

five years. Even greater was the labor of identifying and arranging the entries, and of preparing and issuing the nine volumes of the *Harvard Annals* that contain the catalogue. Pickering, who found in the *Henry Draper Catalogue* the culmination of his work as director of the *Harvard Observatory*, lived to see the publication only of the first three volumes; the completion of the remaining six fell largely upon Miss Cannon. The nine volumes were issued between 1918 and 1924. They are Miss Cannon's greatest legacy to science.

When the ninth volume of the catalogue was issued, Miss Cannon was sixty years old, and many men and women might have felt justified in thinking that their life-work had been completed. But with the astonishing vitality that marked all her actions, she at once embarked on the even more laborious and exacting task of classifying the spectra of yet fainter stars. This work led to the completion of a number of successive sections of the "*Henry Draper Extension*," less known, perhaps, than the great catalogue, but not less significant, for they contained intensive studies of stellar regions of particular interest. The program that she had undertaken was of heroic proportions, and she worked upon it, without intermission, until a few weeks before her death. In addition to the studies of stellar spectra published at *Harvard*, Miss Cannon was never too busy to carry out the classification of stars for other investigators, whether it involved looking up a puzzling star for a colleague, or the classification of all accessible stars in the *Yale Zone Catalogue* or the *Cape Zone Catalogue*, for publication in those volumes.

Had Miss Cannon never worked in stellar spectroscopy, she would still have put the astronomical world greatly in her debt by her early studies of variable stars. Her first years at the *Observatory* coincided with the first outburst of the photographic study of stellar variability—a study that has gone far to transform astronomy. The astronomical literature of the first two decades of the present century bears witness to her important contributions to the study of variable stars. She never lost touch with the subject; and her complete catalogue of all papers relating to variable stars, always kept up to date, has been of immeasurable value to her colleagues.

A bibliography of Miss Cannon's scientific work would be exceedingly long, but it would be far easier to compile one than to presume to say how great has been the influence of her researches in astronomy. For there is scarcely a living astronomer who can remember the time when Miss Cannon was not an authoritative figure. It is nearly impossible for us to imagine the astronomical world without her. Of late years she has been not only a vital, living person; she has been an institution. Already in our schooldays

she was a legend. The scientific world has lost something besides a great scientist.

During the past twenty years, Miss Cannon was the subject of many academic honors, which she received with genuine and infectious pleasure. Honorary degrees were conferred on her by the *University of Delaware*, the *University of Groningen* (Holland), *Wellesley College*, *Oxford University* (England), *Oglethorpe University* and *Mount Holyoke College*. In 1931 she was awarded the coveted *Draper Medal* of the *National Academy of Sciences*, and in 1932, the *Ellen Richards* research prize.

A life of such distinction could not but be reflected in the furtherance of the education of women. Miss Cannon herself took pleasure in this result, and several younger generations of women scientists have owed much to her kindness, help and encouragement.

As it would be an impertinence to presume to say how great a loss the scientific world has sustained, it would be an impossibility to measure the personal loss that has befallen Miss Cannon's human friends. To them she was not the great scientist; she did not bore them by talking about stellar spectra. She was a human being, and as such they loved her—they, and their children and their grandchildren. Perhaps the greatest tribute that I can pay to her memory is to say that she was the happiest person I have ever known.

CECILIA PAYNE GAPOSCHKIN

RECENT DEATHS AND MEMORIALS

DR. JOSEPH ELLIS TREVOR, since 1934 professor emeritus of thermodynamics at *Cornell University*, died on May 4. He was seventy-six years old.

DR. MORTON GITHENS LLOYD, since 1917 principal engineer and chief of the *Safety Codes Section* of the *National Bureau of Standards*, died on April 26 at the age of sixty-seven years.

ELIZABETH FLORETTE FISHER, professor of geology and geography at *Wellesley College*, who until her retirement with the title emeritus in 1926 had been connected with the college for thirty-two years, died on April 25 at the age of sixty-eight years.

DR. FAREL LOUIS JOUARD, otolaryngologist of the *New York Ophthalmic Hospital*, died on April 27 at the age of fifty-seven years.

DR. HAROLD LYNWOOD WARWICK, practising aurist of *Fort Worth, Texas*, died on April 28 at the age of sixty-three years.

DR. ARTHUR LAPWORTH, since 1935 emeritus professor of chemistry at the *University of Manchester*, died on April 5.

DR. JOHN SMYTH MACDONALD, emeritus professor

of physiology at the University of Liverpool since 1932, died on March 29 at the age of seventy-three years.

DR. WALTHER VOGT, professor of anatomy in the University of Munich, died on March 17. He was noted for his important work on the embryology of the Amphibia, particularly for the use of vital-strain markers in tracing the movements of cells during development.

A PORTRAIT of the late Professor Edward B. Titchener, formerly professor of psychology at Cornell University, has been hung in the Laboratory of Psychology, which he founded. The portrait was painted

by Professor Christian Midjo and was presented to the university by Mrs. Titchener.

THE American Pharmaceutical Association accepted on May 3 a bronze statue of William Procter, Jr., one of the earliest teachers of pharmacy in the United States, from James E. Hancock, chairman of the committee. The date of the unveiling is the hundred and thirty-fourth anniversary of Procter's birth. The exercises were held in the foyer of the American Institute of Pharmacy, Washington, D. C. Dr. Ivor Griffith, president of the Philadelphia College of Pharmacy and Science, where Procter taught, delivered the principal address. Charles H. Evans, president of the American Pharmaceutical Association, accepted the statue.

SCIENTIFIC EVENTS

AIR-RAID DAMAGE TO THE LABORATORY AT PLYMOUTH OF THE MARINE BIOLOGICAL ASSOCIATION¹

DURING the recent air-raids on Plymouth, the Laboratory of the Marine Biological Association suffered severely. The buildings, though still standing, have sustained heavy damage. All windows except a few on the south side of the top floor of the main building have gone; ceilings are down, doors wrenched off, and much structural damage caused by the blast. The director's house was completely burnt out. The library, very fortunately, is intact except for the loss of windows and the skylight, and it has now been made waterproof. At the eastern end of the north building damage is most severe, but the greater part of the equipment and apparatus is intact. The Easter-class house will no doubt have to be rebuilt, but most of the roof remains. Other outbuildings, including the dogfish house, director's garage and stores, and the constant temperature rooms, have all sustained damage. The exact extent of the structural damage to the buildings can not be determined without expert assistance, but it is hoped that the laboratories themselves can be restored. The tanks on the north side of the Aquarium burst and the supply pipes broke, but it is hoped that some part of the circulation may be restored before very long.

It will evidently be a long time before permanent repairs can be undertaken. Since materials for urgent work are extremely short, the cellotex sheeting on the first and second floors of the main laboratory is being taken down and used to replace windows. It is hoped to fit a small glass pane in each room, and if the cellotex is well painted, it is expected to remain weatherproof for a year or two. In a few weeks it may be possible to accommodate research workers who require only limited facilities, but this must de-

pend largely upon the restoration of electricity and water supplies. There is no difficulty concerning general administration, as most documents have been salvaged. For the time being it will not be possible to supply orders for specimens, but it is hoped that in the course of a few weeks some of the normal facilities will be available.

THE INSTITUTE OF PHARMACY OF THE UNIVERSITY OF WISCONSIN

AN American Institute of the History of Pharmacy has been established at the University of Wisconsin. It is planned that it shall be a center for all pharmaceutico-historical information and work by both North and South America. It will be directed by Dr. George Urdang, who came to the United States in 1938 and who has been connected with the university since July, 1939. Dr. Urdang was formerly director of the German Society of the History of Pharmacy, and was the founder of the International Society of the History of Pharmacy. Among the founders of the institute are Dr. Edward Kremers, director emeritus of the School of Pharmacy of the university; Dr. Louis W. Busse and Dr. Lloyd McC. Parks, both members of the faculty; Jennings Murphy, Milwaukee, secretary of the Wisconsin Pharmaceutical Association, and Dr. Arthur H. Uhl, director of the department.

In addition to the director of the institute, Dr. Urdang, Dr. Uhl is president and Mr. Murphy is secretary-treasurer. The vice-presidents are Dr. B. V. Christensen, dean of the School of Pharmacy at the Ohio State University; Dr. Rufus A. Lyman, of the department of pharmacy at the University of Nebraska, and Dr. J. Leon Lascoff, pharmacist of New York.

Members of the council include Oscar Rennebohm, Madison, president of the State Board of Pharmacy; Dr. Edward J. Ireland, professor of pharmacy at Loyola University; Conrado F. Asenjo, research

¹ From *Nature*.