took an active part in helping a number of refugee scientists to reestablish themselves in North America.

One of his early convictions concerning his special field of biology was that the disciplines of physics and chemistry should be brought to bear on certain biological problems. He spent much time and effort trying to foster this approach, and his enthusiasm in this respect made a lasting impression on many of his associates and students to the great advantage of the sciences. He had a remarkable talent for synthesis, combining data and technics from a variety of fields of knowledge. This ability was of great value to his fellow committee members in organizing the curriculum of Integrated Liberal Studies at the University of Wisconsin. He emphasized the distinction between training and education, realizing that the function of the teacher is, in the words of Channing, "not to stamp our minds irresistibly on the young, but to stir up their own."

Professor Huskins was a vigorous and energetic man who often sought relaxation in physical exertion. For many years he spent his summer vacation and frequent winter ski weekends at his Vermont farm. He was exceptionally well liked by both undergraduate and graduate students. In the latter, he encouraged and developed an unusual degree of independence and originality. His relationship with them was always a friendly one, and he showed a genuine interest in their personal as well as their scientific welfare and advancement. He was a stimulating conversationalist, witty and quick to appreciate the humorous side of a subject. Among his students and associates there are few who will not remember many pleasant and stimulating hours spent in his laboratory, office, or home.

The written contributions of Charles Leonard Huskins will long preserve his scientific memory; his vivid personality will live on in the memories of his many friends.

Timothy William Stanton: 1860-1953

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IN the 11th Annual Report of the United States Geological Survey, C. A. White, geologist-in-charge of Mesozoic invertebrate paleontology, writes that "On July 1 [1889] Mr. T. W. Stanton, who had recently been appointed Assistant Paleontologist, reported to me for duty and immediately entered upon the work of the division." Thus was initiated a continuous period of some forty-six years in the public service, an experience that made Dr. Stanton one of the outstanding figures in American geology.

Timothy William Stanton was born in Monroe County, Illinois, September 21, 1860. His parents, William and Mary Ann Blanchard Stanton, were both of farmer stock and had come from North Carolina. In 1866 the family moved across the Mississippi River to Missouri, and Stanton began his education in the one room country school of the locality. In 1874 the family moved to Colorado and settled at Boulder, then a community of 2000 people. There young Stanton attended the public school, and in 1877, when the University of Colorado opened its doors, he became a preparatory student and in 1883 was graduated with the University's second class as a Bachelor of Science. In 1895 he received the Master of Science degree and in 1924 an honorary Doctor of Science degree from the same institution. In 1888–1889 he attended The Johns Hopkins University as a graduate student in biology and geology and in 1897 Columbian (now George Washington) University of Washington, D. C., awarded him the degree of Doctor of Philosophy.

After graduation from the University of Colorado in 1883, Stanton was connected for five years with the public schools of Colorado. In 1894, after moving to Washington, he became a part-time teacher of geology at Columbian University, and continued this connection until 1910.

In Colorado, Stanton lived in an area of Cretaceous rocks and became interested in them and their fossils. In the University the professor of mathematics was really a general naturalist and gave, among other courses in science, one in geology that Stanton took. This crystallized his interest and he concentrated on it. He published in 1888 his first paper on the fossils of the Pierre shale. It was natural therefore that his appointment with the Geological Survey should involve Cretaceous fossils. Up to 1889 White had been responsible for all work on Mesozoic invertebrates in the Geological Survey. In that year Alpheus Hyatt took over responsibility for Triassic and Jurassic invertebrates and White, with Stanton as his new assistant, restricted his work to Cretaceous invertebrates. In 1892 Stanton succeeded White as geologist-in-charge of work on Cretaceous invertebrates. In 1900 he became paleontologist, in 1903 geologist-in-charge of the Section of Paleontology and Stratigraphy and in 1912 chairman of the Committee on Geologic Names. In 1930 he became acting chief geologist and in 1932 chief geologist. He retired in September 1935 at the age of seventy-five. For some years afterward he revived interest in his early work on the Lower Cretaceous deposits of Texas, but he found the toll of years too heavy to permit the finishing of the large manuscript he had begun many years before and only parts of it were published. He busied himself with less exacting tasks and for his last fifteen years remained

inactive, so far as geology was concerned. He died December 4, 1953.

The primary duty of the paleontologists of the Geological Survey was, as it still is, the identification and evaluation of fossils for the field geologists of the Survey. Although this work involved considerable routine examination of collections, it seems to have occupied then only a minor part of the paleontologist's time and he had considerable freedom to carry out research. White sent Stanton into Texas in 1889 to gather data on the lower Cretaceous deposits of the region, a subject that remained a major interest for the rest of Stanton's life. He was also introduced to the Upper Cretaceous deposits of the Atlantic and Gulf Coastal Plain by a trip in October 1889 to the Ripley deposits of Mississippi. During the next ten years he extended his work to the Pacific Coast and continued to acquire an extensive first-hand acquaintance with the Cretaceous of the Western Interior region and the Coastal Plain. Particularly in this early field work Stanton made collections of fossils that have not since been surpassed for quality and scope. In 1902 Alpheus Hyatt died and the Survey's work on the paleontology of the Triassic and Jurassic rocks was added to Stanton's duties. The Geological Survey was growing and the burden of administration after 1903, coupled with the expanded work of routine examination of all Mesozoic collections for the Survey's geologists, left him little time for research. It is surprising that during his later active years he was able to produce as many important papers as he did.

One of his earliest field tasks was to study the Bear River formation of southwestern Wyoming. He showed in 1892 that all the earlier students had completely misplaced it and that instead of constituting a Laramie unit at the top of the Upper Cretaceous deposits, it really was associated with the earliest Upper Cretaceous beds. In 1883 he produced a description of the Colorado formation and its fauna, still a classic in American paleontology. His work on the Pacific Coast resulted in several papers on the stratigraphy of the Shasta and Chico sequences and a description in 1895 of the fauna of the Knoxville formation. He also for the first time recognized that the Martinez formation as originally defined was partly Cretaceous and partly Tertiary; since then the Cretaceous part has been excluded from the formation. With the paleobotanist F. H. Knowlton in 1897 he discussed the stratigraphy and paleontology of the Laramie and related formations of Wyoming. His continued interest in the Lower Cretaceous of Texas led to a paper on that subject. In 1899 he contributed a description of the Jurassic and Cretaceous faunas to the Survey's monograph on the geology of Yellowstone National Park. The formations around the mouth of the Judith River in central Montana had been generally assigned to the Laramie assemblage. In 1903, with the vertebrate paleontologist J. B. Hatcher, Dr. Stanton showed for the first time that the Judith River formation was far below any beds that could be considered Laramie, and there has been no doubt about it since. In 1905 he described the invertebrate fauna of the Judith River formation. When Alpheus Hyatt died in 1902, he left an important work on Cretaceous ammonites in an unfinished state, and Stanton arranged and edited the material to make it available, an undertaking that involved much effort and very good judgment. During the succeeding years he wrote many smaller papers describing faunas and local stratigraphy presenting interpretations of geologic history. His two major faunal papers in this period were the description in 1920 of the larger fauna of what is now called the Cannonball formation and in 1947 of some of the pelecypods and gastropods of the Comanche series.

Stanton was a conspicuous figure in the protracted and sometimes acrimonious debates over the "Laramie problem" and over the age assignment of the Morrison formation. The Laramie problem involved the questions of whether all the nonmarine deposits originally called Laramie belong to one time period and, if one, whether this time period was to be considered all Tertiary or all Cretaceous. There were vigorous supporters of each of an array of answers. Specialist opinion today has pretty well settled upon a view that completely supports none of the debaters, although Dr. Stanton's views were much nearer that of today than most of his contemporaries. His view on the age of the Morrison, that it is Jurassic and not Cretaceous, is accepted today.

Dr. Stanton's work brought him membership in a number of professional societies. In 1921 he was vice-president of the Geological Society of America and president of the Paleontological Society.

He was devoted to his family and found great pleasure in his daughters and grandchildren. He was a lifelong churchman, having been a member of a near-by church everywhere he went. He joined Hamline Methodist Church, in Washington, D. C., in 1900 and was active in its affairs until the last decade of his life.

Stanton's career overlapped the closing years of the period when the "general" paleontologists of the exploratory surveys were still active and that of the present when no one individual can expect to know more than a small part of the general field. His work had to cover a wide range of stratigraphy and paleontology, although it fell mostly in the later Mesozoic. During his years as a stratigrapher and paleontologist Stanton had to visit many field parties of the Geological Survey; his visits were always welcomed. In the office he had many contacts with geologists through conferences and particularly through his position as chairman of the Committee on Geologic Names; he was widely known for the soundness and fairness of his judgments. He was reserved and slow to adopt an idea, but tenacious of it and vigorous in defending it, once it was adopted; yet he never hesitated to change when a good reason was presented to him. His record of publication is one to stir pride, but his service to geology in the many unrecorded acts of such a lifetime as his may actually exceed it in value. His influence on American geology will last long.