could be determined it is younger than the barite but older than the ankerite and part of the calcite.

Marcasite is present in small amount in some of the concretions as crystals only a few tenths of a millimeter in diameter.

Sphalerite of yellow color occurs in crystals up to 4 or 5 mm. in diameter, associated with the dark colored calcite. It was deposited before the barite.

The order of formation of these minerals is then, so far as could be determined, calcite, sphalerite, barite, quartz, calcite, ankerite with the position of the marcasite not definitely known.

It would be of interest to investigate the areal distribution of these concretions and to attempt to explain their localization at this particular horizon, and account for the concentration of the minerals in them. Upon casual examination the part of the shale containing them does not differ in any other way from the rest of the formation.

BOOK REVIEWS

LEHRBUCH DER MINERALOGIE. I, ALLGEMEINE MINERALOGIE. PAUL NIGGLI. Large 8-vo., 712 pages, with 553 text figures. Gebrüder Borntraeger, *Berlin*, 1924.

This is a complete revision of the first edition of this text, published in 1920 (*Am. Min.*, **7**, 125, 1922), which departed markedly from the conventional and well-established method of presenting mineralogical data and material.

The reception of the first edition was apparently of such a favorable character as to warrant the author to materially expand the new edition. Accordingly, the second edition will appear in three parts as follows: I, GENERAL MINERALOGY; II, SPECIAL MINERALOGY; III, MINERAL ASSOCIATIONS, the author applies the term "Minerocoenology" to this part. Of the three parts, GENERAL MINERALOGY or Part I, has been issued. Part II, SPECIAL MINERALOGY, will appear in the near future.

Following a short introduction (4 pages), the matter contained in Part I, is devoted to geometrical crystallography (137 pages), physical properties of crystals (233 pages), chemical properties of crystals (201 pages), and amorphous minerals (18 pages). The same high quality so characteristic of the first edition is maintained throughout this part, which will rank as a very valuable contribution to our science.

EDWARD H. KRAUS.

CRYSTALS AND THE FINE-STRUCTURE OF MATTER. FRIEDRICH RINNE. Translated into English by WALTER S. STILES. 8-vo., 195 pages, with a drawing by A. Duerer, and portraits of the leading investigators in the study of fine-structure, and 203 figures. Methuen & Company, Ltd., *London*, 1924.

This English translation of Professor F. Rinne's excellent survey of our knowledge of crystal structure, published in German in 1922 under the title of DAS

FEINBAULICHE WESEN DER MATERIE NACH DEM VORBILDE DER KRISTALLE (*Am. Min.*, **8**, 13, 1923; also *Am. Min.*, **7**, 161, 1922) will be greatly welcomed by all interested in this important subject, especially by those who experience difficulty in reading German. The translation is very well done and the illustrations, notably the portraits, are much superior to those appearing in the original volume.

EDWARD H. KRAUS.

MIKROSKOPISCHE MINERALBESTIMMUNG MIT HILFE DER UNIVERSALDREHTISCHMETHODEN. M. BEREK. Large 8-vo., 168 pages, with 55 text figures, 5 tables, and 6 diagrams. Gebrüder Borntraeger, *Berlin*, 1924.

Methods for the determination of minerals by means of the Universal rotation-apparatus, which by experience have been found to be of practical value, are discussed in considerable detail. The text is designed for those who are fairly well grounded in optical mineralogy and microscopic technique.

EDWARD H. KRAUS.

PROCEEDINGS OF SOCIETIES

NEW YORK MINERALOGICAL CLUB

Regular Monthly Meeting of December 17, 1924

A regular monthly meeting of the New York Mineralogical Club was held in the East Assembly Room of the American Museum of Natural History on the evening of December 17, at 8:15 P.M. The President, Dr. George F. Kunz, presided and there was an attendance of forty-five members.

The committee on membership reported favorably on the following names submitted at the November meeting: Lewis W. Mac Naughton, 654 Bergen Ave., Jersey City, N. J.; and Dr. Paul F. Kerr, Department of Mineralogy, Columbia University. These gentlemen were unanimously elected to membership. The President submitted the name of Alfred E. Hammer, Branford, Conn., for life membership. The membership committee reported favorably upon Mr. Hammer's membership and he was elected unanimously.

The President then introduced the speaker of the evening, Dr. Charles Palache of Harvard University, who addressed the Club upon "*The Minerals of the Maine Pegmatites.*" Dr. Palache spoke of his early recollections of the Paris locality 30 years ago, mentioning among the names of the old local collectors that of Norris Merrill. He touched upon the history of Mount Mica, the most famous of the Maine localities for gem tourmaline, and mentioned the rose quartz and lilac lithia mica as being characteristic of the Maine pegmatite localities. He spoke of the discovery of gem apatite on the Pulsifer farm on Mount Apatite in 1905 as the result of a search for tourmaline, and also spoke of the Littlefield farm quarry from which many fine tourmaline and other minerals have come. In touching on the Norway locality the speaker recalled Mr. Noyes, the artist, a keen collector of crystals who found the ledge of tourmaline in this locality. This ledge was the Greenwood Mine that Dr. Palache bought and worked for Harvard University. The speaker exhibited some problematical pseudomorphs from this locality which Dr. Warren has described as "after topaz." He told of the working of the Greenwood ledge in 1923, which, although producing some interesting minerals such as amblygonite and pinkish apatite, turned out to be on the whole not a profitable