Roscoe Pound, Watertown, Mass.; Adolph G. Rosengarten, Philadelphia. *Foreign:* Eli Filip Heckscher, Stockholm; Lord Stamp, London.

Class IV. Humanities: Joseph Quincy Adams, Washington; Charles Henry Beeson, Chicago; Charles Burton Gulick, Cambridge; Frank Jewett Mather, Jr., Princeton; Sylvanus Griswold Morley, Santa Fe; Arthur Hobson Quinn, Philadelphia; George Andrew Reisner, Boston. *Foreign:* Franz Valery Marie Cumont, Rome; Ramón Menéndez Pidal, Madrid.

SCIENTIFIC NOTES AND NEWS

THE eighth American Scientific Congress is now in session. The formal inaugural meeting was held in Constitution Hall, Washington, D. C., on the evening of May 10, when an address of welcome was made by the President of the United States. The first plenary session was held in the Pan American Building on Monday morning with an address of welcome by the Honorable Cordell Hull, Secretary of State, and responses on behalf of the delegations. Section meetings are being held on May 13, 14, 15, 16 and 17, at which about six hundred papers are being presented. There are present about three hundred delegates from Latin America and about twelve hundred from the United States. SCIENCE will print a full account of the proceedings of the congress.

AT the annual meeting in Atlantic City of the American Association of American Physicians, the George M. Kober Medal for 1940 was presented to Dr. F. F. Russell, professor of preventive medicine and epidemiology at the Harvard Medical School and the School of Public Health, in recognition of his development of double-sugar media for cultivated typhoid bacilli. The medal for 1941 was awarded to Dr. William de Berniere MacNider, dean of the School of Medicine of the University of North Carolina, for the development of acquired resistance of fixed tissue cells after injury on the part of the liver and kidney.

THE Franklin L. Burr prizes of $1,000 each of the National Geographic Society have been awarded to Matthew W. Stirling, chief of the Bureau of Ethnology of the Smithsonian Institution, and to Bradford Washburn, of Cambridge, Mass. The award to Mr. Stirling is in recognition of his work in the field of archeology, especially his discovery in 1939, in the State of Vera Cruz, Mexico, of a monument bearing the earliest recorded date yet discovered in the new world—a date in Maya symbols corresponding to 291 B. C. of the Christian calendar, and the uncovering of other carvings and artifacts shedding light on early civilization in Mexico. Mr. Washburn received the prize for his explorations by air and for his aerial photography during the last three years of glaciers and parts of glacier systems not previously known to exist in Alaska near Mount St. Elias.

THE Friedsam Medal of the Architectural League of New York, awarded annually to a "person who has contributed conspicuously to the advancement of American art" was presented at a dinner on May 9 to Dr. Frederick P. Keppel, president of the Carnegie Corporation of New York. The citation reads: "Educator and educational administrator, sympathetic guide and thoughtful adviser of students; understanding director of educational institutions; author of important works on the place of art in public life and the sociological significance of art in the growth of the nation—with power and wisdom bringing to art and to artists, to the learning as to the learned, active aid and enduring encouragement—wise dispenser of great fortune, seeking its greatness in the service to art and with practiced hand assuring by that service, in its simplicity and directness, an effective enhancement of American art."

THE Boston Society of Natural History has awarded the first Walker Prize in Natural History to William Parrish for a paper on the "Reflectance of Opaque Minerals," and the second prize to John T. Hack for an account of the "Sand Dunes of the Western Navajo Country." Honorable mention was made of a paper on the "Radioactivity of Terrestrial Material" by Clark Goodman.

THE Howard Taylor Ricketts Prize of the University of Chicago has been awarded to Dr. Harold R. Reames, formerly a student of Dr. Francis B. Gordon in the department of bacteriology and parasitology, now a member of the department of pathology at Washington University, St. Louis. The prize is given in recognition of research on "local virus infection of the upper respiratory tract which provides immunity upon subsequent exposure." The Ricketts Prize, which this year amounted to $190, was established in 1913 to honor Dr. Howard Taylor Ricketts, of the University of Chicago, who discovered the typhus germ and who died a martyr to his discovery in Mexico.

AT a recent meeting of the Council of the Royal College of Surgeons of England the John Hunter Medal and the Triennial Prize were presented to Colonel L. E. H. Whitby, and the Jacksonian Prize for the year 1939 was awarded to F. F. Rundle for his essay on "The Pathology and Treatment of Thyrotoxicosis"; a Certificate of Honorable Mention was awarded to N. M. Harry, of Melbourne, for an essay on the same subject. The following subject was approved for the Jacksonian

Prize for the year 1941: "Injuries to Peripheral Nerves, with Especial Reference to the Late After Results."

THE Académie de Médecine, Paris, has awarded the Helme Prize to Dr. André Gratia, professor of bacteriology at Liége University, for his work on bacteriophages.

DR. LEONARD J. PICCOLI, professor and head of the department of pharmacology and director of the Public Health Laboratories of the College of Pharmacy of Fordham University, was elected president of the Alumni Association of the Institute of Public Health of the College of Physicians and Surgeons at the annual dinner meeting of the association, held in the Hotel George Washington on May 2. This meeting was held in honor of the founder and retiring director of the Institute of Public Health, Dr. Haven Emerson, formerly Commissioner of Health in New York City.

DR. LOUIS HAMMAN, professor of clinical medicine at the Johns Hopkins University, was elected president of the Association of American Physicians at the Atlantic City meeting to succeed Dr. Gerald B. Webb, of Colorado Springs. Dr. J. H. Means, of Boston, was elected vice-president.

DR. DAVID CHEEVER, associate professor of surgery in the Harvard Medical School, was elected president of the American Surgical Association at the recent meeting at Washington University, St. Louis. Dr. Howard C. Naffziger, of San Francisco, and Dr. Roscoe R. Graham, of Toronto, were elected vice-presidents. Next year's convention will be in White Sulphur Springs, W. Va.

DR. ROBERT CALVERT, chief chemist of the Johns-Manville Corporation, was elected chairman of the New York Section of the American Chemical Society at its annual meeting held in New York City on May 3. Dr. Ralph H. Muller, of New York University, was named chairman-elect.

Nature states that at the recent annual general meeting of the Institute of Metals, held in London, the following officers were elected: *President,* Lieutenant-Colonel the Hon. R. M. Preston; *Vice-presidents,* Dr. S. F. Dorey, Engineer Vice-Admiral Sir George Preece and A. J. G. Smout; *Treasurer,* Lieutenant-General Sir Ronald Charles; *New Members of Council,* Dr. W. E. Alkins, G. L. Bailey, Captain F. C. Braby, Colonel P. G. J. Gueterbock and Professor D. Hanson.

RECENT appointments to the staff of the Agricultural Experiment Station of Purdue University include Dr. Frederick N. Andrews, of the department of animal husbandry of the University of Missouri, and Dr. Ralph E. Lincoln, national research fellow at Cornell University. Dr. Andrews will have charge of the investigations in reproductive physiology in animals; Dr. Lincoln will have charge of investigations on breeding for resistance to disease in vegetable crops.

THE title of emeritus professor of chemistry will be conferred by the Massachusetts State College on Dr. Joseph S. Chamberlain when he retires in June. Dr. Chamberlain is now Goessmann professor of chemistry.

PROFESSOR H. MARSHALL CHADWELL has been appointed chairman of the department of chemistry and chemical engineering of Tufts College. Professor Crosby F. Baker has been appointed secretary and curator of the Pearson Memorial Laboratory, and Professor David E. Worrall, director of the Chemical Laboratory.

DR. JAMES M. CHURCH, research chemist in the Technical Service Division of the Monsanto Chemical Company, St. Louis, has been appointed assistant professor of chemical engineering at Columbia University.

DR. H. H. SHELDON, professor of physics at New York University, which he has served for the past eighteen years, recently in charge of the adult education courses in science, has resigned. He plans to open a consulting service in New York City. Dr. Sheldon is secretary of the Board of Management of the Engineers Club of New York, and has been retained in the past by various industrial organizations. He was for four years science editor of the *New York Herald-Tribune.* Dr. Sheldon expects to continue as managing trustee of the American Institute of the City of New York, whose work he has directed for the past two years.

A NEW Department of Light has been formed at the British National Physical Laboratory to comprise the former optics division of the department of physics and the division of photometry of the department of electricity. T. Smith has been appointed superintendent of the new department as from April 1. Dr. E. H. Rayner retired from the post of superintendent of the department of electricity on March 31, having attained the normal age limit. He has been succeeded by R. S. J. Spilsbury, formerly principal scientific officer in the department.

DR. CHARLES E. MCLENNAN, of the department of obstetrics and gynecology of the University of Minnesota Medical School, has been awarded a fellowship by the Commonwealth Fund, for a year's study with Dr. E. M. Landis, of the University of Virginia on problems concerning the toxemias of pregnancy.

ALFRED P. SLOAN fellowships in traffic engineering,

each carrying a stipend of $1,400, have been awarded by Yale University to the following engineers of highway departments, who wish to specialize in traffic control: Douglas Bowers, Oklahoma Highway Department; Bernard C. Hartung, director of traffic and safety division of the Nevada Highway Department; Henry Osborne, traffic engineer, Flint, Mich.; H. L. Slover, traffic engineer for Memphis; Francis E. Twiss, State Department of Engineering, Hartford, Conn., and H. T. Sorensen, National Safety Council.

AT the University of Michigan leaves of absence for the college year 1940–1941 have been given to Professor Thomas S. Lovering, of the department of geology; to Professor Raymond L. Wilder, of the department of mathematics, and to Professor Stanley D. Dodge, of the department of geography. Leave has been granted for the first semester to Professor Louis C. Karpinski, of the department of mathematics; to Professor Walter B. Pillsbury, of the department of psychology; to Professor Alfred H. Stockard, of the department of zoology, and to Professor Lars Thomassen, of the department of chemical and metallurgical engineering.

CONTINUING its program of exploration of the islands of Oceania, the B. P. Bishop Museum, Honolulu, will send O. H. Swezey, consulting entomologist, and Elwood C. Zimmerman, staff entomologist, to American and British Samoa on May 27. The party will be in the field for at least three months. Mr. Swezey will specialize in rearing Microlepidoptera and making studies of their host plant relationships. Mr. Zimmerman will continue his studies in zoogeography and make a comprehensive collection of insects and other arthropods and terrestrial Mollusca.

DR. CLARENCE COOK LITTLE, director of the Roscoe B. Jackson Memorial Laboratory at Bar Harbor, Maine, and managing director of the American Society for the Control of Cancer, spoke on May 8 on cancer research and the national health problem before the American Academy of Arts and Sciences, Boston.

JAMES A. BERRY, of the Frozen Pack Laboratory of the U. S. Department of Agriculture at Seattle, Wash., delivered on April 17 the annual address before the Society of the Sigma Xi at the Kansas State College. He spoke on "Scientific Basis of Frozen Food Technology."

DR. HAROLD E. EDGERTON, associate professor of electrical measurements at the Massachusetts Institute of Technology, delivered the annual initiation lecture of the University of Cincinnati Section of Sigma Xi on May 11. The title of the lecture was "Seeing the Unseen with High-Speed Photography."

IN the issue of SCIENCE for February 2 the registration at the Columbus meeting of the American Association is listed by states and countries. In this list, Hawaii, the Philippines and Puerto Rico were inadvertently placed under foreign countries.

DEDICATION of the McGregor Building and the seventy-foot tower telescope, the gift of the McGregor Fund of the University of Michigan to the McMath-Hulbert Observatory, Lake Angelus, Pontiac, Mich., will take place on May 25, when the program will be as follows: Presentation of the McGregor Building to the University of Michigan, the Hon. Henry S. Hulbert, president of the McGregor Fund; acceptance for the University of Michigan by President Alexander G. Ruthven; and for the McMath-Hulbert Observatory by the director, Dr. Robert R. McMath, and by Dr. Heber D. Curtis, director of the observatories of the University of Michigan. The principal address, "Frontiers of Research," will be made by Dr. Charles Franklin Kettering, president of the General Motors Research Corporation.

THE Food Research Laboratories, Inc., of New York City, which were organized in 1922 by Dr. Philip B. Hawk, the president of the organization, have removed from 114 East 32nd Street to their newly constructed laboratory building at 48–14 33d Street, Long Island City, N. Y. Dr. Bernard L. Oser is vice-president and director of the laboratories, with which he has been associated since 1926. This is the second expansion of the organization since its inception in 1922. The new building is situated in a readily accessible section of Long Island City. In the immediate vicinity are the plants of well-known manufacturers. The library and conference room occupies a prominent position in the front of the building. Private offices for members of the administrative staff and a general office and reception room are included. In the early part of May, the Food Research Laboratories held a series of receptions to invited guests, and visitors will now be welcomed at all times.

A NEW building for the State Laboratory of Hygiene, erected at the cost of $200,000, was dedicated recently in Raleigh, N. C., in memory of the late Dr. Clarence A. Shore, who organized the laboratory and directed it from 1908 to 1933. Speakers at the ceremony included Governor Hoey; Drs. John A. Ferrell, New York, associate director of the International Health Division of the Rockefeller Foundation; Sylvester D. Craig, Winston-Salem, president of the State Board of Health; John H. Hamilton, present director of the laboratory; Carl V. Reynolds, state health officer, and George M. Cooper, director of the Division of Preventive Medicine of the State Department of Health.

THE Eastern Section of the Seismological Society

of America will hold its fifteenth annual meeting on May 31 and June 1 at Xavier University, Cincinnati. The chairman of the section is Professor Arthur C. Ruge, of the Massachusetts Institute of Technology, and the secretary is Professor William A. Lynch, of Fordham University.

THE tenth annual summer Research Conference of the Johns Hopkins University will be held at the Henlopen Hotel, Rehoboth Beach, Delaware, from June 3 to 7 and 10 to 14. The first week will be devoted to various aspects of biocatalysis; the second to some fundamental topics concerning organic reactions. The conference affords an opportunity for a group of specialists to discuss informally various fundamental topics in biochemistry and in organic chemistry. The attendance is kept sufficiently small to allow all present to participate in the discussions. The schedule of the various sessions is so arranged as to leave time for taking advantage of the many recreational facilities, including surf bathing, golf, fishing, boating and tennis. Further information may be obtained from P. H. Emmett, The Johns Hopkins University, Baltimore, Md.

DISCUSSION

COLOR EFFECTS OBSERVABLE FROM FLUORESCENT LAMPS

IN the April 12 number of SCIENCE for this year, page 357, Scull, Grosscup and Witting draw attention to an "Apparent Splitting of Light from Fluorescent Lamps into Component Parts by Moving Objects." When for instance a wire which had been made to vibrate by a magnetic field produced by 60 cycle current, was illuminated by a "daylight" fluorescent lamp operated also on 60 cycle, they observed two images of the wire, one red and the other blue. This effect and other similar ones they ascribed to the possibility that there are differences in the time intervals of emission of light of various wave lengths from the lamp.

This suggestion is close to an explanation based on observations of the emissive characteristics of phosphors. The fluorescent lamp utilizes a low pressure mercury discharge to excite fluorescence from phosphors coated upon the walls of the bulb.[1] For "daylight" radiation, a mixture of various phosphors is used, each contributing fluorescence of a different color and covering such a spectral range that their combined emission overlaps to give a fairly smooth curve throughout the range of visible light. This curve, however, represents purely their predominant fluorescent emission. At specific points in the cycle of a-c operation, distinctive colors are observable, due to peculiarities in the emissive characteristics of the individual phosphors present in the lamp. Phosphors in general exhibit two types of emission. The first occurs during the period of excitation and the light emitted can be termed fluorescence. When the source of excitation is removed, there is a continued emission of light, but this is of the second type termed phosphorescence. It is characterized by widely different rates of decay depending upon the phosphor involved. Fonda[2] and Johnson and Davis[3] have measured these rates for some typical phosphors and have found that there is a corresponding variation in the rate of pick-up of fluorescence during the period of excitation. A phosphor for instance which shows a slow decay in its phosphorescence shows a correspondingly retarded development of its fluorescence. Another phosphor, characterized by such a rapid decay that its phosphorescence is negligible, is capable of immediate, full response to the exciting light.

In the case cited of the vibrating wire illuminated by the radiation from a mixture of phosphors present in the "daylight" lamp, the blue image would have the color of fluorescence emitted by the phosphor whose response to excitation was most rapid. It would correspond to a point of rising potential in the a-c cycle. The red image on the other hand would be that observable at zero potential and would be produced by the phosphorescence from the phosphor having the slowest rate of decay. These two phosphors when examined separately would be found to fluoresce respectively near the blue end of the spectrum and near the red end.

The other effects noted by the authors can be explained similarly.

GORTON R. FONDA
GENERAL ELECTRIC COMPANY

[1] Inman and Thayer, *Elec. Eng.*, 57: 245, 1938.
[2] Fonda, *Jour. Applied Phys.*, 10: 408, 1939.
[3] Johnson and Davis, *Jour. Optical Soc. Amer.*, 29: 283, 1939.

MERCURY POISONING

MOST experimental scientists have become so accustomed to handling mercury in calibrations, manometers, pumps, etc., that they no longer think of it as a poison, yet under certain circumstances mercury may become a source of serious chronic illness. Vaporization of mercury occurs rapidly at room temperatures and one cubic meter of air saturated with mercury vapor at 25° C. contains 19.5 mg of mercury. When a stream of air passes at the rate of one liter per minute over a 10 cm² surface of mercury at 25° C. it becomes about 15 per cent. saturated,[1] containing ap-

[1] P. A. Leighton, private communication, "Concerning Mercury Vapor."