

TEMPORARY WORK ON THE CANADIAN PACIFIC RAILWAY.

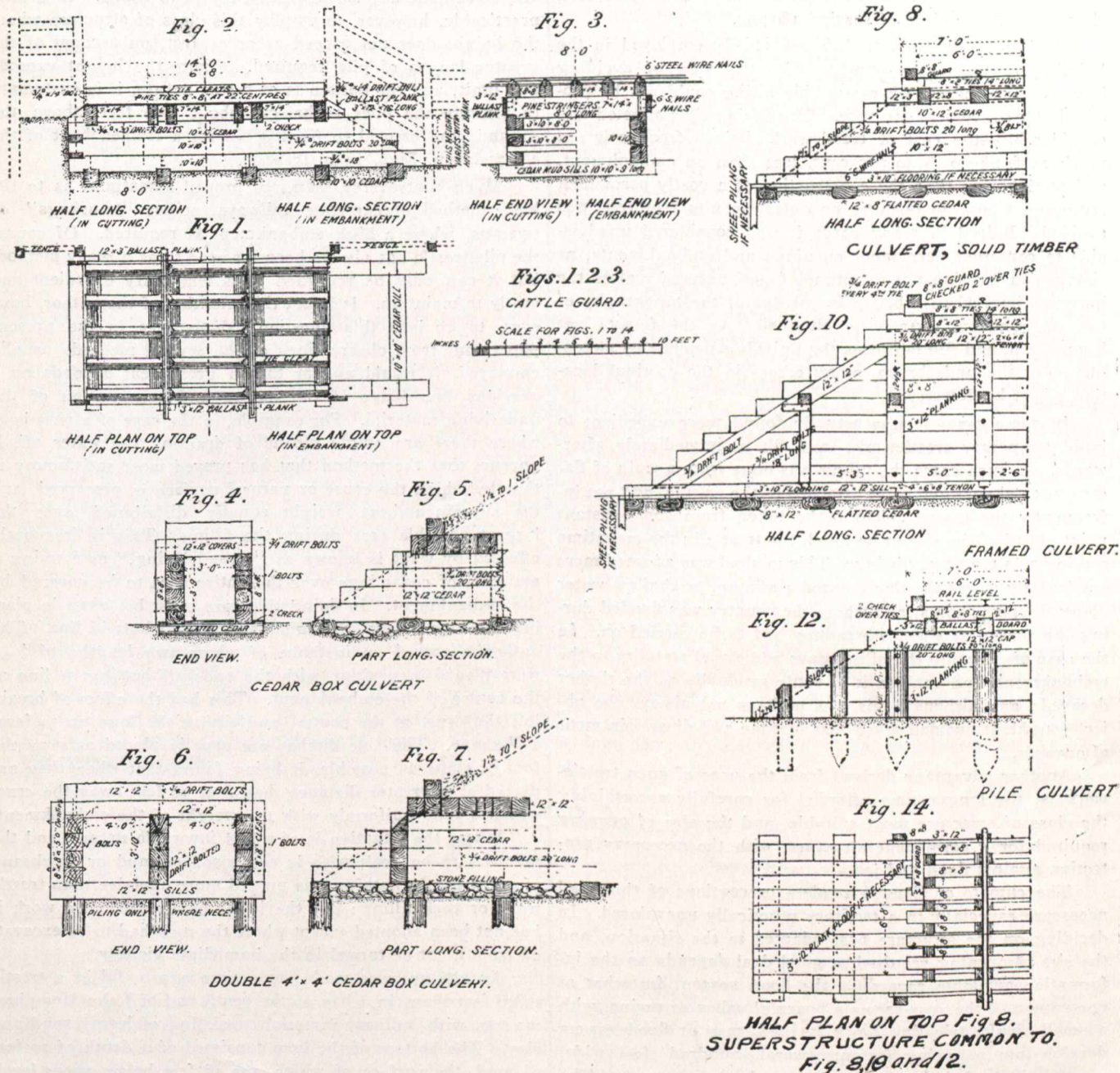
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General Remarks.

The history of the construction of the Canadian Pacific Railway has been so ably recorded by its pioneers, in various papers to kindred societies, that a review of all the characteristics of its earlier development will be unnecessary within the scope of this paper. The following notes will, therefore, be confined principally to a description of the temporary work employed during construction, and its relation to the more recent permanent work, with the view of illustrating as far as possible the conditions affecting the construction, and the

Unlike the conditions existing in countries that are fully settled, the demands of a partially settled country like Canada, necessitate the adoption of the principle of economy in first cost, a principle that proved so beneficial in the earlier days of pioneer railways in the United States, where similar conditions prevailed.

Nevertheless, it would be folly to conclude from this that the American practice of building cheap railways, where timber as a natural product is so largely introduced into their construction, could be adopted with economy in all new and undeveloped countries. So much depends on the deteriorating effects of climate, cost of transportation of material and the adaptability of the natural products available, that it is only from a careful study of these conditions—with the rate



operations peculiar to the maintenance, of what may be termed a pioneer railway.

The term "Pioneer," as sometimes applied to American railways, implies that the railway has been projected with the view of opening up a new territory for colonization purposes, and that in its construction all due regard has been had to economy in first cost, so that the expenditure made may be justified by the prospects of the country being speedily settled and a revenue made available to the promoters from the development of its natural resources.

The maintenance, however, of a railway built on this principle, in order to meet the requirements of increasing traffic and modern equipment, must necessarily form an important factor in its future development.

of future development and cost of maintenance in view—that the most advantageous plan can be adopted.

North America is, of course, specially favorable to the construction of cheap railways on account of the great quantity of fine timber available, which is extensively employed in the building of trestles and other temporary works. In hilly country where extensive bridging is necessary, timber, as a rule, is plentiful and the cost of haulage low. On the prairies, where timber is more difficult to procure, it is not so much required on account of the favorable nature of the ground. Natural facilities such as these, together with the large proportion of line traversing flat country, go far towards reducing the average cost of pioneer railways in North America.