*Increased Expenditure.*

During the last ten years the exigencies of traffic-working and the increased wages have entailed the provision of more up-to-date signalling-appliances. This is reflected in the maintenance expenditure. The annual maintenance expenditure in 1914 was £22,493, as against 70,912 in 1924, showing the average cost per mile open for traffic as £7·85 in 1914 and £22·96 in 1924.

The programme for the next five years allows for a total expenditure of £710,000, made up as follows:—

| | £ |
|---|---|
| Signal Section— | |
| Automatic signals .. .. .. .. | 400,000 |
| Signal interlocking generally .. .. .. | 100,000 |
| Telegraph and telephone .. .. .. | 65,000 |
| Electrical Section— | |
| Lighting of stations and houses .. .. | 75,000 |
| Electrification of locomotive workshops .. .. | 70,000 |

*Stores.*

The Signal and Electrical Department does not manufacture articles for use in signal and electrical installations as a general practice, but make certain small items. The major portion of the requirements come from overseas, and this necessitates a large amount of stores on hand, mostly small electrical material, over which an adequate check must be maintained.

We are satisfied that due regard has been paid to the importance of keeping the stores in an orderly manner. The card system adopted enables those responsible to regulate the supply, and at the same time to keep a close check on the material on hand. This is in marked contrast to the practice in the Stores Branch, upon which we comment in Section IV (*d*) of our report.

## IV. MANAGEMENT—*continued.*

### (*c.*) Mechanical.

The Locomotive Department is under the control of the Chief Mechanical Engineer, who is responsible to the General Manager for maintaining in working-order the rolling-stock of the railway. He also inspects and maintains all steam boilers (stationary and portable). In the case of the boilers of the lake steamers, which are under the control of the Government Marine Department, these are maintained by the Locomotive Branch to the satisfaction of an officer of the Marine Department. In addition, he inspects some fifty boilers which are worked under the control of the Public Works Department.

The Locomotive Department inspects and maintains all steam-cranes, power-drivers, and steam shovels used in connection with the railway, all pneumatic coaling-cranes, both portable and stationary, and all portable cranes (hand or power) that run on the line on their own wheels.

This department also operates and maintains hydraulic power-house and hydraulic cranes, and maintains hydraulic capstans used for the transfer of goods between rail and ship at Greymouth; and also operates and maintains steam-cranes used for a similar purpose at Westport and Whangarei. In cases where cranes are operated by other branches of the Service the men operating them are first required to pass an examination conducted by the Locomotive Department. The power plant at Otira supplying power for the electrified section between Otira and Arthur's Pass is operated and maintained by the Locomotive Department, and such repairs and maintenance work to engines, boilers, and equipment of the three lake steamers at Queenstown as can be dealt with by the Locomotive Department are carried out as directed by the Inspector of Machinery and Surveyor of Ships.

In the workshops at Addington are manufactured the cast-iron turntables and points and crossings required by the Railway Department and by the Public Works Department.

*Organization.*

The organization of the Chief Mechanical Engineer's Department is shown on the accompanying chart. It will be seen that the railway system is divided into four districts, each district being under the control of a Divisional Locomotive Engineer, two being stationed in each Island. The accompanying maps show the extent of the districts supervised by these officers, and also indicate the various locomotive-depots. The Head Office of the Department is situated at Wellington.