xxxiii D.—2.

## REFRESHMENT BRANCH.

During the year the refreshment-rooms at Masterton and Whangarei, which had previously been controlled by lessees, were taken over by the Refreshment Branch of the Department, making the total number of refreshment-rooms (including the Lake Wakatipu steamers) controlled by the branch at the close of the year, twenty-one.

Although the epidemic of infantile paralysis seriously affected the traffic during the last four months of the year, the volume of business done by the Refreshment Branch showed a substantial increase over previous years. The gross earnings for the year amounted to £104,797, as compared with the previous year's earnings £96,342. The staff of the branch at the close of the year numbered

274, as compared with 240 for the previous year.

The operations of the branch in connection with the purchasing of foodstuffs and groceries for other Government Departments under the Stores Control Board were further increased. During the year 2,135 requisitions were rendered by other Government Departments, involving the making of 500 contracts and the issue of 200 authorities to purchase (in cases where contracts were considered unnecessary). The purchasing done by the Refreshment Branch on behalf of other Government Departments is estimated to amount to not less than £150,000. The catering at Rotorua upon the visit there of the officers and men of His Majesty's ships "Hood" and "Repulse" was undertaken by the branch with very satisfactory results.

The same high standard of service has been maintained during the year, and it is proposed during

The same high standard of service has been maintained during the year, and it is proposed during the ensuing year to continue the policy as opportunity offers of taking over refreshment-rooms that are now leased. Among those that will be so dealt with during the year are the refreshment-rooms

at Patea, Clinton, Gore, and Putaruru.

## WORKSHOPS REORGANIZATION.

The report of the Royal Commission emphasized the conditions of obsolescence that obtain in our workshops with regard to buildings, machinery, and shop methods. This was shown also with regard to workshops in greater detail in the reports of the Production Engineer, and a definite programme of reconstruction and modernizing, which will take approximately three years to complete, has been decided upon along the lines recommended.

At the inception of the railways in New Zealand the system was built up by the construction of isolated sections which were gradually linked up as the years went by. Of necessity workshops were built to serve the needs of each separate section of line, and at the present time there are in

consequence some nine workshops in existence.

It was recommended that concentrated shops in each Island be established. This objective will be obtained practically in the plans of reconstruction, by concentrating all the locomotive work in one workshop, and all the car and wagon stock work in another workshop, in each Island. Since, in the existing workshops, the locomotive-work organization is separate from the car and wagon work organization, the economics of having one concentrated workshop wherein quantity production and more specialized methods may be adopted will be obvious.

With regard to workshops machinery, a complete survey has been made of all the machines in the various shops, for the purpose of replacing those obsolete and worn out, with the type required in accordance with modern shop practice. A considerable amount of the new machinery required is of a different character from that which will be superseded, and it is intended to utilize such machinery that still has useful life to equip Car and Wagon Inspectors' and running-shed depots for emergent

and running repairs.

The survey showed that 60 per cent. of the workshops machinery was over twenty-five years old. This is five years longer than the usual accepted useful life of this class of machinery, as allowed for the world over, in computation of depreciation and renewals expenses. Specifications and plans covering the machinery required are in course of preparation.

Electrification of workshops machinery drives and revision of shops-lighting along modern lines is being proceeded with. Petone erecting-shop and machine-shop have the modern lighting system

installed, with very beneficial results.

In connection with workshops methods, production departments have been established at the main workshops to plan and schedule the detail operations in the different shops to the end that locomotives, cars, and wagons are out of service a minimum period of time. The system co-ordinates the work of all departments concerned in each individual repair or new car or locomotive, and arranges the continuity of operations so that delays are prevented, causes for delays definitely known, and constructive progress is maintained. While the installation of this system is still in process of development, there is much evidence of its results; already at Petone, where the best figures on the railway were previously obtained, the average time under repair per engine overhaul has now been reduced 25 per cent., and this is with the old shops and equipment. With regard to costs, there is evidence that a reduction is being obtained. It is thus obvious that with modern machinery and shops there will be great saving in expenses over previous costs. Allied with this work is the installation of a detailed cost system, from which it will be possible to make comparative and progressive costs of departmental work.

## LOCOMOTIVE-POWER.

During the year locomotive stock was increased by five electric and one battery locomotive for use between Otira and Arthur's Pass, also seven Class AB, one WAB, and one Ws class engines. One locomotive was sold during the year, and seven old engines were written off. The net increase in tractive power was 2.38 per cent.

After the completion of orders now in hand it is hoped that the Department's requirements in respect of engine-power, other than the replacement of obsolescent types, will be met without the necessity for placing further orders outside our own workshops, unless it be for some special type of engine which it may be decided to try for working traffic over the steeper gradients.

The matter of obtaining increased mileage from the engines in service is receiving consideration, and it is expected that considerable improvement in this respect will be effected in the near future,