in New Orleans; Leland Stanford University, and the University of California.

WESTINGHOUSE RESEARCH FELLOWS

DR. E. U. CONDON, associate director of the Westinghouse Research Laboratories, announces that three scientific men selected from leading universities have been awarded fellowships to carry on their investigations at the laboratories. The appointees are Dr. Russell E. Fox, University of Virginia; Dr. Gerson S. Schaffel, Carnegie Institute of Technology, and Dr. Robert S. Weisz, Cornell University.

At the Westinghouse Laboratories, Dr. Fox will carry on research on the dynamics of high-speed machinery which he began at the University of Virginia under Professor J. W. Beams. Dr. Schaffel will engage in research on the chemistry of polymers, a basic substance of all plastics, and Dr. Weisz will work in the field of ceramics, specifically attempting to improve the properties of electric porcelain.

This is the fifth group to be selected under the Westinghouse Research Fellowship plan inaugurated in 1938. Appointments are for one year, with reappointment for a second year if mutually desirable. In the past these men have devoted their entire time to investigations in the realm of pure science. This year, however, they have been asked to indicate the fields in which they feel qualified to contribute to war research if their assistance should be required. Three of last year's appointees now are engaged in war research.

Of last year's fellowship winners, Dr. Thomas W. Dakin, Harvard University, has been reappointed for a second year's study. Dr. James S. Koehler, of the University of Pennsylvania, has been granted a year's leave of absence to act as instructor of physics at the Carnegie Institute of Technology. Three other 1941 appointees have joined the Westinghouse research staff. They are Dr. Daniel Alpert, Stanford University; Dr. John W. Coltman, University of Illinois, and Dr. Theodore Holstein, New York University.

THE INDUSTRIAL RESEARCH INSTITUTE

THE fourth annual meeting of the Industrial Research Institute was held in Cleveland, Ohio, on May 22 and 23, with headquarters at the Hotel Statler. Over fifty industrial executives and research directors participated in round table discussions which dealt chiefly with the adjustment of research programs and personnel to meet war conditions.

H. S. Benson, administrative engineer, Research Division, United Shoe Machinery Corporation, Beverly, Mass., was elected chairman, and Wm. R. Hainsworth, vice-president, Servel, Inc., New York, vice-chairman, of the executive committee for the ensuing year. Two new members of the committee were also elected for three-year terms, Philip W. Pillsbury, president of the Pillsbury Flour Mills Company, Minneapolis., and Harold K. Work, manager of research and development, of the Jones and Laughlin Steel Corporation, Pittsburgh.

Guest speakers at a dinner session on Friday evening were Dr. George Crile, the Cleveland surgeon, and his associates, Dr. Otto Glasser and Dr. D. P. Quiring. They described their researches into the nature of the living cell, which have been carried on for the past ten years under the auspices of the Cleveland Clinic Foundation. Inspection visits to the new Thompson Aircraft Products Company plant at Euclid, Ohio, and the General Electric Institute at Nela Park, occupied the members and their guests on Friday afternoon.

The Industrial Research Institute, an affiliate of the National Research Council, undertakes to promote improvement of methods and more economical and effective management in industrial research through the cooperative efforts of its members. The membership is composed of forty-five industrial concerns maintaining research laboratories. Their chief executives in charge of research represent them in the activities of the institute, which has headquarters in Chicago. Other members of the executive committee are F. W. Blair, chemical director, the Procter and Gamble Company, Ivorydale, Ohio; Caryl P. Haskins, president, Haskins Laboratories, New York; Maurice Holland, division of engineering and industrial research, National Research Council, New York, and R. C. Newton, vice-president, Swift and Company, Chicago.

SCIENTIFIC NOTES AND NEWS

BATES COLLEGE, at its commencement exercises on May 24, conferred the doctorate of letters on Dr. Harlow Shapley, director of the Harvard College Observatory.

AT the ninety-second annual commencement exercises of the University of Rochester on May 11, the honorary degree of doctor of science was awarded to Dr. Sewall Wright, distinguished service professor of zoology at the University of Chicago, and to Dr. Frederick Fuller Russell, emeritus professor of preventive medicine and epidemiology at Harvard University.

THE University of New Mexico at its commencement exercises on May 11 conferred the degree of doctor

of laws on Professor Douglas Johnson, of Columbia University, who delivered the commencement luncheon address. He spoke on the necessity of employing properly controlled force for the maintenance of law and order in all organized society, international as well as national.

THE degree of doctor of engineering was conferred on May 25 at the commencement exercises of the University of Maine on Wilbur L. Merrill, head of the works laboratory of the General Electric Company at Schenectady, N. Y.

THE Charles B. Dudley Medal of the American Society for Testing Materials will be presented on June 24 at the annual meeting in Atlantic City to Dr. Francis C. Todd, assistant professor of petroleum and natural gas engineering at the Pennsylvania State College, and to Dr. A. W. Gauger, director of the mineral industries research. The medal is given for a paper read at last year's meeting on "Studies on the Measurement of Water Vapor in Gases."

Nature reports that Dr. Adolf Windaus, professor of chemistry at the University of Göttingen, known for his researches on vitamins, has been awarded the Goethe Medal for Art and Science on the occasion of his sixty-fifth birthday.

DR. GUSTAV EGLOFF, director of research of Universal Oil Products Company, was elected president of the American Institute of Chemists on May 16 at the annual meeting of the institute, held at Atlantic City. Dr. Egloff was the recipient in 1940 of the gold medal which is awarded annually by the institute to the man adjudged to have made significant contributions to chemistry and the welfare of the chemical profession during his career.

DR. CHARLES J. IMPERATORI, of New York, was elected president of the American Laryngological Association at the sixty-fourth annual convention of the association at Atlantic City. Dr. Harold I. Lillie, of the Mayo Clinic, Rochester, Minn., succeeded Dr. Arthur Walter Proetz as first vice-president.

AT the annual meeting of the American Association of Botanical Gardens and Arboretums the following officers were elected: Dr. Donald Wyman, Arnold Arboretum, Harvard University, *Chairman;* Henry T. Skinner, Morris Arboretum, University of Pennsylvania, *Vice-chairman;* Clarence C. Godshalk, Morton Arboretum, *Secretary,* and John C. Wister, Arthur Hoyt Scott Foundation, Swarthmore, and Dr. C. Stuart Gager, Brooklyn Botanical Garden, directors.

IN honor of Dr. Béla Schick, who is retiring after serving for nineteen years as head of the department of pediatrics at Mount Sinai Hospital, New York City, a fund of $2,000 has been raised by pupils, associates and friends to establish Béla Schick Lectures in his honor.

DR. GEORGE W. THORN, associate professor of medicine at the Johns Hopkins University, has been appointed Hersey professor of the theory and practice of physic at the Harvard Medical School and physician-in-chief of the Peter Bent Brigham Hospital, to succeed Dr. Soma Weiss, who died recently. Dr. Thorn's best-known work has dealt with the treatment of disease of the endocrine glands, particularly with the treatment of insufficiency of the adrenal glands.

DR. JEAN A. CURRAN, for the past five years dean of Long Island College of Medicine, Brooklyn, has been elected president of the college. He succeeds Dr. Frank L. Babbott, who retired last September.

ARTHUR B. RECKNAGEL, since 1913 professor of forestry at Cornell University, has been appointed head of the department of forestry. He succeeds Professor Ralph S. Hosmer, who will retire on July 1.

DR. LAURENCE MONROE KLAUBER, vice-president of the San Diego Consolidated Gas and Electric Company and curator of reptiles in the San Diego Society of Natural History, has been appointed lecturer in natural history at Stanford University.

DR. ORLANDO PARK, professor of zoology at Northwestern University, has been named honorary curator of zoology of the Chicago Academy of Sciences.

DR. RANDOLPH T. MAJOR, director of research of Merck and Company, Inc., Rahway, N. J., has been appointed to the Graduate Council of Princeton University.

ORR GOODSON has been appointed acting director of Field Museum of Natural History, Chicago, during the absence on war duty of the director, Lieutenant-Colonel Clifford C. Gregg.

DR. LOWELL J. REED, professor of biostatistics and dean of the School of Hygiene and Public Health at the Johns Hopkins University, has become editor of *Human Biology.* Since the death of Dr. Raymond Pearl the journal has been edited by Mrs. Pearl.

DR. A. H. SUTTON, of the department of geology and geography of the University of Illinois, has been granted leave of absence to become a geologist with the Aluminum Company of America in the Fluorspar District of Western Illinois and Western Kentucky. His address after June 1 will be Aluminum Ore Company, Rosiclare, Illinois.

DR. THORNE DEUEL, chief of the Illinois State Museum since 1938, left on May 22 on leave of absence to rejoin the United States Air Force, in which he served

during the first World War. He had resigned from the Air Force in 1919 with the rank of major.

DEVEREUX BUTCHER, staff photographer, artist and editorial assistant of the American Forestry Association, has been appointed executive secretary of the National Parks Association to succeed Edward B. Ballard, who has joined the Army.

THE Annual Symposium of the Society for the Study of Development and Growth will be held this summer at North Truro, Cape Cod, Mass., from August 24 to 28. Those wishing to attend should make reservations at the Whitman House, North Truro, as early as possible. A reservation fee of $1.00 is payable by non-members of the society. North Truro is readily reached by train and bus from both Boston and New York. Further information in regard to the society and symposium may be obtained from Dr. K. V. Thimann, secretary of the Harvard Biological Laboratories.

ONE alumni member, five members and seven associates were initiated by the Lehigh University Chapter of the Society of the Sigma Xi at the annual initiation and banquet on May 14. The retiring president, Bradford Willard, professor of geology, introduced Dr. Robert Cushman Murphy, of the American Museum of Natural History, who gave an illustrated address entitled "By Land and Sea in the Chocó." The officers for the coming year were announced: Allison W. Butts, professor of electrometallurgy, *President;* Lawrence Whitcomb, associate professor of geology; *Vice-president;* W. L. Jenkins, assistant professor of psychology, *Secretary;* E. H. Cutler, assistant professor of mathematics, *Treasurer.*

THE immediate establishment of a Scientific Advisory Council for the war effort has been officially announced in Jerusalem. The council will work in close cooperation with the Government of Palestine. Dr. Judah L. Magnes, president of the Hebrew University, has been appointed president, and Professor Farkas secretary of the council, the membership of which will consist of representatives of the Hebrew University, the Technical High School at Haifa, and the Agricultural and Daniel Sieff Institutes at Rehovot.

THE Institute of Aeronautical Sciences, New York City, has received a gift of $25,000 from Sherman M. Fairchild, aerial camera and aircraft manufacturer. The principal of the fund is to be used for the publication of technical material used by aeronautical engineers.

ACCORDING to the *Journal* of the American Medical Association the Association of Military Surgeons of the United States announces the competition for 1942 for the Sir Henry Wellcome Medal and cash prize of $500 for the best paper on "Measures of Preventive Medicine Recommended by the Federal Medical Services to Insure the Maximum Improvement of the Selectee of 1961 over him of 1941." The competition is open to all medical department officers of the Army, Navy, Public Health Service, organized militia, U. S. Veterans Administration, U. S. volunteers and those in the reserves, commissioned medical officers of foreign military services and all members of the association.

Two prizes of $200 each, offered by A. Cressy Morrison, will be awarded at the annual dinner of the New York Academy of Sciences in December, 1942, for the two most acceptable papers in a field of science covered by the academy or by an affiliated society. Papers embodying the results of original research not previously published should be submitted, on or prior to November 1, to the executive secretary of the New York Academy of Sciences, the American Museum of Natural History, New York, N. Y.

THE Psychological Corporation offers for 1942–1943 James McKeen Cattell grants-in-aid of research in applied psychology. These grants are primarily available to graduate students and are of the value of $250. The closing date for the receipt of applications on forms provided by the Grants-in-Aid Secretary, is July 15, 1942. His address is The Psychological Corporation, 522 Fifth Avenue, New York, N. Y.

THE Westinghouse Electric and Manufacturing Company plant in Jersey City became the first New Jersey plant to win an "all-Navy E" pennant in recognition of continued excellence of production. The plant received an "E" flag last September.

A FIVE-DAY course on tropical medicine was given from May 25 to 29 by the department of medicine of the New York Post-Graduate Medical School of Columbia University, under the direction of Dr. Z. Bercovits. The purpose of this course was to bring to physicians a survey of the fundamentals of the various subjects in tropical medicine, and the more recent advances that have come from research. To this end, arrangements were made to have authorities in their respective fields give lectures and demonstrations in their specialties. Emphasis was placed on the clinical features. Clinical and laboratory material was available for study and demonstration, and the students were given an opportunity for practical work in clinical parasitology.

IN a basic research project recently established by the Navy Department, on problems relating to the operation of specialized aviation instruments, are the following members of the Mellon Institute of Indus-

trial Research of the University of Pittsburgh: Dr. George E. Barker, senior industrial fellow; George E. Alter, industrial fellow, and Charles E. McKnight, fellowship assistant. Other specialists will be added to the staff as the research progresses. A broad survey of the problems involved is being made by Dr. Barker, with the cooperation of the Navy Department, various American instrument manufacturers and other Federal Government laboratories.

WARD'S NATURAL SCIENCE ESTABLISHMENT, INC., which for over eighty years has been conducted in Rochester, N. Y., has moved to a new site on a sixty-five acre tract of land overlooking Irondequoit Bay and Lake Ontario, outside the Rochester city limits. Thirty-five acres are planted with grapes, the remainder being in woodland and pasture. Numerous springs furnish an abundant supply of pure water for cultures and other living material. The departments of mineralogy, paleontology, biology, entomology, and microscope slides and models are housed in a two-story concrete building, and the offices, mailing and photography departments in a large residence near the main building. There are seven other houses on the property and these will eventually be occupied by the Ward employees.

DR. C. P. RHOADS, author with Professor Louis F. Fieser and others of the article entitled "Steroid Hormone Excretion by Normal and Pathological Individuals," in the issue of SCIENCE for May 22, wishes to acknowledge the indebtedness of the authors to the Commonwealth Fund and to the Jane Coffin Childs Memorial Foundation for Medical Research.

DISCUSSION

IN DEFENSE OF THE KALLIKAK STUDY

THE story of the Kallikaks was published in 1912. The larger book, "Feeble-Mindedness: Its Causes and Consequences,"[1] giving the data which seemed to establish the hereditary character of feeble-mindedness, appeared in 1914.

For a decade the data were accepted apparently without question. There seems to have been enough people who were familiar with the details to explain how the study was made, the methods used, the conditions existent, and to answer any questions that arose. But as time went on, the inevitable happened and writers appeared who did not know, who obviously had not read the originals, and who therefore thought they detected certain flaws in the techniques which did not exist.

The first of these appeared in 1925 in "The Inheritance of Mental Disease," by Abraham Myerson, M.D. (pp. 77 *ff.*).[2] To this I paid no public attention because I felt that it was so obviously prejudiced that it would do no harm.

However, fourteen years later, a second book appeared which repeated and added to the errors of the Myerson book. This occurred in 1939 in "You and Heredity," by Amram Scheinfeld (pp. 360 *ff.*).[3]

Again in 1942 the same errors are copied from the preceding sources in "Biology for Better Living," by Ernest E. Bayles and R. Will Burnett (pp. 610 *ff.*).[4]

It therefore seems necessary to correct the errors publicly and attempt to set the record straight.

While much in the way of polish is lacking in this pioneer study, there are certain universal techniques which must be vigorously applied in any careful study; and to certain criticisms of these in Dr. Myerson's book, I wish to refer.

On page 77, Dr. Myerson, in a few lines, makes his only reference to "Feeble-Mindedness: Its Causes and Consequences"—the book which alone contains the data which led to the conclusion that feeble-mindedness is generally hereditary. The Kallikak family is merely a striking illustration.

Dr. Myerson says: "In this book, Goddard decides that feeble-mindedness is a Mendelian trait. He cites some 100 cases in which family studies have been made."

The record shows there are 327 cases carefully studied, charted and explained.

A few lines farther on, Dr. Myerson says: "The keystone of the arch of their results and laws is the field investigator and her surmises as to the mental and physical state of the dead and the quick."

Not understanding the purpose or the methods of the field-worker, Dr. Myerson makes his own assumptions. He argues that because he can not correctly diagnose feeble-mindedness, nobody can. Therefore, all our diagnoses must be guesses and "surmises."

The record shows that our field-workers were carefully trained (see "Feeble-Mindedness," pp. 22–46, 293 and 352). They spent weeks and months in the institution, talking with and observing all grades of defectives. It is well known that superintendents of such institutions quickly learn, and when a new arrival appears they not only know whether he is a fit subject for their institution or is normal and does not belong there, but they also know his *grade*. Even the attendants acquire this ability rather quickly. Dr. Fernald used to enjoy telling how his attendants

[1] Henry H. Goddard, "Feeble-Mindedness: Its Causes and Consequences." Macmillan. 1914.
[2] Abraham Myerson, "The Inheritance of Mental Disease." Williams and Wilkins. 1925.
[3] Amram Scheinfeld, "You and Heredity." Frederick A. Stokes Company. 1939.
[4] Ernest R. Bayles and R. Will Burnett, "Biology for Better Living." Silver Burdett Company. 1942.