

3. INTERMEDIATE SCHOOL FARMS.

The question of agricultural education is one of the utmost importance to such a colony as New Zealand. Information and suggestions with reference to intermediate agricultural instruction will be found under "Agriculture," Section V., page 56.

4. SECONDARY SCHOOLS.

In connection with the secondary schools I recognise many difficulties, inasmuch as our population is small and the curriculum is necessarily a very general one. I should, however, urge that wherever drawing, practical science, manual instruction, or domestic economy (in connection with girls' schools) are efficiently taught a capitation grant be made to such schools, such grants, however, to be paid only upon the recommendation of the Education Board of the district in which such school is situated. Grants so paid should mainly be used for the equipment of science laboratories, art-rooms, manual training, or domestic-economy class-rooms. Such assistance would, I am sure, lead to the encouragement of those subjects, and considerably strengthen the cause of technical education.

Drawing.—From inquiries made during my recent visit to England, I find that drawing is, in the majority of secondary schools, taught throughout the school, and in many schools special provision, in the shape of an art-room, is provided and well equipped with casts, models, and other necessary appliances. The course of work in drawing should be practically what is known as the second-grade course in freehand, model, plane and solid geometry, perspective, light and shade from the cast, modelling or elementary design. These subjects being taught throughout the school, assuming a three-years course of work, geometry and perspective would occupy the first year, freehand and model the second, and the remaining subjects the third year; it would be possible then to include machine drawing and building construction (drawing only).

Manual Instruction.—The secondary schools, in this respect, have made little progress in comparison with primary schools, nor is the work generally so efficiently carried out. The schools are, however, becoming alive to the requirements of manual training as an ordinary part of their syllabus, and rapid progress may be looked for in the next few years. The course of work would, if manual work is included in primary schools, be a second or third year's course, adapted from one of the series suggested in the section of this report dealing with the subject.

Science Instruction.—A large number of schools are well equipped in this respect, but there has been much difference of opinion upon the nature of the instruction given. Mr. H. Llewellyn Smith states that in the majority of schools practical chemistry merely means qualitative analysis. The text-books in use were mainly Jago's Elementary or Advanced Chemistry, or Roscoe's.

The London County Council Technical Education Board, considering the importance of teaching chemistry in secondary schools, appointed a special committee to inquire into the system adopted. This committee, after consideration, adopted the following recommendations, which have met with strong approval from educational authorities: (1.) That chemistry is a valuable subject for school-teaching, but that it should not exclude training in mathematics and languages, but should with these form part of a general education. (2.) That it should be preceded by an elementary course of physics, to be treated as much as possible as exercises in measurements and practical arithmetic. (3.) That the work should be always largely practical. (4.) That attention should be paid to the style of the daily record of work, so that it may serve as an education in handwriting, grammar, and English composition. (5.) That no attempt should be made to impart in schools any knowledge of the application of chemistry for commercial purposes, except in so far as the products of such operations concern the common phenomena of every-day life. (6.) That in selecting candidates for the higher science training a written examination is insufficient and inadvisable, but the selection should rather be determined by the recommendation of the headmaster of the school from which a pupil may proceed, based on the work of the candidate throughout his whole school career.

Girls' Secondary Schools.—Drawing as a rule is taught throughout. Modelling is very generally taught, in some cases throughout the school. Needlework and dress-cutting are also generally taught throughout. Botany is the most usual subject. Cooking is not generally taught, but strong efforts are being made to introduce this subject.

The two illustrations (XXI. and XXII.) will give some idea of the importance attached to the subjects mentioned. I may say that in a large number of secondary schools this provision is very complete. The illustrations are reproduced by kind permission of the *Record*, the journal of the National Association for the Promotion of Technical Education.

SECTION III.—SCHOOLS OF ART AND CRAFTS.

(1.) Drawing, painting, modelling, and design. (2.) Art crafts. (3.) Miscellaneous.

1. DRAWING, PAINTING, MODELLING, AND DESIGN.

If our system of education is to be successful, art schools must play a very prominent part in that success. Drawing is the basis of all technical teaching, and is now regarded as a universal language open to all. There has been much discussion upon the question of whether an art school should undertake what is called "pure art" or "applied art," the former alluding to the pictorial, and the latter to the working or application of art to clay, metals, wood, or stone. France, Germany, and latterly England, have found it useless to make any distinction between the two, and now great pains are being taken to spread pure art knowledge as the best method of instruction,