peratures." (*Biol. Bull.*, v. 85, pp. 116–140, Oct., 1943.) This study provides a remarkable analysis of the mechanics by which an internal population cycle can be set up in a fresh water animal without any external cyclic variation.

To V. E. Shelford, who in 1943 published two papers dealing with cycles. One, written in collaboration with W. P. Flint, entitled "Populations of the Chinch Bug in the Upper Mississippi Valley from 1823 to 1940" (*Ecol.*, v. 24, pp. 435–455, Oct., 1943) is important particularly because it carries the history of the harmful insect back more than a century, and shows that the insect cycle is not due directly to any assignable climatic cause such as rainfall, humidity or temperature. On the other hand, it does show clearly that an increase in the number of chinch bugs is closely related to some unexplained stimulation which leads to a remarkable increase in the rate of reproduction. The problem of why this increase occurs is one of the most interesting in the whole realm of cyclic phenomena. It seems to occur not only in chinch bugs but in many other animals.

To Edward S. Deevey for his work, "Additional Pollen Analyses from Southern New England." (*Amer. Jour. Sci.*, v. 241, pp. 717–752, Dec., 1943.) This paper deals with the record of cycles preserved in the deposits of swamps and lakes, and discusses the philosophical implications of the field observations.

To Kirk Bryan and Claude C. Albritton for their paper, "Soil Phenomena as Evidences of Climatic Changes." (*Am. Jour. Sci.*, v. 241, pp. 469–490, Aug., 1943.) This discusses a method of studying climatic cycles which may prove to have wide significance, but which as yet has been only slightly developed.

To R. G. Green for the study, "Virulence of Tularemia as Related to Animal and Arthropod Hosts." (*Am. Jour. Hyg.*, 38: 262, 1943.) This has significance in connection with the effect of epidemics in reducing animal population after they have attained a high density. One of the interesting problems to be settled in the future is the relative importance of an increased rate of reproduction versus deaths from epidemics as the primary mechanism in the coming and going of cycles in animal population.

In addition to the works cited for 1943 attention is called to the remarkable study by Charles E. Elton, "Voles, Mice and Lemmings" (Clarendon Press, Oxford, 1942), which was not eligible for the 1943 awards because of an earlier publication date.

The members of the Committee of Awards as originally constituted are Dr. Charles Greeley Abbot, Smithsonian Institution; Dr. Harold Elmer Anthony, American Museum of Natural History, New York City; Professor Wesley Clair Mitchell, Columbia University; Professor V. C. Wyne-Edwards, McGill University, and Professor Ellsworth Huntington, Yale University, *chairman*.

## AWARDS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

AT the sixty-fifth annual meeting on November 29 of the American Society of Mechanical Engineers Edward G. Budd, president of Budd Manufacturing Company of Philadelphia, received the Medal of the Society in recognition of his contributions to the development of the welded all-steel automobile body, his "pioneering development of the 'shotwelding' process and his work in the construction of the lightweight railroad passenger train."

Presentation of the Holley Medal for 1944 was made to Carl L. Norden, of New York, in recognition of "his invention and development of the Norden bomb sight and other valuable devices which should hasten the peace."

Earle Buckingham, professor of mechanical engineering at the Massachusetts Institute of Technology, was presented with the Worcester Reed Warner Medal. Ernest L. Robinson, engineer with the General Electric Company, received the Melville Prize Medal for original work. Dr. George W. Lewis, Washington, aeronautics authority, and Martin Goland, Jr., of the Curtiss-Wright Corporation, were awarded the Spirit of St. Louis Medal and the Spirit of St. Louis junior award, respectively.

Ralph Edward Flanders, president of the Federal Reserve Bank of Boston and president (on leave) of Jones and Lamson Machine Company, of Vermont, won the Hoover Medal, a joint award of the societies of Mechanical, Civil, Mining and Metallurgical and Electrical Engineers.

Honorary membership in the society was conferred on Dr. Charles M. Allen, professor of hydraulic engineering at the Worcester Polytechnic Institute; Major General Levin H. Campbell, Jr., chief of ordnance, United States Army; Gano Dunn, president of J. G. White Engineering Corporation; Rear Admiral Emory S. Land, chairman of the United States Maritime Commission, and Sir Standen Leonard Pearce, engineer-in-chief of the London Power Company, Westminster. Sir William Wiseman, of the British Embassy, accepted the honorary membership on Sir Standen's behalf.

# SCIENTIFIC NOTES AND NEWS

THE first award of the Olney Medal of the American Association of Textile Chemists and Colorists was made on October 14 at the annual meeting of the association in Atlantic City, N. J., to Louis A. Olney, professor emeritus of textile chemistry and dyeing at the Lowell Textile Institute, for whom the medal was named. Dr. Olney is a past-president of the association and is chairman of its research committee. The

presentation was made by A. P. Howes, of the Howes Publishing Company, which endowed the medal. It will be awarded annually, or at such longer intervals as the Committee of Award may elect, for "outstanding achievement in the field of textile chemistry."

THE Daniel Guggenheim Medal has been awarded to Lawrence D. Bell, of the Bell Aircraft Corporation, Buffalo, N. Y., for his work in aeronautics, particularly in the design and construction of military aircraft, and for contributions to the methods of production. The award is made by a committee appointed by the American Society of Mechanical Engineers, the Society of Automotive Engineers and the Institute of the Aeronautical Sciences.

MAJOR CHAMP LYONS, associate in surgery at the Harvard Medical School, has been awarded the Legion of Merit in recognition of his work "by which the new and potent agent, penicillin, has been utilized in the treatment of the seriously wounded."

AT the annual meeting of the National Committee for Mental Hygiene in New York City on November 9, the first annual Lasker Award in Mental Hygiene was presented to Colonel William C. Menninger, chief consultant in neuropsychiatry of the Office of the Surgeon General, in recognition of "outstanding contribution to the mental health of the men and women of our Armed Forces."

MAJOR MERRILL MOORE, Medical Corps, U. S. Army, formerly associate in psychiatry at the Harvard Medical School and at the Boston City Hospital, has been awarded the Bronze Star Medal by Major General O. W. Griswold, Commanding General of the Fourteenth Army Corps, now in the Southwest Pacific, in recognition of "meritorious achievement in connection with military operations against the enemy in the Southwest Pacific."

THE Royal Society, London, has awarded Royal Medals to Professor D. Brunt, F.R.S., professor of meteorology at the Imperial College, South Kensington, in recognition of his fundamental contributions to meteorology, and to Dr. C. R. Harington, F.R.S., professor of pathological chemistry at the University of London, in recognition of his work in the analysis and synthesis of hydroxine and in immunological chemistry.

TO mark the fortieth anniversary of the connection of Professor F. W. Coover with Iowa State College, a celebration was held on November 15. In the afternoon the presiding officer was Dr. Julian H. Toulouse, of the Owens-Illinois Glass Company of Toledo. Dr. Ralph M. Hixon, who succeeded Dr. Coover at the college, presided at the evening banquet.

IN honor of the seventieth birthday on November 27 of Dr. Chaim Weizmann, it is announced that a Weizmann Institute of Science and Technology will be established in Rehovoth, Palestine, where the Daniel Sieff Institute, which Dr. Weizmann has directed since 1934, is situated. The estimated cost of the institute is $3,000,000, toward which the sum of $250,000 already has been subscribed.

THE degree of doctor of laws was conferred on October 28, on the occasion of the inauguration of Dr. Nathan Marsh Pusey as the eleventh president of Lawrence College, on Dr. Carey Croneis, president of Beloit College, recently professor of geology at the University of Chicago. The citation reads in part: "You, in more than twenty years of teaching and research, have shown us by the men you have trained to be no ordinary teacher; by the quality and range of your published articles to be no ordinary scholar, and by the success in other activities in which you have engaged to be no ordinary administrator."

THE honorary degree of doctor of science has been conferred by Baylor University on Dr. B. F. Hambleton, professor of physiology and pharmacology, in recognition of his long service in medical education and research.

ALEX D. BAILEY, vice-president of the Commonwealth Edison Company, Chicago, has been elected president of the American Society of Mechanical Engineers.

AT the University of Minnesota, Dr. Ernst C. Abbe has been appointed chairman of the department of botany. Dr. A. Orville Dahl, instructor and tutor in biology at Harvard University, has been appointed associate professor of botany in charge of the cytological laboratory of the College of Science, Literature and the Arts.

DR. FREDERICK F. YONKMAN, chief pharmacologist of Ciba Pharmaceutical Products, Inc., Summit, N. J., has been appointed lecturer in pharmacology at the College of Physicians and Surgeons of Columbia University.

THE Department of State has granted to Dr. Muzaffer Serif Basoglu (known in this country as Muzafer Sherif), professor at the University of Ankara, Turkey, a two-year fellowship to work in the department of psychology of Princeton University on a systematic social psychology.

DR. ANDREW J. WARREN has been appointed assistant director of the International Health Division of the Rockefeller Foundation.

DR. JESSE E. HOBSON, head of the department of electrical engineering of the Illinois Institute of Technology, Chicago, has been appointed director of the Armour Research Foundation.

DR. WILLIAM J. ROBBINS, director of the New York Botanical Garden, has been elected a member of the editorial board of *The American Journal of Botany.*

DR. GEORGE S. MYERS, professor of biology at Stanford University, has returned after a period of over two years in Brazil, under the auspices of the Committee for Inter-American Artistic and Intellectual Relations. Dr. Myers acted as special adviser in ichthyology and fisheries biology to the Museu Nacional and the federal Divisão de Caça e Pesca in Rio de Janeiro. In connection with this work he organized and directed for the Brazilian Government a survey of the commercially important marine fishes and the marine fisheries of Brazil. He also examined and reported upon a site for a proposed biological station of the Museu Nacional in the Serra do Mar of the State of Espirito Santó, conducted various ichthyological and herpetological explorations for the museum in different parts of Brazil, and gave a course of lectures on Brazilian fishes in Rio de Janeiro. He is succeeded for the coming year by Dr. William A. Gosline, III, formerly a member of the staff of the Natural History Museum of Stanford University. It is expected that Dr. Gosline will return to the United States towards the end of 1945.

DR. T. C. SCHNEIRLA, associate curator in the department of animal behavior of the American Museum of Natural History, New York; associate professor of psychology at New York University, left the second week in November as fellow of the John Simon Guggenheim Foundation for southern Mexico, where he will conduct field investigations of army ant behavior in the rain forests of that region. Dr. Schneirla's previous investigations of *Eciton* behavior patterns have been confined to work carried out during the rainy season at Barro Colorado Island and elsewhere. From December through April he plans to examine the effects of dry-season conditions upon the reproductive cycle and its relation to raiding and colony movement.

FREDERICK K. KIRSTEN, professor of aeronautical engineering at the University of Washington, has leave of absence to work on proposals for the design of cycloidal propellers for marine vessels for the U. S. Navy; J. Hoover Mackin, associate professor of geology, has leave of absence to continue special work with the U. S. Geological Survey.

IN collaboration with Director Luis E. Erro and other members of the staff of the National Astrophysical Observatory at Tonanzintla, Puebla, Dr. Bart J. Bok, of Harvard University, is spending three months in Mexico in research on the southern Milky Way.

J. M. WATERSTON, plant pathologist in the Department of Agriculture of Bermuda, will spend a year at Cornell University working on the fungi of Bermuda, under the auspices of the Government of Bermuda, the New York Botanical Garden and Cornell University.

THE second annual address before the Davis Foundation for the Study of Medical History was delivered by Professor Henry Baldwin Ward. His topic was "Medical Zoology in America's First Century." The meeting was held in the auditorium of the University of Illinois College of Medicine, Chicago, on November 13. Dr. David J. Davis, dean emeritus of the College of Medicine, presided and introduced the speaker. Before the meeting Dr. Ward was tendered a luncheon by a group of his colleagues from the medical faculty of the university and guests.

DR. JEAN OLIVER, professor of pathology at the Long Island College of Medicine, will deliver on December 21 the third Harvey Society Lecture of the current series at the New York Academy of Medicine. He will speak on "New Directions in Renal Morphology—A Method, its Results and its Future."

THE Wilbur Wright Memorial Lecture for 1945 will be delivered before the Royal Aeronautical Society, London, on May 31, by T. P. Wright, director of the Aircraft Resources Control Office of the United States Aircraft Production Board.

DR. OTTO LOEWI, research professor of pharmacology at the New York University College of Medicine, gave the Edward Gamaliel Janeway lectures at Mount Sinai Hospital on November 13 and 15. The subjects of the lectures were "Aspects of the Transmission of the Nervous Impulse" and "Theoretical and Clinical Implications."

THE Office of War Information has arranged for a series of recorded talks by American scientific men to be broadcast to China by short-wave transmission to give information concerning recent developments in various fields of research, thus helping to mitigate the isolation rendered inevitable by war conditions. The first series, under the chairmanship of Dr. David E. Green, included the following speakers: Professor Claus W. Jungeblut, Viruses; Dr. T. Hunter, Clinical Applications of Penicillin; Dr. T. Jukes, Vitamins; Dr. H. Rose, Rickettsial Diseases; Professor A. B. Gutman, Plasma Proteins; Dr. J. P. Webster, Plastic Surgery; Dr. R. O. Roblin, Jr., Chemotherapy; Dr. E. Kabat, Immunochemistry, and Dr. C. G. King, Nutrition.

THE National Research Council announces that fellowships in mathematics, astronomy, physics, chemistry, geology, paleontology, physical geography, zoology, botany, agriculture, forestry, anthropology and psychology will be available for the year 1945–1946. These fellowships are awarded as a rule to persons

under thirty-five years of age who are citizens of the United States or Canada, and who have met all the requirements for the doctor's degree. Applications must be filed on or before December 31, on forms obtainable from the secretary of the Fellowship Board in the Natural Sciences, National Research Council, 2101 Constitution Avenue, Washington 25, D. C. A handbook describing the fellowships—stipends, conditions and tenure—will be furnished upon request.

THE two hundred and sixty-fourth meeting of the American Physical Society will be held at the California Institute of Technology, Pasadena, on December 16.

THE Committee on Arrangements of the Hormone Conference of the American Association for the Advancement of Science is preparing for a meeting at Mont Tremblant, Quebec, in September, 1945. The papers and discussion of the 1944 meeting will be published in the spring of 1945. The Committee on Arrangements consists of Drs. Robert Bates, R. D. H. Heard and Gregory Pincus, *chairman*.

FREDERICK STEARNS AND COMPANY has made a grant of $1,800 to establish for the coming year at the School of Medicine of the University of Georgia a fellowship in pharmacology for the investigation of uterine antispasmodics.

# DISCUSSION

## THE HARVARD APPARATUS COMPANY, THE AMERICAN JOURNAL OF PHYSIOLOGY AND DR. W. T. PORTER

THE undersigned, having on the request of W. T. Porter assumed the guidance of the Harvard Apparatus Company, wish to place on record Dr. Porter's unique services to science. Some forty-five years ago, when there was scant if any laboratory teaching of physiology in our colleges and universities outside the medical schools, and laboratory teaching of physiology in medical schools was just emerging, Dr. Porter saw the probable importance of rendering available to our colleges, universities and medical schools good apparatus at the lowest possible cost for the laboratory teaching of physiology. Such laboratory experiments by students required many pieces of apparatus, accurate enough for reliable experimental results and inexpensive enough for very limited budgets. Such apparatus did not then exist. But Dr. Porter saw that it could be made by quantity production. So, much new apparatus was invented, and many classical instruments were redesigned to fit them for quantity production by special tools. It was for this great task that the Harvard Apparatus Company was formed. A great task, because it was foreseen that quantity production would give a surplus for other schools throughout the nation. Dr. Porter started the Harvard Apparatus Company as a private corporation, partly on borrowed funds. This business has been conducted by Dr. Porter in the public interest and without commercial profit. When there was a modest surplus, this was used: (a) to improve production equipment, (b) to provide a pension fund for the company's employees, and (c) to finance the W. T. Porter Research Fellowship in Physiology, administered by the council of the American Physiological Society. We intend to continue these policies. The research fellowship was started by Dr. Porter in 1920, and to date the Harvard Apparatus Company has paid to the American Physiological Society approximately $28,000 for this fellowship fund. So far this annual fellowship has been awarded to qualified young investigators working in well-equipped laboratories in the United States and in Canada. We feel sure that the council of the American Physiological Society will give due consideration to applications from qualified young investigators in other countries working in well-equipped laboratories in other lands.

In 1929 Dr. Porter offered the Harvard Apparatus Company as a free gift to the American Physiological Society. The society did not consider it feasible to undertake the management of the company. But the council of the society at that time said: "There is no one agency, during recent years, which has contributed more to the sound teaching in experimental physiology in this country than has the Harvard Apparatus Company."

In 1934 the Harvard Apparatus Company was reorganized as a non-profit corporation under the laws of the State of Massachusetts "for the promotion of teaching and research in physiology and its allied sciences." Dr. Porter gave to this corporation all property owned by the private Harvard Apparatus Company corporation. Dr. Porter has received no salary for his services to the corporation. We intend to follow Dr. Porter's example, with (we hope) some of Dr. Porter's efficiency and vision. In recent years the services to the sciences of functional biology rendered by Dr. Porter within our own borders have been extended to many other countries. The services of the company can be further extended to the liberal arts colleges, junior colleges and high schools where experimental physiology has not yet been introduced as an element of a liberal education, a forward step in the education of to-morrow, probably in the cards.

Forty-six years ago Dr. W. T. Porter founded *The American Journal of Physiology* (for the publication