

When the examiners are satisfied with these preliminaries they will set the candidate a thesis on some mining subject, which must be completed in three months. This done, the candidate is put through a *viva voce* examination in geology, including palæontology, mining geology, mining surveying and geodesy, machinery and electro-technology, chemical technology and blowpipe analysis, general principles of mining law, mine-management, political economy and finance, mining statistics, and the translation into German of a French or English paper on mining.

The preparation of the drawings and theses required in the German mining course itself possesses a high educational value, as thereby many minute but essential details are brought under the notice of the student by personal observation, which is not always possible in mere lecture demonstration. Besides, in the preparation of a thesis, a student discovers the limitations of his knowledge—its own no mean advantage—and is thus able to repair his deficiencies before commencing the practice of his profession.

#### PREPARATION OF THESES FOR DIPLOMAS OF OTAGO MINING SCHOOL.

In the regulations relating to the issue of diplomas by the Otago Mining School a certain period of practical work is required in all the divisions; and in the surveying division the requirements of plans, profiles, and geodesy, in conformity with the regulations of 1902, form a thesis perhaps more stringent than the German.

Candidates for diplomas in mining, metallurgy, and geology are not required to produce a thesis, and the experience gained in the prescribed period of practical work is often of doubtful value. On the other hand, the advantages attending the preparation of a thesis on a technical subject are manifestly great, and, in order to keep pace with the progressive policy of the Germans, it will be necessary to require a thesis from candidates for diplomas in mining, metallurgy, and geology.

#### CONCLUSION.

I wish, in conclusion, to express my appreciation of the zeal and ability with which Dr. Marshall, Mr. Waters, and Mr. Armstrong (lecturers), and Mr. A. R. Andrew (demonstrator in surveying) carried out their several duties throughout the session of 1903.

#### 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.	Scholarships.	Salaries of Teachers, and Travelling-expenses, &c.	Total Sum paid by the Department 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
1895-96 ...	820 0 0	...	50	849 3 0	1,719 3 0
1896-97 ...	352 14 11	58 18 6	100	834 12 8	1,346 6 1
1897-98 ...	1,089 18 6	29 19 9	100	780 19 0	2,000 17 3
1898-99 ...	740 15 2	32 19 7	50	729 10 11	1,553 5 8
1899-1900 ...	990 3 4	24 3 8	50	52 16 3	1,117 3 3
1900-1901 ...	866 10 11	56 3 4	98	77 7 10	1,098 2 1
1901-1902 ...	1,155 12 3	63 5 1	49	69 16 4	1,337 13 8
1902-1903 ...	1,379 15 6	134 18 8	158	111 0 0	1,783 14 2
1903-1904 ...	1,575 15 3	88 18 8	92	109 15 10	1,866 9 9
Totals ...	10,965 14 4	1,477 8 10	747	14,737 11 10	27,927 15 0

The above statement shows the amount expended on the different schools of mines throughout the colony; but, in addition to this, the sum of £10,553 6s. 2d. 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 towards maintaining the school, which makes the total expenditure up to the 31st March last to be £38,481 1s. 2d. This expenditure has extended over a period of nineteen years.