News and Notes

Solvay Physics Conference

The 10th Solvay Physics Conference met 13–17 Sept. 1954 in the rooms of the Université Libre in Brussels, Belgium, to consider the subject of *Electrons in Metals*. The sessions were presided over by Lawrence Bragg, assisted by the members of the scientific committee of the Institut International de Physique Solvay, W. Pauli, N. F. Mott, C. Møller, F. Perrin, and J. R. Oppenheimer (absent). There were about 25 persons present, in addition to the secretarial and administrative staff.

It was an appropriate time for the Solvay Conference to consider the field of electrons in metals. In the last few years there has been a rapid growth of experimental and theoretical interest in the field, a growth that promises to bring about a definitive understanding of many of the major problems of metals and alloys in the next decade. On the experimental side, powerful new tools are being employed: neutron diffraction, nuclear and electron spin resonance, low-temperature studies of equilibrium and transport properties, improved methods of chemical purification and crystal growth, and others of equal importance. On the theoretical side we are seeing the application of electronic computers to the calculation of wave functions and energy band structures, the developments in the investigation of the collective aspects of a Fermi gas, the realization of the importance, particularly in connection with superconductivity, of electron-phonon interactions, the increased consideration of degenerate bands and the effects of the spin-orbit interaction, and others.

The principal papers read at the conference included the following. C. G. Shull (Oak Ridge) spoke on neutron-diffraction studies of transition elements and their alloys. By neutron methods it is possible to determine the average magnetic moment of each component of an alloy, thus providing a challenging test of theoretical calculations of the band structure of alloys. J. Friedel (Paris) described recent theoretical work on electron wave functions in alloys, with emphasis on the question of when the electrons associated with minority solute atoms join the common band structure of the alloy and when the electrons may be bound to localized impurity states about the solute atoms.

H. Fröhlich (Liverpool) spoke on recent theoretical advances in superconductivity, with emphasis on the exact solution of a particular one-dimensional problem involving an electron-phonon interaction. A. B. Pippard (Cambridge) discussed several experimental methods for the determination of properties of electrons at the Fermi surface in metals; the methods include microwave measurements of the anamalous skin effect and the study of the de Haas-van Alphen effect. D. Pines (Urbana) reviewed the work of Bohm and Pines on collective effects in a Fermi gas arising from the electron-electron Coulomb interaction. He discussed in particular the constructive influence of the collective treatment on the theoretical value of the paramagnetic susceptibility of metallic lithium, as compared with the experimental determination by resonance methods by Slichter and coworkers.

D. K. C. MacDonald (Ottawa) reviewed experimental measurements of various transport properties of metals at low temperatures, pointing out several unusual anomalies, such as in thermoelectric behavior, which call for extensions of the present elementary theories. L. Néel (Grenoble) proposed an explanation of metamagnetism, a term associated with the unusual magnetic behavior at low temperatures of magnetically concentrated salts such as cobalt chloride and nickel chloride. He also discussed the properties of several rare-earth ferrites, in which several magnetic transitions have been observed.

There were a number of other interesting papers, but it would miss the main point of a Solvay Conference to dwell longer on the prepared contributions. A Solvay Conference is organized to make possible a large amount of unrehearsed group and private discussion of unsolved problems, under pleasant and agreeable physical conditions, among a pliable number of persons representing an effective balance of active experimental and theoretical workers in the field under discussion, together with the members of the scientific committee who have broad and general interests. It is not necessary at a Solvay Conference to stand out in the corridors to discuss speculations, future programs, and current puzzles; rather, these directions are encouraged and ample time for discussion is provided in the regular session.

The conference was made possible by the generosity of M. Ernest Solvay and by the Université Libre. The hospitality shown to members was memorable, and on many occasions the participants were reminded appropriately of the ancient connections of Burgundy with Belgium. The scientific secretarial duties were executed enthusiastically by A. B. Pippard, and the capable administrative secretariat was directed by F. H. van den Dungen.

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Man-Made Diamonds

Climaxing four years of intensive work with high temperatures and pressures on different materials, scientists at the General Electric Research Laboratory in Schenectady, N.Y., have produced man-made diamonds. The diamonds, only a few carats so far, have been positively identified by x-ray inspection.

chemical examination, and hardness tests. Under the hardness tests, the GE diamonds proved to be capable of scratching anything, even other and natural diamonds.

A carbonaceous compound, not named by GE, was subjected for 16 hr to a pressure of roughly 800,000 lb per sq in. and temperatures above 5000 deg F in the laboratory's new 1000-ton press. This yielded a crystal nearly 1/16 in. in its longest dimension. Other crystals have been produced at pressures ranging up to 1,500,000 lb per sq in. Pressures such as these are roughly equivalent to the pressure that has been computed for points 240 mi beneath the earth's surface. Some of the diamonds have been produced in a matter of minutes.

The scientists responsible for the achievement were Francis P. Bundy, H. Tracy Hall, Herbert M. Strong, and Robert Wentorf. Scientists from other departments in the GE Laboratory have successfully repeated the initial experiments. Using different materials, temperatures and pressures. Altogether the several processes for making diamonds have been repeated successfully more than 100 times.

The diamonds produced in the GE Laboratory are of industrial quality only. C. Guy Suits, vice president and director of research at the laboratory, stated that no thought has yet been given to mass production and that no attempt has been made to produce diamonds of gem quality.—C.V.M.

Science News

More than half a million objects have been added to the scientific study **collections of the Smithsonian Institution** during the past year. The great majority were additions to the zoological collection, including such major items as 1500 small mammals collected in Korea by the Army Medical Services; approximately 3500 skins of birds and other ornithological items from Thailand and Cuba; 1042 specimens of reptiles and amphibians from Egypt; 5760 marine invertebrates from the Caroline Islands; and 100,000 mosquitoes from Thailand.

Botanical collections were increased by more than 24,000 specimens from the Fiji Islands, as well as large accessions from Brazil, the Ryukyu Islands, the Isle of Pines, Mexico, Tonga, and Malaya.

Geological collections were increased by such items as a white and a black opal from Australia and large crystals of little-recognized gem stones from Brazil and Lower California.

Major additions were made to the collections of fossils representing the life of the earth in other geological periods, such as 500 mollusks from the lower Cretaceous; 7500 invertebrates of the Devonian period; and groups of starfishlike animals from Oklahoma and Ontario. An outstanding collection of mammal fossils from the Eocene and Paleocene was obtained in Wyoming. An important exchange gave the institution a series of 22 specimens and casts of primitive jawless fish represented by fossils in the rocks of Norway and Spitsbergen.

On 27 Jan. the U.S. House of Representatives, by a 366–0 roll-call vote, passed a bill, HR 587, to permit members of the armed forces serving as of 31 Jan. to continue to build up **credits for education** benefits under the Veterans' Readjustment Assistance Act of 1952 (the Korean GI Bill). However, HR 587 has been amended to extend until 1965, rather than 1967, the date on which GI schooling must be completed. For each day of service after 26 June 1950, to a maximum of 3 yr, a serviceman accumulates 1½ days of education and training time.

India's per capita food consumption reached 1623 cal/day during the last year; in 1951 the average was 1398 cal. In the United States 2000 to 3000 cal. are considered necessary, the amount varying according to the person's physical needs.

Edward H. G. Hon and John M. Morris of the department of obstetrics and gynecology at the Yale University School of Medicine have reported an **improved test for pregnancy** in the *Yale Journal of Biology and Medicine* (vol. 27, No. 3). The test utilizes the common American toad, *Bufo americanus,* and can be completed in 4 hr or less; positive reactions frequently are available in as little as 2 hr. The method has been essentially 100 percent accurate in the diagnosis of normal pregnancy in some 2000 cases. Heretofore toad and frog tests have been considerably less accurate. Other pregnancy tests, such as the Friedman test with rabbits and the Aschheim-Zondek with mice, are accurate but require from 48 to 96 hr.

All of these tests, including the new one, are based on detecting the hormone chorionic gonadotrophin in a urine specimen. One of the chief advantages of the Yale test is an improved hormone concentration technique, a simplification of the widely used kaolin concentration technique for preparing urine specimens. With the new technique the average specimen can be prepared in approximately 10 min in contrast with the 45 to 60 min ordinarily required. Grants from the U.S. Public Health Service and Yale's James Hudson Brown Memorial Fund aided this research project.

Canada has announced that this year it will start construction of an **atomic plant** for the production of electric power. Atomic Energy of Canada, Ltd., a government agency, said in its annual report released on 24 Jan. that the experimental power plant might begin operation as early as 1958. The reactor, the country's fourth pile, may be built at the Atomic Energy

Center in Chalk River, Ont. It is not expected to provide electricity at economical rates, but will allow for "the kind of cost experience which will make possible . . . a larger and economic power reactor." Both the government and industry will cooperate in the design and construction of the pilot plant, but the major part of the cost will be borne by the government.

A clearing house for the nation's military research and development in the field of electronic parts, the secretariat of the Defense Department's **Advisory Group on Electronic Parts,** has been established at the University of Pennsylvania. It is staffed and operated by the university's Institute for Cooperative Research under Government contract. Heading the office is Edwin R. Petzing, secretary of the Advisory Group who is a retired brigadier general serving in a civilian capacity as a member of the university staff. The Advisory Group is responsible to the office of Donald A. Quarles, Assistant Secretary of Defense for Research and Development.

The secretariat will analyze and prepare digests of the work of the Defense Department's many electronic parts research projects in order to discover unfilled needs and to eliminate duplication. Therefore, more than half of the projected staff of 11 persons will be scientific and technical personnel. A skeleton staff already is operating.

In the United States in 1949–50 the number of deaths from **accidental poisoning in children** under 5 yr old was four times that of Great Britain. One-third of the deaths were caused by drugs, the commonest of which was aspirin. Adding the total number of children who met accidental death to the total number crippled by poisons produces a figure that far exceeds any drawn from the leading childhood diseases.

For this reason, a Committee on Toxicology has been established by the American Medical Association to study the health problems of drugs, household goods, and other materials, and to supply educational material to the public. Another important step is the establishment of poison control centers to cooperate with local hospitals.

The spectacular **progress against syphilis** that followed the discovery of penicillin has brought with it new problems and new dangers, according to a new 25-ct pamphlet, *Syphilis: The Invader* by Erik Barnouw and E. Gurney Clark just published by the Public Affairs Committee, 22 E. 38th St., New York. The pamphlet was prepared in cooperation with the Center for Mass Communication, Columbia University Press, and designed to accompany a new film, *The Invader*. The following achievements of penicillin therapy are listed: Deaths from syphilis have dropped from 11.1/100,000 population in 1939 to 3.7/100,000 in 1952; infant mortality from syphilis has dropped from .57/1000 live births in 1939 to 0.02/1000 live births in 1952; admissions of the syphilitic insane to mental institutions have dropped from 6.6/100,000 population in 1939 to 2.1/100,000 in 1951.

Because of penicillin's effectiveness, most of the federally supported rapid treatment centers had been closed by 1951. But the authors warn that the syphilis problem is not resolved: (i) the rapid treatment centers were an ideal setting for interviews by contact investigators, and the present local arrangements for follow-ups are too complex, which makes contact tracing more difficult; (ii) a moderate quantity of penicillin, perhaps prescribed for some standard infection, will not cure syphilis and may hasten the disappearance of outward symptoms so that they pass unnoticed; (iii) a decrease in the number of cases treated may not mean a decrease in the number who have syphilis, for the search for cases is being made on a far less sweeping scale than in previous years.

Wild birds have been linked conclusively to the **spread of encephalitis** by a research team consisting of William C. Reeves and W. McD. Hammon, professors of epidemiology representing the University of California's campuses at San Francisco and Berkeley; C. M. Herman of the California Department of Fish and Game; H. E. McClure, E. M. French, and B. Brookman of the U.S. Public Health Service; and R. C. Herold and L. Rosen, both technical assistants from the university's San Francisco campus. Their findings, the result of 6 yr of research, are the first to show without doubt that wild birds constitute an important natural source of the viruses that cause encephalitis. It has been known for a long time that the mosquito, *Culex tarsalis,* is largely responsible for infecting horses and human beings with the viruses that cause encephalitis; however heretofore it has not been known where *Culex tarsalis* got the viruses.

Secretary of Defense Wilson has issued a special directive, dated 20 Dec. and distributed 2 Feb., to the secretaries of the Army, Navy, and Air Force that announces the establishment of an **industrial security review office** with a director to be appointed by him and responsible to him. Until now the secretaries have had the power to decide the security status of civilian employees in plants holding defense contracts. Wilson stated that the security program is "suffering from certain deficiencies in operation, the principal cause of which is lack of centralized control and direction."

The new security director, still unnamed, will work closely with the three military services, but he and Wilson will have the final authority in determining the security classification of any individual. The review office will also follow all cases going through the regional hearing boards in New York, Chicago, and San Francisco and will keep the services informed of "difficult and unusual" situations. An official in the Defense Department cited the case of Edward U. Condon [*Science* **120,** 1088 (31 Dec. 1954)] as one that would not have become so controversial if the new procedure had been in effect last summer.

A recent nationwide survey by the Bureau of Medical Economic Research of the American Medical Association shows that **more men are hospitalized** than women. A breakdown of the totals demonstrated that even in the childbearing years of life, ages 15 to 44, men exceeded women in hospitals by 13,000. At ages 45 to 64 the excess was more than 51,000 but after 65 it dropped to 2000. Surveys of accidents and occupational diseases might shed more light on the difference, but the latter would hardly explain why there were 11,300 more males than females under 15 yr of age in hospitals.

The State of Missouri Conservation Commission has shipped 36 **cottontail rabbits to France,** where the French Ministry of Agriculture will use them in crossbreeding and inoculation studies directed toward combating myxomatosis, a disease that is threatening the European rabbit industry. The Missouri commission would like to have advance knowledge if the cottontail rabbits are susceptible to the disease in order to develop effective preventive measures.

A new division, to be known as the **Medical Information and Intelligence Division,** has been created in the Office of the Army Surgeon General. Formerly known as the medical intelligence branch, the new division was then a component of the preventive medicine division, where it was concerned with compiling medical and sanitary data on areas outside the United States, and with coordinating all foreign liaison activities of the Office of the Surgeon General and Class II medical installations. As a division, it will continue its former functions and will in addition supervise the security functions of the Office of the Surgeon General and provide medical information on foreign areas to authorized individuals and agencies.

Chief of the new division is Philip W. Mallory, colonel in the Medical Corps. Arthur R. Turner, formerly chief of the medical intelligence branch, will be technical director. All civilian employees of the former medical intelligence branch have been retained in the new division.

Homi J. Bhabha, leading Indian nuclear physicist, has been appointed president of the international **conference on the peaceful uses of nuclear energy** that is to take place in Geneva beginning 8 Aug. Walter G. Whitman, head of the chemical engineering department at Massachusetts Institute of Technology and in 1948 director of the Atomic Energy Commission's Lexington Project, has been named secretary general of the conference, making him the top officer of the United Nations staff handling preparations for the talks.

A long technical agenda has been made public, as well as a set of rules intended to keep political issues out of the meeting. No resolutions requiring votes are to be offered, and Bhabha, as president, has been empowered to call to order any speakers who stray from the relevant technical topics. The rules further stipulate that scientific papers shall be reviewed by a panel designated by the U.N. Secretary General, Dag Hammarskjold. The conference is to meet for 12 working days, with English, Russian, French, and Spanish as the official languages. Each of the 84 participating countries is limited to five representatives but can bring along advisers.

John T. Rettaliata, president of Illinois Institute of Technology, pointed out recently in a speech at a military-industrial conference on technical manpower that education of **women in engineering** in the United States has been progressing at a "snail's pace" when compared with the rate in Soviet Russia, where an estimated 25 percent of the engineers are women. In this country, less than 1 percent of the approximately 500,000 engineers are female.

A **nuclear x-ray machine** for war or peacetime use has been developed by the Army. The device uses radioactive thulium and radiosensitive photo paper; the thulium is expected to last for approximately a year. Neither electricity, water, nor dark room is needed to develop the picture, which shows immediately. The whole machine, including a lead-lined case to protect personnel, is contained in a 48-lb unit that may be packed on a medical aidman's back.

Humberto Fernandez-Moran V, director of the Venezuelan Institute for Neurology and Brain Research, Caracas, Venezuela, has announced that his country plans to be the first nation outside of the United States to undertake mass immunization of its citizens with the **Salk polio vaccine.** Early this spring Fernandez-Moran will institute a pilot study of the vaccine among 2000 infants in Venezuela to determine the systems and procedures to be used in the mass program. Wyeth Laboratories, which with four other concerns has pioneered in the manufacture of the Salk vaccine upon the invitation of the National Foundation for Infantile Paralysis, will provide the vaccine for the Venezuelan study at no cost.

A portable battery-operated **monitoring instrument** that is pushed over the floor like a vacuum cleaner has been announced by the University of California's Los Alamos Scientific Laboratory. This new device for detecting radioactivity, Model FM-1, was designed by Mark H. Tattan of the laboratory's chemistry and metallurgy division. Heretofore, a technician holding a small-area probe has had to crawl on his hands and knees in order to detect alpha contamination on a large floor area. Model FM-1 does away with this inconvenience.

It comprises a basic box unit mounted on three wheels, and a 3-ft handle on which a control box is mounted. The basic unit serves as a rolling bed for an alpha-sensitive probe and associated power supplies and amplifiers. The handle-mounted control box con-

tains a reset switch, a range switch providing ranges of from 1 to 2000 or 1 to 20,000 counts/min, a loudspeaker for audible signals of alpha counts, and a count rate meter. The voltage to the probe is easily adjustable to allow for changes in atmospheric density at various altitudes, and the entire instrument is designed for easy disassembly and repair.

Scientists in the News

On 17 Dec. **Nathan M. Pusey,** president of Harvard University, issued the following statement about the case of **Wendell H. Furry,** associate professor of physics.

> Indictment has been found against Dr. Furry charging him with the misdemeanor of refusing to answer questions of a Senatorial committee concerning other people. He has not been indicted for refusing to answer questions about his own connection with the Communist Party; he testified under oath that he dropped out of the Communist Party a number of years ago. He also abandoned reliance on the Fifth Amendment, the use of which we had deplored. We continue to favor full disclosure in these matters, but the legal consequences of his refusal will presumably be determined by the courts. So long as the case is pending, we do not think it appropriate to make any further statement on the subject.

The Society of Illinois Bacteriologists has announced that **Perry W. Wilson,** professor of bacteriology at the University of Wisconsin, is to receive this year's Pasteur award on 30 Apr. for his research in the field of nitrogen fixation. Wilson's work has been directed primarily toward explaining the chemistry of the nitrogen-fixation process, including the isolation and study of the enzymes involved. A major contribution is his discovery that hydrogen is a specific inhibitor of nitrogen fixation, and that bacteria with a hydrogenase enzyme system usually have the capacity to fit atmospheric nitrogen. This discovery revealed the fact that nitrogen fixation can be performed by many species of bacteria, and that any bacteria with the hydrogenase enzyme system are potentially capable of nitrogen fixation.

Kenneth D. Nichols, a major general and a West Point-trained Army engineer, has announced his resignation as general manager of the Atomic Energy Commission, effective 1 May. He plans to establish a consulting engineer's office in Washington, D.C.

In January **George W. Bain** of Amherst College began a 7½-mo around-the-world-trip planned primarily for studies of geology, geography, and resources in Indonesia, Australia, and New Zealand.

Markus E. Fierz, professor of theoretical physics at the University of Basel, Switzerland, is serving until 2 Apr. as a visiting professor of physics at the University of Maryland. He is giving a course on the foundations of statistical mechanics and is conducting seminars in theoretical physics as well as working closely with the research groups in that subject.

Fierz has made major contributions to at least three widely different fields of physics: statistical mechanics, quantum field theory, and nuclear physics. In collaboration with Nobel prize winner Wolfgang Pauli, he made a fundamental contribution to the theory of quantum statistics. He has developed the theory of particles of arbitrary spin and has published many important papers in meson theory and the theory of beta radioactivity. He also serves as editor of *Helvetica Physica Acta.*

The following appointments to assistant professor have been announced. University of Texas: **Edward C. Jonas,** geology. State College of Washington, Pullman: **Robert J. Foster,** chemistry. State University of New York College of Medicine, Brooklyn: **Edward A. Eckert,** microbiology. West Virginia University: **William Knox Harrell,** bacteriology.

Paul Edward Garber, head curator of the National Air Museum, Smithsonian Institution, has been awarded the 1954 trophy of the Washington Air Derby Association in recognition of his "untiring and unselfish efforts on behalf of all phases of aviation, and in particular because of his furtherance of aviation interest and education through a personal determination to assist in the development of the greatest air museum in the world, and also because of his efforts to glorify the deeds and accomplishments of others in aviation."

John Blair Macauley, director of technical coordination for the Ethyl Corp., has been appointed Deputy Assistant Secretary of Defense (research and development).

Two appointments have been announced by the new $11,000,000 Quartermaster Research and Development Center in Natick, Mass. **Torsten Hasselstrom,** formerly at the Philadelphia Quartermaster Depot, is chief of the organic chemistry section. **David E. Bass,** who was a biochemist at the Quartermaster Climatic Research Laboratory at Lawrence, Mass., is chief of the biochemistry section.

On 1 Jan. **G. N. Hoffer** retired as midwest manager for the American Potash Institute, a position which he had held since the formation of the institute in 1935. Hoffer is known for his research in plant nutrition, plant physiology, corn breeding, and diagnostic techniques for identifying plant-food deficiencies. He pioneered in the study of the nutrient needs of crops. Because of his early observation and study of root diseases and root development of corn, he was one of the first to recognize that the deterioration in the structure of Midwest soils was caused by the deple-

tion of organic matter and the use of heavy machinery. He will remain active as a consultant and his residence will continue to be in West Lafayette, Ind. He has been succeeded by **Werner L. Nelson,** who resigned his connections with North Carolina State College last October to work with Hoffer.

Outstanding research achievements earned Borden awards of a gold medal and $1000 for eight scientists and a joint award for two others during 1954. The administering associations and the recipients are as follows.

American Dairy Science Association: **Lester E. Casida,** University of Wisconsin, for studies affecting the breeding efficiency of dairy cattle; and **Paul R. Elliker,** Oregon State College, for his work on bacteriology and sanitation in the dairy industry.

American Veterinary Medical Association: **Myron G. Fincher,** Cornell University, for research on mastitis and other phases of large animal medicine.

American Academy of Pediatrics: **Paul Gyorgy,** University of Pennsylvania, for contributions to the science of nutrition in the field of pediatrics.

American Chemical Society: **Donald V. Josephson,** Pennsylvania State University, for work resulting in fundamental advances in dairy chemistry and practical advances in dairy manufacturing.

Poultry Science Association: **Walter Landauer,** University of Connecticut, for research contributions in developmental and physiological genetics.

American Home Economics Association: **Jane M. Leichsenring,** University of Minnesota, for original and fundamental research in human nutrition.

Association of American Medical Colleges: **Karl F. Meyer,** University of California, for contributions of great importance to preventive medicine and worldwide public health.

American Institute of Nutrition: **Agnes Fay Morgan,** University of California, and **Arthur H. Smith,** Wayne University, (joint award), for studies on the effect of heat on the nutritive value of milk proteins.

Abdul R. K. Zobairi, Superintendent of Fisheries for the Government of East Bengal, Pakistan, has been awarded the U.S. Fish and Wildlife Service's certificate of merit for fishery training. Under the Foreign Operations Administration's technical assistance program, Zobairi recently became the first person to fulfill the requirements for a Ph.D. in aquatic biology and fish culture at Alabama Polytechnic Institute.

William Lester, Jr., associate professor of medicine at the University of Chicago, has accepted appointment as chief of staff of the Suburban Cook County Tuberculosis Sanitarium District's hospital-sanitarium. His particular interest is infectious diseases and he is now conducting research in the epidemiology of tuberculosis.

George N. Papanicolaou, professor of clinical anatomy at Cornell University College of Medicine, will receive the 5th annual Bertner Foundation award and give the Bertner lecture at the 9th annual Symposium on Fundamental Cancer Research at the University of Texas M. D. Anderson Hospital and Tumor Institute on 11 Mar. He is being honored for his contributions to exfoliative cytology.

Harold Stanley Stewart, Jr., physicist and head of the radiometry branch at the Naval Research Laboratory, Washington, D.C., has received the Navy's highest civilian award for his "brilliant scientific accomplishments and leadership" during the last 8 yr in a program undertaken in collaboration with the Atomic Energy Commission.

Robert Reynolds Macintosh, Nuffield professor of anesthetics at the University of Oxford, has been appointed visiting professor of anesthesiology at the State University of New York College of Medicine in Brooklyn for the month of May.

Douglas R. Hartree, Plummer professor of mathematical physics at Cambridge University, England, spent 6 wk in January and February at the Strawbridge Observatory at Haverford College. He gave a series of lectures on the calculation of atomic structures.

Oleg Yadoff, president of the Applied Physics Research Foundation, Palo Alto, Calif., has recently been elected honorary vice president of the International Union of Professional Engineers. He will be in charge of liaison work, having as his special concern the development and maintenance of good relations between the International Union and the National Society of Professional Engineers.

The 80th birthday of **Anton J. Carlson** was celebrated at a dinner given by his colleagues at the Quadrangle Club in Chicago on 29 Jan. Carlson, who retired as Frank P. Hixon distinguished service professor at the University of Chicago 15 yr ago after having been a member of the faculty there since 1904, is still studying nutrition in the university's laboratories, and in addition is consulting on problems of research in aging, alcoholism, and poliomyelitis. Earlier, he made important contributions to the study of hunger and digestion, nerve activity, and glands.

Chandler A. Stetson, Jr., who since 1951 has served the American Heart Association as an established investigator, has been named associate professor of pathology at New York University College of Medicine. His major interests have been experimental pathology, the pathogenesis of rheumatic fever, and the clinical investigation of streptococcal diseases and their complications.

Henry R. Kraybill, director of research and education of the American Meat Institute Foundation at the University of Chicago, has been elected to the additional post of vice president.

The Netherlands Government has awarded the decoration of Officer in the Order of Orange-Nassau to **Morris Fishbein,** medical editor and clinical professor of medicine in the University of Illinois College of Medicine and professorial lecturer in the University of Chicago School of Medicine. He was honored in recognition of his contribution to the success and growth of *Exerpta Medica,* "enabling it to render invaluable service to the medical world."

Richard T. Street, formerly of Loyola University of Los Angeles, is investigating the ethology of animals, and especially dogs, at the Dana Point Medical Dental Center, Dana Point, Calif. The work is supported by an anonymous grant.

Harrison Shull, assistant professor of chemistry at Iowa State College who is at present a Guggenheim fellow at the University of Uppsala, Sweden, has been appointed associate professor of chemistry at Indiana University, effective in September.

Joseph E. Alicata, head of the department of parasitology at the University of Hawaii Agricultural Experiment Station, Honolulu, and senior scientist, U.S. Public Health Service (R), recently returned from Jordan, where he assisted in organizing the section of parasitology of the Central Government Laboratory in Amman and conducted research on intestinal parasites and on malaria control. This work was carried out through the Cooperative Department for Health and Sanitation, U.S. Operations Mission to Jordan, and the Ministry of Health, Government of Jordan.

George G. Mallinson, who has been teaching education and psychology at Western Michigan College since 1948, has succeeded **Elmer H. Wilds,** retired, as director of graduate studies. Mallinson is well known in science teaching, and his writings appear frequently in scientific and educational journals. In 1953 he was named president of the National Association for Research in Science Teaching.

The Glycerine Producers' Association has announced eight recipients of the 1954 Glycerine Research awards. First award of an honor plaque and $1000 was presented to **Robert K. Summerbell,** a professor at Northwestern University, and **James R. Stephens** of the American Cyanamid Co., Stamford, Conn., for their proof of the structure and configuration of a number of well known derivatives or glycerine and some new related chemical compounds. This work, carried out over a 4-yr period at the Northwestern University Chemical Laboratories, provides other chemists with fundamental information enabling them to investigate the potential value of these compounds in such diverse fields as pharmaceuticals and plastics.

In one of the most complete studies of glycerine derivatives ever made, Summerbell and Stephens proved the structure and configuration of 2,5- and 2,6-disubstituted dioxanes, all derivatives of the cyclic diethers of glycerine. The configuration of diglycerol, diepichlorohydrin, diepiiodohydrin, and other derivatives was thus established. Several new derivatives including potentially important dicarboxylic acids were also prepared and studied.

Two teams of chemists share the second award of honor certificate and $300 stipend for establishing independently the biological asymmetry of glycerine—that is, the manner in which certain enzymes, in converting the compound into other chemical substances in biological processes, act preferentially upon one of the apparently identical end carbon atoms in the glycerine molecule. **Robert W. Swick** and **Akira Nakao** formed one team carrying out research at the Argonne National Laboratory, Lemont, Ill. The other team was composed of **Harland G. Wood** and **Per Schambye** of Western Reserve University, and **G. Popjak** of the National Institute for Medical Research, Mill Hill, London.

A new, simple method of transfusing thawed red blood cell–glycerine mixtures directly into the veins was granted third award of honor certificate and $200 stipend. This development, the work of **Henry A. Sloviter** of the University of Pennsylvania School of Medicine, may make practical prolonged storage and stockpiling of erythrocytes at low temperatures for use in case of national emergencies.

Georges Ungar, former head of the Laboratory of Experimental Medicine and assistant professor of physiology at the University of Paris, has been appointed director of the division of pharmacology and experimental physiology of the U.S. Vitamin Corp. and its pharmaceutical division, the Arlington-Funk Laboratories at Yonkers, N.Y.

Harold Thompson, founder and for 17 yr chief of the Division of Fisheries of the Commonwealth Scientific and Industrial Research Organization in Australia, has retired. He was born in Aberdeen, Scotland. After taking the degrees of M.A. in 1912 and B.Sc., in 1920, he was for 10 yr scientific adviser of the Fishery Board for Scotland. There he so distinguished himself that he became a world figure in fisheries investigations. In 1927 he attained the degree of D.Sc. at the University of Aberdeen for his work on the natural fluctuations in the stocks of haddock. The report of this work is now regarded as a classic in fisheries literature. In 1930 he became director of fishery research in Newfoundland, where he founded a research organization and established principles for the modernization of the Newfoundland fishing industries.

In 1937 he assumed his Australian post. The Division of Fisheries under Thompson's leadership has

become one of the leading laboratories of its kind in the world. It has contributed much to the establishment and extension of the whale, tuna, crayfish, and shark fisheries, and has shown the need to relax the fishing pressure on certain kinds of fish, while indicating others that might be used to take their place. The division has also advanced the study of the movement and fertility of Australian seawater masses on which all marine life depends.

Claude-Starr Wright, former associate professor of medicine at Ohio State University Medical Center, has been appointed associate professor of medicine at the Medical College of Georgia.

John C. Baiardi, head of Long Island University's department of biology, has been appointed chairman of the new department of medico-surgical research at Roslyn Park Hospital, Roslyn Heights, N.Y., where he will conduct a program of research on problems in biology and physiology.

Harry J. Loynd, president of Parke, Davis and Co., has announced the promotion of **George Rieveschl, Jr.,** to a new post as scientific assistant to the president. Rieveschl, who has been director of chemical research for the pharmaceutical firm since 1949, was primarily responsible for the chemical work on Benadryl, first U.S. antihistamine used in the treatment of hay fever and other allergies.

Shelbey T. Grey of Chicago has been appointed chief of the Food and Drug Administration's Program Research Division. He has been the agency's district chief at Chicago, where he will be succeeded by **George T. Daughters,** now district chief at Baltimore.

William H. Huggins, professor of electrical engineering at Johns Hopkins University, was recently presented the Air Force decoration for exceptional civilian service at ceremonies held in the Air Research and Development Command headquarters in Baltimore. He was honored for his exceptional performance of duties as chief of the plans branch, Directorate of Electronics Research, at ARDC's Air Force Cambridge Research Center, Cambridge, Mass., from January 1946 to August 1952.

Recent appointments at the General Electric Research Laboratory, Schenectady, N.Y., are as follows.

J. E. Burke, former manager of metallurgy in G.E.'s Knolls Atomic Power Laboratory, has been named manager of the newly created ceramics studies section in the metallurgy department.

Benjamin Segall, who was a research fellow at the Institute of Theoretical Physics of the University of Copenhagen, and who for the past year has been on the staff of the radiation laboratory at the University of California, will work in the light production studies section of the general physics department.

Joseph M. Denny, formerly a research engineering consultant for the North American Aviation Co., is a research associate in the metallurgy department.

Necrology

Donald W. Bogart, 49, surgeon, author, former assistant clinical professor of ophthalmology at New York University, New York, 28 Jan.; **John F. Gile,** 62, professor of surgery at the Dartmouth Medical School, Hanover, N.H., 29 Jan.; **Hubert V. Guile,** 74, cardiologist, founder of the Bellevue cardiac clinic, former clinical professor of medicine at New York University, New York, 29 Jan.; **Harry N. Irwin,** 70, retired dean of the School of Education of Western Reserve University, Cleveland, Ohio, 27 Jan.; **Thomas Lewis,** 65, former director of the Welsh College of Pharmacy at Cardiff, Wales, former vice president and technical director of S. B. Penick & Co., New York, 29 Jan.

Ellice McDonald, 78, cancer research specialist, director of the Biochemical Research Foundation of the Franklin Institute, Philadelphia, 30 Jan.; **Edward S. Maclin,** 69, former president of West Virginia Institute of Technology, Montgomery, W. Va., 30 Jan.; **Angel Maldonado C.,** 65, dean of the Faculty of Pharmacy at the University of San Marcos, director of the Unanue Meteorological Observatory, Lima, Peru, 31 Jan.; **Edward Mellanby,** 70, authority on nutrition, author, professor emeritus of pharmacology at Sheffield University, Sheffield, England, 30 Jan.; **Holger Nielsen,** 89, inventor of the Nielsen method of artificial respiration, Copenhagen, 31 Jan.

Mim Kemal Oke, 71, pioneer roentgenologist, author, former professor of medicine at Guthane Military Medical Academy, Istanbul, Turkey, 30 Jan.; **Anderson M. Scruggs,** 55, professor of dentistry at Emory University, Atlanta, Ga., 28 Jan.; **Emmi Stein,** 74, eminent geneticist, Tübingen, Germany, 21 Sept.; **Robert C. Wallace,** 73, geologist, executive director of the Arctic Institute, Montreal, 29 Jan.; **Herbert B. Wilcox,** 80, pediatrician, former director of the New York Academy of Medicine, former professor of diseases of children at the College of Physicians and Surgeons, Columbia University, New York, 1 Feb.

Meetings

A **Symposium on the Antimetabolites—Their Modes of Action and Their Therapeutic Implications** will take place at the Biltmore Hotel in New York on 1 Mar. The symposium, which is being held in conjunction with the 10th annual meeting of the National Vitamin Foundation, will feature reports and discussions by a selected group of specialists. The morning session will be under the chairmanship of Paul L. Day of the University of Arkansas, and the afternoon session will be chaired by Robert W. Heinle of the Upjohn Company, Kalamazoo, Mich. The symposium is open gratis to all interested physicians and scientists.

A **Conference on Biological Waste Treatment** will be held at Manhattan College, 13–15 Apr. Its objective is to present information on the principles of biological treatment processes and their application to the design of waste treatment facilities. Papers will be delivered by leading authorities from consulting engineering firms, industries, and universities. The mechanisms of biological treatment and the theory and design of aeration systems are the topics of two symposiums. Plant design for sewage and industrial wastes will be discussed at two full sessions. Additional information may be obtained from W. W. Eckenfelder, Civil Engineering Dept., Manhattan College, New York 71.

The spring assembly of the **Radio Technical Commission for Aeronautics** will be held jointly with the Los Angeles section of the Institute of Radio Engineers at Los Angeles, 5–7 Apr. A management symposium sponsored by I.R.E. will open the session. On 6 Apr. the R.T.C.A. business meeting will be followed by two symposiums, *The Reliability of Electronic Components in Air Vehicles* and *The Air Frame and Electronics.*

On the final morning *Electronics Systems in, of, by, and for Helicopters* will be the subject of a symposium. That afternoon, the delegates will be taken on a field trip to aviation installations in the Los Angeles area. This will be the first meeting of the R.T.C.A. assembly on the West Coast.

The **American College of Cardiology** will hold its 4th annual convention at the Hotel Biltmore in New York 18–20 May. Two sessions will be devoted to a symposium on hypertension and hypertensive heart disease, another session will be devoted to advances in cardiac surgery, and a fourth to the heart and circulation in sports. In addition to symposiums and panel meetings, there will be scientific and commercial exhibits outlining the latest advances in cardiology. Ashton Graybiel of Pensacola, Fla., will preside. Information may be obtained from the Secretary of the College, Dr. Philip Reichart, 140 W. 57 St., New York 19.

A **Conference on Low Temperature Physics** is to be held under the joint auspices of the International Union of Pure and Applied Physics and Commission I of the Institut International du Froid as part of the four-yearly International Congress of Refrigeration which opens at the Sorbonne, Paris, on 31 Aug. The first sessions will be devoted chiefly to the applied aspects of low temperature physics; those concerned mainly with pure physics will begin on 2 Sept. All the proceedings will be over by the evening of 8 Sept.

It is hoped that at least half the time of the conference will be spent in discussions. Therefore contributions should be as brief as possible and should be descriptions of work in progress rather than surveys of particular fields. Those wishing to attend and/or to read a paper should write to Prof. L. Weil, Institut Fourier, Place du Doyen Gosse, Grenoble, Isère, France, as soon as possible. Titles and abstracts of papers *must be submitted by 15 May.*

New drugs to combat low blood pressure, progress in chemical soil conditioning, and respiratory protective devices for civilian defense are among the subjects to be discussed at the **American Chemical Society's 127th national meeting** in Cincinnati, Ohio, 29 Mar.–7 Apr. Some 5000 chemists and chemical engineers from all parts of the United States will participate in sessions conducted by 19 scientific and technical divisions of the society. Joseph F. Treon of the University of Cincinnati College of Medicine is general chairman of the meeting.

A **Carbon Conference** will be held at the University of Buffalo, 9–10 June. Speakers from academic and industrial institutions will discuss the present status of knowledge in the field and will describe the research being conducted in their laboratories. The topics will include physical and chemical properties of cokes, carbons, graphites, and carbon blacks as well as some of the engineering problems involved in their production. For further information, write to the Carbon Conference, Dept. of Physics, University of Buffalo, Buffalo 14, N.Y.

A third day has been added to the program of the 3rd **National Air Pollution Symposium** originally announced for 18–19 Apr. The meeting will be held at the Huntington-Sheraton Hotel, Pasadena, Calif. It is expected to draw participation from international scientific and industrial interests in air pollution. Cosponsoring the symposium with Stanford Research Institute are California Institute of Technology, University of Southern California, University of California at Los Angeles, Southern California Air Pollution Foundation, and the Air Pollution Control Association of Pittsburgh, Pa.

The program will include sessions on "General aspects of air pollution," "Analytical techniques and instrumentation," "Physiological effects of air pollution on plants," "Physiological effects of air pollution on animals," and "Legal aspects of air pollution." General chairman is A. M. Zarem, assistant director in charge of S.R.I.'s Los Angeles division. Dale H. Hutchison, manager of the institute's air research section, is program committee chairman.

The 9th annual meeting of the **American Academy of Dental Medicine** will be held at the Park Sheraton Hotel in New York, 13–15 May. The program will feature Herbert S. Kupperman, New York University–Bellevue Medical Center, on the stress syndrome; Victor Witten of the Skin and Cancer Hospital, New York University–Bellevue Medical Center, on an aspect of dermatology; and Albert L. Stunkard and L. Hinkle, Jr., Cornell Medical School and New York

Hospital, on the physiologic and emotional aspects of stress as it affects the doctor and the patient. The field of implant dentures will be covered by Isaiah Lew, who will show movies of patients having this type of restoration. George Witkin is chairman of the meeting.

All members and interested dentists and physicians are cordially invited to attend. Programs and reservations are available through the office of the national secretary, Dr. William M. Greenhut, 124 E. 84 St., New York 28.

Registration for the 2nd **International Seaweed Symposium,** which is to take place in Trondheim, Norway, beginning 13 July, *must be submitted by 1 Mar.* to Prof. T. Braarud, Blindern, Oslo, Norway.

Society Elections

American Society of Parasitologists: pres., Clay G. Huff, Naval Medical Research Center, Bethesda, Md.; pres.-elect, Eloise B. Cram, National Institutes of Health, Bethesda, Md.; v. pres., Gilbert F. Otto, Abbott Laboratories, North Chicago, Ill.; sec., Arthur C. Walton, Knox College, Galesburg, Ill.; treas., Robert M. Stabler, Colorado College, Colorado Springs, Colo.

National Engineering Society: pres., Allison C. Neff, Armco Drainage and Metal Products, Inc., Middletown, Ohio; treas., Russel B. Allen, College Park, Md. The vice presidents are Louis F. Frazza, Hawthorne, N.J.; Warner How, Memphis, Tenn.; Robert J. Rhinehart, Pine Bluff, Ark.; Lindley R. Durkee, Seattle, Wash.; Garvin H. Dyer, Independence, Mo.; and Virgil E. Gunlock, Chicago, Ill.

Education

The inauguration of live, closed-circuit television for teaching demonstrations in the **Louisiana State University Medical School's** department of physiology as a part of the regularly scheduled teaching program occurred on 17 Jan., the opening day of the current course in medical physiology. It is believed that this is the first use of this medium as a regularly programmed component of any basic medical science course.

Using a Kay-Lab camera and monitor, and two standard 21-in. receivers, it is now possible to render an area less than 6 in.^{2} visible in fine detail to a class of more than 100 students. This equipment is used to supplement the experiments that are performed by the students by exhibiting experiments that are too complex for use in the regular student laboratory, and to perform demonstrations which, because of the small size of the structures and reactions involved, cannot be properly demonstrated to large classes in any other way. It is used also to teach technical procedures.

The television camera is especially suited to the enlargement of a cathode-ray oscilloscope screen, thus affording for the first time an opportunity to demonstrate nerve and muscle action potentials to large groups of students. Other uses currently scheduled include the demonstration of the nerve control of the heart, resuscitation of the heart in arrest and in ventricular fibrillation, and of the control of the peripheral musculature by the cerebral cortex in the monkey. As an aid in the program of correlating clinical material with physiological foundations, the television system is used to show the class "close-ups" of the appearance and reactions of patients. This new teaching aid was purchased with funds granted to the school by the Fund for Medical Education.

Establishment of a new type of "double major" course in which undergraduates at **Massachusetts Institute of Technology** may combine studies in science or engineering with humanities and social sciences has been announced. For the first time it will be possible for a student to obtain a B.S. degree by qualifying in both liberal arts and technological fields. The new plan of study, known as Course XXI, will be open to freshmen entering M.I.T. next fall. Students choosing the course will not only be required to take 2 yr of calculus and 2 yr of physics, as are all M.I.T. undergraduates, but will do advanced work at the same time in technological subjects and in the humanities and social sciences.

The chief purpose of the course will be to provide broad preparation for further graduate work in science, medicine, law, industry or other fields, or for nonprofessional careers starting immediately after graduation. The student can obtain a degree in 4 yr or, if he chooses, can continue his work through a fifth year to achieve professional status with a second B.S. degree. By a sixth year of study he can qualify for the M.S. degree.

The summer sessions of the University of Pittsburgh will offer, 13 June through 1 July, a course in the **ecology of fresh waters** in relation to human use that is designed for sanitary engineers, chemists, biologists, and so forth. This course will be given at the Pymatuning Laboratory of Field Biology at Linesville, Pa. Inquiries should be addressed to M. A. Shapiro, Graduate School of Public Health, University of Pittsburgh, Pittsburgh 13.

Next September **Brandeis University,** Waltham, Mass., will initiate a graduate program leading to the degree of master of arts in microbiology.

The **Pacific Marine Station,** Dillon Beach, Calif., will offer a course in invertebrate zoology and ecology for upper division and graduate requirements in zoology and paleontology during the summer session, 21 June–22 July. The existence of several handbooks for the

fauna, flora, and geology of the region will make it possible to devote more time to general principles than to the more routine studies of details. The instructor will be Joel Hedgpeth of the Scripps Institution of Oceanography. A nonprerequisite course for teachers and undergraduates will also be offered by Alden E. Noble of the College of the Pacific. Further information may be obtained from the Pacific Marine Station, College of the Pacific, Stockton, Calif.

The new international language known as Interlingua is being taught for the first time in a college classroom. With the start of the current semester, a noncredit **course in Interlingua** was introduced in New York University's Division of General Education. It is being taught by Alexander Gode, chief of the Interlingua division of Science Service.

An auxiliary tongue with regular, simplified grammar and root words from many national languages, Interlingua is designed to overcome language barriers faced by scientists and persons in foreign trade. Although it was originated only in 1951, Interlingua is now used by 10 scientific periodicals for publishing abstracts.

An intensive program in **infrared spectroscopy** will be given 18–29 July during the 1955 summer session at the Massachusetts Institute of Technology. The program, to be offered jointly by the institute's spectroscopy laboratory and department of chemistry, is designed for those who wish an introduction to infrared instrumentation and laboratory methods and for those interested in the use of infrared spectrums in the solution of chemical problems.

It will consist of two integrated 1-wk courses, one on the technique of infrared spectroscopy and the other on the applications of infrared spectroscopy, under the direction of Richard C. Lord, director of the M.I.T. spectroscopy laboratory, and Foil A. Miller, in charge of the spectroscopy laboratory at the Mellon Institute of Industrial Research. Further information may be obtained from Dr. E. H. Huntress, Director of the Summer Session, Massachusetts Institute of Technology, Cambridge 39, Mass.

Available Fellowships and Awards

The **Marineland Research Laboratory** at Marineland, Fla. (18 mi south of St. Augustine), wishes to announce that space is now available for investigators who are interested in utilizing its facilities for independent research in marine biology. Bordered by the Atlantic Ocean on one side and the Intracoastal Waterway on the other, the laboratory is favorably located with respect to many marine and estuarine environments, and possesses excellent facilities for the collection and maintenance of marine life ranging from minute invertebrates to sharks and porpoises. There is no charge for laboratory space and equipment. A brochure describing the laboratory and its facilities will be sent on request. All inquiries should be addressed to the curator, F. G. Wood, Jr., Marineland Research Laboratory, Marineland, Fla.

The Jacob Chandler Harper fellowship for medical research has recently been established at the **Scripps Metabolic Clinic,** La Jolla, Calif. This fellowship is primarily for the study of hematology in both laboratory research and clinical phases. Applications are now being accepted for appointments effective on 1 July. The stipend is $5000 per year and the fellowship is renewable. Candidates must be graduates of approved medical schools and have had at least 2 yr of internship. The work will consist of laboratory problems investigated by the use of radioisotope, biochemical, and microscopic techniques. Facilities for clinical work are available.

The **American-Swiss Foundation for Scientific Exchange** offers one or more grants for advanced research in the natural and medical sciences. Candidates must hold the Ph.D. or M.D. degree by date of departure. Application is open to men and women, preferably under 35 yr of age. Candidates must be U.S. citizens and must present proof of bachelor's degree or its equivalent at time award is taken up; good academic record and capacity for independent study; good knowledge of French or German; good moral character, personality, and adaptability; and good health.

Fields of study open to American students in Switzerland include chemistry, engineering, geology, and physics.

Information on the Swiss awards may be obtained from the Institute of International Education, 1 E. 67 St., New York 21. *Closing date for application is 1 Mar.*

Stevens Institute of Technology has announced the establishment of the **Robert Crooks Stanley fellowships in engineering and science.** The fund to support the fellowships, which will eventually total $250,000, is a gift of the family of the late R. C. Stanley, a Stevens graduate of the class of 1899 and chairman of the institute's board of trustees from 1935 to 1948. The fellowships will be awarded to full-time graduate students working for their M.S. or Ph.D. degree.

The **National Foundation for Infantile Paralysis** has announced that fellowships will be available for medical students who have a minimum of 8 wk of consecutive free time for study during 1955. Three types of fellowships are offered: (i) research in the biological and physical sciences related to medicine; (ii) physical medicine and rehabilitation; and (iii) public health and preventive medicine. The purpose of these fellowships is to introduce students to one of these three fields in order to enable them to determine their ability and aptitudes early in their careers.

The deans of each of the approved medical schools

in the United States have been asked to nominate two candidates for each of these fellowships. Students who have completed 1 yr in medical school are eligible for the research fellowships and those who have completed 2 yr are eligible for the other types. The student must be able to devote full time to the program for a minimum of 2 mo and a maximum of 3 mo. The stipend will be $200/mo.

Students should consult with the deans of their medical schools, who will supply further information and application forms. Applications must be submitted to the foundation far enough in advance to allow approximately 8 wk for administrative action.

A $10,000 gift to the **Carnegie Institute of Technology** department of electrical engineering from the **L. H. Terpening Co.** of New York, which manufactures analog computer elements and radar equipment, will be used to establish fellowships for graduate electrical engineers who are earning their doctorates in the field of analog computers. Four fellowships valued at $2500 each will be awarded over the next 2 yr. The fellows will devote all their time to research and study.

The **Scripps Metabolic Clinic** announces that applications for its postdoctoral fellowship in biochemistry, known as the Charles Willard Stimson fellowship, are being accepted. This fellowship is available each year and carries a stipend of $5000. Applications should be sent to the Scripps Metabolic Clinic, La Jolla, Calif., *before 1 May.*

Two **Ciba research fellowships** are available to qualified applicants in the division of obstetrics and gynecology of the **University of Tennessee** College of Medicine. The fellowships are a part of a 4-yr residency leading toward an M.S. degree in obstetrics and gynecology. The first year of this program is the fellowship year during which successful applicants will work in basic research. After this they are expected to proceed into the clinical residency. The fellowships begin 1 July and carry a stipend of $150/mo in addition to living quarters, food, and uniforms. Applications may be made to the Chief of the Division of Obstetrics and Gynecology, University of Tennessee College of Medicine, 894 Madison Ave., Memphis.

Cornell University will use a **Du Pont grant** to try to stimulate better science teaching in high schools. The fund will create special fellowships intended to encourage science students to enter science teaching and to help science teachers to take advanced study. One group of fellowships will give full tuition and $1200 toward expenses to science majors from liberal arts colleges who plan to spend 1955–56 at Cornell in courses leading to full certification for secondary school teaching and a master's degree.

A second group will cover full tuition and certain expenses for secondary school science teachers who wish to use the 1955 Cornell summer session for advanced work. Both programs will be under the general direction of Philip G. Johnson, professor in the School of Education, to whom inquiries should be addressed.

The National Science Foundation this summer will provide 30 stipends of $250 each and a limited number of fee exemption certificates amounting to $66 each to high-school teachers of chemistry, physics, and general science who wish to enroll in the **Institute for High School Science Teachers** to be held at Pennsylvania State University, 5 July–13 Aug. Detailed information and application forms are available from the Director of Summer Sessions, Pennsylvania State University, State College, Pa.

In the Laboratories

Midwest Research Institute, a nonprofit organization of 200 scientists in 18 different fields, celebrated its 10th anniversary in January. Located in Kansas City, Mo., Midwest was originally founded in 1945 to cover the six-state area of Missouri, Kansas, Arkansas, Iowa, Nebraska, and Oklahoma; however, for some time research work for eastern organizations has been expanding, and this spring the institute will move into a new $1½ million building.

Atomic Energy for Industry, Inc., a new company with headquarters in Cleveland, Ohio, has been organized by C. H. Lutz, who is resigning as assistant project manager in electronic work at Designers for Industry, Inc. The new company will concentrate on the commercial and industrial applications of atomic energy where such techniques are applicable—for instance, in the fields of radiography, tracers, thickness gaging, and quality control.

Plans for a multi-million dollar jet research center have been announced by **Westinghouse Electric Corp.** The development is expected to cost more than $12½ million and will be located at the present site of the company's jet engine plant south of Kansas City. The new laboratories will provide for research and development testing on components of new jet engine designs and for improving existing jet engines. The entire operation will be part of the division engineering department and will be under the supervision of Allan Chilton, chief engineer.

Plans for construction of another laboratory building at **Du Pont's Experimental Station** in Wilmington, Del., the third to be started within the last 6 mo, have been announced. The new $1,815,000, two-story structure for long-range and fundamental research will be shared by the explosives and organic chemicals departments and will provide facilities for approximately 40 scientists. Both departments will engage in

exploratory research, with the explosives department stressing the development of new product lines in the nonexplosives field. Upon the completion of the laboratory in early 1956, all 10 of Du Pont's manufacturing departments will have research facilities at the Experimental Station.

Miscellaneous

Notice is hereby given that from 31 July 1955 the **International Commission on Zoological Nomenclature** will start to vote on the following cases, involving the possible use of the plenary powers, for the purpose specified against each entry. Full particulars of these cases were published on 31 Jan. 1955, in Parts 1 and 2 of vol. 11 of the *Bulletin of Zoological Nomenclature*. (i) *Pleurotomaria* Sowerby (J.), 1821, validation of (if judged to be invalid); *anglicus* Sowerby (J.), 1818 (*Trochus*), validation of, and designation of, as type species of *Pleurotomaria* (Cl. Gastropoda); (ii) *Pachyceras* Bayle, 1878, (Cl. Cephalopoda, Order Ammonoidea), validation of; (iii) *Neanura* MacGillivray, 1893, and *Hypogastrura* Bourlet, 1839, designation of type species for; *Achorutes* Templeton, 1835, suppression of (Cl. Insecta, Order Collembola); (iv) *Crenophilus,* validation of, as from d'Orchymont, 1942; *aeneus* Germar, 1824 (*Hydrophilus*), validation of (Cl. Insecta, Order Coleoptera); (v) *Rhinopteraspis* Jaekel, 1919, validation of (Cl. Ostracodermi); (vi) *Anurophorus* Nicolet, [1842], designation of type species for (Cl. Insecta, Order Collembola).

Attention is drawn also to the proposed suppression of the generic name *Jumala* Friele, 1882, as a name calculated to give offense on religious grounds.

The above parts also contain proposals for the adoption of three "Declarations": (i) relating to transliteration of words normally written in Cyrillic characters [preliminary to insertion in the code as a schedule (Copenhagen decision)]; (ii) defining the status of a generic name published conditionally; (iii) clarifying Rule (f) in Article 30 (type species of a nominal genus established as a substitute for a previously established such genus but with a different type species).

Comments on the above cases should be sent as soon as possible to Francis Hemming, Secretary to the Commission, 28 Park Village East, Regent's Park, London, N.W.1.

A special 1-hr version of Edward R. Murrow's recent **interview with Robert J. Oppenheimer** will be distributed to all 11 educational television stations of the nation. This distribution has been made possible through the cooperation of the Fund for the Republic and the Columbia Broadcasting System. The stations are KUHT, Houston, Tex.; WKAR-TV, East Lansing, Mich.; WHA-TV, Madison, Wis.; WQED, Pittsburgh, Pa.; KQED, San Francisco, Calif.; WCET, Cincinnati, Ohio; KUON, Lincoln, Neb.; KETC, St. Louis, Mo.; WUNC-TV, Chapel Hill, N.C.; WEDM, Birmingham, Ala; and KCTS-TV, Seattle, Wash. The program will contain most of the material used in Murrow's "See It Now" telecast of 4 Jan.; in addition, it will include supplementary information from the 2½-hr interview actually filmed by Murrow.

In 58 cities in Canada and the United States physicians will participate in the first **international televised** postgraduate medical educational program ever held. Sponsored by the American Academy of General Practice with national headquarters in Kansas City, Mo., and Wyeth Laboratories of Philadelphia, a symposium on the "Management of streptococcal infection and its complications" will be presented. A group of six distinguished physicians selected from both countries will comprise the panel, which will be moderated by W. B. Hildebrand of Menasha, Wis., president of A.A.G.P. The program will occur on 24 Feb.

At least 12 pairs of identical **twin beef calves** that are not more than 5 mo old and that are located within 200 mi of Washington, D.C., are urgently needed by the U.S. Department of Agriculture for feeding experiments being conducted at the agricultural research center in Beltsville, Md.

In its June 1954 meeting, the Committee on Disaster Studies reviewed the current status of disaster research and considered a number of postulates upon which future study of **disaster research and disaster planning** might be based. Problems of preparation, warning, emergency behavior, responses to deprivation, recovery behavior, and long-term effects were discussed. Although all areas have received considerable attention, the committee felt that some have been relatively neglected. There is also a need for integrating or relating the existing theories of the social and physical sciences, for example, communication studies, to disaster field studies. A summary of these postulates has been prepared and is available to diaster researchers by writing to the Committee on Disaster Studies, National Academy of Sciences–National Research Council, Washington 25, D.C.

The bequest of the **John Lowell Sperry collection** of 182,000 moths, butterflies, and other insects to the American Museum of Natural History was announced recently. The new acquisition represents the largest single collection of any kind ever given to the museum. Mr. Sperry, who died a year ago, was an amateur lepidopterist who had built up the largest known private collection of moths of the family Geometridae. Nearly all of the 1200 known species of Geometridae in North America are represented in the collection, as well as are many species from Central and South America.

In addition to moths, of which there are almost 165,000 specimens from North America, Central and South America, Europe, India, and Africa, the Sperry collection contains about 16,000 butterflies and 1100 miscellaneous insects.