

### HARVEY CUSHING'S SEVENTIETH BIRTHDAY

DR. HARVEY CUSHING's seventieth birthday on April 8, to which brief notice was given in these columns two weeks ago, is an event in American medicine of more than passing significance. Without fear of contradiction the *New England Journal of Medicine* at the time of his birthday referred to Dr. Cushing as the greatest figure that America has produced in medicine. His importance lies, not only in the fact that he has created a new field of surgery, but in his having established a school of surgery with ideals and traditions that have influenced the course of medicine in every civilized country. No other American physician in the annals of our history—not even Welch—has attracted so large a group of foreign pupils, and the altogether spontaneous outpouring which came on April 8 from his pupils and admirers in every corner of the world bears outspoken testimony to his enormous influence.

It devolved upon the Harvey Cushing Society, which elected to hold its eighth annual meeting in New Haven (April 6 to 8), to arrange the birthday party. In view of Dr. Cushing's well-known abhorrence of pomp and circumstance, the society insisted upon having a small family party restricted to its membership, one invited guest for each member, and several guest speakers. The society's usual program of papers was read on Thursday and Friday, April 6 and 7; on Friday evening, Dr. J. F. Fulton gave an account of his trip by clipper to the southern Philippines in search of *Tarsius* monkeys, and on Saturday morning operations, clinics and experimental demonstrations were presented before the society. The birthday banquet took place on Saturday evening. Dr. Louise Eisenhardt, president of the society for 1939, was in the chair and opened the exercises by reading an amusing letter just received from President Roosevelt. The other speakers included: Dean Stanhope Bayne-Jones, of the Yale School of Medicine; Dr. W. W. Francis, protobibliothecary of the Osler Library and nephew of the late Sir William Osler; A. M. Muirhead, bibliographer and author of the life of Lady Osler, brought greetings from the British Empire and from the Osler Club of London; Dr. Olof Sjöqvist, of Stockholm, who presented a Swedish *festskrift* to Dr. Cushing; Dr. J. F. Fulton, who read extracts from among more than five hundred letters and telegrams received by Dr. Cushing

during the day; Dr. W. J. German, who read two letters from among some hundred and twenty received from patients from whom Dr. Cushing had removed meningiomas of the brain, and finally, Dr. Arnold C. Klebs, of Nyon, Switzerland, who came from Europe for the banquet and returned immediately after it was over.

Dr. Louise Eisenhardt then presented the society's gift to Dr. Cushing, which consisted of a specially bound copy of an annotated bibliography of all Dr. Cushing's writings. The bibliography had been prepared by the society as a surprise. Dr. Cushing then responded to the various tributes. His loyal operating room orderly, Adolph, was present at a suitable moment to mop his brow as in the old days in the operating theater.

There were four printed volumes issued in connection with Dr. Cushing's birthday:

1. A *festskrift* from Scandinavian neurologists and neurosurgeons containing 25 papers—all but two in English—issued under the editorship of Professor Herbert Olivecrona of Stockholm as a supplementary volume of *Acta Chirurgica Scandinavica*, 1939, vol. 82, 99–363.

2. A special number of the *British Journal of Surgery* dedicated to Dr. Cushing, containing a detailed report by Mr. William Henderson of the end-results of all Dr. Cushing's operations for pituitary adenomas. The title is as follows: "The pituitary adenomata. A follow-up study of the surgical results in 338 cases (Dr. Harvey Cushing's series)." *British Journal of Surgery*, 1939, vol. 26, pp. 809–921.

3. A special number of the *Yale Journal of Biology and Medicine* containing all the papers read at the meeting and designated "The Cushing Anniversary Volume." It includes 26 papers.

4. An annotated bibliography of all Dr. Cushing's writings, issued by the Harvey Cushing Society. The volume was designed by Mr. Carl P. Rollins, printer, of Yale University, published by Mr. Charles C Thomas, who had issued four of Dr. Cushing's previous monographs, and printed by the George Banta Publishing Company. The title is as follows: "A Bibliography of the Writings of Harvey Cushing Prepared on the Occasion of His Seventieth Birthday, April 8, 1939," by The Harvey Cushing Society, Springfield, Ill., Charles C Thomas, 1939, xvi, 110 pp.

The speeches and extracts from letters and cables will presently be issued as a separate brochure by Mr. Charles C Thomas.

J. F. F.

## SCIENTIFIC NOTES AND NEWS

DR. E. D. MERRILL, director of the Arnold Arboretum and administrator of the Botanical Collections of Harvard University, has been awarded the Linnean Gold Medal, given annually by the Linnean Society of London "to an eminent biologist as an expression of

the society's estimate of his services to science." He has also received through the State Department the gold medal of the Ministry of Agriculture of the French Republic and the corresponding diploma of the Société nationale d'acclimatation de France. These

were conferred "in appreciation of services to French horticulture" at a session of the society held at the Museum of Natural History, Paris, in March.

THE Clement Cleveland Medal for "Distinguished Service to Public Education on Cancer" was presented to Mlle. Eve Curie, daughter and biographer of the late Mme. Marie Curie, at a dinner held on April 18 in the Cosmopolitan Club, New York City. Dr. Francis Carter Wood presented the medal, which was established in 1937 by Mrs. Robert G. Mead in memory of her father, a pioneer of the movement to educate the public in the importance of early diagnosis and prompt treatment of cancer.

DR. ALEXIS CARREL, member of the Rockefeller Institute for Medical Research, was presented on April 13 with the Service Medal of the Rotary Club of New York, "in recognition of a life dedicated to the amelioration of human suffering."

THE Joseph A. Capps Prize in medical research of \$400 of the Institute of Medicine of Chicago has been awarded for 1938 to Broda O. Barnes, who graduated from Rush Medical College in 1937, for his paper on "Observations on the Adreno-Genital Syndrome." The prize, founded by the late Dr. Edwin R. LeCount, is awarded annually for the most meritorious investigation in medicine completed by a graduate of a recognized medical school in Chicago within two years after the completion of an internship or of one year of laboratory work.

DR. DAVID SARNOFF, president of the Radio Corporation of America, was among those who received a scroll of honor on April 19 from the National Institute of Immigrant Welfare. The award is given to "distinguished citizens of foreign birth who have made significant contributions to American life."

THE Mittag-Leffler Institute Gold Medal of the Mathematical Institute at Stockholm has been awarded to M. Émile Picard, professor of mathematics in the University of Paris and permanent secretary of the Academy for Mathematical Sciences, Paris.

MAJOR R. LIGHTFOOT, director of the Geological Survey of Southern Rhodesia, has been elected president of the Geological Society of South Africa.

M. BERNARD LYOT, of the Meudon Observatory, has been elected a member of the Section of Astronomy of the Paris Academy of Sciences in succession to the late A. de La Baume Pluvinel.

COLUMBIA UNIVERSITY has conferred the title of professor emeritus in residence on Dr. Charles P. Berkey, geology; Dr. Marston T. Bogert, organic chemistry; Dr. Gary N. Calkins, protozoology; Dr. Bergen Davis, physics, and Dr. Frederick J. E. Woodbridge, philosophy. The title of professor emeritus

has been conferred on Dr. Daniel D. Jackson, chemical engineering; Dr. Robert Lewis, otolaryngology; Dr. Herbert B. Wilcox, diseases of children; and Dr. Francis Carter Wood, director of the Institute of Cancer Research.

OID WALLACE ESHBACH, of the New York office of the American Telephone and Telegraph Company, has been appointed dean of the new Institute of Technology at Northwestern University. He will take up the work at once. The institute will be established under a grant of \$6,735,000 from the Walter P. Murphy Foundation of Chicago. It will open in the autumn term of 1940 and will include departments of chemical, civil, mechanical and electrical engineering. It will be conducted on the cooperative plan.

DR. MICHAEL J. ZIGLER has been promoted to a professorship of psychology and Margaret Parker to a professorship of geology and geography at Wellesley College.

DR. ROBERTS RUGH, instructor in zoology at Hunter College, has been appointed associate professor of biology in the Graduate School of New York University.

THE trustees of the Anatomical Journal Trust, the Minot Memorial Fund, have appointed Professor Philip E. Smith, of Columbia University, to be a trustee in place of the late Charles R. Stockard. The other trustees are Professors Bradley M. Patten, University of Michigan, and George W. Corner, University of Rochester. The latter will act as chairman.

DR. CARL J. WIGGERS, professor of physiology of Western Reserve University School of Medicine, has been awarded \$4,100 from the John and Mary Markel Foundation. The grant is for a study of the nature of ventricular fibrillation by means of desensitizing the heart.

SIR WILLIAM BRAGG, president of the Royal Society and director of the Davy Faraday Laboratory of the Royal Institution of Great Britain, will speak at Bryn Mawr College on May 4. His subject will be "The Structure of Organic Crystals."

THE fourth Hughlings Jackson Memorial Lecture of the Montreal Neurological Institute was given on April 19 by Dr. Walter B. Cannon, George Higginson professor of physiology at Harvard University. The title of the lecture was "The Law of Denervation." Following the lecture a specially bound copy of the "Selected Writings of John Hughlings Jackson," edited by James Taylor, was presented to Dr. Cannon.

DR. ARTHUR H. COMPTON, professor of physics at the University of Chicago, on April 11 gave a lecture on "Cosmic Rays" before the Society of the Sigma Xi at the Kansas State College, Manhattan. The lecture

was a part of the initiation exercises at which twenty-six new members were received.

DR. CARL D. ANDERSON, associate professor of physics at the California Institute of Technology, addressed the Iowa State College Chapter of Sigma Xi on March 30. His subject was "Cosmic Rays and a New Elementary Particle of Matter."

PROFESSOR G. H. PARKER, of Harvard University, lectured on "Modern Views on the Action of the Nervous System" before the ninth annual Connecticut Valley Student Scientific Conference held at Williamstown, Mass., on April 15.

DR. EARNEST ALBERT HOOTON, professor of anthropology at Harvard University, gave in April a series of four lectures before the Wagner Free Institute of Science, Philadelphia, on "The Making and Mixing of Human Races."

THE seventh series of Thomas William Salmon Memorial Lectures was given by Dr. Edward A. Strecker, chairman of the department of psychiatry of the School of Medicine of the University of Pennsylvania, at the New York Academy of Medicine on April 14, 21 and 28. Dr. Strecker's general subject was "Beyond Clinical Frontiers." The individual titles of the lectures were: "The Massive Retreat from Reality"; "Crowd-Mindedness" and "Threat to Our Culture."

PROFESSOR ANTON J. CARLSON, of the Department of Physiology of the University of Chicago, made an address before the Academy of Medicine of Washington, D. C., on April 24, on "Science and the Common Life." He spoke before the Smith-Reed-Russell Society, honorary organization at the George Washington University School of Medicine, on the following day, when his address was entitled "Notes on Medical Education and Medical and Public Health Services in Russia and China."

THE fourth Leo Loeb lecture under the annual lectureship established by the Mu Chapter of the Phi Beta Pi medical fraternity was delivered on April 20 by Professor Soma Weiss, of the Harvard Medical School. The title of the lecture was "Vasomotor Reactions and Circulatory Collapse."

THE American Ophthalmological Society will celebrate its seventy-fifth anniversary on June 7. This is the first society in the United States to be devoted exclusively to ophthalmology.

THE annual Congress of the Society for British Entomology will be held in the Manchester Museum and the University of Manchester from July 15 to 17, under the presidency of Professor W. A. F. Balfour-Browne.

It is stated in *Nature* that the thirty-seventh annual meeting of the South African Association for the Ad-

vancement of Science will be held in East London from July 3 to 8, under the presidency of Professor G. H. Stanley. The British Association Medal for 1938 will be awarded to Miss Jean Murray, of the Division of Plant Industry, Pretoria, for her paper entitled "An Investigation of the Inter-relationship of Vegetation, Soils and Termites." A symposium on "The Need for the Investigation and Conservation of Human Resources in South Africa" is being organized by Dr. E. G. Malherbe, director of the National Bureau of Education and Social Research, Pretoria. Further information can be obtained from the assistant general secretary, H. A. G. Jeffreys, P. O. Box 6894, Johannesburg.

THE sixth International Technical and Chemical Congress of Agricultural Industries will be held in Budapest from July 10 to 20 under the patronage of the Regent of the Kingdom of Hungary. Three divisions have been arranged—(1) general, scientific and industrial studies, with sections of biology, analytical methods and apparatus, agronomy and research in the creation of new agricultural industries; (2) specific industries, including sugar, fermentation, foods, tropical industries and substitutes, and (3) economic studies, legislation and international agreements.

APPLICATIONS for grants from the Cyrus M. Warren Fund of the American Academy of Arts and Sciences should be received by the chairman of the committee, Professor James F. Norris, Massachusetts Institute of Technology, Cambridge, not later than May 15. Grants are made to assist research in the field of chemistry. On account of limited resources, grants to an individual are seldom made in excess of \$300. The application should be accompanied by an account of the research to be undertaken, a statement of the sum requested and the manner in which the money is to be expended.

TWELVE fellowships in the medical sciences, including three renewals, for study in the United States and abroad during the year 1939-40, were awarded at the February meeting of the Medical Fellowship Board of the National Research Council, Washington, D. C., of which Dr. Francis G. Blake, Sterling professor of medicine at Yale University, is the chairman. A list of the successful candidates and institutions where they are to work follows: Philip P. Cohen (renewal), University of Sheffield, England; Thomas Harrison Davies (renewal), California Institute of Technology; Victor M. Emmel, Yale University Medical School; Alto E. Feller, the Harvard Medical School; Arden Howell, Duke University; Fremont Ellis Kelsey, University of Pittsburgh; Abe Ravin, the Harvard Medical School; Joseph Shack, the Johns Hopkins University; William M. Wallace, the Harvard Medical School; Wilfred W. Westerfeld (renewal), Eidgenössische Technische Hochschule, Zurich, Swit-

zerland; Richard Winzler, University of Stockholm; William Barry Wood, Jr., the Harvard Medical School.

THE University of Alabama Chapter of the Society of the Sigma Xi was installed on April 4. Dr. Edward Ellery, national secretary of Sigma Xi, gave an address on "The Urge to Know and Academic Freedom," at a special morning convocation. Dr. George A. Baitsell, national president, gave a lecture on "Uniformity in Nature" immediately after the banquet. During the formal installation exercises, the following were elected as officers of the new chapter: *President*, Dr. Emmett B. Carmichael, professor of physiological chemistry; *Vice-president*, Dr. J. D. Mancill, assistant professor of mathematics; *Secretary*, Dr. E. F. Richards, assistant professor of geology, and *Treasurer*, B. W. Gandrud, metallurgist, U. S. Bureau of Mines, Southern Experiment Station, Tuscaloosa.

THE Graduate Science Club of Stanford University was installed as a chapter of Gamma Alpha Graduate Scientific Fraternity on April 14 at the Stanford Union. Dr. Carleton F. Scofield, the national president of Gamma Alpha, was the installing officer. In the evening there was an installation banquet at which many distinguished guests were present.

SIR FREDERICK BANTING has been appointed by the Associate Commission on Medical Research, which is financed by the National Research Council of Canada, to investigate medical research facilities in all parts of Canada. He has completed a survey of the maritime provinces and is expected to report to the associate commission the results of his work this year. The survey was made possible by the aid of the Canadian Medical Association and the Royal College of Physicians and Surgeons of Canada. During the survey of western Canada, Sir Frederick will visit the Univer-

sity of Manitoba, the University of Saskatchewan, the University of Alberta and the University of British Columbia. On his return to eastern Canada, he will consult with Calgary and Regina hospitals and Brandon College authorities.

IN compliance with the requirements of a gift under the will of the late Francis Amory, of Beverly, Massachusetts, the American Academy of Arts and Sciences announces the offer of a septennial prize for outstanding work with reference to the alleviation or cure of diseases affecting the human genital organs, to be known as the Francis Amory Septennial Prize. The prize may be awarded to any individual or individuals for work of "extraordinary or exceptional merit" in this field. In case there is work of a quality to warrant it, the first award, which will exceed ten thousand dollars, will be made in 1940. It may be given in one or more awards. Requests for further information should be addressed to the Amory Fund Committee, care of the American Academy of Arts and Sciences, 28 Newbury Street, Boston, Massachusetts.

THE Dazian Foundation for Medical Research recently began to function. In accordance with the will of Henry Dazian, the foundation is prepared to award fellowships to individuals holding the degree of doctor of medicine, for the purpose of post-graduate study and research, and grants to laboratories, hospitals and similar institutions, for research in medicine. Applications and inquiries should be directed to the Secretary, 180 East 64th Street, New York, N. Y. Members of the board of directors are: Alexis Carrel, William W. Cohen, treasurer; Philip Finkle, secretary; Emil Friedlander, assistant secretary and treasurer; Emanuel Libman, president; Harrison, S. Martland, Alfred L. Rose, Israel Strauss, vice-president, and Harold Williams.

## DISCUSSION

### ON THE PATH OF THE FIREFLY WHILE PERIODICALLY FLASHING<sup>1</sup>

A GREAT deal has been written on the life history of the fire-fly, and many, including physicists and chemists, have speculated on the efficient light that these small insects can turn on and off at will. It is not the writer's intention to say anything regarding the former, since he is not a zoologist, or anything regarding the chemical and physical aspects in the production of the light, but he does wish to call attention to one of the firefly's instinctive qualities, namely, to its path in flight while periodically flashing. A fairly complete search through the literature for discussions on this point has been made without much success.

<sup>1</sup> Read before the Zoological Section of the Illinois State Academy of Science, May, 1938, and to be printed in the forthcoming *Transactions* of the academy.

The writer was reared on a farm in the "Big Woods" of northwestern Ohio at a time when nature there was still in its unspoiled state, for three fourths of the area was forest. He remembers as a boy a field of about ten acres, recently cleared, lying along side of the road and adjacent to his father's place. We often drove along this road at dusk and with wonderment observed the myriads of fireflies moving about over this newly cleared, but not yet broken, field. The soil conditions, the humidity, the decaying stumps and new undergrowth must have been favorable for their existence and propagation. It was in this field that the writer first observed the actual path that the firefly traces in flight while flashing periodically. He has observed this same characteristic path down through the years, and only last summer checked it again. It