

*A World of Epitomizations: a Study in the Philosophy of the Sciences.* By Prof. G. P. Conger. Pp. xiv + 605. (Princeton, N.J.: Princeton University Press; London: Oxford University Press, 1931.) 22s. 6d. net.

THE progress of scientific philosophy seems to be based on rather peculiar assumptions. Run away from substance but hang on to structures, is the slogan that would characterise them best. Yet, in turning its back on Plato and Aristotle, scientific philosophy runs the risk of becoming finally a meaningless logomachy. This tendency seems to us to be interestingly illustrated in the book under review, in which the author, in order to explain structures by other structures, finds himself compelled to adopt a language of his own, to which one may easily take exception for the sake of clarity if not of value and truth.

It is a matter of convenience to divide the cosmos into the three realms of matter, life, and mind, and to discover in them parallel configurations ranging from simpler to more complex ones. But it seems to us misleading to call 'monads' the structures characteristic of each of these configurations. What the author calls "epitomization by monads or by analogy" is the classification of the various 'monads' according to their significant resemblances. This general methodological frame enables him to marshal an amazing wealth of details and philosophical or scientific pronouncements into a convenient place in the development of our knowledge. In this he has perhaps performed a useful work, in so far as it enables us to see, almost at a glance, the possible connexion between sometimes widely different theories. But such an epitome of science scarcely explains science itself, which should be the object of philosophy. The hypothesis of epitomisation, if considered as a metaphysics, could not help us to advance one inch towards any philosophical results. "Synoptic naturalism", by which the author defines his position, is merely a term, and the few remarks made about it at the end of the volume are apt to kindle one's curiosity rather than to satisfy it. But perhaps the author does not mean to expound any metaphysics at all—at least, as it is understood in the Greco-Roman tradition.

*Recent Advances in Botany.* By E. C. Barton-Wright. Pp. viii + 287. (London: J. and A. Churchill, 1932.) 12s. 6d.

THE "Recent Advances" series of books published by Messrs. Churchill have made for themselves a definite niche in modern scientific literature. Such volumes, written by active scientific workers, must prove invaluable especially to advanced university students of the subjects concerned.

Botanical literature, even that in English, from the point of view of the keen student, has developed into such a maze that it is almost impossible to keep into close touch with all recent important discoveries.

This volume will help such students considerably. The subject matter, controversial though

it may be, is presented fairly and references for further study are given at the end of each chapter. The recent theories of form and size are given a prominent position and modern views on palæobotany, species, Fungi, Algæ and virus diseases are considered. Coming from this author, one cannot restrain a feeling of disappointment at the meagre space allotted to plant physiology.

Despite several defects, especially with regard to choice of material (and even this is purely a matter of individual opinion) one can say that the book should be available to all advanced students of the subject.

*Glastechnische Tabellen: Physikalische und chemische Konstanten der Gläser.* Unter Mitwirkung von H. Alterthum, Chr. Andresen-Kraft, D. Badt, E. Berger, W. E. Flesch, M. Fritz-Schmidt, H. G. Frühling, B. Lange, G. Liebmann, T. Liepus, J. Löffler, M. Reger, A. Russ, R. Schmidt, J. Völker, W. Weyl. Mit besonderer Unterstützung der Deutschen Glastechnischen Gesellschaft E. V. Herausgegeben von Prof. Dr. Wilhelm Eitel, Prof. Dr. Marcello Pirani, Prof. Dr. Karl Scheel. Pp. xii + 714. (Berlin: Julius Springer, 1932.) 149.80 gold marks.

THIS volume of more than seven-hundred pages of summarised information must be admitted as a super-production. The very names of the three co-editors are sufficient to guarantee a book of eminence, and their long list of collaborators of standing is proof of the thoroughness with which the quickly growing literature on glass technology has been combed for data.

The book was planned in 1928, in which year it received the blessing of the Deutschen Glastechnischen Gesellschaft, since which time the editors and their colleagues must have been exceptionally industrious, for information has been collected from about 2500 original papers. It has been examined and sifted, only that which appeared sufficiently precise and reliable being included. Not a single paper containing information capable of being expressed by numbers or diagrams appears to have been overlooked.

The first section of three into which the book is divided, deals with the constitution of glass from the point of view of the 'phase' theory. Temperature-concentration equilibrium diagrams are given for all the systems that have been worked out. Though such diagrams cannot of course refer to true glasses, but only to devitrified glasses, they do help towards an understanding of the constitution of glass. In the second section, the whole range of physical properties—together with the chemical durability—are treated systematically. Where the compositions of the glasses, referred to in Section 2, are known with a sufficient degree of accuracy, they are included in and compose the third section. The usefulness of the book is increased by the inclusion at the end of each subsection of detailed references to the literature on the subject.

S. E.