The total number of localities of thaumasite now becomes 14, distributed in three countries, the United States, Sweden, and Hungary;[2] with seven States in the United States.

[2] See note, *Am. Mineral.*, **23**, 880 (1938).

BOOK REVIEW

DESCRIPTIVE LIST OF THE NEW MINERALS 1892–1938. George Letchworth English. 258+VII pages. McGraw-Hill Book Co., Inc. New York, 1939. Price $3.00.

The author has brought together a descriptive list of over 2200 new English names that have appeared in the literature during the past forty-six years. The names with brief descriptions are arranged alphabetically and have been compiled from accounts that have appeared in the three Appendices of Dana's *System of Mineralogy*, Dana's *Textbook*, fourth edition, *The American Mineralogist*, *The Mineralogical Magazine*, *Mineral Abstracts* and *Chemical Abstracts*. A reference to the original description, and in many instances a number of references is given for each name. An Appendix summarizes the report of the Committee on Nomenclature which was adopted recently by the Mineralogical Society of America.

The author has performed a worthy service for mineralogical science in making available in a concise form information and data covering a long period of years and widely scattered throughout the literature.

W.F.H.

PROCEEDINGS OF SOCIETIES

MINERALOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

March, 9th, 1939

Dr. L. J. Spencer, President, in the chair.

EXHIBITS:

On W. Thomson's and other mineral collections of the 18th century. By Dr. R. T. Gunther.

Minerals from Mina da Panasqueira, Fundao, Beira Baixà, Portugal. By Mr. Arthur Russell and Dr. W. R. Jones.

A model showing the morphological relationships in glide-twinning in calcite. By Dr. F. Coles Phillips.

The examination of pebbles under the low power binocular microscope. By Dr. A. K. Wells.

Some Mendip minerals. By Mr. A. W. Kingsbury.

The following papers were read:

(1). *The Wherry Mine, Penzance, its history and its mineral productions.* By. Mr. ARTHUR RUSSELL.

(2). *On the presentation of chemical analyses of minerals.* By Dr. MAX H. HEY.

A discussion of the calculation of absolute atomic cell contents, with especial attention to probable errors; also of the calculation of atomic ratios to assumed bases (often called atomic cell contents) and of calculated densities.

(3). *A note on kaolinite in some "eenie" coals.* By Dr. G. F. CLARINGBULL.

X-ray and optical data show that thin brownish or white disks from the "een" of certain coals are roughly oriented aggregates of kaolinite.

(4). *Biographical notices of mineralogists recently deceased. (Seventh series).* By Dr. L. J. SPENCER.

Twenty-nine obituaries with eight portraits are presented for the period 1936–39. Ages range from 32 to 93 with an average of 72.2 years, showing a further slight increase.

PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences, Philadelphia, Pa.

January, 5, 1939

A meeting of the Philadelphia Mineralogical Society was held on Jan. 5, 1939, with 55 members and 29 visitors present. President Harry W. Trudell presided.

Mr. Adolph E. Meier spoke on the presence of barium in the harmotome of the diorite dike cutting serpentine at Glen Riddle, Pa. While the outer portion of the dike is quite basic, consisting of 75% of sodic labradorite and 10% biotite, the central portion contains 90% of an acid plagioclase and 10% of biotite. Solutions continued to flow through this portion after consolidation. The original feldspar was thought to be andesine. Hyalophane, the barium-potash feldspar, was formed at a high temperature as antiperthite. At a lower temperature, oligoclase replaced the antiperthite, releasing the barium to form harmotome crystals which are found in the joint fissures.

Mr. W. Harold Tomlinson discussed the origin of free alumina in rocks, using the corundum in the Glen Riddle dike as an example. He pointed out that along crush-zones where solutions of high temperature had easy access to andesine, hyalophane replaced it releasing alumina, which crystallized nearby as corundum. The speaker believes that many deposits of corundum can be explained by the release of free alumina when basic feldspars are transformed to a potash feldspar.

Mr. William Parrish showed, with the aid of atomic structure models, the relationship between internal structure and physical properties. He discussed Bowen's reaction series in the light of the linkage of silica tetrahedra. A satisfactory explanation of the crystallization of high temperature forms from impure solutions at lower temperatures is possible by a comparison of the structures of the high and low temperature modifications. The form stable at the higher temperature has an open structure, while in that of lower temperature the atoms are more closely packed. However, should the mineral crystallize from a solution which contains foreign atoms which might become wedged in the spaces of the open structure, preventing its collapse, a high temperature form would result instead of the expected stable form.

Dr. Gillson gave a summary of the 50th anniversary meeting of the Geological Society of America.

Mr. Gordon gave a brief report of his trip to Chile and Peru.

LOUIS MOYD, *Secretary*

Academy of Natural Sciences of Philadelphia

February 2, 1939

A meeting of the Philadelphia Mineralogical Society was called to order by President Harry W. Trudell, with 53 members and 28 visitors in attendance.

Dr. Edward P. Henderson, of the U. S. National Museum, addressed the society on *The Mineralogy of Meteorites.* He stated that about 1200 meteorites of sufficient size to sample and study were known and that all could be classified as either iron meteorites, stony and iron meteorites, or stony meteorites. Iron meteorites are of three types, hexahedrites, octahedrites, and ataxites. Hexahedrites show plates arranged parallel to cubic

faces, octahedrites contain plates with trigonal arrangement, while ataxites are granular. Most of the larger meteorites are ataxites.

Dr. Henderson compared the compositions of the nickel-iron alloys of meteorites with the results of laboratory studies, finding many significant similarities. He found that when the nickel present reached 5.5%, kamacite formed, but when nickel was in excess of this amount, taenite plates separated out together with kamacite. In the stony iron types, olivine is the most common mineral and although it contains only 10% of iron, there is no reaction between it and the iron of the meteorite.

The stony meteorites are of two types, one of intergrown crystals, the other consisting of rounded particles up to 1 cm. in diameter called chondrules. The chondrules vary in composition and structure, some consist of enstatite crystals and glass, others of olivine and glass, and still others show crystal fragments in glass.

Often meteorites are found composed of both octahedrite and hexahedrite types, while others show a variety of chondrules. Dr. Henderson believes these heterogeneous types result from the recementation or refusion of earlier materials. Many meteorites show slickensides and evidence of faulting, probably due to the high but uneven pressures developed as the bodies fall. The address was illustrated with specimens and lantern slides.

LOUIS MOYD, *Secretary*

Academy of Natural Sciences of Philadelphia

March 2, 1939

President Harry W. Trudell called the meeting of the Philadelphia Mineralogical Society to order, with 56 members and 37 visitors in attendance.

In a report entitled *Collecting Minerals in Chile*, Mr. Samuel G. Gordon described his trip through the Atacama desert during the latter part of 1938. The Atacama desert, he said, had been shattered by earthquakes and thus was very pervious to mineralizing solutions. Many valuable deposits are to be found within the area. The first report on the area was given over 100 years ago by Charles Darwin who described some of the gold and nitrate workings. Mr. Gordon exhibited many beautiful specimens that had been collected on the trip and illustrated his discussion with an attractive series of pictures.

Mr. Leonard Morgan exhibited an amethyst group collected at Prospect Park, N. J.

LOUIS MOYD, *Secretary*