

It is difficult, however, to recommend the book for general use in schools. Attention has been directed on several occasions to defective figures in elementary mathematical text-books. In Mr. Milne's book the fault exists in an accentuated degree. No attempt seems to have been made to co-ordinate the diagrams and the letterpress, whilst many of the diagrams printed on squared paper contain actual mistakes. These criticisms apply to diagrams on pp. 3, 34, 35, 36-37, 38, 53, 55, 58, 59, 63, 72, 74, 88, 92, 120, 123, 128, 129, 143 (a very bad case), 147, 148, 155, 157, 166, 179. It is surely not right to place such diagrams before young students.

If the book were re-issued with correctly drawn diagrams, it would constitute a valuable addition to school and college text-books.

S. BRODETSKY.

Our Bookshelf.

The British Journal Photographic Almanac and Photographer's Daily Companion, 1920. Edited by George E. Brown. Pp. 912. (London: Henry Greenwood and Co., Ltd.) Price 1s. 6d. net.

ALTHOUGH this volume has not quite reached its pre-war bulk, it has gone a long way towards it, and appears to be now lacking only a little in its former plethora of advertisements. Unfavourable conditions still hold, but the editor has been able to restore the tables, formulæ, and other technical details that photographers have for so many years been in the habit of consulting in their daily work. The "Epitome of Progress" is a good summary of the novelties of the past year, and there is, we think for the first time, a "History in Brief of Photographic and Photo-mechanical Processes." The nine pages devoted to this subject will be of special interest to the student, for they give the dates of a very large number of important facts connected with the development of photography, starting from the very beginning. We notice that sensitol red and sensitol green are ascribed to Prof. Pope in 1917. We always thought that these were pinacyanol and pinaverdol, respectively, of German origin some years previously, and that to Prof. Pope was due the credit of preparing them in this country, and also of introducing sensitol violet, which, however, does not appear to be mentioned. The section on "Beginners' Failures in Photography," by the editor, deserves much appreciation. C. J.

Toxines et Antitoxines. By M. Nicolle, E. Césari, and C. Jouan. Pp. viii+123. (Paris: Masson et Cie, 1919.) Price 5 francs net.

M. NICOLLE holds such a high place among those who have made contributions of real importance to our knowledge of parasites that it seems a

pity he should put out this disorderly summary of some of the researches of himself and his collaborators. It reads like a bundle of notes that a man might make to define the current position of his investigations, and to settle which piece of work he should take up next. With trivial exceptions M. Nicolle reviews no facts but those of his own discovery, and it is impossible to distinguish between conclusions and hypotheses. He points out, for example, the similarity of symptoms and anatomical lesions produced by various toxins of different origins, and the diversity and specificity of the antibodies which result from their introduction into the animal economy. He therefore concludes that toxins consist of two parts, one poisonous and not an antigen, the other inactive and an antigen. This is no more than a possibly fruitful hypothesis on which to base further experimentation. Those who know the subject well might run through the book with advantage; others had better leave it alone. A. E. B.

Some Wonders of Matter. By the Right Rev. Dr. J. E. Mercer. Pp. 195. (London: S.P.C.K.; New York: The Macmillan Co., 1919.) Price 5s. net.

BISHOP MERCER writes for children, and in a manner in accordance with the Child's Guide of our grandparents rather than with modern educational ideals. His primary concern is to excite the naïve wonder which he considers so valuable; so he makes no selection, but ranges apparently at random from Pharaoh's serpents to Brownian motion without giving any clue to the relative importance of the very varied matters at which he glances. So wide a range in so small a space would tax severely the highest powers of exposition, and Bishop Mercer has not the genius for happy analogy that is characteristic of all the most successful writers for the young. Again, though the work is free from serious error, we judge that its author has not a first-hand acquaintance with science. If he had, he would scarcely puzzle the brains of his small charges (and incidentally that of the reviewer) by raising questions no serious student of science would ask—those, for example, which give rise to the paradoxes of Berkeleyan idealism. On the other hand, some parents will welcome the definitely religious tone and be gratified that the Divine Intelligence is presented in a form sympathetic to the simplest.

An Arithmetic for Preparatory Schools. With Answers. By Trevor Dennis. Second edition, revised. (Bell's Mathematical Series.) Pp. xiv+376. (London: G. Bell and Sons, Ltd., 1919.) Price 4s. 6d.

MR. DENNIS'S "Arithmetic" well deserves the second edition which it has reached. The sequence is based on the syllabus of mathematical teaching for ages nine to sixteen, for non-specialists, issued by the Curriculum Committee of the Headmasters' Conference. Suitably chosen exercises and clear type make the book well adapted for the students for whom it is intended.