for the distribution of mineral specimens to the institutions mentioned, not only is collecting on a large scale necessary, but also accommodation for storing, sorting, labelling, and packing the specimens. At present, owing to the lack of storage room, the Geological Survey collects only the material necessary for its own special work, and much of this which could be preserved with advantage is ultimately discarded or in some way or another lost. Thus during the past year it was discovered that two thousand specimens or more had been removed without the knowledge of the Geological Survey officers from the shed in which they were stored and placed in the open air. The result was the loss of at least five hundred valuable specimens, many of them irreplaceable, and the expenditure of a considerable amount of labour in relabelling and repacking the material saved.

### Conclusion.

In last year's report the advisability of undertaking a soil-survey of the Dominion was urged, and it was suggested that the work, in its early stages at least, could best be done by the Agricultural and Geological Departments working in conjunction. Representations in favour of a soil-survey have, I think, been lately made by the Board of Agriculture and also by the Agricultural Department, but nothing has yet been done towards utilizing the services of geologists in this direction.

The necessity of a thorough mineral survey has been mentioned in an earlier part of this report, and it is to be hoped that, even before the conclusion of the war, provision for extending and accelerating the work of the Geological Survey in connection with our mineral resources will be made.

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## SPECIAL REPORTS.

### 1. NOTES ON SOUTHERN PART OF EGMONT SUBDIVISION.

(By M. Ongley, Assistant Geologist.)

Economically considered the examination of Opunake, Kaupokonui, Ngaire, Oeo, and Waimate survey districts did not disclose much of importance. Nearly all the area is covered with fragmental volcanic material, and only in two small patches—one in the east of Ngaire Survey District, the other in the south of Waimate Survey District—were the underlying sedimentary strata seen. The mudstone exposed in these localities was lying flat or inclined at a very low angle, so that no structures of any significance in the consideration of the accumulation and storing of oil could be made out. Fossils collected from the mudstone in two localities on the south coast contain 42 and 53 per cent. of Recent species. This mudstone is therefore probably slightly older than any fossiliferous bed in the area previously examined by Mr. Gibson, and closely corresponds in age with Clarke's Onairo beds as developed in the New Plymouth Subdivision. As no oil or gas indications are known in this area, and as no favourable structures were located, it would be inadvisable for any one to extend oil-prospecting into this part of Taranaki. No metallic ores except small patches of ironsand on the coast are known. Agriculturally the district is well endowed, the soil and topography being well suited for farming. Over practically the whole area the soil is a brown loam formed from decomposed volcanic dust, underlain by a similar subsoil. Stony and swampy patches occur in places. In the east of Ngaire Survey District over a small area the soil is derived from the mudstone ("papa"). Further work on the soils is now being done by Mr. B. C. Aston, of the Department of Agriculture. Within the area examined only small deposits of limestone occur, and on that account lime and limestone for use on the soil are at present imported from Napier. In several places in the east of Ngaire Survey District an impure calcareous bed has been quarried for use on the roads, but the beds are thin, the stone is not of good quality, and the quarrying-conditions are bad. It is probable that more outcrops will be found, but this bed is not likely to yield much stone. In the north-east of Ngaire Survey District several quarries have been opened on a thicker bed of better stone. About a mile north-east of Gordon Road Railway-station three quarries have been opened in a bed of shelly limestone 8 ft. thick. The quarrying has been carelessly done, the stripping from the top being thrown on the limestone underfoot; but in any case as work proceeds the overburden must increase in thickness, and the position of the stone near the foot of the hill is not suitable for quarrying. Near Wawiri Road, and alongside Ahuroa Road near its junction with Wawiri Road, four quarries have been opened. The stone is 15–20 ft. thick and of better quality, but it is patchy and in places about one-third of its bulk consists of greywacke pebbles. Here also careless work in the past has made present work difficult. The quarries have been opened in the outcropping edges of the bed, the overburden is thick, and it is not known how much shell-rock occurs. Probably more outcrops will be found, but owing to the bad position of the stone no large quarries can be worked.

In Opunake Survey District deposits of calcareous sinter occur near Wiremu Road, the largest known deposits being on the farms of Messrs. G. Looney and H. Bartle. At Looney's the swampy stream is surrounded by conical hills of volcanic material, and in many places where the water trickles through the low ground sinter has been deposited. Mr. Looney has quarried and burnt some of this, but as only a small quantity of stone is known the erection of a kiln is not justified. Where Mr. Looney piled the stone the grass has made a good growth over it, and there seems no necessity either for burning the sinter or for crushing it to fine powder. It is generally full of holes, and is easily penetrated by the roots of grass, &c.: hence the sinter, if