

never touches on a metaphysical idea. Fortunately, philosophers are becoming more mathematical, and *vice versa*; so the absorption of science and philosophy into poetry seems much less distant than a century ago.

G. B. M.

A YEARBOOK OF SCIENCE.

Jahrbuch der Naturwissenschaften, 1911-1912.

Edited by Dr. Joseph Plassmann. Pp. xvi + 452. (Freiburg im Breisgau and London: B. Herder, 1912.) Price 7s. 6d.

THE twenty-seventh volume of this useful publication is well up to the level of its predecessors. In spite of the great expansion of all the subjects treated, the size of the work has not been increased. This implies a more and more "intensive" treatment, and a careful selection of topics. In physics, the 5000 odd new publications of 1911 have been brought within the compass of forty-eight short notes. The task of selecting one paper out of every hundred must be a formidable one. Dr. Heinrich Konen, to whom it fell, took care to emphasise those which offer a certain amount of novelty or practical utility, such as Lebedef's shortest possible sound-waves (0.2 mm.), which are absorbed by 2½ cm. of air; Rubens's longest light-waves (0.116 mm.); Féry's prism with curved surfaces; and Anderson's collodion copies of Rowland gratings.

The chemistry section is rather insufficiently separated from the industrial section, and so it happens that such things as the utilisation of zirconia, and the preparation of illuminating gas free from CO, are dealt with twice over. Dr. Plassmann himself writes the section on astronomy, and devotes considerable space to Martian questions and the mass of the ring of planetoids. Bauschinger's estimate of the latter, amounting to about one-fiftieth of the mass of Mercury, is supported on optical grounds.

Among the subjects dealt with in meteorology we find Wegener's stratification of the atmosphere, wind velocities, sunspots and weather, an aeronautical weather service, and Birkeland's theory of terrestrial magnetism and allied phenomena. The division of anthropology deals, among other interesting topics, with the origin of numbers and systems of culture, and the classification of human skulls. Other sections deal with mineralogy and geology, zoology, botany, agriculture and forestry, geography and ethnography, medicine and hygiene, aeronautics, and the various technical subjects. The latter include mechanical engineering, electrotechnics, heating and illumination, metallurgy, railway manage-

ment, mining, ceramics, naval construction, freezing plant, gas industry, and firearms.

A calendar of astronomical events and an obituary complete the work, which may be regarded as an almost indispensable work of reference. It should be stated that it is printed in the Gothic type, and not in the Roman type now usual in German scientific publications.

GEOGRAPHICAL WORKS.

- (1) *The Elements of Geography*. By R. D. Salisbury, H. H. Barrows, and W. S. Tower. Pp. ix + 616 + 7 maps. (New York: Henry Holt and Co., n.d.) Price 1.50 dollars. (American Science Series.)
- (2) *A Geography of the British Empire*. By Prof. A. J. Herbertson and R. L. Thompson. Pp. 256 + 3 maps. (Oxford: Clarendon Press, 1912.) Price 2s. 6d. (The Oxford Geographies.)
- (3) *Forfarshire*. By E. S. Valentine. Pp. viii + 160 + 2 maps. (Cambridge: University Press, 1912.) Price 1s. 6d. (Cambridge County Geographies.)
- (4) *The Lost Towns of the Yorkshire Coast and other Chapters bearing upon the Geography of the District*. By T. Sheppard. Pp. xviii + 329. (London: A. Brown and Sons, Ltd., 1912.) Price 7s. 6d. net.

(1) THE American geography under notice emanates from members of the department of geography in the University of Chicago. British writers of geographical text-books have yet to follow German and American writers in work of this advanced character. The present volume forms, therefore, an interesting study, possessing many virtues and certain faults. The writers have followed general theoretical lines, avoiding those of the ancient "cosmography" with its principle of description according to countries.

After a short general discussion of the earth as a planet, and of its main features, we find a proper importance awarded to climate and weather, to which seven chapters are devoted out of a total of twenty-one. After these the authors deal with the oceans, then the "materials of the land" (soils, minerals, etc.), and lastly land-forms, with the consideration of the forces which shape them, and their influence on human conditions and on life generally. This is probably the best order that could be followed, though throughout the long section on climate there is some temptation to wish that a few more leading facts concerning the configuration of the surface and the other subjects of the later sections had been transferred to an introductory chapter, so that the student should be, at the outset, more clearly in possession of