

GENERAL REMARKS.

The general advance and expansion which has been noted is evidently due to the prosperity of the country, resulting in the very great increase in goods and passenger traffic.

Progress.—This necessarily requires more engine-power, which has been supplied by introduction of types of locomotives of increased weight and power. This has demanded the strengthening of tracks and bridge structures. Simultaneously with increased weight of engines has been the introduction of heavier cars and wagons, the latter to carry augmented loads. More powerful engines haul longer trains, requiring greater length of sidings, particularly crossing-loops, greater traffic demanded general increase of siding accommodation, greater coal-storage, more water-supply, and augmentation of accommodation and appliances of all kinds. With increased number of trains it was necessary to provide for greater security, which has been done in the extension of signals, interlocking of points and signals, and introduction of the tablet system. This again multiplied the number of officered stations, and required more dwellinghouses for the officers.

It is hoped and expected that the prosperity of the country will continue to increase, and that the traffic on the railways will grow in like manner.

This leads me to suggest the consideration of a matter which I regard as of great importance. It is possible and probable that the traffic may continue to increase indefinitely; but the method of providing for such increase by building still heavier engines and drawing still longer trains cannot possibly be continued indefinitely with safety.

When the New Zealand Government undertook the construction of railways on a general and extensive basis the gauge of 3 ft. 6 in. was determined upon. With that gauge there was also determined certain limits of dimensions of heights and widths of rolling loads, the lengths of locomotives and cars, suitable to a 3 ft. 6 in. gauge. Based on such limitations of rolling loads, the corresponding dimensions of structures was also determined, providing a safe margin of clearance between fixed structures and rolling-stock. On this basis railways were built, and there exist numbers of tunnels, curved tunnels, overbridges, doorways, and multitudinous other structures built to standard clearances. Similarly, bridge structures have been built, to the value of millions, to suit engine-loads of given weight. The increase from time to time of width and length of engines, cars, and wagons has already trenched on the margin of clearance, and many vehicles exist on the rails that cannot travel throughout the lines. If the increase of weight of locomotives is still further increased the structures already brought up to a certain standard will be invalidated, which means an enormous schedule of reconstruction. But this is not all. I consider the train-lengths of common practice now cannot be increased without trenching on limits of security, and it should not be contemplated to provide for augmented traffic on the present gauge of railways by further increase in size, weight, and power of engines, but the necessary provision should be by means of more engines within present limits, and running more trains of a limited length, and when this is insufficient to meet requirements by extending duplication of lines.

During the greater period of my term of office I was very frequently subjected to pressure from the Government to economize, retrench, and postpone expenditure in every way possible; and it was a continual effort to keep up the lines in a condition of safety and yet keep down the expenditure to the lowest possible limit. I am glad my successors have experienced more prosperous times.

Good judgment has been shown in devoting the more ample means available to the strengthening and improvement of the railways, so providing for increasing traffic and the wear-and-tear inevitable with increasing age, and so securing lasting value in return for the outlay.

The wisdom of expenditure upon costly buildings is less obvious, but appears to keep pace with the general advance in that direction observable in new buildings, both private and public, throughout the Dominion.

In conclusion, I desire to thank the Hon. the Minister of Railways for giving me the opportunity of seeing the development of the New Zealand railways on which I spent many years, and revisiting so many scenes of interest. I trust the prosperity of which there is so much evidence may continue.

It has been a very great pleasure to me to meet again a great many of my old friends still in the service, a pleasure only tempered with regret occasioned by many other vacant places.

J. HENRY LOWE.

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