The question of granting credit for electrical experience gained whilst serving in the Armed Forces was fully reviewed at a conference between the Registration Board, the Rehabilitation Board, and representatives of the Armed Forces, and the Registration Board's decisions on this important matter will be available for circulation in the near future.

Consideration was given to those persons at present registered, for work on the secondary side only of radio sets, to qualify by examination for registration as radio servicemen.

## DESIGN OFFICE

Power-stations.—The design of power-station buildings for Waikaremoana Upper (Kaitawa) and Karapiro Power-stations was for the most part completed. Water-supply, drainage, and electric-light and power services for these buildings and surroundings were designed.

Other design work for these stations included layout and foundation drawings for machinery and equipment, a permanent workshop building and oil-filter house for Karapiro, and reinforced-concrete switchgear structures and foundations for 110,000-volt outdoor switchgear for Karapiro.

Preliminary drawings were prepared for Maraetai Power-station, and 220,000 volt substations in connection with the calling of tenders for machinery and equipment for these stations.

Details were prepared for modifications to cooling-water flumes to King's Wharf Station to provide for reclamation work now in progress.

Substations.—Substation buildings were designed for Blenheim, Te Puke, and Aongatete Substations and a new reinforced-concrete workshop and switchroom building for Mangamaire.

Layout and foundation drawings were prepared for indoor and outdoor switchgear and transformer banks at new and various existing substations.

Other design work included 25-ton and 45-ton traverser trucks for handling transformers, lifting gantry, water rheostats for testing main units at Karapiro and Kaitawa Power-stations.

Hydraulic.—Work has proceeded on the Whakamaru and Maraetai sites on the Waikato River to the extent that definite proposals have been prepared for each.

In the South Island a comprehensive study of the Upper Clarence is in progress.

General features of the Karapiro Scheme have been completed, and detail designs and drawings are well advanced. A start has also been made on details for Waikaremoana Upper Development.

In the South Island designs for Highbank and the Cobb River were completed and the works at Cobb River tested.

Comprehensive tests of the Waikaremoana Lower Development works and turbines were also made.

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F. T. M. KISSEL, B.Sc., M.I.E.E., A.M.I.C.E., Chief Electrical Engineer.

## APPENDIX E

## TWENTIETH ANNUAL REPORT OF THE MAIN HIGHWAYS BOARD

The Hon. the Minister of Works, Wellington.

In accordance with the requirements of section 24 of the Main Highways Act, 1922, the Main Highways Board has the honour to submit its twentieth annual report for presentation to Parliament.

The report covers the period 1st April, 1943, to 31st March, 1944.

General.—Consequent on a slight improvement in the supply of man-power and materials it has been possible to carry out a more satisfactory programme of works than was the case in the previous year, though the position is still, of course, far from normal. In particular, the supply of chips for sealing has presented great difficulties in some districts.

The length of dustless surfacing has been increased by nearly 40 miles, maintenance sealing was carried out over 119 miles, and 1,562 ft. of bridges were erected. The corresponding figures for the year 1942–43 were 24 miles, 83 miles, and 972 ft. respectively.

It was pointed out in last year's report that 400 miles of maintenance sealing should be carried out annually to maintain effectively the dustless highways, and as an illustration it may be mentioned that on four State highways in the Auckland district a total of 136 miles is recommended for treatment, of which 49 miles could be postponed for one season.