

PRESENTATION OF THE SECOND ROEBLING MEDAL
OF THE MINERALOGICAL SOCIETY OF AMERICA
TO WALDEMAR T. SCHALLER

A. PRESENTATION—ESPER S. LARSEN, *Harvard
University, Cambridge, Mass.*

Over a period of years the Mineralogical Society of America accumulated from its income a fund "to establish awards, either medals or money prizes, to be given to outstanding investigators in America or abroad, or to the authors of contributions adjudged as noteworthy. To be the recipient of a medal or prize of the Mineralogical Society of America would soon be recognized as a signal honor, one that would be greatly coveted." The medal has been named the Roebbling Medal in memory of Colonel Washington A. Roebbling, who so generously supported and endowed the Society.

The second award of the Roebbling Medal has been made to Doctor Waldemar T. Schaller in recognition of his outstanding contributions to chemical mineralogy, to crystallography, to the paragenesis of the pegmatite minerals, and to systematic and descriptive mineralogy.

Waldemar T. Schaller was born in Oakland, California, in 1882. He received his preparatory education in the Public Schools of Oakland and San Francisco and studied at the University of California under Professors Eakle and Lawson, and received the degree of Doctor of Philosophy at Munich in 1912. In 1903 he joined the Division of Chemical and Physical Research of the United States Geological Survey and has served as chemist and geologist of that organization to the present time. He is a charter member of the Mineralogical Society of America, served as vice-president in 1921, as president in 1926, and as treasurer since 1931. He is a member of the American Association for the Advancement of Science, the American Chemical Society, Geological Society of America, American Institute of Mining and Metallurgical Engineers (Chairman, Washington section, 1937), American Academy of Arts and Sciences, Washington Academy of Sciences (vice-president 1936-37), Geological Society of Washington (vice-president 1934, president 1935), Mineralogical Society of Great Britain and Ireland, Deutsche Mineralogische Gesellschaft, Société Française de Minéralogie, Wiener Mineralogische Gesellschaft, and is one of the four honorary members of the New York Mineralogical Club.

Doctor Schaller has published 148 papers and reports. The extent of his researches in mineralogy is shown by the facts that in the Second Appendix of Dana's "System of Mineralogy" his work was cited on 29



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pages with 34 references, and in the Third Appendix on 60 out of 87 pages and with 114 references.

His conclusion, published in 1916, that water or hydroxyl is a necessary constituent of tremolite has since been verified, and it has led to our present interpretation of the composition and structure of all the amphiboles.

In his bulletin of 174 pages on the mercury minerals of Terlingua, Texas, he described in detail and critically discussed many new forms for these minerals, including 102 new forms on terlinguaite. He has described and named 41 new minerals.

Some of his more important contributions are: his description of crystals of turquoise and the determination of the composition of turquoise; his study of the calcium antimonates, schneebergite, romeite, and atopite; his discussion of the composition of the melilite group; his work on the alunite-jarosite group, including argentojarosite, the only mineral of silver that contains oxygen; his researches on the vanadium minerals in which he determined eight new minerals; that on the borate minerals in which he described four new minerals; and his discussion of the saline minerals of the New Mexico-Texas potash field. His study of the crystal cavities of the New Jersey zeolite region finally determined the origin of these striking phenomena. He served as a member of the War Industries Board on mica and compiled many reports on mineral resources. His 66-page report on mica has been used as a standard by subsequent writer on mica.

Early in his career Doctor Schaller began his investigation of the pegmatites of Southern California, and he has since studied many other pegmatites. From his extensive researches he has shown that many pegmatites are not simple igneous injections but have been formed in part by a long and complicated succession of mineral replacements.

As Chairman of the Committee on Nomenclature of this Society he was largely responsible for securing coöperation with a similar committee of the British Mineralogical Society and for achieving uniformity in mineralogical nomenclature.

As mineralogist of the Federal Survey, his frank and friendly helpfulness and criticism have done much to insure a high quality for the mineralogical work of that Survey. I can personally express my appreciation for much help, inspiration and encouragement from him over a long period of years during which I was privileged to enjoy and profit by his frank criticism, generous helpfulness and loyal friendship.

Doctor Waldemar T. Schaller, on behalf of the Mineralogical Society of America, I present to you the Roebbling Medal, awarded to you in

recognition of your outstanding investigations in the science of mineralogy.

B. RESPONSE—WALDEMAR T. SCHALLER

Whatever success one may achieve through the years in his chosen profession, nothing gives him greater pride than recognition from his colleagues and fellow workers. So when you, my colleagues and friends, through the Mineralogical Society of America, bestow on me the high award of the Roebling Medal, my heart fills with pride and happiness in the thought that you have recognized my work and have deemed me worthy of the award.

That it is the Roebling Medal gives me added pleasure for I, too, enjoyed the warm friendship of Colonel Washington Augustus Roebling and spent many pleasant hours and even days in his company. Ever ready to contribute time, knowledge, and material for the advancement of mineralogy, his collection has been, and still is, of inestimable value. The Roebling endowment has enabled *The American Mineralogist* to forge ahead and become one of the leading scientific journals of the world. That in this forging ahead I have had a part for eight years as your Treasurer and custodian of the Roebling endowment, has also been a source of satisfaction, for I view it as a partial return to Colonel Roebling for the many favors he extended to me. I have a feeling, too, that, though his gift was unconditional, I am helping to carry out his implied wish by using the income from the endowment solely for the betterment of *The American Mineralogist*.

Colonel Roebling, with a practical knowledge of minerals that few of us have, was extremely modest. When I wrote him some years back that he had been nominated for the Vice-Presidency, he replied: "I am delighted to gather from yours of the 23d that I am not eligible to a higher position in the Mineralogical Society. I am not a mineralogist in the proper sense of the word—in fact, I am only a collector with a smattering of knowledge."

How proud he was of his fine collection and what delight he took in showing a specimen of some rare mineral to one who had never seen that mineral. When the first edition of Larsen's Tables appeared he wrote me: "On page 33 Larsen gives the names of 28 minerals which he has not been able to find—I have 24 of them." Such brief, pertinent, sometimes pungent phrases, seldom more than three or four words in length, were characteristically appended to many of his sentences. If I may quote a few others taken from some of his letters:

"A man brought me a yellow transparent topaz crystal, 13 inches long and 1 inch wide, for which he wanted \$2,500. He has it yet."

"For a miserable lehrerite a dealer asks \$75—worth \$5."

Mentioning a certain collection, he writes: "There are hundreds of specimens of iridescent pyrite, all exactly alike—that is no fun."

"It has been my experience that only very busy men find time to do anything. The others, never."

"Had a visit from Mr. Vaux of Philadelphia. He wonders why I collect specimens. So do I."

Sometimes he would express his adverse opinion of the action of others in a pithy and subtle way. Referring to a distant relative who had inherited a farm, the Colonel wrote me:

"Having inherited a large farm he was obliged to drop minerals for cows."

Again, so-and-so

"Sends me a pen and ink sketch of the Paterson quarry. It took him nearly a year. A work of infinite labor and patience, on which only a German could waste his time."

As a boy I found my greatest pleasure in roaming over the hills around San Francisco Bay, collecting minerals and rocks, making many trips to Tiburon Peninsula hunting for lawsonite, reading avidly the reports of the California State Mineralogist—I still remember the hesitancy of Henry S. Durden in first giving copies of these State reports to such a youngster—gloating over the bulletins of the U. S. Geological Survey, by Lindgren and Melville, on California minerals. How anxiously I awaited the arrival of the postman bringing me those precious volumes from Washington!

It soon became my one desire to become a member of the Division of Chemical and Physical Research in the U. S. Geological Survey. This was the position I craved above all others—to be working on minerals and to be associated with Lindgren, Clarke, Hillebrand, and the other Survey men. For 35 years now, the better part of one's working life, this craving has been fulfilled.

Through the generosity of Albert F. Holden, I was enabled to spend 1912 in Europe and at Heidelberg I too, sat in a "dark little room" with Victor Goldschmidt.

Charles Palache preceded me in Berkeley by a dozen years. While I cannot say, as he did a year ago, that Professor Lawson saved me from a mining career which I likewise "hated in anticipation,"—I was in the mining college for three years—yet Lawson's warm interest in any sincere student of geology and his remarkable ability as a teacher, both in the laboratory and in the field, had a great influence on me to follow geology as a career.

Professor Arthur S. Eakle came to Berkeley to teach mineralogy when

I was half way through college. His influence soon fanned the fire kindled by others to an all consuming desire to follow mineralogy the rest of my days. One day a distinguished visitor, with a pointed beard, returned to old South Hall in Berkeley and happening to meet me in the hallway asked where he could find Professor Eakle. When I afterwards asked Professor Eakle who this gentleman was he replied: "Why that was the great Palache from Harvard." Later, Eakle was making arrangements with Palache for me to be his assistant at Harvard, when I received the appointment in Washington. What a great crystallographer I might have become had I gone to Harvard and studied under Palache!

The University of California may be proud of the fact that, within a year, plus a few days, national societies will have conferred medals on three Berkeleyites. It must also be a matter of great pride to Professor Lawson, who is receiving the Penrose Medal on Friday, that the other two recipients are former students of his.

What a great satisfaction it is to live one's life doing the things one loves to do—in my case, working out new minerals, testing the validity of new species described by other investigators, determining the change in properties with varying chemical composition, and, with it all, giving to minerals their geochemical and geological background. In other words, trying to find out what were the processes of nature that yielded the minerals we now preserve in our collections.

What a satisfaction also to have contributed perhaps a mite to our store of knowledge, to have helped others and to have enjoyed their warm friendship, engendered by a community of interest, and now, to have one's associates say that you have done well and for them to express this thought with this tangible award, "For meritorious achievement."

For the great honor you have bestowed on me, I most sincerely thank you.