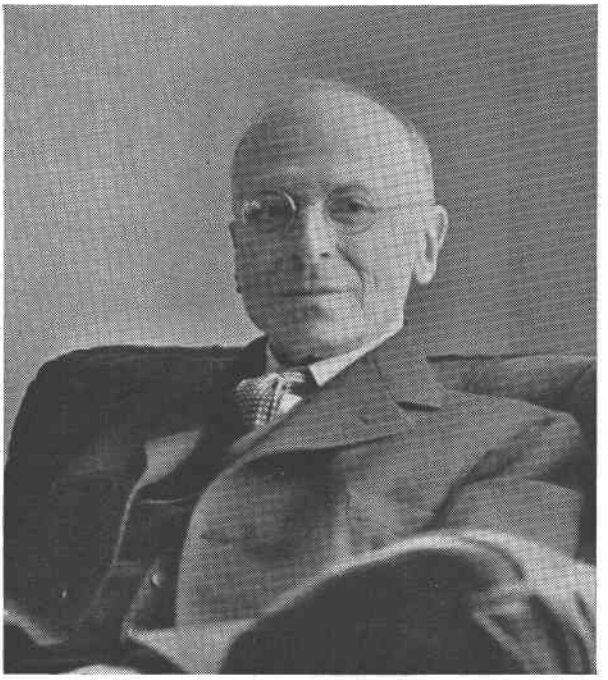
MEMORIAL OF LAZARD CAHN

CHARLES PALACHE, *Harvard University, Cambridge, Mass.*

Lazard Cahn was born in St. Joseph, Missouri, May 23, 1865. His parents were both of French nativity and came to the United States from Rheims.

By the time Lazard was ready for school, the family had moved to New York City, where he spent his earlier school days. When he was fifteen he was sent to Stuttgart, Württemberg, for two years. He con-



LAZARD CAHN
1865–1940

tinued there the usual studies and also studied the piano on which he became a very good performer. On returning to the United States he entered Stevens Institute. His great interest at this time was chemistry and he planned to enter Yale University for advanced study of the subject, but the illness of a sister caused him to give up this plan and he went west to be with her.

In Colorado Springs he learned of some rare minerals, the hydrous fluorides and others, which had been found at St. Peter's Dome nearby. His interest in these minerals was aroused on account of their unusual chemical constitution, but as his knowledge of minerals grew his enthusiasm for mineralogy increased and he was soon studying intently the subject in which he was to become so expert.

Mr. Cahn later studied mineralogy more formally in American universities and studied crystallography under Dr. Victor Goldschmidt at Heidelberg, but his excellence in morphology was due to his life-long absorption in it.

For a number of years, beginning about 1896, he dealt in minerals, traveling in this country, Mexico and in Europe, making many acquaintances and friendships which endured to the end. I think that one may say that those with whom he dealt came to feel complete confidence in his integrity and in his knowledge.

The writer's acquaintance with Lazard Cahn began about 1900 when he made periodical trips to Cambridge with specimens for sale. We soon found a basis for congenial friendship in our mutual love of crystallography. He was really only interested in crystallized minerals, and it was wonderful how much he succeeded in seeing on the most minute crystals with only the binocular microscope to aid him. During the winter of 1914–1915, not long after his stay in Dr. Goldschmidt's laboratory, he spent some time measuring crystals with me and increased his knowledge of crystal drawing. His drawings were exquisite; he sometimes reduced them by photography and printed the crystal figure on the label of the specimen illustrated. He also developed a method of cutting out of cardboard the various angles obtained by contact measurements of larger crystals. I have such a card carrying on its edges every angle of a very complex rhodonite crystal from Franklin, which he sold to our collection. The values of the angles and the indices of the faces between which they lie are written on the card with his delicate pen.

It was the author's good fortune to be able to give Cahn's name to a mineral which proved to be most unusual both in composition and crystal form. He first detected the minute colorless crystals with his binocular and sketched their peculiar form with accuracy. The name was attached to the species with Mr. Cahn's consent before enough of it was at hand for any chemical tests. We had to wait thirteen years for the mineral to turn up again at Franklin, but when it did it more than justified my faith that it was a new species. It proved to be a boro-arsenate of calcium—a type of chemical compound hitherto unknown among minerals. The full description was published in 1927. Another decade passed and again Mr. Cahn discovered a new fact about this mineral. On one of his

micromounts are crystal faces which prove cahnite to have a type of symmetry not before found on any mineral, and on but a single substance. It belongs to the disphenoidal class of the tetragonal system. This observation, verified by me in 1938 but not yet published, gave Cahn intense pleasure and made him more than ever proud of his namesake.

About the year 1920 Cahn became closely associated with Mr. Clarence Bement of Philadelphia, who after the sale of his magnificent collection of minerals to the American Museum of Natural History had taken up enthusiastically the assembling of a collection of micromounts. Cahn supplied him with a great variety of specimens to this end and learned from Mr. Fiss the delicate art of mounting them with the best effect. It was, I believe, from this association that his own interest in microminerals began, and he continued to prepare them up to within a few months of his death. He wrote me in 1937 that his micro-collection numbered over 3700 mounts representing 685 species. I was able to send him from time to time material of new minerals or new finds to add to this collection. Not only did he write most appreciatively of such additions but never failed to return to our collection some of the best mounts.

In his study of the micromounts he was able to make some interesting contributions to crystallographic knowledge, among others, in the field of orientated intergrowths of which he catalogued more than seventy combinations. He found, independently of others, the basal pinacoid on quartz from the rhyolite of the Thomas Range, Utah, and stimulated one of his students in the search which resulted in finding the same form in the quartz from the rhyolite of Ruby Mountain, Nathrop, Colorado.

So far as I can discover, Mr. Cahn published but one paper. This was entitled "Ueber Verwachsung von Topas-Granat und Rutil-Eisenglanz" and appeared in *Beiträge zur Krystallographie*, II, pages 7–9 (1919). This paper, which described for the first time the replacement of garnet by topaz at the Thomas Mt. locality and its orientated relation to the host, was written in 1913. His results were confirmed by a paper appearing with his article by Goldschmidt and Schroeder, which contains crystallographic data and a beautiful drawing of the intergrowth which Cahn had but sketched.

For many years Mr. Cahn had worked with younger men and boys who were interested in minerals, teaching them and helping them with their collections, and helped numerous mining men and prospectors in identifying their discoveries. This was usually with one individual at a time, but in 1933 he began to gather about him a number of younger men, science teachers, professional men and college students who had an interest in minerals, and to these he gave the rarest of privileges, first weekly and later semiweekly sessions in the study of minerals with the

microscope. To each he gave hundreds of micromounts and stimulated in each an enthusiasm which has led to their adding hundreds more by their own collecting. There are now, among these pupils of Mr. Cahn, nine important micromount collections, each growing and each the beginning of a new circle of other and younger enthusiasts.

Several years ago Mr. Cahn was offered the chair of Mineralogy at Nebraska University. He refused the honor, perhaps partly because he had had no training in the art of teaching, but the members of his informal class all feel that he was one of the greatest teachers they have known.

Mr. Cahn's health began to fail in the fall of 1939 and, although he had periods of partial recovery so that he could return to his office and his beloved collection during the succeeding winter, he passed away on May 22, 1940, on the last day of his seventy-fifth year.

Lazard Cahn was vice-president of the Mineralogical Society of America in 1928. He did not often attend meetings of the Society during later years, but when he did he was always sought out by his older friends who loved to get him talking of his experiences with mineral dealers and collectors abroad and at home. His memory of events and of persons was wonderfully exact. And he seemed never to forget an outstanding specimen which had come to his attention, so that his appraisal of the value of a collection which he had examined was accurate and fair. Modesty as to his own great abilities was characteristic as was gentleness of speech and manner. In his death the science of mineralogy has lost a valued worker.

Mr. Cahn never married. He leaves a sister, Miss Nellie Cahn of San Francisco, to whom I am indebted for supplying much of the biographical material contained in this memoir. Mr. Willet R. Willis, an intimate friend of Mr. Cahn's in Colorado Springs, has also supplemented this information.