

RAILROAD EARNINGS.

The following are the railroad earnings for the week ended July 7th:—

	1911.	1912.	Increase or decrease.
C. P. R.	\$2,096,000	\$2,571,000	+ \$475,000
G. T. R.	943,095	1,012,051	+ 68,956
C. N. R.	346,500	391,900	+ 45,400
T. & N. O. R.	28,547	28,272	— 275
Halifax Electric	5,696	5,808	+ 112

The following are the railroad earnings for the week ended July 14:—

	1911.	1912.	Increase or decrease.
C. P. R.	\$2,170,000	\$2,701,000	+ \$531,000
G. T. R.	994,800	1,037,863	+ 433,063
C. N. R.	364,700	436,700	+ 72,000
T. & N. O. R.	28,241	26,699	— 1,542
Halifax Electric	5,270	5,686	+ 416

The Grand Trunk Railway has issued its statement of earnings and expenses for May and for the five months of the fiscal year. Taken altogether, the results are favorable, notwithstanding the fact that the revenue for this has been largely cut into owing to extraordinary outlays for extensions and improvements all over the system.

The roads in the Grand Trunk system report for May and five months as follows:—

Grand Trunk of Canada.

	1912.	1911.	Increase or decrease.
May gross	£691,700	£628,800	+ £62,900
Net	207,000	206,500	+ 500
Five months' gross	691,700	2,831,600	+ 221,500
Net	696,400	724,800	— 28,400

Canada Atlantic.

	1912.	1911.	Increase or decrease.
May gross	£ 41,500	£ 38,100	+ £ 3,400
Net	def 450	4,700	+ 3,250
Five months' gross	172,750	163,600	+ 9,150
Net	3,900	18,900	— 15,000

Grand Trunk Western

	1912.	1911.	Increase or decrease.
May gross	£114,500	£108,550	+ £ 5,950
Net	23,800	def. 150	+ 23,950
Five months' gross	549,600	552,350	— 2,750
Net	61,900	48,950	+ 12,950

Detroit, Grand Haven and Milwaukeee.

	1912.	1911.	Increase or decrease.
May gross	£ 36,500	£ 34,500	+ £ 2,000
Net	800	def. 850	+ 1,650
Five months' gross	170,000	167,950	+ 2,050
Net def.	13,300	7,600	+ 5,700

While the annual statement of the Canadian Northern Railway is not yet prepared for publication, it will be shown that the gross earnings for the year ended June 7, will be approximately \$21,000,000 compared with \$16,360,000 for the previous year, an increase of \$4,600,000.

The general increase in business through the West is reflected in the fact that this increase of 29 per cent. in earnings compares with an increase of only 15 per cent. over last year in the mileage of lines being operated. At present the road is operating 4,297 miles of line against 3,731 miles last year.

Particularly in the movement of grain have traffic conditions been good. Between sixty and seventy million bushels of grain were carried in the year by the Canadian Northern west of Port Arthur, an increase over last year of over fifty per cent.

Two hundred and sixty miles of track have now been completed west of Cochrane, Ont., on the National Transcontinental Railway, according to latest reports, and an average of a mile a day is being laid. Rails have been laid from Superior Junction to Winnipeg, leaving a distance of 184 miles yet to be covered with steel between the former point and the present rail-head west of Cochrane. Those in charge of the work expect to have the entire line between Cochrane and Winnipeg finished by the end of September.

EXPERT WOODSMAN REPORTS ON FOREST CONDITIONS.

The timber of the Hudson Bay region (the southern part of the old district of Keewatin) is a topic that has lately become of considerable interest. Interesting observations with regard to it are found in the 1911 report of the Director of Forestry, published as part of the annual report of the Department of the Interior for 1911. These are in continuation of the report on the timber along the proposed line of the Hudson Bay Railway, published as Bulletin No. 17 of the Forestry Branch.

Mr. J. T. Blackford, an experienced woodsman, acquainted with the conditions in the north, reports on the conditions of the forest around Oxford House, his explorations covering some 5,400 square miles of country. Of this only about 1,600 square miles bears merchantable timber; on the remaining 3,800 miles the timber has been burned. There is abundant evidence that the whole country was originally forested with spruce, tamarack, jack pine, balsam fir, birch and poplar, and on islands which have by their position been protected from fire are dense stands of trees two to three feet in diameter.

The areas, after the first burning, have usually been covered with dense growth of trees, but the debris left after the first almost invites a second fire. In many places fire has swept the country many times, impoverishing the soil, destroying all seed-trees, and with them all hope of a second forest. "During the summer," the report states, "Mr. Blackford found no commercial timber of any quantity, but he states that, except for fire, the country would be covered with timber two or three feet in diameter."

THE HOLDING POWER OF SPIKES.

Tests of the holding power of spikes in railroad ties and of the resistance of the wood fibre to indentation by tie-plates have been made during the past year at the Armour Institute by the Board of Supervising Engineers of the Chicago Traction lines. The results are presented in a recent report. The principal object of the spike tests was to determine the comparative holding power of the standard track spike and the screw spike. It was found that though the holding power of the screw spike is approximately three times that of the square spike, the relative holding powers in different timbers is such as to make the screw spike in treated pine fully equivalent to the standard spike in white oak. The tests of indentation of the tie plates showed that the ratio of resistance of a flat-bottom plate to that of a corrugated-bottom plate is much greater than the ratio of the bearing areas. The indentation of the corrugated plate is considerably greater for the same load per unit of surface contact. The tests also showed that chloride-of-zinc treatment of loblolly and short-leaf yellow pine increases the fibre strength to an extent making them compare favorably with the long-leaf yellow pine in resisting the indentation of tie plates.