

1892.  
NEW ZEALAND.

# EDUCATION: THE CANTERBURY COLLEGE

(PAPERS RELATING TO).

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

## 1. ANNUAL STATEMENT OF THE CHAIRMAN OF THE BOARD OF GOVERNORS.

At the annual meeting of the Board of Governors of the Canterbury College, held on Monday, the 11th July, 1892, the Chairman's statement of the progress made and the work done in the several departments during the year was read, as follows:—

### THE COLLEGE.

No alteration has taken place amongst the members forming the Board of Governors during the past year. On the 24th June, however, the resignation of Mr. J. D. Enys, who has left the colony, was received. Notices have been issued to the graduates of the University of New Zealand continuing on the books of the College, calling a meeting for the 6th August, for the purpose of electing a Governor to fill the vacant seat. The day of nomination has been fixed for the 23rd July.

The last annual statement contained a table showing the number of matriculated and non-matriculated students who have attended lectures since the year 1877–78.

	Matriculated.	Non-matriculated.	Total.
The numbers at that date were ...	20	77	97
In 1890–91 ...	205	186	391
In 1891–92 ...	239	194	433

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

*Classics.*—Pass Latin: Translation, 42; composition, 42. Greek: Translation, 8; composition, 8. Honours Latin: Translation, 13; composition, 14. Teachers' Latin, 10.

*English Literature.*—Elizabethan literature, 90; language of Shakespere, Burke, and Macaulay, 83; composition, 152; essay class, 138; art of Shakespere, Burke, and Macaulay, 159; philology, 38; criticism, 59; history (1688 to 1789), 65.

*Mathematics.*—Lower division, 42; upper division, 7; mechanics and hydrostatics, 18; advanced mathematics, 6.

*Chemistry and Physics.*—Pass chemistry, 6; honours chemistry, 5; teachers' chemistry, 6; pass physics, 25; teachers' physics, 5; practical physics, 11; honours physics, 7; metallurgy and mineralogy, 6; elementary science (teachers' E and D), 37; laboratory practice (chemical), 27.

*Geology.*—Junior, 16; senior, 5.

*Biology.*—General biology, 10; junior botany, 10; senior botany, 7.

*French.*—Elementary French: Composition, 15. Pass French: Grammar and history of language, 16; sight translation and "Les Femmes Savantes," 32; composition, 31; French literature (period 1790 to 1830), 28. Honours French: Philology and etymology, 3; essay and sight translation into French, 7.

*German.*—Pass German: Translation, 4. Elementary German: Composition, 2. Pass German: Translation and composition, 2. German: History of language and literature, 1.

*Jurisprudence and Law.*—Pass Jurisprudence, 11; honours jurisprudence, 5; constitutional history, 11; LL.B. (third examination), 2.

*Music.*—Rudiments of music and harmony (first year), 17; harmony and counterpoint (second year), 27; harmony and counterpoint (second year, evening class), 10; rudiments of music and harmony (special evening class), 11.

Three students from the College have this year obtained the degree of M.A. Miss J. M. Prosser and H. Northcote gained at the same time first-class honours in languages, and F. A. Pemberton second-class honours in languages and second-class in political science, whilst R. Speight as B.Sc. gained second-class honours in natural science. Twenty-two students of the College have passed the final section of their B.A. examination, and had the degree conferred upon them (Misses E. Aikman, E. E. T. Crosby, G. E. Greenstreet, A. Harband, S. Henderson, M. E. A. Marchant, E. Stevenson, and A. C. Tendall, and Messrs. T. W. Ambrose, M. W. Butterfield, H. S. Cocks, F. G. Gibson, E. E. Hardcastle, D. Jack, T. M. M. Laing, T. H. G. Lloyd, P. Marshall, E. T. Norris, W. G. Pye, H. T. J. Thacker, R. M. Tolhurst, and H. B. Watson); whilst twenty-one have passed the first section of their B.A. examination (Misses E. M. Baber, A. Baldwin, C. A. Barnicoat, E. A. Chaplin, G. M. Glanville, L. Lewis, and Florence Sheard, and Messrs J. E.

Bannister, A. Bell, E. S. Buchanan, T. W. Cane, H. H. Fooks, J. de B. Galwey, W. G. Ivens, C. P. Johnson, B. H. Low, W. S. Marris, G. G. S. Robinson, E. Rutherford, A. H. Thorpe, and F. D. Waller). J. C. Westall, T. W. Beare, and D. Bates passed the second section of the LL.B. examination. Messrs. C. E. Adams, B. S. Bull, H. L. Kidd, and P. Marshall passed the final B.Sc. examination, and had the degree conferred upon them. P. Marshall gained the senior scholarship in natural science, and H. B. Watson that in Latin and Greek; whilst C. E. Adams was equal with another in gaining that in physical science, and E. E. Hardcastle was equal with another in gaining that in mathematics. The John Tinline Scholarship, for excellence in English language and literature, was gained by Miss A. C. Tendall, of this College. The College exhibitions, given for excellence in honours work at the College annual examination, were awarded as follows: For Latin, W. S. Marris; for English, Miss Florence Sheard; for mathematics, E. Rutherford (W. S. Marris being first, but took that in Latin); for experimental science, E. S. Buchanan; for political science, A. J. Buchanan and Miss S. M. Henderson (equal); for natural science, H. L. Kidd.

The graduates of the University of New Zealand who have been educated at the College now number 130, fifty-five of whom have obtained the degree of M.A., seventy-four the degree of B.A., two that of LL.B., and one that of B.Sc. Six arts graduates have also obtained the degree of LL.B., four that of B.Sc., and one that of LL.D. Of the Masters of Arts, two gained double first-class honours, one a double first-class and a second, one a first-class and a second, one a first-class in arts and a second-class in science, twenty-eight first-class honours, two double second, ten second, and eleven third-class. Thus, out of 312 who have taken degrees in the University of New Zealand, 131 belong to Canterbury College; out of the 117 who have taken the M.A., fifty-five belong to it; and of fifty-three who have taken first-class honours, thirty-four belong to it. Of the eighty-eight senior and third year and John Tinline Scholarships awarded by the University of New Zealand during the last fifteen years—the period during which the present scholarship regulations have been in force—fifty-five have been awarded to the students of Canterbury College. Of the seventeen Bowen Prizes which have been awarded by the University for an essay on a subject connected with English history, and open to all undergraduates of the University of New Zealand, eleven have been gained by students trained in this College, whilst the only three mentioned as *proxime accessit* have also been of this College.

The Professor of English Language and Literature, Professor Brown, after many years of constant work, has been granted leave of absence for the second term of the year, to enable him to proceed to England to seek medical advice. The Board has arranged for the work of the chair to be carried on by Mr. O. T. J. Alpers, M.A.

It has been determined to give an annual exhibition of the value of £20 for proficiency in French or German. There are now seven annual exhibitions, each of the above value, granted by the College in the various subjects taught. In the School of Engineering, two exhibitions of a similar value, tenable for two years, are offered for competition annually.

*Music.*—Sixty-five students have joined the various classes this term. Of these, thirty-three attended the lectures last year, and have all passed successfully the junior examination in music. Twenty-eight new students have joined the junior classes.

Considering the importance of the subjects treated in the senior class—namely, harmony, counterpoint, and the history of music, the number of hours at present devoted to the study of music in this class is not sufficient to enable a student to obtain a thorough knowledge of the subjects in question after one year's work. It will probably be found desirable to increase the time devoted to the course to two years, by the end of which period diligent students ought to be able to obtain a high proficiency.

#### SCHOOL OF ENGINEERING AND TECHNICAL SCIENCE.

The number of students attending the classes during the last term was fifty-five. The number of matriculated students taking up the whole course is eight, as against five during the past year.

TABULAR STATEMENT OF ATTENDANCES—FIRST TERM 1892 AND FIRST TERM 1891.

Subject.	Attendance.			
	Matriculated.	Extra.	Total, 1892.	Total, 1891.
Freehand mechanical drawing ...	6	39	45	35
Descriptive geometry ...	...	30	30	28
Descriptive geometry, advanced ...	7	3	10	10
Mechanical drawing ...	2	3	5	4
Mechanical drawing, advanced ...	1	...	1	Nil.
The steam-engine ...	4	26	30	31
Applied mechanics ...	2	10	12	7
Strength of materials ...	Not delivered	Not delivered	Not delivered	7
Mechanics of machinery ...	2	7	9	Nil.
Engineering laboratory ...	7	...	7	Nil.
Principles of civil engineering ...	1	...	1	1
Building construction ...	...	...	Nil	2
Building construction, advanced ...	1	...	1	1
Surveying ...	...	...	Nil	Nil.
Surveying, advanced ...	1	...	1	1
Surveying, field-work ...	1	...	1	2

The Board, having voted a certain sum of money to be expended in plant for the engineering laboratory, the following machine-tools have been purchased, and were erected during the term by the matriculated students: One 4½in. centre screw cutting lathe, 6ft. gap-bed, with overhead motion, chucks and wheel-cutting appliances complete; one 4½in. centre 3ft.-bed American wood-turning lathe, complete; one 1½in. spindle drilling-machine, which has been fitted with compound table and self-centring drill-chuck; one Kennedy's patent shears, 1½in. blade; one hand shaper, 6in. stroke, with automatic feed and universal joints; one 6in. instantaneous grip-vice, with taper attachment; one gas hearth, with tools, bellows, and blowpipe complete; one anvil; one swage-block; one set smith's tools; one high-power gas-burner, with ladle, &c.; one complete set of hand tools (wood and iron) necessary for the preparation of test-specimens, models, &c. The laboratory has also been fitted with flooring, gas, benches, cupboards, &c. The tools obtained are all of the best quality. The presence of even this small amount of machinery has been of the greatest practical value in the instruction of the matriculated students. I trust that the finances of the Board will admit of its making additions from time to time of other appliances which are urgently needed, especially the testing and experimental appliances.

#### GIRLS' HIGH SCHOOL.

The number of pupils attending the school last term was 136. There has been very little change in the staff during the year. One of the part-time teachers resigned at the end of last term, and another has been appointed to fill the vacancy. The cooking classes are progressing satisfactorily, and are well attended. They are now being taught by two former pupils of Mr. Morton, Mr. Jackson having resigned at the end of last year. The class for the teaching of scientific dress-cutting is doing the usual work and advancing satisfactorily.

The swimming classes were larger than usual last year, and were most successful. The training in drill and calisthenics, under Major Richards, has proved even more beneficial than that in gymnastics, as almost the whole school is able to take advantage of it. Last year, for the first time, these more practical subjects, together with drawing and class-singing, were examined by experts, whose reports showed that the work done in them was careful and thorough.

At the annual examination in the ordinary subjects of the school course the reports of the examiners (Professor Cook, Mr. J. V. Colborne-Veel, Professor Hutton, Mr. B. S. Bull, Mr. T. R. Creswell, Mr. W. M. Clarke, and Mr. H. O. Forbes) were very favourable. At the examination held last April by the Board of Education one pupil gained a scholarship in Class D. At the entrance examination of the New Zealand University held last December ten girls matriculated. Three girls entered for the junior University scholarship examination, and by one of the candidates the school had the honour of gaining the first place in the list, an honour which it had in the previous year also.

The lady principal obtained leave of absence from the Board for a term and a half. Satisfactory arrangements have been made for conducting the work of the school during that period.

#### BOYS' HIGH SCHOOL.

The new buildings, containing on the first floor a chemical laboratory and a new class-room, and on the ground-floor a basement, were opened on the 23rd September last year. They have been found of great service to the school, and, in fact, were a necessity owing to continued increase of numbers. The laboratory is gradually being made complete with a supply of chemicals and apparatus, &c. The basement, which has been asphalted and fitted with seats, serves excellently as a place where lunch may be eaten.

Lieut.-Colonel Gordon's report of the cadet and physical drill, which he inspected in December, was the first official report made to the Board of Governors on the school drill, and was very satisfactory.

One new feature this year has been the introduction of the subject of shorthand, which is taught to a limited number of boys.

At the entrance examination of the University of New Zealand, held last December, eleven boys entered for matriculation, and ten passed. One passed the medical preliminary examination. Six candidates entered for junior University scholarships, and three won scholarships, being respectively third, fifth, and ninth on the list. Two others obtained good places on the honours list. One boy passed with distinction the Senior Civil Service examination, being second on the list. In the Junior Civil Service examination one boy was placed first on the list out of 112 candidates examined. Two others also passed, one in the twelfth and the other in the forty-first place. At the examination held last April by the Board of Education boys from this school obtained three out of the four scholarships awarded in Classes C and D. The school was examined in December last, and the reports of the examiners (Professor Cook, Mr. T. W. Rowe, M.A., Mr. L. Cohen, M.A., Mr. W. Michell Clarke, M.A., Mr. H. O. Forbes, Mr. G. Gray, Mr. J. M. Madden, and Lieut.-Colonel Gordon) were very satisfactory.

The number of pupils attending the school last term was 165; the number attending at the same time last year was 149.

As regards changes in the work of the school, it should be mentioned that Mr. Michell Clarke has, with the Board's approval, discontinued to teach French at the school, and that Mr. Speight has been made a full-time master.

#### MUSEUM.

The affairs of the Museum have of late occupied much of the attention of the Board. Two different inquiries into this department were held during the year: (1) by the Museum Committee, which reported to the Board on the 28th September, 1891; (2) by a special Committee of Inquiry, which presented their report to the Board on the 20th April last, accompanied with the minutes of

proceedings and the full evidence taken by the committee. A special meeting of the Board was held on the 2nd May to consider the report. In this report, which was adopted by the Board, the Committee recommended: "That, in the interests of the Museum, Mr. Forbes's engagement should be ended; and that Mr. Forbes should receive twelve months' notice of the termination of his agreement with the Board, or £400 in lieu thereof, being one year's salary, should he desire to resign the position at once." Mr. Forbes elected to adopt the latter course, and at his own request was relieved from the duties of his office on the 21st May last. Professor Hutton took temporary charge of the institution.

Some difficulty has arisen with respect to the collection of moa bones discovered at Enfield, near Oamaru, and reported on by Mr. Forbes in his letters of the 4th and the 15th September. The Board has not yet arrived at any decision with respect to the claim instituted by Dr. De Latour in connection with these bones.

#### SCHOOL OF ART.

The number of students who have received instruction during the past year compared with the previous year is as follows:—

					Second Term.	Third Term.	First Term.	Total.
Year 1890-91—								
Morning class	...	...	...	...	26	31	30	87
Evening class	...	...	...	...	68	54	75	197
Saturday teachers' class	...	...	...	...	79	78	66	223
Total	...	...	...	...	...	...	...	507
Year 1891-92—								
Morning class	...	...	...	...	28	30	30	88
Evening class	...	...	...	...	74	74	70	218
Saturday teachers' class	...	...	...	...	78	86	81	245
Total	...	...	...	...	...	...	...	551

#### Year 1890-91—

Normal School students (individual)	...	...	...	...	64
Boys' High School pupils (individual)	...	...	...	...	144

#### Year 1891-92—

Normal School students (individual)	...	...	...	...	42
Boys' High School pupils (individual)	...	...	...	...	160

*Morning Class.*—The draped-life classes have been held as usual twice a week, the students working in colour and black-and-white. The class for sketching from nature has been fairly well attended during the year, the students going out once a week; the advanced ones working in colour, and the others doing simple tone studies in monochrome. Other students have been doing still-life work, and drawing from the antique, while the less advanced students have received a thorough grounding in freehand and model and elementary light and shade. A life class for drawing from the nude figure was established during the year for the advanced lady students attending the morning class. It is at present held once a week, and has been found of much benefit as an adjunct to the draped class.

Additional casts have been obtained from England, one of them being a full figure of the "Athlete with the Strigel."

*Evening Class.*—The numbers attending this class show a fair increase during the year. A large proportion of those attending are engaged in some business or trade.

Mr. Thomas Cane, architect, has been appointed as specially qualified to take charge of the branch of work in decorative design and architectural drawing.

As an evidence of the result of the work in the school it may be mentioned that out of a total of 319 works in the last exhibition held by the Canterbury Society of Arts more than a hundred were by persons who had received either the whole or a portion of their training in the school.

Mr. H. M. Lund, with the view to develop and encourage artistic design in external woodwork, has offered two prizes to be competed for by students of the school. The subject for competition this year has been fixed as that of a carriage-entrance from a public road, gates, &c. Mr. A. J. White and Messrs. Whitcombe and Tombs have also offered private prizes.

The work of the class has comprised freehand, model, geometry, perspective, light and shade, architectural drawing, decorative design and drawing, painting and modelling from the figure. Draped-life classes have been held twice a week. An extra class for drawing from the nude figure for the male students has been arranged for; there are now two day classes and two evening classes per week in this subject. A class for modelling in clay has been held once a week.

*Normal Students.*—The work connected with the Normal students is the least satisfactory of any carried on in the school, owing to the hours at which they attend, namely, from 4 to 6 on Friday afternoons. Forty-two have availed themselves of the opportunity of attending, and have been taught freehand and model drawing. Those studying geometry and perspective attend on Saturday morning.

*Boys' High School.*—This year 160 boys have received instruction, as against 144 last year. Four hours per week is the time devoted to the subjects of freehand, model, and plane and solid

geometry. Twenty-nine boys have attended a class for three hours per week for further tuition at the School of Art in model drawing and geometry.

*Saturday Students (State School Teachers).*—This special class is very well attended, and has proved necessary and useful, the numbers being as stated above. The subjects taught have been freehand, model, geometry, perspective, drawing from memory on the blackboard, and for a few advanced students drawing from the antique, and still-life work.

*Free Studentships.*—Six free studentships were competed for in the work done during the year. In the morning class the successful competitors were: Drawing from the life, Miss E. E. Munnings; landscape from nature, Miss E. M. Davie; painting from still life, Miss M. Gee. In the evening class: Drawing from life, Miss E. R. Budden; drawing from the antique, Miss E. G. Deakin; architectural drawing, A. W. Fielder. The scholarships offered for competition, one to the head boy in drawing in each of ten district schools, were competed for last February. Six out of the ten schools sent representatives, those failing to send being Papanui, Richmond, Opawa, and Lyttelton Schools. At the last competition held by the Auckland Society of Arts eleven prizes were gained by four students, as also the silver medal, for the best work in colour in the whole competition. They were awarded as follows: Painting from still life, Miss E. Turner; drawing from life (black-and-white), Miss E. R. Budden 1, E. Harris 2; architectural drawing, C. E. Brumsden, 1 and 2; drawing from the antique, C. Kidson, 2; painting from life (special prize), Miss E. E. Munnings 1, Miss D. Meeson 2; landscape from nature, Miss E. R. Budden 1; native foliage in colour, Miss E. R. Budden, 2; best work in colour in the whole competition (silver medal), Miss E. R. Budden; best work in monochrome in the whole competition (silver medal, honorary), Miss E. R. Budden.

*Annual Exhibition.*—The annual exhibition of students' works was held last February; all branches of study were represented, and it was largely attended by the public. Mr. P. Van der Velden, an artist of European celebrity, kindly consented to judge the more advanced work, and the following is the prize-list: Freehand, E. England 1, M. North 2; model, Miss S. G. Rainey 1, W. Mooney and R. T. Westropp 2; light and shade from the antique, Miss E. G. Deakin; decorative design, D. Dickenson; head in colour, Miss E. E. Munnings; painting from still life, Mrs. Turner; modelling in clay, St. G. Atkinson 1, W. Thompson 2. At the last competition the Board granted prizes to the amount of £15 15s. They were awarded as follows: two in freehand, two model, one drawing from life, one painting from life.

*Examinations.*—The annual second-grade examinations were held last December, with the following results: Freehand 63, model 52, geometry 14, perspective 6, blackboard 9, full certificates 4. Advanced second-grade or art teacher's certificate: Personal teaching examination—pass, Miss E. R. Budden; full certificate, Miss E. R. Budden.

*Changes in Staff.*—At the end of August last year Mr. W. E. Chapman, after nearly seven years' service, resigned his appointment with a view to prosecute his studies elsewhere. Mr. W. K. Sprott also vacated his position in the school. Mr. C. Kidson, from the Birmingham School of Art, has been appointed an assistant master, and Miss Munnings has been promoted to the position of student assistant. Mr. Cane's appointment has been already mentioned.

#### PUBLIC LIBRARY.

*Reference Department.*—During the year 260 new books have been added to this department; the total number of volumes now amounts to 8,527. Forty volumes of United States and Canadian papers have been presented by Mr. J. D. Enys. It is to be regretted that persons are still guilty of stealing books, a matter almost impossible to detect. The following is a list of the books missing: "Handbook of St. John's," "Rambles of a Philosopher," "Spanish Grammar," "Jackson's Practical Arithmetic," "Spencer's Principles of Sociology" (Part IV.), "Statistics of Tasmania" (1842), John Stuart Mill's "Thoughts on Parliamentary Reform," Froude's "History of England" (Vol. 1.), List of Foreign Correspondence. The accommodation is inadequate, and five thousand feet more shelving is required to keep the books in proper order.

*Circulating Department.*—In this department also, more seating accommodation for subscribers is necessary, and more space for the storage of books. New books to the number of 1,039 have been added during the year, bringing up the total to 13,822. A few additions have been made to the list of magazines subscribed for. To replace worn-out books, 160 volumes have been ordered from England. Of this number, about a hundred have been received. Many of the remaining volumes, being out of print, are not obtainable. A large number of volumes of fiction will require to be replaced very shortly. Some of the books have been in circulation over ten years, and many are now unfit for issue. Difficulty may be experienced in replacing them. A catalogue, containing over 2,500 volumes, was published in January last. The number of subscribers is 1,519, while the weekly issue of books is about 2,000.

*Reading-room.*—The Sub-librarian states that additional space is greatly needed. The newspapers and magazines placed on the table are as follows: English, 6; Irish, 1; Scotch, 1; American, 1; Australian, 7; New Zealand, about 40; and 17 magazines.

The daily attendance in the three departments is considerable. The question of providing extra space for the requirements of the various departments demands early attention from the Board.

#### THE SCHOOL OF AGRICULTURE.

At a special meeting of the Board held on the 20th April, the death of the late Director of the school was reported, and the following resolution was unanimously passed: "The Board of Governors of Canterbury College learns with deep regret of the sudden death on the 13th April, 1892, of Mr. William Edward Ivey, M.R.A.C., F.C.S., F.I.C., the Director of the School of Agriculture at Lincoln, which office he has held since March, 1878. At the same time the Board desires to record its high appreciation of the services rendered to this College and the colony by the late Director, in the important and varied duties which he was called upon to discharge in connection

with that office." The Board, at a meeting held on the 16th May, agreed upon a memorandum of conditions of the appointment of a Director of the School of Agriculture. Advertisements have been forwarded for insertion in the English and Australian newspapers, and have appeared in the local weekly journals, for a Director to succeed the late Mr. Ivey. Applications are to be sent in by the 31st October. In the meantime Mr. Gray, the lecturer on chemistry, &c., has the charge of the school.

The Lincoln College Board of Advice, whose duties and powers were defined at meetings of the Board of Governors held on the 14th May and the 29th June, 1891, entered upon their duties during the current year. The Hon. W. Rolleston was elected Chairman. The Board of Advice has supervised the practical examinations in farm work. On the election of Mr. Henry Overton to be President of the Agricultural and Pastoral Association, he replaced Mr. S. Garforth as a member of the Board of Advice. The two retiring members are the Hon. W. Rolleston and Mr. D. McMillan. They are eligible for re-election, and have signified their willingness to act if elected.

The delegates to the Agricultural Conference held in Christchurch accepted an invitation from the Board of Governors to visit Lincoln College.

The number of students in residence at the school during the second half of the year 1891 was 38, and during the first half of 1892, 39. The cost of food, fuel, light and attendance during the year for each student and member of the teaching staff has been £37 14s. 3d. per head, as against £38 1s. 5d., the cost of the previous year.

During November last, owing to an epidemic of influenza, the usual term examinations had to be postponed, excepting in the case of a few students who desired to be examined for the final certificate. For the final certificate in December last three students were examined, with the result that Reginald Acton-Adams and Oscar E. Couch obtained above the minimum number of marks, and are consequently eligible for the certificate.

Water-races have been introduced on the upper part of the farm during the year. Experiments as to the effect of manures on mangolds and wheat have been carried out, and the results are such as to warrant further investigation in this direction. On the lower part of the farm the creek running through Block No. 33 has been filled in, and the land drained; a much needed improvement. The orchard is now being thoroughly dug and the trees are being pruned, and it is proposed when this work is finished to experiment with dressings for the treatment of scale, blight, &c. Further experiments with specimen grains are in progress. Those seeds which proved satisfactory last year are sown this year for further trial. Experiments are to be made with wheat to ascertain the effect of different manures. One field has been set aside for the growth of special grasses.

For the purpose of giving students an insight into the buying and selling of stock, arrangements have been made by which students in their fourth term will have an opportunity of attending the Addington saleyards.

## 2. REPORT OF THE ACTING CURATOR OF THE MUSEUM.

ACCORDING to your instructions, on the resignation of Mr. Forbes, I took temporary charge of the Museum on the 21st May last, and I have, therefore, to submit the annual report of the progress of the Museum since the 1st July, 1891.

No changes have been made in the arrangement or mounting of the collections during the year, but since I took charge I have moved the office into the room near the front entrance, in which it was located previous to 1889.

*Library.*—The most important addition during the year has been the purchase of a complete set of "The Transactions of the Zoological Society of London," a work which was much wanted.

*Antiquity and Ethnological Rooms.*—The arrangement in these rooms is partly that adopted by me in 1888, and partly the new arrangement mentioned by Mr. Forbes in his last annual report, which he commenced in 1890 but did not carry out. The re-arrangement of these rooms on some definite plan is urgently required, for at present they present an unnecessarily incongruous mixture.

*New Zealand Room.*—The skeleton of a cassowary was added by purchase last September, so that we now have skeletons of all the living genera of struthious birds for comparison with that of the moa.

Two valuable additions have been made to the New Zealand collections during the year—namely, moa remains from Enfield, near Oamaru, and a general collection from the Chatham Islands. The moa remains, although not so numerous as those from Glenmark or from Hamilton's, are very interesting, as they have afforded a fine suite of bones belonging to the smaller species *Didina* and *Casuarina*. Mr. Sparkes's time has been very largely given during the last six months to preparing these bones for exhibition, and he is now engaged selecting out bones to form a few skeletons, which will be as complete as it is possible to make them. However, it is only the smaller species which are sufficiently numerous to afford materials for building up skeletons, and even with these it will be impossible to make any of them quite complete, for all the small neck vertebræ, from the first to about the sixth, are missing. The mode of occurrence of these bones has been described by Mr. Forbes in *Nature* for last March. The skulls have been submitted to Professor T. J. Parker, who is preparing a paper on them. The rest of the bones have been partly examined by me. I find that there are about 350 adult metatarsi sufficiently perfect to allow of measurements being taken. These belong to four genera and fourteen different species, all of which have been described. Nearly one-half of them (161) belong to the two small species which I have already mentioned. In this respect the collection differs widely from that obtained at Hamilton's, in Central Otago, in which *Elephantopus* was by far the commonest species.

The collection brought by Mr. Forbes from the Chatham Islands consists chiefly of fossil bones of birds, but there are also three skulls of whales, and some plants and bird-skins, including two specimens of the Chatham Island pigeon, described last year by Mr. Rothschild in the proceedings

of the Zoological Society. The bird bones belong chiefly to sea-birds — penguins, cormorants, mutton-birds, petrels, and gulls, but there are others of great interest. These are the extinct wood-hen (*Aphanapteryx*), a coot, a crow, and a swan, none of which now inhabit the Chatham Islands, or even New Zealand. But perhaps it is quite as interesting to notice the complete absence of bones of the kiwi and moa.

The printing press presented by Mr. Seager has been put up in the office, and Mr. Colclough has just commenced printing new labels to replace the written ones.

In conclusion, I have to thank the Inspector of Police for allowing a constable to be present in the Museum on Sunday afternoons.

### 3. SCHOOL OF ENGINEERING AND TECHNICAL SCIENCE.

TABLE OF LECTURES, First Term, 1892, commencing Monday, 28th March.

#### MECHANICAL AND CIVIL ENGINEERING.

Subject.	Time.	Fee for Term.
Freehand mechanical drawing ...	Wednesday ... 7 to 9	0 10 6
Descriptive geometry ...	Monday ... 7 " 9	0 10 6
Descriptive geometry (advanced) ...	Monday, Wednesday, and Friday 2 " 4	1 5 6
Mechanical drawing ...	Monday and Wednesday ... 7 " 9	1 1 0
Mechanical drawing (advanced) ...	Monday, Wednesday, and Friday 2 " 4	1 5 6
The steam-engine ...	Friday ... 8 " 9	0 10 6
Applied mechanics ...	Tuesday ... 7 " 8	0 10 6
Mechanics of machinery ...	Thursday ... 8 " 9	0 10 6
Strength of materials in construction ...	Tuesday ... 8 " 9	0 10 6
Principles of civil engineering ...	Tuesday ... 7 " 8	0 10 6
Building construction ...	Thursday ... 7 " 8	0 10 6
Building construction (advanced) ...	Thursday ... 8 " 9	0 10 6
Surveying ...	Friday ... 7 " 8	0 10 6
Surveying (advanced) ...	Friday ... 8 " 9	0 10 6
Surveying (field-work) ...	Saturday ... 3 " 5	0 10 6

Any student attending more than one class will be allowed a remission of 2s. 6d. on each fee after the first.

#### SYLLABUS OF LECTURES.

##### *Freehand Mechanical Drawing.*

Freehand sketching of standard mechanical details from diagrams; sketching from models; sketching from portions of machines for the production of working drawings.

##### *Descriptive Geometry.*

Use of drawing instruments and scales; setting out the ellipse, hyperbola, parabola, cycloid, and other curves; setting out cams and the teeth of wheels; elementary projection; projection of solids; development of flat and curved surfaces.

##### *Mechanical Drawing.*

Applications of geometry to problems in wood-, iron-, and stone-work; preparation of working-drawings; Drawing-office practice; designing bridges, roofs, buildings, machines, and engines; colouring, printing, &c.

##### *The Steam-engine (Section A).*

Early forms of steam-engines; the improvements of Watt; the separate condenser; nature of heat; conversion of heat into work; experiments of Davy, Rumford, and Joule; mechanical equivalent of heat; specific heat; transmission of heat; latent heat; water required for condensation; laws of Boyle and Charles; expansion of steam; superheating; the steam-jacket; the compound engine (triple and quadruple expansion); the surface condenser; the crank and connecting-rod; the slide-valve: lap; lead; various types of valves; designing valve-gear; Zeuner's diagrams; automatic expansion-gears; link-motion; valve-setting; the governor; the indicator; I.H.P.; brake H.P.; details; types of stationary engines; types of marine engines; steam-generators; most efficient types; strength of steam-boilers; rivetted joints; boiler-mountings; Giffard's injector; the locomotive engine.

##### *Applied Mechanics.*

Force, matter, velocity, laws of motion, energy, inertia; composition and resolution of forces; theory and applications of the lever, wheel, and axle; pulley; inclined plane and screw; screw-threads; work; friction; friction of a journal, of a pivot; rolling resistance; frictional dynamometer, friction grips, clutches and gearing; anti-friction contrivances; use of wheels in trains; testing and weighing machines; centre of gravity; circular motion; the conical pendulum; various forms of governors; equilibrium and pressure of fluids; measurement of fluid pressure; velocity of efflux; the jet-pump; Giffard's injector; lift-pumps; force-pumps; deep-well pumps; pumps for exhausting and compressing gases; hydraulic machinery.

*Mechanics of Machinery.*

Conversion and transmission of motion; link work; the drag-link, crank and connecting-rod Paucelliers' straight-line motion; Watt's parallel motion; belt, rope, and frictional gearing; spur-gearing; the design of wheel-teeth; mortice, mitre, screw, and skew gearing; the universal joint; general mill gearing; the turbine and hydraulic engines; general machine problems.

*Strength of Materials; and Iron Bridge and Roof Construction.*

The physical nature of the various metals used in engineering work, their preparation and treatment; stress—tensile, compressive, shearing, and torsional; elastic limit, absolute strength, modulus of elasticity, permanent set; strength and design of pinned, bolted, cottered, and rivetted joints; stress in pillars, beams, and various types of girders and roofs; bridge construction and design; stress in vessels subjected to fluid pressure; stress in machines.

## Principles of Civil Engineering.

*Section A.—Borough Engineering :* Laying-out and construction of roads; location of towns; street formation, paving, channelling, and curbing; surface-drainage and sewerage; warming and lighting public buildings, ventilation; water conservation and supply; irrigation.

**Section B.—*Railway Engineering*:** Reconnaissance, location, grades, gauge and curves, earth-work, bridges, tunnelling; permanent-way, switches, crossings, signalling arrangements; arrangement of station- and goods-yards, engine-sheds, water-cranes, coal-stages, and turntables; methods of working steep gradients by rack, rope, and central-rail systems; light railways and street tramways, for horse, steam, cable, and electric traction.

*Section Q.—Marine Engineering :* Internal navigation ; river conservation and improvement ; canal construction and details, locks, inclined planes, and lifts ; ship-canal, harbour-works, wharves, docks, slips, graving-docks, breakwaters, lighthouses, &c.

*Section D.—Conduct of Work:* General office routine; preparation of specifications and working drawings; taking out quantities; estimating; preparation and supervision of contracts.

*Building Construction.*

*Section A.—General Principles :* General principles in relation to materials, foundations, walls, beams, arches, floors, and roofs.

*Section B.*—Principles of constructive design; constructive details in carpentry, joinery, and masonry; bridge-construction in timber and stone; roof-construction.

*Surveying—Theoretical and Practical.*

Measurement of lines and angles with the chain, chain triangulation; simple topographical work, keeping field-book, calculation of areas, levelling; division of earth's surface by meridians and parallels; traversing with chain and theodolite; calculation of areas by mean longitudes; advanced topographical surveying; minor triangulation; advanced levelling; telemetry and use of plane table; river and marine surveying; Geodetic survey, primary triangulations, meridional circuits; American and New Zealand systems of setting out Crown lands; engineering surveys; calculation of altitudes, measurement of earth-work, gauging of rivers.

Certificates will be granted to students who attend a course of lectures and pass a satisfactory examination in any of the above subjects.

4. STATEMENT OF THE ACCOUNTS OF THE CANTERBURY COLLEGE FOR THE YEAR ENDING  
31ST DECEMBER, 1891.

*School of Agriculture, Capital Account.*

[illegible]

*School of Agriculture, Building Account.*

<i>Receipts.</i>				£	s.	d.	<i>Expenditure.</i>				£	s.	d.
To Balance	..	..	..	89	2	2	By Balance, 1st Jan., 1891	..	..	89	2	2	
							By Balance, 1st Jan., 1892	..	..	£89	2	2	



[illegible]

<i>Receipts.</i>		£	s.	d.	<i>Expenditure.</i>		£	s.	d.
To Balance, 1st Jan., 1891	.. ..	179	13	0	By Salaries	.. ..	898	19	8
Students' Fees	.. ..	411	13	0	Prizes	.. ..	10	10	0
Grant from Museum, Library, and					Die for medal, and medals	.. ..	33	16	9
School of Technical Endowment					Insurance	.. ..	11	0	6
Fund	.. ..	850	0	0	Rates	.. ..	37	3	9
Grant from Boys' High School	.. ..	120	0	0	Incidentals	.. ..	132	10	3
Contribution from Board of Education	.. ..	133	6	8	Contribution to Registrar's office ex-				
Interest on current account	.. ..	22	2	4	penses	.. ..	30	0	0
Examination fees	.. ..	1	10	0	Gas	.. ..	36	3	9
					Repairs	.. ..	56	6	6
					Plaster casts	.. ..	44	18	5
					Balance	.. ..	426	15	5
		<u>£1,718</u>	<u>5</u>	<u>0</u>			<u>£1,718</u>	<u>5</u>	<u>0</u>
To Balance	.. ..	£426	15	5					

[illegible]

<i>Receipts.</i>				<i>Expenditure.</i>		
		£ s. d.				£ s. d.
To Balance, 1st Jan., 1891	..	431 0 0	By Balance	..	455 5 0	
Sale of part of Reserve 1149	..	24 5 0				
		<u>£455 5 0</u>			<u>£455 5 0</u>	
To Balance, 1st Jan., 1892	..	455 5 0				

## Boys' High School, Maintenance Account.

[illegible]

*Classical School, Capital Account.*

Receipts.		£	s.	d.	Expenditure.		£	s.	d.
To Balance, 1st Jan., 1891	..	1,104	9	3	By Purchase of 2 acres and 13 perches from Bank of New Zealand for Reserve				
					678	..	35	7	8
					Balance	..	1,069	1	7
		<u>£1,104</u>	<u>9</u>	<u>3</u>			<u>£1,104</u>	<u>9</u>	<u>3</u>
To Balance, 1st Jan., 1892	..	£1,069	1	7					

*Superior Education, Capital Account.*

<i>Receipts.</i>		£	s.	d.	<i>Expenditure.</i>		£	s.	d.
To Balance, 1st Jan., 1891	..	£2,749	9	1	By Share of insurance and rates on Saxton's estates	..	1	7	4
					Share of legal expenses (mortgages)	..	0	12	2
					" cost of inspecting Bourke's land	..	0	2	8
					Balance	..	2,747	6	11
		<u>£2,749</u>	<u>9</u>	<u>1</u>			<u>£2,749</u>	<u>9</u>	<u>1</u>
To Balance, 1st Jan., 1892	..	£2,747	6	11					

*College Buildings Account.*

[illegible]

*College, Fees of Professors' Account.*

<i>Receipts.</i>			£	s.	d.	<i>Expenditure.</i>			£	s.	d.
To Students' fees	..	..	1,854	6	0	By Professor of Classics	..	..	283	10	0
" (popular lectures)	..	..	34	5	0	Professor of English Literature	..	..	706	2	6
Examination fees	..	..	126	0	0	Professor of Mathematics	..	..	259	17	6
Fines	..	..	4	1	0	Professor of Chemistry	..	..	245	14	0
						Professor of Chemistry (popular lectures)	..	..	34	5	0
						Professor of Biology	..	..	56	2	6
						Lecturer on Law	..	..	59	17	0
						Examination fees paid to Professors and Lecturers	..	..	85	2	2
						Supervisors' fees and expenses	..	..	19	3	2
						Other expenses of examinations	..	..	1	18	8
						Balance to College Maintenance	..	..	266	18	6
			£2,018	12	0				£2,018	12	0

*School of Engineering and Technical Science Account.*

<i>Receipts.</i>	£	s.	d.	<i>Expenditure.</i>	£	s.	d.
To Grant from Museum, Library, and School of Technical Science Endowment Fund .. .. .	350	0	0	By Salaries .. .. .	725	0	0
Ditto for rent of building .. .. .	180	0	0	College maintenance, rent of building ..	180	0	0
Ditto for incidentals .. .. .	70	0	0	Scholarships .. .. .	100	0	0
Grant from College .. .. .	300	0	0	Contribution to Registrar's office expenses .. .. .	30	0	0
Grant from College for Scholarships ..	90	0	0	Incidentals .. .. .	77	0	9
Fees .. .. .	119	19	0	Legal expenses .. .. .	1	1	0
Transferred from Museum Maintenance	211	12	8	Interest .. .. .	5	13	11
				Furniture .. .. .	202	16	0
	£1,321	11	8		£1,321	11	8

*College, Maintenance Account.*

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Balance, 1st Jan., 1891 .. ..	370	17 5	By Salaries .. ..	5,451	1 8
Rent of reserves (Classical School) ..	4,101	8 7	Incidentals (College) .. ..	713	11 6
" (superior education) .. ..	2,565	0 0	" (Laboratory) .. ..	145	6 7
" (town reserves) .. ..	305	0 0	Insurance (College) .. ..	87	5 6
Rent of College lodge .. ..	70	0 0	" (Laboratory) .. ..	19	13 9
Interest on capital .. ..	255	8 8	Rates .. ..	175	5 6
Sale of calendars .. ..	7	7 3	Exhibitions (College) .. ..	120	0 0
Sale of laboratory apparatus, and fees ..	27	2 6	Contribution to School of Engineering and Technical Science for Scholarships ..	90	0 0
Contributions towards salaries of Registrar and staff, and office expenses—			Books for College library .. ..	72	1 4
From Library .. ..	20	0 0	Inspecting reserves, and advertising ..	59	8 5
" Boys' High School .. ..	80	0 0	Repairs .. ..	63	12 1
" Girls' High School .. ..	70	0 0	Interest on loan of £12,000 .. ..	695	1 11
" School of Art .. ..	30	0 0	Passage-money of Lecturer on Modern Languages .. ..	100	0 0
" School of Engineering and Technical Science .. ..	30	0 0	Contribution to School of Engineering and Technical Science .. ..	300	0 0
" Museum .. ..	50	0 0	Physical measuring apparatus .. ..	1	12 5
" School of Agriculture .. ..	125	0 0	Legal expenses .. ..	59	3 4
Interest on current account .. ..	18	19 8	Music, expenses of lectures, including salary of Lecturer .. ..	203	12 0
Rent of new building from School of Engineering .. ..	180	0 0	Gas-fittings and alterations in Professor Brown's room .. ..	36	0 10
Library fines .. ..	2	8 0	Magazine club fines .. ..	6	9 0
Contribution from Boys' High School for services of Lecturer on Modern Languages ..	40	0 0	Balance .. ..	229	10 11
College fees .. ..	266	18 6			
Sale of text-books .. ..	3	6 2			
Cheque cancelled .. ..	10	0 0			
	<u>£8,628</u>	<u>16 9</u>		<u>£8,628</u>	<u>16 9</u>
To Balance, 1st Jan., 1892 .. ..	£229	10 11			

*Girls' High School, Capital Account.*

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Balance, 1st Jan., 1891 .. ..	4,810	10 7	By Share of rates and interest on Saxton's estate .. ..	1	7 10
			Share of cost of inspecting Burke's land ..	0	2 9
			" Legal expenses (mortgages) .. ..	0	12 6
	<u>£4,810</u>	<u>10 7</u>	Balance .. ..	4,808	7 6
To Balance, 1st Jan., 1892 .. ..	£4,808	7 6		<u>£4,810</u>	<u>7 7</u>

*Girls' High School, Investment Account.*

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Rent of quarter-acre section .. ..	54	0 0	By Balance, 1st Jan., 1891 .. ..	900	0 0
Balance .. ..	900	0 0	Interest on investment .. ..	54	0 0
	<u>£954</u>	<u>0 0</u>		<u>£954</u>	<u>0 0</u>
			By Balance, 1st Jan., 1892 .. ..	900	0 0

*Girls' High School, Maintenance Account.*

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Balance, 1st January, 1891 .. ..	829	2 11	By Salaries .. ..	1,646	15 3
Interest on capital .. ..	260	15 3	Contribution to Registrar's office expenses .. ..	70	0 0
Rent of reserves .. ..	371	9 2	Insurance .. ..	14	14 5
School fees .. ..	1,786	1 0	Rent of quarter-acre in Cranmer Square ..	54	0 0
Interest on investment (£900) .. ..	54	0 0	Rates .. ..	37	3 9
Interest on current account .. ..	57	3 6	Inspection of reserves .. ..	4	19 4
			Examiners' fees .. ..	68	5 0
	<u>£3,358</u>	<u>11 10</u>	Incidentals .. ..	153	10 1
To Balance, 1st Jan., 1892 .. ..	£1,035	13 6	Scholarships and exhibitions .. ..	245	0 0
			Prizes for 1890 .. ..	28	10 6
			Balance .. ..	1,035	13 6
				<u>£3,358</u>	<u>11 10</u>

*Medical School, Reserves Account.*

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Balance, 1st Jan., 1891 .. ..	2,452	11 8	By Inspection of reserves .. ..	6	4 2
Rent of reserves .. ..	292	1 10	Legal expenses .. ..	1	3 6
Interest .. ..	155	19 0	Balance .. ..	2,993	4 10
	<u>£3,000</u>	<u>12 6</u>		<u>£3,000</u>	<u>12 6</u>
To Balance, 1st January, 1892 .. ..	£2,993	4 10			

*Circulating Library, Maintenance Account.*

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Contribution from Museum, Library, and School of Technical Science Endowment Fund .. ..	900	0 0	By Balance .. ..	251	8 11
Subscriptions and fines .. ..	728	12 4	Salaries .. ..	353	15 0
Sale of catalogues, magazines, and waste paper .. ..	19	9 2	Contribution to Registrar's office expenses .. ..	20	0 0
Book detention fees .. ..	3	4 0	Insurance .. ..	44	18 6
Medical Society, rent of rooms (two years) .. ..	6	6 0	Rates .. ..	37	3 9
Interest on current account .. ..	0	4 8	Gas .. ..	109	11
Refund of salary paid in excess .. ..	0	4 3	Fuel .. ..	18	17 1
Cheque cancelled .. ..	1	1 0	New Books, Circulating Department .. ..	217	2 7
Dishonoured cheque repaid .. ..	1	0 0	Renewal of standard works .. ..	41	3 6
			Reference Department, books and binding .. ..	66	12 3
			Periodicals and English papers .. ..	64	4 9
			Colonial papers .. ..	36	4 4
			Sundries .. ..	129	5 3
			Repairs .. ..	29	3 10
			Legal expenses .. ..	5	4 4
			Dishonoured cheque .. ..	1	0 0
			Balance .. ..	234	5 10
	<u>£1,660</u>	<u>1 5</u>		<u>£1,660</u>	<u>1 5</u>
To Balance, 1st Jan., 1892 .. ..	£234	5 10			

*School of Technical Science, Capital Account.*

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Balance, 1st Jan., 1892 .. ..	19,948	14 1	By Share of rates and insurance on Saxton's estate .. ..	7	1 7
			Share of cost of inspecting Bourke's land .. ..	0	13 11
			Legal expenses (mortgages) .. ..	3	3 7
	<u>£19,948</u>	<u>14 1</u>	Balance .. ..	19,937	15 0
To Balance, 1st Jan., 1892 .. ..	£19,937	15 0		<u>£19,948</u>	<u>14 1</u>

*Museum, Maintenance Account.*

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Rent of Reserves .. ..	3,435	0 6	By Balance, 1st Jan., 1891 .. ..	316	10 0
Interest on capital .. ..	1,330	8 4	Salaries .. ..	874	2 9
			Books for Library .. ..	91	4 8
			Binding for Library .. ..	16	19 3
			Interest on loan of £2,000 .. ..	120	0 0
			Insurance .. ..	87	4 10
			Incidentals, and exchanges .. ..	246	2 8
			Contribution to Registrar's office-expenses .. ..	50	0 0
			Contribution to Museum, Library, and School of Technical Science Endowment Fund—		
			To School of Engineering and Technical Science .. ..	600	0 0
			Library .. ..	900	0 0
			School of Art .. ..	850	0 0
			Repairs .. ..	32	13 2
			Legal expenses .. ..	8	9 11
			Alterations to roof of Technological Room, balance due on contract .. ..	5	0 0
			Water-supply .. ..	48	19 6
			Interest on current account .. ..	28	1 10
			Transferred to School of Engineering and Technical Science Account .. ..	211	12 8
	<u>£4,765</u>	<u>8 10</u>	Balance .. ..	278	7 7
To Balance, 1st Jan., 1892 .. ..	£278	7 7		<u>£4,765</u>	<u>8 10</u>

*Deposit Account.*

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Refund of deposits .. ..	7,800	0 0	By Balance, 1st Jan., 1891 .. ..	7,800	0 0

*Mortgage of Freeholds.*

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Anderson, J., repayment of loan .. ..	500	0 0	By Balance, 1st Jan., 1891 .. ..	69,350	0 0
Sale of part of Burke's estate .. ..	54	0 0	Strachey, A., and wife, loan .. ..	11,600	0 0
Gilmour's estate .. ..	27	0 6			
Balance .. ..	80,368	19 6		<u>£80,950</u>	<u>0 0</u>
	<u>£80,950</u>	<u>0 0</u>	By Balance, 1st Jan., 1892 .. ..	£80,368	19 6

*Mortgage of Debentures.*

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Balance .. ..	300	0 0	By Balance, 1st Jan., 1891 .. ..	300	0 0
			By Balance, 1st Jan., 1892 .. ..	£300	0 0

*Astronomical Department Account.*

<i>Receipts.</i>			<i>Expenditure.</i>		
£	s.	d.	£	s.	d.
To Donation from Astronomical Society ..	423	10 9	By Balance ..	..	423 10 9
To Balance, 1st Jan., 1892 ..	423	10 9			

*Astronomical Department, Deposit Account.*

<i>Receipts.</i>			<i>Expenditure.</i>		
£	s.	d.	£	s.	d.
To Balance ..	423	10 9	By Deposit in Bank of New South Wales		423 10 9
			By Balance, 1st Jan., 1892 ..	..	423 10 9

## 1891.—STATEMENT OF BALANCES.

*Accounts.*

Cr.	£	s.	d.	£	s.	d.
School of Agriculture, Capital Account ...	53,175	12 1				
School of Art, Maintenance Account ...	426	15 5				
Boys' High School, Capital Account ...	455	5 0				
Boys' High School, Maintenance Account ...	551	12 4				
Classical School, Capital Account ...	1,069	1 7				
Superior Education, Capital Account ...	2,747	6 11				
College Maintenance Account ...	229	10 11				
Girls' High School, Capital Account ...	4,808	7 6				
Girls' High School, Maintenance Account ...	1,035	13 6				
Public Library, Maintenance Account ...	234	5 10				
Medical School, Reserves Account ...	2,993	4 10				
School of Technical Science, Capital Account ...	19,937	15 0				
Museum, Maintenance Account ...	278	7 7				
Astronomical Account ...	423	10 9				
				88,366	9 3	
DR.						
School of Agriculture, Buildings Account ...	89	2 2				
School of Agriculture, Maintenance Account ...	4,315	18 8				
Boys' High School, Buildings Account ...	795	4 7				
College Buildings Account ...	147	18 9				
				5,348	4 2	
				£83,018	5 1	

*Bank and Investments.*

Cr.	£	s.	d.	£	s.	d.
Drawing Account ...	1,298	6 11				
Less outstanding cheques ...	272	12 1				
				1,025	14 10	
Mortgage of freeholds ...				80,368	19 6	
Mortgage of debentures ...				300	0 0	
Purchase of school-site, deed held ...				900	0 0	
Fixed deposit ...				423	10 9	
				£83,018	5 1	

*Liabilities.*

New Zealand Trust and Loan Company...	47,000	0 0	
Public Library, scrip of shareholders ...	113	10 2	
	£47,113	10 2	

15th February, 1892.

A. CRACROFT WILSON, Registrar.

Examined and found correct.

JAMES EDWARD FITZGERALD,  
Controller and Auditor-General.*Approximate Cost of Paper.*—Preparation, not given; printing (1,500 copies), £8 16s.

By Authority: GEORGE DIDSBURY, Government Printer, Wellington.—1892.

Price 6d.]

3—E. 7.

