NEWS and Notes

George E. Uhlenbeck, Henry Smith Carhart university professor of physics at the University of Michigan, has been granted a sabbatical leave for 1948–49. Dr. Uhlenbeck will engage in study and research in statistical physics at the Institute for Advanced Study.

John West Wells, formerly professor of geology, Ohio State University, has joined the faculty of Cornell University as professor of geology.

Herman C. Mason has been appointed adviser to the Korean National Laboratories, Civil Affairs Division, Department of the Army, at Seoul, Korea.

Warren H. Cole, head of the Department of Surgery, University of Illinois, has been appointed senior scientist attaché to the U. S. Mission to Britain on Science and Technology. Dr. Cole will serve for about three months as the representative in surgery.

Robert D. Stiehler, who was instrumental in developing quality control methods for synthetic rubber production in government war plants, has been appointed chief of the Testing and Specifications Section, Division of Organic and Fibrous Materials, National Bureau of Standards.

Jorge Awapara, formerly a research fellow at the University of Southern California School of Medicine, from which he received his Ph.D. degree in 1947, has been appointed research associate in the Department of Biochemistry at the M. D. Anderson Hospital for Cancer Research, University of Texas.

Rex Schoonover, head of the Engineering-Mechanics Department, College of Engineering, Wayne University, was recently appointed assistant dean of the College of Engineering.

Maynard Burton Chenoweth was appointed associate professor of pharmacology in the Medical School, University of Michigan, effective February 1. Dr. Chenoweth is engaged in research on the pharmacology and biochemistry of fluoroacetate under a grant from the U. S. Public Health Service.

Davenport Guerry, Jr., formerly research chemist for the Du Pont Company, Richmond, Virginia, is now instructor in general and physical chemistry at the University of Pittsburgh.

Joseph D. Elder, associate professor of physics, Wabash College, has been appointed to the new post of science editor, Harvard University Press, effective July 1. In his new position he will supervise publication of material in the physical and biological sciences.

Samuel R. M. Reynolds, of the Department of Embryology, Carnegie Institution of Washington, Baltimore, was elected a foreign member of the Swiss Physiological and Pharmacological Society on January 31.

Derek Denny-Brown, professor of neurology, Harvard Medical School, has been invited to deliver the 13th Hughlings Jackson Memorial Lecture at the Montreal Neurological Institute on May 19. The subject of his address will be "Disorganization of Motor Function Resulting From Cerebral Lesions."

Alfred W. Adson, professor of neurosurgery, Mayo Foundation, will give the 15th E. Starr Judd Lecture at 8:15 P.M., on April 29, in the auditorium of the Museum of Natural History, University of Minnesota. His subject will be "The Evolution of Neurosurgery." The annual lectureship was established by the late E. Starr Judd, an alumnus of the University's Medical School.

Kurt G. Stern, adjunct professor of biochemistry, Polytechnic Institute of Brooklyn, has been granted a leave of absence in order to assume the duties of head of the Department of Physical Biochemistry of the new Weizmann Institute of Science, nearing completion at Rehovoth, Palestine. Communications will reach him through the New York office of the Weizmann Institute of Science, 16 East 66th Street, New York 21.

Charles J. Fish, of the Woods Hole Oceanographic Institution, has received notice from the Ministère de l'Education Nationale de la République Française of his election on November 4, 1947, as an Officier d'Académie.

James G. Horsfall was recently named director of the Connecticut Agricultural Experiment Station. Dr. Horsfall, chief plant pathologist at the Station, who was made vice-director last September, fills the vacancy left by the retirement of William L. Slate, the Station's director for the past 24 years.

Frederick H. Pough, curator of physical geology and mineralogy, American Museum of Natural History, left New York for Mexico on February 9 for a month's study of Parícutin, the world's youngest volcano. Dr. Pough, one of the first scientists to observe the formation of Parícutin in 1943, has been visiting the baby volcano regularly to obtain data on the nature of the earth's interior and history of the earth's development, as well as data foretelling duration of Parícutin's life as an erupting volcano.

Grants and Awards

Among grants recently made by the American Philosophical Society from the Penrose, Reserve, and Michaux Funds were the following: N. J. Berrill, McGill University, for experimental analysis of polymorphism in the coelenterate Hydrozoa and Scyphozoa, $280; Willem J. Luyten, University of Minnesota, for measurement of the motions of stars in the Southern Hemisphere, $1,000; L. V. Heilbrunn, University of Pennsylvania, for development of methods for the study of the viscosity of as many types of cells as possible, $750; Hilda Geiringer, Wheaton College, for a study of the mathematics of heredity, $600; William N. Fenton, Smithsonian Institution, for a study of the political history of the League of the

Iroquois by testing the findings of ethnological field work, $1,250; Robert F. Spencer, University of Oregon, for a study of the acculturation of the Indians of the Klamath Reservation in southern Oregon, $750; Henry K. Townes, U. S. Department of Agriculture, for taxonomic research on the Nearctic Ichneumonidae (Hymenoptera), $400; James F. Crow, Dartmouth College, for a study of the resistance of fruit flies to fumigants and the inheritance of resistance in crosses between resistant and susceptible strains, $200; and Philibert Guinier, Paris, France, for studying forestry developments in the United States, $1,000.

The University of Iowa has received three grants, totaling $10,500, for research in chemistry. These include $7,500 from John H. Witte & Sons, Burlington, Iowa, for studies of paint and varnish chemistry; $1,800 from the Nutrition Foundation, Inc., to Clarence P. Berg, professor of biochemistry, for amino acid research; and renewal of the $1,200 Allied Chemical and Dye Corporation Fellowship in chemistry.

California Institute of Technology has received a final grant of $300,000 from the Rockefeller Foundation to complete the Palomar Observatory telescope. The additional funds will cover costs of necessary auxiliary equipment for the telescope. Total grants from the Rockefeller Foundation, beginning in 1928, now amount to $6,550,000. These funds have been used for erection of an astrophysics laboratory, optical and machine shop on the Cal-Tech campus, and numerous installations atop Palomar Mountain, in addition to the 200-inch telescope and the 8-, 18-, and 48-inch Schmidt cameras.

Glenn T. Seaborg, University of California, received the 1948 John Ericsson Gold Medal at the 60th anniversary dinner of the American Society of Swedish Engineers in New York, February 11. The John Ericsson Medal is awarded every other year to a Swedish subject or an American citizen of Swedish descent, in recognition of extraordinary merits in the technological or scientific fields. Dr. Seaborg, co-discoverer of elements 94, 95, and 96, received the award in recognition of his outstanding research in nuclear chemistry.

Nathan L. Drake, chairman of the Department of Chemistry, University of Maryland, has been awarded the 1948 Hillebrand Prize of the Chemical Society of Washington, D. C. Prof. Drake was cited for his outstanding contributions in the preparation and synthesis of nearly 80 valuable antimalarial compounds, in collaboration with a University of Maryland research group.

Carl F. Cori, professor of biochemistry at Washington University School of Medicine, St. Louis, and 1947 Nobel Prize winner in medicine, has been awarded the 1948 Willard Gibbs Medal of the Chicago Section of the American Chemical Society. The Gibbs Medal, one of the nation's highest scientific honors, goes to Dr. Cori for his achievements in research on the processes by which the body converts sugar into energy.

B. H. DeLong, vice-president and technical director, Research and Metallurgical Laboratories, Carpenter Steel Company, Reading, Pennsylvania, has received the Bradley Stoughton plaque, awarded annually by the Lehigh Valley Section of the American Society for Metals to the metallurgist in that region who has accomplished the most outstanding and generally useful work in his field.

Anthony J. Langhammer, president of the Amplex Division, Chrysler Corporation, was recently named recipient of the Stevens Institute of Technology's medal, awarded annually for outstanding achievement in the field of powder metallurgy.

Hugh H. Bennett, Henri Baulig, and **Frank Debenham** were the three gold medal award winners announced at the recent annual meeting of the Fellows of the American Geographical Society of New York. Dr. Bennett, chief of the Soil Conservation Service, U. S. Department of Agriculture, received the Cullum Geographical Medal for his work in soil conservation. Prof. Baulig, professor of geography at the University of Strasbourg, France, and one of the world's leading geomorphologists, received the Charles P. Daly Medal, awarded "for valuable or distinguished geographical services or labors." The David Livingstone Centenary Medal, awarded "for scientific achievement in the field of geography of the Southern Hemisphere," went to Prof. Debenham, professor of geography at Cambridge University and authority on the Antarctic.

At the annual meeting of the Astronomical Society of the Pacific in San Francisco on February 4, announcement was made of the award for the year 1948 of the Bruce Gold Medal of the Society to Otto Struve, honorary director of the Yerkes and McDonald Observatories, for his "distinguished services to astronomy." Each year the directors of six great observatories, three in this country and three in other lands, are invited to submit a list of three names of men who, in their opinion, are worthy of consideration for this award. The medalist for the year is then selected by the directors of the Society. Dr. Struve, who has accepted the award, will receive it in person in San Francisco on March 12, at which time he will give an address on some of his recent work.

Fellowships

Creation of four graduate fellowships leading to the Master's degree has been announced by Wichita University's Foundation for Industrial Research. Graduates of accredited colleges and universities are eligible for fellowship studies in the fields of aeronautical engineering, bacteriology, chemistry, and petroleum geology. Each fellowship carries a stipend of $1,000, with allowances for tuition and fees, together with remuneration for any part-time teaching. Complete information may be obtained from the Chairman of the Committee on Scholarships and Student Aid, University of Wichita, Wichita 6, Kansas.

Seven full-time Teaching Fellowships in the Department of Physics, University of Texas, Austin, have recently been authorized by the

Board of Regents. Each such fellowship involves three-quarters time teaching and pays $1,620 for the 9 months, or $1,080 for a half-time teaching load. The fellowships are open to graduate students working toward their doctorates, and selection will be made from applications made prior to March 15. Inquiries accompanied by statement of qualifications should be addressed to S. Leroy Brown, Chairman, Department of Physics, University of Texas.

Colleges and Universities

A 10-year program of research and study involving the social sciences is under way at Ohio State University under the direction of Carroll L. Shartle, professor of psychology and director of the University's Personnel Research Board. Utilizing funds contributed from outside the University, the staff will study the role played by anthropology, business organization, economics, education, industrial engineering, psychology, and sociology in effective "leadership in a democracy." To date, $100,000 has been contributed from outside sources, including $45,000 from the Rockefeller Foundation for a study of executive positions in educational institutions, one phase of the over-all study. Studies are at present being conducted in the armed services, educational institutions, and industry. Associate directors of the study are Ralph M. Stogdill, research associate in the Psychology Department, and Alvin E. Coons, assistant professor of economics. To assist in the various facets of the problem, a Technical Advisory Committee consisting of representatives of the various fields mentioned above has been set up.

Research training and experience for engineers looking forward to careers in industry and government will be provided by a new program recently announced by Gordon M. Fair, dean of Harvard's Graduate School of Engineering. The new course will require two years of study beyond the Bachelor's degree and will lead to a Master of Engineering degree. Harvard students who wish to secure research experience and start their engineering careers without obtaining the three-year doctoral degree will be offered the Master's degree for the first time in the fall of 1948.

Alabama Polytechnic Institute has announced that during its spring quarter (March 22–June 4) George W. Snedecor, president of the American Statistical Association and research professor of statistics, Iowa State College, will be visiting research professor, lecturing on Statistical Experimental Design. The newly formed Statistical Laboratory will, in addition, offer a course in Survey Sampling which will be taught by the director, T. A. Bancroft. Conferences in applied statistics for research workers in the lower southeastern states are being scheduled during the time of Prof. Snedecor's visit.

Yale University has inaugurated a new course in biophysics under the direction of Ernest C. Pollard, associate professor of physics. The course, which is open to graduate students and faculty members, will, according to Prof. Pollard, pursue the following main lines of inquiry: (1) What gets in and out of a cell? What permeates the outer lining in both directions? What is the physics of that process? (2) What is the physics of chromosome reactions? What light can physics cast on the factors influencing heredity and genetics? (3) What is the process of self-duplicating compounds found in many places in a cell? What is the physics involved in the formation of vitamins and other products from other materials of the same kind? The course, which cuts across departmental lines, is sponsored by a Biophysics Committee, the members of which are drawn from the various scientific fields.

Massachusetts Institute of Technology recently added the William Thompson Sedgwick Laboratories of Sanitary Science to the facilities of its Department of Civil and Sanitary Engineering. The new laboratories, under William E. Stanley, professor of sanitary engineering, will provide modern educational procedures in teaching sanitary engineering as well as thorough knowledge of the chemical and biochemical reactions taking place in the treatment of water, sewage, and industrial wastes. Directing the individual laboratories are Murray P. Horwood, sanitary bacteriology and research; Clair N. Sawyer, sanitary chemistry and chemical research; and Ariel A. Thomas, sanitary engineering.

The U. S. Naval Academy will hold examinations for positions on the civilian faculty April 2–3. Positions open include an instructorship in mechanical engineering and instructorships in physics, electrical engineering, and electronics. The starting salary is $4,149.60. Application forms, which must be submitted by March 17, may be obtained from the Superintendent, U. S. Naval Academy, Annapolis, Maryland.

Five members of the Department of Microbiology, New Jersey Agricultural Experiment Station, Rutgers University, have completed their work in the department and recently left to accept positions elsewhere. These include Donald B. Johnstone, who is now at the University of Vermont; Donald M. Reynolds, who has joined the staff of the Western Regional Research Laboratory, Albany, California; Kenneth L. Temple, who is now at Rhode Island State College; Henri Laudelout, a graduate of the University of Louvain, who has accepted a position with the Belgian Government as soil microbiologist in the Belgian Congo; and W. J. Lutjeharms, a graduate of the University of Leyden, who has returned to his position as professor at the University of Bloemfontein, South Africa.

A series of lecture-demonstrations for high school honor pupils, entitled "Applications of the Physical Sciences," inaugurated at the University of Cincinnati in 1935 and temporarily suspended during the war, was resumed on February 21 under the direction of William Licht, Jr., associate professor of chemical engineering. Although originally designed solely for boys and girls in the city of Cincinnati, requests for inclusion of schools in a wide area outside the city were received. This year, nominations of honor students have been

invited from some 150 schools within 50 miles of Cincinnati, and an audience of 1,200 is expected. The 1948 topics and speakers include "Aspects of Television," Alexander Bereskin, associate professor of electrical engineering; "Faster Than Sound," Bradley Jones, professor of aeronautics; "Metals Inside Out," John F. Kahles, associate professor of metallurgical engineering; "Basic Principles of Atomic Energy," D. A. Wells, professor of physics; and "The Atomic Pile in the Sun," Paul Herget, professor of astronomy. The meetings are being held each Saturday through March 20 on the campus.

A new and unique kind of museum for the collection, preservation, and study of the proteins of the blood and other tissues of the bodies of organisms has been established at Rutgers University. This museum is dedicated to the proposition that the proteins of the bodies of organisms are as characteristic as are any of their other constituents and as worthy of preservation and comparison as their skins and skeletons.

The establishment of this Serological Museum is a logical consequence of the studies in systematic serology which have been conducted at Rutgers University since 1925 by Alan Boyden and his students and colleagues. During these years the collection of representative samples of the blood sera of animals has been carried on by Dr. Boyden at various laboratories such as the Marine Biological Laboratory of the Carnegie Institution at Tortugas, Florida; the U. S. Fisheries Laboratory at Beaufort, North Carolina; the Mt. Desert Island Biological Laboratory at Salsbury Cove, Maine; and the Marine Biological Laboratory at Plymouth, England. Numerous valuable samples of the sera of animals have also been collected and contributed by the American Museum of Natural History, the New York Zoological Park, the London Zoological Park, the San Diego Zoological Society, and the U. S. Fish and Wildlife Service. In recent years especially valuable lyophilized (frozen and dried) samples of animal sera or of the purified fractions of such sera have been contributed by the Armour Laboratories, Chicago, Illinois; the Lederle Laboratories, Pearl River, New York; the Sharp & Dohme Laboratories, Glenolden, Pennsylvania; and the Squibb Institute for Medical Research, New Brunswick, New Jersey. In addition, numerous individual collectors have contributed samples.

Principal objectives of the museum are: (1) to preserve as well as possible the representative sera or other proteins of organisms and to study the means of improving the methods of preservation; (2) to build up, by collection and exchange, samples of the serum and other proteins of as many kinds of organisms as possible so that each group of organisms may ultimately be properly represented; (3) to share the samples collected with competent workers in the field of systematic serology, as far as the amounts and kinds of material available permit; and (4) to study the methods used in systematic serology, to learn as much as possible about the composition and properties of the samples collected, and to extend the serological comparisons to more groups of organisms as the availability of materials warrants.

Although the sera of hundreds of species of animals have thus far been collected, no group of animals is as yet adequately represented in the collection or has as yet been adequately studied serologically. The sera of many kinds of animals, vertebrate and invertebrate, are still needed. Though systematic serology itself is a half-century old, it is only in the last decade that its methods which are applicable to the sera of animals have reached the level of a truly quantitative approach.

Rutgers University desires, therefore, to acquaint all naturalists, wherever they may be, with the existence of its Serological Museum and invites the cooperation of all who may be in a position to collect and contribute or exchange samples of the proteins of organisms. It also invites suggestions concerning possible services which such a museum may properly provide and concerning its support and responsibilities.

The growth of this museum and its capacity for service to the relatively new field of systematic serology will depend largely on the extent of the cooperative efforts to be made in the future by many individuals and institutions. All those interested in the project are invited to correspond with Dr. Boyden.

Wayne University has joined the relatively few institutions of higher learning in this country that are offering courses in Scientific Russian. Offered at Wayne for the first time this semester, the course carries a prerequisite of two semesters of elementary Russian or its equivalent and deals with scientific literature in chemistry, physics, biochemistry, biology, and other fields. Through the Kresge-Hooker Scientific Library some 15 scientific periodicals in Russian will be available as course material.

Carnegie Institute of Technology has announced that its new synchro-cyclotron will be located on the former site of the KDKA transmitting station, operated by the Westinghouse Electric Corporation, at Saxonburg, Pennsylvania, 28 miles northeast of Pittsburgh. The present facilities will be enlarged to include an L-shaped building containing 20,000 square feet of floor space to house a laboratory, cyclotron controls, and a synchro-cyclotron expected to produce 350,000,000 electron volts. It is estimated that the total cost of the project will be near $1,000,000, and that the cyclotron should be in operation early in 1950. Edward C. Creutz, associate professor of physics at the Institute, will administer the project.

Appointment of persons to assist in the project has been made as follows: Science Committee—Frederick Seitz (chairman), Webster N. Jones, J. C. Warner, and Dr. Creutz, all of the Institute; Advisory Committee on Design —W. W. Powell, Mesta Machine Company (chairman); F. S. Bloom, Bloom Engineering Company; H. L. Cole and R. L. Witzke, both of Westinghouse Electric Corporation; Edward Crump, Crump Construction Company; B. J. Fletcher, Aluminum Company of America; J. W. Price, Jr., Carnegie-Illinois Steel Corporation; and R. E. Noble, Mesta Machine Company.

Improvements in design of the

cyclotron's proposed 1,000-ton electromagnet by Dr. Creutz and his associates will be largely responsible for the increase in estimated energy production from 250,000,000 electron volts, as originally announced, to 350,000,000. A new type of high-frequency oscillator, designed by Evard M. Williams, for use in accelerating protons, will produce higher voltage and require less power than the types in use in other models.

Industrial Laboratories

Erle M. Billings, Eastman Kodak Company's business and technical personnel department adviser, retired February 1. His 30 years of service with the company included chemical research, business management, and personnel administration activities. From 1940 to 1945, he served as consultant to the National Resources Planning Board of the War Manpower Commission and in 1943 was also consultant to the director of the WMC's National Roster of Scientific and Specialized Personnel. Dr. Billings will continue as secretary of the American Chemical Society's Committee on Professional Training, a post he has held since 1937.

The Schering Corporation, Bloomfield, New Jersey, announces "The Role of Hormones in the Maintenance of Pregnancy" as the basis for the Schering Award for 1948. For the three best manuscripts submitted by undergraduate students of American and Canadian medical schools on this phase of endocrinology, cash prizes of $500, $300, and $200 will be awarded.

Robert H. Cotton, formerly supervisory chemist, Citrus Experiment Station, University of Florida, recently resigned to become director of research for the Holly Sugar Corporation, Colorado Springs, Colorado.

Dicran A. Berberian, formerly chairman of the Department of Bacteriology and Parasitology at the American University of Beirut, has been appointed a senior investigator in the Department of Chemotherapy, Sterling-Winthrop Research Institute, Rensselaer, New York. Dr. Berberian is also serving as assistant professor of medicine, Albany Medical School, where he is lecturing on tropical disease treatment.

Norman Zwiebel, of Princeton University and more recently of the Brookhaven National Laboratory, has joined the research staff of the Pyridium Corporation, Yonkers, New York.

Paul N. Craig, who just received his Ph.D. in organic chemistry at the University of Minnesota, and **Thomas L. Flannagan, Jr.,** chemical engineer, who was graduated from Drexel Institute in 1943, have recently become associated with the Smith, Kline & French Laboratories, Philadelphia.

Meetings

"The Sciences of Life" is the subject currently being discussed in a series of Tuesday evening meetings in the Great Hall of the Cooper Union, on Astor Place between 3rd and 4th Avenues, New York City. These forums, which start at 8: 15, are open to the public. The four topics considered during February were "Changing Views of Human Nature," Goodwin Watson, professor of education, Teachers College, Columbia University; "Atomic Physics and Biology," Ernest Pollard, professor of physics, Yale University; "Ecology and Human Welfare," Edwin B. Matzke, professor of zoology, Columbia University; and "The Modern View of Evolution," Th. Dobzhansky, professor of zoology, Columbia University. Future topics and speakers include: March 2, "Heredity and Genetics Today," Frederick H. Osborn, deputy repesentative of the U. S. on the UN Atomic Energy Commission; March 9, "Reproduction in Man," E. J. Farris, executive director, Wistar Institute of Anatomy and Biology; March 16, "The Living Human Body," L. K. Frank, director, Caroline Zachary Institute of Human Development; March 30, "From Germ Cell to Maturity," Arnold Gesell, director, Clinic of Child Development, Yale University; April 6, "Life Drives," Harry Bone, consulting psychologist; April 13, "Mind in the Making," G. W. Hartman, professor of education, Teachers College; April 20, "Man's Social Context," Henry Pratt Fairchild, professor of sociology emeritus, New York University; and April 27, "Prospect Forward," Goodwin Watson.

The program for the symposium on "Modern Instrumental Methods of Analysis," to be held at the University of Minnesota March 22–24 (*Science,* December 12, 1947, p. 583), has now been completed. On March 22 Ralph H. Muller will speak on "Instrumental Methods of Analysis"; E. J. Meehan, on "General Optical Methods of Analysis"; P. Debye, on "Molecular Weight Determination by Light Scattering"; R. B. Barnes, on "Infrared Absorption Spectrometry"; E. J. Rosenbaum, on "Raman Spectra"; and James Hillier, on "Analytical Applications of Electron Microscopy." Speakers and subjects for March 23 are: R. Norman Jones, "Use of Visible and Ultraviolet Spectra in Analysis and Identification"; I. M. Kolthoff, "Polarography and Amperometric Titrations"; A. O. C. Nier, "Mass Spectroscopic Methods"; J. R. Churchill, "Analysis by Emission Spectroscopy"; and L. K. Frevel, "X-Ray Methods of Analysis." On the final day Paul R. O'Connor will speak on "Radioactive Tracers as an Analytical Tool," and E. S. Perry, on "Analytical Applications of Molecular Distillation." Discussion periods will follow each day's session. It is expected that a laboratory at the University's School of Chemistry will be reserved for exhibits and demonstrations of instruments for chemical and structural analysis. Those interested in contributing to the exhibit should contact the chairman of the Symposium Committee, William N. Lipscomb, School of Chemistry, University of Minnesota, Minneapolis 14.

The American Geophysical Union will hold its 29th annual meeting in Washington, D. C., April 21–23. Suggestions and comments that would be helpful in planning the proposed

meeting, especially comments relating to papers and symposia bearing on more than one section, have been invited by the chairman of the Committee on Meetings, J. P. Marble, U. S. National Museum, Washington 25, D. C.

The American Physical Society will hold its 285th meeting in Washington, D. C., April 29–May 1. Titles and abstracts (200 words) of all papers to be presented at this meeting should be in the hands of the secretary, Karl K. Darrow, Columbia University, not later than March 9. Rooms have been reserved at the Raleigh, Shoreham, Wardman Park, Washington, and Willard Hotels, and members are requested to write immediately to the hotel of their choice, specifying at the same time their second and third choices.

Plans are well under way for the International Congress on Mental Health, to be held in London August 11–21 next. Frank Fremont-Smith, chairman of the Executive Committee of the International Committee for Mental Hygiene, which is sponsoring the Congress, has announced receipt of $50,000 in grants to support U. S. participation in the gathering. The three major themes of the Congress will be "Foundations of Mental Health in Childhood," "Guilt," and "Mental Health and World Citizenship." Approximately 500 U. S. psychiatrists, social workers, and other social scientists are expecting to attend, with the total attendance estimated at 2,000–2,500 from some 44 countries. In addition to the recent contributions from the Commonwealth Fund ($20,000), the Milbank Memorial Fund ($10,000), and the U. S. Public Health Service ($20,000), Imperial Chemical Industries, Ltd., and the Josiah Macy, Jr. Foundation had previously donated a total of $35,000.

The 7th International Congress of Applied Mechanics is to be held at the Imperial College of Science and Technology, South Kensington, London, England, September 5–11, 1948. In addition to technical sessions on (1) Elasticity and Plasticity, (2) Aerodynamics, Hydrodynamics, and Meteorology, (3) Thermodynamics, Heat Transfer, etc., and (4) Vibrations, Lubrication, and Experimental Methods, about 10 general lectures are planned. During the week following the Congress there will be inspection trips to the National Physical Laboratory, the Royal Aircraft Establishment, the National Gas Turbine Establishment, and the GE Research Laboratories. The secretary of the American Mathematical Society, University of Pennsylvania, has on hand applications and other informational material about the Congress for distribution to members of the Society.

A symposium on plasticity held at Brown University early this month was organized to give research workers here and abroad an opportunity to discuss recent advances in the field. Among those participating in the program were Sir Geoffrey Taylor, Cambridge University; Capt. W. H. Leahy, USN, Office of Naval Research; and Arpad L. Nadai, Westinghouse Research Laboratories. The symposium was organized by William Prager, head of the University's Graduate Division of Applied Mathematics, under a contract Brown holds with the Office of Naval Research and the Navy Bureau of Ships.

A plant-breeding conference was held by the Institute of Statistics at North Carolina State College January 26–30, with 24 key plant breeders, primarily from the Southeast, invited to participate. In a series of lectures, J. L. Lush, of Iowa State College, developed some of the theory of statistical treatment of quantitative genetics along with examples of application to animal and plant breeding. A number of plant-breeding problems relating to these concepts were presented and thoroughly discussed. In his first lecture Dr. Lush discussed gene frequency, how to estimate it, effects on heterozygosis, mean, variance, and zygotic frequencies; forces which change gene frequencies and values that may be expected in natural populations; and consequences of nonrandom matings. Lecture 2 considered components of phenotypic variances; Lecture 3, mass selection, genetic and environmental factors affecting it, repeated observations, and "specific" and "general" combining ability. The fourth lecture was concerned with progeny and sib selection, the role of inbreeding, and differences resulting from self- and cross-fertilization, while the final lecture was on the subject of selection indexes. Topics and problems considered included methods of harvesting and handling small plots seeded to mixture of species; testing large numbers of strains for use under different conditions; a survey of current theories on heterosis; examples of heritability estimates in plants such as corn and peanuts; effects of different sources of environmental and genetic variance on the efficiency of selection among lines, strains, etc.; Hull's studies on overdominance in corn (Sprague's results with Hull's techniques); methods for estimating degree of dominance; results of an experiment designed to estimate dominance in corn; application of early versus late testing in different crops; theoretical considerations of early versus late testing; and selection indexes, including examples with corn and peanuts.

The conference was sponsored and supported financially by the General Education Board, and J. A. Rigney and R. E. Comstock, of the Institute of Statistics, arranged the program and details.

Deaths

Charles E. Hayden, 66, professor of veterinary physiology, Cornell University, died January 25 after a brief illness.

Werner Lipschuetz-Lindley, 55, former professor of pharmacology at the University of Frankfurt (Germany), professor of biochemistry at the University of Istanbul (Turkey), a past president of the German Pharmacological Society, and until 1947 a member of the research staff of American Cyanamid Company, died in Pearl River, New York, on February 1.

George W. Hunter, 75, lecturer in methods of science education, The Graduate School, Associated Colleges at Claremont, California, died of a heart attack at his home in Claremont February 4.

Joseph Hidy James, 79, professor emeritus and first head of the Department of Chemistry and Chemical Engineering, Carnegie Institute of Technology, died February 12 at his home in Pittsburgh, Pennsylvania.

Roy W. Delaplaine, 62, night observer at the Sproul Observatory, Swarthmore College, since 1929, died at his home on February 12. Mr. Delaplaine took almost 10,000 photographic plates with the 24″ refractor, or more than a third of those taken since the instrument was put in operation in 1912.

Anthony Berg, 59, associate plant pathologist at the West Virginia Agricultural Experiment Station, died suddenly at his home in Morgantown on February 15. He had been associated with the Experiment Station at West Virginia University since 1913.

Leon Jacob Cole, 70, emeritus professor of genetics, University of Wisconsin, and a member of the faculty for 38 years, died February 17 at Madison.

The new IBM Selective Sequence Electronic Calculator was recently dedicated "to the use of science throughout the world" by T. J. Watson, president of International Business Machines Corporation, at special ceremonies at the company's headquarters in New York City. Incorporated in this huge machine, which occupies a specially designed room, are facilities which have been hitherto unavailable: an adequate means of getting data and procedure instructions into the machine and of getting results out of it; a gigantic memory capacity for storing huge masses of numerical detail which accumulate in the process of calculation; and a highly flexible means of guiding the flow of numbers through all phases of the calculation. Our readers may be interested in some facts about the machine which have been released by IBM. The new calculator possesses about 250 times the productive capacity of the Automatic Sequence Controlled Calculator presented to Harvard University by IBM in 1944. Memory capacity is 400,000 digits; reading speed from punched tapes, 140,000 digits a minute and from punched cards, 30,000 a minute; recording speed by printing, 24,000 digits a minute and in punched cards, 16,000. The computing speeds are perhaps the most outstanding feature: 3,500 additions or subtractions a second of 19-digit numbers; 50 multiplications a second of 14-digit numbers; and 20 divisions a second of 14-digit numbers. The machine contains 12,500 electronic tubes, 21,400 relays, and 40,000 pluggable connections. In operation, the machine reads the numbers involved in a problem as well as instructions that have been prepared for its solution. It consults its own reference tables containing the results of previous calculations. A "central nervous system" directs the sequence of operations from the initial "feeding" of data and instructions into the machine to the final recording process.

W. J. Eckert, who, with his staff, was in large part responsible for the establishment of specifications, will direct the research program planned for the calculator. Dr. Eckert is director of IBM's Department of Pure Science and of the Watson Scientific Computing Laboratory at Columbia University.

A list of selected overseas workers in cryptogamic botany (chiefly bryology and lichenology) who are in need of help in the way of food, clothing, literature, and herbarium specimens has recently been issued by the Relief Committee of the Sullivant Moss Society. Copies of the list, including information about what to send and how to send it, are available on request from G. Sayre, Russell Sage College, Troy, New York, W. C. Steere, Department of Botany, University of Michigan, Ann Arbor, Michigan, or F. Verdoorn, *Chronica Botanica*, Waltham 54, Massachusetts.

According to the American Iron and Steel Institute, the people of the United States are using more iron and steel than at any previous time in history. It is estimated that about 1,038,000,000 net tons are in use, the greater part of this, of course, being in the form of buildings, bridges, autos, machinery, etc. The Institute reveals, further, that since the year 1900 this country's use of iron and steel has increased over three times as fast as the population. The current per capita figure is 14,500 pounds; that in 1900, 3,300 pounds.

Make Plans for—

American Association of Immunologists, March 15, Atlantic City, New Jersey.

American Physiological Society, March 15–18, Convention Hall, Atlantic City, New Jersey.

American Society of Ichthyologists and Herpetologists, 28th annual meeting, March 26–29, Tulane University, New Orleans, Louisiana.

American Society for X-Ray and Electron Diffraction and **Crystallographic Society of America,** April 1–3, Yale University, New Haven, Connecticut.

National Council of Teachers of Mathematics, April 2–3, Claypool Hotel, Indianapolis, Indiana.

Symposium on Recent Advances in the Study of Venereal Diseases, April 8–9, Commerce Building, Washington, D. C.

American Association of Anatomists, April 21–23, University of Wisconsin, Madison.

American Section, International Scientific Radio Union, and **Institute of Radio Engineers,** May 3–5, Washington, D. C.