

may have an irrational 3-fold axis of symmetry and still obey Haüy's Law of rationality of indices (proof given); irrational 3-fold axes, on the other hand, cannot exist in space lattices; Friedel's law of observation (1905) that crystals have no irrational 3-fold axes left only the lattice hypothesis open.

The treatment of crystal optics remains essentially the same, with several additions and with increased emphasis on the index ellipsoid as the only optical surface necessary for pedagogic purposes. In the chemical part, a well illustrated 17-page section on micro-chemistry (by Lloyd W. Staples) is a good addition. In the descriptive mineralogy the recommendations of the British-American committee on nomenclature are followed. The number of species has been increased by 47, bringing the total to 222 minerals and mineraloids. Of these, about 60 are distinguished by larger type. By indicating the crystal system (or class) and the chemical formula (in bold face), next to the mineral name in the heading, a decided improvement is effected. The alteration of minerals is also given more importance. The German and French synonyms, given for each mineral name, may be found useful, especially the German ones for sulfides and sulfo-salts! As a finishing touch to each mineral description, a short historical sketch is given with the derivation of the name. The species are listed according to the usual chemical classification. The silicates come last, a scheme, long advocated by Professor Rogers, which will be adopted in the 7th edition of Dana's System.

The part dealing with occurrence and genesis is a lucid presentation of the geological rôle of minerals. The last chapter, on mineral identification, includes determinative tables well designed to develop the difficult art of sight recognition. A reference list of minerals and a carefully prepared index and glossary are appended.

Except for a moderate number of misprints, the material presentation of the book measures up to the best standards.

J. D. H. DONNAY.

PROCEEDINGS OF SOCIETIES

ANNUAL MEETING OF THE MINERALOGICAL SOCIETY OF SOUTHERN CALIFORNIA

Edwin V. Van Amringe, instructor in geology at Pasadena Junior College, was unanimously re-elected president of the Mineralogical Society of Southern California at the annual meeting held on the evening of June 12th. Other officers elected were: Franklin G. McIntosh of Beverly Hills, vice-president; Herman Abraham of Pasadena, secretary; and Kenneth N. Reed of Pasadena, treasurer. The new board of directors will consist of Earl L. Calvert, San Gabriel; Ernest W. Chapman, South Pasadena; Heber H. Clewett, San Dimas; Morris R. Ebersole, Hollywood; John M. Grieger, Pasadena; John A. Renshaw, Arcadia; and David B. Scott, Altadena. The business meeting was preceded by a banquet for 120, and a concert. A large variety of beautiful minerals and gems were exhibited by the members.

EXTRACTS FROM THE ANNUAL REPORT OF THE PRESIDENT OF THE MINERALOGICAL SOCIETY OF SOUTHERN CALIFORNIA

On this, the sixth anniversary of our Society, I take pleasure in reviewing a little of the history of its founding and development. It was in the spring of 1931 that John Renshaw sent out about sixty-five announcements of an organization meeting. On the evening of June 23rd, forty people were gathered in the lecture room of the Pasadena Public Library, and I had the pleasure of addressing them on "Mineral Collecting as a Hobby." The

first issue of our *Bulletin* appeared in November, 1931, and continued regularly until it was combined with that of the Oregon society just three years later.

The Society progressed steadily in the two-year term of Ernest Chapman, and at the time of my election last June, meetings had totaled fifty-two, with thirty-two field trips. Our president had assisted greatly in the formation of the California Federation of Mineralogical Societies, which had its real beginning on "Mineralogy Day" at the San Diego Exposition, June 16, 1935. The first convention was held at Riverside on January 4th and 5th, 1935, with over five hundred attending. The officers then elected are still holding office. The second annual convention at Bakersfield on January 2nd and 3rd, 1937, was an outstanding success, and plans were laid for the San Francisco event on February 21st and 22nd of next year.

During the current year we have enjoyed the following excellent lectures: In September Harry R. Newitt of Los Angeles spoke on "Mine Salting"; in October, W. L. Cozzens of the Fairchild Aerial Surveys illustrated aerial mapping with relation to geology; in November, Dr. H. J. Fraser of the California Institute of Technology told of his prospecting for gold in the Hudson Bay region; the January meeting featured Wendell Stewart's pictures of his trip to the gem cutters of Idar, Germany; in February Dr. H. L. Hatfield exhibited colored motion pictures of the western National Parks; Dr. Beno Gutenberg of the California Institute of Technology discussed his revolutionary work on structure of the earth's crust in March; Alvin B. Carpenter in April told of his development of old Spanish mines in Mexico; and in May Roy Martindale of Glendale illustrated the determination of minerals by means of the microscope. Our field excursions for the year included a trip to the Stauffer borax mines near Frazier Mountain, an evening trip through the mills of the Columbia Steel Corporation at Torrance, a nine-day trip to the copper districts of southeastern Arizona, a visit to the Joshua National Monument and the Dale district, and a collecting trip to the Juniper Flat pegmatites and Winchester magnesite quarry.

Among other special events of the year I should mention the visit of Fred Young of Oregon in November, and the consequent publication of the special 120-page California number of our journal, "The Mineralogist"; the fine exhibit of minerals now in the Griffith Planetarium arranged by John Akers, Harold Reed, Morris Ebersole and John Grieger: the exhibit belonging to Wendell Stewart now on display in the Pasadena Public Library: and the sad deaths of two of our active members, Harry Hyatt of Corona and Dr. S. E. Sanger of Monrovia.

EDWIN V. VAN AMRINGE, *President*