The 139th regular monthly meeting of the society was held on November 5th in the Newark Technical School.

The President, Louis Reamer, presided. At the close of the business session of the 139th meeting, the 18th annual meeting was started with the reading of the annual reports of the Secretary, Herbert L. Thowless, and of the Treasurer, Herman M. Lehman.

The following officers were unanimously re-elected to serve until the November meeting 1934:

President: Louis Reamer, Orange, N. J.
Vice-President: Ernest A. Maynard, Jamaica, Long Island.
Secretary: Herbert L. Thowless, Newark, N. J.
Treasurer: Herman M. Lehman, New Haven, Conn.

The program for the meeting consisted of a "Symposium on Metals." The speakers included William H. Broadwell; John A. Grenzig; Paul Walther; Ernest A. Maynard; John Reiner and the President.

The 140th meeting was held on December 3, 1933. The program consisted of a discussion on the "Preparation and Examination of Microscopic Mounts."

HERBERT L. THOWLESS, *Secretary*

BOOK REVIEWS

ELEMENTS OF OPTICAL MINERALOGY, AN INTRODUCTION TO MICROSCOPIC PETROGRAPHY, Part II. DESCRIPTION OF MINERALS WITH SPECIAL REFERENCE TO THEIR OPTIC AND MICROSCOPIC CHARACTERS. Third Edition. ALEXANDER N. WINCHELL. Pp. XVIII, 459, fig. 362. John Wiley & Sons, Inc., New York, **1933.** Price $6.00 net.

This third edition of Winchell's well-known book has been extensively revised. The frequent new editions are necessary as the science of optical mineralogy is progressing rapidly. The new edition has much new data, and a laudable attempt has been made throughout to enable the user to determine as far as possible the exact chemical composition of a mineral from its optical properties. The descriptions and the graphs for the amphibole, chlorite, tourmaline, scapolite, and zeolite groups have been materially revised.

The most important contribution of the book is the new classification of the silicates into seven groups based on their atomic structure as determined by x-ray studies. It is an important forward step and should show more clearly than any previous classification the fundamental relationships of minerals and mineral groups. This new point of view should lead to many advances in the science of mineral genesis and in other directions. A large number of minerals are grouped as silicates not yet classified by x-ray studies. A part of these might have been placed with reasonable assurance in their proper group from our present knowledge of the mineral.

Every working petrographer and mineralogist should have a copy of this standard book on optical mineralogy on his work desk.

ESPER S. LARSEN

ON THE MINERALOGY OF SEDIMENTARY ROCKS. A series of essays and a bibliography. P. G. H. BOSWELL. IX+393 pages. Thomas Murby & Company, London. Price 21 shillings.

This book brings up to date, and includes, the progressive reviews on sedimentary petrology compiled by the author for the years 1923, 1924, 1925, and 1927. A section of 125 pages discusses significant papers and points out present trends in this line of work. A second section of the book contains abstracts of 1025 papers on sedimentary petrology and five sets of indexes to the abstracts. These indexes are arranged in the following groups: General, Stratigraphical Horizons, Localities, Minerals, Figured Minerals, and Technique. The publisher is prepared to furnish the abstracts on sheets printed on one side of the paper for those who wish to build up a card index system of abstracts.

The text proper consists of a critical discussion and review of papers considered outstanding in this field. No attempt is made to generalize but the significance of the work accomplished and progress made is pointed out. The questions that are at least partly answered in the discussions of the various papers are the following: The value of mineral variation in sediments as criteria for the recognition of particular rocks and for geologic age determinations; The limits of age determinations by this method; The value of mineral assemblages for purposes of correlation; Sediments as sources of information on paleogeography, and past climates; Sediments as sources of information on the nature of source rocks; Sediments as sources of information on diastrophic movements in areas of source rocks; Sediments as sources of information on the history of metamorphic rock masses. The discussion does not include many topics usually included in the general field of sedimentation, but is restricted to petrographic aspects of the subject.

The successful use of minerals in recognizing particular horizons and in correlation depends upon distinctive groups of minerals, peculiar varieties as well as species, and the relative abundance of the constituent minerals. These conditions are best developed in sediments which have been derived from different sources than overlying or underlying sediments. Distinctive differences are not as common in sediments which have been derived from a re-working of the older sediments in the same region. The English geologists, apparently, have been fairly successful in this work. It is possible that the absence of many examples of positive results in America is due to the comparatively small number of investigations which have been carried on and to the lack of detailed information concerning the mineralogical characters of our sediments over wide areas.

A chapter on authigenic minerals is of especial interest. Some forty-three minerals are now listed, including some which are rather surprising, such as rutile, titanite, garnet, feldspar, tourmaline, and staurolite. A chapter on the mineral composition of the clays presents a valuable summary of our present knowledge of these minerals. The importance of the work of Ross, Kerr, and other Americans who have recently contributed to this subject, is recognized.

The abstracts include French, Italian, German, Russian, Belgian, and Dutch papers, as well as those in English. The greater number of papers are those in which sediments are described in detail, in which correlation by minerals is attempted, or in which techniques are described. The abstracts appear to be adequate and with the very complete indexes should prove extremely serviceable.

This book is a valuable contribution in its field. It really is the first attempt at a general evaluation of the work, done up to date, in sedimentary petrology, especially from the viewpoint of correlation by means of minerals. It is evident that, while many difficulties and problems still remain, this type of work, in the future, will yield increasing information along certain lines. The abstracts are very valuable to workers who may or may not have access to large libraries. Professor Boswell suggests that the abstracts be continued in the Journal of Sedimentary Petrology. This would be a valuable source of information to many working in this field.

JOHN T. LONSDALE

NEW MINERAL NAMES

Hydroromeite

G. NATTA AND M. BACCAREDDA: Tetrossido di antimonio e antimoniati. Struttura cristallina dell' antimoniato di antimonile (tetrossido di antimonio), suo isomorfismo con i piroantimoniati di piombo e di calcio ed esame röntgenografico delle ocre di antimonio (Cervantite, Stibiconite) e degli antimoniati idrati di calcio (Idroromeite) e di piombo (Bindheimite). *Zeit. Krys.*, **85**, pp. 271–296, 1933. With German summary.

CHEMICAL PROPERTIES: A hydrous calcium antimonate: 2–3 $CaO \cdot 2\ Sb_2O_5 \cdot 6$–$8\ H_2O$. Analyses: From Villafranca, Galicia, Spain—H_2O 13.48, Sb_2O_5 62.90, Fe_2O_3 1.98, CaO 19.19, CO_2 3.33. From Higueras, Cordoba, Spain—H_2O 12.27, Sb_2O_5 70.01, Fe_2O_3 1.50, CaO 14.38.

CRYSTALLOGRAPHICAL PROPERTIES: Cubic. Space group $O_h^7 \cdot a = 10.25$ Å.

PHYSICAL PROPERTIES: Villafranca—Color pale yellow to clear brown. Sp. Gr. = 3.50. Hd. = 3.5. Higueras—Color grayish yellow to canary yellow. Sp. Gr. = 3.66. Hd. = 5.

OCCURRENCE: The mineral from Villafranca results from the alteration of stibnite and is often pseudomorphous after it.

DISCUSSION: From a comparison of the powder photographs it is concluded that this mineral is isomorphous with bindheimite and with stibiconite. Powder photographs of this mineral before and after dehydration are the same as those for romeite.

W. F. FOSHAG

Portlandite

C. E. TILLEY: Portlandite, a new mineral from Scawt Hill, Co. Antrim. *Mineral. Mag.*, **23**, No. 142, pp. 419–420, 1933.

NAME: From Portland cement in view of its occurrence as a common product of hydration of Portland cement.

CHEMICAL PROPERTIES: Calcium hydroxide, $Ca(OH)_2$. Microchemical tests show abundant calcium and in the closed tube gives reaction for water. The residue treated with $AgNO_3$ solution turns brownish-black. Slowly soluble in water; completely soluble in weak hydrochloric acid.

CRYSTALLOGRAPHICAL PROPERTIES: Hexagonal, in plates. Cleavage basal, perfect. $a = 3.64 \pm 0.10$ Å, $c = 4.85 \pm 0.10$ Å.