# **OBITUARY**

#### WILLIAM HENRY NICHOLS

Dr. WILLIAM H. NICHOLS, past president of the American Chemical Society and widely known as a leader in chemical industry, died at Honolulu, Hawaii, on February 21, after a brief illness. He was born in Brooklyn, N. Y., on January 9, 1852, attended the Brooklyn Polytechnic Institute for two years and completed his college course at New York University, from which he graduated in 1870. His later collegiate degrees included the M.S. from New York University in 1870, the LL.D. from Lafayette in 1904 and from New York University in 1920, and the Sc.D. from Columbia in 1904, from Pittsburgh in 1920 and from Tufts in 1921. His choice of chemistry as a career was the result of the influence of John William Draper, under whom he studied at New York University.

Dr. Nichols's career in the field of industrial chemistry began in 1870, when he started a small manufacturing business in which because he had not yet reached his majority he was obliged to use the name of his father in the firm name. The growth of his interests is not merely a parallel to that of the chemical industry during the sixty years which followed, but is itself a significant part of the industry. The Nichols Chemical Company, the Nichols Copper Company, the Benzol Products Company, the National Aniline and Chemical Company and most recently the Allied Chemical and Dye Corporation represent progressive growth in magnitude of enterprise and in value of products, the latter company being one of the largest chemical corporations in this country. These growths were accomplished not solely by business enterprise but also by discoveries of a fundamental character in the industry, such as the first American usage of iron pyrites in the manufacture of sulphuric acid, the first production of electrolytically purified copper for commercial use and the adaptation to American conditions of the synthesis of ammonia from nitrogen and hydrogen, which his company had worked out on an experimental scale as early as January, 1914, before the outbreak of the World War.

Dr. Nichols was one of the organizers of the American Chemical Society in 1876 and was its president in 1918 and 1919. He was president of the Society of Chemical Industry in 1904–05, and chairman of the Eighth International Congress of Applied Chemistry, held in New York City in 1912. His service to collegiate education included membership on the governing boards of the Brooklyn Polytechnic Institute and of New York University for a considerable period of years; he acted as vice-chairman for the former institution and for the latter as vice-president of the

council and for a period as acting chancellor. Throughout these years he was a generous contributor also to the financial needs of both colleges, his gifts including among others the Nichols Laboratory of Chemistry at New York University, completed in 1927 at a cost of \$700,000. His will included a large number of charitable bequests to various religious organizations, to the American Chemical Society, to the Brooklyn Polytechnic Institute and a residuary legacy to New York University estimated at a value of about two million dollars.

ARTHUR E. HILL

NEW YORK UNIVERSITY, MAY 5, 1930

## J. ARTHUR HARRIS<sup>1</sup>

THE real scientist must have interest in his chosen field of knowledge and a belief in the importance of that field. To this he must add a broad conception of its scope and limitations, ability to distinguish between the essential and the unessential, and diligence in examining every scrap of evidence which bears on the subjects within his field. All of these characteristics J. Arthur Harris possessed in unusual degree. His industry was untiring. He had no schedule of working hours when a problem was to be solved. Nothing was too insignificant for serious consideration and nothing too important to escape investigation. With this was a broad-minded consideration for the views of others, even though opposed to his own, and a keen scientific interest in attempting to see to what extent they would add to his own knowledge of the subjects under discussion. These qualities brought him wide recognition not only within the institutions with which he was associated, but throughout the country and far beyond.

A distinguished student of Karl Pearson, he was a pioneer in the introduction of the biometric method in the domain of botany and in biological science in general. His accomplishments in this field included both the application of quantitative methods to the study of living things and also fundamental contributions to the logic and theory of scientific method. In recognition of these attainments he received in 1921 the Weldon Medal and Memorial Prize of the University of Oxford, the highest award of merit in this field of science.

The laurels which he earned in the field of biometry would suffice for most men but not for him. In the field of ecology he blazed new trails, brought in new conceptions, new quantitative technic, and adapted the study of the newer science of physical chemistry to his pioneer field studies in plant geography. He believed in studying plants in their own environment, and he carried his paths through the morasses of the Dismal Swamp and the Everglades, through the montane rain-forests of Jamaica

<sup>1</sup> Resolutions adopted by the faculty of the College of Science, Literature and the Arts, the University of Minnesota, April 28, 1930.

and Hawaii and through the deserts of Jamaica, Arizona and Utah. He bore personally much of the expense of such field studies, and the advancement of science was the only reward he claimed.

In 1924 he came to the University of Minnesota. With remarkable rapidity he won the admiration and love of his colleagues and the advanced students. He was a great teacher, broadly trained, earnest and sympathetic. At his feet sat the students from nearly all of the various fields of science represented in our university. They acknowledged him as master—they were proud to call him friend.

It was not only in the laboratory, in the field and the classroom that Dr. Harris was eminent. He possessed administrative gifts to a high degree. Official routine was not pleasant to him and he did not consider it a matter to be regarded too seriously if the desired results could be legitimately obtained through short cuts. In his relations with his colleagues, both within his department and without, he was always a gentleman, careful to observe the amenities in every way and to make the work of others easier, while his own efforts were being directed to greater efficiency within his own department. He was generous in recognition of the abilities of his colleagues and he exerted himself to the utmost to secure for them congenial working conditions. It was his ambition, only partly realized on account of his untimely death, to make the University of Minnesota a widely known institution of recognized merit for biological research. The laboratory, the herbarium and the library were all objects of his deepest interest as auxiliaries to this main object.

He was not only a scientist of note and an executive who obtained results, but a congenial companion as well. He was at home in any circle. His wide interest in things outside his own field was acute, his sense of humor prevented him from becoming one-sided or narrow. His genuinely tolerant attitude made it easy to discuss with him things which in most circles would be matters of controversy. In his passing, the University of Minnesota has lost one who can never be replaced as scientist, administrator and friend.

Prepared by the Committee

ROYAL N. CHAPMAN

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#### RECENT DEATHS

Dr. Thomas E. McKinney, from 1908 to 1928 professor of mathematics in the University of South Dakota, died on April 14, aged sixty-six years.

Dr. L. J. Weinstein, who recently was appointed professor of metallurgy at Northwestern University, died on May 14 at the age of forty-nine years.

DR. ERNEST CLEMENT ANGST, assistant professor of botany and bacteriology at the University of Oklahoma, died on April 18.

DR. GRACE BARKLEY, assistant professor of botany in DePauw University, died on April 1, from cerebral hemorrhage resulting from a fall. Her principal contribution was a cytological study of the origin of the spiral markings of protoxylem.

Dr. George Dimmock, of Springfield, Mass., known for his contributions to entomology, died on May 17, his seventy-eighth birthday.

Dr. Fridtjof Nansen, distinguished as explorer, man of science and statesman, died on May 13.

## **MEMORIALS**

A MEMORIAL meeting to the late Arthur M. Miller, for thirty-five years professor of geology at the University of Kentucky, will be held on May 30 at his home "Maxwelton," which Professor Miller gave to the university several years ago. The chief speaker at the meeting will be Dr. Collier Cobb, professor of geology at the University of North Carolina, who was associated with Professor Miller for 40 years, consulting with him as late as 1928 in the drawing up of a new geological map for North Carolina. Dr. Austin R. Middleton, zoologist and biologist of the University of Louisville, will officially represent the Science League of America. Dr. W. D. Funkhouser, dean of the Graduate School of the University of Kentucky, will speak of Professor Miller's work. James H. Gardner, president of the Gardner Petroleum Company of Tulsa, Okla., an alumnus of the University of Kentucky, Rolla R. Ramsey, professor of physics at the University of Indiana, and Dr. Walter H. Reynolds, Presbyterian minister at Liberty, Ind., are also on the program. Dr. W. R. Jillson, state geologist, will preside at the meeting.

In memory of the late Sir Baldwin Spencer, who was professor of zoology in the University of Melbourne, it has been decided to place a bronze medallion in the zoology library in the university. Mr. Paul Montford has been commissioned to prepare this medallion, and old students of Sir Baldwin Spencer are invited to contribute towards the cost, which will be a hundred guineas. Donations should be sent to Sir Thomas Lyle, Lisbuoy, Irving Road, Toorak, S.E.2, Victoria, Australia.

The council of the University of Manchester has accepted a bronze plaque of the late Professor W. H. Perkin from a number of his former students and friends, and it will be unveiled in the Chemistry Theater on May 24.