

both the primary and secondary schools, rendering the attendance of young persons at technical classes in this subject unnecessary. Any further extension of this work will probably lie in the direction of the training of professional cooks.

The large number of pupils attending classes for instruction in dressmaking shows that the demand for instruction in this subject is very general, and, although in a few isolated instances attempts have been made to make the classes truly technical, and to abolish the use of charts, much remains to be accomplished in this direction.

The classes for tailoring appear to command only a small number of students. A thoroughly systematic course of instruction and a good teacher should, we think, deserve more support at the hands of journeymen tailors and apprentices than appears to be at present the case.

Some attention has been given to home nursing in one district. There appear to be ample reasons for the extension of this work, especially where experienced trained nurses as instructors can be obtained.

In most of the classes in millinery the course of work suggested by the City and Guilds of London Institute has been adopted with excellent results.

Reviewing the work of the classes in mechanical and electrical engineering as a whole, we are pleased to note that increased attention is being given to the principles underlying these important branches of industry. The remarks referring to closer co-ordination of theoretical and practical work in the carpentry and joinery classes and classes for building-construction apply with equal force to classes for practical fitting and turning, and machine construction and drawing; there is, however, another matter in connection with the engineering classes that appears to call for attention—viz., the necessity for correlating the instruction in mathematics, including elementary geometry, with the instruction in drawing. The young engineer must learn mathematics not as an end in itself, but as a tool that is to be useful to him, and if mathematics is to be a useful tool, he must learn by using it. It would therefore appear to be an absolute necessity that the teacher of mathematics in an engineering class should himself be an engineer, or, in other words, the engineer who teaches the drawing should also teach the necessary mathematics connected with the drawing. If the students in attendance at the mechanical drawing classes simply draw from flat copies, there will be little need for the use of practical mathematics; but if after the preliminary lessons in the use of drawing-instruments have been given the course of instruction is arranged so that a knowledge of how the shape and proportions of the parts of machines drawn are arrived at (and this appears to be the natural and, therefore, the best way of teaching machine construction and drawing), then mathematics is a necessity. The difficulty of inducing students to attend a separate class in mathematics would be overcome if part of the time devoted to the instruction in drawing each evening was devoted to instruction in mathematics. This would mean less drawing, but we venture to express the conviction that it would mean more mental training for the students, and, more than this, it would make the drawing lessons of very much more practical value to them. As regards workshop practice, increased facilities in the way of machine tools and equipment generally are being provided as occasion demands and circumstances warrant. The equipment of engineering workshops is a costly matter, and calls for the greatest thought and care in adapting the equipment to the real as distinguished from the ideal needs of the course of instruction. We consider that for elementary, practical, mechanical, and electrical engineering a few substantial and accurate machines with simple accessories are all that is required for, say, a two-years course. Advanced work will require additional machinery, but the acquisition of this may with advantage be distributed over a period of years. Evidence is not wanting that a thoroughly educative course in elementary ironwork can be provided without an extensive and costly array of machine tools.

The attendance of pupils and the work at classes for instruction in theoretical and practical plumbing are such as to make these classes among the best in our technical schools. The action of local authorities and master and journeymen plumbers in requiring a workman to have a certificate before he can undertake certain branches of plumbing has rendered attendance at a course of instruction at a technical school a necessity to him, with the result that the majority of the classes are well attended, and, in most cases, excellent work is done. The hope is expressed that the time is not far distant when either similar or other forces will make it compulsory for all mechanics in all branches of industry to attend courses of instruction in the theory and practice of their trade.

The Art and Science Examinations of the Board of Education and the Technological Examinations of the City and Guilds of London Institute were conducted as usual by the Department. The results, which are given on pages 14 and 15, may be summarised as follows: Of 582 candidates who sat for the South Kensington Examinations, 370 passed; the number of students' works sent Home for examination in connection with art certificates was 13, of which number 4 were accepted by the examiners. The number of candidates who sat for the Institute's examination was 263, of which number 179 passed. At the Institute's examinations for teachers in cookery and woodwork, 21 teachers passed in cookery and 5 in woodwork. The examinations were held at twenty centres.

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