

ART. XXXIV.—*On the Occurrence of Native Silver at the Thames Goldfield.*

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THE great extension of mining operations in the up-country goldfields of the Hauraki Peninsula during the last few years has led to the discovery of many mineral substances which were not previously known to exist in New Zealand. This is particularly the case with respect to silver and its combinations, of which many rare and valuable forms have been found.

To these must now be added native silver, which has recently been found by Mr. George Peel in the Nordenfeldt Mine, situated on the watershed between Shellback Creek and Tinkers' Gully, which falls into Tararu Creek.

The silver occurs in an ordinary greyish-blue crystalline quartz, in a 12in. vein known as the South British leader, which drops into the hanging-wall of Dixon's Reef. It is found in very narrow irregular shoots running parallel with the walls of the leader, in the form of thin shining scales, resembling fine scales of mica, dispersed in a soft black powdery substance which looks like precipitated silver, and assumes a bright metallic lustre when rubbed or pressed with the blade of a knife.

Last year I drew attention to the occurrence of petzite in the Nordenfeldt Mine; and since that date pyrargyrite, the antimonial sulphide of silver, has been found there in considerable quantities, closely associated with the native silver, the form of which would tend to show that it was a product of the decomposition of one of these ores. A ton of quartz from this leader was treated at the School of Mines experimental plant, but the silver was found not to exist in payable quantities.

In the jurors' reports of the New Zealand Exhibition held at Dunedin in 1865, page 403, Sir James Hector states that silver in a native state was exhibited in small rolled fragments from Wakatipu Lake Diggings. This is the only reference I can find to the occurrence of native silver in New Zealand. The present discovery of native silver in the Nordenfeldt Mine is of great interest as being the first authenticated discovery of silver in a native state *in situ* in New Zealand.

The specimen of quartz containing native silver has been deposited in the Auckland Museum.

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