

EXTRACT FROM THE REPORT OF THE PROFESSOR IN CHARGE, SCHOOL OF ENGINEERING.

The most important occurrence was the establishment by the University of a travelling scholarship in engineering. This scholarship is of the value of £100, and tenable for one year. The regulations of the scholarship provide for the holder travelling to some other country approved of by the Chancellor, and there profitably employing his time in acquiring further knowledge of his profession. This scholarship will be of the greatest value in enabling a young man of promise to acquire a knowledge of the methods of carrying out engineering works of magnitude at present not to be obtained in this country.

During the year 160 individual students attended lectures, the hour-attendances per week amounting to 935, a reduction in the numbers of the previous year, owing mainly to the fact that at the end of 1910 the teaching of electricity was transferred from the School of Engineering to the College proper. Twenty matriculated students were studying for the University degree or for the associateship of the School of Engineering in the School of Engineering, in addition to which 6 engineering students were taking their preliminary year in the College. Thirty-one lectures per week were delivered, and instruction in drawing and designing, experimental work in the laboratories, and in field-work was given for 115 hours per week during the session.

At the University examinations, 1910, 1 student sat for and passed in the final examination for the degree of B.E. (electrical); 1 student sat for and passed the first part of the second examination in electrical engineering; 1 student completed the first professional examination in civil engineering; and 3 students completed the first part of the first professional examination, and 1 student passed the entrance examination. At the associateship examinations, 1911, one student passed the final examination for the associateship of the School of Engineering in mechanical engineering, whilst the passes in the other subjects of the associateship courses taken at the School of Engineering were: In freehand mechanical drawing, 4; descriptive geometry (advanced), 3; mechanical drawing, 3; steam-engine (elementary), 3; steam-engine (intermediate), 4; steam-engine (advanced), 1; applied mechanics, 5; mechanics of machinery, 5; hydraulics and pneumatics, 2; strength of materials (elementary), 6; strength of materials (intermediate), 2; strength of materials (advanced), 1; surveying (elementary), 3; building-construction, 3; principles of civil engineering, 3; electrical engineering (intermediate), 1. Associateship students taking subjects outside their regular course attended lectures, passed examinations, and obtained certificates in the following: Surveying (elementary), 1; principles of civil engineering, 1; and surveying (advanced), 1.

Ninety-six certificates were awarded to students attending evening lectures who attended lectures and passed examinations in the following subjects: Freehand mechanical drawing, descriptive geometry and setting-out work, mechanical drawing, steam-engine (elementary), applied mechanics (elementary), hydraulics, strength of materials (elementary), surveying (elementary), theory of workshop practice, and electrical engineering (elementary, C.C.).

During the year the demand for students trained at the School of Engineering has exceeded the number available. Amongst other appointments the following have been obtained since the date of my last report: Professor in Charge of the Mechanical Engineering Department, Syracuse University; Government Astronomer, New Zealand Government; Engineer-in-charge of Railway-construction, Madras; Assistant Engineer, Department of Harbours and Rivers, Brisbane; Assistant Engineer, Department of Roads and Bridges, Western Australia; Assistant Engineer, Metropolitan Board of Works, Sydney; Surveyor and Magnetic Observer, Dr. Mawson's Antarctic Expedition; Engineer to Waimarino County Council; Demonstrator, School of Engineering; Surveyor, Public Works Department; Assistant Engineer, Auckland City Council; Draftsman, Auckland Drainage Board; Assistant Engineer, Invercargill Municipal Tramways; Draftsman, Brisbane; Engineer, Heathcote County Council; Foreman of Works, Sumner Borough Council; Assistant Engineer, Christchurch City Council; Assistant Engineer, Lyttelton Harbour Board; Assistant Engineer, Public Works Department, Sydney; Assistant Engineer, Malay Federated States.

Mr. M. W. Mehaffey, B.E. (Mech.), having resigned the position of demonstrator at the School of Engineering to take up the practice of his profession, Mr. P. G. Bamford, B.E. (Mech.), was appointed to fill the vacancy. A combined survey and geological camp, under the joint control of the Lecturers in Surveying and Geology, was established at Castle Hill for a week during the long vacation. This camp was attended by 10 students. A considerable amount of work was done, and, the innovation proving in every way successful, similar camps of longer duration will be a feature of each long vacation. During the year tests were made in the engineering laboratories on wire rope for the Public Works Department, bridge-bolts for the New Zealand Government Railways, dumping-bands for the Wellington Harbour Board, drain-pipes for the Timaru Borough Council, rolled bars for the Otago Rolling-mills, concrete blocks for the Auckland City Council, and on bronze, roofing-tiles, pipes, chain-link, granite, cement, and wire rope for private individuals and firms.

The plant having been carefully upkept, and having received no accidental damage, there has been little deterioration during the year. The following additions have been made: An oscillograph, an electro-magnet, apparatus for the teaching of preliminary electrical engineering, a sextant, dumpy level, aneroid barometer, Atwood's machine, centrifugal-force apparatus, momentum apparatus, variable moment of inertia apparatus, harmonic-motion apparatus, Young's modulus apparatus, float-gear, nozzles, measuring-box with screens plates and notches, a large number of lantern-slides, and a set of metallurgical diagrams.

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