

## Railway Statistics for 1912-13.

Following is an abstract of the railway statistics for the year ended June 30, 1913, as prepared by J. L. Payne, Comptroller of Railway and Canal Statistics:—

Operative mileage increased during the year by 2,576 miles, bringing the total up to 29,304. This was the largest increase in the history of Canadian railways. The growth of mileage by ten year periods is shown in the following table:—

1863.....2,189	1893.....15,005
1873.....3,832	1903.....18,988
1883.....9,577	1913.....29,304

The mileage in operation in 1913, with the increase for the year, was distributed by Provinces as follows:—

	Miles.	Increase.
Nova Scotia .....	1,360	2
Prince Edward Island .....	279	10
New Brunswick .....	1,545	...
Quebec .....	3,986	103
Ontario .....	9,000	454
Manitoba .....	3,993	473
Saskatchewan .....	4,651	897
Alberta .....	2,212	316
British Columbia .....	1,951	96
Yukon .....	102	...
In United States .....	225	225
Total .....	29,304	2,576

There was during the year an addition of 232 miles to double track, bringing the total up to 1,984, and 786 miles to yard track and sidings. The aggregate of all tracks was 38,223 miles—an increase over 1912 of 3,594.

It was definitely ascertained that 18,647 miles of new line were under construction on June 30, 1913. On June 30, 1912, there were 8,826 miles in process of being built; so that the increase in 1913 over 1912 was 9,821. This construction work was distributed as follows:—

Alberta .....	4,733
Saskatchewan .....	4,007
Manitoba .....	872
British Columbia .....	3,884
Ontario .....	2,977
Quebec .....	1,518
New Brunswick .....	544
Nova Scotia .....	112
Total .....	18,647

The various stages of construction were: Surveyed, 6,560 miles; under contract, 8,651 miles; completed, 2,956 miles, and in operation, although not officially accepted, 542 miles.

During the year a careful and judicial revision was made of the capital statement. Duplication and extinguished liability had been carried along for many years. The revision led to the elimination of \$157,000,000 of stocks and bonds, and left the total in force on June 30, at \$1,548,256,796. This was divided as follows:—Stocks, \$759,645,016; consolidated debenture stock, \$163,257,224; bonds, \$625,354,356. Since the process of deletion cut out more liability than was added during the year, there appears a small reduction in the total for 1913 as compared with 1912.

The cost of Government owned and operated railways, representing 2,131 miles of line, reached a total of \$126,930,887 in 1913. This is not included in capitalization.

Dividends on stocks amounted in 1913 to \$33,670,651. In 1908 the volume of dividends was \$12,955,243; so that the increase within that period was equal to 160%.

The amount of cash subsidies paid during the year was \$9,758,085, distributed as follows:—By the Dominion, \$9,176,234; by the provinces, \$554,500; by municipalities, \$27,350. The additions brought the total account on June 30 up to the following:—By the Dominion, \$163,251,469; by the provinces, \$36,500,015; by municipalities, \$18,078,324. Guarantees by Governments of principal and interest of bonds increased by \$29,890,229 during the year. The guaran-

tee account on June 30 stood as follows:—

Dominion .....	\$ 95,486,590
Manitoba .....	24,059,447
Alberta .....	45,489,000
Saskatchewan .....	33,735,000
Ontario .....	7,860,000
Nova Scotia .....	5,022,000
British Columbia .....	59,262,072
New Brunswick .....	3,654,265
Quebec .....	372,000

Total .....

In addition, and representing a form of aid heretofore unknown in railway statistics, the Dominion Government purchased in 1913 bonds of the Grand Trunk Pacific to the amount of \$8,214,934.

The statement of land grants to railways stood on June 30, as follows:—By the Dominion, 31,864,074 acres; by the provinces, 18,692,974 acres.

Passengers carried, 46,230,765; tons of freight carried, 106,992,710. There was an increase over 1912 of 5,106,584 in the number of passengers carried, and of 17,548,379 in the number of tons of freight hauled. These were the largest increments for any year on record. The growth of passenger and freight traffic, by five year periods, is shown in the following table:—

	Passengers.	Freight. Tons.
1878 .....	6,443,924	7,883,472
1883 .....	9,579,984	13,266,255
1888 .....	14,416,791	17,172,759
1893 .....	13,618,027	22,003,599
1898 .....	18,444,049	28,785,903
1903 .....	22,148,742	47,373,417
1908 .....	34,044,992	63,071,167
1913 .....	46,230,765	106,992,710

The average number of passengers per train was 62, and the average passenger journey was 71 miles. The average number of loaded cars per freight train was 18. The average train load was 342 tons, and the average carload was 19.01 tons. There has for seven years past been a steady improvement in both carload and trainload. The average freight haul was 216 miles, which is the longest in the world.

Gross earnings for 1913 aggregated \$256,702,703, compared with \$219,403,753 in 1912. The increase of \$37,298,951 was considerably the largest of any year. In addition, \$24,588,410 was earned by Canadian railways in 1913 from outside operations, making a final total of \$281,291,113. These outside operations, however, do not constitute any part of the account except as regards net corporate income in the striking of a balance for the year. The rise of gross earnings is as follows: 1883, \$33,244,586; 1893, \$52,042,396; 1903, \$96,064,526; 1913, \$256,702,703. The increase in 1913 over 1912 was equal to 17%, and the increase for the last ten year period was 167%.

Gross earnings per mile of line for the past 30 years have been as follows: 1883, \$3,471; 1893, \$3,468; 1903, \$5,059; 1913, \$8,751.

The sources of gross earnings in 1912 and 1913 were:—

	1912.	1913.
Passenger service .....	\$ 65,048,187	\$ 74,431,994
Freight service .....	149,961,140	177,089,373
Station and train privileges .....	1,086,687	1,566,721
Telegraphs, rents, etc. ....	3,307,739	3,614,615
Total .....	\$219,403,753	\$256,702,703

Passenger earnings were equal to 1.976c. per passenger per mile, and freight earnings equal to .758c. per ton mile. Operating expenses in 1913 were \$182,011,690, against \$150,726,540 in 1912. While earnings increased 17% over 1912, operating expenses increased 20.7%. The distribution of operating expenses in 1912 and 1913 was as follows:—

	1912.	1913.
Way and structure .....	\$31,514,098	\$35,933,323
Equipment .....	29,811,510	37,289,718
Traffic expenses .....	5,293,700	6,143,201

Transportation .....	78,969,544	96,688,264
General expenses .....	5,137,688	5,957,184

Total .....

The steady increase of operating expenses per mile of line for the past thirty years is shown as follows: 1883, \$2,578; 1893, \$2,440; 1903, \$3,554; 1913, \$6,204.

The difference between gross income and operating expenses in 1913 was \$74,691,013, which is popularly regarded as net earnings. After making proper deductions, however, the actual net corporate income for the year was \$57,523,127, which included profits of \$6,698,787 from outside operations.

Following was the situation with respect to equipment on June 30, 1913:—

	Number.	Increase.
Locomotives .....	5,119	635
Cars in passenger service ....	5,696	750
Cars in freight service .....	182,221	41,303
Cars in company's service ...	15,526	5,060

Not only were these substantial additions made to rolling stock, but for the most part the increase consisted of larger and heavier

### Accidents.

The movement of trains in 1913 resulted in the killing of 710 persons and the injury of 2,966. In addition, 32 persons were killed and 1,606 injured from other causes than the movement of trains. Of the killed from all causes, 41 were passengers, 324 were employees, and 418 were classified as "others." Of the injured, 667 were passengers, 3,407 were employees, and 498 were "others." One passenger in every 1,216,559 was killed, and one in every 71,124 was injured. This was a comparatively low record in respect of fatal accidents; but the proportion of injured passengers was high.

The number of employees increased by 22,751 in 1913, bringing the total up to 178,652. Salaries and wages amounted to \$115,749,825, as compared with \$87,299,639 in 1912.

The C.P.R. Staff Record Office at the general offices, Montreal, which is in charge of A. Rondeau, has a staff of 16 men. There are over 80,000 personal records of officials and employees, giving date of birth, particulars of service, etc., which are kept on cards, contained in some 350 boxes. The pension records are kept in the same office.

Canadian Transfer Co.—Following are the directors for the current year, who were re-elected at the recent annual meeting at Montreal:—C. Cassils, Hugh Paton, G. R. Starke, Sir H. Montagu Allan, and F. W. Molson. F. M. McRobie is General Manager and Secretary.

The Toronto, Hamilton and Buffalo Ryput in operation the electric automatic block signal system between Hamilton and Welland, Ont., recently. A similar system will probably be installed between Hamilton and Brantford, Ont., during the current year.

J. E. Beatty, Division Engineer, Construction Department, C.P.R., Montreal, writes Canadian Railway and Marine World: "I attach hereto money order to cover my subscription to your satisfactory publication."

Lachine Bridge.—P. B. Motley, Engineer of Bridges, C.P.R., read a paper on the St. Lawrence Bridge at Lachine, Que., before the Canadian Society of Civil Engineers in Montreal, Feb. 5.

The Minister of Public Works stated in the House of Commons recently, in connection with the Dominion Government telegraph line between Athabasca Landing and McMurray, that the line is completed to Duncans Creek, 57 miles, beyond which point the right of way has been cleared for a further 42 miles to 20 miles south of Pelican Rapids. Construction was commenced June 5, 1912, and \$27,004.43 has been spent. No officers have yet been established along the line.