

School of Engineering.

During the year 1905, 172 students attended lectures, the hour-attendances per week amounting to 1,353. Forty-five students were taking the full courses for the University degree, or the associateship of the school; six college students attended lectures in electricity and magnetism.

Results of Examinations.—At the University examinations in 1904, 10 students passed part of the first examination and 5 completed the first examination; 5 students passed part of the second examination, and 5 completed their final examination for the degree of Bachelor of Science in Engineering.

Associateship of the School of Engineering.—Three students passed the final examination for the Associateship in Mechanical Engineering of the School of Engineering and Electricity, and one student that for the Associateship in Electrical Engineering. The passes in these courses in the subjects taught in the School of Engineering were: In freehand mechanical drawing, 5; advanced descriptive geometry, 7; mechanical drawing (advanced—second year), 4; steam-engine (elementary), 8; steam-engine (intermediate), 11; steam-engine (advanced), 4; elementary applied mechanics, 1; applied mechanics, 9; mechanics of machinery, 6; hydraulics and pneumatics, 9; strength of materials (elementary), 6; strength of materials (intermediate), 4; strength of materials (advanced), 3; theory of workshop practice, 3; surveying (elementary), 1; electricity and magnetism, 4; advanced electricity, 2; electrical engineering (intermediate), 1; electrical engineering (advanced), 1; mechanical drawing and designing, 2; mechanical drawing and designing (electrical), 1.

Evening Students.—One hundred and nineteen certificates were obtained by students attending evening lectures, who passed in the following subjects at the annual examinations: First class—Freehand mechanical drawing, 6; descriptive geometry and setting out work, 7; mechanical drawing, Section I, 6; mechanical drawing, Section II, 6; mechanical drawing, Section III, 1; the steam-engine (elementary), 7; elementary applied mechanics, 2; strength of materials (elementary), 2; elementary electricity, 4; elementary electrical engineering, 2. Second-class—Freehand mechanical drawing, 14; descriptive geometry and setting out work, 9; mechanical drawing, Section I, 12; mechanical drawing, Section II, 8; mechanical drawing, Section III, 1; elementary steam-engine, 8; elementary applied mechanics, 6; strength of materials (elementary), 6; elementary electricity, 7; elementary electrical engineering, 5.

Positions occupied by Past Students.—A large proportion of past students are in satisfactory positions, the nature of which is indicated by the accompanying list, which also shows the class of student from which the occupiers are drawn. Many pass directly into remunerative employment on leaving college, but it must be recognised that this can be by no means universal, nor is it desirable that it should be so. It is the function of the school to supply such technical training as will be useful to the engineer in the work of his profession—in fact, to provide him with the “tools of his trade”; and a period of probation and practice in the use of these tools under professional guidance is necessary before he can be considered sufficiently experienced to undertake responsible work. Lecturers and assistants in colleges or technical schools, &c., 12; practising or employed as engineers in charge of departments, districts, or undertakings, 14; electrical engineers, 5; assistant engineers, 16; managers of works, &c., 5; chief draughtsmen, 3; draughtsmen or surveyors, 50; assistant draughtsmen, 11; engineers on sea-going vessels, 48; engineers in freezing, pumping, and electric light, &c., works, 9; shop foremen, 18; engineers on dredges, &c., 14; leading hands and patternmakers, 15; locomotive-drivers, traction-engine drivers, &c., 14; in business on own account, 17; managers of small businesses, 4; New Zealand Telegraph Department, 4.

Annual Grant.—The annual grant of £1,500 made by the Government for the first time this year has enabled considerable additions to be made to buildings and apparatus, and also the work of the school to be subdivided and specialised with satisfactory results.

Courses in Engineering.—At present nine distinct courses in engineering are open to students. Six of these are day courses, providing the instruction necessary for taking the University degree of Bachelor of Mechanical, Electrical, or Civil Engineering, and for obtaining the Associateship of the School of Engineering in these branches. Three are evening courses—(a) a four-years course for apprentices in mechanical engineering; (b) a three-years course which, with concurrent shop-work, qualifies, by arrangement with the Marine Department, for a third-class marine engineer's certificate; (c) a four-years course for apprentices in electrical engineering.

Additions to Buildings.—During the year the erection of a large hydraulics laboratory was approved of by the Board of Governors and its construction begun; a small workshop was built; and an excellent photometric room and two instrument-rooms constructed in the previously waste space of the roof of the existing building. A small lecturer's room was formed in the old stair-well, and a transformer gallery erected in the electrical engineering laboratory.

Apparatus.—The professor in charge having been authorised to expend £900 on plant during his visit to Europe, the following arrived during the year, and were set up in the various laboratories: A 100-ton compression and bending machine with pump, and a complete set of Marten's mirror extensometers; a 10-horse-power, a 2·3-horse-power, and a $\frac{1}{2}$ -horse-power electric motor; a spherical head for 50-ton testing-machine; an Izod's pendulum impact testing-machine; a single-lever testing-machine; a Rosenhaim's improved calorimeter and cup micrometer; a pressure-recording gauge, a tachometer, and a separating calorimeter; two flash-point testers for heavy oils, viscosity apparatus, an Orsat's collector, &c., for tests of flue-gases, and a Bourdon ring; a Junker's calorimeter; a simplex indicator; furnaces for heat treatment of steel, a pyrometer, lecture-table apparatus for illustrating torsion, an air-pump, a mercurial barometer and four galvanometers, apparatus illustrating Boyle's law, a Quintenz balance, an overhead traveller, small balances, apparatus for demonstrating revolving field formed by 2- and 3-phase currents, four resistance boxes, an electrically driven tuning-fork, an induction coil, a spherometer, and gyroscope; four voltmeters, a wattmeter, six ammeters, and an electric tachometer; a potentiometer, two meter