ing of Stationary Time Series (Wiley, New York, 1949).
5. H. W. Bode and C. E. Shannon, *Proc. I.R.E.* **38**, 417 (1950).
6. Y. W. Lee and C. A. Stutt, *Statistical Prediction of Noise* (Tech. Rpt. No. 129, Research Laboratory of Electronics, Mass. Inst. of Technology, 1949).
7. *The New York Times Daily and Yearly Stock Averages,* published annually by the *New York Times.*
8. It can be shown that the use of an averaging interval that approaches zero for large values of τ will cause ϕ (τ) to become negative if the true axis deviates in certain ways from the assumed axis.
9. A stationary series is one, the statistical properties of which are invariant with time.
10. The Axe-Houghton index is compiled by E. W. Axe and Co., Inc., 730 Fifth Ave., New York 19.

News and Notes

Alaskan Science Conference

The 5th Alaskan Science Conference was held in Anchorage 7–10 Sept. 1954, with the Cook Inlet Branch of the Alaska Division, AAAS, as host. Two hundred and thirty-seven registrants and many other interested persons attended the 26 sessions. About 25 percent of the participants were from outside Alaska, mainly the United States and Canada; one representative was from England.

Following the opening session when Warren Weaver, president of the AAAS, presented the main address, sessions embracing a well-rounded scientific program of 142 papers began. Perhaps the most consistent feature noted throughout the conference and present in all fields of science was the importance of scientific research to Alaska. It is evident that a great amount of scientific study is being applied today to various problems in Alaska. Many of these problems are unique to the North.

One of the four sessions on geology was devoted to special lectures on geochemical prospecting and exploration in Alaska. It was disclosed that such investigations have been conducted with success in southeastern Alaska. Also of interest were the papers by members of the U.S. Geological Survey that dealt with the petroleum and coal possibilities and ground water resources of the territory. Other papers in the geology sessions were "Engineering geology program of the U.S. Geological Survey in Alaska," "Quantitative measurements of the 1937 advance of Black Rapids Glacier, Alaska," "History and economic geology of copper deposits in Copper River areas, Alaska," and "Pyrite deposits at Horseshoe Bay, Latouche Island, Alaska."

The concluding geology session was a stimulating lecture by Geoffrey A. Kellaway, principal geologist of the British Geological Survey, on "Pleistocene structures in the British Isles." He reported that an examination of permafrost in Alaska revealed information that helped to explain the origin of many strange structures in the consolidated and unconsolidated rocks of England.

The remaining three sessions in the Physical Science Section were devoted to physics, geophysics, and meteorology, with several papers reporting latest findings in several fields of auroral research.

Among some of the interesting papers of the four sessions and two symposiums of the Social Sciences Section were those presented in the symposium on *Family Life.* It was reported that Alaska's first scientific mental health team concluded that most people in Alaska needing psychiatric services are under 40 yr of age. Juvenile delinquency studies were also reported in this symposium. Some of the papers presented in a valuable anthropology session were "Cape Denbigh archeology," "Archeology at Unalaska, Aleutians," "Copper River archeology," and "The potlach and social equilibrium."

A day-long session devoted to fisheries was one of the most stimulating of the sessions in the biological sciences. It was reported that Japanese fishermen, using fishing gear and methods that differ widely from American gear and methods, and operating in the North Pacific, caught more salmon during 1954 than in any other year since World War II. Another paper revealed that scientific studies of the commercial possibilities of fresh-water fish in Alaska shows an untapped fishery resource. Some idea of the wealth of information presented in the other biological science sessions may be visualized by noting such titles as "Beaver management in Alaska," "Influence of environmental temperature on acclimatized and nonacclimatized rats," and "Notes on the role of the Crustacea, especially Malacostraca, in arctic Alaskan waters." It was also reported in the biological sessions that research in Alaska revealed that the blood's chemical content changes under the influence of low temperatures. A day-long symposium entitled *Resource Planning in Northern Alaska—A Problem in Biological, Anthropological, Economic, Social and Moral Interrelationships* drew good attendance from a variety of persons interested in the use of renewable natural resources.

In sessions concerned with agriculture and forestry scientists discussed cause, control, and effect of fires on forests. Other papers in this section were, "Relationship of forest soils and site quality in southeast Alaska," "Use of the working circle concept in management of the national forests of southeast Alaska," "Physical properties and certain morphological features of potential agricultural soils of the upper Cook Inlet region," and "Socialized agriculture in U.S.S.R.: progress or failure."

An important and timely paper entitled "Report on poliomyelitis epidemic, St. Paul Island, Alaska" was presented at the session devoted to medicine and public health. This report stated that gamma globulin had no effect on the spread of polio on St. Paul Island. The island proved to be an ideal place for

studying the disease, for its extreme isolation made it possible to check all persons arriving or leaving. Other papers were concerned with the serious problem of tuberculosis in Alaska, and it was revealed that the outpatient method of treatment has been successful in the territory. Among the other papers presented in these sessions were "Study of anemia of Alaska Eskimos," "Appearance of intestinal wastes in surface water supplies at Ketchikan, Alaska," and "Adaptation to arctic cold."

In the three engineering sessions several papers were devoted to problems in the development of water power in Alaska, and it was pointed out that water power is one of Alaska's greatest undeveloped resources. When the Eklutna power development is completed it will more than double the present installed water power capacity in Alaska. It was reported that the U.S. Geological Survey has a program of water power investigations the objective of which is to arrive at a complete inventory of the water power potential of the territory. Construction problems peculiar to Alaska were pointed out by the papers "Engineering geology of a segment of the Denali Highway, Alaska," "Transportation in Alaska and the far northwest," "Subarctic highway construction and maintenance," and "Construction of Icy Bay airfield." Other engineering papers were "Rubber deterioration by ozone," "Mass-transfer coefficient for a flowing fluid in a packed column," "Construction materials investigations in the railroad belt," and "Cold water thawing."

The outstanding social event of the conference was an all-Alaskan banquet at which all the foods served, except condiments, coffee, and a few minor items, were products of Alaska.

Retiring officers of the Alaska Division are: president, Hugh A. Johnson; vice president, E. K. Day; executive secretary, Troy L. Péwé; and assistant treasurer, Galen Smith. The officers elected for 1954–55 were: president, Neil W. Hosley; vice president, John A. Dassow; secretary, Arthur S. Buswell; treasurer, Galen Smith; and councilor to the national AAAS, Troy L. Péwé. The 6th Alaskan Science Conference is scheduled to be held at the University of Alaska 1–4 June 1955.

TROY L. PÉWÉ

College, Alaska

Science News

The **President's proposed budget** for the National Institutes of Health is $6,399,000, $1.75 million more than was provided for fiscal 1955. A comparison of the two budgets follows: National Cancer Institute, $22,328,000 proposed, $21,737,000 current; Mental Health Institute, $17,501,000 proposed, $14,147,500 current; National Heart Institute, $17,278,000 proposed, $16,668,000 current; Dental Health Institute, $2,136,000 proposed, $1,990,000 current; Institute of Arthritis and Metabolic Diseases, $8,740,000 proposed, $8,740,000 current; Microbiological Institute, $6,645,000 proposed, $6,180,000 current; Institute for Neurological Diseases and Blindness, $8,111,000 proposed, $7,600,500 current.

The new budget for the Atomic Energy Commission is $2 billion, a reduction of approximately $50 million. The President said that the amount "provides for greater expenditures than ever before on projects to develop peaceful applications of atomic energy." Tables in the budget message show that the vast proportion of expenses was listed in the category of "major national security"—approximately $1.91 billion. Presumably this includes items for production of raw material and for development that could be used either for weapons or for peaceful purposes.

A joint expedition of Egypt's Department of Antiquities and the University Museum of the University of Pennsylvania will soon begin excavating a long-buried part of the temple of the great god Ptah at Memphis, capital of ancient Egypt, according to Froelich G. Rainey, director of the museum. Representing the museum on its first **Egyptian expedition** in 23 yr are John M. Dimick, project director; Rudolf Anthes, curator of the Egyptian section, and Henry G. Fischer, assistant curator. The new excavation site was accidentally discovered by roadbuilders shortly after World War II. This will be the first extensive scientific search of the area.

Discovery that cancer patients have too little of a **blood substance called "Q"** has been announced by Allen F. Reid, biophysicist, and his associates at Southwestern Medical School of the University of Texas, Dallas. "Q," so far not otherwise identified, acts "as a brake on the transport of stored energy from one part of the body to another." Because of a "Q" deficiency, "vital energy is transported at reckless rates and spent lavishly on the building and operation of useless cancer cells." It has not yet been possible to isolate enough "Q" to determine whether or not it might have any effect as a treatment for cancer. The research for this discovery was supported by the American Cancer Society.

What is thought to be the largest prefabricated building ever erected in Antarctica and "the most complex structure for scientific purposes ever to be taken by an expedition," is being established by an Australian group based at **Mawson Harbor in MacRobertson Land** on the Indian Ocean coast. Oustide temperatures may fall to −40°F, but the inside temperature will be maintained at 60°F. The building, which holds a physics laboratory and is 37 ft long, 15 ft wide, and 10½ ft high, has been designed to withstand winds of up to 200 mi/hr. Apparatus for measuring the intensity of cosmic radiation will be the principal equipment in the laboratory. The research is being carried out in cooperation with the University of Tasmania. The senior physicist, F. Jacka of Melbourne, designed the new building.

"Radiocarbon dating" is discussed by H. Barker of the Research Laboratory, British Museum, London, in the Techniques of Research series in the London *Times* Science Review (Winter 1954). Barker describes some of the problems involved in radiocarbon dating, for example the small quantities of carbon-14 in samples, the reduction of the background count, the limits of detection, and the accuracy and statistical interpretation of the results. In addition, he compares some aspects of the solid-sample method of counting with the more recent gas counting techniques that use either carbon dioxide or acetylene, and suggests that scintillation counting may extend the limit of counting and increase the statistical accuracy of radiocarbon dating in the future.

A Federal Trade Commission hearing examiner has **refused to receive in evidence** a report of a committee of the National Academy of Sciences supporting the view of the National Bureau of Standards that AD-X2, controversial automobile battery additive, was worthless. The examiner said that he could not find any portion of the report that was so segregated that it would apply only to the 11 tests made by the Bureau of Standards that are in evidence.

America's **farm surpluses,** which now cost the nation $256 million/yr in storage bills, could be brought to all the hungry peoples outside the iron curtain for a cost of 5 ct/day for each person given full feedings. If used to add 500 cal/day to the food supplies of the many peoples whose diets are deficient by that amount, the cost would be 2 ct/person or less. These figures are included in a survey issued by CARE, which is urging a food crusade to distribute U.S. surpluses abroad.

In mid-January the Atomic Energy Commission and its laboratory directors held a 2-day review of **employee security procedures** and found them generally "excellent." Participants in the closed meetings were from the Los Alamos Scientific Laboratory, N.M.; National Reactor Testing Station, Idaho; Brookhaven National Laboratory, Upton, N.Y.; Oak Ridge Laboratory, Tenn.; Sandia Laboratory, N.M.; Ames Laboratory, Iowa; and the Argonne National Laboratory, Lemont, Ill. Lewis L. Strauss, chairman of the AEC, said:

> It was the concensus that the over-all operation of security clearance procedures was excellent. They [the participants] expressed the belief that improvements and clarifications should be achieved in some minor aspects, and suggested further study to this end. Their recommendations are being taken under consideration by the commission.

A study carried out by Robert J. Bolt, Charles J. Tupper, H. Marvin Pollard, and O. Tod Mallery of the University of Michigan's Medical School and Institute of Industrial Health has revealed that of 500 **business executives examined** at the University Hospital, 41 percent possessed abnormalities that they did not know existed and that required medical treatment. Abnormalities not demanding immediate attention were found in 25 percent of the executives. The survey was conducted on a group of 500 apparently healthy individuals undergoing periodic health check-ups.

The greatest number of individuals was found to have gastrointestinal disturbances (45 percent). This was followed by cardiovascular disease (24 percent), Third were nose and throat ailments (18 percent). Four cases of previously unknown cancer were found, as well as the following unsuspected conditions: 27 cases of high blood pressure; 16 peptic ulcers; 12 gallstones; 8 organic heart conditions; 3 diabetics; and 1 case of tuberculosis. In follow-ups it was found that "significant new disease appeared each year in 13 to 20 percent of the subjects."

A 2-yr study conducted by Cecil Pierce, an animal husbandman at the Oregon State College eastern branch experiment station in Union, has shown that **shorn lambs fatten faster,** and on less feed, than unshorn lambs. The former gained approximately 17 percent more per day than the latter when both were fed under similar conditions.

The seven-nation scientific committee representing the United States, the Soviet Union, Great Britain, France, Canada, India, and Brazil that met under the auspices of the United Nations to plan a conference on the **peaceful uses of atomic energy** has tentatively agreed that the conference might take place in Geneva beginning 8 Aug.

Scientists in the News

Hubert B. Vickery, chief biochemist at the Connecticut Agricultural Experiment Station, New Haven, has received the annual distinguished service award given jointly by the Cigar Manufacturers Association of America and the Cigar Institute of America. He was honored for "distinguished scientific research of benefit to the cigar industry of the United States" and for "outstanding contributions to the chemistry of the tobacco plant."

John C. Krantz, Jr., professor of pharmacology at the School of Medicine, University of Maryland, will be the third recipient of the Rho Chi citation at the Philadelphia College of Pharmacy and Science on 2 Mar. He will deliver the Julius W. Sturmer memorial lecture, which will be entitled "The simplicity to wonder."

Edward M. Palmquist, chairman of the department of botany at the University of Missouri, has arranged to take a leave of absence to serve as program director for education in the sciences for the National Science Foundation. This program is part of the foundation's over-all program relating to scientific personnel and education. Its objective is to encourage more qualified

young people to seek education and careers in science and to improve the education of those so encouraged. In its effort to achieve these ends the foundation sponsors activities of three kinds, some of which are already in operation, although most are still in the planning stage. One has to do with increasing the competence and effectiveness of high-school and college teachers of science, a second with the improvement of the science curriculum at all levels, and a third with identification and encouragement of able high-school and college students.

I. W. McDonald, a senior principal scientific officer in the Institute of Animal Physiology, Cambridge, England, has been appointed officer-in-charge of the Commonwealth Scientific and Industrial Research Organization's Sheep Biology Laboratory, Prospect, New South Wales, Australia. In 1949 McDonald spent a year at Cornell University, where he conducted research in animal physiology with L. A. Maynard.

Gilbert E. Goheen, formerly director of research and development of the J. T. Baker Chemical Co., has joined the staff of the U.S. Department of Agriculture's Southern Utilization Research Branch, New Orleans, La. He will assist in the planning and direction of the research program of the branch, which comprises the Southern Regional Research Laboratory at New Orleans and six field stations.

James P. Hughes, a practicing physician in Cincinnati, Ohio, who is teaching part time at the University of Cincinnati, has been appointed associate professor of preventive medicine in Ohio State University's College of Medicine. Hughes is one of only seven men in the United States with a doctor's degree in industrial medicine.

William J. Robbins, director of the New York Botanical Garden, left on 16 Jan. to represent the National Academy of Sciences at the seventh annual session of the Pakistan Science Conference and to carry greetings to the recently formed Pakistan Academy of Sciences. He will return in February.

Robert A. Turner, former associate professor of biochemistry at the College of Medicine, State University of New York, has joined the staff of the New England Institute for Medical Research in Ridgefield, Conn., as chief of biochemistry. He has recently visited European universities and research organizations to gather scientific information of interest to the institute.

In January **Igor A. Sikorsky,** aeronautical pioneer, went to London to receive the 1955 James Watt international medal, a top honor in mechanical engineering.

Willis E. Lamb, Jr., professor of physics at Stanford University, has received the 1954 Research Corp. award—a plaque, a citation, and $2500—for his work in nuclear physics.

John Gardner, vice president of the Carnegie Corporation of New York since 1949, has been elected president. He succeeds **Charles Dollard,** who resigned after an association of more than 16 yr.

Sewall Wright, mathematical geneticist whose researches have demonstrated that the pattern of evolution is more complex than it was previously thought to be, has retired from the faculty of the University of Chicago. A member of the faculty since 1926, Wright was distinguished service professor of zoology at the time of his retirement. He is particularly known for his researches on the statistical pattern of heredity. In 1934 he was elected a member of the National Academy of Sciences. He is also an honorary member of the Genetical Society of Great Britain and the Royal Society of Edinburgh and has received numerous awards among which are the Daniel Giraud Elliott medal and prize of the National Academy of Sciences and the Weldon medal and prize of the University of Oxford.

L. Fredric Hough returned to the staff of the department of horticulture at Rutgers University on 1 Jan. after a 3-yr leave of absence during which he fulfilled a Point Four assignment for the U.S. Department of Agriculture in Liberia. The last year of the trip was devoted to traveling through North Africa, the Caucasian area, Lebanon, and Europe, with the primary purpose of meeting fruit breeders and examining germ plasma material. Hough spent the fall of 1954 at Purdue University, where he worked with J. R. Shay on disease-resistance breeding in fruit plants.

David G. White, on sabbatical leave from Pennsylvania State University, served in Hough's capacity from August to February. White taught a new course entitled "Plant science techniques" and also prepared a book manuscript on this subject for publication in the next year.

Henry M. Biekart, associate professor of ornamental horticulture, retired from the department of horticulture, Rutgers University, on 15 Oct. after 37 yr of service in floriculture, propagation, and outdoor flower gardening. On 30 Nov. **Arthur J. Farley,** for 46 yr an extension pomologist for the university, also retired.

Robert C. McMaster, a member of the Battelle Memorial Institute staff since 1945 and a well known "television weatherman," has been appointed professor in the department of welding engineering at Ohio State University.

Ven Te Chow of the University of Illinois has been named chairman of the water runoff committee of the American Geophysical Union. The committee's objective is to stimulate and coordinate research on runoff problems such as surface and subsurface flow from watersheds, river flow, floods, and droughts. Leading engineers and scientists from all parts of the country are members of the committee.

Allen O. Whipple, who was Valentine Mott professor of surgery at the Columbia University College of Physicians and Surgeons for 25 yr, and director of surgery at Presbyterian Hospital for the same period until his retirement in 1946, has received the academy medal of the New York Academy of Medicine. It is awarded at the discretion of the academy's council for distinguished service in medicine and has been awarded only eight times since its endowment by Samuel McCullough in 1928.

The Physical Society of London has elected **D. F. Martyn,** chief scientific officer of the Radio Research Board of the Commonwealth Scientific and Industrial Research Organization, Australia, as Charles Chree medalist for 1955. The award, which may be made to scientists of any country, was given in recognition of Martyn's outstanding researches concerning the ionosphere.

In a reorganization of engineering activities at the Stanford Research Institute, **Jerre D. Noe** has been appointed assistant director of engineering research. Also announced are the appointments of **Byron J. Bennett** as manager of the computer laboratory, and **Kenneth R. Eldredge** as manager of the control systems laboratory. Both newly formed laboratories will be supervised by Noe.

The Joseph Goldberger award for outstanding contributions in the field of medical and public health aspects of nutrition was recently presented to **Russell Morse Wilder** at a meeting of the Food and Nutrition Board of the National Research Council. This annual award, administered by the American Medical Association, is sponsored by the Nutrition Foundation as a stimulus to medical investigators in advancing the frontiers of public and personal health with special reference to the significance of good nutrition.

Alfred Hurwitz, chief of surgery at the Veterans Administration Hospital in West Haven, Conn., and associate clinical professor of surgery at the Yale University School of Medicine, has been named to concurrent posts in Brooklyn as professor of surgery at the State University of New York College of Medicine and as director of surgical services at Maimonides Hospital.

Another appointment at the college is that of **Louis J. Soffer** to the post of clinical professor of medicine, effective 1 Apr. He is now attending physician and head of endocrinology at Mount Sinai Hospital in New York.

John R. Bowman, director of research at the Mellon Institute for Industrial Research, recently received the $1000 Professional Progress award in chemical engineering, sponsored by Celanese Corp. of America, and administered by the American Institute of Chemical Engineers "in recognition of distinguished services to the science and profession of chemical engineering by bringing to it skills of other scientific and mathematical disciplines and by showing how these powerful tools can be put to work in the solution of chemical engineering problems."

Five teachers recently received awards from the committee on school science of the American Academy of Arts and Sciences for outstanding teaching in science and mathematics in the secondary schools of New England. The awards were made from the Elizabeth Thompson Science Fund. Those honored were **Norman W. Lafayette,** chemistry, Hamden High School, Hamden, Conn.; **Wallace W. Sawyer,** physics and chemistry, Weston High School, Weston, Mass.; **Eleanor E. Taylor,** mathematics, Central Junior High School, Quincy, Mass.; **Howard Wagner,** general science, Laconia High School, Laconia, N.H.; **Maurice M. Whitten,** chemistry, physics, and general science, Lewiston High School, Lewiston, Me.

Necrology

English Bagby, 64, professor of psychology at the University of North Carolina, Chapel Hill, 14 Jan.; **Summerfield Baldwin,** 58, head of the Div. of Social Sciences at Akron University, Akron, Ohio, 15 Jan.; **Hubert C. Booth,** 83, consulting engineer and inventor of the vacuum cleaner, London, 14 Jan.; **Alessandro Brizi,** 76, pioneer in modern farming methods, former secretary general of the International Institute of Agriculture, and former Minister of Agriculture, Rome, 16 Jan.; **Brother Defendant Felix,** 67, retired professor and head of the mathematics department at Manhattan College, New York, 15 Jan.; **Henri Gougerot,** 73, authority on venereal diseases, author, and professor of dermatology and syphilology at the University of Paris, Paris, 15 Jan.; **Ferdinand Hochstetter,** 93, authority on human embryology, author, editor, and professor emeritus of anatomy at the University of Vienna, Vienna, 10 Nov.

William M. Jardine, 76, agronomist, author, former Secretary of Agriculture and president of Kansas State Agricultural College at Manhattan and the University of Wichita, Wichita, Kans., 17 Jan.; **Brother Adelphus Joseph,** 64, former professor and head of the chemistry department at Manhattan College, New York, 19 Jan.; **Jacob M. Kinney,** 77, former editor of *School Science and Mathematics* and visiting professor of mathematics at the University of Chicago and Illinois Institute of Technology, Chicago, 19 Jan.; **Jose Lubschez,** biochemist on the research staff of the department of pediatrics of the New York Hospital–Cornell Medical Center, New York, 18 Jan.; **D. Horace Nelson,** 56, author and assistant professor of dairy industries at the University of Massachusetts, Amherst, 14 Jan.; **Lowell S. Selling,** 52, psychiatrist and author, Orlando, Fla., 18 Jan.; **Wilson Zerfing,** 86, retired dentist and instructor in the University of Pennsylvania Dental School, Philadelphia, 13 Jan.

Meetings

The **American Society of Mechanical Engineers** will hold an all-day conference in New York, 16 Feb., during which Vannevar Bush, president of the Carnegie Institution of Washington, will deliver the principal address. The conference has as its theme *The Engineer and the World of Communications*. It will take place on the 75th anniversary of the day on which initial plans were laid for the founding of the society.

The **3rd International Congress of Vitamin E** will be held in Milan, Italy, at the beginning of Sept. Scientists from Italy, America, England, and other European countries will participate. Persons wishing to send communications to the congress must do so *before 1 Mar.* Two summaries not more than one page in length, one of which must be in the English language, should accompany all such communications. These and any requests for further information should be addressed to Prof. Emilio Raverdino, Secretary, Milano, Via Pietro Verri 4.

An **International Symposium on Cardiovascular Surgery** will be held at the Henry Ford Hospital, Detroit, Mich., 17–19 Mar. Diagnostic and operative techniques in cardiovascular diseases will be discussed. Inquiries should be addressed to Dr. John Keyes, Secretary, International Symposium on Cardiovascular Surgery, Henry Ford Hospital, Detroit 2, Mich.

The **spring meeting of the URSI** will be held at the National Bureau of Standards, Washington, D.C., 3–5 May, under the sponsorship of the U.S.A. National Committee of the International Scientific Radio Union. Symposiums tentatively planned include: forward scattering of radio waves, theoretical aspects of ferrites at microwaves, mechanisms and limitations of microwave noise sources, and multimode microwave transmission systems. Authors should submit titles and 100- to 200-word abstracts to the appropriate commission representative or professional group representative *by 1 Mar.* For further information, write William E. Gordon, Secretary, U.S.A. National Committee, URSI, School of Electrical Engineering, Cornell University, Ithaca, N.Y.

The **Tissue Culture Association** will hold its annual meeting on 5 Apr. at Jefferson Medical College, Philadelphia. In addition to the usual presentations, there will be a session devoted to the culture of plant cells. On 6 Apr. the association will hold a joint session with the American Association of Anatomists.

The department of biochemistry and the graduate school of the University of Washington, Seattle, are sponsoring a symposium on the **Molecular Basis of Enzyme Action** to be held on 7–8 Apr. The following addresses will be presented: "Metallo-enzymes," B. L. Vallee, Harvard University; "Transpeptidation reactions," C. S. Hanes, University of Toronto; "Peptides resulting from the action of proteolytic enzymes on purified proteins," W. H. Stein, Rockefeller Institute; "Kinetic determination of ionization constants of enzymes and enzyme-substrate complexes," R. A. Alberty, University of Wisconsin; "Interaction of hormones with enzyme systems," H. A. Lardy, University of Wisconsin; "Biological synthesis of terpenes and steroids," K. Bloch, Harvard University; "Reconstruction of the electron transport system of animal tissues," D. E. Green, University of Wisconsin; and "Enzymatic mechanisms of nucleic acid synthesis," A. Kornberg, Washington University. All inquiries should be addressed to the Department of Biochemistry, University of Washington, Seattle 5.

The **Division of High-Polymer Physics of the American Physical Society** will hold its 13th meeting at Baltimore, Md., 17–19 Mar., jointly with a meeting of the parent society. The program was arranged by a committee headed by Thomas DeWitt, Mellon Institute, and includes a symposium on physical investigations of nucleic acid.

The **2nd International Congress of Allergology** will be held, by invitation of the Brazilian Allergy Society, in Rio de Janeiro, 6–13 Nov. F. W. Wittich, president of the International Association of Allergology, will act as chairman. The official languages will be English, French, Portuguese, and Spanish; the chief topics will be presented in these languages. North Americans wishing to present papers should send their requests to Dr. F. W. Wittich, 424 LaSalle Medical Building, Minneapolis 2, Minn. Other information about the congress can be obtained from Dr. B. N. Halpern, Secretary, 197 Boulevard Saint Germain, Paris VII^{e}.

The Medical School of the University of Wisconsin, Madison, is sponsoring a symposium on **Metabolic Aspects of Transport across Cell Membranes,** 29–31 Aug. The program will include speakers from this country and abroad, and several round-table discussions. Reservations and further information can be obtained from the Symposium Committee, Dept. of Pharmacology, Service Memorial Institutes, University of Wisconsin, Madison.

An **International Congress on Catalysis** will be held in Philadelphia, 10–14 Sept. 1956. It will be sponsored jointly by the National Science Foundation, the Catalysis Club of Philadelphia, the Catalysis Club of Chicago, and the University of Pennsylvania. This will be the first international meeting on catalysis to be held in America and will cover heterogeneous as well as subjects of homogeneous and biocatalysis. All papers presented at the meeting will be preprinted to facilitate discussion.

The National Science Foundation has given a grant to the sponsors of the congress to enable them to offer some financial support to scientists who could not otherwise attend the meeting. Additional funds are

being raised by subscription. Hugh S. Taylor, Eugene J. Houdry, and Eric Rideal have been named honorary chairmen of the congress. A. Farkas is in charge of program arrangements. All inquiries concerning this meeting and its organization should be directed to Dr. H. Heinemann, Executive Secretary of the International Congress on Catalysis, c/o Houdry Process Corp., P.O. Box 427, Marcus Hook, Pa.

A **Nuclear Congress and Atomic Exposition** will be held 12–17 Dec. in Cleveland, Ohio, under the leadership of the Engineers Joint Council and a dozen organizations representing more than 250,000 American scientists, engineers, and industrialists. The basic objective of the congress is to launch a continuing program of interchange of information on the development of applications of nuclear science. Further information may be obtained from the Engineers Joint Council, 29 W. 39 St., New York 18.

Education

A **radar set designed specifically for meteorologic purposes** has been installed at Harvard University's Blue Hills Observatory on Great Blue Hill, Milton, Mass. Meteorologists will use the radar to determine the size, intensity, and sometimes the velocity of weather disturbances at ranges up to 300 mi. The radar, which will be used for research purposes, is capable of determining the heights of a cloud top, base, and freezing level; it will also be used to study particles of precipitation and to map regions of up- and downdraft in thunderstorms. The installation consists of an 8-ft rotating antenna on a 50-ft tower and a console mounted in a Jamesway hut. The console has four indicators, an A-type to show signal intensity compared with range, a range-height indicator to present the vertical cross section of a storm, and two plan position indicators. The radar will be operated by Blue Hills Observatory under a contract with the Air Force Cambridge Research Center; the information obtained will be studied by workers at the Atmospheric Physics Laboratory of the Geophysics Research Directorate, Air Force Cambridge Research Center.

An **introduction to the basic medical sciences** treated in an advanced fashion and from a research point of view is being offered in Harvard Medical School. It includes experimental methods and fundamental principles associated with each subject, and replaces a full year of formal course work, although it does not cover all topics usually assigned to each of the participating sciences. Members of a group planning research in several different fields have the opportunity to work together for a year in this "home laboratory." Each may then enter a special course to carry out advanced studies and thesis work.

The teaching staff for this special program consists of instructors drawn from each of the basic preclinical departments. The physical center of the course is a special laboratory built to accommodate 20 students, each of whom is allotted a chemical bench, combination writing desk and microscope table, and bookshelf. The open area of the room is used for experiments requiring heavy equipment.

The idea of presenting selected areas of study with thoroughness and emphasizing their nature as models rather than with the encyclopedic approach has proved a fruitful way of teaching. Because of regular post-lecture discussions the students have developed ability to present concise accounts of experiments. The new plan is described by Manfred L. Karnovsky, assistant professor of biological chemistry, in the January issue of the *Journal of Medical Education*.

The American Chemical Society's New York section has announced that a series of discussions on ***Separation Techniques in Chemistry*** will take place on Wednesday evenings, beginning 23 Feb., in the Union Carbide and Carbon Corp. building, 30 E. 42 St. Applications for enrollment in the course should be sent promptly to Mr. John J. Miskel, Charles Pfizer and Co., 11 Bartlett St., Brooklyn 6, N.Y.

Available Fellowships and Awards

The **Harvard University School of Public Health** has announced the availability of scholarships for 1955–56. These will be granted to individuals of high professional promise in awards ranging from part tuition to tuition and stipend, according to the qualifications and financial needs of the applicants. The scholarship funds are limited and are primarily intended for citizens of the United States. The application *deadline is 1 Mar.* For information, write the Secretary, Harvard School of Public Health, 55 Shattuck St., Boston 15, Mass.

The **Special Libraries Association** has announced the availability of a $1000 graduate scholarship. The award is intended only for those in need of financial assistance to complete the professional education necessary for work in the special library field. Information may be obtained from the Executive Secretary, Special Libraries Association, 31 E. 10th St., New York 3. *Applications must be received by 1 Mar.*

Members of **Tau Beta Pi** are invited to apply for the society's annual $1200 fellowships for graduate study in engineering during 1955–56. *Applications must be received by 28 Feb.* For information, write Paul H. Robbins, 1121 15th St. NW, Washington 5, D.C.

The **National Council to Combat Blindness, Inc.,** has announced that it is welcoming applications for its 1955–56 research awards for grants-in-aid and full-time research fellowships in ophthalmology and its related sciences. The council has added to its research program the financing of summer fellowships initiated by its Scientific Advisory Committee to encourage

ophthalmic investigations. All applicants for fellowships, full-time or summer, are required to make their own arrangements for suitable research facilities with accredited institutions. The closing date for the receipt of completed applications *is 15 Apr.* Forms may be obtained by addressing: Secretary, National Council to Combat Blindness, Inc., 30 Central Park So., New York 19.

The **Nature Conservancy** is offering a $500 scholarship for graduate study in conservation-human population relationships during 1955–56. Any candidate for an advanced degree may apply provided that his chosen thesis subject includes as a major concern some aspect of the relationship between natural area preservation and the increasing pressure of human population.

An applicant should submit a brief outline of his proposed thesis. In addition he should submit relevant information about himself and addresses of several references, including the professor under whom he is studying. *Application should be made by 1 Apr.* to the Nature Conservancy, 4200 22nd St. NE, Washington 18, D.C.

The **Medical Library Association** is offering four scholarships of $150 each for summer school courses in medical library work in 1955, two at Columbia University and two at Emory University. Applications for these scholarships should be made to the school at the time of application for enrollment. The association's *closing date for applications is 1 Apr.,* and candidates must already have been accepted by the school. Completion of either course will enable a student with a bachelor's degree and 1 yr of library school training to qualify for grade I certification by the Medical Library Association.

The course at Columbia, which is on the medical library, is offered 5 July–12 Aug. It will be given by Thomas P. Fleming, librarian of the College of Physicians and Surgeons. Tuition is $75; registration, $10. For further information write to The Dean, School of Library Service, Columbia University, New York 27, N.Y.

Emory University offers a course in medical libraries 18 July–20 Aug., and the instructor is Mildred Jordan, librarian of the Calhoun Medical Library, Emory University Medical School. Tuition is $60; matriculation, $5. For information write to The Director, Division of Librarianship of Emory University, Emory University, Ga.

The department of anatomy, **University of Washington,** announces the availability of graduate assistantships for Ph.D. candidates. In addition to the conventional special division of anatomy, the department sponsors research and advanced training in submicroscopic anatomy, electron microscopy, cytochemistry, x-ray diffraction, microspectroscopy, and tracer biology. For information write: Executive Officer, Department of Anatomy, University of Washington, Seattle 5, Wash.

Miscellaneous

Weather or Not, a new educational motion picture that shows how farm profits can be increased by fertilization and irrigation, is now available for distribution by the National Fertilizer Association. This 16-mm sound-color movie, which runs 21.5 min, is the second educational picture produced by N.F.A. during 1954. The other, *The Big Test,* which describes the approved method of taking soil samples to be used in determining plant food deficiencies in the soil, was released in December. Both pictures were produced by N.F.A.'s Robert H. Engle. Cooperating in the production of *Weather or Not* was the Sprinkler Irrigation Association. The advisory committee on the film included representatives of the American Society for Horticultural Science, the American Society of Agricultural Engineers, and the American Society of Agronomy.

All N.F.A. movies may be borrowed free of charge by sending a request to the association at 616 Investment Building, Washington 5, D.C. Persons or groups wishing permanent copies of films may arrange to purchase them at cost.

The U.S. Civil Service Commission has announced a new examination for **bacteriologist, biochemist, and serologist positions** in hospitals and regional offices of the Veterans Administration throughout the United States and Puerto Rico. The salaries range from $4205 to $8360/yr.

No written test is required. Applicants must have had appropriate education and experience. Graduate study may be substituted for the experience required for the lower salaried positions, and for part of that required for the higher salaried positions. Full information regarding the requirements and how to apply may be secured at many post offices throughout the country, or from the U.S. Civil Service Commission, Washington 25, D.C.

The Atomic Industrial Forum, Inc., 260 Madison Ave., has published ***The New Atomic Energy Law—What It Means to Industry.*** The $5 volume constitutes the proceedings of a meeting in New York. 27–28 Sept., at which top authorities from industry and government presented the first comprehensive analysis of the Atomic Energy Act of 1954. Each major aspect of the new law was represented on the program. In addition to a basic interpretation of the Act, the proceedings include separate sections on investment problems and opportunities, what industry sees ahead, the new industry-government partnership, government implementation of the new law, the labor outlook, and insurance problems. Further, the material is presented at a technical level that will make it of interest to both management and research people.

Erratum: In the 10 Sept. 1954 issue the amount of the American Library Association's Oberly Memorial award was incorrectly given as $1200. Actually, the award consists of income—interest for 2 yr—from a fund of about $1200. We regret this error and are glad to make correction.