

Cedar Crib and Trestle Construction on the Ruskin-Stave Falls Line in B.C.

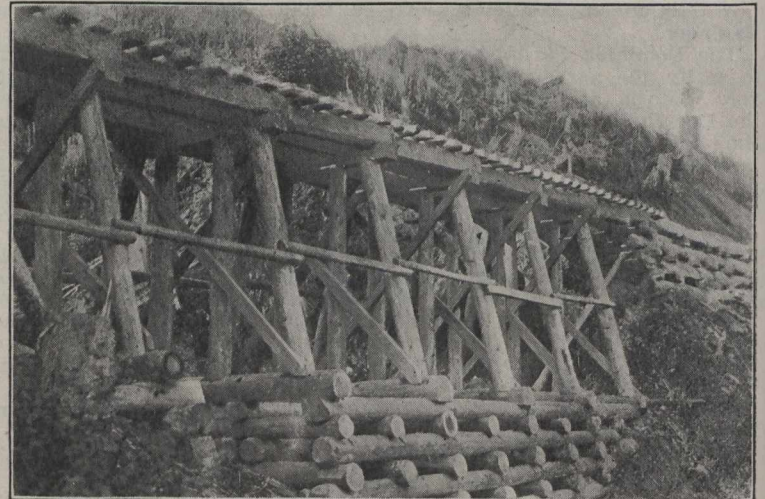
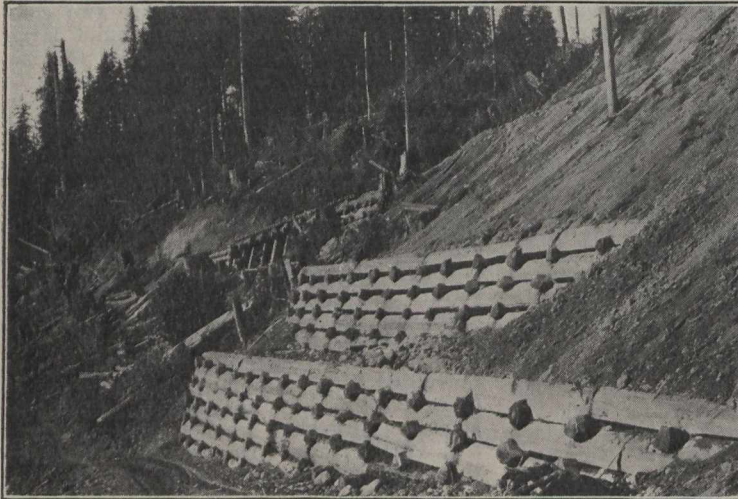
An example of the extent to which rough timber can sometimes be used in the construction of railway spurs of temporary lines is given in the recently completed extension of the Ruskin-Stave Falls line in British Columbia. About 230,000 ft. b. m. of hewed and rough timber were used in crib and trestle work on this extension, which is 3,300 ft. long and cost about \$20,000. It was built

The extension of the Ruskin-Stave Falls line is being made by day labor by the Western Canada Power Co. under the direction of R. F. Hayward, Chief Engineer, and the personal supervision of J. F. Cahan, Construction Engineer.—Engineering Record.

Canadian Railway and Marine World is indebted to Mr. Cahan for the photographs from which the two illustrations above referred to were made. We are also indebted to him for the photograph showing a derrick which he had rigged up, put on a flat car and used for excavation of the

that the C.P.R. has had a valuation made of its physical assets, and in that connection a number of figures were given which are more or less inaccurate, and certainly misleading. The item may be described as the invention of an irresponsible writer, who has, presumably, abstracted figures from the company's annual report without due knowledge of their proper significance. No valuation as reported has been made.

Compound vs. Simple Locomotives.—Comparative tests on two 4 cylinder Pacific locomotives on the Paris, Lyons and Medi-



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for hauling cement and other materials to the top of the present intake dam of the Western Canada Power Co., where extensive alterations are contemplated.

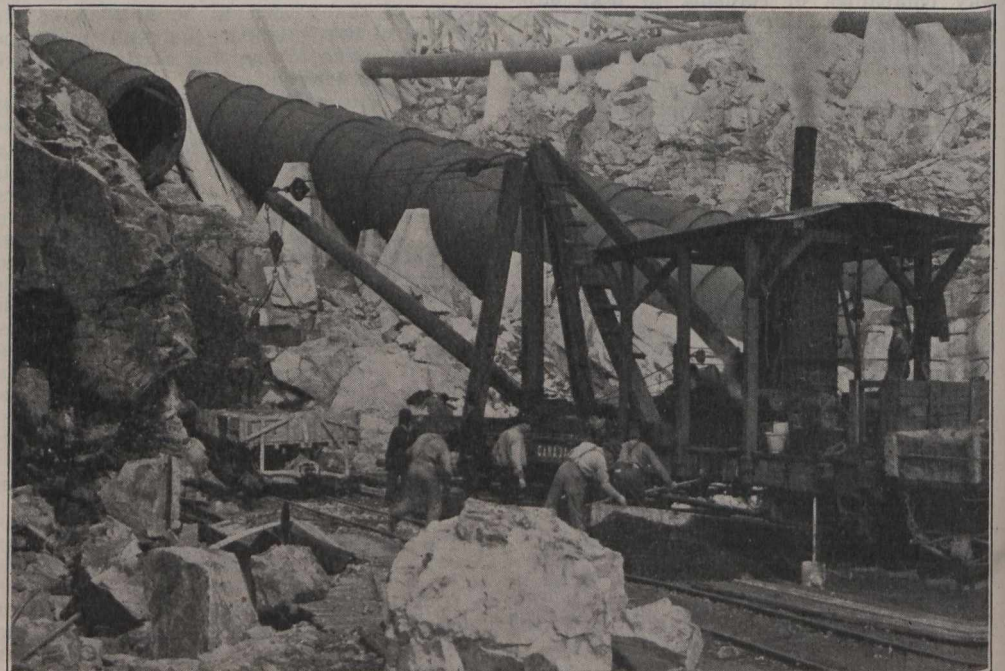
The line follows along a very steep side-hill in loose, sliding earth and required a large amount of retaining wall construction. The heavy timber growth was, therefore, utilized to good advantage, and cribs and trestles were built from cedar timber cut on the right-of-way or adjacent thereto. The cribs were built up as grading progressed, and in some of the longer and steeper slopes it was found convenient to terrace them in one or more sections. Several trestles were required at ravine crossings; and in order to give greater stability to these structures, timber crib foundations were built wherever the footings came on sloping ground. The road is of standard gauge and was built on a uniform grade of 5%, compensated, with a maximum curvature of 15 deg.

A typical trestle on crib foundation is shown in one of the accompanying illustrations. The timber in this trestle totals 59,000 ft. b. m. Including engineering supervision, the structure cost \$975.75. The amount of timber used in this trestle, if bought from the mill as dimension lumber at the regular rate of \$20 per 1,000 ft. b. m. would have come to \$1,180, while a probable additional cost of \$650 for erecting would have brought the total up to about twice the amount actually expended on the structure.

The timber crib shown in the other illustration contains 41,000 ft. b. m., and cost in place \$970, or about \$24 per 1,000 ft. b. m. This cost is considered somewhat higher than the average on the work, due to the very soft earth encountered at this point. In making a fill near the lower end of the line a rough timber trestle 600 ft. long with an average height of 28 ft. and a maximum height of 32 ft., was built at a cost of \$2 a foot, including ties and 56 lb. rails. This structure was only used until the fill was graded for permanent roadbed, and its heaviest loading was a 12-ton dinkey engine with three 6-ton (loaded) dump cars.

penstocks and foundation of the additions to the power house. The derrick, of about 12 tons capacity, has, Mr. Cahan says, proved cheap and efficient and of the utmost service, both on excavation and for handling stop logs, structural steel, etc.

terranean Ry. (France), one of which was a simple and the other a compound, working under exactly similar conditions, are reported to have shown that the compound will haul a 16% greater load, reach a higher speed and accelerate more rapidly. The



Derrick on Flat Car, Ruskin-Stave Falls Line.

Michigan Central Rd. Assessment.—The difference between the Windsor, Ont., City Council and the Michigan Central Rd., respecting the assessment of the Detroit River Tunnel within the city limits, has been settled. The agreement provides for a fixed assessment of \$1,000,000 for 15 years, and the company's lands in the city are to be assessed at \$450,000 for a similar period.

C. P. R. Physical Assets.—The daily press has recently given publicity to a statement

saving in coal and water was respectively 20% and 13%. The tests extended over 4 years.

After the finding of the Board of Railway Commissioners, in the matter of Western railway freight rates, has been issued, the enquiry into telegraph rates will be taken in hand, when the various telegraph companies will be requested to present replies to the Government counsels' factum in the matter.