

Dayton, Ohio, were elected members of the executive committee.

Dr. Edward R. Weidlein, director of the Mellon Institute of Industrial Research, Pittsburgh, was guest speaker at the dinner on Friday evening. He discussed the future of industrial research. Earlier in the day Maurice Holland, New York, founder of the institute, spoke on the place, influence and obligations of the institute in the national research structure.

Salary and patent problems were considered at length during the meeting. On Friday morning Mr. McIlvain discussed existing research salary conditions in industry and pointed out that these are one of the more serious causes of difficulty in retaining research personnel. In the afternoon the various methods of patent procedure used in the research organizations of member companies were discussed in detail at round table conferences. The session was conducted by Dr. R. C. Benner, research consultant of the Carborundum Company, Niagara Falls, N. Y.

Cooperative research during the war in the aircraft industry was the subject of a paper by Dr. Maurice Nelles, chief of the Industrial Processes Branch of the Office of Production Research and Development of the War Production Board, and staff assistant in research of the Lockheed Aircraft Corporation, Burbank, Calif.

The part which the manufacture of rockets, jet propulsion planes and gas turbines—wartime developments—will have in postwar industrial expansion was the subject of an address by G. Edward Pendray, assistant to the president of the Westinghouse Electric and Manufacturing Company, Pittsburgh. He discussed the technical aspects and historical development of these devices and the possibilities of their future development.

The autumn meeting of the institute will be held late in September.

#### THE WARRINGTON YORKE MEMORIAL FUND

COLONEL RICHARD P. STRONG, M.C., director of tropical medicine, Army Medical School, has sent to *SCIENCE* an appeal that he has received from Dr. R. M. Gordon, professor of entomology at the Liverpool School of Tropical Medicine, for subscriptions for the establishment of a Warrington Yorke Memorial Fund. It reads:

The late Professor Warrington Yorke was a product of the Liverpool School of Tropical Medicine and one

of its most distinguished members. In addition to his jealous maintenance of the high standards set by earlier workers at the school, he earned for himself an international reputation in the world of medical science, and his outstanding original work on trypanosomiasis, blackwater fever, the nematode parasites and many other parasitic and tropical diseases has permanently enriched our knowledge of these subjects.

In the latter part of his career, so untimely cut short, Yorke's exceptional energy and ability were increasingly devoted to the elucidation of the mode of action and the therapeutic value of chemical compounds, especially in parasitic diseases. As a direct result of his pioneer work, new and more potent weapons were forged to combat a number of diseases, in particular leishmaniasis and trypanosomiasis. That these discoveries were of far more than academic interest has been proved by their increasingly wide employment; indeed, it may be said that Yorke's introduction of drugs of the diamidine series is rendering possible the mastery of kala-azar in those parts of the world where the disease is peculiarly resistant to the antimonial compounds.

At the time of his death further studies in chemotherapy had been initiated by him, and it was his avowed object to promote chemotherapeutic research in Great Britain to the front rank and firmly to establish Liverpool as one of its leading centers. To that end, he laid a sound and solid foundation on which to build, but, though he lived long enough to see the realization of his ambition begun, he did not see it consolidated.

The Council of the Liverpool School of Tropical Medicine feels that a fitting memorial to this remarkable man would be to place on a firm financial basis the recently created Chemotherapeutic Research Department, where the work which he inaugurated will be continued in association with his name. To this end a Warrington Yorke Memorial Fund has been opened, and the council believes that Yorke's many colleagues, friends, past students and others who have benefited by the great advances which he helped to make in tropical medicine and hygiene during his forty years of service will wish to be associated with this memorial; from such the council would welcome subscriptions, however small, which should be addressed to: The Honorary Treasurer, Liverpool School of Tropical Medicine, The Chamber of Commerce, 1, Old Hall Street, Liverpool.

## SCIENTIFIC NOTES AND NEWS

THE Elbert H. Gary, Memorial Medal of the American Iron and Steel Institute was presented at a

meeting of the institute on May 25 to Quincy Bent, vice-president of the Bethlehem Steel Company, in

recognition of his "outstanding leadership in steel production and contribution to the development of alloy steels."

DR. EDWIN H. ARMSTRONG, professor of electrical engineering at Columbia University and inventor of frequency modulation in radio reception, has been awarded by the War Department the certificate of appreciation of the first chief signal officer in recognition of "a notable contribution to the war effort when he waived all royalties on the use of seventeen of his patents covering frequency modulation radio apparatus purchased by the War Department for military purposes."

DR. J. C. GEIGER, director of public health of the City and County of San Francisco, has been granted by the Government of Ecuador the decoration "Al Merito" with the following citation: "For distinguished service, for noteworthy and indomitable leadership in the advancement of public health in the Americas."

A COPERNICAN Award has been presented by the Kosciuszko Foundation, New York City, to Dr. Frederick C. Leonard, associate professor of astronomy at the Lick Observatory of the University of California, in recognition of his "effective cooperation with the foundation in the observance of the Copernican Quadricentennial."

DR. HARRY BATEMAN, professor of mathematical physics and aeronautics at the California Institute of Technology, and Dr. W. M. Whyburn, professor of mathematics and chairman of the department at the University of California at Los Angeles, have been elected corresponding members of the Academia Nacional de Ciencias Exactas, Fisicas y Naturales de Lima.

AT the invitation of the Cuban Government and Dr. Alberto Recio, the Minister of Health, Brigadier General James Stevens Simmons, chief of the Preventive Medicine Service, Office of the Surgeon General, U. S. Army, visited Havana on May 17, and took part in the dedication of the new National Institute of Health. During the ceremonies President Batista decorated General Simmons with the Medal of the Carlos J. Finlay National Order of Merit in the grade of *Gran Oficial*. The President also sent by General Simmons to Major General Norman T. Kirk, Surgeon General of the Army, a certificate conferring the Carlos J. Finlay Order of Merit in the grade of *Gran Cruz* on the former American Yellow Fever Commission for its fundamental experimental work in Cuba on the etiology and transmission of yellow fever under the leadership of Major Walter Reed. The certificate will be preserved in the Army Medical Library in Washington.

THE honorary degree of doctor of science has been conferred by the Ohio State University on Dr. Thomas Midgley, Jr., president of the Ethyl Corporation and president of the American Chemical Society, in recognition of his achievements in fuel research.

THE honorary degree of doctor of science was conferred on May 29 by Virginia State College on Lloyd A. Hall, chief chemist for the Griffith Laboratories, Chicago, in recognition of "his many years of outstanding work in, and his contribution to, food chemistry."

DR. JOHN ALEXANDER, professor of surgery of the Medical School of the University of Michigan, delivered on May 18 the Henry Russel Lecture for 1944 given by the member of the faculty who had attained "the highest distinction in the field of scholarship." His lecture was entitled "Developments in Thoracic Surgery." Dr. Frederick K. Sparrow, Jr., assistant professor of botany, received the Russel Award as the junior member of the faculty whose achievements in scholarly activities and whose promise for the future seemed most to merit the appointment.

THE Clubes Cientificos de Mexico held a special session on May 3 in the Theater of the Palacio de Bellas Artes upon the occasion of the visit to Mexico City of Watson Davis, director of Science Service and of the Science Clubs of America, with which the Mexican science clubs are affiliated. The principal address was by Dr. Manuel Sandoval Vallarta, director of the National Polytechnic Institute of Mexico, while other speakers were Ing. D. Salvador Magana, organizer of the science clubs at the Polytechnic Institute; Gustavo R. Cota, and Professor Agustin Aragon Leiva, head of the Science Service Bureau in Mexico.

AN informal reception was given on May 28 for four members of the faculty who will retire on June 30 from the College of Science, Literature and the Arts of the University of Minnesota. They were Dr. W. H. Emmons, head of the department of geology and director of the Minnesota Geological Survey; Dr. L. Miller, professor of physics; Dr. C. O. Rosendahl, head of the department of botany, and Dr. C. R. Stauffer, professor of paleontology. Approximately two hundred associates, former students and friends were in attendance.

DR. FELIX BERNSTEIN, professor of biometry at New York University, has been appointed professor emeritus.

DR. FREDERIC PALMER, since 1916 professor of physics at Haverford College, will retire from active teaching at the close of the academic year.

THE retirement is announced of Dr. Charles C.

Johnson, professor of pharmacology and physiology at the School of Medicine of the University of Utah.

At Columbia University, Dr. A. Irving Hallowell, chairman of the department of anthropology of the University of Pennsylvania, has been appointed visiting professor of anthropology; Dr. Henry E. Garrett has been appointed head of the department of psychology, and Dr. Thomas T. Read, head of the department of mining and metallurgy.

Dr. RUSSELL SPURGEON POOR, professor of geology and head of the department at Birmingham-Southern College, has been appointed dean of graduate studies and director of the Research Council of the Alabama Polytechnic Institute.

Dr. H. HOUSTON MERRITT, associate professor of neurology at the Harvard Medical School and visiting neurologist at the Boston City Hospital, has been appointed professor of clinical neurology in the College of Physicians and Surgeons, Columbia University, and chief of the Division of Neuropsychiatry of Montefiore Hospital. He will succeed Dr. S. Philip Goodhart, who is retiring after serving for thirty-one years. Dr. Merritt will be in charge of the investigative and clinical work of the division of neuropsychiatry of the hospital. Dr. Goodhart has been made consultant in the division of neuropsychiatry.

K. L. TURK, professor of dairy husbandry and head of the department at the University of Maryland, has resigned to become professor of animal husbandry in Cornell University.

Dr. F. W. FROMM has resigned as professor of chemistry at the Polytechnic Institute of Puerto Rico at San Germán, in order to work in the same capacity at the College of the Sacred Heart, at Santurce, Puerto Rico.

In a recent issue of *SCIENCE*, Dr. R. A. Baker, professor of chemistry in charge of the department of the commerce center of the College of the City of New York, was referred to as head of the department of chemistry. This is incorrect. Dr. William L. Prager is chairman of the department.

SIR JOHN FRASER, Bart., regius professor of clinical surgery at the University of Edinburgh, has been appointed to succeed Sir Thomas Holland as principal of the University of Edinburgh.

Dr. GEORGE C. DECKER, research and extension associate professor of entomology in the Iowa State College, has been appointed entomologist of the Illinois Experiment Station and of the Illinois State Natural History Survey.

Dr. ERNST MAYR, of the department of birds of the American Museum of Natural History, has been pro-

moted by the trustees from associate curator to curator of the Whitney-Rothschild Collections, in recognition of his "ornithological scholarship and his constructive service to the department of birds."

MAJOR JOSEPH B. FICKLEN, III, engineer of the U. S. Public Health Service, has joined the Industrial Hygiene Division of the Department of County Health of Los Angeles.

Dr. HARVEY A. ZINSZER, since 1929 head of the department of physics and astronomy at the Kansas State College at Fort Hays, has been granted indefinite leave of absence to accept a war defense position in the Cruft Laboratory of Harvard University.

Dr. A. G. PLAKIDAS, plant pathologist for the Louisiana Agricultural Experiment Station at Baton Rouge, has been granted leave of absence to serve with the United Nations Relief and Rehabilitation Administration as district agricultural officer with the Balkan Mission overseas.

THE first Richard H. Jaffé Lecture of the Institute of Medicine of Chicago, established in memory of Dr. Jaffé, pathologist of Cook County Hospital, who died in 1937, will be delivered on June 23 at the Palmer House by Dr. William F. Petersen, chairman of the Board of Governors of the institute. He will speak on "Organic Variability and Heart Disease."

SIR JACK DRUMMOND, F.R.S., gave on June 2 the Friday evening discourse at the Royal Institution of Great Britain, London. He spoke on the Hot Springs Conference and its bearing on nutrition in Great Britain.

THE American Society of Zoologists, in conjunction with Section F of the American Association for the Advancement of Science and in association with other biological societies, will hold its annual meeting for 1944 in Cleveland, Ohio, on Tuesday, Wednesday and Thursday, September 12, 13 and 14. The deadline for the receipt of titles and abstracts by the secretary is July 15. The preliminary announcement and call for papers will be issued by the secretary, Dr. L. V. Domm, the University of Chicago, in the near future.

THE fifty-eighth annual convention of the Association of Land-Grant Colleges and Universities will be held in Chicago from October 24 to 26. Preconvention sessions are planned from October 21 to 23.

A MEETING of the Aviation Division of the American Society of Mechanical Engineers was held from June 5 to 8 at the University of California at Los Angeles, where it is planned to establish a College of Aeronautical Engineering.

A SPECIAL meeting of the American Shore and Beach Preservation Association, under the presidency

of J. Spencer Smith, president of the New Jersey Board of Commerce and Navigation, met in Chicago on May 31 and June 1. This was the first national conference on coastal erosion problems and allied subjects held since the association suspended its regular sessions for the duration of the war. The Beach Erosion Board of the Corps of Engineers of the United States Army held a meeting concurrently with the conference of the association.

By the will of Dr. Oscar M. Stewart, emeritus professor of physics at the University of Missouri, his estate, the estimated value of which is in the neighborhood of \$100,000, is bequeathed to the department of physics, "the net income to be used for some educational or scientific purpose connected with the department."

THE *Experiment Station Record* reports that the Inter-American Institute of Agricultural Sciences has now acquired a permanent status through the ratification of the convention for its establishment by eight republics—the United States, Costa Rica, Cuba, Ecuador, Nicaragua, Panama, Honduras and the Dominican Republic. A permanent faculty is being selected, and construction is proceeding in the building program at Turrialba, Costa Rica. A substation for the development of high-yielding and disease-resisting rubber trees has also been opened in Panama.

THE British Mycological Society, according to *Nature*, is making a collection of surplus reprints and pamphlets on mycology and plant diseases for distribution after the war to libraries and centers of re-

search at home and abroad which have suffered loss or damage. Authors are invited to send reprints of their own published work and any other reprints or pamphlets which they can spare to G. C. Ainsworth, secretary of the British Mycological Society, Imperial Mycological Institute, Ferry Lane, Kew, Surrey.

It is reported in *Nature* that the Royal Society of Edinburgh has been made the residuary legatee of the estate of Robert Cormack, of Edinburgh, who died on August 13, 1942. The society is directed to administer this bequest for the purpose of promoting astronomical knowledge and research in Scotland, so far as practicable, on the lines of a memorandum prepared in 1931 by the late Professor R. A. Sampson, Astronomer Royal for Scotland. The council, on behalf of the Royal Society of Edinburgh, has accepted the bequest, which represents an amount somewhat over £30,000; and, after careful consideration, has approved a general scheme for the administration of the trust, which will include: (a) research fellowships to be awarded on suitable conditions to students engaged on research in Scottish observatories and to students or graduates of Scottish universities desirous of engaging in research in foreign or Dominion observatories; (b) the publication of the results of such research; (c) lectures to be delivered in suitable centers by eminent foreign or Dominion astronomers; (d) grants in aid of the purchase of special equipment for use in Scottish universities or observatories in research work; (e) lectures and demonstrations of a more popular character under the auspices of the Scottish educational institutions. A large part of this scheme will not be developed during the war.

## DISCUSSION

### NOTE ON STABILITY OF INCIDENCE OF THE "COMMON COLD"

IN one of the best statistical analyses upon data assembled under good control which has been offered for discussing stability of resistance to the common cold, Gafafer and Doull<sup>1</sup> found that the hypothesis that the colds of their samples were distributed by chance was not improbable. Their fundamental technique was that of showing that in each year with each sample the distribution of the number of colds was according to the point-binomial or law of small numbers. They found that the numbers of colds suffered by the same individuals in different years were correlated to a small extent in a variety of groups of persons. If we should calculate the correlation coefficients for the three pairs of years for the 111 persons under con-

tinuous observation for the three years (Table 5, p. 720) we should find  $r = .44, .38, .35$ , each of which is alone significant. This, as they must have known, was in itself some evidence that the distribution of the colds was not quite by chance, even though the distributions were well fitted by the law of small numbers.

There are indeed some limitations to the use of the law of small numbers as evidence of chance behavior; of these one is the difficulty of determining whether the law is satisfactorily fitted. Consider, for example, the distribution of colds of each of the 111 persons for the whole three years, the numbers varying from 0 to 21. The mean of the distribution is 8.315 and the variance is 13.00, which indicates a hypernormal distribution with too much dispersion about the mean as would be the case if some were resistant and others susceptible to colds. Now  $\sigma = 3.61$  as computed from the distribution and  $\sigma = 2.88$  as estimated from the

<sup>1</sup> W. M. Gafafer and J. A. Doull, *Amer. Jour. Hygiene*, 18: 712-726, 1933, and *SCIENCE*, 78: 314-315, 1933.