class 2; theory of workshop practice—first-class 1, second-class 1, total 2; surveying (elementary)—second-class 1; surveying (advanced)—second-class 1; building-construction—first-class 1; principles of civil engineering—first-class 1, second-class 1, total 2; electricity (elementary)—first-class 5, second-class 6, total 11; electricity and magnetism (pass)—second-class 1: electrical engineering, Section I, C.C.—first-class 4, second-class 4, total 8; electrical engineering, Section II, A.C.—first-class 1, second-class 1, total 2; electrical engineering (intermediate)—second-class 1.

Appointments obtained by Students.—The number of appointments obtained by students during the year is satisfactory.

Another professorship in engineering has been secured by an old student: Mr. R. S. Cree-Brown, who graduated here in 1904, and did not subsequently attend any other institution, has received the appointment of Professor of Engineering at the Poona College of Science.

Amongst the other appointments have been: Lecturer in Electrical Engineering at the School of Mines, Auckland University College; First Assistant Engineer, Drainage Board, Chritschurch; Chief Engineer, Pumping-station, Christchurch Water-supply; Draftsman, Auckland Harbour Board; Railway surveyor, Public Works Department; Demonstrator, School of Engineering; Lecturer in Mechanical Engineering, Westport Technical School; Manager electrical department, Messrs. Scott Bros.; Lecturer in Machine-construction and Mechanical Drawing, Technical College, Christchurch; Engineer and Technical Assistant to Patent Agents, London; Assistant Engineer, Drainage Board, Christchurch, and Assistant Engineer.

Testing.—The tests made during the year included,—Complete test of a suction-gas centrifugal pumping plant recently installed at Heathcote for the water-supply of Lyttelton; steel bars for ferro-concrete work in Auckland; steel bars for Wellington; cement and stones for Dunedin and Auckland; timbers for North Island firms; rails for New Zealand Government.

Hydraulics Laboratory.—The equipment of the Hydraulics Laboratory was proceeded with, and practically completed by the installation of a low-lift centrifugal pump of 2,000-gallons-per-minute capacity, driven by a 35-horse-power electric motor; a 20-horse-power experimental Pelton wheel with a specially designed generator as brake, the current from this generator being utilized to assist in driving the supply-pumps; a low-fall Thomson-type turbine of about 8-horse power; a low-pressure-supply range; a high-pressure-supply range with artificial head: a venturimeter; a cast-iron roof tank of 11,400 gallons capacity; together with measuring-tanks, weirs, and nozzles, pressure and velocity gauges, and other necessary apparatus.

A special tilting-tank arranged for investigations into the flow of water-races and rivers, and over dams and through pipes and channels, has been erected in the centre of the laboratory.

This and a large amount of experimental gear was constructed locally, and a most satisfactory job has been made.

This equipment, being of a size comparable with that with which the engineer has to deal in practice, will form a most valuable addition to the experimental appliances of the school, and be of great assistance in the teaching of a most important branch of engineering.

Apparatus.—The whole of the plant has been carefully upkept, and is in very fair order, though it will soon be necessary, especially on the electrical side, to replace some of the older by more modern machines.

A small number of additions have been made. These include,—A Sankey's steel-testing machine; insulation and resistance indicator, gas-engine indicator, demonstration lantern, and a rheostat.

Changes in the Staff.—I have to record, with regret, the death of Mr. G. P. Williams, M.Inst.C.E., part-time Lecturer in Railway Engineering. During the year Mr. M. W. Mehaffey, B.Eng. (Mechanical), and Mr. J. Dalmer, A.M.I.C.E., were appointed Demonstrators in Engineering.

GIRLS' HIGH SCHOOL.

Report of the Lady Principal, Miss M. V. Gibson, M.A.

The school reopened with a larger attendance of pupils than had previously been attained, the numbers for the three terms of the year being as follows: First term, 235, an increase of 33 on the roll of the preceding term; second term, 231; third term, 226. Senior Free Places were held by 67 of these 226 pupils, Junior Free Places by 140, School Free Places by 3. Eleven paid fees and five were in the Preparatory class.

Throughout the year the general health of the pupils was excellent, and the attendance was good. Even during the third term, which is the most broken term as a rule, the average attendance was 209.

Early in the year the Governors decided to enlarge the playground by purchasing an adjacent quarter-acre section, and to utilize part of the dwellinghouse upon it for teaching purposes. By throwing two upstair rooms into one, a class-room of 30 ft. by 15 ft. was provided, and a similar room was made downstairs for holding singing and dressmaking classes. The rest of the house is used by the caretaker, who now resides upon the school premises. Much convenience has resulted from this addition to the school ground and buildings. It is hoped that the debt of £1,500, which has been incurred through the purchase, will be wiped out by annual payments during the next four or five years from the general revenue, which has profited by the improved capitation earned under the new Education Act of 1908.

A much-appreciated work of the year has been the fitting-up of the Science Room, which was completed shortly before the close of the third term. It is now provided with microscope benches and sinks for twelve pupils, a physical-science bench for twelve pupils, and a demonstrator's table and desks and forms for a class of twenty-four pupils. A sum of £10 was expended on physical and botanical models and apparatus, and these have proved very acceptable additions to the school equipment.