of isotopes," by R. S. Mulliken, both of the University of Chicago. In addition a number of other topics, not yet fully decided upon, will be discussed by noted chemists.

At the symposium on photochemistry and plant physiology to be held Thursday, December 28, at 2 p. m., H. A. Spoehr, of the Desert Laboratory, will discuss "Photosynthesis," S. E. Sheppard will speak on "Photochemical reactions," and a third speaker will present the subject "Carbohydrate metabolism."

The address of the retiring vice-president and chairman of Section C will be upon the subject "The nuclei of atoms and the general system of isotopes."

It is expected that one or two of the sessions will be provided with a program by nearby sections of the American Chemical Society as follows: the Nontheastern, the New York, the Eastern New York, the Cornell, the New Haven, the Philadelphia, the Washington, and the Delaware sections.

Speakers have been invited to present papers on atomic structure, the electron theory of valence, the nature of metals, the work of various great laboratories, and various other topics of interest to professional chemists. It should be noted that no specific invitations have been sent out for papers on the research work of individuals, but it is hoped that the chemists of the United States and Canada will respond in considerable numbers to the general invitation given in the present notice. titles of such papers should be sent as soon as possible either to the retiring chairman, Professor W. D. Harkins, of the University of Chicago, to the secretary of the Northeastern Section of the American Chemical Society, Professor E. B. Millard, of the Massachusetts Institute of Technology, Cambridge, Mass., or to the vice-president and chairman, Professor W. Lash Miller, of the University of Toronto.

## SCIENTIFIC NOTES AND NEWS

At the anniversary meeting of the Royal Society on November 30, its awards are to be conferred as follows: Royal medal to Professor C. T. R. Wilson, for his researches on con-

densation nuclei and atmospheric electricity, and to Professor J. Barcroft, for his researches in physiology, especially in respiration; the Copley medal to Sir Ernest Rutherford, for his researches in radioactivity and atomic structure; the Rumford medal to Professor Pieter Zeeman, for his researches in optics; the Davy medal to Professor J. F. Thorpe, for his researches in synthetic organic chemistry; the Darwin medal to Professor R. C. Punnett, for his researches in the science of genetics; the Buchanan medal to Sir David Bruce, for his researches and discoveries in tropical medicine; the Sylvester medal to Professor T. Levi-Civita, for his researches in geometry and mechanics; and the Hughes medal to Dr. F. W. Aston, for his discovery of isotopes by the method of positive rays.

At the formal opening of the University of Paris, honorary degrees of doctor of laws were received by Ambassador Herrick on behalf of Elihu Root, Esq., Dr. A. Lawrence Lowell, president of Harvard University, and Professor Albert A. Michelson, of the University of Chicago.

Dr. M. C. WHITAKER, chemical engineer of New York City, has been awarded the Perkin medal "for the most important contribution to applied chemistry made by any citizen of the United States," by the Society of Chemical Industry. The presentation will be made by Dr. Charles F. Chandler.

AT the meeting of the Ophthalmic Section of the American Medical Association, Dr. Frederick H. Verhoeff, of Boston, was awarded the Knapp Medal for his paper on "Ghoinas of the Optic Nerve." Dr. Verhoeff is president of the New England Ophthalmological Society.

THE British Institution of Mining Engineers has awarded its medal to Sir George Beilby, "in recognition of his valuable contributions to science, with special reference to his researches on fuel."

Mr. R. T. A. Innes, the union astronomer at Johannesburg, has received the degree of doctor of science from the University of Leyden.

Dr. Addle Loewy, professor of physiology at the University of Berlin, has been appointed director of an institute at Davos, Switzerland, for research on the physiologic effects of residence in high altitudes as pertaining to the treatment of tuberculosis.

The November number of the Journal of Geology at the University of Chicago will bear the mames of father and son as editor and managing editor, the former being Thomas C. Chamberlin, professor emeritus of geology, and the latter Rollin T. Chamberlin, associate professor of geology. From the founding of the journal twenty-nine years ago T. C. Chamberlin and the late R. D. Salisbury were the editors. The other editors are Stuart Weller, invertebrate paleontology; Edson S. Bastin, economic geology; Albert Johannsen, petrology; and J. Harlen Bretz, stratigraphic geology. Associate editors include representatives of Great Britain, France, Germany, Norway, Sweden, Australia, and Canada.

Dr. Wilfred H. Osgood, curator of zoology of the Field Museum of Natural History, and party, including Mr. H. B. Conover and Mr. C. C. Sanborn, of the Field Museum, sailed on November 16 for Valparaiso, Chile. They will proceed to the forested region of southern Chile about Corcovado Gulf and, after making general collections there, will work northward. Dr. Osgood and Mr. Conover will return via Argentine, Uruguay and southern Brazil about the middle of 1923 and Mr. Sanborn will remain in the field until 1924.

WE learn from the Journal of the American Medical Association that the U. S. Public Health Service has begun a study of the methods used in the United States in the manufacture of biologic products. Passed Assistant Surgeon W. T. Harrison has started a tour of the country to investigate this subject, going to Toronto, Canada; Boston; New York, Otisville and Pearl River, N. Y.; New Brunswick, N. J.; Philadelphia, Swiftwater, Glenolden, Ambler and Mariette, Pa.; Asheville, N. C.; Buffalo, and Baltimore.

Dr. Samuel J. Morris, professor of anatomy

at the West Virginia University School of Medicine, has obtained a year's leave of absence to study anatomy at the Harvard Medical School.

Dr. Aleš Hrdlička has returned from an extended trip to Western and Central Europe made for the purpose of visiting the more important recently discovered sites of early man, and of examining the skeletal remains. As the result of a special invitation by the minister of education of the Czechoslovak Republic, he delivered also a series of lectures on "Anthropology and man's evolution" at the Universities of Prague, Brno (Brün) and Bratislava (Pressburg), and at the People's University of Plzen (Pilsen).

Professor F. Krause, of the University of Berlin, is now in Mexico City giving a course of lectures on nerve surgery.

Professor D. Pahle, of the University of Frankfort, Germany, arrived in Chicago on November 18. Under the auspices of the American Society for the Control of Cancer, he will give a series of demonstrations of the deep-therapy roentgen-ray machine at the Norwegian-American Hospital.

Professor George C. Whipple, of the department of sanitary engineering of Harvard University, will give a series of lectures on "The philosophy of sanitation" at the Wagner Free Institute of Science in Philadelphia on Saturday evenings in January.

The educational committee of the Bureau of Standards has arranged with Professor A. Sommerfeld for a course of lectures on "Quantum Theory" and related subjects. These lectures will be given at the Bureau of Standards, Washington, D. C., early in March, 1923.

Professor A. J. Carlson, as the guest of the University of Nebraska Medical College on November 17, delivered two addresses, one before the student body and the other before the faculty.

THE Harben lectures before the Royal Institute of Public Health will be delivered by Professor Theodore Madsen, M. D., director of

the State Serum Institute, Copenhagen, on December 1, 4 and 5. The subjects of the lectures are: "Specific and unspecific antitoxin production," "Antitoxic treatment," and "The influence of temperature on antigren and antibodies."

LORD BALFOUR has arranged to deliver his second course of Gifford lectures on natural theology at Glasgow University. The first will be given on Friday, November 24, the series being continued on November 28 and December 1, 5, 8, 12, and 15 and 19, and January 16 and 19. The lectures, which are open to the public, were begun during the session before the war.

At Lake Forest College there has recently been reorganized a Science Club, which has been dormant since the departure of Dr. James The departments of G. Needham in 1901. chemistry, biology and psychology are sponsors for the club and supervise the bi-weekly programs, the purpose of which is to stimulate interest in the general problems of the three fields. All persons in the vicinity interested in science are invited to attend. The following are the topics and leaders for the first three meetings: "Hypnotism," by Dr. W. R. Wells; "The tropism theory as a basis for the interpretation of human behavior," by Dr. W. H. Cole, and "The constitution of matter," by Dr. F. B. Coffin.

THE three concluding addresses in the series of illustrated evening lectures given this autumn by the Carnegie Institution of Washington, are as follows: November 28, "The constitution of the hereditary material and its relation to development," Dr. T. H. Morgan, research associate in biology of the Carni, and professor of experimental zoology at Columbia University; December 5, "The properties of matter as illustrated in the stars," Dr. Henry Norris Russell, research associate of the Mount Wilson Observatory and director of the Princeton University Observatory; December 12, "The motions of the stars," Dr. Walter S. Adams, acting director of the Mount Wilson Observatory.

An Exhibition of Scientific Apparatus and Products will be an important feature of the approaching Boston meeting of the American Association for the Advancement of Science, to be held in the building of the Massachusetts Institute of Technology, in Cambridge, December 26 to 30, 1922. Those desiring to take part by exhibiting apparatus, materials, etc., should communicate at once with Professor R. P. Bigelow, Massachusetts Institute of Technology, Cambridge, Massachusetts. Professor Bigelow is chairman of the subcommittee on exhibits for the Fourth Boston Meeting.

APPLICATION has been made for reduced railroad fares, on the certificate plan, for persons attending the annual meetings of the Geological Society of America, the Paleontological Society, the Mineralogical Society of America, the Society of Economic Geologists, the Association of American Geographers and the American Association of State Geologists, in Ann Arbor, Michigan, December 26-31, 1922. When purchasing tickets at the regular oneway fare, certificates of the standard form should be obtained from the railroad ticket agent. The granting of return tickets at one half the regular fare is conditional upon there being 250 persons in attendance upon the meetings who hold certificates showing that they have paid 67 cents or more on the going trip.

For the purpose of commemorating the services of William Thompson Sedgwick to the cause of biology and public health, there has been established a memorial lectureship in the department of the Institute of Technology which he created. The desire of the founders is that the Sedgwick Memorial Lectures shall be given from year to year by men of distinguished eminence in any one of the subjects comprehended within the general scope of biology and public health in order that it may fittingly express the deep and broad sympathy of the man whom the lectureship is designed to honor. The committee in charge of the lectureship consists of Samuel C. Prescott, Massachusetts Institute of Technology; Edwin O. Jordan, University of Chicago; George C. Whipple, Harvard University; Gary N. Calkins, Columbia University, and Charles-E. A. Winslow, Yale University. The first William Thompson Sedgwick Memorial Lecture will be given in Huntington Hall, 491 Boylston Street, Boston, on Friday, December 29, at five o'clock, by Dr. Edmund Beecher Wilson, Da Costa professor of zcology at Columbia University, on "The physical basis of life." The lecture will form part of the program of the meeting of the American Association for the Advancement of Science, the American Society of Naturalists and other societies during convocation week.

It is announced from Stockholm that since it has been decided not to award the Nobel Prize for Medicnie for 1921, the prize will be added to the Special Medical Fund. The 1922 prize is reserved for next year.

THE Méthane Association, organized in 1916 with the object of advancing industrial chemistry in Poland, has been reorganized as an Institute of Research, and Professor Moscicki has been appointed director. The government of Poland has made a grant of land in the neighborhood of Warsaw, where buildings for the institute will be erected.

WILLIAM EASTMAN STANDOW, a graduate of the University of Denver and a graduate student at Columbia University, was killed by an explosion in the chemical laboratory on November 17, through the explosion of a chamber containing aniline hydrochloride.

PROFESSOR JEREMIAH GEORGE MOSIER, for twenty years in charge of the work in soil physics at the University of Illinois, died on November 10, 1922, at the age of sixty years. A correspondent writes: Professor Mosier graduated from the University of Illinois in 1893. He then became an assistant in geology in the same institution, in which position he served for three years. After a period spent in highschool teaching he reentered the service of his university in 1902 to take up the work in soil physics, a subject which at that time was largely undeveloped. Professor Mosier was an unusually inspiring teacher and he has won the love and respect of the hundreds of students who have come under his instruction. In

his field of investigation his interest was broad; but some of the problems which engaged his especial attention were the prevention of soil washing on hilly land, the effect of cultivation, climatological observations, and the soil survey of Illinois, upon all of which topics he made notable published contributions. Professor Mosier's chief interest lay, perhaps, in the soil survey of Illinois, he having been in direct charge of the mapping since the beginning of the survey. Under his direction about four fifths of the state have been mapped. Through his long experience in this connection. he acquired an expert knowledge of soil types that made of him a widely recognized authority in soil classification.

## UNIVERSITY AND EDUCATIONAL NOTES

THE \$1,600,000 financial development project for Dickinson College and Pennington Seminary has been brought to a successful conclusion. Of this amount, Dickinson, it is reported, will receive \$1,250,000 and Pennington \$350,000. The money will be used for buildings, betterment, liquidation and endowment.

Ground has been broken for the new laboratory of the department of hygiene and bacteriology of the University of Chicago, which when completed will be devoted to bacteriologic and chemical research. It will be erected at a cost of \$50,000.

UNDER the will of the late Sir William Dunn a further sum of £45,000 now accrues to the School of Biochemistry of the University of Cambridge, making a total gift for the purpose of the school of £210,000.

Paul Martyn Lincoln, of Cleveland, Ohio, has been elected professor of electrical engineering and director of the School of Electrical Engineering in Cornell University. Professor Lincoln, who is a practicing engineer, was professor of electrical engineering at the University of Pittsburgh from 1911 to 1915. He was president of the American Institute of Electrical Engineers in 1914.

CHARLES HARLAN ABBOTT, Ph. D. has resigned his position at the Massachusetts Agricultural College to accept the professorship of