

 One four-cylinder balanced compound engine, Class A, was built in the Addington Workshops, and one Class E Mallet articulated compound tank-engine at Petone, during the year. The former is for use in working passenger and goods trains on the Hurunui-Bluff Section, and the latter for use on the Rimutaka Incline. Both engines have been undergoing severe practical trials, and have fully demonstrated their entire suitability for the requirements of our railways. The A compound has been tested on the heavy grades of the Dunedin Section against the Baldwin Class Q, the most powerful type of locomotive previously in use on New Zealand railways. Under favourable circumstances and on a dry rail the two engines (A and Q) hauled an equal load, but under adverse conditions and on a wet rail the A easily outclassed the Q, for whereas the load taken by the Q on the wet rail was only about 66 per cent. of that hauled on a dry rail, the A was found to be unaffected by the condition of the rail, and was able to haul the same load as on a dry rail. The A further proved to be most economical in respect to both fuel and water, two very important items in everyday working. The trials have shown that a single A engine will be able to take on the express between Dunedin-Oamaru, a load that would frequently require the use of two Class Q engines.

The E class was tried between Upper Hutt and Summit, and readily hauled a load of forty-five vehicles. Two W.F. powerful double-ender tank engines would be required to haul a similar load between the same points. The E is now working on the Rimutaka Incline, up which it has hauled a load of 100 tons, which is 35 per cent. greater load than can be taken by a Fell engine.

I allude thus fully to this subject in order to remove any wrong impression that may have been created by the criticisms of the engines by irresponsible writers to the public Press.

The last three of the locomotives due under the contract of Messrs. A. and G. Price, Thames, were delivered during the year well within contract time. These engines as well as the seven previously built and delivered by the same firm have been in every respect satisfactory.

The system of numbering seats in carriages referred to in my last year's Statement has been introduced on the mail and express trains on the Hurunui-Bluff Section. It has not yet been availed of to any extent. I am, however, of opinion that as passengers become acquainted with the system and recognise its advantages it will come greatly into use.

On the 24th June a heavy flood occurred in the Waimakariri River, which overflowed its banks and saturated the railway-embankment at Chaney's, which gave way as a train was passing over it, causing a bad derailment, and, I regret to say, the death of two passengers, and injury to nine others.

As intimated in my last year's Statement, the question of using motor-cars on our lines has been receiving considerable attention, and, as a result of observations made and information obtained by the General Manager of Railways during his visit to America and Europe last year, it has been decided that the most suitable method of working such a service is by a small locomotive with a combination car and van attached. This system has been adopted on several of the principal railways in England, and is found to possess many advantages over the self-propelling motor-car, and is being adopted by lines which at the outset had favoured and even gone to the expense of running self-propelling motor-cars. In order to give the system a trial a car 60 ft. in length, having accommodation for twenty-four first-class and forty-eight second-class passengers, in addition to a compartment for guard, parcels, and luggage, has been built at Petone Workshops. Should the service prove successful it will be extended from time to time as circumstances warrant.

In view of the complaints that are made regarding shortage of rolling-stock, and the statements that the lines are not so well equipped in this respect as they were in 1890, I have had the matter looked into, and append a statement showing the position in 1890 and to-day, from which it will be seen that a very material improvement has taken place.