

tinguishing false and true leads with surprising facility. This was equally true in the diagnosis of plant specimens and in observation of plant behavior.

It was not surprising to find him at work on several papers at once. As he once remarked to me "When I get tired or have to wait for one thing, there is always another problem ready for me." This sublime faith in his own endeavor never flagged. It is the mark of a mind at once both great and simple.

John Henry Schaffner was born in Agosta, Marion County, Ohio, on July 8, 1866. He was educated at Baker University, Kansas; the University of Michigan, the University of Chicago and the University of Zurich, Switzerland. In 1897, when he went to Ohio State University as assistant in botany, with the late Dr. Kellerman as professor, there were fewer students in the whole university, 1,200 or less, than there are now in the department of botany each year. Professor Schaffner's work on chromosome behavior between 1894 and 1898 pioneered in the field that has now developed so richly in the application of Mendelism. His papers on the prairies reflect knowledge acquired during his boyhood familiarity with plants now long gone in regions where they were native. His papers on *Equisetum* cover a whole range of plant sciences focused on the single small group of plants he loved so well to study. His eleventh paper in a series on determinate evolution is just off the press two months after his death. With reference to man, in his paper, there is this sentence, "It has been estimated, on a conservative basis, that there are over twelve billions (12,000,000,000) of cells in the human brain alone, and it is evident that the self-conscious personality, my ego, controls this amazing mechanism and other billions of cells of the body to a definite purpose while this sentence is being written." It is a remarkable sentence in that it contains one of the few personal references in his entire writings. Yet even this slight reference to himself turns out, as the context of the paragraph reveals, to be a means of stating a concept of chromosome activity. He seldom thought of himself. His vacations, always with his family, were visits to Kansas, but for the sake of his children and Mrs. Schaffner as well as for the purpose of collecting specimens they often reached Kansas by way of Maine or the Pacific Coast.

Ohio was not neglected in the matter of plant records. The catalogue of Ohio plants is as complete and the herbarium records as numerous as in any state record. Half of these have been added during the last two decades. Perhaps it was the devotion to the herbarium which brought on the heart attack, as it was evident to all of us that the climb of three flights of stairs was a severe strain. When space, more cramped of course than the herbarium, was offered in the basement with the assistants volunteering to do the errand

running for changes of specimens to be studied, the answer was only a gentle No, that he preferred to be where all the stored specimens were at hand. The irony of this is that in the original plans for the building in 1914 an elevator to the herbarium was included. For lack of funds at the time this was not installed in the building.

Early in his association at Ohio State University he, with the group that numbers Professors Landacre, Herbert Osborn, Raymond Osburn, James Hine, John Bownocker, and others, founded the Biology Club. This grew into the Ohio Academy of Science. Professor Schaffner was the editor for its entire existence of the *Ohio Naturalist*, the predecessor of the *Ohio Journal of Science*. He was also editor of the *Ohio Journal of Science* from 1916 to 1918, its critical first two years. His services to the academy in this respect are unique. He was its president in 1919.

We have lost a wise counsellor and a devoted friend. We can not think of the man without his works, or the deeds without the personality that produced them. A full bibliography of his 330 papers and books will appear in another place. The Torrey Index lacks about a hundred titles of the full citation of his work. As editor, as teacher, as an example of a tireless investigator, he leaves us a rich gift in his memory.

ADOLPH WALLER

THE OHIO STATE UNIVERSITY

ARTHUR E. HILL

It is with profound sorrow and realization of great loss that we record the death of Arthur E. Hill, who passed away on March 16, at the age of fifty-eight, at his home, 66 Clinton Place, New York City.

It has been the writer's privilege to have been associated with him over a period of thirty-nine years, during which time he has been a fellow student, a teacher and a colleague.

As a student he was always looked up to and respected by other students for his earnestness with regard to matters worth while, for his rectitude of character and with all this, his happy disposition. He graduated from the College of Arts and Pure Science of New York University in 1901. For the college year 1901-02 he held the Inman fellowship in chemistry at New York University and in 1903 was awarded the degree of doctor of philosophy at Freiburg, Germany.

Upon his return to the United States in 1904 he was appointed instructor in chemistry at his alma mater. In 1912 he succeeded Professor Arthur B. Lamb as head of the department of chemistry at New York University, which position he held until 1937.

As a lecturer and teacher he was known for his great clearness of thought and expression. Frequently, old graduates returning to the campus for a day would

attend one of his lectures to receive anew the inspiration of earlier days. Although Dr. Hill was absorbed in his research the major part of his lecture work was with freshmen, and no one knows how many of these young men were inspired by his wonderful qualities as a teacher.

Aside from his superb ability as an instructor he was an indefatigable worker in his own research laboratory. Many graduate students have worked under his direction. He was not content, however, unless he too was actually carrying on research. His investigations were largely of an inorganic or physical nature, including analytical problems and the solubility relationships in binary, ternary and quaternary systems. His most important publications were with respect to the application of the phase rule to heterogeneous systems.

Although absorbed in his teaching and research he

found time to serve as dean of the College of Arts and Pure Science in 1932-33 and in 1935-36.

He became a member of the American Chemical Society in 1901 and served as chairman of the New York Section, councilor of the section, chairman of the physical and inorganic section, associate editor of the *Journal* and was a member of the Chemists Club.

We, his colleagues, his students and his associates in chemistry, will miss the inspiring presence of Dr. Arthur E. Hill. His place can not, we feel, be filled as he would have filled it. We all, however, feel grateful to have known such a man, to have been associated with him and to have been helped by him. He has left us a fine example of rectitude and devotion to duty which will be a vital force for many years to come.

J. P. SIMMONS

NEW YORK UNIVERSITY

SCIENTIFIC EVENTS

THE SWEDISH STATE INSTITUTE OF NATIONAL HEALTH

IN 1936 the Swedish Government instructed certain authorities on different aspects of hygiene to study and report on the possibilities of creating a representative State Institute of National Health.

The British Medical Journal reports that the plan recommended by the authorities consulted has now been published in the form of a 78-page report supplemented by architects' drawings. It is proposed that the three main activities of the new institute shall concern (1) general hygiene, (2) occupational hygiene and (3) dietetics and food control. In each of these three main spheres the institute will conduct investigations and will serve as an adviser both to the authorities and to the general public. It must also give instruction in social welfare and medicine to doctors, nurses and health inspectors, and must also organize health propaganda. A most important activity will be the health aspects of housing. Maternity and child welfare, the care of the tuberculous, medical statistics and medical and social legislation will also be the concern of the institute. It will further deal with the injuries and ailments resulting from faulty conditions of employment. The working conditions of young people and women, working hours and the public health aspects of rationalization in industry will also be dealt with. The control of the manufacture and sale of foodstuffs will be supplemented by certain educational activities with regard to the composition of household dietaries. All these and many other activities are to be conducted in one and the same block of buildings, which will house the administrative staff, the library and the museum. The architect's plans provide for some 170 rooms. It is calcu-

lated that the buildings will cost Kr. 1,800,000, and the furnishing about Kr. 400,000. The annual cost of salaries will be Kr. 240,000, and other expenses Kr. 110,000. It is not expected that the buildings will be completed at the earliest before some time in 1940.

STUDY OF THE DISTRIBUTION OF THE FERNS AND FLOWERING PLANTS OF PENNSYLVANIA

WITH a number of institutions cooperating, a comprehensive study of the distribution of the ferns and flowering plants occurring naturally in Pennsylvania is being made in the department of botany of the University of Pennsylvania. The study involves the handling of approximately 300,000 botanical records and has been made possible by the assignment of a special technical and clerical staff from the Works Progress Administration.

Dr. John M. Fogg, Jr., assistant professor and curator of the herbarium, is directing this study. Other members of the faculty and a group of graduate students in botany are assisting in scientific aspects of the project. In addition to the University of Pennsylvania, other institutions in the state, including Pennsylvania State College, the Carnegie Museum and the University of Pittsburgh, the State Herbarium at Harrisburg and the Academy of Natural Sciences in Philadelphia are cooperating by making available all pertinent records and information.

According to Dr. Fogg, a separate card upon which is printed the entire list of sixty-seven Pennsylvania counties is being used to record detailed information concerning each one of the 3,000 or more species of ferns and flowering plants which must be covered in the survey.