PROCEEDINGS OF SOCIETIES

PHILADELPHIA MINERALOGICAL SOCIETY

The Academy of Natural Sciences of Philadelphia, May 2, 1946

Dr. W. Hersey Thomas presided, with 70 present. Dr. Edgar T. Wherry spoke on "The Radioactive Minerals of Pennsylvania."

June 6, 1946

Sixty-three were present, with Dr. W. Hersey Thomas in the chair. Dr. Joseph L. Gillson described the deposits of "Fluorspar in Mexico." The unusual geology of the Azul mine in the Taxco district evoked especial interest. The limestone hill at Rosario in Durango contains deposits of celestite as well as fluorspar, but not associated together. The mine at Parral contains a vein of fluorspar 39 feet wide, and accounted for a third of Mexico's production.

September 5, 1946

Fifty persons attended, while Dr. W. Hersey Thomas presided. Summer trips were reported by Mr. Rosensweig to Maine, by Mr. Arthur Boucut to Arkansas, the tristate lead-zinc area, and the Rocky Mountain regions; by Mr. Gordon to localities in Colorado, New Mexico, and the south; by Mr. Eisenberg to New England localities; and by Mr. Good to a number of western localities.

October 3, 1946

The 54th annual meeting was held with 67 present, and Dr. W. Hersey Thomas in the chair. Mr. Samuel G. Gordon addressed the society on "Desert Minerals," with examples drawn from the Atacama Desert, and areas in Arizona, such as the Mammoth mine. Mr. Arndt described a trip to New England.

November 7, 1946

Dr. W. Hersey Thomas presided, with 74 present. Dr. Earl Ingerson addressed the society on "Estimates, from Liquid Inclusions, of Temperatures of Formation of Vein and Pegmatite Quartz," descriptive of recent field experiences in Brazil followed by laboratory work in the investigation of vein occurrences, orientation of crystals in veins, and temperature and pressure of formation. Cavities filled or partially filled with solution are common in quartz crystals, and a microscopic study was made of the temperature at which (on heating) a bubble disappears: a temperature which can also be predicted from a measurement of the relative volume of bubble and liquid. More difficult was the estimation of the pressure prevailing on the liquid at the time of cavity filling. Kodachrome slides of quartz occurrences in Brazil, and data obtained from a study of the liquid inclusions were shown.

CHARLES A. BELZ, *Secretary*

NEW YORK MINERALOGICAL CLUB, INC.

American Museum of Natural History

Abstract of the Minutes of the New York Mineralogical Club for November 20, 1946.

The speaker of the evening was Professor Cornelius S. Hurlbut of Harvard University who spoke on "Modern Developments in Mineralogical Techniques." He described the usual methods of investigation that have been applied to minerals, but stressed the more recent refinements of techniques that enable more accurate measurements on smaller samples. Dr. Hurlbut referred to blowpipe reactions, specific gravity determinations, magnetic and electrostatic separations, infra red absorption, determination of indices of refraction, examination of polished sections of opaque minerals and several chemical methods involving micro-chemistry, spectrographic analysis and differential thermal analysis.

December 18, 1946

The principal speaker of the evening was Charles R. Toothaker, who spoke on "Recent Developments in Economic Mineralogy." Mr. Toothaker was associated with A. E. Foote, mineral dealer of Philadelphia, where he handled many specimens of all kinds. Mineralogists were familiar with the associations and the localities of minerals containing elements which at that time were considered rare and of no economic importance. However as uses for these elements were discovered there was a demand for them in quantity and manufacturers had to rely on mineralogists either to supply them from known localities or to find new occurrences.

January 15, 1947

The speaker of the evening was Dr. Edgar T. Wherry who spoke on "Searching for Radioactive Minerals in Pennsylvania." He found that there were quite a few radioactive minerals in Pennsylvania, mostly in southeastern Pennsylvania, but none in large amounts. Some of these minerals are autunite, torbernite, euxenite, allanite and cyrtolite.

However an important deposit of carnotite was found at Mauch Chunk where the mineral is scattered through a coarse sandstone. It is believed that plants were responsible for the concentration of the elements of this mineral which accumulated in the rock.

PURFIELD KENT, *Secretary*

BOOK REVIEW

IDENTIFICATION AND QUALITATIVE CHEMICAL ANALYSIS OF MINERALS by ORSINO C. SMITH. D. Van Nostrand Company, Inc., ix+351 pages (**1946**). Price $6.50.

In 1940 the author published a handbook of minerals under the title "Mineral Identification Simplified." This earlier text of 271 pages listed over 2000 minerals and consisted essentially of tables based largely on the two important physical properties of specific gravity and hardness (reviewed in Am. Mineral., **25,** p. 767).

The present enlarged text of 351 pages, while based on the same underlying principles as the earlier work, has a number of innovations which are aimed to assist the student in the identification of minerals. In this expanded edition, under a new title, greater stress is placed on wet qualitative tests of the elements, including many of the rare earths, to supplement the strictly blowpipe reactions and the physical properties.

It seems that an unnecessarily large amount of space (about 20 pages) has however been devoted to detailed instructions for constructing "home made" balances for specific gravity determinations and a chemical "portable laboratory" for field work.

Perhaps the most unique feature of the book is the very large number (20 pages) of colored illustrations which attempt to depict the natural color of minerals, the reactions on charcoal, plaster tablet, bead tests and the appearance of a few minerals when exposed to ultra violet light. Some of these colored plates are without question very good and should prove extremely helpful; however many are of questionable merit.

As the book covers a wide field of mineralogic information including both the chemical and physical properties it should prove a very handy reference manual for the mineralogist, geologist and chemist.

W.F.H.