

livered on Monday, June 9, by Michael F. Guyer, Ph.D., professor of zoology in the University of Wisconsin, on "The transmission of eye-defects induced in rabbits by means of lens-sensitized fowl-serum."

SPECIAL exercises honoring the late President Charles R. Van Hise, '79, will be held during Commencement week on Alumni day at the University of Wisconsin, June 24.

THE death is announced at the age of sixty years of Dr. Ferdinand G. Wiechmann, a consulting chemical engineer of New York City, known especially for his work on sugar chemistry.

LAWRENCE M. LAMBE, since 1884 on the paleontological staff of the Canadian Geological Survey, has died at the age of fifty-five years.

DR. ROBERT CHAPMAN DAVIS, lecturer on botany in the University of Edinburgh, recently captain in the Medical Corps of the British Army, has died from influenza at the age of thirty-two years.

#### UNIVERSITY AND EDUCATIONAL NEWS

WE learn from *Nature* that a gift of £210,000 to the University of Cambridge for a chemical school was announced by the Vice-Chancellor, Dr. A. E. Shipley, at the meeting of the senate on May 13. Particulars were given in the following extracts from a letter from Mr. R. Waley Cohen: "It has been an immense pleasure to me to be able to write to Sir William Pope and tell him that the British oil companies have agreed to join together in a scheme for endowing a chemical school at Cambridge. The Burma Oil Co. have agreed to contribute £50,000; the Anglo-Persian Oil Co., £50,000; the Anglo-Saxon Petroleum Co., £50,000; and Lord Cowdray and the Hon. Clive Pearson between them £50,000, making the total of £200,000 which is required. Mr. Deterding, who has taken very great interest in the scheme from the beginning, has offered to make the £200,000 into guineas by adding a personal contribution of his own of £10,000."

THE University of Cincinnati has established in its college of medicine a department in industrial medicine and public health. Under the plans submitted, \$100,000 is to be raised by the citizens' committee on finance, for the support of this department for five years. The course will be started in October and will be open to graduates in medicine. A portion of the instruction will be given at the college and part at various industrial establishments along the lines now practised in the cooperative course.

THE Washington University School of Medicine, St. Louis, has been tendered the sum of \$150,000 by the General Education Board on condition that an equal amount be raised by subscription. This fund of \$300,000 is to be used for the endowment of the department of pharmacology.

THE board of trustees of the University of Tennessee voted \$100,000 to the medical school to be used for a new laboratory building to be erected in the rear of the Memphis City Hospital. The new building will have laboratories for pathology, bacteriology, chemistry and physiology.

DR. EDSON SUNDERLAND BASTIN, of the United States Geological Survey, has been appointed to a professorship of economic geology in the University of Chicago beginning on January 1, 1920.

WILLIAM WALTER CORT, A.B. (Colorado, '09), Ph.D. (Illinois, '14), who is at present on the staff of the University of California, and consulting helminthologist of the California State Board of Health, has been appointed associate in helminthology in the school of hygiene and public health, Johns Hopkins University. His work in Baltimore will begin in the fall.

RECENT changes in personnel at the North Carolina State College of Agriculture and Engineering include the resignation of Professor C. L. Newman, head of the department of agronomy, Dr. G. A. Roberts, head of the department of veterinary medicine, and Dr. F. A. Wolf, head of the department of botany. Professor Newman is connected with the Fed-

eral Vocational Education Board with headquarters in Atlanta, Ga., Dr. Roberts has accepted an appointment as veterinarian with the Rockefeller Foundation and is to be stationed at São Paulo, Brazil, and Dr. Wolf will retain his connection with the North Carolina Agricultural Experiment Station.

MR. MARTIN KILPATRICK, JR., of the division of inorganic chemistry, the College of the City of New York, has accepted a position as assistant professor of chemistry at Vassar College under Professor W. C. Moulton.

ERNEST CARROLL FAUST, A.B. (Oberlin, '12), Ph.D. (Illinois, '17), now instructor in zoology at the University of Illinois, has accepted a position with the China Medical Board, Rockefeller Foundation, as associate in parasitology, department of pathology, Union Medical School, Peking, China. He plans to assume his duties in Peking early in October.

PROFESSOR C. R. MARSHALL, professor of materia medica and therapeutics, University of St. Andrews, has been appointed to the regius chair of materia medica in the University of Aberdeen, vacant by the resignation of Professor Theodore Cash.

## DISCUSSION AND CORRESPONDENCE

### RADIUM PRODUCTION

TO THE EDITOR OF SCIENCE: In your issue of March 7, Dr. Charles H. Viol makes some comments on statements made by me in a paper presented before the American Institute of Mining Engineers at its September meeting, 1918, at Colorado Springs. The main thing to which Dr. Viol takes exception is the statement of the writer that:

In my judgment the carnotite fields will not produce more than 100 additional grams of radium element at the most—if that much. This would about double the world's present supply; but on account of the large use of radium in cancer treatment, such an amount, although large scientifically, would be small in proportion to the probable demands.

Dr. Viol states that the estimates of myself and the Bureau of Mines are based on a "very inadequate study of the carnotite region made prior to the war and before the fields had been

developed to any great extent"; and he claims that at least 500 grams of radium should be produced from carnotite.

No one can tell exactly how much radium can be produced from the carnotite fields of Colorado and Utah, and any estimate must be very approximate. To some extent, the future production will depend upon the price of radium, as a much higher price for radium would allow lower grade ore to be mined and treated. As the ore always exists in pockets of varied sizes and grades, the mining is very largely confined to outcrops, and this makes the question of an estimation of the probable amount available easier than if mining conditions were such as are met with in connection with other metals. It is true that some drilling has been done, chiefly by the Standard Chemical Company, and a higher price of radium would, of course, allow drilling to be carried on to a greater extent, which would undoubtedly give some increased production. The estimate of 100 grams which I made was based on the present price of radium. But, under no conditions, can I see the possibility of producing 500 grams of radium element from the carnotite fields, or anywhere near that amount.

In reference to our "inadequate study of the carnotite region," I may say that the first statement of the Bureau of Mines concerning these deposits was made in connection with U. S. Bureau of Mines Bulletin No. 70.<sup>1</sup> On page 42 the following is printed:

The United States possesses unique deposits in these carnotite ores. They constitute at present the largest known supply of radium-bearing minerals in the world. . . . Up to the present, very little interest has been shown by Americans in these deposits, which may not be duplicated in so far as quantity goes in any part of the world.

Up to this time, no one had made a statement of this kind concerning these deposits, but as soon as Mr. Kithil and myself went on record, there was immediately a strong tendency to "go us one better." In Volume 1, page 12, of *Radium*, published by the Stand-

<sup>1</sup> "A Preliminary Report on Uranium, Radium and Vanadium," by Richard B. Moore and Karl L. Kithil, 1913.