

1899.
NEW ZEALAND.

EDUCATION: CANTERBURY AGRICULTURAL COLLEGE.

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

[In continuation of E.-9, 1898.]

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—John Rennie.

Elected by members of the Legislature—Frederick de Carteret Malet, Hon. William Rolleston, Hon. Edward Cephas John Stevens.

Elected by governing bodies of agricultural and pastoral associations—Henry Francis Gray, Henry Overton (Chairman), Robert Heaton Rhodes.

Staff.

Director.—J. Bayne, M.A., B.Sc. (in Agric.).

Lecturer on Chemistry.—G. Gray, F.C.S.

Lecturer on Natural Science.—J. W. Mellor, B.Sc.

Lecturer on Applied Mathematics.—M. Guerin, C.E.

Lecturer on Veterinary Science.—J. R. Charlton, M.R.C.V.S.

REPORT OF THE BOARD.

SIR,— Canterbury Agricultural College, Lincoln, 31st December, 1898.

On behalf of the Board of Governors of the Canterbury Agricultural College, I have the honour to report in outline on the work done in the College and on the farm for the year ending 31st December, 1898, in compliance with section 41, clause (1), of "The Canterbury College and Canterbury Agricultural College Act, 1896."

College.—Throughout the year forty-one students were enrolled. An important change in the scholastic department and in practical farm work was made in the appointment of external examiners by the Board. Two examinations were held, one in June, at the end of the first term, and the other in December, at the end of the second term, and it is gratifying to state that on both these occasions the students passed very satisfactory examinations. Another important change was the establishment of residential scholarships by the Board, four of which (to the value of £20 each) were awarded, after examination—two to second-year students and two to first-year students. Prizes for excellence in scientific work and in practical farm work were also given, and the effect of both scholarships and prizes has been to increase diligence and industry among the students.

The results of the examinations held by external examiners are as follows:—Scholarships First-year students—W. H. Black, Canterbury; N. Powell, Invercargill. Second-year students—D. J. Willis, Rangitikei; H. C. Pockley, Sydney.

The diploma, which includes both scientific knowledge and practical farm work, and is the highest distinction conferred, has been gained by the following students: William Thomas Grant, Canterbury; Alfred John Gurr, Adelaide; Harold Campbell Pockley, Sydney; William Osborne Rennie, Canterbury; Yeo Trissilian Shand, Canterbury; Daniel Jarvis Willis, Rangitikei.

The certificate in practical farm work has been gained by the following students: John Blunden, Canterbury; Walter Charles Cameron, Auckland; Stafford Smith, Sydney.

Prizes in scientific work have been gained by the following students: First year—W. H. Black, N. Powell, C. Withy, B. North; second year—D. J. Willis, H. C. Pockley, A. J. Gurr, W. T. Grant, J. Blunden.

Prizes in practical farm work have been gained by the following students: First year—B. North, W. H. Black, F. Westenra; second year—D. J. Willis, H. C. Pockley, W. T. Grant, W. C. Cameron.

Annual certificates have been gained by the following students of the first year: W. H. Black—First in agriculture, general chemistry, agricultural chemistry, botany, practical botany (*æq.*); N. Powell—First in entomology, mensuration, and veterinary science; G. M. Wallace—First in surveying and practical chemistry (*æq.*); A. J. Mactavish—First in meteorology and physiography and practical botany (*æq.*); B. North—First in book-keeping and farm books (*æq.*); W. Stewart—First in plotting; E. M. Wason—First (*æq.*) in farm books; W. J. Henderson—First (*æq.*) in farm books; W. Dunsterville—First (*æq.*) in practical chemistry; D. Friedlander—First (*æq.*) in practical chemistry.

Annual certificates have been gained by the following students of the second year: D. J. Willis—First in agriculture, dairying, theoretical botany, practical botany, mechanics (*æq.*), farm books (*æq.*), and veterinary science; H. C. Pockley—First in theoretical chemistry, mechanics (*æq.*), and farm books (*æq.*); A. J. Gurr—First in practical chemistry, agricultural chemistry, book-keeping, surveying and levelling, and farm books (*æq.*); W. T. Grant—First in entomology; S. Smith—First (*æq.*) in mechanics; J. Blunden—First (*æq.*) in farm books; W. O. Rennie—First (*æq.*) in farm books; W. C. Cameron—First (*æq.*) in farm books.

Messrs. G. Gray, F.C.S., and J. R. Charlton, M.R.C.V.S., are still in charge of the chemical and veterinary departments respectively. A change has occurred in the teaching staff, Mr. J. W. Mellor, B.Sc., New Zealand University, having been appointed lecturer on natural science, and Mr. M. Guerin, C.E., having been appointed lecturer on applied mechanics.

Farm.—The farm is in good order. During the year several lines of old decayed gorse hedges have been replaced by the erection of new wire fences. The autumn and spring cereal crops promise to yield abundantly. The turnips, mangels, carrots, and potatoes are looking well. A very good prospect of sheep and cattle feed for the winter months is already apparent. The hay-crop was good, and at the time of stacking was put through the mill and a large quantity of good seed secured. The aftermath intended for clover-seed is poor. Many experiments have been carried out on the farm. New kinds of wheat were sown to test which are the best varieties to grow in the colony, and which are best suited for spring or for autumn sowing. About forty varieties of imported potatoes were planted; the seed from these has met with a ready demand from farmers and others interested in potato-growing. Different manures were applied to mangels, carrots, turnips, and rape to test the agricultural value of the manures as compared with the money values respectively. A great many improvements have been effected throughout the year in connection with the farm, garden, orchard, and workers' cottages.

The live-stock are up to the former standard, and stud animals of all kinds are being inquired after and purchased by people throughout New Zealand and even Australia. The cattle consist of a shorthorn herd and two typical cows of each of the following breeds: Jersey, Ayrshire, Polled Angus, and Hereford. The stud sheep consist of Border Leicesters, English Leicesters, Romney Marsh, Shropshire Downs, and Lincolns. A repetition of last year's experiment to determine which are the best cross-bred lambs for freezing purposes is being tried. The lambs will be tested in the local market, instead of being sent Home, as was done last year. The number of live-stock stands as follows: Cattle, 81; sheep and lambs, 1,222; horses, 20; pigs, 27; poultry, 236.

The valuation of live-stock and farm plant was conducted by Messrs. H. Overton, W. Boag, H. F. Gray, and D. McMillan, and the valuations stand slightly higher than those of last year.

I have, &c.,

The Hon. the Minister of Education, Wellington.

J. BAYNE, Director.

STATEMENTS of RECEIPTS and EXPENDITURE for the Year ending 31st December, 1898.

FARM ACCOUNT.

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Rent of land	10	0 0	By Farm wages (including share of Director's salary)	715	7 1
Sale of grain, &c.—			Students' wages	31	5 7
Wheat	314	17 2	Trade accounts—Repairs, sheep-dip, corn-sacks, &c.	251	8 5
Grass-seed	24	15 3	Manures	31	15 3
Linseed	6	5 0	Seeds	22	9 0
Sacks	9	11 3	Fuel	7	11 5
Potatoes	74	2 9	Rates	35	14 3
Sale of live-stock—			Insurance of farm buildings and imple-		
Sheep	594	3 4	ments	32	5 7
Cattle	104	6 7	Repairs to gates and fences	156	13 2
Horses	82	15 6	Permanent improvements	6	17 0
Pigs	241	1 0	Contingencies (farm)	24	16 9
Sale of dairy produce	189	18 4	Repairs to cottages	10	18 0
Sale of wool	111	14 10	Purchase of live-stock—		
Sale of dairy engine	25	0 0	Sheep	102	18 2
Trade accounts—Sale of eggs and poultry, and dipping sheep	53	6	Horses	30	10 0
Farm contingencies—Prizes gained at shows	11	9 0	Balance carried to General Account	408	0 11
Repairs to gates and fences—Refund of half-cost of boundary-fence	12	9 1			
Grazing	2	12 0			
	<u>£1,868</u>	<u>10 7</u>		<u>£1,868</u>	<u>10 7</u>

GENERAL ACCOUNT.

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Rent of reserves	1,592	9 4	By Balance at 1st January, 1898 ..	428	6 3
Interest on Supreme Court award ..	300	0 0	Salaries of staff	1,412	1 7
Interest on capital	801	14 2	Library	42	14 7
Receipts from students—			Students' travelling-expenses ..	38	5 0
Fees	1,365	15 0	Printing and advertising	100	15 5
Sale of books and instruments ..	37	7 8	Laboratories—Reagents, apparatus, &c.	108	11 9
Penalties	1	10 8	Stationery, stamps, and telegrams (in-		
Maintenance of students and staff—Re-			cluding typewriter)	87	3 11
fund for Board of Directors, &c. ..	74	10 3	Law-costs	34	3 9
Repairs to buildings—Refund for break-			Inspection of reserves	8	15 8
ages	5	12 7	Maintenance of students and staff ..	1,621	10 7
Grounds and plantations—Sale of fire-			Insurance of buildings, &c. ..	51	17 6
wood	3	0 5	Repairs to buildings and water-supply ..	144	9 6
Laboratories—Refund for breakages ..	5	13 1	Labour in grounds and plantations ..	82	10 2
Orchard—Sale of apples	0	7 6	Books and instruments for students ..	50	15 7
Balance from Farm Account	408	0 11	Contingencies (College)	69	9 10
Balance at 31st December, 1898 ..	362	7 0	Experimental work	91	1 2
			Orchard	66	8 3
			Workshops—		
			Wages	48	8 9
			Material and tools	29	16 9
			Telephone connection	19	0 0
			Fitting up Director's office	4	17 4
			Veterinary laboratory	141	4 9
			Examiners' expenses	106	17 6
			Scholarships (four at £20 each) ..	80	0 0
			Travelling-expenses of members of Board	89	3 0
	<u>£4,958</u>	<u>8 7</u>		<u>£4,958</u>	<u>8 7</u>

CAPITAL ACCOUNT.

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Balance, 1st January, 1898 ..	1,188	2 9	By Legal expenses in connection with		
Refund for excess of acreage in land sold			Supreme Court award of £6,250 ..	187	18 11
to R. H. Chapman	43	13 3	Share of solicitor's expenses in con-		
Payment of capital by Canterbury			nection with preparing Bill for repay-		
College	17,470	3 10	ment of £960 to G. H. Saxton ..	6	19 0
Share of surplus from sale of Saxton's			Share of solicitor's expenses in con-		
estate	2,810	0 0	nection with sale of Gilmour's land ..	1	3 7
Share of surplus from sale of Gilmour's			Balance	21,573	7 11
land	57	9 7			
Payment of part of Supreme Court					
award	200	0 0			
	<u>£21,769</u>	<u>9 5</u>		<u>£21,769</u>	<u>9 5</u>

MORTGAGE OF FREEHOLD ACCOUNT.

<i>Receipts.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
To Balance	20,000	0 0	By Loan on security of 6,001 acres ..	20,000	0 0
			By Balance, 1st Jan., 1899 ..	£20,000	0 0

BALANCE.

<i>Accounts.</i>			<i>Bank and Investment.</i>		
	£	s. d.		£	s. d.
Cr. Capital Account	21,573	7 11	Cr. Drawing Account ..	£1,392	3 6
Dr. General Account	362	7 0	Less outstanding cheques ..	181	2 7
			Mortgage on freehold	20,000	0 0
	<u>£21,211</u>	<u>0 11</u>		<u>£21,211</u>	<u>0 11</u>

J. BAYNE, Director.

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

Approximate Cost of Paper.—Preparation, not given; printing (1,575 copies), £2 11s. 6d.

By Authority: JOHN MACKAY, Government Printer, Wellington.—1899.

Price 3d.]

