

of the introduction of new compulsory subjects, partly because of the growing conviction, even among those teachers who have taken honours in Latin, that for the average pupils time may be more profitably spent on some other subject. It is doubtful whether half the pupils of our secondary schools now take up the study of this language, yet we occasionally hear people who ought to know better saying that all pupils of secondary schools are compelled to learn Latin.

FRENCH.

The teaching of French has greatly improved in the last few years, owing to the introduction of the oral methods of Siepmann, Dent, and other text-books. The pupil of to-day probably attains a certain facility in translation more quickly than the pupil of twenty years ago, but, except in a few girls' schools, little attempt at French conversation is apparent. A few teachers have some half-dozen expressions which, interpolated amongst the English questions, give some local colour to the lesson, but in general the pupils have very little idea of connected French conversation. The method of instruction in phonetics and script appears to be of doubtful value, as most of the teachers (and the schools have some very able French teachers) introduce them in the matriculation year simply to satisfy the examiner, whereas to be of any value they should be taken almost from the commencement.

MATHEMATICS.

On the treatment of mathematics we have not much criticism to offer. In general more attention might profitably be paid to the methodical setting-out of the work, and certainly many teachers fail to use the blackboard enough and to make their board-work a model of neatness and method. More attention might also be paid to the practical and experimental aspects of the subject, a direction in which there has been much advance of recent years. Wherever possible the problems of the text-book should be studied out-of-doors with the aid of cross-staff, sight-rule, plane-table, chain-measure, and a simple form of angle-meter. This is done in some schools, and lends a great interest to all branches of mathematics. Contracted methods and graphs should be taken fairly early and made use of throughout the course, not merely, like phonetics in French, prepared specially for examination purposes. To illustrate the mistaken attitude of some few teachers to short methods we may say that we saw a teacher giving one morning an excellent lesson on contracted multiplication of decimals, and the same teacher in the afternoon working out volumes with his physics class to five places of decimals by the long method, although he had in the laboratory no vessel that would measure accurately even to the second place.

SCIENCE.

The subject wherein education may claim to have made the greatest advance in recent years is science. All our secondary schools, both boys' and girls', have well-equipped laboratories, and most have "specialist" science teachers. Several of the boys' schools are making honest and praiseworthy attempts to teach agriculture on a more or less comprehensive plan, while the majority of the girls' schools are now offering a home-science course supplemented by cookery, laundry-work, needlework, hygiene, and first aid. One point should be carefully noted by science teachers: all pupils who sit for examinations in science must present a certificate of "individual" practical work. The Education Department, moreover, exempts from examination in science for the intermediate certificate pupils who have covered a good programme, including sufficient "individual" laboratory practice. Further, many schools are receiving capitation from the Manual and Technical Branch for classes which devote half their time to "individual" practical work. Yet the careful examination of hundreds of practical notebooks leads us to the conclusion that in an appreciable number of schools the word "individual" is overlooked. The notebooks in some schools contain practical notes dictated by the teacher; the results of most of the experiments are identical, and even the calculations and figures do not differ. Evidently these are only the result of demonstration lessons performed by the teacher. The most conspicuous instance noticed by us was where the same teacher taught physics to a set of girls taking home science and to a set of boys taking agriculture; the notes in the practical book showed that every girl has individually found that the relative density of a certain soap solution was 1.14, while every boy on the same day had determined the relative density of hydrochloric acid also to be 1.14. We do not consider that a certificate of individual practical work based on such results as these is an honest certificate, and co-operative practical work of this kind is certainly not an ideal means of learning scientific method.

Most of the boys' schools offer a course of practical physical measurements, and in the higher forms heat and chemistry are generally studied for University scholarships, four schools making a special feature of electricity for this examination. The comparatively recent bracketing of a general physics programme with a special option of one of the sciences has had a detrimental effect on the study of chemistry. So much time has to be devoted to the general physics that chemistry is cut completely out of the syllabus in some large schools, and heat is taken as being the best mark-scoring science. Considering the immense importance of a sound knowledge of chemistry in the development of agriculture and of industries, especially in a new country, a reduction of the time devoted to this science is a retrograde step from the educational point of view and a serious loss from the national point of view. It might even be contended that chemistry should once more rank as a separate subject on the syllabus for the Public Service Entrance Examination and Matriculation. Lord Moulton, in the introduction to a recent volume of scientific essays, says, "It was inevitable that chemistry should take first place. Its growth during the last half-century has been surprisingly rapid in pure science, but even this is dwarfed by its achievement in industrial life, where in the shape of dyes, pharmaceutical and photographic products it has forced itself upon the attention of every member of the community." A certain school that year by year is notably successful in the University Scholarship Examination devotes a great deal of time to a thorough theoretical and practical course of chemistry.