in touch with the principal or superintendent of their schools regarding details of the examination. The tests also will be administered by colleges and universities to their own students and to other high-school graduates in the vicinity.

The following will be eligible to take the test on April 2:

High-school or preparatory school graduates who will have attained their seventeenth but not their twentieth birthdays on July 1, regardless of whether they are attending college;

High-school or preparatory school seniors who will graduate by July 1 and who will be seventeen but not twenty years old at that time;

Students who are not high-school graduates, but who are continuing their education at an accredited college or university (the same age limits as above).

THE COPERNICAN QUADRICENTENNIAL

Professor Harlow Shapley, director of the Harvard Observatory, has accepted the chairmanship of the Copernican Quadricentennial National Committee, now being formed under the sponsorship of the Kosciuszko Foundation, of which Dr. Stephen P. Mizwa is director, to facilitate plans for the nation-wide commemoration of the four hundredth anniversary on May 24 of the death of the great Polish astronomer, Nicholas Copernicus, and of the publication of his masterwork, "De Revolutionibus Orbium Coelestium."

A meeting will be held on the evening of May 24 in Carnegie Hall, New York City, at which Professor Shapley will preside. A number of distinguished speakers, including His Excellency, Jan Ciechanowski,

Ambassador of the Republic of Poland to the United States, will take part.

One of the most interesting features of the quadricentennial will be participation by the nation's leading planetariums. The Hayden Planetarium, at the American Museum of Natural History in New York, of which William H. Barton, Jr., is curator, will present a special planetarium program during the month of May, depicting the Ptolemaic and Copernican conceptions of the solar system.

Arthur L. Draper, director of the Buhl Planetarium and Institute of Popular Science at Pittsburgh, plans to exhibit in the Hall of Astronomy whatever exhibits are available and pertinent.

The Fels Planetarium of the Franklin Institute in Philadelphia, of which F. W. Schlesinger is director and Dr. Roy K. Marshall is assistant director, are planning a planetarium demonstration of the solar system, paying tribute to the life and works of Copernicus. This lecture demonstration will be entitled "Systems of the World," based upon Galileo's famous "Dialogue on the Two Chief Systems of the World." written in 1632. Rare library copies, owned by the Franklin Institute, of the first and second editions of Copernicus's "De Revolutionibus" and a first edition of Galileo's "Dialogue" will be on display. The Polish flag will fly above this case of books and other forms of tribute will be paid to the Polish Allies. On the evening of May 24, it is planned to have a special "Polish Night" at the Planetarium.

Dr. C. H. Cleminshaw, acting director of Griffith Observatory in Los Angeles, and Mrs. Grace P. Johnson, director of the Museum of Natural History of Springfield, Mass., also will arrange planetarium programs.

SCIENTIFIC NOTES AND NEWS

Dr. Arthur B. Lamb, professor of chemistry and dean of the Graduate School of Arts and Sciences of Harvard University, was presented on March 5 with the William H. Nichols Medal of the New York Section of the American Chemical Society for 1943 at a joint meeting of the section and the Society of Chemical Industry. The medal was awarded in recognition of "his investigations in inorganic and physical chemistry, his leadership in defense against poison gas, and as a teacher, administrator and editor." Professor Lamb's address was entitled "The Role of the Journal of the American Chemical Society in the Furtherance of Chemical Research in America." He has been the editor of the Journal for twenty-six years. Among the speakers who paid tribute to Dr. Lamb and his work were Dean Frank C. Whitmore, of Pennsylvania State College; Professor James W.

McBain, of Stanford University, and Dr. Charles N. Frey, chairman of the New York Section, who presided.

The three hundred and eighteenth meeting of the Washington Academy of Sciences, which was held on March 18, was devoted to the presentation by the academy of its awards for scientific achievement for 1942. They are as follows: In the biological sciences, to Robert S. Campbell, U. S. Forest Service, "in recognition of his distinguished service in range research, particularly in the development of range utilization standards"; in the engineering sciences to Walter Ramberg, National Bureau of Standards, "in recognition of his distinguished service in research on the static and dynamic strength of structural elements, particularly in relation to aircraft," and in the physi-

cal sciences to Milton Harris, National Bureau of Standards, "in recognition of his distinguished service in conducting fundamental research on the composition and properties of textile fibers."

THE Faraday Medal of the British Institution of Electrical Engineers has been awarded to Sir Archibald Page, past president of the institution.

The Council of the Physical Society, London, has awarded the Charles Chree Medal and Prize for 1943 to Professor (now Colonel) B. F. J. Schonland and the Duddell Medal for 1942 to Dr. C. R. Burch. Colonel Schonland, formerly professor of physics at Cape Town and afterwards director of the Bernard Price Institute of Geophysics at Johannesburg, is now in Great Britain engaged in scientific work in connection with the war. Dr. Burch, formerly of the Research Department of the Metropolitan-Vickers Electrical Company, has continued his work in the physics laboratories of the Imperial College and the University of Bristol.

THE doctorate of science will be conferred on April 18 at the commencement exercises of the University of Dayton on Jeanne S. Schwengel, research associate of the Academy of Natural Sciences, Philadelphia, in recognition of "notable contributions to science in the field of conchology."

F. C. Lea, formerly professor of engineering at the University of Sheffield, has been elected president of the British Institution of Mechanical Engineers.

The following members of the faculty of Yale University will retire at the close of the academic year: Dr. Treat B. Johnson, Sterling professor of chemistry; Dr. Herman H. Chapman, Harriman professor of forest management; Dr. Richard S. Kirby, associate professor of engineering drawing, and James K. Whittemore, associate professor of mathematics.

Dr. David J. Davis, professor and head of the department of pathology, bacteriology and public health and dean of the College of Medicine of the University of Illinois, will retire on September 1.

SIR FARQUHAR BUZZARD, regius professor of medicine at the University of Oxford, will retire in April. The British Medical Journal reports that his friends and colleagues wish to commemorate his work, and that a representative committee has suggested that his portrait should be painted and that a Buzzard scholarship or prize in medicine should be endowed.

Dr. Walter E. Sullivan, professor of anatomy and head of the department of the University of Wisconsin, is serving for six months as visiting professor of anatomy at the School of Medicine of Washington University, St. Louis.

Dr. Bernard H. Knight, research officer in highway engineering at the University of the Witwatersrand, Johannesburg, has been appointed to the newly established chair of highway engineering in that university, the appointment to take effect on April 1. Nature states that it is believed that this chair of highway engineering, which is tenable in the department of civil engineering, is the first of its kind to be founded in the British Empire outside Great Britain.

Dr. Alastair Frazer, reader in pharmacology in the University of Birmingham, has been appointed professor of pharmacology, a new chair recently established at the university.

Dr. Henry C. Sherman, professor of chemistry at Columbia University, has been appointed head of the newly established Bureau of Human Nutrition and Home Economics of the U. S. Department of Agriculture.

Dr. ALBERT L. ELDER, of the department of chemistry of the College of Liberal Arts of Syracuse University, who has indefinite leave for service with the War Production Board, has been made its chief chemical adviser. His previous position was that of principal industrial analyst.

Dr. Franklin Church Bing, formerly secretary of the Council on Foods and Nutrition of the American Medical Association, has been appointed a director of the American Institute of Baking.

Dr. John W. Crosson, since 1940 director of the bureau of industrial hygiene of the West Virginia State Department of Health, has become industrial consultant for Sharp and Dohme. He will join the medical research staff in Philadelphia.

J. A. Steers, dean of St. Catharine's College, Cambridge, and university lecturer in geography, has been appointed adviser to the British Minister of Town and Country Planning on scientific matters connected with the preservation of the coast line.

Dr. Earl B. Working, for the past twenty years a member of the staff of the department of milling industry of the Kansas Agricultural Experiment Station at Manhattan, plans to leave late this month for Port au Prince, Haiti. The Société Haitiano-Americaine de Developpement Agricole has received a grant-inaid from the Board of Economic Warfare and, in cooperation with the Rubber Reserve Corporation, has undertaken the production of rubber from the Cryptostegia plant, a member of the milkweed plant family. Dr. Working will be director of chemical research for the rubber project and will have supervision of the research laboratory at Gonaives, Haiti.

Dr. Jerzy Neyman, director of the Statistical

Laboratory of the University of California, addressed on March 3 a joint meeting of the Yale Chapter of Sigma Xi and the Connecticut Chapter of the American Statistical Association in New Haven. His subject was "The Probabilities of Errors of the Second Kind and the Design of Experiments."

Dr. Carl S. Marvel, professor of organic chemistry at the University of Illinois, will deliver on April 2 at the University of Chicago the third annual lecture under the Julius Stieglitz Memorial Lectureship. He will take as his subject "The Structure of Vinyl Polymers."

Dr. Francis G. Blake, Sterling professor of medicine and dean of the Yale University School of Medicine, gave on January 28 the first annual Begg Society Lecture at the School of Medicine of Boston University on "Epidemic Diseases in Wartime."

Dr. Samuel W. Clausen, professor of pediatrics at the University of Rochester School of Medicine, delivered on March 18 at the New York Academy of Medicine the sixth Harvey Society Lecture of the current series. His subject was "The Absorption of Vitamin A and its Storage in the Tissues."

Dr. VINCENT DU VIGNEAUD, professor of biochemistry and head of the department, Cornell University Medical College, New York, gave an address on March 18 before the Chicago Section of the American Chemical Society. He spoke on "The Chemical Nature of Biotin."

The annual conference of the Institute of Food Technologists for 1943 will be held in St. Louis on June 2, 3 and 4. The Hotel Statler has been selected as headquarters. All meetings, under the presidency of Dr. R. C. Newton, will be related to the problem of food processing during the war effort. On the evening of June 2 the Nicholas Appert Medal Award will be made. All registered members will attend the opening of the St. Louis Municipal Opera on the evening of June 3 as guests of the St. Louis Section, of which Dr. E. H. Harvey is general chairman.

A CONFERENCE, sponsored by the New York Academy of Sciences, on Parasitic Diseases and American Participation in the War, presided over by Dr. Horace W. Stunkard, of New York University, was held on March 13. The speakers were Dr. Lowell T. Coggeshall, of the School of Public Health of the University of Michigan; Dr. Norman R. Stoll, of the Rockefeller Institute for Medical Research, Princeton, N. J.; Dr. Robert Matheson, of Cornell University, and Dr. Thomas T. Mackie (Lt. Colonel), of the Army Medical School, Washington, D. C.

THE three hundred and ninety-fourth meeting of the American Mathematical Society was held at Columbia University on February 27. The attendance was approximately two hundred, including one hundred sixty-six members of the society. Two addresses were given by invitation of the Program Committees: "Transformation Groups and Spheres," by Professor Deane Montgomery, of Smith College, and "Some Topics in the Theory of Semi-linear Transformations," by Professor Nathan Jacobson, of the University of North Carolina. Professor Montgomery's address had been scheduled originally for the annual meeting, which was cancelled on account of transportation difficulties. There were also four sessions at which twenty-two contributed papers were presented on analysis, algebra, applied mathematics, geometry and statistics. Thirteen additional papers were presented by title. The council of the society held a meeting at noon on Saturday, at which, among other things, a report of the War Policy Committee was approved.

The annual meeting of the International Association for Dental Research was held in Chicago on March 13 and 14.

APPLICATIONS for grants from the Cyrus M. Warren Fund of the American Academy of Arts and Sciences should be received by the chairman of the committee, Professor Frederick G. Keyes, of the Massachusetts Institute of Technology, not later than April 15. Grants are made in aid of chemical research, generally for apparatus or supplies, or for the construction of special facilities needed for research in chemistry or in fields closely related to chemistry. Grants are not awarded for salaries, and on account of limited resources the amount of a grant to an individual is seldom in excess of \$300. Application blanks may be obtained from the chairman upon request.

Two fellowships are offered by the Cinchona Products Institute of New York for clinical or pharmacological research on quinine or the other alkaloids of cinchona. They carry a yearly stipend of \$2,000, plus necessary laboratory or routine expenses. Further details may be secured from Cinchona Products Institute, Inc., 10 Rockefeller Plaza, New York.

A RESEARCH assistantship in petroleum physics has been established by the Gulf Oil Corporation at the Massachusetts Institute of Technology. The recipient must qualify for a tuition scholarship and be a candidate for an advanced degree in the department of physics. The stipend is \$1,100 per school year, subject to renewal at the end of nine months under an accelerated program. Applications should be made before April 1 on forms obtained from the admissions office.