE

[This department is a meeting-place for ideas. If you have any suggestions as to new methods or successful methods, let us hear from you. You may not be accustomed to write for publication, but do not hesitate. It is ideas we want. Your suggestion will help another. Ed.]

RAILWAY TIES.

Sir,—The item of ties in railway construction, and subsequent maintenance, is well known to be one of considerable expense, and the large increase of railway mileage in Canada of recent years has drawn upon the supply of available suitable timber to such an extent that ties are now difficult to obtain, and only then at a price two to three times what it was twenty-five years ago.



Any method of using ties which will add to the period of their usefulness in the track must be the means of saving money. It is some years since the writer first proposed a change in the ordinary system, as described below, but has not known of its having been anywhere adopted, even for experiment. On enquiry from different men in the tie business, and from one particularly, who is now purchasing a very large quantity, he learns that a tie 8 feet 6 inches long may be had for practically the same price as one of the ordinary length, 8 feet.

The life of a common tie—mixed tamarac, spruce, and jack pine—is about seven years, and one-seventh of all the ties in a road have to be renewed every year. If only one-tenth of them require to be renewed, and we take a road two hundred miles long, with three thousand ties per mile, as an illustration, it means a saving of nearly \$9,000 per annum at the present price of ties.

Ties are first rendered unsafe in track from being "rail-worn" and "spike-killed," especially in northern districts, where the frost causes heaving of track, and rendering necessary the common skimming, and before the body of the tie has decayed they have to be taken out because of the wear under and alongside the base of rail.

It is herein suggested that after five years' use the rail be given a new bearing. The tie may be safely left in track for another five years.

The extra six inches in length will answer for a 60-pound rail, generally used in constructing colonization roads and branch lines, but for a 72 or 80-pound rail seven to eight inches extra length of tie would be needed.

Of course, in the older and high standard roads, where tie-plates and a superior quality of tie are used, this plan may not be suitable or advisable, but for our new roads in the northern and north-western parts of Canada the method shown in the diagram, the writer feels confident, would be the means of saving a large amount of money in material alone, to say nothing of the labor cost, reduced in changing ties.

H. W. D. Armstrong, M. C. S. C. E.

Saskatoon, Feb. 25, 1908.

CANADIAN SOCIETY OF CIVIL ENGINEERS.

Sir,—In a recent issue you conclude some very good remarks on the Canadian Society of Civil Engineers, by an invitation for individual members of the Society to express their views. This is my excuse for now addressing you.

I may preface my remarks by saying that I am one of the older members of the society, that what ever criticisms I make are not intended unkindly towards any one, and that some of those who may come under such criticism are among my most intimate friends.

The remark I always feel inclined to make at the conclusion of each annual meeting, is that the society is seeking to do what it will never succeed in permanently accomplishing, a thing, which by the very constitution of the Canadian engineer, and by the nature of the country he works in, is impossible. But in trying to do it the society is fatally injuring itself. I refer to the tacit assumption, on the part of a very small number of the society, resident in Montreal, that they can run the whole body of Canadian engineers in Canada.

The society is founded on democratic principles, but practically it is governed by a handful of men in Montreal, and this will always be the case as long as there is only one society for the whole of Canada. It is the necessary tendency of centralization.

An effort has been made to check this tendency, by drawing the council from all parts of the Dominion. Another effort has been made by providing for branch societies. But it is vain, as long as there is a head office which exercises a jurisdiction, or seeks to exercise it, over the whole profession in Canada, that head office must be established in one city, and a small resident coterie will inevitably form which will seek to dominate the society and the profession.

There should be a separate and independent society for each province, affiliated with each other, it may be, but self-supporting and self-governing. It is impossible that a few men in Montreal or Toronto, or their nominees, for they are practically self-propagating, can keep in touch with the claims of individual engineers all over these wide extending provinces. But that ought to be the chief use and purpose of the society. To protect and assist the individual engineer is what the individual engineer wants. For instance, it is not at all an uncommon thing for an engineer to be cheated, cut