who closed the program, there was not an instant when the audience did not give rapt attention. Not only was the applause in honor of the society, but it expressed the affection and admiration of all physiologists for four of the greatest scientists and characters that America has produced: Howell, Porter, Cannon and Carlson.

The semi-centennial meeting was the largest in the history of the society. It was fittingly held at Baltimore, where worked Dr. Martin, perhaps the most active of the three founders in details of its organization.

A history of the American Physiological Society from 1887 to 1937 was one of the undertakings sponsored by the semi-centennial committee. The first twenty-five years of this story has been written by Dr. Howell, an original member, an early president and one long associated with the actual workings of the society. To Dr. Charles W. Greene, long an efficient secretary and recently president, has fallen the lot to write of the period of growth which has taken place in the last twenty-five years. The history will contain the speeches made at the banquet. It will be distributed to all members during April or early May of the present year.

At the end of fifty years the American Physiological Society is more active and prosperous than ever in its history. Its achievements have been due to the

THE first civic achievement medal of the Rochester, N. Y., Municipal Museum Commission was awarded on April 12 to Professor Herman LeRoy Fairchild, professor emeritus of geology at the University of Rochester. Professor Fairchild will celebrate his eighty-eighth birthday on April 29.

THE Philadelphia County Medical Society on April 13 presented to Dr. Leonard G. Rowntree, director of the Philadelphia Institute for Medical Research of the Philadelphia General Hospital, the Dr. I. P. Strittmatter medal, awarded for "meritorious service redounding to the credit of the medical profession." The presentation of the medal and of the accompanying scroll was made by Dr. Basil R. Beltran, chairman of the award committee. Dr. Strittmatter, who founded the medal in 1923 with an endowment of \$5,000, died on April 14.

THE William Wood Gerhard gold medal of the Pathological Society of Philadelphia was presented on April 14 to Dr. Warren Harmon Lewis, professor of physiological anatomy at the Johns Hopkins Medical School and research associate of the Carnegie Institution, and to Dr. Margaret R. Lewis, research Vol. 87, No. 2260

spirit of its founders and the true devotion to physiological investigation as exemplified by its members.

WALTER J. MEEK Chairman of the Semi-centennial Committee

> A. C. Ivy Secretary of the American Physiological Society

RECENT DEATHS

DR. LAUNCELOT W. ANDREWS, research and consulting chemist, formerly professor of chemistry at the Iowa State University and the Iowa State College of Agriculture, died on April 14 at the age of eighty-one years.

DR. H. S. MINER, since 1888 chemist of the Welsbach Company at Gloucester City, N. J., died on April 14. He was in his seventy-fourth year.

PROFESSOR J. E. JOHANSSON, for many years professor of physiology at the Caroline Institute in Stockholm, died on March 31 at the age of seventy-six years.

PROFESSOR JOHANNES W. THIENEMANN, member of the Kaiser Wilhelm Society and curator of the Zoological Institute of the University of Königsberg, founder and formerly director of the aviary at Rossitten in East Prussia, known for his studies of the migration of birds, died on April 13 at the age of seventy-five years.

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associate of the Carnegie Institution. Dr. and Mrs. Lewis will deliver the annual conversational lectures on "Cultural and Cytological Characteristics of Normal and Malignant Cells." The Gerhard award was established in 1925. Its first recipient was the late Dr. William H. Welch.

AT the recent meeting of the Society of Experimental Psychologists, held at the University of North Carolina, the third annual award of the Howard Crosby Warren medal was made to Professor Elmer A. Culler, of the University of Illinois, "for his work on the fundamental mechanisms of hearing and on the physiological basis of the conditioned reflex."

AT a meeting of the Metropolitan Section of the Society of Automotive Engineers, Richard V. Rhode, of Langley Field, Va., an engineer with the National Advisory Committee on Aeronautics, was awarded on April 12 the Wright Brothers Medal, in recognition of his paper entitled "Gust Loads on Airplanes." The medal was presented at a dinner of the society after a tour had been made of the Wright Aeronautical Corporation plant at Paterson, N. J. Dr. Stephen J. Zand made the presentation. APRIL 22, 1938

C. B. THORNE, vice-president of the Canadian International Paper Co., has been awarded the gold medal of the Technical Association of the Pulp and Paper Industry for 1938 for "technical leadership, invention, and engineering research."

THE Council of the Royal Agricultural Society of Great Britain has awarded the society's gold medal for distinguished services to agriculture to Sir Merrik Burrell. Sir Merrik was president of the Royal Agricultural Society and chairman of the Council of Agriculture for England in 1936, and is chairman of the Agricultural Committee of the County Councils' Association. As chairman of the governors of the Royal Veterinary College he has been largely responsible for the rebuilding of the college.

Nature reports that Professor Camille Gutton, of the Ecole nationale supérieure de l'Aéronautique and the Ecole professionnelle supérieure des Postes et Télégraphes, Paris, has been elected a free academician of the Paris Academy of Sciences, in succession to the late Paul Janet.

DURING the week beginning April 18 at the Peter Bent Brigham Hospital in Boston, Dr. Emil Goetsch, first resident surgeon, now professor of surgery at the Long Island Medical College, and Dr. Francis G. Blake, first of now living resident physicians, at present Sterling professor of medicine at Yale University, served, respectively, as surgeon-in-chief, pro tempore, and physician-in-chief, pro tempore.

DR. L. H. ADAMS, since 1910 physical chemist at the Geophysical Laboratory of the Carnegie Institution of Washington, has been appointed director of the laboratory, to succeed Dr. Arthur L. Day, who retired in 1936 after serving for thirty years.

AT the University of Rochester, Dr. W. A. Noyes, Jr., of Brown University, has been appointed professor of physical chemistry. Dr. A. B. F. Duncan, also of Brown University, has been appointed assistant professor. An equipment fund adequate to initiate research in electrochemistry, discharge through gases, vapor pressures, thermal reactions and photochemistry; an annual appropriation for research, and funds to sustain seven or eight fellowships have been provided by the university. Dr. Howard S. Gardner, of the School of Chemical Engineering Practice of the Massachusetts Institute of Technology at the Eastern Manufacturing Company, Bangor, Maine, has been made head of the department of chemical engineering.

NEW appointments at the University of Alabama School of Medicine include the following: Professor of anatomy, Dr. Charles Mayo Goss, now associate professor of anatomy at the College of Physicians and Surgeons of Columbia University, to succeed Dr. Philip B. Armstrong, who has been elected head of the department of anatomy of the School of Medicine at Syracuse University; assistant professor of bacteriology and pathology, Dr. Austin Louis Joyner, now assistant in bacteriology and pathology at the Rockefeller Institute for Medical Research, to succeed Dr. H. K. Fidler, who has accepted an appointment for July 1 in surgery at the Royal Victoria Hospital in Montreal; assistant professor of physiology and pharmacology, Dr. Stuart Anderson Peoples, now assistant professor of pharmacology at the University of Louisville School of Medicine, to succeed Dr. John H. Ferguson, who resigned last year to become assistant professor of pharmacology at Michigan; instructor in physiological chemistry and medicine and assistant on the University Student Health Service, Dr. Irl Richard Long, now resident in surgery at St. Luke's Hospital in St. Louis, to succeed Dr. B. M. Miller, who is going into practice at Columbia, South Carolina.

DEAN CHARLES H. WARREN, Sterling professor of geology and chairman of the department of geological sciences at the Sheffield Scientific School of Yale University, has been appointed master of Trumbull College. He succeeds Dr. S. Bayne-Jones, professor of bacteriology in the School of Medicine and dean of the school. Dr. Bayne-Jones has been master of Trumbull College since the college was first opened in 1933.

JAMES G. MCDONALD, of the editorial staff of *The New York Times*, has been elected president of the Brooklyn Institute of Arts and Sciences.

A. T. A. DOBSON, principal assistant secretary of the Ministry of Agriculture and Fisheries, Great Britain, has been appointed Fisheries secretary in succession to H. G. Maurice, who will retire from the public service on June 30.

Engineering and Industrial Chemistry states that Floyd Miller, assistant director of research, Esso Laboratories, Elizabeth, N. J., has been appointed chairman of the subcommittee on chemistry of the Insulation Committee of the National Research Council, succeeding Kenneth S. Wyatt, who is leaving the country but who will remain a member of the committee.

M. L. WILSON, under-secretary of agriculture, has been appointed chairman of the United States delegation to the meeting of the general assembly of the International Institute of Agriculture at Rome on May 23. Other members of the delegation are: Dr. A. G. Black, chief of the Bureau of Agricultural Economics of the Department of Agriculture; L. A. Wheeler, in charge, Foreign Agricultural Service Division, Bureau of Agricultural Economics; Dr. C. E. Kellogg, chief of the Soil Survey Division, Bureau of Chemistry and Soils, Department of Agriculture; Loyd V. Steere, agricultural attaché, Berlin; L. G. Michael, agricultural attaché, Belgrade; J. Clyde Marquis, American member of the Permanent Committee, International Institute of Agriculture, Rome; Dr. C. L. Stewart, professor of agricultural economics, University of Illinois, and Dr. John K. Galbraith, professor of economics at Harvard University. Alan S. Rogers, secretary of embassy at Rome, will be secretary of the delegation.

DR. S. A. MITCHELL, director of the Leander Mc-Cormick Observatory of the University of Virginia, gave the R. A. F. Penrose, Jr., Memorial Lecture on April 22 at the annual meeting of the American Philosophical Society. The lecture was entitled "With an Astronomer on an Eclipse Expedition."

THE James Arthur Lecture on the evolution of the human brain will be given at the American Museum of Natural History on May 5 at 8:15 P. M. by Dr. Franz Weidenreich, visiting professor of anatomy, Peiping Union Medical College, honorary director, Cenozoic Research Laboratory of the National Geological Survey of China. His subject will be "The Phylogenetic Development of the Hominid Brain and Its Connection with the Transformation of the Skull."

DR. OTIS W. CALDWELL, general secretary of the American Association for the Advancement of Science, was the principal speaker on April 15 and 16 at the second annual meeting of the southeastern biologists at the University of Georgia.

DR. G. E. M. JAUNCEY, professor of physics at Washington University, St. Louis, on April 5 gave an address on "The Vibrations and Structure of Atoms in Zine Crystals" before the School of Mines Section of the Missouri Chapter of the Society of the Sigma Xi.

CEREMONIES installing a chapter of Sigma Xi at the Massachusetts State College were held on April 12. Professor George A. Baitsell, of Yale University, national president, directed the installation ceremony, assisted by Dean Edward Ellery, of Union College, national secretary. The main address was made by Dr. E. D. Merrill, director of the Arnold Arboretum at Harvard University. Other speakers were: Dr. Hugh P. Baker, president of the college; Fred J. Sievers, director of the Massachusetts Agricultural Experiment Station, and Dean William L. Machmer, of the college.

THE annual meeting of the Canadian Medical Association will be held at Halifax from June 20 to 24, conjointly with the Nova Scotia Medical Society. The presidential address will be given by Dr. T. H. Leggett, of Ottawa, and the Osler Lecture on "Osler, the Last Phase, and His Influence on Medicine," by Sir Humphry Rolleston. Drs. M. R. MacCharles, of Winnipeg, and William Boyd, of Toronto, will conduct a surgical clinic on cancer; Dr. J. C. Meakins, of Montreal, a medical clinic, and there will be a symposium on poliomyelitis.

DR. T. H. BISSONNETTE, professor of biology, Trinity College; Dr. W. Wedgewood Bowen, assistant professor of ornithology, Dartmouth College; Dr. Clarence C. Little, Roscoe B. Jackson Memorial Laboratory for Cancer Research; Dr. Ann Morgan, professor of zoology, Mt. Holyoke College, and Dr. Lorande L. Woodruff, professor of protozoology, Yale University, will serve as special lecturers during the eightweeks summer session of the University of New Hampshire Marine Zoological Laboratory at the Isles of Shoals. The laboratory offers year courses for undergraduate credit in general zoology, comparative anatomy, invertebrate zoology, histology, embryology, field zoology and biology-education. There is an unusual opportunity at this station for field work in the fauna of the northern seaboard.

Nature reports that the Linnean Society of London will celebrate the one hundred and fiftieth anniversary of its foundation on May 24, 25 and 26. The president, Dr. J. Ramsbottom, will deliver an address on May 24, and on May 25 and 26 symposia on "The Concept of Species from the Time of Linnæus to the Present Day" will be held.

THE statement printed in SCIENCE and elsewhere to the effect that the Rockefeller and Carnegie Foundations would provide a large endowment for a medical center in Alabama is without basis in fact. At the request of Governor Bibb Graves, a conference was held recently in Birmingham in which the establishment of a medical center was considered. Funds, however, have not been granted for the purpose, nor have any been requested.

DISCUSSION

THE DECLINE OF INTERNATIONAL COOP-ERATION IN ASTRONOMY

INTERNATIONAL cooperation in science depends to a large extent upon the exchange of publications between different countries. Before the world war this exchange—in astronomy at least—was exceedingly well organized. Since 1914, however, it has never been completely normal, and the events of recent years show that the present trend is distinctly away from international cooperation.