

Arrived at Liverpool on the 10th June. The luggage arrangements were very good, and a large quantity was disposed of with much celerity and no confusion. A special train conveyed the majority of the passengers to London. I was unfortunate in reaching England during Whitsuntide, as many railway people and the principals of business firms were holiday-making.

What strikes a visitor to England after having passed through Canada and America is the comparative smallness of the locomotives and rolling-stock generally; tunnels, platforms, and other clearance limitations prohibiting the use of larger stock.

During my stay in London I visited the St. Pancras, Paddington, Waterloo, and the Broad Street Great Eastern stations. The latter deals with 90,000 passengers in and 90,000 passengers out daily, and I observed the methods used. I also had several trips on the Metropolitan and "twopenny tube."

A noticeable feature at all large English stations is the large number of porters employed. As a class I found them ever courteous and anxious to assist passengers, but not so smart in appearance as the New Zealand porters. Tipping is universal on English railways.

I paid several visits to the High Commissioner's Office, and saw the High Commissioner and the Consulting Engineer, and discussed many important matters with them, dealing chiefly with the supply of rails and materials generally.

I also saw the Pintsch gas people, and discussed the question of mantles for use in car-lighting with them. The firm claims to have succeeded in producing suitable lamps for the use of mantles, and I arranged for the supply to New Zealand of a few trial lamps. By the use of mantles it is claimed that a saving of 25 per cent. of gas is effected, while a 50 per cent. better light is produced.

An exhibition of railway appliances was opened while I was in London, and I spent some time there. The exhibits were not very numerous, and I saw nothing special beyond a Peebles railway motor-car, of which I obtained full particulars.

By appointment with the Westinghouse Brake Company, I saw their General Manager, and discussed brake business with him.

At the invitation of Mr. Mathieson, late Commissioner of Railways, Victoria, Australia, and now General Manager of the Midland Railway Company, I went over Midland Railways (London) goods department, after which I spent some time with that gentleman, who was anxious to assist me in any way, and gave me some information *re* his working of the Midland.

I met Mr. Drummond, the Locomotive Superintendent of the London South Western Railway, on several occasions, and obtained information *re* railway motor-cars. I also went over the workshops at Nine Elms; they are about to be closed, and modern up-to-date shops opened.

I made a special visit to Plymouth for the purpose of seeing the railway motor-cars of the Great Western Railway Company at work. The company gave me every facility, and told off the Superintendent of the motor-car service to show me the cars in work. I made numerous trips on the cars, and obtained full particulars of their designs. The service I saw working consisted of one motor-car and a trailer, the two cars being capable of carrying from 160 to 200 passengers on emergency. Three men—an engineman, fireman, and guard—were employed, and the engines of the motor were nearly as powerful as the New Zealand Class R. The motor was not turned, but pushed and hauled, according to the direction of travel. A fairly high speed, up to thirty miles an hour, was obtained. The engineman drives from the motor end when the motor hauls; when it pushes he drives from the leading end of the motor-car, if no trailer on; when a trailer is on he drives from leading end of trailer. The fireman attends to the boiler only. The guard deals with tickets in much the same manner as is done in New Zealand. The fares are low, and the service is running in competition with a tramway. Stopping-places, called "halts," are necessarily very numerous. There is only one class in the motors on the Great Western; on some of the other railways two classes are provided. Smoking is not allowed when one car only is running, but when a trailer is also on, one of the cars is sometimes set apart as a smoker. The accommodation for luggage is limited; small parcels only are taken. The Great Western Company are well satisfied with the result of their experiment, and a large number of motor-cars are at work—fifty-three when I was in England—and orders had been issued to bring the number up to a hundred.

The Great Western are running a large number of petrol- and steam-motor omnibuses in various parts of the country as feeders to their railways, and these have been instrumental in developing a considerable amount of new business. Other companies are following suit. The Great Northern Company are experimenting with petrol-engines, but I heard an indifferent account of them, and steam seems to be the favourite power.

When in Ireland I saw the General Manager of the Great Northern Railway Company, and learned from him that his company had one car at work, and he was disposed to put some more on as being well suited for light branch traffic. He considered, however, that the motor should be sufficiently powerful to haul a few wagons of live-stock when required.

In Wales I saw two handsome cars which had failed to meet the public approval. They were put on to take the place of certain trains hauled by the ordinary locomotive. Owing to their engine-power being deficient, they could not run at the same speed as the trains they were designed to replace, and as a consequence had to be withdrawn.

In New Zealand there is an opening for the "railway-motor service," so called, but I would not suggest or recommend building the motor or engines as part of the cars, but in lieu thereof would use small engines of the D, F, and L classes. Several of the English companies are now adopting this method, thus finding work for their small obsolete engines. The first car, I recommend, should be tried on the Auckland suburban service, and designs are now being prepared. It should, however, be clearly understood at the outset that first (smoking), second (smoking), first (non-smoking), and second (non-smoking) accommodation cannot be given; and the design will provide for one class only, second class for preference, with smoking and non-smoking accommodation in the proportion of about one-third smoking