

## ANNEXURE B.

## REPORTS OF DIRECTORS OF SCHOOLS OF MINES.

Professor JAMES PARK, Dean of the Mining Faculty, to the UNDER-SECRETARY OF MINES, Wellington.

SIR,—

Otago University, Dunedin, 16th March, 1916.

I have the honour to present my report on the work done at the Otago University School of Mines for the year ended the 31st December, 1915.

During the winter session of 1915 the School of Mines was attended by fifteen students entered for the full associate course, and one casual student taking field astronomy. Of the fifteen, three completed their four-years course. Of the others, one student in his fourth year went on active service before the end of the session, also one second-year student and three third-year students.

At the annual examination only three failures were recorded—namely, one in mechanics, one in mathematics, and one in senior surveying.

It is gratifying to state that our graduates have no difficulty in finding lucrative positions as soon as they leave the University, which is a welcome change from the conditions that existed a few years ago. At one time our graduates were mostly restricted to employment in or about mines and metallurgical works. The positions offering in these departments were not numerous, and this often led to a discouraging waiting for chances to turn up. The satisfactory change that has taken place is mainly due to the extension of the courses of instruction on the civil engineering and surveying sides, whereby the possible sources of employment of our graduates have been greatly enlarged.

Mining engineering has long been recognized as a branch of civil engineering. During the current year, when the Institution of Mining and Metallurgy applied to the Crown for a Royal charter of incorporation, its application was opposed by the Institution of Civil Engineers, which pleaded that their articles of association provided for and included mining engineering as a department of civil engineering, in acknowledgement of which many mining engineers had been elected members or associates of the Institution of Civil Engineers. The Royal charter was granted, and the pleadings were interesting as showing the intimate relationship of mining and civil engineering. The mining engineer may be called on to erect trestles and bridges, to construct roads, tramways, or railways, to design jetties or piers, ore-bins, vats, hauling and winding plant, pipe-lines, flumes, and water-races, to survey mines and lands, or devise a scheme of development for a mine.

The engineering branch of the School of Mines is well provided with models and testing machines; while the surveying department possesses the most up-to-date instruments for all mine, land, and engineering surveys. So that, while still specializing in mining, full courses, both practical and theoretical, are now given in the strength of materials, stresses in bridges and other structures, hydraulics, and pipe-line construction, and in all departments of surveying, including field astronomy. The course in geology, both theoretical and practical, is very comprehensive, and has long been known for its thoroughness and great value.

Of the three graduates of 1915 two immediately found employment with civil engineers, and the other was appointed surveyor to the Consolidated Goldfields (Limited), Reefton. Unfortunately, an application by cable from a wealthy London company operating in the Malay Federated States for a mine-surveyor at £480 a year could not be filled, there being no one available, as all our graduates of the last few years have gone on active service.

*The Effect of the War.*—In 1914 fourteen new students entered for the full course; in 1915—the year covered by this report—only two; and in 1916 none. The attendance at the school has suffered not only through the large number of undergraduates who have gone on active service, but on account of intending students joining the colours. The men to take up mining engineering as a profession are just the men to answer the call of the Empire.

Of twenty-seven undergraduates with us in 1914 and 1915 no less than nineteen, or 70 per cent., have gone on active service. Five others enlisted, but were rejected on account of defective eyesight, &c. The names of those on active service are,—Lieutenant William Gibson Allan Bishop (Military Cross), Sergeant Harold P. J. Childs, Sapper Charles A. Livingstone, Sapper Alexander S. Malcolm, Sapper Nathaniel Malcolm, Private Eric O. McPherson, Private Steedman M. Sneddon, Private George Williamson, Private Alexander Henry McLean, Sergeant Lindsay Stevenson, Corporal Dundas Samuel, Lieutenant Reginald H. Schoen, Corporal Henry Gray, Private Walter H. J. Cropp, Lieutenant Spencer G. Scoular, Sergeant William P. Dunphy, Sergeant William P. Thompson, Sergeant Harold I. Green, Sergeant J. E. K. Lambourne.

Most of these served in the Gallipoli campaign. We deplore the death of Harold Childs and Alex. S. Malcolm, both killed in action. The members of the mining faculty extend to their parents their sincerest sympathy in the loss of brave sons who gave their all for their country. Some have been wounded, and several invalided by sickness. Among these we welcome Dundas Samuel, Eric McPherson, and Steedman Sneddon, who have returned. We heartily congratulate Lieutenant W. G. A. Bishop, who proved himself an enterprising and daring leader. He was mentioned in dispatches by General Ian Hamilton for distinguished service at Gallipoli, and afterwards awarded the Military Cross, which was personally presented by His Majesty the King, in London.

The Roll of Honour of our late graduates includes the name of our colleague Professor D. W. Waters, who now holds a commission in the Tunnelling Corps.