

carefully examined, and the process of copper-smelting explained, by an orderly progress through the works—following the ore, as it were, from stage to stage till it left the furnace as copper matt.

Mr. Bennett, who is at present in charge of the works, gave the boys one lesson on the use of dynamite. Each boy made a small collection of minerals, the names being supplied by myself.

Professor Black paid us a visit in November, and gave two lectures, one in Nelson, the other at Richmond. The lectures were well attended, and gave considerable satisfaction to those who were present.

Several assays and tests were made for the public during the year, and charged for at School-of-Mines rates, the money thus raised being spent in the purchase of additional apparatus and chemicals. I am very much in need of a good balance, but hope soon to be able to get one with the grant that has been promised.

An interesting stone brought to me to be tested proved to be emerald, of the beryl type. This, I think, is the first time of its being discovered in the Nelson District.

With the aid that has been promised, I expect to be able to start other classes for the study of chemistry and assaying.

EXPENDITURE ON SCHOOLS OF MINES.

The following table shows the expenditure by the Government on Schools of Mines since their inauguration, exclusive of subsidies paid to the University of Otago towards the School of Mines in connection with that institution:—

Financial Years.	Subsidies towards the Erection of Schools of Mines, and Maintenance.	Chemicals and Apparatus, also Mineralogical Specimens supplied to Schools of Mines.	Salaries of Teachers, and Travelling- expenses, &c.	Total Sums paid by the Depart- ment towards the Schools of Mines.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1885-86	...	36 19 9	1,223 9 10	1,260 9 7
1886-87	257 16 6	409 1 4	2,716 9 3	3,383 7 1
1887-88	253 15 9	253 14 1	1,714 9 6	2,221 19 4
1888-89	42 10 0	6 12 9	1,139 4 1	1,188 6 10
1889-90	142 2 0	181 14 10	716 3 10	1,040 0 8
1890-91	217 6 6	54 8 0	620 9 9	892 4 3
1891-92	181 14 0	...	689 5 9	870 19 9
1892-93	312 3 4	...	670 1 0	982 4 4
1893-94	197 0 5	...	858 19 4	1,055 19 9
1894-95	390 0 0	45 10 10	773 17 8	1,209 8 6
Totals	1,994 8 6	988 1 7	11,122 10 0	14,105 0 1

The above statement shows the amount expended on the different Schools of Mines throughout the colony; but, in addition to this, the sum of £4,750 has to be added, as that has been paid to the School of Mines attached to the University of Otago, £500 being paid last year, which makes the total expenditure up to the 31st March last to be £18,855. This expenditure has extended over a period of ten years.

The success of these schools is due in a great measure to Professor Black, who, by visiting the different goldfields centres, and forcibly demonstrating the advantages of a technical education, by showing the miners the comparatively easy methods of determining the different varieties of minerals they meet with, and that by acquiring this knowledge they could turn their labour to better advantage. Many of the miners have, by sheer perseverance, made themselves acquainted with the determinations of the most common metals in the different ores, and fully appreciate the value of such knowledge, and the benefits derived by the instruction given at these Schools of Mines.

WATER-RACES.

WAIMEA WATER-RACE.

The returns from the Waimea Water-race show a falling-off in the revenue derived from sales of water; but this is to be expected, as the ground that it at present commands in the vicinity of Goldsborough and Stafford requires more labour to get the gold than formerly. As year by year passes by the workings are getting further back into the range, the alluvial drift above the auriferous layer of gravels which overlies the blue reef is gradually getting deeper and the fall for the sluices getting less, the same quantity of auriferous drift cannot be washed away as in former years. The bed of the Waimea Creek and Valley is rapidly getting filled up with tailings, so that the dump from the end of the sluices is now so small that the extra length of boxes required to carry the tailings clear is becoming a considerable expense. Another element which enters into the profitable working of the ground is the system of working, in some cases yet, the old principle of using a low pressure of water through a small canvas hose is still adhered to, and this may possibly be accounted for by the fact that the small returns the miners get for working their claims does not, after the cost of living is deducted from their earnings, admit of their getting an efficient plant to work the ground; but, be that as it may, the ground in this locality has never been worked so systematically as on the Kumara field, and the fall is becoming so small that it is