

traffic which cannot be accommodated on express trains. Close and constant touch will be kept on country and town requirements, and I have expressed a wish that every effort be made to study the convenience and requirements of the Department's clients.

RAIL-MOTORS.

Experiments with self-propelled rail-cars have been continued during the year, and although a certain measure of success has been attained a thoroughly satisfactory vehicle has not yet been produced.

A project to develop a suitable vehicle by fitting a motor-car engine into an ordinary railway carriage has been abandoned.

The Sentinel steam-car has been tried during the year on the Wellington-Melling line. Its construction does not admit of a speed in keeping with the requirements of suburban traffic, and its usefulness is in consequence limited. Arrangements are being made to place the car on the Frankton-Thames section at an early date.

The Clayton steam-car has been under observation, and after various modifications it shows some prospect of developing into a fairly satisfactory service vehicle. On a recent trial run, after the fitting of a larger boiler, this car gave promising results. Further extended tests have since been made, and the car still gives satisfaction. It is proposed to try this car in regular service on the Kurow Branch, and arrangements are being made accordingly.

Experiments are also in progress with four-wheeled road-vehicles converted to run on rails. These cars seat eleven passengers, and have been sent for trial on selected branch lines in the South Island where the passenger traffic is light. Their working-expenses are low, as they can be operated by one man, and their fuel cost is small compared with that of a steam-engine or any other power unit required to deal with the same number of passengers.

The Edison electric storage-battery carriage has been prepared for trial between Christchurch and Lyttelton. The necessity for recharging the batteries at regular intervals limits the scope of a car of this type. The question of extending the limits of the car by the provision of an extra set of batteries is being gone into. The vehicle should provide comfortable riding and, being smokeless, should prove popular on the tunnel journey.

ORGANIZATION.

During the year I have been giving considerable thought and attention to the question of the organization of the Department, particularly in relation to the system of divisional control which was outlined in my Statement of last year. During the course of the year we have had some experience of this form of control, with results that have confirmed the conclusion then arrived at—namely, that this was an improvement on the organization under which the Department had been previously worked.

Much railway literature has been written in recent times on the question of divisional *versus* departmental control, and the subject has been one of keen discussion among railway authorities. Generally speaking, it may be said that divisional control was most favoured, and was earliest developed in America, while departmental control has had the longest survival in Great Britain.

Viewing the question in the light of our experience and of these discussions, I feel forced to the conclusion that we must pay very careful regard to local conditions before deciding that any particular system that might be in operation elsewhere should be applied *in toto* to our system. Undoubtedly any decision on this question must be affected by factors that may vary considerably in different systems, such as the size of the system, the extent of territory covered, geographical features, &c. For instance, the division of our system into two main portions separated by sea at once suggests that divisional control founded on that separation might be advantageous. At the same time the fact that the most distant controlling officers in our system can be reached from Headquarters practically within twenty-four hours suggests that the organization does not require to meet that degree of what might be called "isolation" that exists on such far-flung systems