

The Hon. J. McGowan, Minister of Mines, has visited the school, and approved of what has been done; and, on representing that the survey class was working with a primitive theodolite, he kindly sent a new and up-to-date theodolite when he returned to Wellington. This gift was much appreciated by the Council and students.

The annual meeting was held in the school on the 22nd July, when the following officers and Council were elected: President—A. H. Curtis, Esq.; vice-presidents—D. G. Waddell, Esq., F. Rich, Esq., C. H. Taylor, Esq.; Council—Messrs. C. H. Taylor, W. Goldsworthy, F. M. Brown, R. Stackpole, jun., C. Trezise, H. W. Guthrie, J. Jackson, R. D. Jones; treasurer—R. D. Jones; secretary—Alexander Hogg.

The number of assays done for the public during the year was eleven, all being for gold and silver. One analysis of coal was also made for a local syndicate, who are prospecting near the township.

The annual examinations on the papers sent by the Mines Department have just been completed, twelve students presenting themselves for the subjects which they had taken up. This number would have been greater had not a slump in mining matters taken place, causing some of the best students to temporarily leave the district.

In conclusion, I must heartily thank our President, Mr. A. H. Curtis, for his handsome gift of seven valuable books to the school library, the Council for their hearty co-operation with me in every plan for the improvement of the school, and the donors of mineral specimens. In this connection the thanks of the school is especially due to Mr. F. B. Allen, of the Thames School of Mines, and Mr. W. H. Baker, of Tasmania.

NELSON SCHOOL OF MINES.

Mr. W. F. Worley, the Instructor, writes as follows, his report being made up to the 31st March, 1902, instead of the 31st December, 1901:—

BLOWPIPE ANALYSIS CLASSES.

Two classes—an upper and a lower—have met weekly for the study of this subject. The work attempted and the results achieved are so similar to those of former years that a detailed account of this work is scarcely necessary. Twenty-six boys belonged to these classes during the year, but by the end of the year the number had decreased to twenty-two. The usual examination has not yet been held, as it has been found necessary to change the time of year for the commencing and closing of these classes. After the usual standard examination of the school, when scholars are passed from a lower to a higher standard, there are generally several boys anxious to join the blowpipe classes. As it is extremely inconvenient to have new boys entering the class three months after starting new work, the classes will in future be reformed at the same time as the ordinary school classes. By adopting this arrangement the blowpipe classes will not be examined till the end of June. The results of this examination will be embodied in my next annual report.

During Easter week twelve members of the class were taken to Eighty-eight Valley to search for fossils. Each boy secured several specimens, and at the same time had opened up to him a new avenue of possible pleasure.

ASSAYING.

Only twelve assays were made for the public during the year. This is the lowest number yet recorded. Prospecting for reefs has, for the time being, been almost abandoned in this district.

ADULT CLASSES.

By special arrangements with the Nelson Board of Education a course of lectures on the chemistry of agriculture was delivered for the benefit of the teachers of this district. Twenty-five teachers availed themselves of this opportunity. In all fifteen lectures were delivered, each lecture lasting about an hour and a half. Attention was first given to the composition of plants. The method of analysing plant-substances was explained, and some partial analyses were made before the class by way of illustration. The chemistry of the elements usually found in plants was then taken up. Each of these elements was produced before the class, their properties being illustrated by numerous experiments. The part played by these elements in plant physiology was then explained, and some analyses made of plant-substances, such as starch and sugar. Use was made of the microscope for the studying of the cell-structure of plants, the starch granules, and the chlorophyl. The attention of the students was then directed to the sources from which plants get these elements or compounds containing them. In this connection air, water, and soil were considered, special attention being given to the soil. Finally, the attention of the class was directed to the necessity of manuring to make up for deficiencies in the soil. Natural and artificial manures were considered in detail. The sources of supply, methods of using and of manufacture, adulterations of and simple tests for being dealt with by experiment. A small quantity of superphosphate was made before the class, and to it were added suitable quantities of substances containing potash, nitrogen, magnesia, sodium, chlorine, and iron, till a perfect manure for kitchen-garden crops was obtained. Experiments were then made with this manure to show its effects on growing plants. A good deal of appreciation was shown by the members of this class, and there is reason to believe that good will result from the lectures.

CONCLUSION.

By an arrangement with the committee of the Nelson Institute the typical sets of ores and rocks belonging to the School of Mines are now exhibited in the Nelson Museum. There is a distinct understanding that they are only there for exhibition. The key of the case containing