

unprejudiced objective thinking in ourselves and in our students. We must emphasize the human side of science and its intellectual and social implications.

Since time began poets and seers have dreamed of

a far-off divine event, toward which the whole creation moves. When that event does appear, better nutrition, as one of the fruits of real democracy, will have helped to ring in the thousand years of peace.

## OBITUARY

### HENRY ANDREW BUEHLER

IN the death of Henry Andrew Buehler, "The Chief," on March 14, 1944, the geological profession lost one of its older and most respected and honored members. His loss is one which will be most directly felt in Missouri, the State of his adoption, but will also be sensed throughout the mining world.

Buehler was born at Monroe, Wis., on May 27, 1876. He received the degree of bachelor of science in chemical engineering in 1901 at the University of Wisconsin. In 1925 the honorary degree of doctor of science was bestowed upon him by the Missouri School of Mines and Metallurgy of the University of Missouri. While in the University of Wisconsin he became acquainted and associated with E. R. Buckley, then state geologist of Wisconsin. When Buckley became state geologist of Missouri, Buehler became his assistant immediately after his graduation from college.

With the exception of one year (1907-08) when he was employed by the Federal Lead Company, Mo., he remained a servant of the State of Missouri throughout the remainder of his life. In 1908 Governor Joseph W. Folk appointed him state geologist of Missouri. The wisdom of this appointment and the service of the "Chief" is best exemplified by the fact that he was reappointed by each of nine succeeding governors. Few people knew his politics—no one cared. He was accepted as being above party lines.

Buehler's publications numbered thirty-four. The larger portion of these were "Biennial Reports of the State Geologist to the Missouri General Assemblies." His unselfish attitude toward his fellow employees and associates resulted in the publication of many of his ideas and theories by these associates. He thoroughly enjoyed and glorified in the inoculation of an associate with an idea and seeing it culminate in a research paper. Had he taken the selfish position of publishing the results of his research and direction, his bibliography would have been several times thirty-four. His early work as a geologist under Buckley left to the State of Missouri and the geological profession three reports that are still in demand; these are "The Quarrying Industry of Missouri," "The Geology of the Granby Area, Mo." and "The Lime and Cement Resources of Missouri." The first publication to be released under his direction as State Geologist of Missouri was the masterly treatise by his former master

and predecessor, E. R. Buckley, "The Geology of the Disseminated Lead Deposits of St. Francois and Washington Counties, Missouri," 1908. The last publication released under his supervision was by his assistant, H. S. McQueen, "The Fire Clay Districts of East Central Missouri," 1943. Truly did the "Chief" administer and direct in preference to research and the accumulation of a large bibliography.

Buehler was creative and progressive. He never stopped planning and initiating new fields of research. The appropriations he obtained were always inadequate, but he made the most of them by cooperative programs with the U. S. Geological Survey. He early recognized the necessity for detailed topographic quadrangles and spirit leveling. This made it possible to complete a reconnaissance gravity survey of Missouri, which was recently published as a gravimetric map of the state. He believed in the use of all available methods of geological exploration and saw the completion of the magnetic survey of Missouri. The surface waters of the State were believed by him to be a part of its natural resources. An extensive cooperative program has resulted in the accumulation of valuable data on the discharge of all major streams and rivers in Missouri. The Cambro-Ordovician formations of the Ozarks were difficult to identify in cuttings obtained from drilled wells; at his suggestion a study was made of the insoluble residues from these formations. These residues were found to be sufficiently diagnostic to permit the identification of each formation. This principle has been well received and his laboratories became the mecca for geologists faced with this problem.

While being progressive and ever willing to test new theories and practices, Buehler was erroneously considered by some to be a conservative. Any semblance of conservatism on his part was due to the inadequacy of information presented with a new concept. If the facts established the concept, he accepted it regardless of how revolutionary it might have been. He was a firm and staunch supporter of E. O. Ulrich's "Ozarkian Period." He believed his friend Ulrich knew better than any geologist the formations assigned to this highly controversial group of rocks. He likewise believed the deposition of the lead and zinc sulfides in the Ozarks was due to the downward circulation of cold meteoric waters. He was never convinced that sufficient evidence had been presented to explain these

deposits by ascending magmatic waters. If the advocates of the latter theory had presented conclusive evidence to support their belief, he would have been among the first to accept it.

Every mineral industry in the State of Missouri felt the wisdom and influence of Buehler. His advice and counsel was in constant demand. Requests for information about mineral resources were given his personal attention. No task was too great if it involved the greater utilization of the mineral wealth of his State. The fruit of his life-long service and industry is testified by the fact that Missouri's mineral production in 1901 was less than \$15,000,000, whereas in 1943 it approximated \$75,000,000. There have been times when he was accused by promoters to be retarding the development of these resources because he would not recommend to the Missouri Securities Commission the authorization of the sale of stock on certain promotional programs.

Buehler could have used the services of a press agent. His modesty would not permit the publicity which was merited by his department. He enjoyed expressions of praise and appreciation of services rendered, but he wanted these praises spoken in a semi-private environment. He was sublimely happy when he was showing fellow geologists the interesting phenomena of his State. Frequently he directed extensive field conferences with more than 100 geologists in the party. On these occasions there were not enough hours in the day to satisfy him.

There was no man in the state of Missouri whose wisdom and counsel were in greater demand. A fellow state geologist has written: "I do not know of any of our fellow members (Association of American State Geologists) who has been more prominent in service to our states or occupied a higher place in the councils of the state government." He was a member *ex-officio* of the Missouri State Highway Commission; a member of the Missouri Planning Commission; the Missouri Resources Museum Commission; the State Commission of the New York World Fair of 1939 and the Golden Gate Exposition of 1939. At the time of his death he was in Jefferson City attending meetings of the Missouri Commission of Resources and Development and the Missouri State Highway Commission. In 1934-35 he was state engineer on the Civil Works Administration.

Dr. Buehler was a fellow of the Geological Society of America. He was an active member of the American Institute of Mining Engineers, serving as president in 1935. He was also a member of the American Association of State Geologists, the Society of Economic Geologists, The American Association for the Advancement of Science, the American Association of Petroleum Geologists, the Missouri Academy of

Science, the Wisconsin Academy of Science, Arts and Letters, the National Research Council, the Highway Research Board, the State Historical Society of Missouri, Sigma Xi, Tau Beta Pi and Theta Tau.

Buehler was never married. He spread his devotion and affection on under-privileged children, civic enterprises and worthy students of the Missouri School of Mines and Metallurgy. The latter he referred to as "his boys" and he took great pride in watching them develop into leaders in the fields of mining and industry. The financial assistance he gave to "his boys" was in reality only a small part of their rich inheritance. The wisdom of his counsel, the devotion to his profession and the soundness of his philosophy of life were inspirational. He was a great teacher and minister although he refused to admit it.

Buehler was richly endowed with qualities that endeared him to all who knew him. His colorful and strong personality, straight thinking, utter frankness, genial friendliness, rough humor, code of ethics, originality, initiative and untiring devotion to assigned duties made him a man whose character, honesty and integrity were ever beyond reproach. His work is over, but his presence will continue to be felt.

EDWARD L. CLARK,  
*State Geologist of Missouri*

#### OSCAR MILTON STEWART

OSCAR MILTON STEWART, who died in Columbia, Mo., on May 17, 1944, was one of the most widely known and esteemed American physicists of the passing generation.

His father was a Methodist minister. It has always been the policy of that denomination not to allow its preachers to stay very long at one point, and in that way it happened that the children of the family were mostly born in different places. Oscar's birth occurred at Neosho, Mo., on November 3, 1869. He attended DePauw University, where he took the degree Ph.B.; and later he went to Cornell University, where he received his Ph.D. in 1897. Years later, in 1938, DePauw gave him the honorary degree of D.Sc.

He was kept at Cornell University as instructor from 1898 till 1901, when he was appointed assistant professor of physics at the University of Missouri, which was then being radically improved under President Jesse. Shortly after 1901 he was made professor, though in fact he directed the affairs of the department for practically all the thirty-nine-year period preceding 1940.

In 1899 he married Miss Estelle Williams, of Ithaca. The couple had only one child, Lawrence. It was their misfortune to lose him in his early manhood. He was an early victim of the influenza epidemic of the first World War, at the Great Lakes Training Center. The