

Papers on high-speed vulcanizing to step up the production rate of rubber-insulated wire, tests of the efficiency of various types of rubber as vibration absorbers and a new type of hammer test for the elasticity of soft rubbers will be presented to the Rubber Division. The behavior of emulsions and the surface tensions of various liquids and their effect on each other will be among the subjects taken up at the meetings of the colloid division.

Other fields to be covered in divisional sessions through symposia and general papers are chemical education, gas and fuel developments, industrial and engineering progress, organic chemistry and water, sewage and sanitation chemistry.

Dr. Frank K. Cameron, professor of chemistry at the University of North Carolina, has been designated honorary chairman of a local committee to make arrangements for the convention. The general chairman is R. M. Grumman, of the university, and E. C. Markham will act as secretary-treasurer. Other committee members are: Housing, J. S. Bennett; meeting rooms, H. D. Crockford; registration and information, G. M. Hill; group dinners and luncheons, Haywood Duke; transportation, Herman Schnell; entertainment, Harry Comer; plant visits and sightseeing trips, J. Maryon Saunders; publicity, R. W. Madry; golf and tennis, R. B. Lawson; safety, P. L. Burch; women's activities, Mrs. Edward Mack, Jr.; women chemists, Miss Frances Brown.

#### THE JOHN SCOTT AWARDS

As has been already recorded in *SCIENCE*, Dr. W. D. Coolidge and Dr. Irving Langmuir, director and associate director, respectively, of the Research Laboratory of the General Electric Company in Schenectady, and Dr. Evarts A. Graham, of the School of Medicine of Washington University in St. Louis, were recipients of the John Scott 1937 awards granted by the City Trusts of the City of Philadelphia at a dinner of the American Philosophical Society on March 5. With each award went a certificate, a copper medal and \$1,000 in cash.

The award to Dr. Coolidge was based on his application of a new principle in x-ray tubes; to Dr. Langmuir for his physical and chemical discoveries resulting in improved gas-filled incandescent lamps, and to Dr. Graham for his application of the x-ray to the study and diagnosis of gall bladder conditions.

In making the presentations, Ernest T. Trigg, chairman of the Board of City Trusts, explained that history had made but scant recordings of John Scott, the donor of the fund, and his reason for bequeathing to the City of Philadelphia in 1816 the sum of \$4,000, the income from which was to be "laid out in premiums to be distributed among ingenious men and women who make useful inventions." It was originally stipulated that no award was to carry a cash premium of more than \$20 and the medal was to be inscribed "To the most deserving."

John Scott was a chemist in Edinburgh, Scotland, and why he chose Philadelphia for his grant is a mystery. It is thought his attention had been drawn to the city either through the American Philosophical Society or his admiration of Benjamin Franklin, whom he may have met when Franklin visited Scotland in 1769. When the fund was taken over by the newly created Board of City Trusts, the principal had grown to \$21,000, and in 1917, or 100 years after the original grant, it amounted to \$100,000. At this time the board appealed to the courts and received permission to increase the amount of the awards to a maximum value of \$2,000, but none has been for any amount greater than \$1,000.

In the period between 1920 and 1937, inclusive, 73 awards have been made to scientific men and inventors in all parts of the world, including Japan, Holland, England, France, Italy and South America. Among the recipients have been Madame Curie, Reginald A. Fessenden, Orville Wright, Lee de Forest, Thomas A. Edison, Guglielmo Marconi, Samuel M. Vauclain, W. L. R. Emmet, Nikola Tesla, Charles F. Kettering and Edward G. Budd.

## SCIENTIFIC NOTES AND NEWS

DR. SIMON FLEXNER, director emeritus of the Rockefeller Institute for Medical Research, New York, was elected a foreign associate of the Academy of Sciences, Institute of France, at a meeting held in Paris on February 22. He succeeds the late Emanuele Paterno, Marquis di Sessa, of Palermo, Sicily.

DR. CARL G. HARTMAN, of the department of embryology of the Carnegie Institution of Washington, has been elected to membership in the International Institute of Embryology at Utrecht.

DR. REUBEN L. KAHN, since 1928 director of laboratories, University Hospital, and assistant professor of bacteriology at the University of Michigan Medical School, was recently presented with a gold medal by the Phi Lambda Kappa fraternity for his research work in tissue immunity. The presentation took place at the annual meeting of the fraternity in Detroit.

THE 1936 Manly Memorial Medal recently awarded to Raymond W. Young, assistant engineer of the Wright Aeronautical Corporation, Paterson, N. J.,

for giving the best paper of the year on aeronautical science before the Society of Automotive Engineers, was presented to him on March 12 at a dinner at the Hotel Mayflower in Washington, D. C.

THE foreign secretary of the Physical Society, London, in notifying Dr. Walter G. Cady, Foss professor of physics at Wesleyan University, of the award to him of the Duddell Medal for 1936, wrote: "Your pioneer work has stimulated research work on the subject in all parts of the world and has found practical applications in the quartz clock, the measurement and control of the frequency of alternating currents, and the measurements of the velocity of ultrasonic waves."

THE Cameron Prize for 1937 has been awarded by the senatus of the University of Edinburgh to Dr. J. Bertram Collip, professor of biochemistry at McGill University, in recognition of his contributions to endocrine therapy and in particular of his work on the parathyroid gland.

At the recent meeting of the New Orleans Academy of Science at Hammond, La., Dr. H. L. Kearney, of New Orleans, was elected president. Chairmen of the sections elected were: Dr. John R. Fowler, Louisiana Polytechnic Institute, biological science; Dr. R. L. Menville, Louisiana State University, applied science, and D. T. Tarlton, Louisiana Normal School, social sciences. E. A. Fieger, Louisiana State University, was elected permanent secretary, and Dr. Irby C. Nichols, Louisiana State University, editor. The academy awarded a gold medal for the best paper to Dr. Charlotte H. Boatner, of H. Sophie Newcomb Memorial College, and the original research prize of \$25 to I. M. Le Baron, graduate student of Louisiana State University.

At the annual meeting of the Royal Astronomical Society the following officers were elected: *President*, Dr. H. Spencer Jones; *Vice-presidents*, Sir Frank Dyson, Professor E. A. Milne, Professor H. C. Plummer and Professor W. M. Smart; *Treasurer*, J. H. Reynolds; *Secretaries*, W. M. H. Greaves and Professor H. H. Plaskett; *Foreign Secretary*, Sir Arthur Eddington.

DR. WILLIAM HENRY WESTON, JR., chairman of the department of botany at Harvard University, has been appointed visiting professor of mycology at the Johns Hopkins University.

DR. S. J. SHAND, of the University of Stellenbosch, South Africa, has been appointed professor of geology at Columbia University. He will conduct the courses in petrology. He is expected to take up the work in New York in September.

DR. OSCAR W. RICHARDS has resigned from the department of zoology at Yale University to accept

the post of research biologist with the Spencer Lens Company. Dr. Trenton K. Ruebush, of the University of Virginia, has been appointed to succeed him. Dr. Donald F. Poulson, of the Carnegie Laboratory of Embryology, has been appointed to an instructorship in the department of zoology at Yale University.

AN exchange arrangement has been made by which Dr. Daniel Buchanan, dean of the Faculty of Arts and Sciences at the University of British Columbia, will conduct courses in astronomy during the summer session at the University of California at Los Angeles and Dr. Frederick C. Leonard, chairman of the department of astronomy at Los Angeles, will lecture at the University of British Columbia.

PROFESSOR JOHN MCLEAN THOMPSON, director of the Hartley Botanical Laboratory and dean of the Graduate School of the University of Liverpool, will be in residence from June 15 to July 22 in the Summer School of Botany at the Iowa State College at Ames. He will give courses on the morphology of the reproductive organs and on the evolution of plants.

DR. H. P. NEWSHOLME, medical officer of health to the City of Birmingham, England, has been appointed professor of hygiene and public health at the University of Birmingham to succeed the late Sir John Robertson.

DR. CHARLES ROBBINS SCHROEDER, veterinarian and pathologist of the zoological park at San Diego, Calif., since 1932, has been appointed veterinarian of the New York Zoological Park, the Bronx, to succeed Dr. Charles V. Nobaek, who died on January 16.

F. A. LOPEZ DOMINGUEZ, director of the Puerto Rico Agricultural Experiment Station, has been given leave of absence for a year to aid in the work of the Puerto Rico Rehabilitation Administration. Dr. Melville T. Cook has been appointed acting director of the station during his absence.

DR. SAIM SAĞLIK, of the Gulhane Post-Graduate Medical School of Istanbul, and Dr. Elemér Scipiadés, of Pécs and Budapest, are working on problems relating to reproduction at the department of embryology of the Carnegie Institution of Washington.

SIR ALDO CASTELLANI, surgeon-in-chief for the Italian army in Ethiopia, returned to New Orleans on March 5 to give a course of lectures in connection with his work as professor of tropical medicine at the Medical Center of the Louisiana State University.

DR. THOMAS J. HILL, professor of clinical oral pathology and therapeutics of the School of Dentistry of Western Reserve University, and Dr. Morris Steggerda, of the Carnegie Institution, Washington, D. C.,

have left for Chichen Itza, Yucatan, to make a study of dental caries among the Mayan Indians.

DR. COLIN G. FINK, professor of electrochemistry at Columbia University, addressed the members of the Royal Canadian Institute at Toronto on February 27 on "Products of Electrochemistry," referring in particular to his own researches.

THE seventh Joseph Henry lecture was delivered by Dr. James Franck, professor of physics at the Johns Hopkins University, before the Philosophical Society of Washington on March 13. He spoke on the "Fundamentals of Photosynthesis."

DR. ARTHUR HAAS, formerly of the University of Vienna and at present of the University of Notre Dame, addressed an open meeting of the Purdue University Chapter of Sigma Pi Sigma, physics honor society, on February 25. He spoke on "The Fundamental Principles Underlying Modern Physics."

DR. ROBERT B. SOSMAN, of the Research Laboratory of the United States Steel Corporation, will give the annual Edward Orton, Jr., memorial lecture sponsored by the fellows of the American Ceramic Society, at the annual meeting in New York on March 23. The subject will be "Pyrometry and the Steel-maker's Refractories."

DR. LUDVIG HEKTOEN will deliver the first Christian Fenger Lecture of the Institute of Medicine of Chicago and of the Chicago Pathological Society at a joint meeting with the Society of Medical History of Chicago and the Chicago Surgical Society on the evening of March 26. His subject will be "Early Pathology in Chicago and Christian Fenger."

THE annual lecture of the James A. Gibson Anatomical Society at the University of Buffalo School of Medicine will be given on Tuesday evening, March 23, by Dr. S. W. Ranson, of Northwestern University. Dr. Ranson will speak on "The Hypothalamus." The Gibson Anatomical Society is an organization of students in the School of Medicine who have done superior work in the courses in anatomy.

A ROUND table discussion of "Capillaries" will be held at the meeting of the American Association of Anatomists in Toronto from March 25 to 27. Drs. Richard G. Abell, Robert Chambers, Eliot R. Clark, Eleanor L. Clark, James B. Rogers and B. W. Zweifach will contribute papers. The discussion will probably be led by Dr. R. R. Bensley and Dr. W. B. Cannon. Dr. E. V. Cowdry will preside.

DR. J. HOWARD MATHEWS, chairman of the department of chemistry at the University of Wisconsin, is making a lecture tour through the South and Southeast. The trip is sponsored by the American Chem-

ical Society. The lectures which are given under the auspices of local sections of the society are entitled "Use of Scientific Methods in the Identification of the Criminal." They are illustrated by lantern slides and examples of the applications of the various techniques taken largely from the personal experience of the lecturer.

THE twenty-seventh series of the Hepsa Ely Silliman lectures will be delivered in April at Yale University by Dr. David M. S. Watson, Jodrell professor of zoology and comparative anatomy at University College, London. The subject of the lectures will be "Paleontology and Modern Biology," and they will deal principally with the character of the evolutionary process as illustrated by the study of the fossil vertebrates. The lectures will be eight in number and will be given in Stratheona Hall at 4:15 P.M., on alternate days of the week, beginning on April 12 and ending on April 28.

THE annual joint meeting of the Institute of Radio Engineers and the American Section of the International Scientific Radio Union will be held in Washington, D. C., on April 30. Papers on the more fundamental and scientific aspects of radio will be presented. There will be two sessions at the building of the National Academy of Sciences, 2101 Constitution Avenue, Washington, D. C., beginning at 10 A. M. and 2 P. M. Papers will be limited to fifteen minutes each to allow time for discussion.

THE ninth anthropological and archeological Smithsonian expedition to Alaska, under the leadership of Dr. Aleš Hrdlička, will leave Seattle on May 20. The object of this year's expedition will be as far as possible a thorough reconnaissance of pre-Russian village sites and burial caves on the Gulf coasts, on the Peninsula and especially in the Aleutian chain, with possibly a visit to the Commander Islands. As in the past, Dr. Hrdlička will take along a small number of volunteer students, who with him will carry on the work. In return they get such field instructions as may be possible and a course of lectures on the principles of anthropology and American archeology. The number of those that can be taken along must this year be limited to five because of difficulties of transportation. The applicants must be strong, healthy young men and earnest students. They pay their personal expenses, but these will be very moderate. Otherwise there are no charges. Recommendations by two professors will be required of each applicant. For further information write to Dr. A. Hrdlička, U. S. National Museum, Washington, D. C.

THE hundred and fifth annual meeting of the British Medical Association will open in Belfast on July 16

under the presidency of Professor R. J. Johnstone, professor of gynecology in Queen's University.

THE Oberly Memorial Prize will be awarded this year in the sum of \$100 for the best bibliography submitted in the field of agriculture and related sciences. Four copies of each bibliography entered should, before March 31, be in the hands of the chairman of the Oberly Memorial Fund Committee, Gilbert H. Doane, director of University Libraries at the University of Wisconsin.

*Industrial and Engineering Chemistry* reports that the president of the American Welding Society has announced acceptance by the Board of Directors of a gold medal to be known as the Lincoln Gold Medal and to be presented to the author of the best paper on any phase of welding published in the *Journal of the American Welding Society* during the year October, 1936, to October, 1937. The donor of the medal is J. F. Lincoln, president of the Lincoln Electric Company, who makes this contribution as a stimulus to the preparation of worth-while contributions on the art of welding. Further information can be obtained from the society at 33 West 39th Street, New York N. Y.

THE Secretary of State for Scotland announces that the office of regius professor of chemistry in the University of Glasgow will become vacant on October 1, 1937, owing to the resignation of Professor G. G. Henderson, and that it is proposed to take steps with a view to the filling of the vacancy. Applications, accompanied by two copies of recent testimonials, should be addressed to the Private Secretary, Scottish

Office, Whitehall, London, S.W.1, and should reach him not later than April 30.

PLANS are being prepared for an entire new group of buildings for the College of Engineering at Cornell University. The trustees have appropriated \$5,000 for this purpose and have designated R. Harold Shreve, '02, of Shreve, Lamb, and Harmon, New York City, as architect. A detailed study of the present status and future needs of the college has been under way for some time and will be continued.

*Industrial and Engineering Chemistry* reports that the Bausch and Lomb Optical Company has opened a new laboratory for applied research in order to enter upon a broad program of fundamental investigations on the chemistry and physics of glass surfaces and on the development of new materials and processes for the industry. Frank P. Kolb is chief chemist, and Theodore J. Zak, assistant chemist. A series of laboratory units are devoted to research in the fields of metallurgy, experimental electroplating, spectroscopy, photomicrography and physical testing. One of the most interesting units is that in which James E. Wilson and his assistant, Vernon Patterson, are engaged in applying metallurgical equipment to the study of the structure of the steels and alloys used in industry. The testing and control laboratory, directed by Ray A. Kirchmaier and Joseph T. Anderson, is equipped for general analytical work. D. M. Webb has been added to the staff for research in chemistry, one of his immediate problems being the electrodeposition of various metallic substances as a backing for reflectors.

## DISCUSSION

### FOSSIL CYCAD NATIONAL MONUMENT

WHAT this monument (as set aside by act of Congress in 1922) means in the series of national monuments and to botanical science needs to be simply told, though clearly the remarkable flowering cycadeoids which give the monument its feature can never be fully told about in words alone. They need *in situ* exhibition. That's the reason for the monument. Thus far the great collections from the monument have received much attention in many and sumptuously illustrated scientific contributions. The more primary scientific values involved have had wide notice the world over in both paleontologic and botanic texts. Yet that splendid landscape so replete with geographic and evolutionary values has had but meager illustration. Moreover, exactly within the past ten years six distinct lines of study and research have greatly enhanced the monument values.

*Firstly*, the cycadeoids of the Beskids of the Carpathians have been given that exacter illustration which shows them to be related to some of the Black Hills types, close as are perhaps European to American oaks, the same being true of the cycadeoids of the Apennines, the Isle of Wight and the Isle of Portland. That is, we have here to deal with types of uncommon beauty and very wide distribution in both latitude and time. If the display at the monument is brought into and rigidly kept in a real unity it will always have a deep interest to the foreign visitor.

*Secondly*, there is now in view a fine addition of types from the Trinity Beds of Texas, as noted in *SCIENCE*. These are conveniently grouped as five new species, but so closely resemble the several Black Hills types as to suggest a mere southern outlier of the monument forest.

*Thirdly*, while the geologic age of the monument