W. Kinsell, University of California; *O. H. Pearson,* Sloan-Kettering Institute; and *L. P. Eliel,* Sloan-Kettering Institute.

4. Thursday evening, December 30, Keystone Room, Hotel Statler, at 7: 30 p.m.; *J. R. Mote,* Armour Laboratories, presiding. Speakers: *E. Venning,* McGill University; *Konrad Dobriner,* Sloan-Kettering Institute; *H. L. Mason,* Mayo Clinic; *R. G. Sprague,* Mayo Foundation; *M. H. Power,* Mayo Foundation; *A. C. Corcoran,* Cleveland Clinic Foundation; *E. S. Gordon,* University of Wisconsin; and *Hudson Hoagland,* Worcester Foundation for Experimental Biology.

NEWS and Notes

Louis W. Hutchins, member of the staff of the Woods Hole Oceanographic Institution, has been appointed director of the Bermuda Biological Station. Dr. Hutchins will still devote part of his time to Woods Hole, where his chief work has been directing Navy-financed studies on organisms causing fouling on marine vessels and structures.

Karl T. Compton has resigned as Chairman of the Research and Development Board of the National Military Establishment because of ill health. Pending the naming of a successor, President Truman announced that the board would be headed, at Dr. Compton's suggestion, by Robert F. Rinehart as deputy chairman.

Alfred H. Hausrath, Jr. has been appointed director of the Cooperative Test Division of Educational Testing Service, Princeton, New Jersey. He was formerly consultant on training and personnel administration for the Foreign Military Assistance Program of the Department of State.

Roscoe F. Sanford has retired after more than 30 years of service as spectroscopist in Pasadena, at the Mt. Wilson and Palomar observatories. Before going to Mt. Wilson, Dr. Sanford had been stationed at observatories in Argentina for three years by the Carnegie Institution and in Chile for four years by Lick Observatory. At Mt. Wilson he pioneered the application of high dispersion to variable and double stars and made notable photographs of the spectra of cool red "carbon" stars.

Granville A. Bennett, professor of pathology and chairman of the department, University of Illinois College of Medicine, will deliver the fourth Richard H. Jaffé Memorial Lecture of the Institute of Medicine of Chicago on Friday evening, November 25. His subject will be "Reactive and Neoplastic Changes in Synovial Tissues."

John E. Barkley, supervisor of physical chemistry research at Armour Research Foundation of Illinois Institute of Technology, is spending two weeks in London, consulting with British scientists on the latest developments in infrared photocell research. Dr. Barkley has visited several laboratories in England and participated in field tests. He expects to return to the U. S. about November 18.

John M. Brookhart has recently resigned his position as assistant professor of physiology at Northwestern University Medical School to take up duties as associate professor of physiology at the University of Oregon Medical School, Portland, Oregon.

Marshall J. Walker, formerly of the Alleghany Ballistics Laboratory and the National Bureau of Standards, and **Stephen S. Friedland,** University of New Mexico physicist, have joined the staff of the Physics Department of the University of Connecticut. Dr. Friedland is planning to build a mass spectrometer especially adapted for the analysis of biological materials.

Oskar Baudisch, director of research at Saratoga Springs Commission, is spending the winter as a visiting investigator at the Scripps Institution of Oceanography, La Jolla, California. Dr. Baudisch is engaged in the organization of a research program on trace elements in the sea and marine organisms.

Visitors to U. S.

F. C. Bawden, head of the Plant Pathology Department, Rothamsted Experimental Station, England, and author of the standard treatise, *Plant viruses and virus diseases,* will be a visiting lecturer at Yale University during March, 1950. Mr. Bawden will deliver a series of ten lectures on plant viruses under the auspices of the Yale Departments of Plant Science and of Microbiology. Following his residence at Yale, Mr. Bawden will visit laboratories and experiment stations throughout the country. Further information on these lectures may be obtained from Prof. Henry P. Treffers, Director of Graduate Studies in Microbiology, Yale University.

Luis Molina Johnson, director of the training station in tropical diseases in Boca del Rio, Vera Cruz, spent a week in Washington, D. C. consulting with the World Health Organzation. Now in Ecuador, he will act as WHO consultant on maternal and child health.

Visitors at the National Bureau of Standards during the week of October 31–November 4 included: **Augusto Falcon de Gyves,** engineer with the Geophysics Institute of the University of Mexico; **G. G. Graham,** chief, technical services, National Film Board of Canada; **Ricardo Monges Lopez,** director, Geophysics Institute of the University of Mexico; **T. Mylvaganam,** irrigation engineer, Irrigation Laboratory, Department of Irrigation, Colombo, Ceylon; **R. A. Smith,** superintendent of Physics Department, Telecommunications Research Establishment, Gt. Malvern, England; **Alfonso Vaca Alatone,** engineer with the Geophysics Institute of the Uni-

versity of Mexico; and **Rafael J. Larnarca, Albino del Rosario,** and **Calixto S. Rozal,** members of the Philippine Coast and Geodetic Survey, Manila, Philippine Islands.

Grants and Awards

Irving Langmuir, associate director of the General Electric Research Laboratory, recently became the second American scientist to receive the **Mascart Medal,** awarded triennially by the Société Francaise des Electriciens to a scholar or engineer "who is distinguished by an ensemble of works on pure or applied electricity." The American Institute of Electrical Engineers made the presentation of the award, for the year 1948, in behalf of the French organization.

The Gordon McKay Endowment, established in 1909 "to promote applied science" at Harvard University, granted $8,626,506 to the university this month, bringing to a total of $15,766,755 the amount Harvard has received from this source. The Faculty of Arts and Sciences will receive $2,000,000 of the latest grant, with the remainder to be allocated following a review of the entire Harvard program in applied science and engineering.

The Roebling Medal was awarded for distinguished achievement in the field of mineralogy to Herbert E. Merwin, Geophysical Laboratory, Washington, D. C., at the thirtieth annual meeting of the Mineralogical Society of America in El Paso, Texas, November 10–12.

The first John H. Potts Memorial Award was given to Harry F. Olson, director of the RCA Acoustical Research Laboratory at Princeton, New Jersey, by the Audio Engineering Society on October 28. The medal was given to Dr. Olson "for outstanding accomplishments in the field of audio engineering." He is the author of *Elements of acoustical engineering* and *Dynamical analogies.*

The 1949 Sedgwick Memorial Medal has been granted by the American Public Health Association to Henry F. Vaughan, dean of the School of Public Health, University of Michigan. Dr. Vaughan was active in the organization of the National Sanitation Foundation.

The Sharp and Dohme Award of the American Physiological Society has been granted to Wallace O. Fenn, professor of physiology at the University of Rochester. In addition to a stipend, the award entitles Dr. Fenn to represent the society at the 18th International Physiological Congress in Copenhagen, in August, 1950.

The Ipatieff Prize in Chemistry for 1950 has been awarded to Herman E. Ries, Jr., research chemist at the Sinclair Refining Company Research Laboratories, Harvey, Illinois. The $3,000 award is given every three years to a scientist under 40 for achievement in the study of catalysis or high pressure.

Fellowships

General Electric Company is accepting applications for the year 1950–51 for its **Charles A. Coffin Fellowships** in electricity, physics, and physical chemistry, and its **Gerard Swope Fellowships** in engineering, industrial management, and the physical sciences. The fellowships, made from the corporation's Educational Fund, include a stipend up to $1,500, and, if necessary, an additional grant of $500 for special equipment. Loans up to $1,000 may also be granted. Applications must be filed before *January 1, 1950,* and are available through technical schools and universities or from A. D. Marshall, Secretary, General Electric Educational Fund, Schenectady, New York.

The National Research Council has announced the availability of **RCA Predoctoral Fellowships in Electronics** for 1950. These fellowships, supported by the Radio Corporation of America, are designed to give special graduate training and experience in research to young men and women who have demonstrated marked ability in electronics, either as a branch of electrical or radio engineering, or in that field of physics which treats the behavior of electrons in conductance phenomena.

Applicants should have training in electronics equivalent to that represented by one year beyond the bachelor's degree, in a university of recognized merit in this field, and must be citizens of the U. S.

Fellowships will be awarded at a regular meeting of the RCA Fellowship Board in March, 1950. Applications must be filed on or before *January 10, 1950.* Unless otherwise arranged, tenure will begin in September, 1950.

National Research Fellowships in the Natural Sciences will be continued in 1950. These fellowships, which are being offered for the 31st consecutive year, are supported by the Rockefeller Foundation to promote fundamental research in the natural sciences. Fellowships are available in the fields of mathematics, astronomy, physics, chemistry, geology, geophysics, paleontology, physical geography, botany, zoology, biochemistry, biophysics, agriculture, forestry, anthropology, and psychology.

These fellowships are awarded to citizens of the U. S. or of Canada, and generally only to persons under 35 years of age. The requirements for the doctorate must have been completed prior to assuming the fellowship, and the fellow must have demonstrated a high order of ability in research.

Fellowships will be awarded by the Natural Sciences Fellowship Board at its meeting in March, 1950. Applications to be considered at this meeting should be filed on or before *January 1, 1950.* Tenure of the fellowship may begin at any appropriate time after the board meeting.

Further information concerning these fellowship programs may be obtained from the Fellowship Office, National Research Council, 2101 Constitution Avenue, N.W., Washington 25, D. C.

Colleges and Universities

California Institute of Technology's new hypersonic wind tunnel permits tests at a speed of more than ten times the velocity of sound. A guided missile designed with the aid of the new tunnel could travel a distance of 7,600 miles in about an hour, well above the top rocket speed

so far reported. The Mach 10 tunnel, operated under Army Ordnance Department contract, will be used to obtain basic information about the design, performance, and instrumentation of tunnels for hypersonic speeds.

Ohio State University's new Institute for Research in Vision will have as codirectors Glenn A. Fry, director of the School of Optometry, and Arthur M. Culler, chairman of the Department of Ophthalmology. The new research center will coordinate research in other fields besides optometry and ophthalmology. Among these will be physics, psychology, physiology, pediatrics, bacteriology, anatomy, veterinary medicine, and zoology.

A children's neurological ward has been opened at the Illinois Neuropsychiatric Institute, Chicago. The medical staff for the ward will be provided by the **College of Medicine of the University of Illinois.** Eric Oldberg, professor of neurology and neurological surgery and head of the department, has been appointed supervisor.

The University of Maine dedicated two new buildings last week. The Engineering Building will house the Civil and Mechanical Engineering Departments, a highway testing laboratory, and geology classrooms. The Plant Science Building will be headquarters for the Departments of Botany and Entomology, Agronomy, Horticulture and Forestry, and will also provide space for the Agricultural Experiment Station laboratories and the Maine Extension Service.

Industrial Laboratories

Bryan C. Redmon has been appointed assistant director of organic chemical research by **U. S. Industrial Chemicals, Inc.,** at the company's Baltimore laboratories. Dr. Redmon was formerly with American Cyanamid Company and on the faculty of the University of Massachusetts.

The U. S. Atomic Energy Commission has approved the export of a two-Mev electrostatic x-ray generator, for use in the treatment of cancer, to the Westminster Hospital, St. Johns Gardens, London. The fourth to be approved for export to England for radiation therapeutic uses during the past two years, the generator will be manufactured by the **High Voltage Engineering Corporation,** Cambridge, Massachusetts.

The Sahyun Laboratories for research in medicinal chemistry, nutrition, biochemistry, and pharmaceutical products were opened recently at Santa Barbara, California, by Melville Sahyun, formerly vice president and director of research of the Frederick Stearns and Company Division of Sterling Drug, Inc.

Meetings and Elections

The fifth annual conference of the Georgia Section of the American Chemical Society will be held at the Georgia Institute of Technology, Atlanta on November 18. Twenty-nine papers will be presented by scientists from Emory University, Georgia Institute of Technology, Wesleyan College, the Georgia Experiment Station, and the University of Georgia.

A series of meetings devoted to the fundamental problems of growth and malignancy will be presented throughout the winter by the Department of Pathology of the College of Medicine at the University of Vermont. All meetings will be at 8 p.m. in the university's Fleming Museum in Burlington. Charles B. Huggins, professor of surgery, University of Chicago, will be the speaker at the first meeting on December 2 with a lecture on "Serum Proteins in Cancer."

Other speakers scheduled are Leonell C. Strong, professor of anatomy at Yale School of Medicine, to speak January 5 on "Genetics and Cancer"; Albert J. Tannenbaum, February 9, "Diet and Cancer"; Van R. Potter, professor of oncology, University of Wisconsin Medical School, March 2, "Enzymes, Growth, and Cancer"; Roy Hertz, chief of the Endocrinology Section of the National Cancer Institute, March 30, "Vitamin-Hormone Interrelationships Affecting Tissue Growth"; and Robert E. Stowell, professor of oncology, University of Kansas School of Medicine, May 4, "Nucleoproteins, Growth, and Cancer."

The Association of Urban Universities, at its 35th annual meeting in Chicago on October 31, elected as president James Creese, president of the Drexel Institute of Technology, and as vice president David A. Lockmiller, president of the University of Chattanooga, and reelected David D. Henry, president of Wayne University, as secretary-treasurer.

The National Tuberculosis Association will hold its 46th annual meeting April 24–28, 1950, at the Hotel Statler, Washington, D. C. Meeting concurrently with the NTA will be its Medical Section, the American Trudeau Society, and the National Conference of Tuberculosis Secretaries. The medical sessions will be devoted to the chemotherapy of tuberculosis, surgical aspects of tuberculosis, laboratory investigations, and nontuberculous diseases of the chest. Further information may be obtained by writing the National Tuberculosis Association, 1790 Broadway, New York City 19.

The Biennial Congress of the International Society of Hematology will be held August 21–26, 1950, at the University of Cambridge in England. The Program Committee is considering titles for papers and exhibits to be presented. Material should be submitted as soon as possible to I. Davidsohn, Mt. Sinai Hospital, Chicago, or S. Mettier, University of California, San Francisco.

The Engineering Foundation elected the following officers at the annual meeting of its board: Boris A. Bakhmeteff, consulting engineer and professor of civil engineering, Columbia University, chairman; and C. G. Suits, of General Electric Company, vice chairman. Frank T. Sisco was reelected technical director, and John H. R. Arms, secretary.

Dr. Bakhmeteff was also appointed chairman of the Executive Committee, whose other members are John H. R. Arms, C. G. Suits, A. B. Kinzel, vice president of the Union Carbide and Carbon Research Laboratories, Inc., Herman Weisberg, me-

chanical engineer in the Electrical Engineering Department of the Public Service Company of New Jersey, and D. A. Quarles, vice president of the Bell Telephone Laboratories, Inc.

The Research Procedure Committee also will be headed by Dr. Bakhmeteff. Other members are E. R. Kaiser, assistant director of research, Bituminous Coal Research, Inc., Herman Weisberg, and C. G. Suits.

Deaths

Gebhard Stegeman, 59, professor of chemistry at the University of Pittsburgh, and a member of the staff since 1919, died of a heart attack September 5 at his home in Pittsburgh. Dr. Stegeman's most recent research was on the specific heat of sugar.

Earl O. Wilson, 59, professor of industrial and engineering chemistry at Yenching University, Peiping, for 21 years, died September 30 at Covina, California. During the war, Dr. Wilson was interned by the Japanese at Weihsien in Shantung and was later repatriated. He retired in 1944 because of ill health.

Sterling Henry Diggs, chemist, died at his home in Charlottesville, Virginia, on September 5, at the age of 70. Dr. Diggs was director of research for the Standard Oil Company of Indiana at Casper, Wyoming, from 1923 until his retirement in 1940.

Royall O. Davis, 69, administrative assistant in the Soils Division of the Agriculture Department's Bureau of Plant Industry died October 30 of a heart attack. During World War II, Dr. Davis conducted research for the U. S. Army on the fire and explosion hazards of ammonium nitrate.

The National Registry of Rare Chemicals, 35 West 33rd Street, Chicago 16, Illinois, has submitted the following list of wanted chemicals: berbamine; isatin chloride; jervine; 1,3 - bis - (3 - methyl - 4 - nitro - 5 - pyrazolyl)-1,2,4-triazole; zinc carbide; 1,8-diiodooctane; 1,9-diiodononane; 4-bromocyclohexanone; 4-methyl - 4 - bromocyclohexanone; 5 - aminocaproic acid; 7-aminocaprylic acid; 4,6-diaminoquinaldine; difluorochloroacetic acid; *p*-aminohexahydrobenzoic acid; 4-hydroxymethylimidazole; pyridine-3,5-dicarboxylic acid; 2,5 - dimercaptothiodiazole; sphaerophorin; atraric acid; and L-α-glycerylphosphorylcholine.

Edward Pyddoke, curator of the Sussex Archaeological Society in England, informs *Science* that he is searching for archaeological and paleontological material excavated from Kent's Cavern, Torquay, Devonshire, during the 19th century. There is no complete catalogue and he believes much of the material has found its way into museums and private collections. Dr. Pyddoke is compiling an illustrated monograph at the request of the British Association for the Advancement of Science. Communications should be sent to him in care of the Sussex Archaeological Society, Barbican House, Lewes, England.

The Mathematics Department of **Harvard University** expects to have one or two vacancies in the rank of Benjamin Peirce Instructor beginning in the fall of 1950. Appointments are for a maximum period of three years. Applications should reach the department prior to *March 15, 1950.*

Units of Radioactivity. In November, 1947, a joint committee of the Divisions of Chemistry and Chemical Technology and of Mathematical and Physical Sciences of the National Research Council was appointed to make recommendations regarding standards and units of radioactivity. This committee unanimously adopted the recommendations quoted below. The committee would like to point out that these recommendations effectively divorce the curie from the disintegration rate of radium by assigning to the former an arbitrary magnitude (3.7×10^{10} dis/sec) approximately equal to the disintegration rate of radium. This arbitrary figure is therefore not influenced by any future revisions of the generally accepted disintegration rate of radium. This recommendation has been submitted to the Joint Commission on Standards, Units, and Constants of Radioactivity of the International Unions of Chemistry and Physics for the purpose of obtaining international agreement.

This changes, slightly, the meaning of the curie when applied to radium. For example, 1 curie of radon is no longer, on the basis of these recommendations, the amount in equilibrium with 1 gram of radium, but is the amount undergoing 3.7×10^{10} disintegrations per second. Similarly, 1 mg and 1 mc of radium are no longer rigorously synonymous. This distinction has a number of precedents in physics; for example, the international ampere, now abolished, was not quite equal to the absolute ampere and the angstrom unit is nearly, but not quite, equal to 1000 x-units.

"**curie** The curie should be defined as that quantity of any radioactive species (radioisotope) undergoing exactly 3.700×10^{10} disintegrations per second."

"**rutherford** The rutherford should be defined as that quantity of any radioactive species (radioisotope) undergoing 10^6 disintegrations per second."

"**rhm** For the quantitative comparison of radioactive sources emitting gamma rays, for which disintegration rates cannot be determined, the *roentgen per hour at one meter* (rhm) is recommended. This is not essentially a new unit, since all units involved are well established, explicitly defined, and are in common usage."

The recommendation of this latter unit is a practical step to insure that, by its use, gamma ray measurements are so made with instruments and under such conditions that measurements on a given isotope (nuclear species) made in any laboratory will be directly comparable with similar measurements made in other laboratories. This will result if the procedures used comply with the definition of the unit; that is, a source is 1 rhm if it produces 1 roentgen per hour at a distance of 1 meter.

L. F. CURTISS, *Chairman,*
R. D. EVANS, WARREN JOHNSON,
GLENN T. SEABORG