

traditionally associated with the institute's work. He was editor of the institute's *Journal*, and worked ceaselessly to improve its standards. He reorganized the institute's technique for the award of honors in such manner that a single Medal Day was designated for the year, on which occasion all the honors were bestowed. This act served to increase the importance and value of the occasion, and to create one day in the year when the institute has an opportunity to review its activities, cement acquaintanceship among its members and bring its works before the public eye.

Soon after McClenahan took up his duties at Philadelphia, the Mapes Dodge Lectures were founded. These lectures, which are given at Christmas, and are intended primarily for children, have come to be an annual event of a most pleasing, entertaining and instructive kind. In these lectures doubtless many a youth has received his first inspiration in the mysteries of science.

A man of McClenahan's background could not lose interest in scholastic affairs, even with the severance of his official relation with his old university; and Philadelphia found the benefit of his experience in his activities on the school board and as a member of the board of trustees of the University of Pennsylvania.

McClenahan married Bessie L. Lee, in 1899. He had three children, John Megredy, Richard Lee and Elizabeth Lee. During the last year of his life he suffered in health; and it is undoubtedly as a result of his untiring and enthusiastic devotion to the ideals of his work at The Franklin Institute that his end was hastened. Happily he lived to see the realization of those ideals and the creation of a monument, which will always remain in part a monument to his memory.

W. F. G. SWANN

HENRY BENJAMIN HEDRICK

DR. HENRY B. HEDRICK, astronomer and mathematician, died suddenly of a heart attack at his home in Washington, D. C., on October 6, 1936. Dr. Hedrick was born in Washington on July 22, 1865, and attended school there, taking his A.B. degree at Columbian College, now George Washington University, in 1886. In November of that year he was appointed to the staff of the Nautical Almanac Office in the Navy Department.

While in the Almanac Office, which became a part of the U. S. Naval Observatory organization after 1894, he assisted Professor Simon Newcomb in the preparation of his "Catalogue of Fundamental Stars," and was highly commended for the valuable assistance he gave that work. The major work of Dr. Hedrick, and the one most associated with his name, was a Catalogue of Zodiacal Stars. This had the distinction of being the only one of its kind to be adopted by all

national almanacs, and it has been used as a standard for over 30 years.

In 1910 Dr. Hedrick was called to Yale University to assist Professor E. W. Brown in preparing the "Tables of the Motion of the Moon," a monumental project upon which he was engaged for nine years. In the introduction to the Tables Professor Brown states: "He (Dr. Hedrick) has prepared and tested all calculations which were performed by others. Many of the devices which have been employed to simplify the use of the Tables are due to him, and no decisions have been made without frequent discussions in which his suggestions have given valuable aid. His familiarity with known methods of computation and ability to devise new ones have contributed in no small degree to such novel and useful features as the Tables may be found to possess."

While at Yale Dr. Hedrick received the degrees of A.M. and Ph.D. During the world war he acted as navigating officer in the Yale Naval Training Unit. He was elected to the honorary society of Sigma Xi in recognition of his scientific achievements.

Returning to Washington at the close of the war, he spent two years with the Department of Terrestrial Magnetism of the Carnegie Institution of Washington. In 1920 he became chief ballistician at the Army Proving Ground, Aberdeen, Maryland, where he prepared several volumes of ballistic tables. He retired in 1932.

Dr. Hedrick was the author of several mathematical tables, notably "Tables of Interpolation," published by the Carnegie Institution, and of many articles in *Monthly Notices* and the *Coast Artillery Journal*. He was a member of the American Association for the Advancement of Science, the American Astronomical Society, the Washington Philosophical Society, the Yale Club of Washington, the District of Columbia Chapter of the Sigma Xi and several civic and social organizations.

Dr. Hedrick was a scholar unassuming as to his achievements; a friend sincere and true; and a good man, of kindly disposition, appreciating the essentials of life.

He is survived by his widow, Hannah F. (Mace) Hedrick, who has been a member of the staff of the Nautical Almanac Office since 1894. They were married in 1896 and have a son and two daughters.

H. R. MORGAN

U. S. NAVAL OBSERVATORY

RECENT DEATHS

DR. STARR FORD, professor of medicine at the University of Cincinnati Medical College, died on November 17 at the age of seventy-one years.

MONTROSE W. HAYES, principal meteorologist and head of the River and Flood Division of the Weather

Bureau since 1929, died on November 16 at the age of sixty-two years. Mr. Hayes was one of the organizers of the hurricane warning service in the West Indies and of the national weather forecasting service in Argentina.

DR. H. R. BRITON-JONES, professor of mycology and dean of the college at the Imperial College of Tropical

Agriculture since April, 1926, died at Trinidad on November 4.

DR. C. H. SAMPSON, principal of Brasenose College, Oxford University, died on November 5 at the age of seventy-seven years. Dr. Sampson was appointed senior tutor at the college in 1894. He became principal in 1920.

SCIENTIFIC EVENTS

RESEARCH FOUNDATION OF THE OHIO STATE UNIVERSITY

ORGANIZATION of the Ohio State University Research Foundation was announced on November 3 as incorporation articles were filed in the office of Secretary of State George S. Myers. The incorporators are:

Charles F. Kettering, Dayton, president of General Motors Research Corporation.

James F. Lincoln, Cleveland, president of Lincoln Electric Company.

Charles E. MacQuigg, metallurgical engineer and manager of the Union Carbide and Carbon Research Laboratories, Long Island City, N. Y.

Julius F. Stone, chairman of the university's board of trustees, a Columbus industrialist.

Charles F. Michael, Bucyrus, president of Ohio Locomotive Crane Company and president of Ohio Manufacturers' Association.

Hurlbut S. Jacoby, director of industrial research at the Ohio State University since January 1, 1935, is named as the corporation's agent.

Articles of incorporation set forth that the corporation is not for profit, and it is added that none of the incorporators and those to be announced later as "members" of the corporation will receive remuneration in the form of royalties or other compensation resulting from the foundation's activities.

Mr. Jacoby has made the following statement:

The basic objective of the foundation is to provide an instrument with which the university can work in closer relationship with industries, especially those of Ohio, in solving their research problems.

Existing university research agencies, such as the Engineering Experiment Station, have been doing important work, and they will continue to do so. But many of the problems of industrial research to-day overflow into scientific areas outside the field of engineering proper.

It is believed and hoped that the proposed research foundation, through cooperative arrangements with concerns wanting research done and the revenues secured in this way, will be able to assist also in types of research other than industrial.

So-called "pure research" in chemistry and physics,

for instance, may bring discoveries not immediately useful to industry but of greatest importance a little later.

The organization rests upon five classes of membership, each class choosing three directors. The 15 directors will be the managing group, responsible for the progress of the foundation and its work. The five classes are:

1. Industrial counsellors, 10 to be selected from the membership of Ohio industrial organizations, such as the Ohio Manufacturers' Association.

2. National counsellors, 10 to be selected from membership of the American Engineering Council and the National Research Council.

3. Alumni members, 10 to be selected from the ranks of Ohio State graduates manifesting particular interest in research and who have attained distinction in that field.

4. Trustee members, the seven university trustees as individuals being members *ex officio*.

5. Research members, including *ex officio* these persons having to do with research at the university or in closely allied agencies; deans of all colleges; director of the Engineering Experiment Station; director of the Bureau of Educational Research, director of the Bureau of Business Research, director of the Ohio Agricultural Experiment Station at Wooster, director of the Franz Theodore Stone Laboratory on Gibraltar Island, Lake Erie.

The first annual Industrial Research Conference at the university was held on November 6. The speakers included Charles F. Michael, president of the Ohio Manufacturers' Association; David E. Ross, of the Purdue University Research Foundation; J. L. Morrill, vice-president of the university; James Hurlbut Jacoby, director of industrial research, the Ohio State University, and Julius F. Stone, chairman of the board of trustees. At the banquet in the evening the principal speakers were: Dr. Charles F. Kettering, of the General Motors Company, and Dr. George W. Rightmire, president of the university.

COAL RESEARCH

A GROUP of technical men drawn chiefly from the coal and railroad industries will meet at the Carnegie Institute of Technology on December 3 to hear mem-