

The duties of the chemist would include teaching general chemistry (both by lectures and in the laboratory), carrying out chemico-agricultural investigations, manurial experiments, &c., and analysing at times, for the public, substances an examination of which would be of interest.

The instructor in natural-history subjects should be especially a good vegetable physiologist, capable of demonstrating the structure of plants, and should be skilled in the use of the microscope. Besides teaching the subjects mentioned, he should superintend the botanic garden, carry out experiments to illustrate the growth and feeding of plants, with grasses, with seeds, &c.

The instructor in mathematics should take arithmetic, algebra, Euclid, mensuration, logarithms, trigonometry, land-surveying, levelling, mechanics, and book-keeping.

I would strongly advocate that the instructors in the subjects in the above divisions should be residents. Resident instructors naturally take an interest in the progress of the institution with which they are identified; they are at hand to direct the studies of the students; any spare time is available for and likely to be utilised in useful investigations in many different directions. In fact the whole of the time of the instructors in chemistry and natural history would be, as it should be, devoted to promoting the progress of agriculture. The presence of a portion of the staff is also necessary to enforce discipline and to insure evening study.

A veterinary surgeon, to attend one day a week, would, I think, in that time be able to give during the school course sufficient instruction.

I propose that I should myself take agriculture, theoretical and practical; and in doing so I should probably take, in the latter part of my course, applied chemistry. My other duties would include the management of the farm (ordinary and experimental), of the school, to keep the farm and other accounts, put into shape for publication results of experiments, reports on various matters, reply to inquiries made by the public, &c.; also to direct and control to some extent the teaching staff, and, if possible, to carry out investigations, chemical or other, with or without the assistance of the staff.

The general direction of the course of instruction should be in the hands of the Director, who is in reality responsible to the Board of Governors for the successful training of the students, if only for this reason, viz.: Our aim is to make use of the various subjects taught to the end that our agriculture may be improved. The instructors must, therefore, be constrained to subordinate their teaching to this end. Upon the efficiency of the staff will the success of the school much depend.

It is necessary to secure the services as instructors of trained men of good attainments, who could, as well as teach, carry out after consultation any scheme of experiments or pursue any course of inquiry that might be decided upon—men who would each have his heart in his work. Without such qualification an instructor would be worse than useless to the school.

It would, I think, be desirable later to add to the present course instruction in forestry and horticulture, and also to provide a carpenter's and blacksmith's shop. A knowledge of rough carpentry and simple smithy-work would often be of great value to a farmer. Practical forestry might be usefully carried out on some of the College reserves.

The Chairman, School of Agriculture Committee.

I have, &c.,
W. E. IVEY, Director.

APPENDIX I.

CANTERBURY COLLEGE.—SCHOOL OF AGRICULTURE.

TABLE SHOWING HOW MASTERS ARE ENGAGED EACH DAY.

1. MR. GRAY.—*Lecturer on Chemistry.*

a. Actual time with students in lecture-room and laboratories:—

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
A.M.					
9.30 to 10 ..	..	..	..	Chemical laboratory	..
9 to 10 ..	..	..	Physical chemistry	..	..
10 to 11 ..	Chemistry lecture ..	Chemistry lecture ..	Biological laboratory	..	Chemistry lecture.
11 to 12 ..	..	..	"	..	..
P.M.					
1.30 to 2.30	..	..	Chemistry lecture ..	..	..
1.30 to 3 ..	Chemical laboratory	Chemical laboratory	..	..	Chemical laboratory.
4 to 5 ..	..	..	..	..	Physiological chemistry.

b. Time occupied in preparation of lectures and laboratory practice.

c. Time occupied in making analyses for farmers and the public. See reports.

d. Time occupied in original investigations. See report—papers on turnips, grasses, rainwater, &c.

e. Time occupied on farm analyses. See reports.

f. Saturday examinations.