earth is far better adapted for occupation by men organized on a world-wide scale with maximum opportunity for free interchange of raw materials and finished products the world around, than for occupation by men who insist upon building barriers between regions even so large as entire continents.

OBITUARY

WILLIAM JOHN PETERS

THE death of Captain William John Peters on July 10 removed from American geophysics an outstanding scholar and investigator whose unselfish achievements in the field and laboratory are internationally recognized. He took part in almost every phase of research in earth physics and in quest of data he covered a large part of the earth's surface. Preeminent in his contributions was the geomagnetic work at sea and for which he invented and improved instruments making for more rapid and more accurate determinations.

Captain Peters was born in Oakland, California, on February 5, 1863, and was educated in the public schools there. After a short time as a student at the University of California, he was appointed as observer and computer on a survey of the boundary between two western states; in this work he gave much study to methods of astronomical determination not frequently used.

His important professional life began with appointment as assistant topographer in the U. S. Geological Survey in 1884. His advance through various grades was rapid. For several years he was engaged in geodetic work in the western states. During 1898–1901, as chief of party, he successfully completed difficult and important exploration in Alaska for the Survey and again during 1902 in Utah and Alaska.

This extensive experience, much of it in polar regions, fully qualified him for appointment as chief scientist and second in command of the Ziegler Polar Expedition of 1903–1905. Despite unusually severe meteorological and ice conditions, coupled with the loss of the expedition's vessel, Captain Peters succeeded in obtaining valuable 11-month series of geomagnetic data at Teplitz Bay, Rudolph Island, Franz Josef Archipelago, along with other material at Teplitz Bay, Cape Flora, and Alger Island, on aurora, meteorology, tides, geomagnetism, astronomy and map construction and surveys. In this his organizing ability and training of those associated with him were paramount factors. The extensive and detailed accounts of this work and of the resultant valuable geophysical data and discussions were published by the National Geographic Society in 1907 in a 630-page quarto volume entitled "The Ziegler Polar Expedition, 1903–1905: Scientific Results." The fact that the entire burden of the scientific program, except for only occasional assistance by other members of the expedition, was carried by Captain Peters and four assistants, makes this really a marked achievement in the history of polar exploration. Commander Anthony Fiala, of the expedition, regarded the amount of scientific work accomplished in the scant time available as "sufficient evidence of the indefatigable and persistent prosecution of the observations on the part of the scientific party."

Shortly after the return of the expedition, Captain Peters was appointed as chief magnetic observer and commander of the *Galilee* for the Department of Terrestrial Magnetism of the Carnegie Institution of Washington on her second and third cruises of over 52,000 miles in the Pacific Ocean and thus entered upon his second major service to geophysics. While on the *Galilee,* whenever possible, he experimented with the object of improving instruments and methods of magnetic observations at sea. As a result he developed the marine collimating-compass, which was destined to become the standard instrument for determining the magnetic declination on board the *Carnegie.*

As the result of the work done on the *Galilee* the special non-magnetic vessel *Carnegie* was designed along lines largely suggested by Captain Peters. He superintended her construction and commanded her first two cruises of over 100,000 miles, the second of which extended around the world with a total length of 92,829 nautical miles in 798 days. Important corrections to geomagnetic charts were found on this second cruise, particularly in the Pacific and Indian oceans. The detailed results and discussions obtained were published by the Carnegie Institution of Washington as the third volume in the series "Researches of the Department of Terrestrial Magnetism." These constitute a lasting memorial to the long labors and scientific genius of Captain Peters.

In 1914 Peters secured observations along the coasts of Labrador, Hudson Bay and Hudson Strait as well as at sea in Hudson Bay. Here again most valuable geophysical data were obtained despite unusual difficulties of season and navigation in the small three-masted schooner *George B. Cluett.*

Upon completion of the work in Hudson Bay, Captain Peters entered upon his third major service to geophysics in the direction at the Department of Terrestrial Magnetism of the compilations and discussions of the accumulated results at sea, the oversight of the continuing surveys at sea by the *Carnegie,* and the

investigation of fundamental problems of compass design, compensation and dynamic deviation, which continued until his retirement from active duty, June 30, 1934. A large part of the progress made in the investigations of the Department of Terrestrial Magnetism in its fields must be credited to Captain Peters in these twenty years of his professional life.

When the British Admiralty decided in 1935 to build a non-magnetic vessel—*Research*—to carry forward the geomagnetic survey at sea previously done by the *Carnegie,* that organization invited the Carnegie Institution of Washington to make available as an expert consultant the services of Captain Peters to aid in the vessel's design and in her instrumental equipment. Nothing illustrates so well the selfless interest and enthusiasm as his acceptance of this responsibility and the sacrifice of a year of his well-earned privilege of retirement. Arriving in England in the fall of 1935, as a representative of the Carnegie Institution of Washington, he took active part for over a year in the design of the new vessel and of her equipment—tasks for which his unique experience so peculiarly fitted him. The Admiralty took occasion to record its high appreciation of this valuable aid which had done so much to make possible the later launching of the *Research.* She was rapidly being equipped for her first cruise to Washington, D. C., and thence through the South Atlantic into the Indian Ocean, when the outbreak of the war in 1939 made it necessary to postpone her work.

Following his work in England and service as a delegate of the United States at the triennial Assembly of the International Union of Geodesy and Geophysics in Edinburgh in 1936, Captain Peters continued to devote much of his leisure time to scholarly studies. Many were the calls upon him as a recognized authority in polar exploration and nautical science. One of his last studies involved an investigation of the log of the cruise of Ponce de León and discussions bearing on his route to and landfall near St. Augustine, Florida.

Some 50 volumes and publications evidence the extent of Peters' scientific activities. These show not only a mind trained by practical experience but also one unusually skilled in higher mathematics and the exact sciences—acquired only by persistent study in each new field or problem as it was presented—and in their useful applications.

Captain Peters died at his home in Chevy Chase, Maryland, on July 10, 1942. He is survived by his widow, Beatrice Speaight Boyd Peters, and his son, Geoffrey Lloyd Peters.

All who had the privilege of acquaintance and friendship with Captain Peters unite in estimating him as a thoroughly modest gentleman and capable experimenter and investigator. All who served with him in any capacity unite in praise of his sympathetic unselfish guidance to attainment in their activities. His share in the edifice of geophysical science is a solid foundation for future building.

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DEATHS AND MEMORIALS

MAURICE L. CARR, director of research of the Pittsburgh Testing Laboratory, died on July 13 at the age of sixty-five years.

DR. WILLARD A. ROBERTS, of the department of research lamp development at the Nela Park branch of the General Electric Company, died on July 24 at the age of fifty-two years.

SIR WILLIAM MATTHEW FLINDERS PETRIE, the British archeologist, died in Jerusalem on July 28. He was eighty-nine years old.

SIR DANIEL HALL, F.R.S., who was director of the Rothamsted Experimental Station from 1902 to 1912, died on July 5, at the age of seventy-eight years.

DR. RICHARD WILLSTAETTER, formerly professor at Munich and Berlin, Nobel laureate in chemistry, died in Switzerland on August 2. He would have celebrated his seventieth birthday on August 13.

THE recently completed two-story brick building on the grounds of the Connecticut Agricultural Experiment Station, New Haven, will be named the Britton Laboratory, in memory of Dr. Wilton Everett Britton. Dr. Britton, until his death in 1939, was for about forty years entomologist of the Experiment Station and state entomologist.

SCIENTIFIC EVENTS

THE ENDOWMENT OF AN INSTITUTE OF SOCIAL MEDICINE AT OXFORD

THE Nuffield Provincial Hospitals Trust, with the approval of Lord Nuffield, will, according to the *Times,* London, devote £10,000 a year for ten years to the creation at the University of Oxford of a university professorship of social medicine and the foundation of an institute in which the professor will work.

The purposes of the institute are:

To investigate the influence of social, genetic, environmental and domestic factors on the incidence of human disease and disability.

To seek and promote measures, other than those usually employed in the practice of remedial medicine, for the