tory theory of the influence of curvature on the buckling characteristics of aircraft structures." The presentation was made by Dr. J. C. Hunsaker, chairman of the National Advisory Committee for Aeronautics.

Melvin Nielson Gough, senior test pilot at the Langley Memorial Aeronautical Laboratory of the National Advisory Committee for Aeronautics, was given the Octave Chanute Award for "outstanding contributions to fundamental research in aeronautics as conducted in airplanes in actual flight." He received the award from Lieutenant Colonel James H. Doolittle, director of operational requirements, headquarters staff, Army Air Force.

The Lawrence Sperry Award, as already reported in SCIENCE, went to Ernest Gordon Stout, engineer in charge of air dynamics for the Consolidated Aircraft Corporation, for his contributions "to the experimental determination of hydrodynamic stability of model flying boats and sea planes." The presentation was made by Charles H. Colvin, of the Daniel Guggenheim Graduate School of Aeronautics.

Major Harry George Armstrong, of the U. S. Army Medical Corps, received the John Jeffries Award for "basic studies on the physiological and psychological effects of flight at high altitudes and the description of a number of clinical entities involved, the establishment of the Army Aero Medical Research Laboratory and contributions to the literature of aviation and medicine." The presentation was made by Dr. Louis H. Bauer, editor of *The Journal of Aviation Medicine*.

The Robert M. Losey Award was presented to Dr. Horace Robert Byers, meteorologist of the United States Weather Bureau, for "research in air mass analysis and its application in synoptic and aeronautical meteorology." The presentation was made by Dr. F. W. Reichelderfer, chief of the United States Weather Bureau.

Frank W. Caldwell, director of research at the United Aircraft Corporation and president of the institute, presided over the ceremonies.

ADVISORY COMMITTEE ON SCIENTIFIC PUBLICATIONS

MANY investigators who are planning to submit manuscripts or abstracts for publication will undoubtedly have occasion during the war emergency to query whether the publication might not inadvertently become of assistance to our enemies. Since it may be impossible for the author to answer the question from his own personal knowledge, the National Academy of Sciences and the National Research Council have organized an Advisory Committee on Scientific Publications to deal with the matter. This committee is ready to advise editors of journals and secretaries of societies concerning the procedure to follow when manuscripts or abstracts that might fall into this category are submitted for publication or question is raised concerning an investigation in progress. If it is decided that postponement of publication is advisable, the author and editor are so informed. When postponement of publication is no longer necessary, and the manuscript or abstract is published, there will be an accompanying note indicating the date on which the paper was received for publication and that the paper was withheld because of its bearing on the war emergency. Although this will mean delay in publication for a time in some cases, in others it will facilitate the publication of results which otherwise might be withheld owing to the author's uncertainty as to the possible military significance of his work.

FRANK B. JEWETT,
President, National Academy of Sciences
ROSS G. HARRISON,
Chairman, National Research Council
LUTHER P. EISENHART,
Chairman, Advisory Committee on Scientific Publications

SCIENTIFIC NOTES AND NEWS

THE Society of Economic Geologists, on the recommendation of a committee consisting of B. S. Butler, T. S. Lovering and Adolph Knopf, chairman, has awarded its Penrose Medal to Professor William H. Emmons, of the University of Minnesota, in recognition of his outstanding contributions to the science of economic geology. The presentation was made on February 10, at the annual dinner of the society in New York.

JOSEPH J. GEORGE, chief meteorologist of the Eastern Air Lines, has been presented with the Meisinger Award of the American Meteorological Society for the "most outstanding work in the aerological field during the year." The award was based upon Mr. George's work in fog prediction and the effect of lakes on air distortion. Presentation of the award was made at the recent annual business meeting of the society held at Columbia University.

PROFESSOR JOHANNA WESTERDIJK, director of the Phytopathological Institute and the Central Bureau for Fungus Cultures in Baarn, the Netherlands, celebrated the twenty-fifth anniversary of her appointment to the first professorship in plant pathology at a Netherlands university on February 10. A congratulatory telegram has been sent to her by her American colleagues, from South America. The collections of the Central Bureau and of her laboratory have not been damaged in any way by the war, and all work is being continued by the complete staff, as in former years.

THE University of San Marcos, Peru, has awarded the degree of doctor *honoris causa* to Dr. William

Seaman Bainbridge, of New York City, in recognition of his work on cancer and his contributions to medical progress in Latin America.

DR. FRANK S. HOGG, assistant professor of astronomy at the University of Toronto and a member of the staff of the David Dunlap Observatory at Richmond Hill, Ont., was re-elected president of the Royal Astronomical Society of Canada at the recent annual meeting. Other officers elected were: *Vice-presidents,* Dr. A. Vibert Douglas, dean of women, Queen's University, and Dr. A. E. Johns, of McMaster University; *General Secretary,* E. J. A. Kennedy; *General Treasurer,* J. H. Horning; *Recorder,* H. W. Barker; *Librarian,* Dr. P. M. Millman; *Curator,* R. S. Duncan, all of Toronto.

AT the annual business meeting of the Ecological Society of America, held in Dallas, Texas, on December 31, the following officers were elected: *President,* 1942, C. F. Korstian (botany), Duke University; *Vice-president,* 1942, C. E. ZoBell (zoology), Scripps Institution; *Secretary,* 1942–44, William A. Dreyer (zoology), University of Cincinnati; *Representative on the National Research Council,* 1942, Ira N. Gabrielson (conservation), U. S. Biological Survey; *Representative on the Council of the Union of American Biological Societies,* 1942, A. M. Banta (biology), Brown University. Dr. Royal E. Shanks (botany), State Teachers College, Clarksville, Tenn., continues in office as treasurer of the society. The work of two of the committees essential to the program of the society was approved and it was voted to continue their activities. They are: Committee on the Preservation of Natural Conditions, *chairman,* Curtis L. Newcombe (biology), College of William and Mary; Committee for the Study of Plant and Animal Communities, *chairman,* S. Charles Kendeigh (zoology), University of Illinois.

DR. J. A. W. HETRICK, professor of otolaryngology and director of the department, and since 1924 assistant and associate dean, has been appointed dean of the New York Medical College Flower and Fifth Avenue Hospitals. He has been serving as acting dean since March, 1941, following the death of Dr. Claude A. Burrett.

DR. JOHN H. MUSSER, professor of medicine at the School of Medicine of Tulane University of Louisiana, has resigned as president of the State Board of Health, in order to devote all his time to work at the School of Medicine.

DR. JOHN W. BARNARD, assistant professor of anatomy at the Georgetown Medical School, has been appointed professor and head of the department of anatomy at the new School of Medicine of Oglethorpe University.

ALLYN R. JENNINGS, since July, 1940, general director of the New York Zoological Park, has left to become associated with the Pan American Airways system in an engineering capacity. Mr. Jennings, before becoming director of the park, was superintendent of parks in New York City under Park Commissioner Robert Moses.

DR. MAURICE HOLLAND, formerly director of the Division of Engineering and Industrial Research of the National Research Council, has been appointed industrial research adviser to the New York University College of Engineering. Charles H. Colvin, director of the Guggenheim School of Aeronautics at the college, has been made coordinator of research, to work with Dr. Holland. Mr. Colvin founded and is a former president of the Pioneer Instrument Company. Before going to New York University he was chief of the instrument division of the U. S. Weather Bureau in Washington.

A. W. THORSEN, of Detroit, assistant fuel service engineer for the Chesapeake and Ohio Railway Company for the last two years, has been appointed a member of the staff of the Coal Research Laboratory at Carnegie Institute of Technology. He assumed his new work on February 1. Mr. Thorsen will assist the president in securing financial support for the laboratory and will also assist Dr. H. H. Lowry, director of the laboratory, with its general business operations.

A SUBCOMMITTEE on anthropology for Latin America has been appointed by the National Research Council, consisting of Dr. A. L. Kroeber, professor of anthropology, University of California; Dr. F. W. Hodge, of the Southwest Museum, Los Angeles, and Dr. Donald Brand, of the University of Mexico, to assist in carrying out the plans of the State Department for furthering research and anthropological study in Latin American countries. These plans include an exchange of cultural envoys and a study of ethnic traits.

DR. HARLOW SHAPLEY, director of the Harvard College Observatory, spoke on February 12 at the University of Texas on "Stars over Texas." Dr. Arthur H. Compton, University of Chicago, will speak on February 20. The title of his lecture will be "Physics Looks at the Future."

DR. CONRAD A. ELVEHJEM, professor of biochemistry at the University of Wisconsin, delivered on February 3 the first Mary Swartz Rose memorial lecture at the Academy of Medicine, New York City. He spoke on "Natural Foods in the American Die-

tary." The lecture was sponsored by the Greater New York Dietetic Association in memory of Dr. Rose, professor of nutrition at Teachers College, Columbia University.

DR. MEL. T. COOK, who retired last year as plant pathologist at the Puerto Rico Agricultural Experiment Station, recently gave a series of lectures on "Virus Diseases of Plants" and on "Science in Latin America" at the Oklahoma Agricultural and Mechanical College.

DR. GEORGE W. CORNER, director of the department of embryology of the Carnegie Institution of Washington, gave at Princeton University, from February 9 to 13, a series of public lectures on the Louis Clark Vanuxem Foundation. His subject was "Ovarian Hormones in Human Reproduction."

DR. KARL K. DARROW, research physicist of the Bell Telephone Laboratories, New York City, addressed on January 22 a joint meeting of the University of Cincinnati Chapter of Sigma Xi and the Cincinnati Section, Student Branch of the American Institute of Electrical Engineers, the Institute of Radio Engineers, the Illuminating Engineering Society and the Engineers' Club of Cincinnati. He spoke on "Physical and Chemical Forces."

AT the Johns Hopkins University, the twenty-third course of Herter lectures was given on February 3, 4 and 6 by Dr. Edgar Douglas Adrian, professor of physiology at the University of Cambridge. The general subject of the lectures was "The Organization of the Senses."

THE Civil Service Commission, recruiting for the Federal Civil Service, is accepting applications for all grades and branches of engineering. Some of the engineering examinations have been recently consolidated and modified. None requires a written test. For the junior grades, $2,000 a year, applicants are rated on their engineering education; no experience is required. In the upper grades, applicants are rated on education, experience and record of accomplishments. In all but the examination for chemical engineer, professional engineering experience may be substituted for the college work. Salaries for chemical engineer are $2,600 to $5,600. There is a shortage of engineers experienced in specialized branches of plant layout, equipment design, market analysis, chemical economics, heavy chemicals, plastics, rubber, agricultural by-products and strategic minerals. Naval architect, marine engineer, $2,600 to $5,600 a year. Engineer (all other branches), $2,600 to $5,600 a year. For all upper grades the age limit is sixty years except that for the three highest grades of marine engineering and naval architecture—$3,800 to $5,600 a year—the age limit is seventy years. There are also opportunities in the sub-professional and lower grades. Applications for all these positions are being accepted for several months or until further notice. Full information can be obtained from the U. S. Civil Service Commission, Washington, D. C., or from any first- or second-class post office.

THE National Research Fellowship Board in the Natural Sciences has extended the time for receiving applications for fellowships until February 23. Application forms and announcements stating conditions of award will be sent on request, which should be addressed to the Board at the National Research Council, 2101 Constitution Avenue, Washington, D. C.

APPLICATIONS to the Committee for Research in Problems of Sex, National Research Council, for financial aid during the fiscal year beginning July 1, in support of work on fundamental problems of sex and reproduction, should be received before April 1. They may be addressed to the chairman, Dr. Robert M. Yerkes, Yale School of Medicine, New Haven, Conn. Although hormonal investigations continue to command the interest and support of the committee, preference, in accordance with current policy, will ordinarily be given to proposals for the investigation of neurological, psychobiological and behavioral problems of sex and reproduction.

A NEW organization for botanists of the Chicago area was recently formed at the Chicago Academy of Sciences. The group has selected for its name the Cowles Botanical Society, honoring the late Dr. Henry C. Cowles, a distinguished botanist of the Chicago area. Meetings are held in the Academy of Sciences at 8:00 P.M. on the third Tuesday of each month. The objectives of the society are to promote better contacts between persons interested in botany, to collaborate in the attack on various botanical problems, and to provide renewed inspiration and stimulation in botanical studies. All interested in botany are cordially invited to attend the meetings. Dr. Max Britton, of the department of botany at Northwestern University, was the speaker at the January meeting. He spoke on "Observations on the Hemlock-White Pine-Northern Hardwood Forest of Pennsylvania." The February meeting will be held on Tuesday evening, February 17. Dr. Charles A. Shull, of the department of botany at the University of Chicago, will speak on "New Developments in Plant Physiology."

DEDICATION of the Hooker Scientific Library to American scientists was announced by the "Friends of the Hooker Scientific Library" in the January issue of their official organ, *Record of Chemical Progress*. The dedication is in fulfilment of Dr. Hooker's desire, but was not publicly announced until the library was able to establish a comprehensive plan

of technical literature services. As another step toward making these services available a revised schedule of corporation and institutional membership fees is announced. The minimum fee for permanent membership, which has been $100 for any corporation or institution, remains at this level for laboratories having ten or more research workers. For smaller laboratories it is based on the size of the research staff. Full information about the library as a non-profit service institution may be obtained from the Hooker Scientific Library, Central College, Fayette, Mo.

THE annual California Audubon Convention was held at Santa Barbara from January 23 to 25. The exhibits included paintings by and objects connected with Audubon, and these were discussed by Donald Culross Peattie, who also spoke on the life of Audubon. There were shown many colored motion picture films and Kodachromes, such as those of Mrs. Laurel Reynolds of California birds, Mr. Hoff's life history of the brown-tailed humming-bird, Mr. Harwell's picture of the Audubon Nature Camp in Maine, Mrs. Hood on the young of the California woodpecker and F. F. Gander on Lower California.

THE Council on Dental Education of the American Dental Association has issued a series of recommendations to the dental schools of the United States with reference to an acceleration of their work for the period of war emergency. These recommendations are essentially: That such acceleration be undertaken where it is possible without loss in teaching effectiveness; that there be no reduction in the number of hours devoted to the dental course; that so far as practicable the accelerated program should begin June, 1942. The council plans to gather data from the various schools concerned regarding the additional financial burden on the school and student. This information will be used to make known to university officials and Federal agencies the financial needs of dental education.

PROVISIONAL commissions as ensigns will be granted by the Navy, on application by students, to young men taking pre-medical college work who have been accepted for the next entering classes in Class A medical schools. After completing medical courses and serving internships of one year each, they will be commissioned as lieutenants, junior grade, and called to active duty. The granting of provisional commissions will serve to prevent the drafting of such students.

DISCUSSION

INSECTS AS CARRIERS OF POLIOMYELITIS VIRUS

IN SCIENCE for December 19, 1941, A. B. Sabin and Robert Ward report the recovery of the virus of poliomyelitis from the bodies of certain flies. Their account leaves no doubt as to the presence of active virus as shown by its infectivity for Cynomolgus monkeys when the latter received simultaneous doses of the insect material through several portals (intraperitoneally, intranasally and by mouth). As they cite several other similar recoveries besides those recently reported by Paul *et al.*[1] it is clear that the virus of poliomyelitis may be acquired under natural conditions by certain flies and may temporarily retain its virulence on or within their bodies. Where the flies may have obtained it must remain conjectural, but it is reasonable to suppose that it may have come directly from human alimentary dejecta or secondarily from sewage, since the active virus is well known to be recoverable from these media. It has, of course, long been known that houseflies (*Musca domestica*) fed on suspensions of spinal cord may retain the virus on the body or within the alimentary tract in an active condition for a limited time.

If, as seems highly probable, poliomyelitis is spread in some way through the agency of insects, it is very important to know what species are involved in all experimental studies. Sabin and Ward refer in one case to "flies—mostly large green ones and many house flies" and at another place describe a sample used to infect a monkey as containing small houseflies, green flies, large black flies, a moth, a caterpillar and a four-winged insect. Considering the great diversity of insects and the high specificity that exists between certain insect-borne diseases and particular insect vectors, such identifications are naïvely vague for an otherwise carefully executed experiment. One may guess that the large green flies were probably a species of Lucilia which commonly visits feces or garbage but does not ordinarily contaminate human foods. The houseflies were probably correctly identified, as this is our commonest domiciliary species. The "small houseflies" may have been the same, or possibly the more diminutive *Fannia canicularis,* often numerous in houses, but having very different habits. The large black flies are still more indefinite. They were hardly the large blood-sucking *Tabanus atratus* and most likely refer to some species of Cynomyia or a related genus. The materials with which traps are baited determines to a great extent what species may be caught, and blood-sucking flies are attracted almost

[1] J. R. Paul, F. D. Trask, M. B. Bishop, J. L. Melnik and A. E. Casey, SCIENCE, 94: 395, 1941.