#### 1905. $N \to W$ ZEALAND.

# EDUCATION: CANTERBURY AGRICULTURAL COLLEGE.

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

[In continuation of E.-11, 1904.]

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

Visitor .- His Excellency the Governor.

Board of Governors.

Appointed by His Excellency the Governor-E. Richardson. Elected by members of the Legislature-Hon. E. C. J. Stevens (Chairman); M. Murphy, F.L.S.; and H. A. Knight.

Elected by governing bodies of agricultural and pastoral associations—Sir George Clifford, Bart.; W. F. M.

Buckley, B.A.; and Thomas Harrison.

Staff.

Director.—W. Lowrie, M.A., B.Sc.
Lecturer on Veterinary Science.—W. J. Colebatch, B.Sc. (Agriculture), M.R.C.V.S.
Lecturer on Chemistry.—G. Gray, F.C.S.
Lecturer on Biology.—F. W. Hilgendorf, M.A., D.Sc.
Instructor in Woodwork.—F. W. Sandford

## REPORT OF THE DIRECTOR.

Sir.-

I have the honour to submit the report of this institution for the year 1904.

# THE COLLEGE.

Throughout the year work has gone on satisfactorily. Forty-seven students were enrolled, and the majority have proved themselves earnest students of farming. In the first session the conduct of four students and their attitude to work was unsatisfactory, and I had accordingly to ask them to cease residence at the end of the first term. The College is now filled to the limit of the accommodation.

At a meeting of the Board of Governors in March the position of biology in the curriculum was discussed, and it was resolved that it was desirable that a biologist should be appointed to the staff so that more attention might be devoted to the teaching of agricultural botany—especially grasses and seeds—and the diseases and pests affecting field and garden crops. The very serious decrease in the rents received from the endowment lands at Hakataramea, and the difficulties met by the Board in satisfactorily leasing the smaller blocks, limited, however, any expansion of the subjects taught if such expansion necessitated an increase of the teaching staff. Prolonged consideration was given to the question, and it was ultimately decided to effect the modification desired of the course of study by a reorganization of the staff. It was resolved to terminate with regret the engagement of Mr. Guerin, C.E., who had held the position of lecturer in applied mathematics for six years, and to curtail the time devoted to mathematics. Mr. F. W. Hilgendorf, M.A., B.Sc., was appointed lecturer in biology, and to undertake in addition mathematics. It was also decided to establish during the year 1905 weekly lessons in saddlery and the repairing of harness, and that course of lessons is now in progress.

Three students passed the examinations at the end of the three-years course, and were awarded the College diploma.

The examiner in practical agriculture reported as follows on the several operations on which he examined students at work, and also on the general written and oral examination which he

conducted at the end of the year:—

Working the Binder.—"I have pleasure in reporting on the examination held on the 27th January, 1904. The field chosen was a fairly heavy wheat-crop with some tangled and lodged places, which gave the students an opportunity of showing their skill. Five students were examined, and showed themselves quite able to make satisfactory work in the difficult crop they had to deal with.'

Ploughing.—"I have the honour to report on the examination on ploughing held by me to-day, the 23rd August, 1904. Four students competed, and the ground selected was a strong grassfield which gave a good opportunity of testing their capabilities with single- and double-furrow ploughs. Each student ploughed four lands, using a different team and plough for each, and readily adapted himself to the change of horses and implements. The work on the whole was done in a highly creditable manner, and the students showed a good practical knowledge of how to set or adjust their ploughs.'

Shearing.—" I have pleasure in reporting on the excellence of the work shown in the shearing examination on the 8th November. The shearing was well and smartly done, and all the students

did equally creditably at the wool-table."

Oral and Written Examination in Practical Agriculture .-- "I have during the year examined these students in various farm duties with highly satisfactory results, and have to-day (17th December) given them an exhaustive test in practical agriculture. I have pleasure in reporting that they have worked diligently and intelligently, and have acquired a sound and practical knowledge of farm-work.—George Rennie.'

#### Public Lectures.

Two courses of evening lectures to farmers were conducted at the College during the winter months on Friday evenings. The Director lectured on "Farm Crops," and the Veterinary Surgeon on "The Diseases of Cattle." The courses were well attended by farmers, and the lecture-rooms were crowded. Many came considerable distances to these lectures, and good discussions regularly followed their delivery.

### SHORT WINTER COURSES FOR FARMERS' SONS.

The Board of Governors proposed during the year to extend the work of the College by establishing short courses of instruction for farmers' sons engaged on the land and others, and it was arranged that four short courses should be conducted during the winter, when the operations on farms were slack and young farmers might be able to get away. It was proposed that these classes should extend throughout one month, and four lectures were to be delivered each day as follows: (a) Agriculture (farm crops), by the Director; (b) agricultural chemistry (soils, manures, and plant-nutrition), by George Gray, F.C.S.; (c) veterinary science (diseases of the horse), by W. J. Colebatch, B.Sc. (Agric.), M.R.C.V.S.; (d) agricultural botany (grasses, study of seeds, and seeds of weeds), by F. W. Hilgendorf, M.A., B.Sc. The feets for the course of four weeks were fixed at two guineas for each subject and six guineas for the four courses. No course would be undertaken, however, unless twenty candidates enrolled for it. I am sorry, however, to have to report now that the scheme of the Board has been abortive, as only two or three applicants entered their names, and the courses could not be proceeded with for so small a number.

#### THE FARM.

It has been endeavoured to make the College farm as instructive as possible by growing as many varieties of each different crop as practicable, and by varying the cultivation and manure

applied, and noting the various results as carefully as could be done.

Generally our effort has been to conduct the farm as a practical illustration of the lectures, and in accordance to the best of our knowledge with an enlightened combination of practice with I am glad to be able to report that the work done on the farm by students, and the interest taken in the different operations, has shown marked improvement on that of former years, and I believe that the College is now doing all-round useful work for the colony.

The balance-sheet for the year is sent forward herewith.

I have, &c.,
WILLIAM LOWRIE, Director.

The Right Hon. the Minister of Education, Wellington.

# Statement of Receipts and Expenditure for the Year ending 31st December, 1904.

STATEMENT OF RECEIFTS and					, 1304		
			_	ACCOUNT.	_		
Receipts.	£		· d.	Expenditure.	£	8.	d.
	. 151 . 1,165			Interest on capital—Refund to Messrs.			
Interest on capital							
Sales of farm-produce—	. 0.0	Ü	Ü	tion of its debt to Canterbury Agricul-			
	. 457	14	1	tural College sold to them	108	14	3
	. 172	3	3	Salaries of staff	1,402	14	6
	. 516			Maintenance of students and staff	1,426	3	4
Barley	10	0		Farm wages (including £250, proportion of	=00	- 4	
Oats	200	15			709	14	8
Potatoes	. 420	11	Э	Purchases of live-stock, refund, &c.—	22	0	6
Sheep	. 559	3	3	Sheep		10	
Cattle	~ 0	8		Pigs		12	
Pigs	. 164			Trade accounts (including saddling and			
Students' fees		8	10	repairs, freight, sacks, binder-twine,			
Maintenance of students and staff (include				woolpacks, chaff-cutting, hardware, &c.)	248		
ing refunds for board of Director, Farr				Manures   Seeds	171		
Overseer, and employees, and sale of kitchen fat)		13	10	Implements—Purchases and repairs		13 10	
Trade accounts-Sales of sacks, poultry, an	d	10		Laboratories—Chemicals, apparatus, vete-	03	10	,
eggs, and refund of rail freights .	. 76	15	3	rinary drugs and instruments	56	3	11
Sale of books to students	. 28	15	9	Contingencies (College)—Sundry expenses			
Laboratories — Refunds for apparatus				of Director and staff, rent of mail-bag,			_
veterinary drugs, &c	. 11	19	1	repairs, inspection of reserves	63	11	6
Contingencies (farm)—Prizes at show, les	18 12	10	Λ	Orchard, grounds, and plantations—La- bour and material	52	9	0
entry fees		10	0	Scholarships	120		
change allowed on cheques, and refund				Buildings (College) - Repairs and additions	120	·	Ü
for use of telephone	. 1	18	$^{2}$	to cottage	201	17	10
Buildings (College) — Refunds for damage		7	6	Rates	66	11	3
Contingencies (College)—Refund of part of	of	_		Insurance (College)—Buildings and ac-			
registry fee	_	5	0	countant's guarantee	43	0	9
Orchard—Sale of fruit	. 0	2	6	Insurance (farm)—Buildings, machinery, employers' liability	96	13	в
				Contingencies (farm)—Expenses in connec-	20	10	U
				tion with show and sales, subscriptions,			
					15	10	8
				&c	10	5	9
				Permanent improvements — Labour and			
				materials		15	
				Stationery, stamps, telegrams, telephone   Library Books and periodicals		19 1	
				Ctudental food The natural of		13	
				Students books Students' travelling-expenses Travelling-expenses  Travelling-expenses		19	
				Students' travelling-expenses	28	4	6
				Governors		0	
				Workshops, manual training, instructor's	14	14	Z
				fees, &c	58	7	6
				Workshops wages, blacksmith		12	ŏ
				Workshops wages, blacksmith	10	0	0
				Examination expenses—Examiners' fees		2	0
				Prizes and certificates		16	
				Workshops materials and tools		$\frac{17}{10}$	
				Repairs to farm buildings, gates, and fences Experimental work		6	7
				Apiary—Bee-keeper's sundries		17	
				Balance, 31st December, 1904	813		
	£ $6,108$	11	0		£6,108	11	0
			_				_
	~						
	CA	PIT	ΑL	ACCOUNT.			
	_	8.	d.	Expenditure.	£	8.	d.
Receipts.	£						
Balance, 1st January, 1904	20,587	15	8	Balance, 31st December, 1904	21,887	15	. 8
		15	8	Balance, 31st December, 1904	21,887	15	. 8
Balance, 1st January, 1904	20,587 1,300	15 0	8		·		
Balance, 1st January, 1904	20,587	15 0	8		21,887 E21,887		

#### MORTGAGE OF FREEHOLD ACCOUNT.

Balance, 31st Decemb	Receipts.	 £ s. d			s. 0	
		STATEMENT	OF BALANCES.			
Cr. Capital Account General Account	Accounts.	 £ s. d 21,887 15 813 0		£	s. 16	
			Mortgage of freehold	20,000		
		£22,700 16	£	22,700	16	0

WILLIAM LOWRIE, Director.

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

Approximate Cost of Paper.—Preparation, not given; printing (1,630 copies), £2 13s.

By Authority: John Mackay, Government Printer. Wellington.—1905.  $Price\ 3d.$ ]