

The Statesman's Year-Book

Statistical and Historical Annual of the States of the World for the Year 1950. Edited by Dr. S. H. Steinberg. Eighty-seventh annual publication, revised after Official Returns. Pp. xxiv+1594. (London: Macmillan and Co., Ltd., 1950.) 36s. net.

THIS indispensable annual again makes its appearance, revised up to the spring of 1950. No other volume contains such an array of factual information—political, social and economic—about all the countries of the world. The long-familiar format and arrangement are maintained. About half the book is devoted to the British Commonwealth and the United States, and the remainder to the countries of the world in alphabetical order. In recent years this last section has had several additions: the United States of Indonesia and Israel appear in this annual for the first time. The United Nations and their various offshoots have a long section to themselves, and the Council of Europe has several pages. The North Atlantic Treaty is given in full, and is illustrated by a coloured map. The other international organizations are also noted. Other valuable features are tables giving world production, for recent years, of wheat, rye, barley, oats, potatoes, sugar and cotton. An exhaustive index enhances the value of the book.

Introduction to Dynamics

By Dr. Martin Davidson. (Winchester Study Library.) Pp. 128. (London: Winchester Publications, Ltd., 1949.) 5s.

THIS book was written specially for students taking the London Matriculation and General Certificate examinations, and it certainly covers the syllabus for these examinations. In any book intended for students of this standard it is imperative to avoid using terms loosely; but one example of this occurs on p. 36, where the author says "the increase in the intensity of gravity—always denoted by the symbol g . . ." In physics the term intensity has quite a technical meaning and should not be used for g , which, as the author certainly does say on p. 37, is an acceleration. One other small point: Would it not be better on p. 75 to define the unit of force in terms of acceleration and not of velocity, particularly in view of the fundamental equation $P = mf$ quoted a few lines down?

A number of useful problems are worked out in the text, and the author encourages students to work the exercises from first principles rather than from memorized formulæ; few will disagree with this course.

Although on the whole the author drives his points home very well, one feels that students would derive more benefit if the more important laws, deductions and equations had been emphasized by heavier print. Certainly the book would have a wider appeal if questions from other universities besides London had been included.

Makers of Mathematics

By Alfred Hooper. Pp. ix+402. (London: Faber and Faber, Ltd., 1949.) 18s. net.

THIS book caters for the general reader with but little mathematical knowledge, as well as for students and teachers of the subject who are interested in its historical background. The opening chapter, "The Birth of Numbers", not only describes the probable origins of systems of counting, but also includes an account of early materials for writing. The growth of geometry, algebra and trigonometry,

and the invention of logarithms, are included in the first part of the book, followed by a chapter on the forerunners of Newton; the second half deals with such outstanding mathematicians as Newton, Leibniz and Gauss. The author successfully retains the reader's interest by introducing relevant matters of everyday practical concern: the clarity of the numerous diagrams also adds to this interest. Another feature is the biographical detail and historical association which have been woven into the story of the "Makers of Mathematics".

It is a tribute to the author that when explanations for the non-mathematician are introduced they do not detract from the general narrative. For example, the work of Jakob Bernoulli provides an opportunity of explaining polar co-ordinates and also of indicating by a diagram the nature and derivation of the lemniscate which bears his name. It will be realized that this book is not just another history of mathematics, but one of human activity and cultural value. A glance at the mathematical index shows the extensive range both of mathematicians and their work. The historical index indicates an equally extensive background of men and events rightly associated with the author's treatment of his theme. A list of books for further reading is provided.

H. D. ANTHONY

Beyond Realism and Idealism

By Wilbur Marshall Urban. Pp. 266. (London: George Allen and Unwin, Ltd., 1949.) 18s. net.

THE first impression made upon the reader of this competent and well-written book will be one of gratitude for a study involving years of patient thought and acute discernment. Whether it will, in fact, be possible to accept the author's thesis in full, time alone can show. This is, in brief, that the basic tenets of both realism and idealism are incapable of proof; that the "driving-force" of the latter will always encounter the "resistance" of the former, and that, consequently, a position of transcendence, indicating complementarity rather than contradiction, is both feasible and necessary. This discussion occupies rather more than half the available space; its character is frankly dialectical. By this is meant that the theme unfolds upon a plane of 'discourse' in contradistinction to one of 'things'. Thus it is no mere accident that the necessity to come down to earth brings with it a brave attempt to decentralize the sciences—which is in itself a valuable contribution—and to show that they themselves transcend realism and idealism, and therefore illustrate the contention previously elaborated. It is, however, a little difficult to believe that this *entente* is essential, or that the arguments in its favour are coercive. Nevertheless, they are plausible enough, and likely to enrich the content of scientific effort and research.

If any doubt should remain as to the positive value of such views, it is wholly dispelled by the masterly approach to the thorny subject of the present status and power of the *philosophia perennis*. Once again, this great tradition of European culture is seen to be able to take the strain, to yield what fraction of Aristotelianism no longer applies, and to look upon Scholasticism as something both fitting and useful, yet not as filling out the whole volume of human intellectualism. In a passage amounting nearly to pessimism, we are bidden to await the turn of the tide from its present anti-metaphysical surge. But some there are who think that they can just perceive its ebb.

F. I. G. RAWLINS