

## Our Bookshelf.

*The Psychological Register.* Edited by Carl Murchison, in co-operation with F. C. Bartlett, Stefan Blachowski, Karl Bühler, Sante De Sanctis, Thorleif G. Hegge, Matataro Matsumoto, Henri Piéron, A. L. Schniermann. (The International University Series in Psychology.) Pp. ix + 580. (Worcester, Mass.: Clark University Press; London: Oxford University Press, 1929.) 27s. net.

THE difficulties in compiling a "Who's Who" of any kind are twofold: first, to decide who shall be included; and secondly, to obtain accurate entries. The second difficulty is overcome to a large extent by obtaining particulars directly from the individuals concerned, but, as Prof. Murchison remarks in his preface, it is not easy to surmount the language obstacle in dealing with a work which has to cover the whole world. The first difficulty, however, is more serious. In the volume before us, all full members, and also all associate members with Ph.D. degrees, of the American Psychological Association, which has high technical requirements for admission, are included. For other countries Prof. Murchison has had to depend on the nominations of the members of his editorial board; thus Dr. F. C. Bartlett has acted for the British Empire, Dr. H. Piéron for Latin countries outside Italy, and Dr. Z. Y. Kuo and Dr. E. Shen have furnished Chinese names.

The result of this method of selection—and it is not easy to see how it could have been improved—is that the American entries occupy 296 pages of the book. This is, perhaps, not so disproportionate as may seem when the volume of work on psychology carried out in the United States is considered. However, the editor is of opinion that other countries are not adequately represented, partly on account of the fact that workers in psychology are often 'labelled' as physiologists, psychiatrists, philosophers, and educationists, and he appeals for additional names in order to make the book truly international in scope.

The details given include name, address, date of birth, education and career, and titles of papers (with bibliographies) and published works. The entries are arranged alphabetically under countries and there is a name index.

*Algebraic Geometry and Theta Functions.* By Prof. Arthur B. Coble. (American Mathematical Society Colloquium Publications, Vol. 10.) Pp. vii + 282. (New York: American Mathematical Society; Cambridge: Bowes and Bowes; Berlin: Hirschwaldsche Buchhandlung, 1929.) 3 dollars.

IN discussing algebraic curves and surfaces we have the choice of several distinct methods. Some authors rely upon Cremona transformations, by which the curve or surface is brought into correspondence with another and simpler curve or surface. Others rely upon invariant theory, reducing the geometry to algebra. A third school uses parametric representation. It is well known

how easily the properties of conics are derived by expressing the co-ordinates of their points as rational or trigonometrical functions of a parameter. For certain cubics, we use elliptic (that is, doubly-periodic) functions. When we come to curves of higher orders we need theta functions, which are multiply-periodic. Some complications arise from the fact that such functions necessarily involve more than one parameter, and are connected by a large number of complicated equations.

The special merit of Prof. Coble's treatment is that he brings all these various methods into relationship with one another. In particular he correlates his own researches, developed by means of Cremona transformations, with those of Schottky, who uses the theta functions as a starting-point. There are also references to apolarity and a few of the simplest ideas of the theory of groups. No thorough treatment of advanced algebraic geometry can be easy reading, but Prof. Coble has done as much as possible to smooth our path.

H. T. H. P.

*Dipolmoment und chemische Struktur.* Herausgegeben von Prof. Dr. P. Debye. (Leipziger Vorträge, 1929.) Pp. vii + 134. (Leipzig: S. Hirzel, 1929.) 9 gold marks.

REVIEWS have recently appeared in these columns (*NATURE*, Jan. 4, p. 9) of Prof. Debye's book on polar molecules, and of a translation of this work into German, which has the additional merit of including an up-to-date list of values of this important constant. The present volume deals with the same topic, and has been compiled under the inspiration of the same author; but it has taken a different form, since it includes within its covers thirteen contributions by nine authors in reference to dipole moment and chemical structure. One of the contributions (from an American worker in Brussels) is in English; the remainder are in German, but include papers from laboratories in Zurich and Copenhagen, as well as Hamburg, Würzburg, Freiburg, Karlsruhe, and Leipzig. The volume will be read with interest by those who are in a position to make use of one of the most important methods of deducing the structure of molecules from their physical properties.

*Vorgeschichtliches Leben in den Alpen.* Von Leonhard Franz. Pp. 95 + 23 Tafeln. (Wien: Anton Schroll und Co., 1929.) 6s.

THIS book, the author explains, has been written for lovers of antiquity and lovers of the Alps. It is a popularly written account of the prehistory of Switzerland from the earliest times of which traces have been found—"Die Zeit der Bärenjäger", as the author puts it—down to the end of the iron age. While it is intended primarily to interest the visitor to the country in its prehistoric antiquities, it will be found a convenient summary of information scattered in various publications. The lake villages naturally are treated in some detail. The book is illustrated by 82 well-selected photographs and drawings.