

tinctive and adequate name. Perhaps the term "geopathology" is the best that can be found to designate the subjects under discussion.

Brief reflection shows that geopathology, as here defined, is a subject of great practical and scientific importance. Studies in this field should be concerned not only with specific diseases (and *a fortiori* not only with specific parasites), but with regional peculiarities of all diseases. The peculiarities in certain areas of pneumococcus pneumonia, tuberculosis and rheumatic fever, though yet poorly known, are striking and suggestive. Moreover, the field is not limited to communicable diseases, but extends in all directions. For example, glimmerings exist of regional peculiarities in diabetes, bladder stones, hypertensive disease and cancer. In spite of the importance of studies in this field, both for the advancement of knowledge and for the prevention, control and treatment of disease,

geopathology is in its infancy. There is no even moderately comprehensive treatise of existing knowledge of the subject. Presumably, such a work today is hardly worth the effort, in view of our fragmentary information and understanding. Adequate study and discussion of diseases in many important parts of the world have not yet been accomplished.

In the years to come, Americans will be looking especially in two directions, to the South and to the Far East. We will quickly build up and long maintain intimate relations with the peoples of those regions. Their health problems, which are vastly different from those we now have, will become in a measure our problems. American medicine should lead in the elucidation and solution of the problems of geopathology. It should do so without delay and with enthusiasm.

OBITUARY

HENRY BALDWIN WARD

THE sudden and unexpected death of Henry Baldwin Ward on November 30, 1945, brought to a close a truly remarkable career. Few scientific men have ever enjoyed a life of such intense and long-continued activity, which was kept up almost to the day of his death. In fact, one of his former students visiting him in his office at the end of October of this year found him busy breaking in a new secretary, while in the midst of finishing up an article that was due to go to the printers in a few days. His broad interests and unusual ability made it possible for him to take part in a wide variety of activities. He took pride in lecturing to freshman zoology classes. He trained a large group of graduate students. He carried the heavy administration duties of a large university department while taking part in general university and community life. He contributed important researches in parasitology and a variety of other zoological subjects and wrote numerous popular articles. He also found time to take a leading part in the development of scientific organizations, including the American Microscopical Society, the Society of Sigma Xi and the American Association for the Advancement of Science. He was also interested in a variety of national projects including wild-life conservation and stream pollution.

Henry Baldwin Ward was born in Troy, N. Y., on March 4, 1865. He received the A.B. degree at Williams College in 1885 and was employed as a teacher of science in the high school in Troy from 1885 to 1888. This was followed by one of the most fruitful periods of his life when from 1888 to 1890 he studied at the Universities at Göttingen, Freiburg and Leipzig

and spent his summers at the marine biological stations at Naples, Heligoland and Ville-Franche-sur-Mer. At Leipzig he worked in the zoological laboratory of Rudolph Leuckart, who was then at the height of his career. It was here that he realized the possibilities of the field of parasitology, and determined to establish a graduate laboratory in this subject in the United States.

After returning to the United States in 1890 Dr. Ward undertook graduate studies under Professor E. L. Mark at Harvard, and completed his thesis for the Ph.D. in 1892. His first university position was that of instructor in zoology in the University of Michigan from 1892 to 1893. Soon after this he undertook biological studies for the Michigan Fish Commission on the Great Lakes, and for a number of years worked on a biological survey of the Great Lakes for the U. S. Fish Commission. Early in these investigations he started his collection of parasitic worms, which continued to grow throughout his whole life.

In 1893 Dr. Ward was called to the University of Nebraska as associate professor of zoology. He was promoted to professor in 1899 and became head of the department of zoology in 1906. At Nebraska he became interested in premedical and medical education, and served as the dean of the medical school from 1899 to 1909. Soon after his arrival in Lincoln he met Harriet Blair, who was teaching in the music school of the university. They were married on September 11, 1894, and celebrated their golden wedding anniversary in 1944. Mrs. Ward and their two daughters, Cecelia and Charlotte, survive him. At Nebraska he found the opportunity to train a small number of graduate students in parasitology and to

make a beginning in the realization of his dream of developing a graduate laboratory in this subject. His relation to the medical school turned his attention to the parasites of man, and he published a series of papers on human parasites in the *Studies from the Zoological Laboratory of the University of Nebraska* of which he was the editor. It was during this period that he reported for the first time the presence of the human lung fluke, *Paragonimus*, in the United States, and started his series of publications on the parasites of fresh-water fish.

In Nebraska, also, Dr. Ward became interested in the Society of Sigma Xi. He joined this organization in 1897 as a charter member of the Nebraska Chapter, which was installed in June of that year. In 1904 he was chosen as corresponding secretary of the society, and from that time until 1928 his name was among its national officers. He was national secretary for eighteen years, president for two years and for twenty-five years was a member of its executive committee. He also edited the publications of the organization during this period, including the *Quarter Century Record*. To his efforts in those critical years is largely due the present effective organization of Sigma Xi and the high position that it holds in educational and scientific circles. From 1898 to 1904 he also served as secretary of the American Microscopical Society, and was its president in 1905. This society also owes him a great debt for guiding its destinies during a very critical period.

In 1906 he started his investigations on the Alaska and Pacific salmon which were continued throughout most of his life. These investigations gave him the opportunity not only to make important scientific contributions, but also made it possible for him to spend many of his summers in the field. He was a true outdoor man, and his greatest relaxation came from following the migrations of the Pacific salmon through some of the wildest country of the Pacific Northwest and Alaska.

In 1909 Dr. Ward was called to the University of Illinois as professor and head of the department of zoology. He came at a very propitious time, since the university was just embarking on an extensive program for the development of its graduate school. Here he was able to realize his dream of organizing a strong research laboratory for graduate work in parasitology. Support was available for assistantships and fellowships for graduate students, and from that time until his retirement in 1933 he sent out a constant stream of men trained with the Ph.D. in parasitology. Every possible facility was given to his graduate students. They had easy access to his extensive reprint library. He encouraged the more experienced men to help the beginners, and was con-

stantly on the alert to attract able students to his laboratory. He always considered his students as real members of his family, and after they graduated helped them in every possible way to get suitable positions. In fact, in his later years he found his greatest pride and joy in the achievements and success of his students. Dr. Ward and his numerous students have had a great influence on the development of parasitology in the United States. He can truly be called the Father of American Parasitology, or perhaps better still in recent years he became its grandfather, since the men trained by his students now represent the largest and most active group in this field.

During the busy years at Illinois he always found time to push his personal researches and writing. Special mention should be made of the publication in collaboration with Whipple of the "Freshwater Biology" in 1917. This book has been of great value to a host of workers in biology and shows the breadth of Dr. Ward's biological interests.

Early in the development of his graduate group Dr. Ward realized the need of better facilities for publication of research in parasitology in the United States. He, therefore, persuaded the university to start the *Illinois Biological Monographs* in 1914. This series has made possible the publication of the results of a large number of fundamental and extensive investigations in parasitology and other biological fields. In September of this same year there also appeared the first number of the *Journal of Parasitology*. It certainly took courage, optimism and confidence in the future to launch an American journal in parasitology at that time. Active research workers in the field were few, and Dr. Ward's own laboratory was practically the only center in the United States for graduate training in this subject. In fact, there was little evidence of the recognition of parasitology as a separate field. It seemed doubtful if there would be either sufficient contributors or subscribers for a journal of this type. The success of this journal in its early years was due almost entirely to Dr. Ward's untiring efforts. The outbreak of the first World War added greatly to his difficulties. From 1915 for volume 1 the number of subscribers steadily increased until a peak of almost 600 was reached for volumes 16 to 18. After the organization of the American Society of Parasitologists in 1925 with Dr. Ward as its first president, a committee was appointed to consider the possibility of making the *Journal of Parasitology* the official organ of the society. By 1931 this society had grown to a membership of 550, and in 1932 Dr. Ward presented the *Journal of Parasitology* to the society. This journal is now in its thirty-first volume and has over 1,000 subscribers. It bears

on its cover the statement "Founded by Henry Baldwin Ward," which is a fitting reminder of the personal efforts of the founder which kept the journal alive in its early years.

At Illinois Dr. Ward soon became a real influence in university affairs. He was one of President James's right-hand men, and at one time lobbied in the legislature in favor of increased university appropriations. For many years he lectured to the freshman classes, and took personal charge of the organization of Zoology 1. Each year he gave advanced lectures to his large group of graduate students and actively directed their researches. He also was always in demand for a variety of university committees. He was a member of a large number of scientific societies and was active in them all. He was frequently called upon for outside lectures and many honors were conferred on him, including honorary membership in a number of foreign scientific societies and academies and honorary degrees from institutions in this country.

Dr. Ward was always interested in conservation of natural resources and in stream pollution and in his later years devoted much of his time to these problems. In 1925 he became a member of the national executive committee of the Izaak Walton League of

America and from 1928 to 1930 served as the national president of this organization. Another of his interests was in the development of the American Association for the Advancement of Science. In 1901 he was secretary of section F, in 1903 he was its general secretary and in 1905 its vice-president. After his retirement from the University of Illinois he served as the permanent secretary of the A. A. A. S. from 1933 to 1937, spending much of his time in Washington, and from 1937 to 1941 was a member of its executive committee. He had a large part in the splendid development of this organization during recent years.

Dr. Ward always had a wide circle of personal and scientific friends. He loved to play baseball and to go on hikes with university friends on Saturday afternoons. His enthusiasm, varied experience and broad interests made him a stimulating and charming companion. His passing will be widely noted, and he will be sorely missed by his students, his university colleagues and his numerous friends and acquaintances in this country and abroad.

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SCIENTIFIC EVENTS

FEDERAL SCIENTIFIC RESEARCH

MANY scientists will object to the last line of the second principle of the recommendations of the Board of Governors of Yale University on "Federal Support of Scientific Research," published in *SCIENCE* for November 23:

The body responsible for the administration of federal support should be completely free from political control and should select its own executive officer. Men chosen for this task should be of the highest scientific reputation and enjoy the confidence of scientists generally. It is desirable that the National Academy of Sciences, which was established to advise the Government on scientific matters, should present in nomination a panel of names from which the members of the administrative body would be appointed.

An alternative method for the distribution of these funds has also been suggested; namely, that a committee selected from a panel of names approved by the National Academy of Sciences, or other accredited body, should have control over the distribution of about fifty per cent. of the funds, while the other fifty per cent. should be distributed equally among the forty-eight states. The distribution of these funds should be controlled by committees selected by popular vote of the academy members at the annual meeting of the State Academy of Science, or other scientific organization which may be selected and which is

nationally recognized in the state, and, furthermore, that the fund for each state should be a rotating fund so that every academic institution within the state wherein scientific work is being done by investigators who have already published articles in scientific journals of national circulation, shall participate in these benefits for the perpetuation of which every citizen is to be taxed. Wide distribution of funds should be made and these should not be given to a selected few, who in the past and future have received and will continue to receive large grants from the Rockefeller and other foundations. We suggest that, if the reader agrees with this proposal, he write to Senators Magnuson and Kilgore as soon as possible endorsing this principle.

R. G. ROBERTS
H. H. BEARD

THE CHICAGO MEDICAL SCHOOL

THE WAR REPRINT SERVICE OF THE JOSIAH MACY JR. FOUNDATION

DR. WILLARD C. RAPPLEYE, president of the Josiah Macy Jr. Foundation, announces that more than five million copies of over four hundred leading medical and scientific articles have been published by the foundation's War Reprint Service during the last three years for medical officers of the armed forces of the United States and in so far as possible Canada, England, New Zealand, Australia, the Union of Soviet