

RAILWAY CONSTRUCTION IN SASKATCHEWAN.

In the annual report of the Saskatchewan Department of Railways the whole railway situation in the province is thoroughly canvassed, and the report contains much information, interesting as well as instructive.

The growth of operating railway mileage annually in Saskatchewan compared with the other provinces of the Dominion is shown in the following table in the report:—

Province.	1909. Increase.	1910. Increase.	1911. Increase.	1912. Increase.	1913. Increase.
Saskatchewan	550	301	189	633	897
Ontario	296	1	92	224	454
Quebec	89	132	87	1	103
Manitoba	94	16	245	54	473
Alberta . . . . .	...	167	6	403	315
British Columbia	63	36	10	13	96

The following further statement of mileage of steel laid in Saskatchewan is furnished to indicate the history of railway construction in the province:—

	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
C.P.R.	1,090.1	1,181.4	1,235.85	1,528.84	1,650.39	1,819.14	2,080.18	2,271.38	2,479.34
C.N.R.	461.87	604.28	854.51	1,004.78	1,143.91	1,383.60	1,683.27	1,750.19	2,060.16
G.T.P.R. ..	....	....	154.08	260.67	465.15	531.75	635.75	873.09	1,087.36
Total ...	1,551.97	1,785.68	2,244.44	2,794.29	3,259.45	3,734.49	4,399.20	4,894.66	5,626.86

The following reference is made in the report to the effect of railway development in the province in the past and to the desire of the Government to see progress in the construction of branch lines maintained in the future:—

"The question of railway development in the province, despite the progress already made, remains one of paramount importance. The rapid development of the country impresses a realization of the need of railways. There are many rich and fruitful districts being retarded and vast regions remaining unopened and unproductive awaiting railway facilities. This lack of adequate means of transportation is the problem which has to be faced and which presses for solution. The population agriculturally employed is concerned in securing two things more than anything else, viz.: markets and transportation facilities to bring together the producers and consumers. That this is a matter of vital concern is plainly seen, for without markets and railways the industry of the farmer and the yield of the soil does not render him the best returns, the prices being generally determined by the facility and cost with which the produce can be placed on the market. For want of communication a great portion of the products of interior points possess little commercial value, but to which transportation facilities would give high commercial value. Increased rail transportation is necessary also to unite the different settlements which are now scattered and should be consolidated by providing means for social as well as commercial intercourse. The effect of railway development in the past touching the prosperity and well-being of the people has been perfectly obvious and appreciable, although not capable of being expressed in language or figures, and from this viewpoint it is earnestly to be desired that it will be possible for the era of railway expansion to continue, especially in view of the swelling immigration and development of the province."

A SIMPLE TYPE OF SECTION FOR MOVING A SHOVEL OVERLAND.

A. L. Van Dyke, of Woodstock, N.B., has given a description of a method, which he has used with much success, for moving a 70-ton shovel across country. Mr. Van Dyke states in the "Excavating Engineer" that when a shovel is to be moved for any distance it is most important to build sections instead of using rails, ties, and bridles.

Three 33-ft. sections are sufficient. Sixty-pound rails have been found suitable. These have not been found too light for the service. The rails are spiked to ties, of 3 by 6-in. hard pine, spaced about 8 in. apart. Beneath the rails, 3 by 12 or 16-in. hard pine planks are spiked to the bottom of the ties. To serve as runners, 1 by 3 or 4-in. strips are nailed beneath the planks.

In order to make the sections stiff, blocks should be put under the rails between the ties and spiked fast on top of the planks. The rails should be allowed to stick out from 4 to 6 in. over each end of the section, in order to provide clearance for easy connections. In making connections with the sections, use straps similar to those used with the ordinary 6-ft. sections, but instead of using a bolt and nut, use a spike with a key slot $\frac{3}{4}$ by $\frac{1}{8}$ in.

and a wedge-shaped key. This will prove simpler and more effective than bolts and nuts, as the threads are constantly being knocked off. To both ends of the fourth or fifth ties on each end of the section, fasten a $\frac{1}{2}$ by 3-in. strap bent in a V shape.

Use two teams, one to pull the sections back from the rear of the shovel 6 or 8 ft., and the other to haul them around and in front of the shovel. Eight men with bars are sufficient to throw the section over in line, so connections can be made. Two others should be used to pull out and put in the bolts. In this manner, a mile to a mile and a half may be made in 10 hours without unduly driving the men. With 80-lb. rails, bridles, and ties, the work is very strenuous, and as a rule the men are exhausted by noon, consequently cutting down the progress in the afternoon. A turn can be made easily by using a 6-ft. section between the two long sections. Another advantage of the long section is that a shovel is not as liable to get off the track as is the case with ties and bridles. And even if this does happen it may be pulled on again easily by fastening a chain around one or two of the ties and the other end to the propelling chain. Jacks have rarely to be used.