

not wide. For the establishment of a natural law the pupils make many experiments, taking the mean of their measurements, and drawing diagrams on squared paper, from which they endeavour to discover the required law—not always successfully. In fact, it appears to me that the limits of graphics are not always recognised, and that especially with young pupils it is necessary to do a large number of direct or natural graphic diagrams (the tracing of actual curves, &c.) before using the method for the solution of problems in which the co-ordinates have a symbolical meaning, and that even then, at first, the examples chosen should be very simple—relating to such elements as the age and height, or the age and weight of boys, temperature and barometric pressure day by day or from hour to hour, population and time (years), space and time, velocity and time, &c. To begin too soon with examples in which x (a *length*) represents *volume*, and y represents *pressure*, for instance, is very confusing to the pupil of average intelligence; if he does succeed in getting a correct statement of Boyle's law, he is apt to miss the real physical significance of his supposed discovery. No doubt, careful questioning upon the diagram will enable the teacher to guard against this; but it is obvious that misconception will be avoided most surely by the pupil who has had a thorough grounding in simpler and more direct applications of the graphic method of representation of quantities. From the evident skill of the teachers, I should judge that the faults referred to are generally avoided at Bedales; but one or two examples of pupils losing their way in a mass of graphics came under my notice, and suggested the remarks already made.

Altogether, the school is a marked success in many ways; at all events, it shows the great advantages of treating secondary education in a more natural and practical way than that which is honoured by the tradition of several generations.

CLIFTON COLLEGE.

This well-known school has had a succession of famous headmasters, and under its present head, Dr. A. A. David, it promises to maintain a leading place among the great English public schools. The division into classical and modern sides, which, in common with most other public schools, it has had for many years, has lately undergone some modification, the work of the modern side being much more solid and serious than it formerly was, so that it has ceased to be the "rubbish-heap" of the school. There are now three divisions or "sides" in the school—modern, military, and classical. On the military side great attention is paid to mathematics, drawing, science, and modern languages. All pupils take Latin; but otherwise the work on the modern side is even more modern than in a Berlin *realschule*, for the science is dealt with in a way calculated to develop individual power of observation and initiative. Equality of status in the modern, military, and classical sides is secured by equality of treatment in regard to promotion into the Sixth Form, with all its privileges. Physics and chemistry are both taught quantitatively and by individual experiment throughout, physics preceding chemistry. Both are taken by all pupils of the Upper School, but neither is taken in the Lower School, where there is substituted an excellent general course of elementary science (nature-study, &c., called at Clifton, on account of its miscellaneous character, "fancy science"). The method of teaching science is different from that at Oundle, as simple laboratory experiments precede, as with us, the use of such apparatus as would be employed by the engineer or other professional man. One very noticeable feature of the changes that are taking place is the fact that in the modern side the teaching of English occupies six to seven hours a week. English schemes are now being drawn up with the following aims in view:—

- (1.) To co-ordinate history, regional and social geography, and English literature;
- (2.) To cover as much ground as possible, whole works of authors being studied so far as time will allow;
- (3.) To secure facility and correctness in composition.

The schemes were originally drawn up for the modern side, but are now largely common to it and the classical side. The number of boys in the school is about 550, of whom 100 are in the Lower School, and 450 in the Upper; the majority of the latter are in the classical side, where Greek is compulsory for admission to the Sixth Form. The school hours are from 8.45 to 12.15, and from 3.45 to 6 on Monday, Wednesday and Friday, Thursday and Saturday—that is, excluding preparation periods and intervals, a total of about twenty-eight to thirty hours a week.