

*Examinations.*—At the annual School of Mines examinations fifteen students presented themselves, and secured five first-class, eight second-class, and four third-class certificates. Candidates sat in the following subjects: Chemistry, mathematics, mechanical drawing, surveying, mining, pumping winding and haulage, and ventilation.

*Government Certificates.*—At the examination for Government certificates five candidates from this school sat for mine-manager's certificates. S. Crockett and W. Pearson, who is now resident in the Huntly district, obtained certificates as first-class mine-managers; W. Hewitson secured a partial pass in the examination for second-class mine-managers. In addition to the above, thirteen students sat in the underviewers' and deputies' examinations, eight candidates being successful in the latter, while two candidates—W. Hewitson and R. Jack—were successful in the former.

*Assay Laboratory.*—During the year eighty-two samples of mineral-specimens and ores were examined and reported on. The bulk of these samples were sent in to be assayed for their gold and silver content. The facilities for assaying and general analytical work have been greatly improved by the erection of the new assaying laboratory.

*Library and Museum.*—The thanks of the school are due to the Mines and Geological Departments respectively for the donation of several standard text-books and geological bulletins which are so highly appreciated by students; also to those gentlemen who have kindly donated various samples to the museum.

In conclusion, I beg to place on record my appreciation of the keen interest evinced by the members of the Council—especially the President and Secretary—in the welfare of the school.

I have, &c.,

H. LOVELL, Director.

Mr. W. F. WORLEY, Director of the Nelson School of Mines, to the UNDER-SECRETARY OF MINES, Wellington.

SIR,—

Nelson, 22nd March, 1915.

I have the honour to present my report on the work done at the Nelson School of Mines for the year ended the 31st December, 1914.

*Blowpipe Analysis Classes.*—Two classes were in session from the 18th June till the 3rd December. Twenty-three boys from the State school joined these classes. Five of them left after attending for a short time, but the remaining eighteen attended regularly and took great interest in the work. Each class met twenty-four times, and the average attendance of the eighteen was 13.7. These boys were taught the ordinary blowpipe manipulations, and tests were made for antimony, arsenic, tin, zinc, lead, bismuth, copper, chrome, cobalt, iron, nickel, and manganese. One lad, Ronald Simpson, who had had a two-years course, and had done the prescribed amount of practical work, was allowed to sit for examination. He passed the examination with credit, and was awarded a certificate of proficiency in elementary blowpipe analysis.

*Assaying.*—Fourteen assays were made for the public during the year, and these embraced tests for gold, silver, iron, coal, limestone for phosphate, and one food substance for poison.

*Lectures.*—Five public lectures were given during the winter months, the subjects being "Volcanoes," "Combustion," and "Garden soil." The latter subject was dealt with at a well-attended meeting of the Stoke Fruitgrowers' Association, and created a good deal of interest.

*Geology.*—An intrusion of granite into schist rock was discovered in the cliffs on the sea-beach at Cable Bay. The granite has not yet been examined microscopically, but in appearance it is similar to Boulderbank stone.

An examination was made of an outcrop of shaly coal in the Maitai valley. It is on the left side of the valley, quite close to the road and just one mile beyond the spot where Sharland's Creek joins the Maitai River. In Bulletin No. 12, dealing with the geology of the Dun Mountain Subdivision, the rocks at the site of this coal-outcrop are indicated as "Maitai" on the map accompanying the report. The coal, though a poor sample, evidently belongs to the Jenkins Hill series. It is on the same line as the outcrops at Enner Glyn, Brook Street, and Groom's Creek; its dip (eastward) is the same as at those outcrops; and its relation to the Brook Street igneous rocks is similar. At Brook Street and at Groom's Creek the coal-outcrops are quite close to the igneous rock. In the Maitai valley there is a mile of rock intervening between the igneous rock and the coal-outcrop. These rocks should be carefully studied, but the owner of the land objects to geological explorations in that neighbourhood. From what I have seen of them, I think that some of them belong to the Wairoa series. If so it will be an interesting discovery, as these rocks were supposed to thin out and disappear somewhere near Richmond.

Several sections of the Brook Street igneous rock have been carefully examined microscopically, and definite conclusions arrived at as to the nature and history of the rock; but I regret to say I am unable to make a report of this work, as the school does not possess any apparatus for making photographic illustrations of the rock-sections, without which the report would be scarcely intelligible.

Having resigned on superannuation from public-school work, I am now able to devote more time to school-of-mines work, and quite intended to make a strong effort to increase the usefulness of the Nelson School, but was restrained from doing so by the outbreak of war.

I have, &c.,

W. F. WORLEY, Director.