society and the Bureau of Standards, celebrates the semi-centennial of the publication of the first communication on the "Velocity of Light," by Professor A. A. Michelson, "distinguished service" professor of physics in the University of Chicago.

A cordial invitation to attend is extended to all persons interested in optics. The program is distinguished by notable groups of papers on physical optics and biological optics. Among the events scheduled are:

Invited paper by Professor Michelson and his collaborators, Messrs. Pease and Pearson, on "Results of Repetition of the Michelson-Morley Experiment."

Presentation of the Frederick Ives Medal to the society by Dr. Herbert E. Ives.

Motion pictures of the planets made by Professor W. H. Wright at Lick Observatory.

Demonstration of technicolor motion pictures.

The following invited papers will also be presented:
Arthur H. Compton: "X-rays as a Branch of Optics."
C. J. Davisson: "The Scattering of Electrons by Crystals."

Paul R. Heyl: "The History and Present Status of the Physicist's Idea of Light."

Henry Laurens: "The Physiological Effects of Radiation."

John M. Arthur: "Some Effects of Radiation on Plants."

W. J. Crozier: "The Phototropic Behavior of Animals."

F. M. Schertz: "Application of Transmittancy Measurements to Biochemistry."

Selig Hecht: "The Nature of the Sensitivity of Animals to Light." (At a joint meeting of the Philosophical Society of Washington and the Biological Society of Washington to which members of the Optical Society are invited, Saturday, 8:15 P. M.)

Leonard T. Troland: "Optics as Seen by a Psychologist."

The sessions of the Optical Society for the presentation of papers are limited to three days, November 1, 2, 3; but it is suggested that those who desire full opportunity to visit the exhibition, inspect the laboratories of the Bureau of Standards, and visit the other institutions of interest to them, without missing sessions of the society, will do well to plan their sojourn in Washington from October 31 to November 5, inclusive. It has been arranged to have the Optical Exhibition open at 9:00 A. M., Wednesday, October 31; and the Bureau of Standards particularly invites visitors to inspect the optical equipment in its laboratories on both Wednesday, October 31, and Monday, November 5.

The Optical Exhibition will be comprehensive and will include not only instruments of current interest but also a historical exhibit on the microscope and an exhibit of books and portraits, and optical instruments in situ at the Bureau of Standards. Wardman Park Hotel, situated near the Bureau, will be the headquarters for the meeting.

## SCIENTIFIC NOTES AND NEWS

Dr. Franklin H. Martin, of Chicago, has been elected president of the American College of Surgeons, which he organized in 1913.

Dr. ZAY JEFFRIES, of Cleveland, consulting metallurgist of the Aluminum Company of America, was nominated at the recent Philadelphia meeting for the presidency of the American Society for Steel Treating.

Dr. O. DE VRIES, director of the Rubber Experiment Station at Buitenzorg, Java, has been appointed president of the fourth Pacific Science Congress to be held at Batavia from May 16 to 25, 1929. He succeeds Dr. A. A. L. Rutgers, director of the Department of Agriculture, Industry and Commerce of the Dutch East Indies, who has resigned to accept an appointment as governor of Surinam.

Dr. WILLIAM H. WELCH, professor of the history of medicine at the Johns Hopkins Medical School, has returned to the United States after a visit of sixteen months abroad.

Dr. H. T. Clarke, who recently resigned from the department of synthetic chemistry of the research laboratory of the Eastman Kodak Company to accept the position as head of the department of chemistry of the College of Physicians and Surgeons of Columbia University, was given a farewell dinner at the Rochester Club by officers and past officers of the American Chemical Society.

Dr. Park Lewis, of Buffalo, first vice-president of the Society for the Prevention of Blindness, has been given the Leslie Dana medal awarded annually for the most outstanding achievement in the prevention of blindness and the conservation of vision in America. The presentation took place at the meeting of the American Academy of Ophthalmology and Otolaryngology in St. Louis on October 18.

Franklin and Marshall College, Lancaster, Pennsylvania, has conferred the honorary degree of D.Sc. upon Dr. Wm. A. Kepner, professor of biology in the University of Virginia.

PROFESSOR FRANK B. MORRISON, director of the New York State Agricultural Experiment Station at Geneva, N. Y., has been appointed head of the department of animal husbandry in the College of Agriculture, Cornell University, to succeed Professor Henry H. Wing, who retired last year with the rank of emeritus professor after a teaching career of forty years. Dr. U. P. Hedrick, since 1905 head of the division of horticulture at the New York State Agricultural Experiment Station and, since 1921, vice-director, has been elected director of the station.

Dr. ROBERT D. GLASGOW has been appointed New York state entomologist to succeed Dr. E. P. Felt, who retired on April 1, after thirty-three years' service. Dr. Glasgow comes from the University of Illinois, where he served on the teaching staff of the university and on the State Natural History Survey for over eighteen years.

JOHN W. FREY, for the past eight years connected with the department of geography of the University of Wisconsin, will begin on November 1 his work as chief of the coal and petroleum section of the bureau of foreign and domestic commerce at Washington.

WILLARD N. CLUTE, editor of The American Botanist, has joined the botanical staff of Butler University as director of the Botanical Gardens.

THE Rosenwald Industrial Museum of Chicago is to proceed at once with the development of a division of physics and chemistry. The appointment of Dr. Andrew M. MacMahon, from the Ryerson Laboratory of the University of Chicago, to take charge of this work is announced. In the absence of the director of the museum, Mr. Waldemar B. Kaempffert, who will spend the coming months abroad investigating the problems of similar European institutions, Dr. MacMahon will serve as acting director.

REAR ADMIRAL CARY T. GRAYSON, who was physician to President Woodrow Wilson, was elected president of the Gorgas Memorial Institute of Tropical and Preventive Medicine, at the annual meeting of the institute held on October 10. He succeeds Dr. Franklin H. Martin, of Chicago. The scientific board of the institute includes the following members: Captain Charles S. Butler, M. C., U. S. N., Washington, D. C.; Dr. Bowman C. Crowell, professor of pathology in Jefferson Medical College, Philadelphia; Dr. W. G. MacCallum, of the Johns Hopkins University; Dr. G. W. McCoy, U. S. Public Health Service, Washington, D. C.; Lieutenant Colonel J. F. Siler, M. C., U. S. A., Washington, D. C.; Dr. Richard P. Strong, of Harvard Medical School; Dr. C. C. Bass, dean of the school of medicine of Tulane University.

RESIGNATION of Samuel K. Lothrop from the directorship of the Peabody Museum of American Archeology and Ethnology is announced. Dr. Lothrop was to have taken office September 1, but never assumed the duties of his position. The functions of the

office are temporarily being discharged by Dr. Edward Reynolds, associate curator. Dr. Lothrop was preceded in the Peabody Museum by C. C. Willoughby, who, after serving as director since 1915, resigned last January.

DEAN WILLIAM McPherson has resigned the chairmanship of the chemistry department of the Ohio State University, in order that he may devote practically all his time to the upbuilding of the graduate work of the university. He will, however, retain his chair of organic chemistry. He will be succeeded as chairman of the department by Dr. Wm. Lloyd Evans. In accepting Dr. McPherson's resignation the board of trustees passed the following resolution: "That the board of trustees expresses to Professor William Mc-Pherson its deep appreciation of the high quality of the service he has rendered as chairman of the department of chemistry through the years beginning in 1894. The board realizes that the very extensive and intensive growth of the department in the number and the quality of its courses and in the interest of the students, and the very high rank which the department has attained, are primarily due to the constructive policies pursued by Professor McPherson and to his rare ability to do a very large volume of work and a rare grade of teaching himself and at the same time to make skilful selection of the department staff and to inspire the members with his own enthusiasm. For his outstanding accomplishments in this great field of science the university will forever hold Professor Mc-Pherson in the highest esteem."

RECENT appointments to scientific and technical departments made by the Secretary of State for the Colonies, as reported in *Nature*, include four superintendents to the Agricultural Department, Nigeria, namely, Mr. O. J. Voelcker, Mr. G. N. K. Turnbull, Mr. J. H. Palmer and Mr. E. W. Leach. Mr. E. S. Morgan is appointed a produce inspector to the same department. A forest surveyor, Mr. J. Brushwood, and a veterinary officer, Mr. W. G. McKay, have been appointed to Kenya Colony. Mr. G. Cowan has been appointed superintendent to the Gold Coast Agricultural Department; Mr. H. Bruins-Lich, horticulturist, St. Helena; Mr. H. P. Smart, agricultural officer, British Honduras; Mr. E. E. Martyn, botanist and mycologist, British Guiana. Six of these appointments are of scholars selected for two years' training in Great Britain and at the Imperial College of Tropical Agriculture, Trinidad, under the Colonial Office Agricultural Scholarship Scheme, whose course finished last June. Amongst the transfers notified is that of Mr. C. W. J. Line from the Gambia to the Gold Coast Agricultural Department.

SIR ERNEST RUTHERFORD, F.R.S., president of the Royal Society, is undertaking the chairmanship of a committee, under the auspices of the minister of health, which will, among other things, make geologic and chemical inquiries in the hope of obtaining radium from the British Empire.

Professor J. B. Shaw, head of the department of ceramic engineering in the school of mines and metallurgy of the Pennsylvania State College, has been appointed chairman of a committee for research work to be conducted by the National Brick Manufacturers Association. Professor Shaw's committee will work on power generation and its application to this industry.

Dr. C. F. Marbut, chief of the division of soil survey of the U. S. Department of Agriculture, who was severely injured in an automobile accident near Redfield, South Dakota, in July, while on a general inspection trip with T. D. Rice, an inspector of the survey, has recovered and has returned to his office in the bureau in Washington.

Dr. HILDING BERGLUND, of the University of Minnesota Medical School, is in Peking, China, for a year as visiting professor of medicine under the Rockefeller Foundation at the Peking Union Medical College.

Dr. R. H. Hunter, lecturer in anatomy at Queen's University, Belfast, and examiner in anatomy for the primary fellowship of the Royal College of Surgeons of Ireland, is visiting the United States as a traveling fellow of the Rockefeller Foundation. He will spend most of his time in studying problems in human embryology at the Carnegie Laboratory of Embryology, Baltimore.

Dr. Samuel C. Palmer, professor of biology and head of the department of botany and embryology at Swarthmore College, has returned to his work after a year's leave of absence spent on the Continent and in Great Britain.

Professor William Seifriz, of the department of botany of the University of Pennsylvania, spent the summer at work in the Pasteur Institute, Paris. Later he visited England, where he attended the Cancer Congress as a representative of the University of Pennsylvania.

Dr. Karl Friederichs, of the University of Rostock, Germany, is giving the lectures in the graduate course on the principles of applied entomology at the University of Minnesota. These lectures were given last year by Professor R. A. Wardle, of the University of Manchester, England.

PROFESSOR ARTHUR W. ASHBY, of University College, Aberystwyth, Wales, lectured on "Agricultural Trends in Great Britain," under the auspices of the Graduate School of the Department of Agriculture on October 10.

Dr. WILLIAM H. HATFIELD, of England, gave the Campbell memorial lecture before the recent Philadelphia meeting of the American Society for Steel Treating.

CLARENCE WENTWORTH MATHEWS, head of the department of horticulture at the University of Kentucky, died at his home in Lexington, Kentucky, on September 23 at the age of sixty-seven years.

Dr. Noel Paton, formerly regius professor of physiology in Glasgow, died suddenly on September 30 at the age of seventy years. He had retired from his chair only a short time ago.

PROFESSOR ALBERT ROBIN, honorary professor in the faculty of medicine of the University of Paris, known for his researches on the interrelations of chemistry and therapeutics, died at Dijon on September 23, in his eighty-second year.

Dr. Wilhelm Wien, professor of physics in the University of Munich, died on August 30 at the age of sixty-five years.

THE Association of Official Agricultural Chemists will hold its forty-fourth annual convention in Washington, D. C., from October 29 to 31. This association includes in its membership federal and state chemists engaged in agricultural and food and drug chemical work. Secretary Jardine will address the chemists on October 30, and Dr. H. W. Wiley, honorary president of the association, former chief of the former Bureau of Chemistry, is also scheduled to speak on that day. Dr. Oswald Schreiner, biochemist of the Bureau of Chemistry and Soils, is president of the association, and Dr. W. W. Skinner, assistant chief of the division of chemical and technological research, Bureau of Chemistry and Soils, is secretary-treasurer.

The twenty-fifth anniversary of the foundation of the German Institute for Investigation of Cancer, which is attached to the Charité Hospital in Berlin, was recently celebrated by a special meeting under the presidency of Professor Friedrich Kraus.

An International Congress of Museum Directors was recently held in Budapest. Sixty foreign guests were present, among them from England Mr. Robert Hobson, keeper of the department of ceramics and ethnography in the British Museum, and Mr. Eric Maclagan, director and secretary of the Victoria and Albert Museum.

THE University of Michigan Observatory has received a gift of \$15,000, the income from which will be used for astronomical publications or research fellowships at the discretion of the director. The donors, Mrs. O. B. Wheeler and family, have made this gift as a memorial to Orlando B. Wheeler, formerly a member of the staff of the University of Michigan Observatory and subsequently engaged in the scientific researches of the U. S. Lake Survey.

DR. GEORGE VAILLANT, of the American Museum of Natural History, has returned from a preliminary archeological survey of Middle America, supported by Mr. Clarence L. Hav. He has obtained a permit from the Mexican government for excavations in the Valley of Mexico for next winter, political conditions permitting. At the invitation of the Carnegie Institution. Dr. Vaillant carried out a small excavation at their site of Uaxactun. Petan. Guatemala, that vielded important information on the early history of the Maya. He was enabled, through the courtesy of the Mexican government, to bring back a small synoptic collection of the "Archaic" cultures of the Valley of Mexico. He also visited a number of sites on the highlands of Mexico and Guatemala, as well as in British Honduras and the Petan district of Guatemala.

Nature reports that owing to the regulations governing the introduction of scientific films into Great Britain, the paper by Professor Rathjens on his explorations in Arabia had to be withdrawn from the program of the recent International Congress of Orientalists at Oxford. The Chancellor of the Exchequer has conceded that scientific films may be brought into England free of duty on a certificate from the Royal Society to the customs authorities that the film illustrates a scientific investigation. Notwithstanding the fact that Professor Rathjens on August 9, and the secretary of the congress on August 10. had made application to the commissioners of customs for the admission of the film, and application was addressed to the Royal Society for the desired certificate, the customs authorities were prepared to admit the film only on a deposit of the duty, £31, 10s., "to be refunded in the event of the film being certified by the Royal Society."

## UNIVERSITY AND EDUCATIONAL NOTES

An offer of approximately \$3,500,000 has been made by the International Education Board to the University of Cambridge to provide for the development of physical and biological studies and for a new library. GIFTS amounting to \$500,000 and bequests of \$1,-830,000 to Columbia University have been announced. The bequests are payments on legacies made by the estates of F. Augustus Schermerhorn, Stephen Whitney Phoenix and Mary B. Pell. Mrs. Nathan J. Miller, of New York, gave \$250,000 to endow a chair for the study of Jewish literature and history.

Dr. M. C. Tanquary has accepted an appointment as professor of entomology in charge of apiculture at the University of Minnesota.

Dr. MILTON METFESSEL, for three years National Research fellow in psychology, has been appointed associate professor of psychology and phonetics in the State University of Iowa.

Dr. Adriance Sherwood Foster has been appointed assistant professor of botany at the University of Oklahoma. Dr. Foster has been working as a National Research fellow in plant anatomy at the University of Leeds, England.

Dr. M. G. Peterman, of the Milwaukee Children's Hospital, has accepted the appointment of professor of pediatrics and head of the department of pediatrics at Marquette University School of Medicine, Milwaukee.

Dr. Fred W. Stewart, recently assistant in pathology in the Rockefeller Institute, has become associate pathologist in the Cornell Medical College in New York and assistant pathologist at the Memorial Hospital for Cancer and Allied Diseases.

AT Swarthmore College, Dr. H. J. M. Creighton has been promoted to a professorship and made head of the department of chemistry. Dr. Duncan Graham Foster, of St. Stephen's College, has been appointed associate professor of chemistry. Dr. John H. Pitman has been promoted to an associate professorship of mathematics and astronomy.

Dr. Ernest Carroll Faust, director of the laboratory of parasitology of the Peking Union Medical College, Peking, China, since 1919, has taken up his new work as professor of parasitology in the department of tropical medicine of Tulane University, New Orleans. Dr. John F. Kessel, formerly associate in the Peking laboratory, is now associate professor of zoology in the University of California at Los Angeles.

## DISCUSSION AND CORRESPONDENCE

## DOES PURE IRON HAVE ALLOTROPIC TRANSFORMATIONS?

EXTENSIVE work on iron and iron-alloys led the writer to announce the following hypothesis before