NEWS and Notes

Edwin G. Williams, senior surgeon, U. S. Public Health Service, who has for several years been engaged in research and field studies of radiation protection, has been assigned to the Office of the Surgeon General, Sanitary Engineering Division, to establish a Section on Radiological Health.

John E. Cushing, formerly instructor in biology at Johns Hopkins University, has been appointed assistant professor of bacteriology at the University of California, Santa Barbara College. Dr. Cushing will continue his research on the genetics of adaptation in microorganisms.

C. P. Idyll, formerly associated with the International Pacific Solomon Fisheries Commission at New Westminster, British Columbia, has been appointed research associate at the Marine Laboratory, University of Miami, Florida.

Jacques Rousseau returned to the Montreal Botanical Garden at the end of August after performing a botanical survey of northern Quebec along the Kogaluk and Payne River, a sector which, for the greatest part, was being visited for the first time. He was accompanied by E. Aubert de la Rüe, geologist, Jean Michea, archeologist and ethnologist, and Pierre Gadbois, geographer.

Miguel Covarrubias, famous Mexican artist and author, will be Walker-Ames professor of anthropology at the University of Washington, Seattle, during the fall quarter.

David Nicol, formerly of the University of Houston (Texas), has been appointed associate curator of Invertebrate Paleontology and Paleobotany at the U. S. National Museum, Washington, D. C. Dr. Nicol will be in charge of Tertiary fossils.

Cecil J. Watson, professor of medicine, University of Minnesota Medical School, will deliver the first Harvey Lecture of the current series at the New York Academy of Medicine on October 21. Dr. Watson will speak on "Urobilin and Stercobilin."

E. U. Condon, director of the National Bureau of Standards, left for Paris October 1. Dr. Condon will serve as chief of the U. S. delegation to the International Conference on Weights and Measures, which will be held October 12–21. **E. C. Crittenden,** associate director of the Bureau, who preceded Dr. Condon to Europe, will also attend the Conference.

Friedrich P. Ellinger, of Koenigsberg, Germany, has recently joined the permanent staff of the Navy's Research Institute at the Naval Medical Center, Bethesda, Maryland, as technical director of all research in the field of radiation biology. Dr. Ellinger, who became an American citizen in 1944, has been associated with the Long Island College of Medicine as director of its Laboratory for Experimental Radiation Therapy Research and with the U. S. Veterans' Hospital at the Bronx, New York, as a consultant.

Ralph W. G. Wyckoff, of the National Institutes of Health, Bethesda, Maryland, left recently for Europe. While there, Dr. Wyckoff, who is known for his research on the biophysical preparation and the electron microscopy of purified viruses, will receive an honorary doctor's degree from the Faculty of Medicine of Masaryk University, Brno, Czechoslovakia. This is the first such degree bestowed by the University since the end of the war.

Walter H. Voskuil has been appointed professor of mineral economics at the University of Illinois. Dr. Voskuil will also continue his work with the State Geological Survey.

C. Donnell Turner, formerly of the Department of Zoology, Northwestern University, has been appointed associate professor of biology at Utica College of Syracuse University.

Toivo M. Liimatainen has been appointed to the staff of the National Bureau of Standards, where he will work on the engineering and development of microwave tubes. Mr. Liimatainen has done extensive work on the design and development of microwave oscillator tubes and gas discharge tubes, as well as on the design and application of high back-voltage selenium rectifiers.

Awards

Leo C. Massopust, of the Marquette University School of Medicine, was named first Annual Award winner by the Board of Directors of the Biological Photographic Association at the Association's recent convention in Philadelphia. He received the award, as anatomical artist, medical photographer, and radiographer, for his extensive contributions to the aims, activities, and ideals of biological photography and was also cited for his activities as editor of the Association's journal.

Marston T. Bogert, emeritus professor of organic chemistry, Columbia University, has been chosen as the first recipient of the recently established Medal of the Society of Cosmetic Chemists. The award is made "for outstanding professional contributions," and the presentation will take place at a special meeting of the Society in New York City on the evening of December 8.

Duncan A. MacInnes, of the Rockefeller Institute for Medical Research, has been awarded the Edward Goodrich Acheson Medal and Prize for outstanding contributions to the science of electrochemistry. Presentation of the medal and prize will be made at the convention dinner of the Electrochemical Society to be held at the Hotel Pennsylvania in New York City on October 14. Dr. MacInnes, who has been associated with the Rockefeller Institute since 1924, formerly served as president of the Electrochemical Society and held the Sigma Xi National Lectureship in 1940.

George Graves, of Boston and Martha's Vineyard, Massachusetts, has been named the 1948 winner of the James R. Jewett Award. This award is presented annually by the Arnold Arboretum of Harvard University to the individual making the most significant contribution to the improvement of the native beach plum. Mr.

Graves was recognized for his experiments in producing more consistent fruit set and later blooming varieties. The annual award was made possible by a grant of money given to the Arnold Arboretum by James R. Jewett, emeritus professor of Arabic at Harvard.

Fellowships

The National Research Council of Canada has awarded 31 medical fellowships varying in amount from $1,500 to $2,500 to graduates in medicine for postgraduate research during 1948–49. The grantees represent 10 different universities, including one in Australia and one in England. Fellowship holders will carry on their work at 8 universities, as follows: McGill, 8; Montreal, 1; Queen's, 4; Toronto, 7; Western Ontario, 8; Manitoba, 1; Oxford, England, 1; and Zurich, Switzerland, 1.

The Atomic Energy Commission has announced the award of 162 new research fellowships in the physical, biological, and agricultural sciences to applicants from 30 states who will study in 43 different institutions. The number of graduate students selected for training under the AEC-financed fellowship program during 1948–49 now totals 206. Under this program, which is designed "to insure continued expansion of research and development in atomic energy and related fields, to alleviate the shortage of trained scientists and technicians, and to assist in the acquisition of a growing fund of theoretical and practical knowledge," awards have been made both to researchers already holding the doctor's degree and to students working toward the degree.

The National Research Council, which is administering the program, will continue to accept applications, and additional awards will be made this fall and next spring.

Two fellowships for training in enzyme chemistry have been made available by the Williams-Waterman Fund of the Research Corporation to the Institute for Enzyme Research of the University of Wisconsin. One of the fellowships is intended for recent graduates with a Ph.D. degree; the other, for a more senior investigator. The stipends will range from $3,000 to $4,000. Applications should be sent to Dr. D. E. Green, of the Institute for Enzyme Research.

Colleges and Universities

"Frontiers in Chemistry" will again be the subject of a symposium lecture series this autumn at Wayne University. Eight consecutive Monday evenings will be devoted to the series, with outstanding chemical scientists from midwestern and eastern universities appearing as lecturers and discussion leaders for each program.

The participants will go to Detroit under the joint auspices of Wayne's Department of Chemistry and the International Society of the Friends of the Kresge-Hooker Library.

Roger Adams, head of the Chemistry Department at the University of Illinois, will speak at the initial program, Monday, October 11. This program, like others in the series, is scheduled for 7:00 P.M.

Subsequent lecturers and their subjects will be: October 18—W. H. Zachariasen, Department of Physics, University of Chicago, "Crystal Chemistry of the 5F Series of Elements"; October 25—F. H. Westheimer, Department of Chemistry, University of Chicago, "A Quantitative Theory of Steric Effects"; November 1—William S. Johnson, Department of Chemistry, University of Wisconsin, topic to be announced; November 8—John C. Bailar, Department of Chemistry, University of Illinois, "Stereochemistry of the Metal Amines"; November 15—Christopher Wilson, University of London and Ohio State University, "The Mechanism of Reduction"; November 22—James J. Lingane, Department of Chemistry, Harvard University, "New Developments in Electro-Analytical Chemistry"; and November 29—Lynne L. Merritt, Department of Chemistry, Indiana University, "Chelate Complexes in Analytical Chemistry."

A nominal registration fee of $5.00 for the entire series is being charged. Requests for registration cards should be addressed to Prof. Neil E. Gordon, coordinator of the series, and accompanying checks should be made payable to Wayne University. Arrangements may be made by qualified persons to earn graduate credit if they so desire.

Installation of a 25-Mev betatron has just been completed in the Department of Physics at the University of Saskatchewan, Saskatoon, Canada. Funds for the betatron, one of the first to be built commercially and delivered to a university laboratory, were supplied by the Canadian Atomic Energy Control Board, the National Research Council, the Cancer Institute, and the Province of Saskatchewan. Less than a year after the order was placed with Allis-Chalmers of Milwaukee, and the ground broken for the building (especially designed for the purpose and erected by the Provincial Government), the installation was completed. The experimental work, already begun, will be conducted mainly under the direction of four members of the Department of Physics: E. L. Harrington, department head, R. N. H. Haslam, H. E. Johns, and L. Katz.

The University of Illinois College of Veterinary Medicine has recently enrolled its first group of students for the 4-year professional veterinary course leading to the degree of doctor of veterinary medicine. Each of the 24 students accepted in the College has completed two years of preveterinary training. The B.S. degree may be conferred upon the students at the end of their second year of veterinary training. Upon the completion of two proposed new buildings, larger veterinary classes will be accepted. These new buildings will consist of a basic science building and an additional structure to house the activities of the Department of Veterinary Clinical Medicine and the diagnostic service of the College.

The University of Massachusetts has announced the following staff additions: David W. Bishop, formerly associate professor, University of Illinois, as professor of physiology; James G. Snedecor, formerly of Louisiana State University, as assistant professor of physiology; H. Duncan Rollason, formerly an instructor at Amherst College, as assistant professor of zoology; and M. S. Cornell and Herbert J. Berman as new zoology instructors.

A program of research and project engineering on land, at sea, and in the air is under way, utilizing the facilities of the Allan Hancock Foundation for Scientific Research, the University of Southern California College of Aeronautics, and the new U.S.C. Marine Laboratory ship, *Velero IV*. According to Capt. Allan Hancock, who serves as director of the three groups, the new program will pursue exploratory, fundamental, and developmental research projects for governmental and industrial organizations on a nonprofit basis. Maurice Nelles, of the College of Aeronautics, has been named engineering and research manager with responsibility for technical and scientific management of the research projects.

The $2,000,000 Laboratory of Nuclear Studies which was dedicated October 7 at Cornell University (see *Science*, October 1, p. 348 and this week's cover) consists of a main laboratory building and an adjacent structure housing a 300-Mev synchrotron, with which Cornell physicists hope to produce mesons. The main laboratory building contains 16 single and 3 double laboratories, four radiochemistry laboratories, two machine shops, an electronics shop, stockrooms, synchrotron control and detector rooms, and a roof deck for cosmic-ray research, exclusive of conference rooms and other facilities. As staff for the new Laboratory, which will be directed by Robert R. Wilson, there will be 18 faculty members, 24 other full-time staff members, 11 graduate research assistants, and 6 part-time or temporary technicians.

The present Laboratory facilities are an outgrowth of a broad program of both theoretical studies and experimental work begun in the 1930s by a handful of nuclear physicists, among whom were Hans A. Bethe, M. Stanley Livingston, Robert F. Bacher, and Lyman G. Parrat. These men, working with Lloyd P. Smith and other members of the staff, continued their research, and in 1946 the Laboratory of Nuclear Studies was officially established with Dr. Bacher as director. The latter was soon appointed a member of the Atomic Energy Commission, and since that time Dr. Wilson, formerly of Harvard University and at one time head of the Division of Experimental Physics at Los Alamos, has been in direct charge of the final design of the buildings and their equipment.

Meetings and Elections

The Midwest General Meeting of the American Institute of Electrical Engineers will be held October 18–22 in Milwaukee, Wisconsin, with headquarters at the Schroeder Hotel. Thirty-four technical sessions and conferences in the broad fields of power, industry, communication, and basic sciences have been arranged. The conference sessions on industrial control, material handling, and automatic contouring have been scheduled so as to permit inspection trips to corresponding Milwaukee industries. E. W. Seeger is acting as chairman of the Midwest General Meeting Committee.

The postponed 16th Congress of the International Geographical Union is to be held in Lisbon, Portugal, April 8–15, 1949, with a series of excursions following the sessions. George B. Cressey, of Syracuse University, chairman of the National Committee of the United States, has recently returned from a meeting of the Executive Committee of the Union held in Brussels and reports that the German and Japanese Committees are to be recognized as soon as they reorganize. Italy is already an active member. The nongovernmental character of the Union was reaffirmed, and it was emphasized that the Lisbon Congress is open to all professional geographers, irrespective of political considerations.

The American Association of Blood Banks held its first annual meeting at the Hotel Statler, Buffalo, New York, August 26–28, immediately following the International Hematology Society meeting. According to Marjorie Saunders, Association secretary, approximately 200 persons attended the various sessions. There were also a number of foreign guests. The registrants, representing 28 states and 6 foreign countries, indicated much interest in the program of scientific and administrative papers.

At the business meeting Ralph G. Stillman, of the New York Hospital Blood Bank, was elected president; Thomas H. Seldon, of the Mayo Clinic Blood Bank, president-elect; Ernest Witebsky, Buffalo General Hospital Blood Bank, vice-president; W. Quinn Jordan, Salt River Valley Blood Bank, Phoenix, Arizona, treasurer; and Miss Saunders, who is located at the William Buchanan Blood Center, Baylor University Hospital, Dallas, Texas, secretary. Directors for the 8 districts were also named.

Information regarding proceedings of the meeting and membership in the Association may be obtained from the office of the secretary.

The Division of Fluid Dynamics, established by the Council of the American Physical Society in June 1947, has been organized. By-laws have been formulated and approved by the Council. Under these by-laws an election was held in which the following were elected members of the Executive Committee: Jesse W. Beams, Howard W. Emmons, Theodor von Karman, for a one-year term; Hugh L. Dryden and Paul S. Epstein, for a two-year term; Raymond J. Seeger and John G. Kirkwood for a three-year term. A ballot by the Executive Committee has completed the organization by the election of R. J. Seeger, chairman, H. L. Dryden, vice-chairman, and H. W. Emmons, secretary-treasurer. Thus, the work of the original Fluid Dynamics Committee, consisting of H. L. Dryden, H. W. Emmons, J. G. Kirkwood, C. B. Millikan, R. J. Seeger, T. von Karman, and J. von Neumann, which has functioned for several years, will be continued in the future by the new Division.

H. W. Emmons has reported as follows with respect to the Division's meeting this past summer:

During the latter part of June a three-day symposium on heat transfer and fluid mechanics was held in the Los Angeles area under the auspices of the University of California at Los Angeles, the University of Southern California, and the California Institute of Technology. The meetings on Wednesday, June 23, were held

under the joint sponsorship of the symposium and of the Fluid Dynamics Division. This joint meeting proved to be highly successful in view of the caliber of the papers presented and the presence of a large number of workers in the field from all parts of the United States. The meeting was opened by a paper from T. von Karman on "Progress in the Statistical Theory of Turbulence," which presented developments and extension by the author of the isotropic turbulence theories of Kolmogoroff, Heisenberg, and others, and included certain specific predictions which have been satisfactorily checked by recent experiments. The second paper, "Viscous Effects in Compressible Flow," by Dr. Lagerstrom of CalTech, and two of his graduate students, gave preliminary results obtained during an investigation sponsored by the ONR. A theoretical study has been made of certain simplified flows in which both compressibility and viscosity effects are important. Somewhat idealized cases have been set up which permit both linear and nonlinear treatments of the problem.

The following very interesting experimental papers on interferometry were presented: "Some Heat Transfer Studies With the Zehndermach Interferometer," by Ernst R. G. Eckert, and "Interferometer Studies of Supersonic Boundary Layers," by Rudolf W. Ladenburg. The techniques described by these two authors have already produced important results, and it is quite apparent that they will be of great importance in the future study of compressibility flows.

In the first afternoon session the following three papers were given: "A Simplified Theory of Porous Wall Cooling for Turbulent Flow," by W. Duncan Rannie; "Experimental Study of Cooling by Injection of a Fluid Through a Porous Material," by H. L. Wheeler and Pol Duwez; and "Studies of the Gas Phase Transpiration Cooling Process Using Air as a Coolant," by Joseph Friedman. The new technique of transpiration cooling, which has been made possible by recent developments in powder metallurgy, appears to have great importance in connection with the cooling of rocket motors and of other containers subjected to extremely high temperatures. The three papers indicated that very considerable progress has already been attained and that still more may be expected as the field is further investigated. The following two theoretical papers dealing with heat transfer problems also proved to be of great interest: "Heat Transfer in a Laminar Boundary Layer on a Porous Flat Plate With Fluid Injection," by S. W. Yuan, and "Stability of the Laminar Boundary Layer With Injection of Cool Gas at the Wall," by Lester Lees. The session was closed with a paper by Lindquist on "The Theory of Flow of Pseudo-Plastic Systems."

Deaths

Horace J. Macintire, 68, professor of mechanical engineering at the University of Illinois, died July 15 in Urbana.

Clarence C. Vernon, 52, head of the Chemistry Department, University of Louisville, died suddenly September 20 in Louisville, Kentucky.

Wallace A. Wilson, 63, Philip Schuyler Beebe professor of mathematics at Yale University, died September 21 at his New Haven, Connecticut, home.

Louis Cohen, 71, consulting engineer, author, and professor of electrical engineering, died in Washington, D. C., on September 28. Internationally known as a pioneer in the field of radio, Dr. Cohen had variously served with the National Bureau of Standards, as faculty member of George Washington University, and as consulting engineer for the War Department.

"Teaching Elementary Science," a new bulletin, has recently been issued by the Office of Education, FSA. Prepared by Blenn O. Blough, specialist in elementary science, and his assistant, Paul E. Blackwood, the booklet outlines the place of science in children's lives and in the elementary school program, along with practical methods of science teaching. Copies (Bulletin 1948, No. 4) are available at $0.15 each from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

An experimental atomic power plant for studies of the generation of electric power from nuclear energy is to be located on 4,500 acres of land to be acquired by the Atomic Energy Commission in Saratoga County, New York. The plant will be part of the facilities of the Knolls Atomic Power Laboratory, which is operated for AEC by the General Electric Company at Schenectady. The nuclear reactor, heart of an atomic power plant, will differ appreciably from the production reactors used at the Commission's Hanford Works. The new Knolls reactor is one of two being designed especially for studying high-temperature operation and the production of power. Choice of the location depended on its proximity to the plant and laboratories of the General Electric Company, the availability of water and power, the suitability of underlying formations for installation of heavy concrete structures, and the utilization of land of less agricultural productivity than that of other sites considered, while the size of the tract was determined by safety and security requirements and the displacement of as few people as possible.

Make Plans for—

6th Annual Pittsburgh Conference on X-Ray and Electron Diffraction, November 19–20, Carnegie Institute of Technology.

Optical Society of America, 33rd annual meeting, October 21–23, Hotel Fort Shelby, Detroit, Michigan.

Symposium on Ultrasonics and Macromolecules, October 3, Polytechnic Institute of Brooklyn.

American Mathematical Society, October 30, New York City.

American Society for the Study of Arteriosclerosis, annual scientific meeting, October 31–November 1, Hotel Knickerbocker, Chicago, Illinois.

American Institute of Chemical Engineers, annual meeting, November 7–10, Hotel Pennsylvania, New York City.

Geological Society of America, Mineralogical Society of America, Paleontological Society, and **Society of Vertebrate Paleontology,** November 11–13, New York City.