

LETTER OF TRANSMITTAL.

SIR,—

Mines Department (Geological Survey Branch),
Wellington, N.Z., 23rd June, 1913.

I have the honour to forward herewith the seventh annual report of the Geological Survey Branch of the Mines Department. It covers the twelve months ending 31st May, 1913.

I have, &c.,

P. G. MORGAN,

The Under-Secretary of Mines, Wellington.

Director, N.Z. Geological Survey.

REPORT.

SUMMARY OF FIELD OPERATIONS.

DURING the twelve months ending 31st May, 1913, detailed field surveys were made in the Buller-Mokihinui and the Reefton subdivisions. In addition, a portion of the Te Puke district was surveyed in somewhat less detail by Mr. J. A. Bartrum, Assistant Geologist, and flying visits to a number of places were made by various members of the staff.

In the Buller-Mokihinui Subdivision field-work was conducted by the Director, who during a period of about four months was assisted by Mr. J. A. Bartrum. The topographical work was in charge of Mr. H. S. Whitehorn, Assistant Topographer. The survey of the subdivision has now been brought to a conclusion, though accidents to members of the party and the extremely bad weather experienced during the greater part of the past two seasons have prevented as much attention being given to various minor areas as was desirable. The preparation of a detailed report upon the subdivision is now in hand.

Work in the Reefton Subdivision was begun by Dr. Henderson, Mining Geologist, in November, 1912, and was continued until the end of May. Good progress was made, although the same succession of bad weather as that experienced in the adjoining Buller-Mokihinui Subdivision was encountered. The area surveyed is in the Grey watershed, and adjoins the Grey mouth Subdivision (Bulletin No. 13). Another field season will be required in order to complete the survey.

Mr. J. A. Bartrum was occupied in the survey of the Te Puke district from the 10th September to the 14th October. After his return to Wellington he wrote a report, which, with accompanying map, will be found on later pages. He then, as already mentioned, joined the Buller-Mokihinui party.

In order to furnish reports needed by the Mines Department special visits were made by the Director to Cape Foulwind, Seddonville, Poerua, and Nelson. Similar visits were made by Dr. Thomson to Sandy Bay (Motueka district) and to Waimate.

PALAEONTOLOGICAL WORK.

During the year Dr. J. Allan Thomson, Palaeontologist, continued his work on the late Cretaceous and the Tertiary fossils, the special object of which is to clear up the confusion that at present exists with regard to the age and distribution of New Zealand coal-measures. Dr. Thomson has particularly devoted himself to the study of the Tertiary Brachiopoda, a work in which he has had the voluntary assistance of Mr. C. A. Cotton, M.Sc., Lecturer on Geology at Victoria Collège.

Mr. Henry Suter was re-engaged for a period of six months in order to continue the work of revising the type specimens of New Zealand Tertiary Mollusca. Our thanks are due to Mr. Suter for the admirable report he has furnished, and also to the authorities of the various museums who have allowed Mr. Suter to examine their type material.

Some progress has been made in the classification of the Palaeozoic and Mesozoic fossils, selections from which have again been sent to various specialists. New Zealand owes a debt of gratitude to these gentlemen, who have undertaken the examination of this material, and have agreed to write reports thereon, without fee or reward other than the advancement of science.

During the year Dr. Thomson, accompanied by Mr. C. A. Cotton, visited East Marlborough and North Canterbury in order to examine important fossil localities and geological sections. The results of this work are described by Dr. Thomson on a later page.

PUBLICATIONS.

The only publication besides the annual report (No. 6) issued during the past year was the report on the Waihi-Tairua Subdivision (Bulletin No. 15), written by Dr. J. M. Bell, formerly Director of this Survey, and Mr. Colin Fraser, formerly Mining Geologist. This bulletin, which contains 192 pages of letterpress, and is accompanied by a large number of maps, fully describes the Waihi, Waitekauri, and other mining fields included in the Whitianga, Tairua, Ohinemuri, and Waihi North survey districts.