

cost, expenditure, and liabilities may be seen in the several tables attached to the report prepared by the Inspecting Engineer.

#### SCHOOLS OF MINES.

Immediately after I had accepted office, about eighteen months ago, I thought it would be not only a very desirable course to take, but a most useful one, to make arrangements whereby the miners would have opportunities of receiving a certain teaching of scientific knowledge, to aid that which they had practically taught themselves, in respect to minerals and the various conditions in which they are usually found; and also that they should be taught the manner of testing different minerals in order to become acquainted with the natures of different ores that abound in the colony, and with the kind of metal that any ore will produce. In my opinion, it was fortunate that such a man as Professor Black, of the Otago University, was in New Zealand, and that he was willing to place his services at my disposal, and ready to labour with the utmost enthusiasm in the direction and for the cause of establishing mining-schools in our various mining-centres. Professor Black commenced the first of his series of lectures during the early part of last year, after having received authority from me to do so, and during the present year he and his assistants have been enabled to complete another course of valuable and instructive lectures throughout our many mining districts.

It is with great satisfaction to myself that I feel justified in saying that the course of instruction sought to be imparted to the miners by Professor Black and his assistants has proved to be of enormous use and value to them; for there can be no doubt that before Professor Black had been among the miners, instructing them in what way to test any ore they were working, many of them were allowing metals of greater value to be carried away in what is technically called tailings, than were found in the gold and silver they saved. Who, for instance, was aware that in many of the auriferous ores being worked for years in the vicinity of the Thames, and in several places along the Hauraki Gulf, that these, while rich in gold, were chiefly argentiferous, and contained more silver than gold? But the miner was only intent upon searching for the latter metal, and therefore allowed the former to run with the tailings from the battery, little dreaming of the great wealth that he was assisting to waste. All this has been changed since the advent among the miners of Professor Black, and reefs and claims that in many instances were barely paying expenses or entirely unremunerative are now giving excellent returns to their owners. During my visits to several of the mining-centres I was very much interested at observing the effect of Professor Black's lectures upon the minds of some of the young schoolboys in the districts. In most cases I found that the boys in a few days had really qualified themselves to apply tests correctly to ores in analysing them, and they had gained this knowledge simply by attending the lecture-classes. It occurred to me that this was a step in the right direction towards technical education.

Schools of mines, varying in degree according to population, have already been established in each of the chief mining districts, and they are being fitted up with a proper supply of chemicals and apparatus, suitable for testing the different minerals that may be found. Some of these schools have already borne excellent fruit, inasmuch as many miners have qualified themselves to test ores for metals, to test metals, and to test their purity; and they are also able to impart their knowledge by instruction to other miners. For further evidence of the good results that have been attained, I have pleasure in referring honourable gentlemen to Professor Black's report on the whole subject, wherein a full and detailed account of the duties of his staff will be found. This report, with others, will be laid on the table to-night. I may state that Dr. Von Haast has been instructed by the Mines Department to purchase several complete sets of mineralogical specimens in Europe, for the purpose of distributing the same to the principal schools of mines throughout the colony, and which will give to the miner an opportunity of having a knowledge of all of the most important mineral ores, and enable him by comparison to detect others of a similar character should he happen to find such while pursuing his ordinary avocation.

#### GEOLOGICAL DEPARTMENT.

Since the prorogation of Parliament last year the Geological Department has been transferred from the control of the Colonial Secretary to the Minister of Mines, and honourable gentlemen will find appended to my Statement a valuable report by Dr. Hector of the work performed by his office during last year. It will be observed that much