

a 2-second silence before the presentation of the test stimulus is followed by about 1 second of the aftereffect, and after a silent delay of 4 seconds no qualitative changes are observed.

The quality of the aftereffect does not seem to change as a function of the nature of the stimulations which produce it. It is always the same—a metallic, ringing obligato to the test stimulus.

What possible mechanism could account for this phenomenon? It seems to be peripheral, for if the left ear is exposed to pulses and the right ear is tested with the scraping of sandpaper, no aftereffect is experienced. It is probably related to stimulation deafness, but in no simple manner, since exposures only to certain kinds of sounds are followed by the aftereffect. Furthermore when, a temporary hearing loss produces a qualitative change in a test stimulus, we expect the change to be less pronounced for loud test stimuli, since the temporarily

deafened ear is more nearly normal in response to loud than faint sounds. The ringing auditory quality of the aftereffect is, however, most striking and persistent when the test stimulus is made more intense. The mechanism is more complex than a simple subtraction—due to hearing loss—of certain components of the test sound. Either a sharp wave-front or the presence of harmonics properly spaced along the basilar membrane is the necessary condition for producing it. In a highly mechanical system like the ear the possible mechanisms for an after-image are somewhat limited.

Such, then, is the phenomenon observed. It is not a tinnitus, a simple hearing loss, or a pathological condition. It is a positive aftereffect of the stimulation of normal listeners. Is this not an auditory afterimage?

Reference

1. BISHOP, H. G. *Amer. J. Psychol.*, 1921, 32, 305-325.

NEWS *and Notes*

K. A. Gunnar Strand, formerly associate professor of astronomy, University of Chicago, is the new director of the Dearborn Observatory and professor of astronomy, Northwestern University. Dr. Strand, a positional astronomer who did research in navigation for the Army Air Forces during the war, succeeds **Oliver J. Lee**, who had been on the Northwestern faculty since 1928 and who retired August 31. Dr. Strand received his Ph.D. degree from the University of Copenhagen, and came to the United States as a fellow of the American Scandinavian Foundation. His first assignment here was at Sproul Observatory, Swarthmore College. His studies have included the motion of asteroids, determination of position, photographic and visual observations of double stars, and orbital motion in multiple systems. He has been retained as a special research associate at Yerkes Observatory.

Abraham White, associate professor of physiological chemistry, Yale University School of Medicine, will deliver the first Harvey Lecture of the current series at the New York Academy of Medicine, October 23. Dr. White will speak on "Influence of Endocrine Secretions on the

Structure and Function of Lymphoid Tissue."

Nathan Birnbaum, Department of Chemistry, City College of New York, has returned to the Department after 5 years of military service with the Chemical Corps, U. S. Army. In addition to overseas duty in New Guinea and the Philippines, Prof. Birnbaum participated in the atomic bomb tests at Bikini as a member of the Radiological Safety Section. He is being retained by the Chemical Corps as consultant to the Research and Engineering Division.

James G. Miller, chief, Clinical Psychology Section, Neuropsychiatric Division, Veterans Administration, Washington, D. C., has been appointed chairman, Department of Psychology, University of Chicago. The appointment, which is effective January 1, 1948, carries the rank of professor of psychiatry and psychology. As a captain in the Army Medical Corps during the war, Dr. Miller served as a neuropsychiatrist, assessing personalities of OSS personnel both in this country and in the European Theater.

Charles C. Price, head, Department of Chemistry, University of Notre Dame, is now in England, where he will deliver a series of special lectures at Oxford, Cambridge, and other colleges and universities in England and Scotland. Dr. Price will also visit the Imperial Chemicals Industries at Manchester and the British Rubber Producers Association at Welwyn Garden City.

Byron Clark has assumed his duties as professor of pharmacology, Tufts College Medical School. Under his direction the laboratories for instruction and research in this field will be reorganized and enlarged.

John H. Melvin, district geologist, Corps of Engineers, Omaha, Nebraska, has been appointed state geologist of Ohio, succeeding **George W. White**, who has been appointed head, Department of Geology, University of Illinois.

Samuel Cate Prescott, of Cambridge, Massachusetts, former dean, School of Science, Massachusetts Institute of Technology, was awarded the honorary D.Sc. degree by Lehigh University at its 69th Founder's Day exercises, October 1.

A. C. Ivy, vice-president of the University of Illinois for the Chicago Professional Colleges, has been named an honorary member of the American Congress of Physical Medicine in recognition of his "studies of electrical stimulation of paralyzed muscles and resuscitation from carbon monoxide asphyxia, and for assistance to the Council of Physical Medicine of the American Medical Association."

William J. Eney, professor of civil engineering, Lehigh University, has been appointed head, and director of the curriculum, Department of Civil Engineering. He succeeds **Hale Sutherland**, who will continue as professor in the Department and will devote more of his time to professional writing.

D. T. Morgan, Jr., has been appointed assistant professor of botany, University of Maryland.

Carl G. Hartman, professor emeritus of physiology and zoology, University of Illinois, has recently been appointed director of physiology and pharmacology, Ortho Research Foundation, Raritan, New Jersey.

Mark W. Woods, associate professor of plant pathology, University of Maryland, has recently resigned to join the staff of the National Cancer Institute, Bethesda, Maryland.

Morris T. James, formerly assistant professor in entomology, Colorado Agricultural and Mechanical College, Fort Collins, has been appointed assistant professor of entomology, State College of Washington, Pullman.

Jacob Sacks, formerly pharmacologist, Endo Products, Inc., has been appointed to the staff of the Department of Biology, Brookhaven National Laboratory, Upton, New York.

Herman C. Lichstein, formerly National Research fellow, Cornell University, has been appointed associate professor of bacteriology, University of Tennessee, Knoxville.

Emily T. Wolff, formerly research botanist at the laboratories of the American Cyanamid Company, Stamford, Connecticut, has been appointed assistant professor of botany, University of Georgia, Athens.

William M. McGill, assistant state geologist of Virginia since 1929, was appointed state geologist, effective September 1, succeeding **Arthur Bevan**, now with the Illinois Geological Survey.

Myron C. Benford, head, Outpatient Department, University of Illinois Hospitals, has been promoted to assistant medical director to assist **John B. Youmans**, dean, College of Medicine and medical director of the hospitals.

Joseph Modrovsky, design engineer, Wright Aeronautical Corporation, Paterson, New Jersey, has been appointed assistant professor, Department of Mechanical Engineering, Polytechnic Institute of Brooklyn.

Frank M. Semans, consulting biologist, and formerly of Hiram College, has been appointed associate professor in biology, Arizona State College, Tempe.

Charles A. R. Connor, associate physician in cardiovascular disease and assistant chief, Cardiovascular Clinic, Lenox Hill Hospital, cardiologist, New York City Department of Health, and attending consultant, Veterans Administration, New York City, has been appointed medical director, American Heart Association, to succeed **David D. Rutstein**, who recently resigned to become professor of preventive medicine, Harvard Medical School.

William Owens, professor of psychology, Iowa State College, has been appointed head, Department of Psychology. During the war Dr. Owens served with the Standards and Curriculum Division, Bureau of Naval Personnel.

S. Richard Silverman, administrative executive, Central Institute for the Deaf, has been appointed director of the Institute, filling the position left vacant in 1941 by the death of **Max A. Goldstein**, who founded the Institute in 1914.

F. J. Alcock, formerly senior geologist, Geological Survey, Mines and Geology Branch, Department of Mines and Resources, Canada, has been appointed chief curator, National Museum, Ottawa.

Lester W. Sharp, professor of botany, Cornell University, retired from active service in the Department on July 1.

A. W. Swensen, professor of chemistry, and **Elmer W. Hertel**, professor of biology, have been promoted to full professors at Wartburg College, Waverly, Iowa.

Milton Tinsley, instructor in neurological surgery, University of Illinois, has been promoted to assistant professor. Dr. Tinsley joined the Illinois faculty in 1940.

Joseph H. Greenberg and **John M. Roberts** have been appointed assistant professors, Department of Anthropology, University of Minnesota, and **Ralph P. Winchester** has been appointed an instructor in anthropology in the General College of that University.

Matilda Moldenhauer Brooks, research associate, University of California, has returned from a summer's work in Peru, where she conducted experiments in the high Andes on overcoming altitude sickness. This work was carried out with the cooperation of C. Hurtado, minister of public health, Peru, and a group of medical men.

Sunder Lal Hora of India, a leading ichthyologist, has been appointed permanent director of the Zoological Survey of India, Kaiser Castle, Benares Cantt, according to a letter received from him by E. W. Gudger, American Museum of Natural History, New York.

Albert S. Cahn, who served during the war as mathematician and physicist with a unit of the Manhattan Project at the University of Chicago, has been appointed executive officer of the Institute of Numerical Analysis, which is being established by the National Bureau of Standards on the campus of the University of California at Los Angeles.

Cecil J. Watson, professor of medicine, University of Michigan Medical School, will address the Institute of Medicine of Chicago and the Chicago Society of Internal Medicine, October 24, at the Palmer House, Chicago, on the topic, "Some Aspects of the Porphyrin Problem in Relation to Disease."

Visitors to U. S.

L. C. Young, of the mathematics research faculty, University of Capetown, South Africa, is in the United States to direct research seminars in mathematics at Ohio State University during the 1947-48 autumn and winter quarters.

Chentze Hsiang Wu, assistant professor of physiology, National Central University Medical College, Nanking, China, who has been working with Maurice B. Visscher, of the University of Minnesota Medical School, Minneapolis, since September 1946, is returning to Nanking this month. Dr. Wu has also been acting as a representative of the Natural Science Society of China to arrange publication exchanges for the Society.

Grants and Awards

The School of Mathematics of the Institute for Advanced Study will allocate a small number of stipends to gifted young mathematicians and mathematical physicists to enable them to study and do research work at Princeton during the academic year 1948-49. Candidates must have given evidence of ability in research comparable at least with that expected for the Ph.D. degree. Application blanks, which may be obtained from the School of Mathematics, Institute for

Advanced Study, Princeton, New Jersey, are returnable by February 1, 1948.

The New York Zoological Society, as administrator of the New York Aquarium and its laboratories, has received grants from the National Advisory Cancer Council of the National Cancer Institute totaling \$15,088 for continuing the Aquarium's studies of melanomas in fishes and amphibians. Research on the genetics and biology of normal and atypical pigment cell growth in fishes, initiated by **Myron Gordon**, geneticist, is now being expanded in cooperation with **Ross F. Nigrelli**, pathologist, New York Aquarium. **V. V. Brunst**, formerly director, Laboratory of Roentgen Biology, Roentgen and Cancer Institute, Kiev, and now senior fellow, National Institute of Health, will work on regeneration and transplantation of melanotic tumors in the Mexican axolotls, a colony of which is being established in the Genetics Laboratory of the Aquarium. **Emil Liebman**, formerly research fellow, Department of Biology, Princeton University, will study the hematological and cytochemical changes in progressive stages of normal, pretumorous, and melanomatous fishes. **William and Margaret Cordsen Tavalga**, graduate students, New York University Graduate School of Arts and Sciences, Department of Biology, are working on the embryological and endocrinological aspects of the problem. Dr. Gordon is coordinating the entire project at the Genetic Laboratories, temporarily located in the Whitney Wing, American Museum of Natural History.

George W. Merck, president, Merck & Company, Rahway, New Jersey, who directed the Nation's extensive research on biological warfare during World War II, will be awarded the Chemical Industry Medal for 1947 by the American Section, Society of Chemical Industry, at a dinner November 7, at the Hotel Commodore, New York. Mr. Merck was cited for "outstanding accomplishments" by Merck & Company in the field of pharmaceuticals, under his leadership.

Joseph Aronson, U. S. Bureau of Indian Affairs, received the Alvarenga Prize July 14 from the College of Physicians of Philadelphia in recognition of his studies on the evaluation of BCG vaccine in the control of tuberculosis. This prize was established by the will of Pedro Francisco daCosta Alvarenga, of Lisbon, Portugal, an associate fellow of the College of

Physicians, "to be awarded annually by the College of Physicians on each anniversary of the death of the testator, July 14, 1883." The College usually makes this award for outstanding work and invites the recipient to deliver an Alvarenga Lecture before the College.

The Spirit of St. Louis Medal, the highest aviation honor of the American Society of Mechanical Engineers, was awarded on September 3 to John K. Northrop, president of Northrop Aircraft, Inc., Hawthorne, California. The medal, awarded every third year, was presented to Mr. Northrop "for his originality and vision in engineering of military and commercial airplanes, and particularly for his development of a successful flying wing."

General Motors Corporation on September 20 received the first annual Distinguished Service Award to be presented by the Special Devices Association, composed of some 600 Naval Reserve officers and civilians who have served in the Special Devices Center, Office of Naval Research. The 1947 award went to General Motors in recognition of "the outstanding accomplishment in its scientific programs involving rapid learning techniques and mass training." While this first presentation was made for wartime and subsequent peacetime contribution to the development of rapid training techniques, the purpose of the award is to promote peacetime advances in such training methods as a measure of national preparedness. Future recipients will be selected solely for current peacetime accomplishments.

Colleges and Universities

A national center for medical research in the field of nutrition is being planned in Chicago under an agreement between Northwestern University and the Spies Committee for Clinical Research. As a first step toward implementing the plans, **Tom D. Spies**, associate professor of medicine, University of Cincinnati, has been named professor of nutrition and metabolism and chairman of a new department in this field at the Medical School of Northwestern. To maintain the department and to support research to be carried out under Dr. Spies the Spies Committee will grant to the University at least \$150,000 annually for 5 years. Dr. Spies, who is known for his work with synthetic folic acid, will continue to direct

the University of Cincinnati studies in nutrition at Hillman Hospital, Birmingham, Alabama, organized by him in 1937.

Western College for Women, Oxford, Ohio, will dedicate its new \$400,000 science building October 11. The new building, completed late in the spring, is now housing the Departments of Biology, Chemistry, Mathematics, Physics, and Psychology. The basement is devoted to a psychology lecture room and laboratory, animal and storage rooms, and physics laboratories for work in X-ray, radiation, glass-blowing, electronics, mechanics, and photography. Offices, classrooms, biology and botany laboratories, additional physics rooms, a greenhouse with a sunken aquarium, and the science library of 26,000 volumes occupy the first floor, while on the second floor are chemistry and biology laboratories, balance room, bacteriology laboratory, preparation room, and a physiology, histology, and embryology laboratory. Two motor control boards provide the necessary electricity for the equipment used. A special deck on the roof of the building serves as an observation platform for classes in meteorology and astronomy.

The University of Rochester has received from Mr. and Mrs. Ernest L. Woodward, of LeRoy, New York, a large residence and 64 acres of land together with funds for remodeling the estate into a rehabilitation hospital for children suffering from cerebral palsy. New York State has appropriated \$150,000 toward the hospital, which will be operated by the University with the cooperation of the National Foundation for Infantile Paralysis, the day clinic of the Rochester Cerebral Palsy Association, and the State Health Department. Part of the cost of technical personnel is being borne by the National Foundation under a \$292,000 grant to the School of Medicine, made last year for a 5-year program of basic research leading to improvement in the methods of treatment of children disabled by infantile paralysis and cerebral palsy. The Foundation-sponsored program is under the direction of **R. Plato Schwartz**, associate professor of orthopedic surgery at the Medical School, whose work had indicated the similarity of spasticity of muscles in infantile paralysis to that in cerebral palsy. The costs of operation and patient care will be borne by the State. In addition to research and treatment of spastic paralysis, a major aspect of the program

will be the training of personnel in any or all of the chief divisions of the plan: research at the School of Medicine, hospital care at the LeRoy unit, and work at the day clinic of the Rochester Cerebral Palsy Association.

Case Institute of Technology has appointed the following to its faculty: **Charles S. Bacon**, associate professor of geology and mineralogy; **Sydney D. Black**, associate professor of aeronautical engineering; **Marvin L. Granstrom**, instructor in civil and sanitary engineering; **Salvatore Cicirello**, instructor in engineering mechanics; **John E. Gilkey**, instructor in machine design; **George H. Wagner**, instructor in metallurgical engineering; **Richard G. Bauman**, instructor in physical chemistry; **Carl F. Schunemann**, instructor in electrical engineering; and **Robert P. Knupke**, instructor in mathematics.

Rensselaer Polytechnic Institute now offers the degrees of B.S. in vocational education and M.S. in education in order to prepare "more and better high school teachers in science, technology, mathematics, and vocational education." The New York State Department of Education and the State College for Teachers at Albany are cooperating in the program, which is under the direction of **Stanley B. Wiltse**, Department of Electrical Engineering.

Southern Illinois University, Carbondale, has added five new faculty members to its science departments, effective this fall. **Joseph Rafalko**, Syracuse University, and **Charles L. Foote**, Wagner College, have been named associate professors of zoology; **Arthur E. Hunter**, a recent graduate of Southern, faculty assistant in zoology; **Wilkison W. Meeks**, Western Maryland College, associate professor of physics; and **Floyd F. Cunningham**, for 17 years head of the Geography Department, State Teachers College, Florence, Alabama, associate professor and acting chairman, Geography-Geology Department.

The measuring engine of the **Yale University Observatory**, which is used to study large astronomical photographic plates, is now being utilized to check the observations made on the Einstein shift by **George Van Biesbroeck**, professor emeritus of astronomy, University of Chi-

cago, during the solar eclipse of May 20, at Bocajuba, Brazil (*Science*, May 16). While in New Haven, Prof. Van Biesbroeck is the guest of Dirk Brouwer, director, Yale Observatory.

The Einstein shift may be detected during a solar eclipse when the effect of the sun's mass causes a curvature in the path of light coming from the stars by which a star's image is displaced away from the center of the sun by a slight amount. The phenomenon was first tested by Eddington in 1919 and has since been tested by many astronomers. Most of the results have confirmed the Einstein theory, but the amount of the shift has differed appreciably in various expeditions. Prof. Van Biesbroeck improved over previous methods by photographing two points in the sky simultaneously, the star field surrounding the sun and a distant star field brought into the camera by a reflection device. In August he made a second trip to Brazil to photograph the same star field during the night.

The Long Island College of Medicine is now authorized to confer the degree of Doctor of Medical Science, following the Board of Trustees' approval of the expansion of teaching activities to include graduate training in psychiatry, which is the first full-time, long-term graduate course to be offered by the College. The new program in psychiatry is already in progress under the direction of **Howard W. Potter**, professor of psychiatry. The training is being given in cooperation with the Veterans Administration Program for training doctors who served in Veterans Administration hospitals and clinics.

Industrial Laboratories

The new contact sulfuric acid works of the **E. I. du Pont de Nemours and Company, Inc.**, located 14 miles from Richmond at James River, Virginia, has begun operations. Du Pont's newest manufacturing unit, which is operated by the Grasselli Chemicals Department, makes sulfuric acid for use by industries in the Richmond area.

M. Vincent O'Shea, Jr., formerly executive vice-president, O'Sullivan Rubber Company, president, Robert Teller Sons & Dorner Company, and president, Rosemarie de Paris, Inc., has been appointed administrative vice-president of Merck & Company, Rahway, New Jersey.

R. C. Mason, on leave of absence for the past year from the atomic energy project, Oak Ridge, Tennessee, has been named manager, Electro-Physics Department, Westinghouse Research Laboratories. Dr. Mason succeeds **Gaylord W. Penney**, who has been appointed Westinghouse professor of electrical engineering at Carnegie Institute of Technology.

William H. Doherty, radio development engineer, Bell Telephone Laboratories, New York City, has recently left for Rome, Italy, to participate in the Rome Radio Congress commemorating the 50th anniversary of Marconi's pioneer radio experiments. Mr. Doherty will present a technical paper on radio broadcast transmitters at the Congress, which is sponsored by the Italian National Council of Research. He will also visit a number of radio stations and scientific laboratories in other parts of Europe to discuss recent advances in radio communication.

Sterling Drug, Inc., has announced the formation of Winthrop-Stearns, Inc., as a new subsidiary to integrate its major pharmaceutical interests in this country. The new company will conduct the business hitherto carried on by Winthrop Chemical Company, Inc., organized by Sterling in 1919 and now being liquidated, as well as the pharmaceutical operations of the Frederick Stearns & Company Division, Detroit, organized in 1855. A similar subsidiary to take over Winthrop and Stearns' Canadian business will be formed in the Dominion as soon as legal requirements are completed. **Theodore G. Klumpp**, formerly president, Winthrop Chemical Company, has been elected president of the new Winthrop-Stearns, Inc.

The Electronic Control Company, Philadelphia, which is engaged in the design of electronic digital computing equipment, has appointed the following to its staff: **Isaac L. Auerbach**, formerly development engineer, Naval Research Laboratory; **Albert Auerbach**, Radio Corporation of America; **Gerald Smoliar**, signal engineer, Army Signal Corps; and **Joseph D. Chapline, Jr.**, formerly research associate, University of Pennsylvania, and closely associated with the application of the Differential Analyzer during the war.

Eastman Kodak Research Laboratories have announced the following staff additions: **Robert H. Dows**, formerly

meteorologist, Army Air Forces, will do experimental work on new photographic processes; **Walter R. J. Brown**, who was recently graduated from the University of Toronto, will assist in colorimetry research; and **Elwood J. Hunemorder**, a University of Michigan graduate, will do research in X-ray photography.

Meetings

The National Joint Committee on Fertilizer Application will hold its annual meeting in the Hotel Stevens, Chicago, December 15, in connection with the meeting of the American Society of Agricultural Engineers. The morning program will be devoted to discussion of soil fertility and plant breeding in relation to fertilizer application and radioactive applications to agriculture, while the afternoon program will be concerned with special fertilizer placement studies. **Jackson B. Hester**, Department of Agricultural Research, Campbell Soup Company, Riverton, New Jersey, is chairman of the Committee.

The Fourth International Congress for Microbiology, held July 20-26 in Copenhagen under the presidency of Thorvald Madsen and with Prof. Orla-Jensen as vice-president, was attended by over 1,100 persons, 87 of whom were Americans representing various branches of microbiology. The Congress was divided into 9 sections including General Microbiology, Medical and Veterinary Bacteriology, Viruses and Viral Diseases, Serology and Immunology, Soil and Water Microbiology, Dairy and Food Microbiology, Industrial Microbiology, Variation and Mutation in Microorganisms, and Plant Pathology and Mycology. General addresses were given by C. H. Werkman (U. S.) on "Assimilation of Carbon Dioxide," F. C. Bawden (England) on "Viruses in General," Ø. Winge (Denmark) on "Yeast in Modern Genetics," and S. A. Waksman (U. S.) on "Antibiotics and Life."

At the conclusion of the Congress the Emil Christian Hansen Prize for Microbiology, consisting of a gold medal and 5,000 Danish crowns and given every three years by the Carlsberg Laboratory, Copenhagen, was presented to Dr. Waksman, the first American microbiologist to receive this award. Dr. Waksman announced that the fund attached to the award will be used to help a young Danish

microbiologist come to the United States and spend a year in the Department of Microbiology, New Jersey Agricultural Experiment Station.

The Poultry Science Association held its 36th annual meeting at Clemson College, Clemson, South Carolina, August 25-28, with 351 in attendance at the general sessions and sectional programs on Nutrition, Genetics and Physiology, Extension, Pathology, and Marketing. Awards presented at the banquet meeting, August 27, included the Borden Award of \$1,000 for outstanding research work in poultry husbandry over a period of years, to J. H. Jukes, Lederle Laboratories; the National Turkey Federation Award to V. S. Asmundson, University of California; the Poultry Science Research Prize to Paul D. Sturkie, University of New Jersey; the Association's award for outstanding poultry extension work to Fred W. Frasier, Washington State College; and the Association's Teaching Award to E. M. Funk, University of Missouri.

The Association voted to join the Institute of American Biological Societies and to hold its 1948 meeting at the Colorado State Agricultural College, Fort Collins, Colorado.

Officers elected for the coming year were: W. A. Maw, MacDonald College, Quebec, president; H. M. Scott, University of Connecticut, 1st vice-president; W. M. Insko, University of Kentucky, 2nd vice-president; and E. M. Funk, University of Missouri, secretary-treasurer. Directors elected were: R. M. Bethke, Ohio Agricultural Experiment Station; T. C. Byerly, U. S. Department of Agriculture, Beltsville, Maryland; E. W. Callenbach, Pennsylvania State College; and H. S. Wilgus, Colorado Agricultural and Mechanical College. T. C. Byerly, U. S. Department of Agriculture, Beltsville, Maryland, F. B. Hutt, Cornell University, and F. A. Hays, University of Massachusetts, were elected Fellows of the Association.

Recent Deaths

Theodore J. Becker, pharmacologist, Sterling-Winthrop Research Institute, Rensselaer, New York, died August 29.

Tine Tammes, 76, emeritus professor of genetics, University of Groningen, Netherlands, died September 20.

Elmer H. Wirth, 52, head, Department of Pharmacognosy, University of

Illinois Professional Schools, Chicago, died September 26 in Chicago.

John Robert Cochran, Jr., 73, Department of Surgery, Northwestern University Medical School, and an attending surgeon, St. Luke's Hospital, Chicago, died September 27.

Clarence Gaines Toland, 72, formerly professor of clinical surgery, University of Southern California, died October 2 of a heart ailment at his Los Angeles home.

Max Planck, 89, German physicist and Nobel Prize winner, and originator of the quantum theory, died on October 3.

Administration for Research, Volume 3 of *Science and public policy*, a series of reports by John R. Steelman, chairman of the President's Scientific Research Board, was released on October 4. In releasing the report, which analyzes a multitude of problems encountered in administering the vast scientific research and development program of the Government and offers recommendations for improvement in administration, the President stated that he is directing Federal departments and agencies engaged in important research and development activities to consider carefully the content of the report and suggested that scientists outside the Government also study the analysis and recommendations which it contains.

The report reveals the urgency of strengthening the Federal machinery in order to (1) determine broad policies, (2) allocate functions, and (3) establish liaison for purposes of closer collaboration not only within the Federal establishment but also with scientific agencies outside the Government. The specific steps proposed include: *appointment by the President of an advisory Interdepartmental Committee on Scientific Research and Development* which would consist of key government officials in charge of various aspects of the Federal research program; *creation in the Bureau of the Budget of a unit to review Federal scientific research and development programs* and thus permit the Bureau to take effective initiative in allocating functions in the field of scientific research; *designation by the President of a White House staff member who would be primarily responsible for liaison* with outside scientists, learned societies, Congressional com-

mittees, and Federal scientific agencies; and establishment of a *National Science Foundation*. With respect to the latter recommendation the report had this to say: "It is urged that the Congress establish a National Science Foundation within the administrative framework of the Federal Government. It should be located within the Executive Office of the President until such time as other Federal programs in support of higher education are established [when] consideration should be given to grouping all such activities [including the Foundation] in a single agency. The Board of the Foundation might well consist of part-time members appointed by the President, and the Director of the Foundation should be similarly chosen. Half the membership should be drawn from the personnel of Government agencies with a major role in scientific research and development, and half from among the most eminent scientists and educators outside of the Government."

Other aspects of a sound administration are discussed in subsequent pages of the 324-page report. Among them may be mentioned a lengthy chapter on scientific personnel and discussions of such matters as national security and scientific freedom, the loyalty check, and a more elastic salary system.

The Academy of Time, sponsored by the Benrus Watch Company and located at 200 Hudson Street, New York City, has recently released its first annual report, which was prepared by Julian Lazrus, secretary of the Academy. Since its creation in 1946 as a nonprofit organization, the Academy has provided funds to 9 universities for the scientific study of time. At American University, Ben L. Summerford, Jr., has been working on a project concerned with the relation of time to painting; the funds at Bradley University provided an undergraduate scholarship to William V. Hale, who combined watchmaking with general work leading to a B. S. degree; the recipient at Fordham University was Ruth King, whose project involved the measurement of travel time of elastic waves in the New York Area; at the University of Chicago, Leonard J. Tolmach has been investigating the isotopic ratios of lead in meteorites; at Harvard University, Carl A. Bauer's project is also related to the study of meteors; at Oklahoma A & M, H. G.

Thuesen, a professor at the College, has designed and constructed a time recorder of great accuracy; Kees Bol, at Stanford University, is working on the determination of the speed of light in empty space; and at the University of Vermont, Konrad H. Stokes is studying springs in timepieces. The recipient of funds allocated to the University of Minnesota had not been selected at the time the report was prepared. The Academy aims eventually to become a clearing house for all kinds of information on time and time keeping.

Foster D. Snell, Inc., consulting chemists and engineers, are now settled in their new quarters, a 10-story building located at 29 West 15th Street, New York 11, New York.

The program at the Hayden Planetarium, New York, this month, entitled "Autumn Skies," will feature a realistic preview of the Orionid meteor shower, which is scheduled to occur October 22. The shower will occur when the earth passes near the orbit of the famous Halley's Comet, its gravitational pull attracting some of the debris left by the Comet and thus creating meteors. If good "seeing" prevails on October 22, observers will witness a spectacular display. Those unable to watch the real shower may witness it at the Hayden Planetarium, along with many other attractions, each weekday at 2:10, 3:40, and 8:30 P.M., and on Saturdays, Sundays, and Holidays at 10:40 A.M. (Saturdays only), 1:40, 2:40, 3:40, and 8:30 P.M.

A series of 6 lectures on "Modern Psychiatry" will be given in the Town Hall auditorium, 123 West 43rd Street, New York City, beginning Monday, October 20, at 5:30 P.M. The lectures, given under the auspices of the Town Hall Short Course Division, are as follows: October 20, "What Is Mental Health?," Carl Binger, associate professor of clinical psychiatry, Cornell Medical College, and editor, *Psycho-analytical Quarterly*; October 27, "The Psychiatric Implications of Immaturity," Edward A. Strecker, head, Department of Psychiatry, University of Pennsylvania, and staff neurologist, Pennsylvania, Philadelphia, and Germantown Hospitals; November 3, "What Is a Neurosis?," Franz Alexander,

director, Chicago Institute of Psychoanalysis, and associate professor of psychiatry, University of Illinois; November 10, "The Psychology of Middle-Aging," Roy R. Grinker, chairman, Department of Neuro-Psychiatry, Michael Reese Hospital, Chicago; November 17, "What Psychotherapy?," Thomas A. C. Rennie, attending psychiatrist, New York Hospital, and associate professor of psychiatry, Cornell University Medical College; and November 24, "Mental Health and World Citizenship," Frank Fremont-Smith, The World Federation for Mental Health, vice-president for the United States.

The Sugar Research Foundation, New York City, has recently acquired from the estate of Charles A. Browne, former staff member, Bureau of Agriculture and Industrial Chemistry, U. S. Department of Agriculture, and historian, American Chemical Society, one of the most comprehensive specialized libraries in existence on the subject of sugar. The collection, which includes more than 200 volumes and 750 bulletins and reprints with many rare and out-of-print works in several foreign languages, will be maintained as the Charles A. Browne Memorial Library at the Foundation's office, 52 Wall Street, and may be consulted for reference or research by students and those having an interest in the subject.

Make Plans for—

Electrochemical Society, Fall Convention, October 15-18, Boston.

Society of Rheology, October 30-31, New York City.

American Institute of Electrical Engineers, Midwest General Meeting, November 3-7, Chicago, Illinois.

American Institute of Chemical Engineers, November 9-11, Detroit, Michigan.

American Association for the Advancement of Science, 114th Meeting, December 26-31, Chicago, Illinois.