

quently it must be a considerable time before our mining industries are so established as to attract capitalists to embark to any extent in mining as a commercial venture.

Our mining industry requires to be fostered to a greater extent than is the case in the colonies I have visited, inasmuch that the cost of prospecting here, on account of the insuperable difficulties there are to contend with, bears no comparison whatever with the cost of prospecting in either Victoria or New South Wales, where supplies can be brought almost to every place with drays and wagons. The inhospitable climate in the mountainous regions during the winter months also operates greatly against our high lands, being prospected; as, for instance, in the case of the rich finds that have recently been discovered at the Criffel diggings, although this field is in the vicinity of Cardrona, where there has been a considerable mining population for over twenty years, no one seemed to think it worth while to prospect on this high land (about 4,000ft. above sea-level). This is a low altitude in comparison to some of our mountain-ranges. Again, when the large quantities of gold that have been deposited on the ocean-beach between Okarito and Jackson's Bay (especially the Five-Mile Beach) are taken into consideration, which must have been washed down the rivers from the slips that have taken place from time to time in the mountain gorges, there can be little doubt that our high lands contain rich deposits; yet, in no instance has the gold been traced to its source.

It will take many years before our mineral resources are sufficiently developed to enable the value of the mountain-lands to be ascertained. That they will support a large mining population in years to come there can be but little doubt. The mining community will, as the alluvial gold-diggings begin to fall off, turn their attention to other classes of mining than for gold, and thus keep forcing their way back into the mountain-ranges to prospect.

Comparing our mineral resources with those in the colonies I visited, and taking the whole question into consideration, I believe this country to be equally as rich (if not more so) in proportion to its area as New South Wales, the latter colony being far richer than Victoria.

In travelling through Victoria and New South Wales I observed large engineering works of interest in connection with railways, waterworks, and harbour improvements; I likewise visited several large factories and mechanical engineering establishments; but, as these are foreign to the subject of mining, I will not refer to them further.

I have to thank the Hon. J. P. Abbot, Minister for Mines for New South Wales, and the officers of his department, for affording me every facility for collecting information in connection with my mission, and for supplying me with books and statistics connected with the colony. I have also to thank Mr. C. W. Langtree, Secretary for Mines and Water Supply for Victoria, and his officers, for affording me assistance while in that colony, and for supplying me with geological and other maps and forms, showing how the department was organized.

In both colonies I was afforded much valuable information by managers of mining companies and persons interested in mining; but where all were equally desirous of obliging me I find it difficult to select names for special mention. I would, however, particularly refer to Mr. W. C. Denovan, of Sandhurst; Mr. Alfred Cadell, of Emmaville; and Mr. Thomas G. Davey, Boorook; who were extremely anxious to afford me the fullest information in their power, and who put themselves to no small amount of trouble in doing so.

In not specially referring to the services of other persons, I trust my Australian friends will understand that I am unable to mention the name of each person to whom I am indebted for information and advice, as it would occupy too much space in this report, which, from the interesting nature of the various subjects dealt with, has, I fear, already exceeded the limits prescribed for ordinary official communications.

I have, &c.,

HENRY A. GORDON,
Inspecting Engineer.

APPENDIX.

REPORT OF THE ACTING SECRETARY FOR MINES AND WATER SUPPLY, VICTORIA, ON DIAMOND DRILLS.

The ACTING SECRETARY, Mines and Water Supply, Victoria, to the Hon. J. F. LEVIEN, M.P.,
Minister of Mines for Victoria, &c.

SIR,— Department of Mines and Water Supply, Melbourne, 15th December, 1884.

I have the honour to submit for your information a few brief remarks concerning the introduction of diamond drills into Victoria, and the work done by them up to the 30th June last.

Imported Drills.

The first diamond drill was imported into this colony from America by the Government in the year 1878, and soon afterwards four others were obtained from the same source. Of these five drills, four were designed to work on the surface, by means of steam-power, and one was for underground work, the motive-power being compressed air. All these drills were manufactured under the patent of the Pennsylvania Diamond Drill Company, Pottsville, U.S.A. They were set to work in various parts of the colony, and so numerous and urgent were the applications received from mining companies for the use of them at that time that the Government decided to increase the number.

Colonial-made Drills.

With this view, tenders were called for the manufacture, in the colony, of ten additional drills—viz., six surface and four underground. The cost of each surface-drill, including boiler, amounted to £1,250; and for each underground-drill, including air-compressor, £1,100. The