The school's purpose will be to produce men of social vision and sound training, who have a definite understanding of the problems awaiting them in industry and society. This program will be accomplished through joint action with the industries of Chicago and the Midwest in the cooperative plan of education.

I am convinced that this plan—whereby the student works concurrently in industry and in the university—is ideally suited to train engineers. However, though we shall begin work immediately, so that the new school will be ready by next year, the program will be developed gradually, and will always be flexible enough to meet changing conditions.

Not only as president of Northwestern University, but as a citizen of Chicago and Evanston, I rejoice at this great forward step, which I am enabled to announce during my last year as president. I am sure that it will have a profound influence on education and industry in America.

This new school is significant for Chicago because it will enable us to create here one of the world's great centers for engineering education and research. It is significant for industry because it will develop men who, through careful selection and rigid training, offer greatest promise of making contributions to industry and the engineering profession. It is significant for the engineering student because it is designed to furnish a training that will develop him to his maximum possibilities.

That we are exceedingly grateful to the Walter P. Murphy Foundation for having selected Northwestern University as the agent for carrying out this great educational program goes without saying. We pledge the cooperation of every department of the university toward making the new school a great center for engineering training and research.

SCIENTIFIC NOTES AND NEWS

ATTENTION has already been called in Science to the program of the spring meeting of the American Chemical Society, which will be held in Baltimore from April 3 to 7. Professor Charles A. Kraus, of Brown University, will preside. Dr. J. C. W. Frazer, Baker professor of chemistry at the Johns Hopkins University, is honorary chairman of the meeting, and Dr. John C. Krantz, Jr., professor of pharmacology in the Medical School of the University of Maryland, is general chairman. A general meeting will be held on the afternoon of April 3, at which addresses will be given by Dr. Vincent du Vigneaud, of Cornell University Medical College, on "Isotopes as a Tool in the Study of Intermediary Metabolism" and by Dr. Harold R. Moulton, president of the Brookings Institution, on "The Chemical Industry and the Economic System."

The Franklin Medal of the Franklin Institute of the State of Pennsylvania has been awarded to Dr. Edwin Powell Hubble, of Mount Wilson Observatory, Pasadena, Calif., and posthumously to Dr. Albert Sauveur, late emeritus professor of metallurgy and metallography of Harvard University. The medal is awarded to Dr. Hubble "in recognition of his extensive study of the nebulae, particularly those outside our galaxy, as a result of which the dimensions of observed space have been greatly increased." award to the late Dr. Albert Sauveur is made "in recognition of his outstanding work in the science of metallography, and of his many contributions to this branch of metallurgy which have been in a large measure responsible for changing the heat treatment of steel from an art to a science."

THE Western New York Section of the American Chemical Society has announced the award of the Jacob F. Schoellkopf Medal for 1939 to Charles F. Vaughn, of the Mathieson Alkali Works, in recognition of his work "in the graphitization of carbon, his successful development and operation of the Castner mercury cell where all others failed, and his unqualified ability as an executive and administrator, placing him in the front rank of those who have made lasting contributions to the chemical industry."

A DINNER was held on March 28 in honor of Dr. Carl Beck, formerly professor of surgery at the Chicago College of Physicians and Surgeons, now the College of Medicine of the University of Illinois, in recognition of his seventy-fifth birthday and the completion of fifty years in the practice of medicine.

The twenty-fifth anniversary of Director Frederick M. Gaige as a member of the staff of the Museum of Zoology of the University of Michigan was commemorated by the establishment of the Frederick M. Gaige Research Fund, recently accepted by the regents. The income from this gift, to which more than fifty separate donors have contributed the sum of \$1,558, will be used for the promotion or publication of research carried out in the museum.

THE Hallett prize of the Royal College of Surgeons, London, was presented on March 9 to Dr. Alfred Mc-Kee Large, of Toronto.

THE Academy of Sciences at Halle has awarded the Carus Medal to Dr. Otto Grosser, professor of anatomy at the German University of Prague. The Forel prize and plaque have been awarded to Dr. Ernst Gabriel, of the University of Vienna.

THE University of Liverpool will confer in May the doctorate of science on Dr. Martin Knudsen, professor of physics in the University of Copenhagen and chief

adviser in physical oceanography to the International Council for the Exploration of the Sea.

MILLS COLLEGE conferred on March 16 the doctorate of humane letters on Eve Curie, who is visiting the United States.

The honorary degree of doctor of science will be conferred by the University of Cambridge on Dr. W. N. Haworth, Mason professor of chemistry at the University of Birmingham, and on Sir Henry Dale, director of the British National Institute for Medical Research.

Professor F. G. Donnan, emeritus professor of chemistry of the University of London, has been elected an honorary member of the Société Philomathique of Paris.

It is announced in *Nature* that honorary members of the Royal Meteorological Society have been elected as follows: Jules Jaumotte, director of the Royal Meteorological Institute of Belgium; Dr. Carl-Gustaf Rossby, professor of meteorology at the Massachusetts Institute of Technology, and Philippe Wehrlé, director of the National Meteorological Office of France.

Officers of the Physical Society, London, have been elected as follows: President, Professor Allan Ferguson; Vice-presidents, Professor G. I. Finch, Dr. Ezer Griffiths, Dr. L. Hartshorn and R. W. Paul; Honorary secretaries, J. H. Awbery and Dr. W. Jevons; Honorary foreign secretary, Professor O. W. Richardson; Honorary treasurer, Dr. C. C. Paterson; Honorary librarian, Dr. J. H. Brinkworth.

DR. ROYAL N. CHAPMAN, at present director of the experiment station of the Pineapple Producers Cooperative Association, of Honolulu, has been appointed dean of the Graduate School of the University of Minnesota. Dr. Chapman was formerly a member of the faculty at University Farm, where he served as head of the division of entomology and economic zoology, resigning in 1930 to go to Hawaii when the pineapple plantations were threatened with serious insect damage. He succeeds Dr. Guy Stanton Ford, who was dean of the school from 1913 until he was elected president of the university last autumn. During the past two years Dr. W. S. Miller, professor of educational psychology, has been acting graduate dean. Dr. Gerald T. Evans, now assistant professor of biochemistry at Yale University, has been appointed director of the chemical-metabolic laboratories in the Medical School and the University Hospital, with the rank of associate professor of medicine.

Dr. MAXWELL EDWARD LAPHAM has been elected dean of the School of Medicine of Tulane University.

The present dean, Dr. Charles C. Bass, Irby professor of experimental medicine, who began his professional connection with the university in 1904, will reach the retiring age early in 1940, and the work of his office will be taken over by Dr. Lapham at that time.

Dr. Julius M. Rogoff, recently visiting professor of physiology at the University of Chicago and formerly associate professor of experimental medicine at Western Reserve University, has been appointed professor of endocrinology of the School of Medicine of the University of Pittsburgh. A special laboratory has been established and designated as the laboratory of experimental endocrinology, where he will conduct experimental work in this field. The laboratory is supported by the G. N. Stewart Memorial Fund.

PROFESSOR FRANK CLIFFORD STOCKWELL, Anson Wood Burchard professor of electrical engineering and head of the department of electrical engineering at the Stevens Institute of Technology, has been appointed dean of the Graduate School, under the new plan of organization of graduate studies which was recently approved by the trustees.

Dr. Carl R. McCrosky has been named chairman of the department of chemistry at Syracuse University, with which he has been associated for twenty years. He succeeds Reginald S. Boehner, who resigned recently because of ill health and who will be on leave of absence for the rest of the year. Dr. Boehner will retain the professorship of organic chemistry.

Dr. Wagner Schlesinger, son of Dr. Frank Schlesinger, director of the Observatory of Yale University, has been appointed director of the Fels Planetarium of the Franklin Institute, Philadelphia. He succeeds Dr. James Stokley, who has been made head of the newly established Buhl Planetarium and Institute of Popular Science in Pittsburgh.

Dr. John S. Hall, of Amherst College Observatory, has been awarded a premium of \$500 for his investigations on the velocity of light. This is a portion of the fund established by Uriah A. Boyden, of Boston, in 1859, "to be awarded to any resident of North America who shall determine whether all rays of light and other physical rays are or are not transmitted at the same velocity."

The J. T. Baker Chemical Company research fellowship in analytical chemistry for the Eastern Division has been awarded to Frank K. Pittman, of the Massachusetts Institute of Technology.

PROFESSOR OTTO SCHMIDT, the Polar explorer and head of the Soviet Northern Sea Route Administration, has resigned his position to take up work as vice-president of the Academy of Sciences. He is suc-

ceeded on the Northern Sea Route Administration by Ivan Papanin, who was a member of the party that spent the winter of 1937–38 on an ice-floe.

The London Times states that the Secretary of State for Air, Sir Kingsley Wood, on the recommendation of the director of Medical Services, Royal Air Force, has appointed the following standing committee to investigate and advise him on the medical aspects of all matters concerning personnel which might affect safety and efficiency in flying: Professor Sir Edward Mellanby, chairman, Professor F. C. Bartlett, E. A. Carmichael, C. S. Hallpike, Dr. B. H. C. Matthews, Sir John Parsons, Professor L. J. Witts. The representatives of the Air Ministry on the committee will be Air Vice-Marshal A. V. J. Richardson, director of Medical Services, and Air Commodore H. E. Whittingham.

DR. GEORGE HOYT WHIPPLE, dean and professor of pathology at the School of Medicine and Dentistry of the University of Rochester, will give the Adam M. Miller lecture at the Long Island College of Medicine on April 6. His subject will be "Experimental Anemia and the Building of Hemoglobin in the Body."

Under the title "The World's Least Known Tropical Seacoast," Dr. Robert Cushman Murphy, of the American Museum of Natural History, lectured on March 21 before the members of the American Geographical Society on his recent field work along the Pacific coast of Colombia.

Dr. Lawrence Kolb, assistant surgeon general of the U. S. Public Health Service in charge of mental hygiene, gave on March 1 a lecture on "Drug Addictions" at the School of Medicine of Duke University. On March 8 a motion picture film on industrial accidents and their care was shown by Dr. Henry H. Kessler, specialist in cineplastic surgery.

Dr. Charles Atwood Kofold, emeritus professor of zoology at the University of California, and Dr. F. W. Went, professor of plant physiology at the California Institute of Technology, were the principal speakers at a biology colloquium held on March 4 at the Oregon State College. The colloquium, which attracted some three hundred scientific men from Oregon and neighboring states, was sponsored by the Oregon State College Chapter of Phi Kappa Phi, the scholastic honor society.

The School of Medicine of Western Reserve University opened a series of fourteen lectures on "The Social and Economic Aspects of Medicine" on March 17. They will be continued twice weekly until May 9. Besides a number of Cleveland authorities, the speakers will include Dr. Morris Fishbein, editor of the Journal of the American Medical Association; Dr. Ralph C. Williams, senior surgeon, U. S. Public Health Service; Dr. Sidney McCurdy, medical super-

visor, the Ohio Industrial Commission; Dr. C.-E. A. Winslow, Lauder professor of public health at the School of Medicine of Yale University. The series will be divided into three parts as follows: "A Dynamic Society Encounters Medical Problems," "The Medical Billion and Where It Goes" and "Democracy Feels Its Way."

The Gehrmann lectures for 1938-1939 of the College of Medicine of the University of Illinois will be delivered in the Medical and Dental College Laboratories building on April 12, 13 and 14 by Dr. Herbert C. Clark, director of the Gorgas Memorial Institute of Tropical and Preventive Medicine of the Panama Canal Zone. The titles of the lectures follow: "Malaria, its Effect on Labor Efficiency in the Tropics"; "Amoebiasis, Clinical and Non-Clinical"; "Modern Factors Favoring Spread of Diseases."

THE Franklin Institute of the State of Pennsylvania will hold an assembly and dinner at the institute on March 31 in honor of the Carbide and Carbon Chemicals Corporation, E. I. du Pont de Nemours and Company, Libbey-Owens-Ford Glass Company, Monsanto Chemical Company and Pittsburgh Plate Glass Company, "for their progressive attitude in carrying on the Benjamin Franklin ideal of the application of science to industry for the benefit of mankind."

THE annual meeting of the French Association for the Advancement of Science will be held at Liège from July 17 to 22, under the presidency of Professor Charles Fabry, director of the Optical Institute, Paris.

Arrangements have been made for a joint meeting of the American Meteorological Society and the Royal Meteorological Society of Great Britain at Toronto on August 28 and 29, at which a number of the delegates to the seventh assembly of the International Union of Geodesy and Geophysics will be present. The program will comprise two symposia, one on radiation and the other on extra-tropical cyclones. The meeting will immediately precede a trip which has been arranged by the Travel Committee of the International Union scheduled to leave Kingston, Ontario, on the morning of August 30. Further information will be contained in the forthcoming circular to delegates and guests to be issued early in April.

For the Milwaukee meeting the Section on Zoological Sciences (F) of the American Association for the Advancement of Science is planning to hold sessions on June 20, 21 and 22. The sessions on Tuesday will be devoted to an invitation program on "Regeneration," under the chairmanship of Professor J. W. Buchanan, of Northwestern University. On Wednesday another invitation program on genetics will be held under the chairmanship of Professor L. J. Cole, of the University of Wisconsin. The Thursday session will be de-

voted to a general program of contributed papers. Titles for this session should be sent by April 15 to Dr. George A. Baitsell, secretary of the section, Yale University, New Haven, Connecticut.

SIGMA PI SIGMA, the national physics honor society, will hold its convention on April 6, 7 and 8 at Columbus, Ohio, with the Ohio State University Chapter as host. Delegates from over thirty active chapters will attend the business and scientific sessions, which will conclude with an inspection trip to the Perkins Observatory. Dr. R. C. Colwell, of West Virginia University, the retiring president, will deliver the presidential address on "Electromagnetic Waves and Radio Signals." After being received into honorary membership in the society, Dr. Paul E. Klopsteg, of the Central Scientific Company, will speak at an open meeting on "Archery, a Physicist's Hobby." At a panel discussion, Dr. M. N. States, assisted by Dr. W. P. Davey, Dr. W. E. Forsythe and others, will present various phases of problems dealing with the placement of graduates in physics.

THE Emmons memorial fellowship in economic geology of Columbia University is available for this year with a stipend of \$1,200. Applications and accompanying testimonials should be submitted not later than April 15. Applicants should be qualified by training and experience to investigate some problem in economic geology and should submit a definite statement of their problem to the committee, under whose oversight the work will be undertaken at any institution approved by them. The fellow must give his entire time to the problem, which may be used for a doctorate dissertation. Application blanks and further information may be obtained from Alan M. Bateman, Charles P. Berkey, Waldemar Lindgren, or the Secretary, Columbia University, New York, N. Y.

Four fellowships have been established at Yenching University by the British Boxer Indemnity Fund for the current academic year. The appointees will serve as research assistants in carrying forward definite research projects. These fellowships are primarily for graduates of Yenching University and carry a stipend of \$480 per year. For the current year one appointment has been made in biology, one in physics and two in chemistry.

Dr. Vladimir Nikolaevich Ipatieff, since 1930 professor of chemistry at Northwestern University, previously of Moscow and Leningrad, has made a gift of \$21,000 to the university for the endowment of a chemical research laboratory for work in high pressures. The new laboratory will be placed in University Hall and will be used for research in chemical synthesis at high pressure. Dr. Ipatieff will be the director of the laboratory.

FORMER GOVERNOR PERCIVAL P. BAXTER has given to the State of Maine 12,000 acres of wild forest land in the Mount Katahdin region to be added to the Baxter State Park. The legislature in 1933 accepted Governor Baxter's first gift of 6,000 acres, which was subsequently named the Baxter State Park.

DISCUSSION

CLIMATE AND REPRODUCTION

Whitaker's recent discussion in these columns of the question of seasonal sterility among the Eskimos¹ may be regarded as yet another nail in the coffin of the myth of the human breeding season. The myth is one that dies hard. Westermarck in a discussion of the subject cited some two hundred references in support of the theory that the ancestors of modern man were characterized by a circumscribed pairing or breeding season.2 The notion that the periods at which the greatest number of births occur among the human species indicate the survival of a primitive human sexual rhythm associated with "annual changes in the human organism especially connected with the sex function" was discussed very fully by Havelock Ellis many years ago.3 These ideas find a place in the works of such distinguished physiologists as Marshall⁴ and Wright,5 and they have found a vigorous supporter in a leading student of population.6

Such authors have assumed that, since the catarrhine monkeys and the anthropoids are characterized by a pairing season, the ancestors of modern man must likewise have been so characterized and that certain primitive peoples still exhibit evidences of this "ancestral trait." It so happens that the major premise of this syllogism is a pure assumption without the slightest factual foundation, for the evidence is quite clear and definite that neither the catarrhine monkeys nor the anthropoid apes are characterized by a breeding season, but on the other hand that they are capable of breeding and of copulating at all times.7 The state-

¹ W. L. Whitaker, Science, 88: 214, 1938. ² E. Westermarck, "The History of Human Marriage," Vol. II, p. 76, 1922; "The Future of Human Marriage," p. 10, 1936.

³ H. Ellis, "Studies in the Psychology of Sex," Vol. II, p. 88, 1900.

⁴ F. H. A. Marshall, "The Physiology of Reproduction," p. 672, 1910.

⁵ S. Wright, "Applied Physiology," p. 198, 1934. 6 A. M. Carr-Saunders, "The Population Problem," p. 92, 1922.

⁷ For a discussion of the evidence which it is impossible