by the commission, while two or more periodicals would probably unite, in many cases, in order to improve their standards, and some of the struggling serials would probably die a natural death more promptly than occurs at present.

Further, the commission could hand down opinions in respect to cases in doubt as to whether a given document is or is not to be accepted as published.

Self-understood, it would take time to obtain practical results. Civilization was not made in a day, and important reforms are developed by evolution rather than by revolution. A campaign of education by the commission would, however, work up a general sentiment in the profession in favor of the view that for the good of science publications should line up to certain prescribed standards of "playing the game" with the profession.

I have sufficient faith in the zoological profession to feel that a systematic campaign of education by an international commission, authorized by the congress and carefully selected as respects its personnel, would accomplish more good in standardizing the *sine qua non* of zoological publications than will any amount of individual essays or debate dealing with this subject which, year by year, is becoming a more complicated, more serious and more practical subject.

C. W. STILES

U. S. PUBLIC HEALTH SERVICE

THE SEVENTH CRUISE OF THE NON-MAGNETIC YACHT "CARNEGIE"

THE non-magnetic yacht *Carnegie,* of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington, resumed on May 1, from Washington, D. C., the magnetic and electric survey of the oceans. Thus the plans visioned in 1904 under the enthusiastic and energetic directorship of Dr. Louis A. Bauer for the world-wide magnetic and electric survey will be further realized and the results already obtained will be greatly enhanced. This work was begun during 1905 to 1908 on the chartered brigantine *Galilee* in the then magnetically unexplored Pacific under the command, respectively, of J. P. Pratt for the first cruise and of W. J. Peters for the second and third cruises. With the completion of the specially designed yacht *Carnegie* in 1909 the survey was continued with greater efficiency, because of non-magnetic construction of the vessel and of the steady evolution of suitable instruments and observational methods, in all oceans during 1909 to 1921 under the command, respectively, of W. J. Peters for cruises I and II, of J. P. Ault for cruises III, IV and VI, and of H. M. W. Edmonds for cruise V.

Cruise VII of the *Carnegie,* to continue for three years during 1928 to 1931, will cover all oceans and will add 110,000 miles to the total of 290,000 miles already traversed by the vessel's first six cruises. Besides continued magnetic and atmospheric-electric investigations as heretofore with improved apparatus, determinations of natural marine electric-currents will be attempted as well as an extensive schedule in physical and biological oceanography.

The proposed increase in program is made possible through the addition of two to the scientific personnel which will total eight men. These and their special fields of activity are: Captain J. P. Ault, commander and chief of scientific staff; Wilfred C. Parkinson, senior scientific officer, atmospheric electricity and photography; Oscar W. Torreson, navigator and executive officer, magnetism, navigation and meteorology; F. M. Soule, observer and electrical expert, magnetism and physical oceanography; H. R. Seiwell, chemist and biologist, oceanography; J. H. Paul, surgeon and observer, medical work, meteorology and oceanography; W. E. Scott, observer, navigation and commissary; Lawrence A. Jones, radio operator and observer, radio investigation and communication. The sailing staff will consist of 17 men, making the total number of men on board 25; of the sailing staff, A. Erickson, first watch officer, C. E. Leyer, engineer and F. Lyngdorf, steward, occupied similar positions during the entire two years of the *Carnegie's* last cruise.

The necessary reconditioning of the vessel was completed last summer at Hoboken, New Jersey. The proposed program requires a great amount of instrumental equipment. Many improvements have been made by the department's shop in the magnetic and atmospheric-electric apparatus used on cruise VI; chief among these are the arrangements for electromagnetic determinations of magnetic inclination and intensity and for photographic registration of atmospheric potential-gradient. The oceanographic equipment includes an improved type of Wenner's electrical salinity apparatus made in the department's shop, Richter and Wiese thermometers and water-bottles, Nansen water-bottles, special non-magnetic winch with 6,000-foot and 20,000-foot aluminum-bronze cables for depth-work, sonic depth-finder loaned by the United States Navy Department, chemical and biological apparatus, silk meter and half-meter plankton-nets, various types of bottom-samplers and necessary appurtenances. The meteorological instruments are in general of the recording type and a special program of observation and control has been arranged. At Plymouth and at Hamburg additional recording wet- and dry-bulb thermograph and

wet- and dry-bulb resistance-thermometer equipment with recording galvanometer for three stations at masthead, cross-tree and meteorological screen are to be installed.

The first leg of the cruise will be to Plymouth, England, where the vessel will arrive about the end of May. After a call at Hamburg the next ports of call will be at Iceland, at Barbados and at the Canal Zone (about the end of October, 1928). The balance of the cruise will cover the North Pacific, South Pacific, South Atlantic, Indian and North Atlantic oceans, and is planned to include ports of call at Easter Island, Callao, Papeete, Apia, Guam, Yokohama, San Francisco, Honolulu, Apia, Lyttelton, South Georgia, St. Helena, Cape Town, Colombo, St. Paul, Fremantle, Lyttelton, Rapa Island, Buenos Aires, St. Helena, Ponta Delgada, Madeira and Washington, D. C. (about September, 1931).

The preparations for this cruise have had generous cooperation and expert advice on all sides from interested governmental and private organizations and individuals both in America and Europe, who have also either loaned or presented much of the special oceanographic equipment and many books for the reference-library on board. Among these the Carnegie Institution of Washington is indebted to the following: United State Navy Department, including particularly its Hydrographic Office, Naval Research Laboratory, Signal Corps and Air Corps of the War Department, Coast Guard, National Museum, Bureau of Fisheries, Weather Bureau and Coast and Geodetic Survey; Scripps Institution of Oceanography of the University of California; Museum of Comparative Zoology of Harvard University; School of Geography of Clark University; American Radio Relay League; Geophysical Institute, Bergen, Norway; Marine Biological Association of the United Kingdom, Plymouth, England; German Atlantic Expedition of the *Meteor,* Institut für Meereskunde, Berlin, Germany; British Admiralty, London; Carlsberg Laboratorium, Bureau International pour l'exploration de la Mer, and Laboratoire Hydrographique, Copenhagen, Denmark, and many others. Dr. H. U. Sverdrup, of the Geophysical Institute at Bergen, Norway, research associate of the Carnegie Institution of Washington, is consulting oceanographer and physicist.

J. A. FLEMING

DEPARTMENT OF TERRESTRIAL MAGNETISM,
CARNEGIE INSTITUTION OF WASHINGTON

HARRIS HAWTHORNE WILDER

DR. H. H. WILDER, professor of zoology in Smith College since 1892, died suddenly in Northampton, Monday afternoon, February 27, 1928.

Dr. Wilder was born in Bangor, Maine, April 7, 1864, the son and only child of Solon Wilder, a musical director, and Sarah Smith Wilder, the daughter of a physician. In 1886 he graduated from Amherst College with the degree of A.B. He took the classical course in college, and the thorough grounding he received in Latin and Greek had an important influence upon his development as a scholar; the literary character of his scientific writings was throughout his life essentially scholarly. John M. Tyler was the professor of zoology at that time in Amherst, and his teaching and example were other powerful factors in the moulding of Wilder's tastes and habits of mind, in that they served to strengthen and develop a love for the natural sciences which had shown itself in him while still a young child and throughout his boyhood. After graduation he taught biology in one of the Chicago high schools for three years, and then, the impulse to make a special study of zoology and especially anatomy having become too strong to be longer resisted, he went abroad to pursue these subjects under Wiedersheim in the University of Freiburg. It was the beneficent influence of John Tyler, who had himself studied in Germany, which again became active in his interest and guided Wilder to Wiedersheim's laboratory.

His two-years' study-period with Wiedersheim and Weismann in Freiburg made a professional zoologist of Wilder, and gave him the technical and intellectual foundation and background of all his later work. He took the degree of Ph.D., *summa cum laude,* there in 1891. A mark of the breadth of his intellectual interests was the choice of medieval English as one of the minor subjects of his examination.

It was in Freiburg that Wilder's attention was first directed to anatomical studies in the Amphibia. This field of research was Wiedersheim's own special interest, in which he had first made his reputation as a comparative anatomist, and with his accustomed generosity towards his pupils he gave Wilder valuable material from his private collections for special study, while the latter was still a student under him.

The results of these researches were published in the *Zoologische Jahrbücher* in Wilder's first two papers, "Die Nasengegend von Menopoma," etc., and "A Contribution to the Anatomy of Siren lacertina." The skill with which he executed delicate dissections, his insight and often intuition in the interpretation of obscure anatomical structures, and the rare artistic talent shown in his drawings were all in evidence in these early productions. His interest in amphibian anatomy, thus auspiciously aroused, continued throughout his lifetime; his numerous contributions in this field of research and those of his colleagues