(2.) Metalliferous Deposits other than Gold-silver.—The only metalliferous products other than gold-silver bullion exported from the Thames Subdivision consist of lead, copper, and zinc contained in certain auriferous concentrates that have been shipped to Australia for smelting purposes. These concentrates were derived from the ores of the Monowai and Comstock veins at Waiomo, and of the Sylvia vein at Tararu. The ores are, however, essentially gold-silver ores, the value of the baser metals being relatively low.

Cinnabar occurs in the Mangakirikiri Valley, Kauaeranga, but so far, prospecting operations have failed to locate any payable deposit. The workings that had not collapsed were examined, and the mineral was observed to occur in isolated pockets in a nearly flat-lying narrow band of chalcedonic quartz enclosed in altered andesites.

(3.) Stone for Building and Roadmaking.—The andesites throughout the area are so closely and so irregularly jointed that even the hard unaltered rock is unsuitable for building-stone. Furthermore, andesitic rocks in general are noted for their lack of rift, thus rendering dressing very expensive.

Tufaceous rhyolites are found in the upper Kauaeranga Valley, some of which, had they occurred in a more accessible position, would have a value for constructional purposes.

The hard unaltered andesite—"blue metal"—is the rock generally used throughout the district for macadamising roads. Rock suitable for such purposes is fairly abundant, but the locality of an outcrop is the main factor in assessing its value. The occasional crosscutting of "hard bars" in the mines affords some fairly good rock, which can be cheaply handled.

(4.) Water-power.—The following statement, which appeared in my last annual report, is equally applicable here:—

"The streams of the area, owing to the relatively short distances of any portion of the water-parting from the sea-coast, normally carry rather small volumes of water. Further, their gradients, as mentioned before, are low, usually right back to the junction of the rapidly descending head-water branches. These characteristics render the streams unimportant as the sources of any considerable amount of water-power."

The largest stream in this portion of the subdivision is the Kauaeranga, flowing into the Firth of Thames at Shortland. This is the source of the county water-supply, which affords power for many of the batteries and other industrial concerns at Thames. The water of this stream is picked up at the Hihi Junction, and the supply is supplemented by intakes from all the larger right-hand branches of the river below this point.

All the other streams of the area are comparatively small. Certain of them, however, are of value as limited sources of power, if such power should be required in their immediate vicinities. No gauging of the volume of these streams was deemed advisable.

MR. E. J. H. WEBB, ASSISTANT GEOLOGIST.

From about the middle of June till the middle of September, 1908, I was engaged in the Wellington office in the preparation of the annual report and other work. On the 16th September, 1908, I reached my camp on the Little Wanganui River, and since then I have been continuously engaged in field-work in the Mount Radiant Subdivision.

Work in the Mount Radiant Subdivision.

The Mount Radiant Subdivision, comprising in all an area of 205 square miles, consists of the survey districts of Kongahu and Otumahana, lying in the extreme north of the Westport Division. It is bounded on the west by the Tasman Sea, and on the east by an arbitrary line 12½ miles in length and distant 13½ miles from the coast at its northern and 19½ miles at the southern extremity. Topographical and geological work is now nearing completion, only a small portion in the south-west of the subdivision still requiring examination. Traverses with chain and compass have been made of the rivers and streams of the subdivision, while a triangulation with the theodolite of the mountain ranges has been completed. The results of the survey will be embodied in a detailed report to be submitted shortly.

General Geology.

General Classification.—The general classification adopted in last year's report is retained, pending a more detailed microscopical and palæontological examination:—

(1.) Ordovician	Aorere Series	Argillaceous grauwackes and spotted schists.
(2.) Miocene	Oamaru Series	Breccias, claystones, grits, limestones and sandstones, and conglomerates with carbonaceous seams.
(3.) Pleistocene and Recent		Beach and river débris, talus slopes.
(4.) Post-Aorere		Igneous rocks.

(1.) *Aorere Series.*—Rocks of the Aorere Series are of comparatively rare occurrence within the subdivision, being confined as far as present examination shows to a narrow belt along the southern end of Stormy Range. They consist of argillaceous grauwackes interbedded with spotted schists, and are frequently brecciated and much folded with south-easterly strike, effects due to the intrusion and subsequent elevation through faulting of the granite mass now forming Stormy Range.