

metals that were being shot out on the heap of tailings like so much rubbish. A great incentive has been given to prospect new fields, for in the simple tests the miner has learned to apply he is armed with a talisman to unlock the secrets of nature. It is true that it is one thing to know what is in an ore, and quite another to dissociate the metals composing it, on the large scale. But we are on the right track of discovery in having awakened the spirit of inquiry among so many intelligent men, who are supplied at various points with the means of pursuing their inquiries in the laboratory. On account of the expense it is of course impossible to equip and maintain laboratories on all the goldfields. But, recognising the importance of keeping this spirit of inquiry alive, well-equipped laboratories are maintained both at the Thames and Reefton—the two principal quartz-mining districts—in charge at each place of an officer trained under Dr. Black. At the Thames Mr. Montgomery has charge, and Mr. Fenton at Reefton. Their duties are to make analyses, and teach the miners, old and young, in the chemistry of their work. It is reasonable to hope that the outcome of so much intelligent application will be the discovery of a method of treating the ores so as to make the most refractory of them yield up their wealth.

The expenditure on Schools of Mines since their inauguration has been as follows :—

			£	s.	d.
Subsidies towards the erection of buildings	...	...	511	12	3
Chemicals and mineralogical specimens	...	...	699	15	2
Salaries of teachers and travelling expenses	...	...	5,654	8	7
Total	...	...	£6,865	16	0

In addition to this the liabilities amounted at the end of March last to £337 4s. 3d., exclusive of £600 which was authorised as subsidy towards the erection of a testing-plant in connection with the Thames School of Mines.

DEPARTMENTAL.

As required by the Mining and Coal Mines Acts, a Board of Examiners was appointed to test the qualifications of applicants for the certificate of competency required by managers of mines.

There have been six applications, but only two came up for examination, of whom one passed.

The work of the Mines Department proper requires no great number of officers. The water-races, sludge-channels, and construction of roads and tracks are directed by the Inspecting Engineer, Mr. H. A. Gordon, who also divides the work of inspection under the Mining and Coal-mines Acts with Mr. Binns, who is solely engaged in that duty, and with the occasional assistance of Mr. John Gow, but whose principal duty is the charge of the Nelson Creek Water-race. Mr. George Wilson inspects the Thames and Te Aroha districts under the Mining Act. The local charge of the Waimea-Kumara Water-race and Sludge-channel is under Mr. James Dand, and of the Charleston Water-race under Mr. Denis Doyle. The reports of those officers and the Wardens of the several goldfields for the year will be published simultaneously with this report.

While the success of the mining-industry rests mainly with the intelligence and energy of those engaging in it, the department can materially assist by the collection and dissemination of information bearing on the most improved methods of mining in practice here and in other countries. It is but right to acknowledge the endeavours of Mr. Gordon in this respect, and on whom also rests the main executive work of the department.

JAMES MCKERROW.