

PRESENTATION OF THE ROEBLING MEDAL OF THE
MINERALOGICAL SOCIETY OF AMERICA TO
EDWARD H. KRAUS

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A special meeting of the Mineralogical Society of America at this particular time has a two-fold purpose: to commemorate the first quarter century of the founding of the Society and to carry out the instructions of the Council passed in December 1943 that this meeting should also be the occasion for the presentation of the Roebling medal. The two purposes mentioned are very intimately related as it will be noted that the recipient of the Roebling award this year, Dean Edward H. Kraus, was a member of the organization committee and as chairman was largely responsible for the founding of the Society twenty-five years ago. While it is not my intention to dwell at great length on the historical events that led to the establishment of the Society, a few remarks seem pertinent in connection with this presentation—the fifth award made by the Society.

While the question of the desirability of organizing a separate society composed of members interested mainly in mineralogy, crystallography and the allied sciences had been under consideration for a number of years, it was not until the Albany meeting of the Geological Society in 1916 that a small group of six decided to take some formal action. It was felt that the formation of a mineralogical society would stimulate greater interest in the subject and at the same time offer a ready outlet for the ever-increasing number of papers in this field through the establishment of a society journal. It was pointed out that with respect to organization and means of publication the mineralogists of America were not keeping pace with their colleagues in Europe and the time had arrived for the founding of a society whose standards, insofar as fellowship was concerned, should be equal to those of the Geological Society of America.

This small group of six consisted of Edward H. Kraus (Michigan), Alexander H. Phillips (Princeton), Frank R. van Horn (Case School of Applied Science), Thomas L. Walker (Toronto), Edgar T. Wherry (U. S. Bureau of Chemistry), and Herbert P. Whitlock (American Museum of Natural History). Dean Kraus was selected as the one "to conduct the correspondence looking toward the organization of the Society."

A circular letter was sent to a selected list of mineralogists in the United States and Canada to determine the consensus of opinion with regard to the formation of a new society. It was then planned to com-

plete the organization as quickly as possible if the returns showed a sufficient number of favorable replies. On February 5, 1917, such a letter was addressed to fifty-one mineralogists, inviting them to unite as charter members in this new organization to be known as the Mineralogical Society of America. By October 12, 1917, the replies indicated that thirty-five were in favor of such an organization. But on account of the very unsettled conditions then existing, due to the war, it was thought wise to take no immediate action at that time. However, by December, 1919 it was believed that the time had arrived for taking the final steps. An organization meeting was called for December 30, 1919, and an invitational letter to attend was sent to all who might be interested. It thus came to pass that at a meeting in connection with the thirty-second annual gathering of the Geological Society of America a group of twenty-eight mineralogists from all parts of the United States, including representatives from Canada, met in the Mineralogical Museum of Harvard University and organized a new society. At this meeting a provisional constitution and by-laws were adopted and negotiations started for affiliation with the Geological Society of America which were successfully concluded the following year.

It is very significant to note that the first President of the newly formed society was Dean Kraus, a signal honor to the leader of this small group of six and formal recognition by the Society that the immediate goal of the organization committee had been achieved. The hopes and expectations of the founders have I am sure been fully justified by actual accomplishments during the first twenty-five years, both as regards total membership in the Society and the number and type of papers published in the Society's journal *The American Mineralogist*.

In the life and activities of some men it may be observed that after having attained a desired objective their ardor decreases and interest wanes. Dean Kraus' interest in and activity for the welfare of the Society has continued unabated throughout the years. It was his suggestion made at the tenth annual meeting that it would be very helpful if the Society had the means to establish awards for research and noteworthy achievements in the field of mineralogy that led to the establishment of the Roebling medal in 1930. As chairman of the Roebling Medal Committee he materially assisted the designer in the selection and arrangement of the proper symbolic emblems engraved on the medal. In recognition of this service he was asked by Dr. Bowen, then President of the Society, to deliver the presentation address when the Council voted the first award to Professor Charles Palache in December 1937.

Edward H. Kraus was born in Syracuse, New York, in 1875 and re-

ceived his early education in the schools and University of that city—B.S. in 1896 and M.S. in 1897. His alma mater on two occasions has paid tribute to his leadership in the fields of science and education through the granting of two honorary degrees, Doctor of Science in 1920 and Doctor of Laws in 1934. Shortly after completing his studies at Syracuse University he spent two years in Professor Paul Groth's laboratory at the University of Munich, Germany. Here he pursued more advanced work in crystallography, optics, geology and chemistry, and received the degree of Doctor of Philosophy in 1901.

In 1904 he was called to the University of Michigan as assistant professor of mineralogy. His advancement from the start was exceedingly rapid for in four years his title read Professor of Mineralogy and Petrography and Director of the Mineralogical Laboratory. Under his leadership the department grew rapidly because of his energy, enthusiasm and foresight.

In addition to being a stimulating teacher, Dean Kraus possesses rare executive and administrative abilities. He has, therefore, been called upon frequently to serve the University in various additional capacities: as secretary of the Graduate School from 1908 to 1912; from 1911 to 1915 he served as Acting Dean of the Summer Session and from 1915 to 1933 as Dean; in the College of Pharmacy he was Acting Dean from 1920 to 1923, and Dean from 1923 until 1933. In 1933 he was appointed Dean of the College of Literature, Science, and the Arts, the largest single administrative unit of the University with an enrollment of approximately 5000 students. Because of his manifold duties in this new position he was relieved of all formal teaching although he continued to keep in close touch with the advances in mineralogy and frequently returned to his private office in the Department where undisturbed he continued some of his investigations.

Shortly he will retire from all administrative duties and I understand he is looking forward with keen delight to the time when he again can devote his entire attention to writing and research.

Dean Kraus is a fellow of the Mineralogical Society of America (President in 1920), the Geological Society of America since 1902, and the American Association for the Advancement of Science. He also holds membership in the American Chemical Society, Optical Society of America, American Institute of Mining and Metallurgical Engineers, Michigan Academy of Science, Arts and Letters (President 1920), American Pharmaceutical Association, American Association of Colleges of Pharmacy (President 1926), and for ten years (1930-1940) served on the committee on the revision of the U. S. Pharmacopea. He is an

honorary fellow of the American College of Dentists and honorary member of the German Mineralogical Society, the Gemmological Association of Great Britain, and the Gemmological Institute of America.

Although burdened for a long period by many time-consuming administrative duties, he still found opportunity to contribute liberally to mineralogical literature. His list of scientific publications approximates 75 papers covering a wide range of subjects relating to the occurrence and origin of minerals, crystallographic forms observed on crystals, and new apparatus to determine specific properties of minerals and rocks. In more recent years his attention has been concentrated on the variation of hardness of the diamond and its industrial applications. Also fourteen papers have appeared by Dean Kraus dealing with educational trends and policies.

In addition to this long list of papers, he is the sole author of two and co-author with his colleagues of three texts on Crystallography, Descriptive and General Mineralogy, Gems and Gem Materials and Tables for the Determination of Minerals. As text books on the college level they have unquestionably stimulated interest in minerals and gems, and judged by their sales through the years have demonstrated great vitality.

One of the highest honors that can be conferred by the University of Michigan on a member of its faculty came to Dean Kraus very recently when he was awarded the Henry Russel Lectureship for 1945, in recognition of his outstanding work in the fields of crystallography and mineralogy. The selection of the recipient of this Lectureship is made each year by the University Research Club.

Dean Kraus, the Society on this commemorative occasion expresses its gratitude for the innumerable services you have rendered. The Society also wishes to pay tribute to you as an inspiring teacher, an able organizer and administrator, a painstaking investigator and successful author. Your labors in behalf of our science have extended over a period of forty-five years. The Mineralogical Society desires to express its high regard in which you are held by your associates and to formally recognize your accomplishments by bestowing on you the highest award that the Society has at its disposal. For in the truest sense and in the broadest meaning of the phrase you have earned it by "meritorious achievement."

It is indeed both a privilege and pleasure for me, who has been so closely associated with you for so long a time, to have been asked by the Council to carry out their wish of presenting to you the Roebling Medal.