the records of which tell us so much of the financial and administrative work, disappeared together with the mines. Both lead and zinc had been kept going by a system of protection, and with the advent of free trade their days were numbered, though in any case the old-fashioned individual shallow mining could not have long persisted.

The long story of the Mendip mines is an attractive one, embracing many fields of science, well worth the telling in detail. Our epitome has indicated the breadth of Mr. Gough's treatment, and he is to be congratulated on the thoroughness of his achievement. E. F. ARMSTRONG.

Our Bookshelf.

(1) *Fortschritte der Geologie und Paläontologie.* Herausgegeben von Prof. Dr. W. Soergel. Band 8, Heft 24: *Die tektonische Entwicklung eines Schollengebirgslandes (Vogelsberg und Rhön).* Von K. Hummel. Pp. viii + 234 + 3 Tafeln. 18 gold marks. (2) Band 8, Heft 25. *Das varistische Bewegungsbild entwickelt aus der Inneren Tektonik eines Profils von der Böhmischen Masse bis zum Massiv von Brabant.* Von Hermann Scholtz. Pp. ix + 235-316 + 8 Tafeln. 15 gold marks. (Berlin: Gebrüder Borntraeger, 1929 and 1930.)

Two new parts of this serial form interesting contributions to the geology of south-western Germany and the Rhinelands. They both illustrate the increased recognition of the direct influence of earth movements on topography.

(1) Prof. Hummel of Giessen deals with the Vogelsberg in Upper Hesse and the Rhön Mountains along the western frontier of Bavaria and Thuringia, and shows how their topography is dominated by block movements. The area includes the extensive basaltic eruptions to the north-east of Frankfort, and he discusses the relation of the tectonic and volcanic processes. He considers the northern end of the rift-valley of the Rhine, of which the margins have been raised by uplift. Though the main direction of the fractures and rift-valley of the Rhine is to the north-north-east, the course of the valley is modified by the Variscan folds and in part takes their direction. The river system of the Upper Main, however, is less dependent on the tectonic structure than on the basalt eruptions, as the streams are mostly radial from the volcanic piles. The work is accompanied by three maps illustrating the relief of the Vogelsberg and the Rhön Mountains and the relations of the volcanic rocks of that area to the river system.

(2) The monograph by Scholtz is a study of the distribution of various pressure phenomena among the older rocks from Brabant to Bohemia. He classifies them into three types, cleavage, pressure-fractures (*Schubklüftung*), and cross-fractures (*Querklüftung*); he describes these structures in detail, and shows their relation to the Variscan and Alpine movements. The work is well illustrated by photographs, diagrams, and maps.

Annual Survey of American Chemistry. Vol. 4: July 1, 1928, to December 31, 1929. Prepared under the Auspices of the Division of Chemistry and Chemical Technology, National Research Council. Edited by Clarence J. West. Pp. 549. (New York: The Chemical Catalog Co., Inc., 1930.) 4 dollars.

THE object of this survey is "to present throughout a period of years a complete survey of American chemistry", not, it will be noted, an American survey of chemistry, quite another and a much more acceptable thing to non-American chemists. The endowment of science with a national label would be open to criticism even were it admitted that chemical progress, like creative art or even mechanical invention, can be so characterised. In point of fact, one step depends too much on the success of another; moreover, the search for fundamental truth in scientific fact, whether it proves a source of strength or weakness, a curse or a blessing, according to the use made of it, is as little concerned with political frontiers as is the legislature with the laws of thermodynamics. Hence whatever value the series under review possesses—and its value in certain directions is not denied—the survey can scarcely be regarded as a significant contribution to the world's literature of chemistry. The limitation of its general value is admitted in the foreword: "The progress in any branch of chemistry is not confined by the boundaries of any one nation", whilst the sentence which follows exhibits a proper sense of patriotism: "This fact means that in a short time fundamental progress abroad is reflected by the work carried on in America. Therefore a careful annual survey of American chemistry possesses only a certain lag. . . ." Incidentally, however, not all the authors mentioned are United States citizens, and not all of the journals cited are of American origin. The present volume covers a period of eighteen months in order that succeeding volumes may review a calendar year instead of a fiscal year. There are 43 chapters covering a great variety of subjects in pure and applied chemistry, and an author index is appended. A. A. E.

The Sea. By H. A. Marmer. Pp. x + 312. (New York and London: D. Appleton and Co., 1930.) 10*s.* 6*d.* net.

THERE are many popular books on the sea but they commonly err in trying to combine its science in a single volume. The physics and chemistry are often so cut down that the biologist is not given the basal facts on which the understanding of his problems depends, while the general reader is left with almost nothing. The author of the volume under notice, who is assistant chief of the famous Coast and Geodetic Survey of the United States, omits biology altogether, and the result is a most readable volume that should appeal to every traveller.

The volume is written simply and sincerely, and has all the requisite illustrations. The Sargasso sea is mentioned for its extraordinary clearness, a white disc being visible when lowered to 200 ft., its high temperature and salinity, and its relative