

tion of another mile was begun. It will involve a very large expenditure to carry this mileage to a finish and to equip it for the movement of traffic. It will also mean the employment of an army of men not now identified with transportation.

The labor aspect of railway operations in Canada is not generally recognized. It may not be amiss, therefore, to present a few facts in that regard. In 1913 there were 609 employees per 100 miles of line, as compared with 551 in 1907. This magnitude will increase with the growth of traffic. The total number last year was 178,652; and that figure represents an average increase of nearly 10,000 per annum during the past six years. The wages bill in 1913 reached the large total of \$115,749,825, and made up 63.59 per cent. of operating expenses. In fact, if the matter be carefully examined, it will be found that, directly and indirectly, transportation interests provide a living for about 20 per cent. of the entire population of the Dominion. On the other hand, the cost of transportation, viewed as a tax, rises above all other public imposts, both in magnitude and distribution. Speaking broadly, nobody can escape the levy for carriage, or its incidence; whereas customs, municipal and other forms of taxation may in large measure be avoided by a considerable number in every community.

The ancient controversy as to the priority of the hen or the egg has its counterpart in the question as to whether transportation facilities create trade or trade creates transportation facilities. Without expressing any opinion on the subject, I have long been watching the co-ordination of these forces; for they do co-ordinate. Traffic and trade must move together. They are dependent on each other. Trade cannot grow without marketing facilities; and, just as the ship preceded settlement, so the railway must provide the channel for a nation's commerce, otherwise, there will not be any considerable volume of commerce. Leaving the matter at that point, it will be helpful to see by ten-year periods how Canada's railway mileage has grown. Here are the facts:—

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

Traffic has moved upward with available mileage. Could old and new mileage be separated, it would undoubtedly be found that the former carries the larger proportion of traffic. New mileage, as has been said, must to a large extent develop its business; and this is often a slow process. The following little table shows the total tonnage hauled and the volume per mile of line since 1883:—

	Tonnage.	Per mile of line.
1883 . . . . .	13,266,255	1,384
1893 . . . . .	22,003,599	1,466
1903 . . . . .	47,373,417	2,495
1913 . . . . .	106,992,710	3,651

It will be observed that the productivity of old mileage has more than offset the dilution brought about by new mileage; and the table as a whole may be taken as showing in a most striking way the expansion of the Dominion during the past thirty years. That expansion is exemplified in the fact that while there was the largest addition to mileage between 1903 and 1913 there occurred during that same decade the largest increase of freight traffic. Passenger business does not show the same ratio of development, as the following table makes plain:—

	Passengers.	Per mile of line.
1883 . . . . .	9,579,984	1,000
1893 . . . . .	13,618,027	907
1903 . . . . .	22,148,742	1,166
1913 . . . . .	46,230,765	1,577

There has been little change during recent years in the proportionate relationship of commodities to the total volume of traffic. For example, products of agriculture made up 16.85 per cent. in 1907, and stood at 16.31 per cent. in 1913. Products of mines and manufactures have shown the principal growth. The former grew from 18,460,172 tons in 1907 to 40,230,542 tons in 1913, while the latter expanded from 7,974,641 tons to 19,694,240 tons during the same period. Nevertheless, the percentage of each class to the whole was not materially altered, except in those two cases. This would seem to show that production has followed along constant lines, and that growth, as represented in traffic, has been fairly uniform among the seven classes.

In no other respect does the widening of Canadian railway interests show up so impressively as in earning power. Going no farther back than 1888, and giving the facts at five-year intervals, the following table tells a strong story:—

1888 . . . . .	\$42,159,152	1903 . . . . .	\$ 96,064,526
1893 . . . . .	52,042,396	1908 . . . . .	146,918,314
1898 . . . . .	59,715,105	1913 . . . . .	256,702,703

It will be seen that as between 1888 and 1898 there was an increase of 41.6 per cent., whereas between 1903 and 1913 the betterment amounted to 167.2. This highly satisfactory result was achieved without any increase whatever in ratio. Net earnings showed up equally well. As between gross receipts and operating expenses—the popular method of measuring net earnings, but not the sound way—there was an advance from \$11,507,106 in 1888 to \$74,691,013 in 1913. Thus, while gross earnings grew by 509 per cent. during the whole period of 25 years, net earnings grew by 548 per cent. During at least 18 years of that period, there was on one hand a slight reduction of freight rates; while on the other there was a steady and pronounced advance in operating cost as represented chiefly in wages, prices for materials, and so on. Our railways have, therefore, raised net earnings very largely by better methods of operation.

At this point it would seem to be opportune to pause and ask: What, probably, will be the effect of the war now under way on the railways of Canada? No one knows; no one can do more than conjecture. The situation is as novel as it is staggering. It is a distressing topic, since war in all its aspects means waste. War is destructive and not constructive. To just the extent that Canadian commerce is hindered and production restricted there will inevitably be a reduction in the volume of traffic. Traffic is the life blood of railways. As it declines earnings fall off, and as earnings fall off the railways must cut down operating cost. The immediate effect of such economies will be a diminution of the pay roll, and we have already seen that salaries and wages make up 60 per cent. of operating expenses. The injury does not, however, end there. For every five persons who obtain a livelihood directly from the operation of railways at least one other person is dependent on that source indirectly. It therefore calls for no particular prescience to foretell a hard and trying year before the railways of Canada and all associated interests.

How far will the war bring about an enforced halt in construction work? The importance and far-reaching