

by Messrs. Cavell and Lawn, two of the senior members, on another evening. I desire to thank these gentlemen for their valuable assistance. The only subjects taught were mathematics and surveying (including logarithms and trigonometry), in which excellent progress was made by some of the students. The same members are working this year at assaying and chemistry. Mr. Raithby has kindly offered a box of mathematical instruments to be competed for among the junior students in logarithms and plane trigonometry.

"Laboratory."—Over fifty assays for gold and silver have been made, besides numerous qualitative tests. The other assays are as follow: antimony, six; clay, four; and tin, seven. Many of the assays were made by amalgamation in berdan, and the tailings assayed by the fire; and I have found by this that a large percentage of the gold may be saved, by grinding without an overflow, keeping the water from becoming acid, and amalgamating in a pulp. In this way it is impossible for fine gold to escape, and iron amalgam will not form so long as the water is not acid. I intend now to sample all the tailings on the field, and experiment with them in this way. Exhaustive tests were made on samples of stone taken from a belt of chert rock which traverses this district, and, although gold was found, it was not in sufficient quantities to extract, except perhaps on an extensive scale. We received from England lately a very fair stock of chemicals and apparatus, which were much required, and which has greatly improved our laboratory.

"School."—Many of the much-needed improvements to the school have been made. The water is laid on now in every room, which is a great convenience, as before all water had to be carried. The berdan is now placed in a small shed outside the assay-room, and is driven by water, the power being obtained from a small water-motor, made and given by Mr. Hufton, one of the students. Our surveying appliances have also been increased by a dumpy-level and staff, which, although not new, answers our purposes splendidly. I am now endeavouring to get the school lighted better, and also to form a scientific library, which I am sure would be a great boon, not only to the School of Mines but to the whole district.

"Examinations."—In December the annual examination was held for class certificates, on the same basis as those at the Thames School. These examinations proved most satisfactory, and were greatly appreciated by the students. For particulars of these papers set and the results I must refer to the copies forwarded, which show that splendid work has been done by students during the past year. The papers were set by myself on the work done during the year, and gave general satisfaction to all concerned. For mine-managers' certificates, two candidates sat from this school under the Coal-mines Act, in August, 1891, and passed; also four under the Mining Act, in February, 1891, passed. In the last examination, held in February, 1892, two students from the Denniston School presented themselves for examination under "The Coal-mines Act, 1891;" besides one student from the Boatman's school, and four from the Reefton School, under "The Mining Act, 1891." The results of this examination are not yet known.

"Denniston School."—Under your instructions I visited this school during January and part of February, 1892. There has been very little done there, although a great many persons appear anxious for instruction. The School of Mines is connected with the reading-room, and members of the one are members of the other. The classes were attended regularly by about twelve students, and instruction was given in ventilation, gases, pumping, and surveying (including logarithms and trigonometry). The limited time only allowed me to enter into the first principles of these subjects, they will, however, be continued on my next visit, in July. There is no doubt that with a little assistance a splendid school could be formed, as the men are all close to the town, and many are anxious to improve themselves.

"Students."—Many of our students are now receiving appointments as mine-managers, and are showing by their work that practical education, combined with the theoretical, is of the greatest service.

"In conclusion, I may state that the Reefton School is now in a fair way towards being one of the principal schools in the colony, and although the ores in this district are not so complex and refractory as in others, yet there is a large field to work on. I must thank the Committee for their assistance during the past year, and also our hon. secretary, Mr. Casley, for his untiring efforts in promoting the interests of this school."

NELSON SCHOOL OF MINES.

Although the principal Schools of Mines are at Thames, Reefton, and Dunedin, there are several small schools in different localities, where some of the members give lectures and teach the method of analyzing the different ores met with. Occasionally an Instructor visits these schools and gives for a short period elementary instruction. It cannot be expected, however, that such itinerant technical education is of great value, but it has the effect of raising a stimulus to gain more knowledge of the different subjects taught at the regular schools; and many of the miners in districts where these small schools are situated are now able to analyze some of the ores, especially those containing gold or silver, they have a fair knowledge of the different rocks in which certain minerals are likely to be found. At Nelson, Mr. W. F. W. Morley, the curator of Nelson School of Mines, and second master of the Bridge Street School, has been for the last two years holding a class in the school once a week, to teach mineralogy and blow-pipe analysis, and so far he has been very successful. The following is his report on the progress made last year:—

"I have the honor to lay before you a report of the work done at the Nelson School of Mines during the year 1891. I was appointed curator of the Nelson School of Mines at the close of the year 1890. Previous to that appointment I had conducted, for two years, a mineralogy class for boys belonging to the Bridge Street School, of which I have the honour to be second master. After taking full charge, I immediately began to try and make the school more popular than it had hitherto been. A class for the study of mineralogy and blow-pipe analysis was formed. Twenty boys joined this class, and continued to work steadily throughout the year. The class met once a week,