

Commercial Division proceeded to Portland to advise Mr. Rambo of local requirements and conditions; they spent three months working with him on the sawmill design. Mr. Rambo's report was received in January.

The Ministry of Works furnished detailed reports on the harbour, railway, and housing developments which are essential to the project; and the Forest Service, in addition to preparing the working plan covering that portion of Kaingaroa Forest which will supply the raw material, reported on other aspects such as logging, roading, water-supply, &c.

CHAPTER VII—ENGINEERING DIVISION

Inspector in Charge: Mr. V. C. RAPSON

SURVEYING AND MAPPING

1. *Surveys*.—Essential survey work in most conservancies is still delayed through shortage of trained staff, and the few additions to staff during the year have not relieved the situation to any appreciable extent. The following survey work was carried out during the year:—

(a) Exotic forests—	Acres.
Topographical surveys	1,727
Subdivision into compartments	4,500
Forest-type surveys	304
Preliminary triangulation survey at Rotoehu forest	20,000
(b) Indigenous forests—	
Boundary surveys: 180 timber appraisal areas ..	18,485
Reconnaissance surveys	5,864

In addition, topographical surveys for the purpose of village and housing sites were carried out at Omahuta, Tairua, Kaingaroa, Esk, and Hanmer Forests. Other work included:—

- (a) Surveying 446 chains of new roads.
- (b) Reconnaissance of 12 miles of road-line.
- (c) Surveying 272 chains of forest boundary.

The value of aerial surveys for forest reconnaissance and assessment surveys, as well as for the national forest survey, is becoming more and more evident, and wherever aerial photographs are available they are being used to an increasing extent.

2. *Mapping*.—In connection with current operations, the following work was carried out: 225 plans were prepared; 5 stock maps, 3 topographical maps, and 1 indigenous forest record map were drawn; and 2 stock maps were redrawn. Thirty-one forest atlas sheets were renewed, and 273 new plans were recorded.

A considerable amount of work for the draughting staff was entailed in connection with the reconstitution of all fire districts under the Forest and Rural Fires Act, 1947. Five maps were prepared for fire lookout stations and fire-control purposes.

The work of compiling the forest-type maps in connection with the national forest survey which is being undertaken by the Aerial Mapping Branch of the Lands and Survey Department is proceeding slowly, and is at present far behind the field-work. To date, 5 type maps have been prepared, while the field-work has been completed for a further 5 maps.

The library of aerial photographs was enlarged by the addition of 26 mosaics and 3,170 prints, and now contains 13,030 prints and 82 mosaics. Fifty-four mosaic copies were obtained for the use of conservancy offices and district rangers.