

leased to the Mont d'Or Company of Ross at a yearly rental of £50. Recently this company has retimbered the tunnels and put the race in good repair. This portion of the water-race cannot be utilised by any one excepting those who have water-rights from Donnelly's and Scandinavian Creeks, as no additional supply can be obtained until the long tunnel between Donnelly's Creek and the Totara River is completed. The cost of construction up to the present time is £25,644 9s. 6d., and the estimated additional cost to complete the race is £60,000.

SCHOOLS OF MINES.

There are three principal schools of mines in the colony—one at the Thames, in the North Island; one at Reefton, on the west coast of the Middle Island; and one connected with the University at Dunedin—as well as several subsidiary schools which are carried on by the miners in the districts where they are situate. In these outside schools ores are analysed, and the miners are shown how to do this and ascertain for themselves the means of distinguishing the different metals and minerals that are met with. At the Thames school, which has so far been the most successful, a considerable number of pupils attended during last year and have been taught by Mr. A. Montgomery, who has charge of this school, in the following subjects:—

	Students.
Laboratory and practical chemistry class	16
Architectural drawing class	4
Mining class	14
Assaying class	38
Chemistry class	6
Mathematical class	6
Mineralogy and geology class	10

Mr. T. Fenton, who is in charge of the Reefton school, has held classes and given lectures on chemistry, assaying, the use of the blowpipe, mining, and metallurgy at Nelson, Westport, Dennistown, and Boatman's, as well as at the principal school at Reefton. He has also made a considerable number of assays of tailings from different companies' mines in the district, which show that they are losing a large percentage of the gold in the quartz crushed by the present process of treatment. Mr. Montgomery has also shown, by tests made of parcels of ore at the testing-plant in connection with the school at the Thames, the great loss of gold and silver in the North Island ores by the present methods of extraction. This, together with the knowledge of the different metals and minerals which these schools are the means of disseminating, cannot fail to produce good results in the future.

There is no industry where a person requires a more scientific training than in mining, in order to carry it on successfully and on an intelligent basis, and in former years it has not received the attention in this respect that it deserves. It has been heretofore looked on in a great measure as a speculative transaction more than as a legitimate enterprise, and thousands of pounds have been thrown away in mining ventures by those who had little or no knowledge of the industry they were embarking in. These remarks are not confined to mining, but apply to every other industry. The schools of mines at Thames, and Reefton, which are the only two large quartz-mining centres in the colony, and also the school at Dunedin, in connection with the University, will have the effect of training men in the theoretical principles of mining, and in ascertaining the composition of gases and of the different ores they meet with, and will also cause men to observe more closely the effect that faults and slides have in lodes, as well as the character of the rocks in which different minerals may be expected to be found. This, together with a few years' experience in working in mines, will enable the student to carry on mining in the future in a more sound and intelligent manner.

The expenditure last year on schools of mines, exclusive of the contribution of £500 in connection with the University of Otago, is as follows:—

	£	s.	d.
Subsidies towards the erection of buildings...	42	10	0
Chemicals	6	12	9
Salaries of teachers and travelling-expenses	1,139	4	1
Total	1,188	6	10

The total expenditure for the last four years has been £8,054 2s. 10d.

MINERALS SENT TO THE MELBOURNE EXHIBITION.

A collection of minerals was forwarded last year to the Melbourne Exhibition, consisting of ores containing gold, silver, copper, antimony, chrome, iron, scheelite, lead, zinc, &c., as well as samples of coal from different mines in the colony, and coke from the Brunner Mine; also, some valuable auriferous specimens from the Kapanga Mine, Coromandel; the Saxon and Reuben Parr Mines, at the Thames, and a collection from the Reefton mines. The whole of these specimens have been forwarded to the Paris Exhibition. There was also a collection of valuable specimens exhibited by J. Witheford, of Auckland, from the gold-mines in the Coromandel district, which were returned to that place. The greater portion of the other minerals was also forwarded to the Paris Exhibition. These exhibits may have the effect of bringing the mines in the colony prominently before the public, and may also tend to assist those requiring capital to develop them, and thereby be the means of enhancing the value of mining properties. A report by the Inspecting Engineer of the department will be furnished on the mining machinery exhibited at Melbourne, and also on machinery and appliances for the reduction and treatment of ores in Australia and Tasmania.

WORKS ON GOLDFIELDS.

The expenditure on roads and works undertaken either wholly by the department or by subsidies to local bodies during the past year has been £8,555 5s. 6d., including £1,188 6s. 10d.