1901.

NEW ZEALAND.

EDUCATION:

THE CANTERBURY COLLEGE.

("THE CANTERBURY COLLEGE AND CANTERBURY AGRICULTURAL COLLEGE ACT, 1896.")

[In continuation of E.-8, 1900.]

Presented to both Houses of the General Assembly by Command of His Excellency.

Visitor.—The Minister of Education.

Board of Governors (Henry Richard Webb, F.R.M.S., Chairman).

Appointed by His Excellency the Governor—The Right Rev. John Joseph Grimes, D.D., the Right Rev. Churchill Julius, D.D., and Mr. Charles Reid.

Elected by members of the Legislature—Mr. Harry Joseph Beswick, Hon. William Montgomery, M.L.C., and Rev. William Morley, D.D.

Elected by graduates—Mr. William Chrystall, Rev. Canon Harper, M.A., Mr. Thomas Scholfield Foster, M.A., Mr. William Hugh Montgomery, Mr. Henry Richard Webb, F.R.M.S., and Mr. Richard Westenra.

Elected by public-school teachers—Mr. Charles Smith Howard, Mr. Thomas Hughes, B.A., and Mr. Thomas Shailer Weston.

Elected by School Committees—Mr. Thomas William Adams, Mr. George Warren Russell, and Mr. John Lee Scott.

Elected by Professorial Board—Courtenay Nedwill, M.D.

Registrar—Mr. Alexander Cracroft Wilson.

Professors.—Classics—F. W. Haslam, M.A. Mathematics and Natural Philosophy—C. H. H. Cook, M.A. Chemistry and Physics—A. W. Bickerton, F.C.S. French and German— . Biology—Arthur Dendy, D.Sc. English Language, Literature, and History—Arnold Wall, M.A.

Part-time Lecturers.—Geology—F. W. Hutton, F.R.S. Jurisprudence—W. Izard, M.A., LL.M. Constitutional History— . Political Economy— . Music—G. F. Tendall, Mus. Bac.

School of Engineering and Technical Science.—Professor in Charge—Robert J. Scott, M.I.M.E., A.M.I.C.E.

Girls' High School.—Lady Principal—Miss M. V. Gibson, M.A.

Boys' High School.—Headmaster—C. E. Bevan-Brown, M.A.

Museum.—Curator—Captain F. W. Hutton, F.R.S.

School of Art.—Headmaster—G. Herbert Elliott.

Public Library.—Librarian—A. Cracroft Wilson. Sub-librarian—H. Strong.

ANNUAL STATEMENT OF THE CHAIRMAN OF THE BOARD OF GOVERNORS.

AT the meeting of the Board of Governors of Canterbury College, held on the 25th March, 1901, the Chairman's statement of the progress made and work done in the several departments during the year was read, as follows:—

[Some details are omitted in this reprint.—SECRETARY, EDUCATION.]

THE COLLEGE.

The present is the twenty-eighth annual report and statement of the Chairman of the Board of Governors since the establishment of the institution, and the fifth since the passing of "The Canterbury College and Canterbury Agricultural College Act, 1896."

On the 2nd July, 1900, Mr. H. R. Webb was re-elected Chairman. The following members of the Board of Governors, retiring on the 30th June, 1900, were all re-elected: Selected by His Excellency, Charles Reid; elected by members of Parliament, Hon. W. Montgomery; elected by graduates, Rev. Canon Harper and H. R. Webb; elected by teachers, Thomas Hughes; elected by School Committees, Thomas W. Adams. Mr. A. E. G. Rhodes, representing the Professorial Board, having resigned his seat, was succeeded by Dr. Courtenay Nedwill. Subsequently Mr. G. G. Stead resigned his seat on the Board, and the graduates elected Mr. William Hugh Montgomery to the vacancy.

During the long vacation, on the 28th December, the College sustained a very sad and sudden loss by the death of Mr. W. Michell Clarke, who as lecturer and professor had given instruction in the French and German languages since February, 1891. He ever displayed the greatest interest in his work, and in the advancement of the students. In the absence of Professor Bickerton the work in the department of chemistry and physics has been performed by Dr. W. P. Evans and Mr. S. Page. The Board has arranged for the separate teaching of these subjects in the future. With a view to visiting England, Mr. P. F. Rowland resigned the positions of lecturer in political economy and constitutional history.

Considerable attention has been given to the subject of the establishment of university extension lectures in this district, in connection with the College. It is anticipated that some active steps will be taken in this direction during the year 1901.

With a view to encourage the study of science subjects, the Government granted a scholarship named the "Sir George Grey Scholarship," of the value of £50, to each of the university colleges. The scholarship was open to undergraduates whose academic standing did not exceed three years. The scholarship was awarded at the annual examination, and was gained by Struan S. D. Robertson.

There has been a great falling-off in the number of exempted students, examined at a distance from Christchurch, the totals being as follows: 1897, 51; 1898, 56; 1899, 23; 1900, 6.

The following table shows the number of matriculated and non-matriculated students who have attended lectures since the year 1890 to date:—

	Matriculated.	Non-Matriculated.	Total.		Matriculated.	Non-Matriculated.	Total.
1890 ...	151	116	267	1896 ...	150	66	216
1891 ...	172	177	349	1897 ...	144	73	217
1892 ...	186	159	345	1898 ...	131	56	187
1893 ...	182	158	340	1899 ...	117	65	182
1894 ...	185	141	326	1900 ...	125	93	218
1895 ...	177	130	307				

The number of students attending each lecture during the last term of 1900 was as follows:—

Classics.—Pass Latin: Translation, 28; composition, 24. Greek: Translation, 1; composition, 1. Honours Latin: Translation, 1; composition, 1. Pass Latin: Teachers' class, 10.

English Language and Literature.—Pass Lectures: History and structure of the English language, 25; Anglo-Saxon and Middle English, 21; literature and set books, 38; essay class, 29. Honours Lectures: Anglo-Saxon and Middle English, 7; philology, 3; literature and set books, 6.

English History.—Pass history of England, 15; honours European history, 0.

Mathematics.—Pass pure mathematics, 41; pass mechanics and hydrostatics, 15. Honours mathematics: Section I., 4; Section II., 2; Section III., 2; Section IV., 1. Honours elementary mechanics and hydrostatics, 6.

Chemistry and Physics.—Pass chemistry, 19; honours chemistry, 3; teachers' chemistry, 10; pass physics, 17; honours physics, 2; teachers' physics, 0; practical physics (junior and pass), 16; practical chemistry (junior and pass), 24; practical physics and chemistry (honours and research), 4.

Geology.—Junior geology, 4; senior geology, 2.

Biology.—General biology, Part II., 9; pass botany, Part I., 3; pass botany, Part II., 3; honours botany, 3; pass zoology, Part II., 2; honours zoology, 1; practical general biology, 8; practical botany, Parts I., II., and honours, 7; pass practical zoology, Part II., 2; honours practical zoology, 1; research work in the laboratory, 1.

French.—Pass Lectures: Composition, 20; authors, 19; grammar, 20; literature, 16; composition (teachers' class), 3. Honours Lectures: Composition, 2; authors, 1; essay and literature, 3; philology, 6; literature, 1.

German.—Composition I. and philology, 2; translation, 2; composition II. and grammar, 1; for beginners, 2.

Jurisprudence and Law.—Pass jurisprudence, 6; honours jurisprudence, 3; law (2nd section) 3; law (3rd section), 4.

Constitutional History.—7.

Political Economy.—Pass, 14; honours, 4.

Music.—Rudiments of music and harmony (junior, first year students), 15; harmony, &c., (intermediate, second year students), 9; harmony, counterpoint, history, &c. (senior, third year students), 15; advanced harmony, &c., 2; form in composition, senior 2, junior 3; evening class in rudiments of music and harmony, 8.

The attendance at the various classes during the year has been as follows: Junior (elements of music and harmony), morning class 15, evening class 8; intermediate (harmony and harmonising of melodies), 9; senior (harmony, counterpoint, history of music), 17; advanced, 5; study of form, 13: total, 67. Of the above students, fourteen sat for examinations of the Associated Board of the Royal Academy of Music and the Royal College of Music, all of whom passed, and two obtained honours.

There were fifty-three candidates for the Canterbury College Examinations in theory of music, of whom forty-seven passed. Two students have also passed the first examination (harmony and counterpoint) for the degree of Bachelor of Music. The examinations in practical music in connection with the Associated Board of the R.A.M. and R.C.M. were held in October by Professor Macpherson, of the R.A.M. There was a large increase of candidates, a total of ninety-two, of whom sixty-five passed. The following honours were obtained:—Theoretical Examinations: Harmony, 3. Practical Local Centre Examination: Pianoforte—Senior grade, 2; Junior grade, 2. School Examinations: Pianoforte—Elementary grade, 4.

Successful Students.—Students were recorded by the University Senate as having passed in their respective examinations as follows:—Doctor of Science, 1. Honours and also degree of Master of Arts, 4. Master of Arts, 1. Bachelor of Arts—Final section, 15; first section, 14. Bachelor of Science—Final section, 2; first section, 2. Bachelor of Science in Engineering—Second mechanical examination, 5; first mechanical examination, 2. Bachelor of Laws—Final examination, 4; second examination, 6; first examination, 1. Bachelor of Music—First examination, 2. Certificates of Proficiency, 3. Teachers' Certificates, Class C, 2

Of the seven senior scholarships awarded by the University, two were gained by students of this College—viz., those in chemistry and mathematics.

Girls' High School.

The general working of the school has been conducted on the same principles as in former years, with the exception that the upper school only was examined by outside examiners at the close of the year's work.

The roll-number for the first two terms (120 and 121) was identical with that of the same terms last year. The roll for the third term (119) was slightly lower, but the average daily attendance for the term (111·2) shows an improvement on that of last year (107).

Thirty-five pupils have held scholarships or exhibitions, sixteen being scholarships or exhibitions from the Board of Governors of Canterbury College, eighteen scholarships from the North Canterbury Board of Education, and one a scholarship from the South Canterbury Board of Education.

At the December University examinations, one pupil gained a Junior University Scholarship, and another matriculated well up (seventh) in the credit list; two pupils entered for Medical Preliminary Examination, and both passed; thirteen entered for matriculation and twelve passed. Three pupils gained Board of Education Senior scholarships, one of them heading the list.

Pupils of the school have individually gained numerous distinctions in connection with the awards of the Canterbury Jubilee Exhibition. In the literary section the gold medal for the essay under sixteen years was won by Alma Wells, and the gold medal in Class VI. (original papers on Maori legend, open class) by Rita Cracroft Wilson, while the certificates (third) in Classes I. and II. were both awarded to pupils of the school, and the gold and silver medals in Class II. to ex-pupils of last year. In plain sewing, pupils have won a gold medal and four silver medals for work done by them during school hours. In orignial decorative designs (under sixteen years) the first, second, and third (two equal) awards were given to pupils for work done in connection with the school drawing classes, and a pupil of the cooking class gained a silver medal and several special prizes in the cooking competition. In all cases these competitions were open to the whole colony.

The chief improvements to the buildings and playgrounds have been the extension of the bicycle shed, which now accommodates about thirty bicycles, and the levelling and dressing of the asphalted portion of the playground. This will be found a great improvement in the winter, as considerable inconvenience was caused by water standing in the hollows of the asphalt last winter.

Boys' High School.

The number of boys during the last term was 205. There was an unusually large entry of boys in September, and the decline in numbers seems to have ceased, while there is every prospect of a large entry next year.

In May the playground was levelled and covered with fine metal; the result was very satisfactory. In the new part of the building the stones which showed premature signs of weathering have been replaced.

The various departments of the school have progressed satisfactorily, and the general good conduct of the boys has been a source of great satisfaction to the staff.

Of old boys, J. S. S. Cooper, M.A., has taken double-first class honours in physics and mathematics, M. Keane won a Senior University scholarship, and A. C. Sandstein the Gunning Victoria Jubilee scholarship for original work in obstetrics. Two boys won Junior University scholarships, being second and third on the list; one passed the Medical Preliminary Examination, and nine passed the Matriculation Examination. Three boys have won senior scholarships at the annual examination of the Board of Education, being second, third, and fourth on the list.

Public Library.

During the last session of the General Assembly an Act was passed empowering the Board of Governors of Canterbury College to borrow a sum not exceeding £4,000 for the purpose of extending the buildings of the Public Library. A generous bequest has been made by the late Mr. Arthur Postle for the purchase of books either for the reference or circulating departments of the public library. With a view of making some trifling recognition of benefactions, the portraits in oils of Mr. James Gammack and Mr. Arthur Postle have been hung in the library. The representatives of Mr. G. Coates have presented a £5 scrip of the old Mechanics' Institute to the library.

Reference Department.—The annual inspection of the books has not revealed any damage, neither are any volumes unaccounted for. The department has been open to the public on 295 days, and the attendance continues regular. A considerable number of old New Zealand and Australian books have been purchased, and every opportunity is taken of adding to the volumes relating to the early history of the colony. The total number of books added since the last annual statement is 504, bringing the total in this department to 12,872 volumes. The subjects comprising the total are as follows: History, 1,238; constitutional history, 48; voyages, 667; literature—English and classics 559, poetry and drama 285, foreign 403; biography, 584; mineralogy, 24; astronomy, 95; biology, 27; geology, &c., 181; zoology, 298; natural science (general), 235; fine arts and Society of Musicians, 377; almanacs, calendars, &c., 1,075; legal, 70; mathematics, 123; architecture, 641; dictionaries, 351; political, 2,398; newspapers, 386; chemistry and physics, 74; divinity, 761; educational, 187; miscellaneous, 345; botany, 117; agriculture, 300; learned societies, 204; philosophy, 710; anatomy and medicine, 109.

The donations for the year number 112 works. A large book-case has been added to this department.

Circulating Department.—Steps must soon be taken for enlarging the accommodation, the whole of the available space being fully occupied. 348 volumes have been taken off the shelves as being unfit for re-issue; of this number 332 are volumes of fiction. The number of new books and renewals added during the year amounted to 1,264. The total number of books in this department is 19,235. About thirty copies of extra magazines have been ordered for the use of subscribers. This department was closed for the annual stock-taking from the 7th to the 12th January, when

eighty-five volumes were found missing; some of these have since been returned. The average number of subscribers for the year was 1,878. The following figures show the income from subscriptions during the last few years: 1897, £825 1s.; 1898, £857 15s.; 1899, £889 10s. 6d.; 1900, £926 4s. 6d. Fourteen volumes have been presented to the department.

Reading-room.—With the building powers obtained from Parliament during the session of 1900, frequenters of the public reading-room may hope ere long to obtain better accommodation and increased facilities for perusal of the newspapers of the day. The following newspapers and magazines are placed on the tables: New Zealand papers, 82; English papers and magazines, 21; Australian papers, 9; American papers, 3.

SCHOOL OF ENGINEERING, ELECTRICITY, AND TECHNICAL SCIENCE.

Report of the Professor in charge:—

During the year the field of work has been greatly increased, and now includes the subjects of electricity and electrical engineering. The Board having determined to separate the subjects of physics and chemistry, previously included under one chair, did me the honour to adopt my suggestion that a further division should be made, the subject of electricity being divided from heat, sound, and light, and its teaching intrusted to the engineering department, a special assistant being given me for this portion of the work. This decision resulted in Mr. A. R. Craddock, B.Sc., B.Sc. in Engineering (a former student), being offered, and accepting, the position of lecturer in electricity and electrical engineering in the School of Engineering; and in my drawing up specifications for electrical laboratories and apparatus. These specifications being approved by the Board, those relating to apparatus were sent to the leading electrical engineering firms of England and America; and, as an outcome, in November last I visited Sydney and signed a contract for the supply of the following plant: (1) A complete experimental lighting plant, consisting of 10 horse power generator, battery of thirty storage cells, and a three-panel Italian marble switch-board, with all necessary switches and instruments; (2) an experimental continuous-current power-transmission plant, consisting of 7 horse power experimental dynamo, 2½ horse power series-wound motor, 2½ horse power shunt-wound motor, and starting and regulating resistances and switches; (3) an experimental alternating-current power-transmission plant, consisting of 7½ horse power experimental one-, two-, or three-phase generator, 3 horse power two-phase motor, 3 horse power three-phase motor, and three transformers, one-, two-, and three-phase, transforming up to 1,000, 2,000, or 4,200 volts; (4) a 2½ horse power rotary converter; (5) a C volt- and ammeter, ten switches with fuses, three automatic circuit-breakers, and 400 yards of rubber-insulated cable; (6) a Silvertown testing set; (7) a Siemens's dynamometer; (8) two Siemens's resistance boxes; (9) a resistance frame; (10) Weston test volt- and ammeters; (11) a 13½ horse power gas-engine.

Buildings.—The erection of the buildings has been deferred, pending the decision of the Government on the question of subsidy, in connection with which the department was visited on the 3rd November by the Right Hon. the Premier, the Hon. the Minister of Education, and the Hon. the Minister for Railways.

Associateship Course.—A new departure was made during the year by initiating a course for the associateship of the School of Engineering, extending over three years, and of less difficulty than the four years university course for the degree of B.Sc. in Engineering. Eight students took advantage of this course, which promises to become an extremely popular one, fulfilling as it does the important purpose of turning out men well qualified for employment as draftsmen, managers, or assistant engineers; in fact, for holding those positions which the young engineer must, at starting, expect to occupy.

Attendance.—127 students attended lectures during the year; the number of hour-attendances per week being 608, as against 485 of the previous year, showing the very substantial increase of 25 per cent. The available accommodation has been taxed to the utmost, and the proposed new buildings are urgently required.

Engineering Laboratory.—Tests were carried out during the year on axles and cement for the New Zealand Government railways; oil for the Union Steamship Company; cast steel and concrete pipes for local firms; Oamaru stone and shingle.

Apparatus and Plant.—During the year the following additions have been made: A micrometer caliper measuring up to 12 in. in length, by thousandths of an inch; a micrometer caliper measuring up to ½ in. by ten-thousandths of an inch; six absolute standards of length, 3 in., 4 in., 5 in., 6 in., 7 in., and 8 in. in length; one 3 ft. straight-edge; Fuller's spiral slide rule; experimental screw-jack; nine spring balances; a set of weights; a 10-cwt. Weston's block and tackle for applied mechanics experiments; a kinematic chain and torsion models; a Knowles's steam pump for hydraulic experiments; a cement mixer; Orsat's apparatus for analysis of flue gases; sixteen drawing boards; four desks and benches; and a set of metallurgical diagrams.

By exchange with the School of Mines, Dunedin, three bridge models were obtained for various small models illustrative of mining.

The whole of the plant, with the exception of the boiler, now undergoing heavy repairs, is in excellent order.

Examinations.—At the annual examinations three students qualified for the first year of the course for the certificate of Associate in Mechanical Engineering, and five for the first and second years.

Of the students attending evening classes, four obtained first-class and ten second-class certificates in steam-engine (elementary); one obtained first-class and five second-class certificates in practical mechanics; three obtained first-class and three second-class certificates in elementary strength of materials; five obtained first-class and two second-class certificates in mechanical drawing (Section I.); one obtained first-class and four second-class certificates in mechanical drawing (Section II.); two obtained first-class and one second-class certificates in mechanical drawing (Section III.); eleven obtained first-class and six second-class certificates in freehand

mechanical drawing; nine obtained first-class and eight second-class certificates in descriptive geometry and setting out of work.

ROBT. J. SCOTT, M.Inst.C.E., M.Inst.M.E.,
Professor in charge.

MUSEUM.

Report of the Curator:—

I have the honour to report that during the year a new edition of the guide-book to the collections has been published, the first edition having been printed in 1895. The steady sale of about seventy-five copies a year is, I think, very satisfactory among so small a population. Another satisfactory feature is that the number of visits of schools to the Museum has much increased.

During the year new cases have been placed in the ethnological room, and in the gallery of the New Zealand room; also, Mr. W. W. Smith, of Ashburton, has presented a case for the Maori room, which he is filling with Maori objects.

The following exchanges have been sent out:—Freiberg Museum—New Zealand fossils and moa bones; Wanganui Museum—Foreign rocks and minerals; Perth (W.A.) Museum—New Zealand bird-skins; British Museum—Mosquitoes; Mr. A. Haylock, Wellington—Foreign shells; Mr. L. de Niceville, of Calcutta—New Zealand butterflies.

The following have been received in exchange:—Smithsonian Institute—Ethnological specimens; Wanganui Museum—Maori mats; Mr. J. Edge, Partington—Clubs from New Guinea; Mr. A. Haylock, Wellington—New Zealand worms.

The following are the principal additions during the year:—

Natural History Collections.—The skeletons of the elephant, bear, manatee, and dugong have been improved by the addition of artificial costal cartilages. Several new birds have been added, the most important of which is the woodhen of Lord Howe Island (*Nesolimnas sylvestris*).

Archæological Collection.—A very interesting exhibit has been added in the shape of a set of casts of skulls and limb-bones of Palæolithic and Neolithic man of Europe; and with them is placed, for comparison, a cast of the skull of *Pithecanthropus erectus* from Java.

Ethnological Collections.—A large number of objects from the Solomon Islands and Santa Cruz were obtained from the Rev. W. G. Ivens; war-drums from the Admiralty Islands, Fiji, and South Africa; a very old drinking-bowl from New Guinea; a number of specimens from New Caledonia, including two sacrificial clubs, one of which is made of jade; a number of musical instruments from Africa; copper knife, harpoon, and wooden snow-spectacles from Greenland; a large number of objects illustrating the arts of the North American Indians; three small pieces of Satsuma porcelain; two pairs of Cloisonnée vases; two carved ivory figures and four old bronzes from Japan, all of which were purchased. Captain Andrews presented some old matchlocks and swords from Central India; Mrs. Prideaux presented a pair of Canadian snow-shoes; Mrs. Fereday a model of a ship made by French prisoners of war in England; Captain G. Hutton, R.E., presented a Queen's chocolate box and a Boer proclamation issued from the Staats Museum at Pretoria; and Mr. W. Heney, the tunic of an officer of the late Orange Free State Artillery.

New Zealand Collections.—The skeletons of the whales have been improved by the substitution of artificial costal cartilages for wire. Several old skeletons of birds have been cleaned and re-mounted. Seven birds, new to the collection, have been added, most of them being sea-birds and waders. A skeleton of a moa from the silt-bed on the Sumner Road was presented by Mr. S. P. Andrews. A specimen of the animal of Spirula was presented by Mr. H. B. Kirk, and several shells and star-fishes by Mr. H. Suter. Mr. W. W. Smith, of Ashburton, presented a valuable collection of insects; and a number of marine worms have been received in exchange.

Maori Collections.—The most important additions are two old Maori canoes, one of which was presented by the Maoris of Little River, the other by Mrs. Rodgers. This last was found in 1873 on the New Brighton beach, near the mouth of the Waimakariri River. An old Maori paddle, ploughed up on the banks of the River Selwyn, was presented by Mr. F. Ryand; and another, dragged up in a net in Lake Ellesmere, was presented by Mr. John Carter. A basalt club, of peculiar shape, found at Carleton, was purchased. Mr. W. W. Smith's case and collection has already been mentioned.

Relics.—A programme of the toasts at the farewell breakfast to the Canterbury Pilgrims at Blackwall on 30th July, 1850, was presented by Mrs. A. Cadwallader, and Captain Taylor gave a piece of timber from the cargo of the "Boyd," which was wrecked at Whangaroa by the Maoris in 1809.

Library.—The usual presentations have been made by Museums, scientific societies, and foreign Governments. In addition the following were purchased: "Transactions of the Entomological Society of London," 1877–99; Lydekker's "Oxen, Sheep, and Goats of all Lands"; Humphrey and Westwood's "British Butterflies and Moths." Ronald and Richardson's "Chemistry Applied to the Arts" was presented by Mr. R. M. Laing; Lucas's "British Dragon-flies" and Sclater and Thomas's "Book of Antelopes" by the Curator.

F. W. HUTTON, Curator.

SCHOOL OF ART.

Report of the Art Master:—

As compared with 1899 the number of students have been as follows:—

1889.	Morning.	Evening.	Saturday.	Afternoon, Wood-carving.
First term	39	105	81	6
Second term	34	122	78	6
Third term	36	124	89	4
1900.				
First term	32	132	82	2
Second term	33	139	71	1
Third term	29	136	73	2

Drawing and Painting.—Classes, both elementary and advanced, have been held on Monday, Wednesday, and Friday, from 10 a.m. till 1 p.m. and 7 to 9 p.m., and on Thursday from 10 a.m. to 1 p.m. The work has comprised outline, and light and shade from the cast, models and still life; colour studies from still life and flowers; drawing and painting from life, both nude and draped. The landscape class has studied from nature one day per week during the first and third terms, and has produced some good work. A class for the study of plant form in relation to design was held, and proved helpful as giving material for application to various branches of applied art. To act in conjunction with this, classes for brush work and design have been started this year in the morning class, and students will then be encouraged to take up any form of applied work their inclination and aptitude lead them to. The drawing from life has continued to be of a high character as proved by the prizes taken.

Modelling, Casting, and Moulding.—Classes have been held as follows: Wednesday, 11.30 a.m. to 1 p.m.; Monday, 7 to 9 p.m.; and Saturday, 9.30 to 11 a.m. The average attendance of students compared with the previous year has been: 1899—Morning, 15; evening, 12; Saturday, not held: 1900—Morning, 14; evening, 11; Saturday, 6·52. The elementary students have worked from simple casts of ornament and antique, and the more advanced ones from more difficult casts and from nature. A few have done busts from the antique and life in full and bas-relief. Classes were started at the beginning of the year for modelling as applied more to kindergarten work and the various standards in the schools. This work, so valuable in giving a knowledge of form and training the faculty for original work, is now being largely introduced into the public schools, and so the teachers, for whom the classes were more especially designed, have formed the majority of the students. We have also found this work useful in enabling us to indicate the lines upon which modelling should be taken in the schools. Several of the scholarship boys from the public schools have also taken this work. Various kinds of moulding have been practised, such as waste, piece and gelatine, and a large number of casts taken.

Wood- and Stone-carving.—Classes have been held on Monday from 7 to 9 p.m.; Friday, 3 to 5 p.m.; and Saturday, 9.30 to 11 a.m. The attendance, compared with the previous year, has been: 1899—Morning, 6; evening, 5; Saturday, 6. 1900—Morning, 2; evening, 5; Saturday, 4. The work, as in the previous year, has mainly consisted of chip and incised carving. The evening class has been moderately attended, and done fair work; in the other two it has continued to be unsatisfactory. I have now reorganized the classes, and put the whole under another instructor. I trust, under the new arrangements, an improvement will soon be manifest. With the attention that is now given to this subject by such increasing numbers, I have been disappointed for a long time with the work of the class.

Painters and Decorators' Work.—This class, started at the end of 1899, has thoroughly justified its establishment, as far as the unfavourable conditions will allow of it. As yet there is no special provision for it, and the work has to be carried on in the ordinary class-rooms, which are constantly being used for other subjects; hence all the materials have to be removed at the end of every lesson, and only such work undertaken as will allow of this. The instruction is thus narrowed in scope, and the syllabus impossible to fulfil. The wonder is that with such a handicap the class has accomplished so much, and is an indication of what would be done if proper provision were made. The average attendance for the three terms of 1900 was 18.

Decorative Design.—This subject has been taken on Thursday evenings from 7 to 9. The students were divided into two divisions, elementary and advanced, lectures being given to each, illustrated by limelight views. Considering the importance of this class, the attendance is still unsatisfactory. The average attendance of the last two years has been: 1899, 13; 1900, 14.

Architecture and Building Construction.—This class has been held on Mondays and Fridays, from 7 to 9 p.m. A course of lectures was given, illustrated with the aid of the lantern, and was well attended. The subject dealt with was the history of architecture. From two to three hours per week were spent in drawing. The average attendance for the past two years has been: 1899, 15; 1900, 20.

Geometry and Perspective.—Classes have been held at the same time as in the previous year, and the average attendances have been:—1899, 28; 1900, 27.

Scholarships, Canterbury Industrial Association.—Two scholarships competed for in December, 1900, were awarded, entitling the winners to two years' free tuition. The scholarships are restricted to apprentices under twenty-one years of age.

Scholarships, Christchurch Builders' Association.—Two scholarships are offered annually, one to those under twenty, and the other to those under eighteen. These entitle the winners to one year's free tuition.

Public School Scholarships.—For several years past the Board of Governors have given an annual free studentship to the head boy in drawing in each of the ten district State schools. By a recent decision, these have been increased, and now one is given to the head boy in drawing in each school in the North Canterbury District having over 170 pupils. Under this new regulation the awards made for 1900 enabled fourteen schools to avail themselves of the scholarships. The remainder, amounting to about twelve schools, owing to distance from town, were unable to do so. It would mean that, were these schools enabled to participate, the scholarships would have to be made of such a value as to pay the expenses of living in Christchurch.

Free Studentships.—The seven free studentships offered by the Board for annual competition on the past year's work were awarded; also prizes from various donors.

Prizes.—Prizes given by the Canterbury Society of Arts were gained in—Modelling from life silver medal; head from life in colour, silver medal; architectural design, bronze medal; drawing from the figure; design of cover of catalogue. Every prize and medal awarded was won by our students.

At the Wellington Society of Arts prizes were gained for head from life in black and white and landscape from nature.

Canterbury Jubilee Industrial Exhibition.—In the competitions in the workers' exhibits and

home industries departments, open to the whole colony, the students trained at the School of Arts were phenomenally successful, as the following results, I think, amply show :—

Workers' Exhibits Department: Awards gained by students trained at the school—Gold medals, 9; silver medals, 34; bronze medals, 21; certificates, 73. Total awards given in department—Gold medals, 25; silver medals, 85; bronze medals, 74; certificates, 160. There were competitions in twenty-five different trades, and each was divided into three classes, according to age, with a silver medal as the first prize in each class. One gold medal was awarded in each trade for the best work, irrespective of class. Sixteen out of twenty-five gold medals came to Canterbury, and when it is remembered that in several of the trades our students could not compete—*e.g.*, in leatherwork, mechanical drawing, metal-turning, blacksmithing, &c.—it will be seen that to have won nine out of sixteen is a worthy record. In one section, practical painting and decorating, all the awards but two were gained by our students.

Home Industries Department: Awards gained by students trained at the school—Gold medals, 12; silver medals, 13; certificates, 34. In this department also our students were remarkably successful. In one section, drawing and painting, every prize given was gained by either a past or present student of the school.

Boys' High School.—The work has been of a similar character to the previous year's. Model drawing has been taught to a senior division on Thursdays, and to a junior one on Mondays.

Science and Art Department, South Kensington.—The following are the results of the annual examinations held last June. Students' Elementary Certificate: Pass—Freehand, 13; model, 10; geometry, 1; light and shade, 6. Fail—Freehand, 4; model, 10; geometry, 0; light and shade, 0: total number of candidates, 44; total number of passes, 30. Other subjects: Painting from still life—pass, 3; fail, 0; drawing from life—pass, 2; fail, 0; building construction—pass, 4; fail, 1; design—pass, 2; fail, 1; perspective—pass, 12; fail, 1: total candidates in all subjects, 70; number of passes, 53.

Two works were accepted for the art class teachers' certificate—viz., D. Cook's "Light and Shade from the Cast," and H. Spensley's "Group of Models Shaded."

Local Examinations.—The results of these examinations, held last December, are as follows: Second grade—Freehand, 66 candidates, 60 passed; model, 75 candidates, 74 passed; geometry, 33 candidates, 24 passed; perspective, 26 candidates, 18 passed; blackboard, 19 candidates, 14 passed. Full second grade certificates—5 passed. Other subjects—First grade geometry, 27 candidates, 15 passed; wood carving, 1 candidate, 1 passed; manual training and sloyd, 2 candidates, 2 passed; modelling, ornament, 5 candidates, 5 passed; modelling, antique, 3 candidates, 3 passed; kindergarten modelling, 3 candidates, 3 passed; brushwork, 10 candidates, 7 passed: totals, 270 candidates, 226 passed.

Applied Work.—I have previously mentioned the fact that for applied work of any kind in any branch of industry we have absolutely no provision. Before the work, now being attempted, is satisfactory and progress made possible this must be remedied; indeed the Government in their recently issued regulations practically imply that without this convenience it is doubtful if the grant will be given.

General.—Two of our former students, viz., C. Bickerton and S. L. Thompson, went to England last year to further prosecute their art studies. Mr. Bickerton is at the Bushey School (Professor Herkomer's), and Mr. Thompson at the Heatherly School, London.

G. H. Elliott, Headmaster.

CANTERBURY COLLEGE, 1900.

Statement of Balances at 31st December.

Cr.	*Accounts.*	£ s. d.	£ s. d.
School of Art Account		240 0 11	
Classical School, Capital Account		77 7 1	
College Maintenance Account		1,887 8 6	
Astronomical Observatory Account		323 8 5	
School of Engineering and Technical Science Account		500 10 7	
Girls' High School, Capital Account		5,002 8 1	
Circulating Library, Maintenance Account		585 6 3	
Circulating Library, Capital Account		2,000 0 0	
Circulating Library Catalogue Sinking Fund		175 0 0	
Medical School, Reserves Account		3,346 17 6	
Museum, Library, and School of Technical Science, Capital Account		18,941 8 4	
Museum, Library, and School of Technical Science, Endowment Fund Account		1,243 1 6	
Museum Account		81 9 0	
Emily Forest Memorial Fund Account		61 10 0	
			34,465 16 2
Dr.			
Boys' High School, Capital Account		149 18 4	
Boys' High School, Maintenance Account		141 12 11	
Superior Education, Capital Account		725 14 8	
Girls' High School, Maintenance Account		9 16 3	
			1,027 2 2
			£33,438 14 0

Bank and Investments.			
Drawing Account	£12,318 3 9		
Less outstanding cheques	390 19 9		
		11,927 4 0	
Mortgages of freeholds		19,150 0 0	
Mortgages of freeholds (Public Library)		2,000 0 0	
City Council debentures		300 0 0	
Post Office Savings-Bank		61 10 0	
			£33,438 14 0

Liabilities.

Bank of New South Wales	10,834 0 0	
Public Library—Scrip of shareholders	98 10 2	
Canterbury Agricultural College—Supreme Court award	5,300 0 0	
		£16,232 10 2

School of Art Account.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance, 1st January, 1900	115 9 7	Salaries	1,029 0 0
Students' fees	569 5 0	Subsidies to life classes	50 5 8
Grant from Museum, Library, and School of Technical Science Endowment Fund	600 0 0	Insurance	10 0 8
Grant from Boys' High School	50 0 0	Contribution towards expenses of Registrar's office	40 0 0
Grant from Government under Manual and Technical Instruction Act	174 7 5	Gas	34 7 8
Examination-fees (South Kensington)	10 0 0	Repairs	7 0 4
Examination-fees (second grade art)	3 5 0	Advertising	24 8 5
Sale of clay models	0 4 0	Printing, stationery, &c.	30 10 6
Special prizes (E. W. Roper)	3 3 0	Fuel	9 10 6
Interest	11 3 4	Sundry expenses	29 10 11
		Casts and art objects	16 4 8
		South Kensington examination	11 10 7
		Jubilee Exhibition	1 3 6
		Special prizes (E. W. Roper)	3 3 0
		Balance	240 0 11
	£1,536 17 4		£1,536 17 4

Boys' High School, Capital Account.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance, 1st January, 1900	19 5 0	Culverts	179 3 4
Gravel pits sold	10 0 0		
Balance	149 18 4		
	£179 3 4		£179 7 4

Boys' High School, Maintenance Account.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Fees	1,655 6 6	Balance, 1st January, 1900	49 13 3
Rent of reserves—		Salaries	3,820 0 8
Outstanding from 1899	244 1 4	Contribution to School of Art for instruction in drawing	50 0 0
Due in 1900	2,833 2 6	Insurance	30 4 1
Interest	1 11 7	Contribution towards expenses of Registrar's office	100 0 0
Balance	141 12 11	Examiners' fees	27 11 10
		Chemicals and apparatus	27 15 4
		Inspecting reserves and advertising	129 1 5
		Interest (Loan Account)	200 0 0
		Gas	20 19 10
		Fuel	17 8 9
		Printing, stationery, books, &c.	70 19 0
		Prizes	29 12 2
		Advertising	26 18 3
		Repairs, renewals, fittings, &c.	110 11 5
		Grant to cadet corps	15 0 0
		Grant to sports' fund (including rent of cricket-ground)	45 0 0
		Legal expenses	18 17 4
		General expenses	60 14 6
		Levelling playground, supplying chippings, &c.	25 7 0
	£4,875 14 10		£4,875 14 10

Classical School, Capital Account.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance, 1st January, 1900	40 2 1	Balance	77 7 1
Sale of land for deviation of road	37 5 0		
	£77 7 1		£77 7 1

Superior Education, Capital Account.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance, 1st January, 1900	224 5 4	College Maintenance Account: Transfer of amount paid to Canterbury Agricultural College on account of Supreme Court award	950 0 0
Balance	725 14 8		
	£950 0 0		£950 0 0

College Maintenance Account.

Receipts.	£	s.	d.
Balance, 1st January, 1900	407	14	7
Classical School reserves—			
Rents due in 1900	4,573	5	7
Rents outstanding from 1899	615	18	6
Classical School town reserves—			
Rents due in 1900	228	0	0
Rents outstanding from 1899	9	15	0
Superior education reserves—Rents	2,405	0	0
Students' fees	1,205	8	0
Interest	51	7	9
Sale of calendars	2	19	3
Contributions towards salaries of Registrar and staff, and office-expenses—			
From Library	30	0	0
„ Boys' High School	100	0	0
„ Girls' High School	60	0	0
„ School of Engineering, Electricity, and Technical Science	40	0	0
„ School of Art	40	0	0
„ Museum	30	0	0
„ Medical School reserves	10	0	0
Rent of College lodge	59	15	10
Hire of chairs in College hall	15	0	0
Gas—Refund	1	0	0
Rent of building (School of Engineering, Electricity, and Technical Science)	193	18	4
Contribution from Medical School reserves towards salary of Professor of Biology	300	0	0
Examination-fees—			
Associated Board R.A.M. and R.C.M. (share)	61	8	6
Music (College)	3	13	6
Exempted students	36	4	6
Compensation from lessees for non-fulfilment of conditions of leases	20	0	0
Superior Education, Capital Account—Transfer of amount paid to Canterbury Agricultural College on account of Supreme Court award	950	0	0
Share of chemical analysis fees	9	9	0
	£11,459	18	4

Expenditure.	£	s.	d.
Salaries	6,674	0	0
Insurance (College)	109	17	8
„ (chemical laboratory)	23	2	0
„ (biological laboratory)	5	17	3
„ Rates	12	17	0
Exhibitions	130	0	0
Contribution to School of Engineering, Electricity, and Technical Science	550	0	0
Books for College library	30	2	7
Repairs to College lodge	14	1	6
Expenses of music lectures	14	7	3
Repairs	99	5	9
Inspecting reserves and advertising	148	5	1
Interest (Loan Account)	233	7	2
Apparatus for biological laboratory	71	10	9
Fuel	26	12	9
Gas	56	14	4
Printing, stationery, &c.	120	17	4
Advertising	35	15	1
Furniture, fittings, &c.	9	15	1
Washing and cleaning	14	12	2
Legal expenses	46	13	8
Keeping grounds in order	22	13	11
General expenses	92	10	9
Chemical laboratory—			
Gas	26	11	2
Painting and renovating interior	0	9	6
Repairs to building	5	11	6
Repairing apparatus	7	14	6
Chemicals and apparatus	149	14	8
General expenses	28	3	2
Biological laboratory—			
Fuel and lighting	29	5	10
Laboratory expenses, specimens, &c.	28	1	0
General expenses	13	4	4
Astronomical observatory—			
Honorarium (Mr. Kitson)	50	0	0
Sundries	12	7	0
Canterbury Agricultural College—			
Interest	265	0	0
Pipes, &c. for reserves	17	19	6
Expenses of election of Governors	29	12	5
Expenses of music examinations (Associated Board)	19	19	0
Exempted students' examination—			
Examiner's fees	12	9	6
Supervising and other expenses	23	15	0
Reserve No. 726—Fencing, &c.	29	16	3
Bicycle-shed (lady students)	10	10	0
Physical laboratory—			
Apparatus	161	18	5
Alterations in rooms	107	8	0
Balance	1,887	8	6
	£11,459	18	4

School of Engineering and Technical Science Account.

Receipts.	£	s.	d.
Balance, 1st January, 1900	259	11	4
Grant from Museum, Library, and School of Technical Science Endowment Fund	618	18	4
Grant from superior education reserves—(College)	550	0	0
Students' fees	392	3	6
Students' fines	0	4	0
Testing-fees	21	0	0
Grant from Government under Manual and Technical Instruction Act	40	13	9
Refund of freight	1	12	1
Interest	18	11	6
	£1,902	14	6

Expenditure.	£	s.	d.
Salaries	800	0	0
College—Rent of building	193	18	4
Contribution towards expenses of Registrar's office	40	0	0
Gas	39	8	11
Insurance	13	2	6
Printing and stationery	28	7	4
Advertising	10	8	10
Fuel	3	15	6
Laboratory stores	17	10	9
Cleaning machinery, firing, &c.	23	19	0
Upkeep of plant, general repairs to machinery, &c.	44	1	8
Preparation of specimens for experimental work	58	17	6
Sundries	29	0	1
Accommodation for increased number of students	41	0	0
Expenses of Professor Scott's visit to Sydney to purchase plant for electrical laboratories	41	17	6
Professor Scott, half-share of testing-fees, 1900	10	10	0
Professor Scott, half-share of testing-fees, 1899	6	6	0
Balance	500	10	7
	£1,902	14	6

Girls' High School, Capital Account.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance, 1st January, 1900	5,002 8 1	Balance	5,002 8 1

Girls' High School, Maintenance Account.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance, 1st January, 1900	55 17 7	Salaries	1,496 19 0
School-fees	1,439 11 0	Contributions towards expenses of Registrar's office	60 0 0
Rent of reserves	288 7 2	Insurance	10 7 6
Interest	203 7 6	Inspecting reserves	6 13 0
Proceeds from cooking-class	13 14 0	Examiners' fees	29 12 0
Balance	9 16 3	Scholarships and exhibitions	225 0 0
		Repairs	19 15 9
		Expenses of cooking-class	19 4 0
		Fuel	10 15 0
		Advertising	33 4 8
		Prizes	24 16 8
		Printing, stationery, and books	24 16 2
		General expenses	49 9 9
	£2,010 13 6		£2,010 13 6

Public Library, Capital Account.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Transfer from Arthur Postle Bequest Account	2,000 0 0	Balance	2,000 0 0

Public Library, Maintenance Account.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance, 1st January, 1900	456 17 7	Salaries	564 14 11
Contribution from Museum, Library, and School of Technical Science Endowment Fund	563 0 0	Contribution towards expenses of Registrar's office	30 0 0
Subscriptions	926 4 6	Insurance	52 17 0
Fines	19 6 3	Gas	103 17 4
Sale of catalogues	5 1 0	Fuel	24 6 3
Sale of magazines	5 11 9	New books (circulating department) ..	221 1 0
Sale of waste paper	3 1 4	Renewal of standard works	50 6 10
Fees for reserving books	6 9 3	Periodicals and English papers	79 3 10
Interest	59 8 8	Colonial papers	36 2 6
Receipts from "Gammack" Trust ..	650 0 0	Repairs	17 9 2
Government subsidy (parliamentary grant)	23 0 7	Legal expenses	39 12 5
		Reference library—Books and binding ..	188 18 3
		Printing, stationery, and advertising ..	44 3 4
		Binding	61 3 0
		Sundry expenses	36 10 4
		Painting and papering interior of cottage	21 7 6
		Portraits of late Messrs. Gammack and Postle	54 19 6
		Glass Case	22 10 0
		Executors of late Arthur Postle—Amount paid in cash to cover difference in amount of bequest (£1,666 8s. 6d.) and value of mortgages taken over by Board (£2,000)	333 11 6
		Library catalogue sinking fund (transfer)	150 0 0
		Balance	585 6 3
	£2,718 0 11		£2,718 0 11

Circulating Library Catalogue, Sinking Fund Account.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance, 1st January, 1900..	25 0 0	Balance	175 0 0
Maintenance Account, for catalogue ..	150 0 0		
	£175 0 0		£175 0 0

Medical School Reserves Account.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance, 1st January, 1900	3,459 2 11	Contribution towards salary of Professor of Biology	300 0 0
Rent of reserves	310 12 0	Contribution towards expenses of Registrar's office	10 0 0
Interest	137 1 5	Inspecting reserves	11 11 4
		Legal expenses	3 3 0
		Share of cost of printing annual report ..	0 4 6
		Biological laboratory	235 0 0
		Balance	3,346 17 6
	£3,906 16 4		£3,906 16 4

Museum, Library, and School of Technical Science, Capital Account.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
Balance, 1st January, 1900	18,941	8	4	Balance	18,941	8	4

Museum, Library, and School of Technical Science Endowment Fund.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
Balance, 1st January, 1900	1,185	7	9	Contributions to—			
Rent of reserves	2,300	0	0	Museum	1,225	0	0
Interest	797	10	7	School of Engineering and Technical Science	618	18	4
				Public Library	563	0	0
				School of Art	600	0	0
				Inspection of reserves	21	3	0
				Legal expenses	11	7	3
				Printing	0	8	3
				Balance	1,243	1	6
	£4,282	18	4		£4,282	18	4

Museum Account.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
Contributions from Museum, Library, and School of Technical Science Endowment Fund	1,225	0	0	Balance, 1st January, 1900	5	15	0
				Salaries	795	0	0
				Insurance	53	0	0
Sale of guide-books for 1899	3	19	0	Contribution towards expenses of Registrar's office	30	0	0
Sale of guide-books during 1900	3	15	0	Repairs	0	10	6
Interest	2	6	9	Cases, fittings, &c.	21	0	0
				Books and binding	18	14	6
				Purchases (specimens)	123	10	3
				Freight and charges	7	12	9
				Fuel	3	1	9
				Sundry expenses	19	8	6
				New guide-book	75	18	6
				Balance	81	9	0
	£1,235	0	9		£1,235	0	9

Astronomical Observatory Account.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
Balance, 1st January, 1900	310	18	6	Balance	323	8	5
Interest	12	9	11				
	£323	8	5		£323	8	5

Emily S. Foster Memorial Fund.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
Balance, 1st January, 1900	£61	10	0	Balance	£61	10	0

Arthur Postle Bequest Account.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
Amount of bequest	1,666	8	6	Public Library Capital Account transfer ..	2,000	0	0
Circulating library interest transfer ..	333	11	6				
	£2,000	0	0		£2,000	0	0

Mortgages of Freeholds Account.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
Balance	19,150	0	0	Balance, 1st January, 1900	15,250	0	0
				Loan	1,200	0	0
				Loan	2,700	0	0
	£19,150	0	0		£19,150	0	0

Public Library Scrip of Shareholders (Liability).

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
Scrip cancelled	5	0	0	Balance, 1st January, 1900..	103	10	2
Balance	98	10	2				
	£103	10	2		£103	10	2

Examined and found correct.—J. K. Warburton, Controller and Auditor-General.

Approximate Cost of Paper.—Preparation, not given; printing (1,535 copies), £8 14s.

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