ing the examination of the eastern states, this area is divided into three subregions: the northeastern, the middle and the southeastern Atlantic Coastal Plain.

"Part IV. The States Athwart the Cincinnati Anticline." Included here are Central and West Tennessee, Kentucky, Ohio, Indiana and Michigan.

"Part V. The States Around the Ozark Dome." Illinois, Missouri and Iowa.

"Part VI. The States of the Upper Mississippi Valley." Minnesota and Wisconsin.

"Part VII. The Eastern Plains States." North Dakota, South Dakota, Nebraska and Kansas.

"Part VIII. The States to the North and West of the Borderland Llanoria." A general introduction describes and discusses the "Late Paleozoic Oklahoma Mountains of the Llanorian Geosyncline." This is followed by the description of the stratigraphy of Arkansas, Oklahoma and Texas.

Except for Part III the chapters in each part are concerned with the geology of a separate state. In general, each chapter begins with a short history of the early geologic work in the state, followed by a synopsis of the physiography and structure of the area. The major portion is, however, devoted to a highly condensed description of the various formations, and their members are listed together with notes on their general lithology, thickness, important faunal contents and correlation, all being completely documented with bibliographic references. Thus, in contrast to the more narrative style of the first volume of the series, the present has of necessity become almost "telegraphic" in style and is essentially almost an encyclopedia of the stratigraphy of the region covered. It will prove an invaluable tool to the stratigrapher, wherein he can at once find the essential data regarding any formation but from which he will be led, as was clearly intended by the author, to consult the original works for more detailed information.

The three volumes of this series will form Professor Schuchert's most enduring monument. They are a lasting tribute to the insight, organizational ability and untiring energy of a great scientist.

H. E. VOKES

MINERALS AND ROCKS

Minerals and Rocks—Their Nature, Occurrence and Uses. By RUSSELL D. GEORGE. xviii + 595 pp. 68 plates. 150 figs. New York: D. Appleton-Century Company, Inc. 1943. $6.00.

IN this book Dr. George has done an excellent job of bringing together and co-ordinating material from several branches of the geological sciences. It is written especially for use as a textbook in economic mineralogy, and might be considered a reference book on that subject. Because of its broad scope, considerable material useful to a beginner in mineralogy or petrology has necessarily been omitted.

The physical properties of minerals, crystallography and the origin and form of ore deposits are considered in two introductory chapters. Parts I, II and III (Part I, "Metallic Elements and Minerals"; Part II, "Non-Metallic Elements and Minerals"; Part III, "Rock-Making Minerals"), which make up the main portion of the book are devoted principally to the description of mineral species. The minerals are grouped, in general, according to the most important economic element which each contains. Such a classification is, no doubt, desirable in this book, but it has its attendant disadvantages, for it is difficult to pigeonhole many minerals in such a manner. Thus, pyrite and arsenopyrite are considered under iron, although the former is chiefly an ore of sulfur, while the latter is principally an ore of arsenic. Although dolomite is appropriately described under sedimentary rock minerals, it might equally well be considered under ores of magnesium. Before giving the individual descriptions of the minerals brought together under the heading of a common element, a brief account is given of the element itself, its uses, sources and production. These paragraphs contain much valuable information and are particularly instructive.

Part IV, "Determinative Mineralogy," briefly describes blowpipe tests and equipment, lists tests for most of the elements, and includes tables of minerals grouped according to color and luster.

Part V, "The Common Rocks," considers the origin, description and classification of the igneous, sedimentary and metamorphic rocks. The last chapter on "Industrial Uses of Rocks" gives much valuable and interesting material not usually included in books on petrology.

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QUALITATIVE ANALYSIS

The Theory and Practice of Semimicro Qualitative Analysis. By G. B. HEISIG. xiii + 331 pp. 15 figs. 14 × 21 cm. Philadelphia and London: W. B. Saunders Company. 1943. $2.50.

To the already long list of available texts in qualitative analysis, Professor Heisig has added another which must be justified mainly on the basis of its extensive treatment of the anions, and a thoroughly modern approach to the theoretical matters underlying the practical work. The book is designed for students who have already had a college course in general inorganic chemistry, and follows a strictly semimicro procedure. Very small samples are used (1 mg or 4 drops of unknown solution) and provision is made for filtering by the pressure-bulb method of Barber, as well as for centrifuging.