ANNEXURE D.

REPORTS OF DIRECTORS OF SCHOOLS OF MINES.

Professor JAMES PARK, M.I.M.M.E. (London), F.G.S., Director of Otago University School of Mines, to UNDER-SECRETARY, Mines Department, Wellington.

SIR,— Dunedin, 15th April, 1914.

I have the honour to present my report on the work done at the Otago School of Mines during the year ended 31st December, 1913.

The School of Mines for the session of 1913 showed an attendance of eighteen registered students, of whom sixteen were entered for the full associate courses, one for surveying, and one for applied mechanics. Altogether there was an accession of nine new students for the full course. The current session (1914) started with the satisfactory registration of eleven new students, and we now have twenty-eight students taking the full associate course, exclusive of those attending lectures in geology and dental metallurgy. This is the largest attendance since the year 1901. Of these, twenty have entered for the associate course in mining engineering, five for the associate course in geology, and three for the course in land and mine surveying.

The results of the annual examinations in October, 1913, were as high as in previous years, only three failures being recorded—namely, one in mathematics, one in mechanics, and one in practical chemistry.

In September, 1913, Mr. John Mackay, A.O.S.M., passed the examinations of the New Zealand Board of Examiners, and obtained his diploma as a licensed surveyor. In the same year E. Fletcher Roberts and R. S. Thompson succeeded in passing the examinations of the Institution of Civil Engineers, entitling them to the associateship (A.M.I.C.E.) of that institution. The first named was bracketed with another Otago University student as taking the first place among all the candidates from Great Britain and the oversea dominions, and both received honourable mention from the Council in London.

Our old students continue to secure a good share of the lucrative appointments that fall to the lot of mining engineers, both at Home and abroad. Among the more important places obtained by them in 1913 are the following :—

(1.) D. M. Tomlinson, B.E., A.O.S.M., General Manager, Kapsan Mines (Limited), Korea.
(2.) E. Fletcher Roberts, Assistant Engineer, London Port Authority, London.
(3.) Alex. Fyfe, Chief Metallurgist, Ventanas Mining Company, Mexico.
(4.) F. W. Thomas, A.O.S.M., Assistant Manager, Bomba Tin-mines, Northern Nigeria.
(5.) Herbert Black, A.O.S.M., Chief Metallurgist, Aaquah Gold-mining Company (Limited), Gold Coast, West Africa.
(6.) Philip MacDouall, B.E., A.O.S.M., Assistant Manager, Bombassie Gold-mines, West Africa.
(7.) A. R. Andrew, D.Sc., A.O.S.M., Chief Mining Geologist, the Anglo-Saxon Petroleum Company, Sarawak.
(8.) Gerhardt Ulrich, B.E., A.O.S.M., Mining Captain, Prestea Block A Mining Company, Gold Coast, West Africa.
(9.) H. C. Boydell, A.O.S.M., Assistant Manager, Kapsan Mines, Korea.

Revision of Class-work.—The lectures and class-work in mathematics, mechanics, chemistry, and physics for the associateship of the School of Mines are at present the same as for the B.A. degree. The B.A. courses of study as defined for mathematics and chemistry cover the requirements of a professional mining or metallurgical course satisfactorily; but the B.A. courses in mechanics and physics contain much matter that has little or no bearing on the subsequent professional work of our graduates. Radical amendment is required, especially in respect of the course in mechanics. The brilliant scholar has doubtless no difficulty with mechanics as at present prescribed. He is a peculiar type of brain—finer, softer, and more receptive than that of the average professional student, whose reasoning is always associated with the doing of things rather than abstract ideas. The doer is the man who builds our harbours, railways, ships, and bridges, and who produces the coal and metals required for our great industrial activities. He is rarely brilliant, but has, nevertheless, succeeded in supplying us with all the conveniences of our complex modern civilization. To produce an annual output of 1,000 tons of copper is as worthy as teaching men for the mathematical tripos.

In all our work we should aim at making the course of study fit the object in view.

A Forward Move.—The days of the small mine are nearly past. In the last two decades the mineral industry has made prodigious strides, and mining operations are now conducted on a scale of magnitude undreamt of thirty years ago. The mining and metallurgical plant and accessories at many mines represent a value of many hundreds of thousands of pounds; and every day mining engineering is becoming more and more allied to civil engineering. The mining engineer is now required to construct roads, tramways, and railways; design and erect dams, bridges, and complicated metallurgical plant; harness rivers for the generation of hydraulic and electrical power. In order to meet the demand for more specialized knowledge in structural engineering it will be necessary for us, if we mean to keep in the front rank of