ography in the movement towards increased national defense. It was agreed that the complete facilities of the institution should be offered to the National Defense Research Committee. Dr. Frank B. Jewett, a member of this committee and also a trustee of the Woods Hole Oceanographic Institution, explained how a closer cooperation between oceanographers and naval research could be achieved. While it still remains to be decided just which problems will be attacked first, it is clear that Woods Hole will soon become one of the headquarters for investigations of importance to the national defense and only rather remotely connected with oceanography in its ordinary sense. The retiring class of trustees was reappointed. These included Henry B. Bigelow, William Bowie, A. G. Huntsman, Alfred C. Redfield, Henry L. Shattuck and T. Wayland Vaughan. Dr. Vannevar Bush was elected a member of the corporation.

SCIENTIFIC NOTES AND NEWS

THE Leidy Medal of the Academy of Natural Sciences of Philadelphia has been awarded to Dr. Merritt L. Fernald, since 1915 Fisher professor of natural history at Harvard University and director of the Gray Herbarium. The medal is awarded in recognition of "outstanding contributions to the floristics of the eastern part of North America, including the Maritime Provinces and the Coastal Plain Region of the southern United States, and his correlations of the present-day distribution of plant life in North America with geologic history." The medal will be presented at a reception at the academy on September 17 by Dr. William B. Scott, emeritus professor of geology and paleontology of Princeton University.

THE University of Pennsylvania will confer twenty-one honorary degrees on September 21, when the Bicentennial Celebration Week will be brought to a close at a convocation in Convention Hall. Seven of the degrees will be conferred *in absentia* on European scholars who, although they will contribute papers to be read at a Bicentennial Conference during the celebration, will be unable to attend because of the war. Degrees conferred on scientific men are the doctorate of science on William M. Clark, director of the department of physiological chemistry, the Johns Hopkins University; Evarts A. Graham, Bixby professor of surgery, the School of Medicine, Washington University, St. Louis; Frank B. Jewett, president of the Bell Telephone Laboratories and president of the National Academy of Sciences; Wesley C. Mitchell, professor of economics, Columbia University; Charles S. Myers, formerly director of the Laboratory of Psychology, University of Cambridge (*in absentia*); Hermann Weyl, professor of mathematics, the Institute of Advanced Study, Princeton, N. J. The doctorate of laws will be conferred on Lawrence J. Henderson, professor of biological chemistry, Harvard University, and Herbert S. Jennings, professor of zoology, University of California.

DR. GEORGE BLUMER, since 1920 David P. Smith clinical professor of medicine at the Yale University School of Medicine, was guest of honor at a dinner marking his retirement from active service. Dr. Francis G. Blake, Sterling professor of medicine, was toastmaster. The speakers included Drs. Milton C. Winternitz, dean of the School of Medicine from 1920 to 1935, and Stanhope Bayne-Jones, dean from 1935 to 1940; William F. Verdi; Fu-ching Yen, a former student of Dr. Blumer and minister of health of the Republic of China, and Dr. James R. Angell, president emeritus of the university.

DR. ROBERT O. LAMBERT, associate director for the medical sciences of the Rockefeller Foundation, New York, was on July 14 the guest of honor at a dinner in San Juan given by former associates at the School of Tropical Medicine of the University of Puerto Rico, where he was for two years professor of pathology and the first director of the school.

DR. GORDON S. FAHRNI, of Winnipeg, was chosen president-elect of the Canadian Medical Association at the recent annual meeting in Toronto. He succeeds Dr. Duncan Graham, of Toronto, who became president.

DR. WOJCIECH SWIETOSLAWSKI, professor of chemistry and head of the Physico-Chemical Institute of the University of Warsaw, formerly Minister of Education of Poland, now chairman of the Committee on Physico-Chemical Data of the International Union of Chemistry, has been visiting professor of chemistry in the University of Pittsburgh since March. He becomes this month visiting professor of chemistry at the State University of Iowa, where he will remain until February.

DR. J. RICHARD WEISSENBERG, formerly professor extraordinarius of anatomy at the University of Berlin; in 1937 visiting professor of cytology at Washington University, St. Louis, and in 1939 member of the Wistar Institute, Philadelphia, has been appointed professor of histology and embryology at the School of Medicine of Middlesex University, Waltham, Mass.

DR. BERNHARD KURRELMEYER, associate professor in the department of physics of Brooklyn College, has been promoted to a full professorship.

DR. JOHN RINEHART, of the State University of

Iowa, has joined the staff of the department of physics at Kansas State College, Fort Hays.

DR. EDWIN B. ASTWOOD, associate in obstetrics at the Johns Hopkins University, will join the Harvard Medical School as assistant professor of pharmacotherapy. He will also be a member of the medical staff of the Peter Bent Brigham Hospital.

DR. EDGAR HULL, professor and head of the department of medicine of the Medical School of the Louisiana State University, New Orleans, has leave of absence from October 15 to May 15 of next year to accept a temporary appointment as associate professor of medicine at Yale University.

THE retirement is announced of Dr. David H. Newland, since 1927 state geologist at the New York State Museum, Albany, N. Y. Dr. Newland was assistant state geologist from 1905 until 1920, when he resigned to undertake private work in economic geology. He was appointed state geologist in 1927.

DR. G. A. ZENTMYER, JR., a member of the staff of the Bureau of Plant Industry of the U. S. Department of Agriculture at San Francisco, has been appointed research assistant in plant pathology at the Connecticut Experiment Station at Storrs. He will devote his time to investigations of the Dutch elm disease.

DR. J. WALLACE PAGE, JR., dual professor in chemistry and science education at Syracuse University, has been appointed director of the Maryland Academy of Sciences. Dr. Page organized and directed at Syracuse a center of science club activities of the American Institute of the City of New York.

DR. LOUIS B. FLEXNER, associate in anatomy in the School of Medicine of the Johns Hopkins University, has been appointed to the staff of the Carnegie Institution of Washington as research associate in the department of embryology, Baltimore. He will continue to investigate chemical interchanges in mammalian development, making use of artificially radioactive substances in cooperation with the Department of Terrestrial Magnetism of the Carnegie Institution. Dr. Herbert A. Pohl has been appointed as research assistant in the department of embryology and Dr. Alfred Gellhorn a research fellow. Dr. Inez Colombo de Allende, during the past year traveling fellow of the Argentine Association for the Advancement of Science at the University of Rochester, has been appointed to a Rockefeller traveling fellowship and will spend the year 1940–41 at the department of embryology of the Carnegie Institution.

DR. ARTHUR K. PARPART, assistant professor of physiology at Princeton University, has been appointed director of the course in physiology at the Woods Hole Marine Biological Laboratory for 1941. He succeeds Dr. Laurence Irving, professor of biology at Swarthmore College and director of the Edward Martin Biological Laboratory.

DR. GLENN W. PARSONS, assistant professor of chemistry at the University of Mississippi, has become associated with the Chemical Division of the Procter and Gamble Company, Ivorydale, Ohio.

DR. EDWARD WIGGLESWORTH, for twenty years director of the Boston Society of Natural History, has resigned to become Eastern director of the Gemmological Institute of America and chairman of its educational advisory board. The gemmological laboratory at 69 Newbury Street, Boston, will be under his direction. This is the second gemmological laboratory of the institute, the first having been conducted in Los Angeles since 1933.

R. D. MACCART, chief engineer of the Brewster Aeronautical Corporation, has been elected vice-president of the corporation in charge of engineering.

PROFESSOR M. S. COOVER, head of the department of electrical engineering at the Iowa State College, has been appointed secretary of the division of electrical engineering of the Society for the Promotion of Engineering Education and also a director of the American Institute of Electrical Engineers.

A RESEARCH grant has been extended by the Committee on Scientific Research of the American Medical Association in aid of the researches of Professor Chas. W. Greene on the coordinations of the coronary circulation. These investigations are being carried out in the physiological laboratories of Stanford University.

THE department of chemistry of the University of Pittsburgh has received two grants for post-doctorate fellowships. The first from the Carnegie Institution of Washington for the study of heats of dilution has been awarded to Dr. William E. Wallace, of Mississippi College and the University of Pittsburgh, who will be associated with Dr. A. L. Robinson. The second fellowship, which is from the John and Mary R. Markle Foundation, has been awarded to Dr. Richard H. McCoy, of the University of Illinois, who will engage in biochemical research under Dr. C. G. King, professor of biochemistry.

DR. FRANKLIN G. EBAUGH, professor of psychiatry of the School of Medicine of the University of Colorado, Denver, will deliver the Rogers Memorial Lecture on September 19 on "Our Mental Health."

DR. LEWIS KNUDSON, professor of plant physiology at Cornell University, spoke on August 22 before the newly formed Puerto Rico Orchid Society on "Orchid Seed Germination"; and on August 24 he spoke before the staff of the Puerto Rico Experiment Station of the

U. S. Department of Agriculture on "Environmental Conditions Favorable for Orchid Culture."

THE dedication exercises of the Administration Building of Bellevue Hospital, New York, were held on September 11. Dr. S. S. Goldwater, commissioner of the department of hospitals, presided. The speakers were Dr. I. Ogden Woodruff, representing the Medical Board; Dr. William F. Jacobs, medical superintendent; Mrs. Henry James, president of the Board of Managers of the Bellevue School of Nursing; Colonel E. W. Clark, commissioner of public work, Federal Works Agency; Hon. Irving V. A. Huie, commissioner of the department of public works, New York, and the Hon. F. H. LaGuardia, mayor of the city.

THE New York Medical College and Flower and Fifth Avenue Hospitals will receive $242,531, the residue of the estate of Mrs. Helen S. Case, who was the wife of the late Major James F. Case, mining engineer.

THE Rockefeller Foundation of New York City has made an appropriation to the Iowa State College of $21,000 to be used over a period of three years for work under the direction of Professor J. W. Gowen, of the department of genetics, on bacterial wilt of corn and mouse typhoid.

THE Illinois Institute of Technology, Chicago, has for the academic year 1940–41 received two fellowships of $900 for graduate study established by Universal Oil Products for work in the catalytic laboratory under the direction of Dr. Vasili I. Komarewsky.

THE General Education Board, New York, has given the University of California Institute of Child Welfare a grant of $61,700 for the continuation of studies on the mental and physical development of children.

Museum News reports that the collection of the Daniel B. Dyer Museum, which occupied four rooms in the basement of the Kansas City Public Library, has been assigned to the Kansas City Museum as a result of a decision by the circuit court. The collection was in custody of the Board of Education, which asked to be relieved of the trusteeship. The material transferred comprises American Indian, including mound builder and cliff dweller, material; Mexican and Oriental objects; Spanish-American war material; coins and medals; small fossils; minerals; glass, china and copperware.

DISCUSSION

APPARENT SPLITTING OF LIGHT FROM FLUORESCENT LAMPS BY REFLECTION FROM THIN PLATES

ATTENTION was recently directed to the apparent splitting of light from fluorescent lamps by moving objects.[1] This phenomenon was attributed to the intermittent emission of light of different wave-lengths. The latter characteristic has been described in detail by Fonda[2] and by Thayer[3] upon the basis of the time intervals between the mercury discharge and the different periods of excitation and decay of the "phosphors" coating the tube. A qualitatively different kind of splitting of this light has been noted incidental to the use of an oscillometric device consisting of a microscope slide separated by a thin wedge of air from a glass cover slip.[4] When pressure is applied to the thin slip the wedge is diminished in thickness so that on being viewed in ordinary white light from such sources as the sun or incandescent lamps colored interference bands or Newton's rings are seen. If the light is filtered through colored glass the interference bands are somewhat more clearly evident. When, however, the device is illuminated by light from fluorescent lamps still greater sensitivity is secured in that lesser increments of applied pressure are required to produce the first visible bands. On close inspection a double set of bands can be recognized. One of these varies with alternations of pressure; the other remains constant. The variable pattern is produced by the changing distances between the reflecting surfaces. The fixed pattern is produced by the cover slip alone, the slide showing no separation of the light. The production of interference patterns by reflection of ordinary white light is recognized only with much thinner plates, *viz.*, of the magnitude of oil films and soap bubbles. In contrast, the comparatively thick plates, glass cover slips from approximately 0.10 mm to 0.18 mm (No. 0 to No. 2), show definite patterns in fluorescent light. The bands produced by illumination from the "Daylight" lamp are red, yellow and blue. The bands are broad and few in number with the thin slips and comparatively narrow in number with the thicker slips. When viewed from comparatively larger angles and distances, microscope slides show similar colored bands. The general contour of the patterns is comparable to that produced by reflection of light from the sodium flame. Similar phenomena are recognized with other thin materials. For example, sheets of mica exhibit colored patterns consisting of wide bands, and Cellophane reveals on close examination fine streaks of color due to the irregular thickness of the

[1] C. Wesler Seull, C. G. Grosscup and E. G. Witting, SCIENCE, 91: 357, April 12, 1940.
[2] G. R. Fonda, SCIENCE, 91: 476, May 17, 1940.
[3] R. N. Thayer, SCIENCE, 91: 524, May 31, 1940.
[4] C. Wesler Seull, *Jour. Lab. Clin. Med.*, 24: 753, April, 1939.