

tains an isotope 207 which is almost certainly the end product of the actinium series.

The next outstanding advance came from a totally different experimental source, the analysis of band spectra by the application of the quantum theory. By this means Giauque and Johnson discovered the rare isotopes 17 and 18 of oxygen in 1929 and similar discoveries followed in connection with carbon and nitrogen. These discoveries are all to be credited to American science which has taken an increasing share in the researches on isotopes in recent years. At the Bartol Institute, Bainbridge, by means of a very powerful apparatus of his own design, has corrected errors in the abundance of the isotopes of zinc and germanium, discovered new isotopes in tellurium and measured the packing fractions of several types of atoms, notably the important beryllium 9.

The latest and most spectacular discovery is that of

the hydrogen isotope of mass 2. Following the discovery of the complexity of oxygen Birge pointed out that if the determination of the mass of the atom H_1 by the second mass-spectrograph was to be relied on hydrogen also should have heavier isotopes. Urey, Brickwedde and Murphy made a diligent search and were rewarded by the discovery of H_2 . By means of their concentrated samples Bainbridge has photographed the line due to the molecule $H_1H_1H_2$ and so measured the mass of the new isotope. It is unique among isotopes for results of electrolysis give every hope of separating it in quantities on a practical scale and so opening up an entirely new field in chemistry. Its abundance in ordinary hydrogen is still uncertain. If, as results with the band spectra of HCl indicate, this is of the order 1 in 35,000 it is quite inadequate to account for the actual discrepancy which led in the first case to its discovery.

SCIENTIFIC EVENTS

NEW BUILDING FOR THE DEPARTMENT OF ZOOLOGY AT THE UNIVERSITY OF LONDON

THE Earl of Athlone, Chancellor of the University of London, formally opened the new building for the Department of Zoology and Comparative Anatomy, University College, London, on June 12.

According to the *London Times*, the site, acquired on the liquidation of Messrs. Shoolbred in 1931, contains a range of buildings surrounding a courtyard—since named Foster Court in commemoration of the first Provost of the college, Sir Gregory Foster—and the building on the east side of the courtyard is the one that has been adapted to the requirements of the department of zoology. It formerly consisted of stables on the ground floor and workshops on the two upper floors, which have been converted into laboratories, classrooms, a museum and other divisions.

The new main staircase occupies the eastern half of an internal tower, which has been carried up so as to provide a small fourth floor and a flat roof. Built into the eastern containing wall and placed between two plane trees is a gateway, the gift of the Pewterers' Company, in whose hall it stood before demolition. This is believed to date from about 1668-69, and it is suggested that it may be from a design by Wren.

The Earl of Athlone, who lunched at the college and unveiled a mural tablet in Foster Court to the memory of the first Provost, was joined by Princess Alice for the opening ceremony. In his speech he stated that the department of zoology was established in 1828, when Professor R. E. Grant, in his first course of lectures, proclaimed himself a believer in

evolution. In 1874 Edwin Ray Lankester was appointed to the chair of zoology, and under his régime practical teaching was introduced. Lankester's personality drew to him many men of great ability, who passed on from the college to fill a large proportion of the chairs of zoology of the Empire. His influence determined the whole character of the teaching of zoology for half a century.

To ensure an adequate training for students of zoology it had become necessary to provide staff and laboratories for the study of genetics, comparative physiology and animal behavior. Through the generosity of the Rockefeller Foundation, the London County Council and Dr. Rodocanachi, it had been found possible to establish posts in those three subjects, to provide those who may be appointed to them with the laboratories and equipment and library facilities, and to bear the heavy cost of their research.

Professor Sir John Rose Bradford, chairman of the College Committee, presided, and was supported by Dr. Allen Mawer, Professor L. N. G. Filon and Professor D. M. S. Watson.

THE WISCONSIN ALUMNI RESEARCH FOUNDATION

THE Wisconsin Alumni Research Foundation has made grants-in-aid to the University of Wisconsin for next year in a sum sufficient to prevent the suspension of its research program which has been threatened by reduced appropriations.

The grants have been approved by the Board of Regents. The exact amount can not be determined until the revised salary schedules for 1933-34 have been fixed and other details of the research program completed.