The Mallinckrodt Laboratory will house practically all of the undergraduate courses in chemistry. The top floor is devoted to elementary chemistry, inorganic chemistry and qualitative analysis. The second floor contains the Horsford Laboratory given by Mrs. William G. Farlow, widow of the former head of the chemical laboratory. This laboratory is devoted to quantitative analysis: the remainder of the floor is devoted to elementary organic chemistry. Physical chemistry, electrochemistry and photochemistry are placed on the first floor. Industrial chemistry is provided for in the Bradlev Laboratory, given by Robert S. Bradley, president of the American Agricultural Chemistry Company, in memory of his son, Robert S. Bradley, Jr. This occupies part of the first floor and the basement.

The Converse Memorial Laboratory is devoted primarily to research in organic chemistry. It also contains on its top floor the course in advanced organic chemistry. The new chemical library is housed in this building.

The equipment of the new laboratories is advanced and complete, in great contrast to the old Boylston Laboratory which for years housed Harvard's chemistry courses. Seven professors' suites, comprising a study, a private laboratory and an adjoining room for a professor's assistant are provided. Rooms for research students are provided adjacent to those for the professors, in order that student and teacher may work in close cooperation.

Three lecture halls have been built in the Mallinckrodt Laboratory, one seating 420, one 250 and a third 90 students. To the rear of the lecture platforms there are preparation rooms where the experiments and demonstrations for the lectures can be prepared and assembled. Special overhead and underneath illumination is available on all the lecture desks, and the halls can be wholly darkened by black curtains which are operated electrically.

The departmental library occupies a large room on the first floor of the Converse Laboratory and a corresponding room directly underneath it in the basement. These rooms and their equipment were given by Mrs. Gould as a memorial to her husband, Frederick Saltonstall Gould, Harvard '75. They are panelled in antique oak and their furniture has been specially designed.

The campaign for funds for the new laboratories was brought to a successful close in the spring of 1926. The executive committee appointed by the Corporation of Harvard College, with Bishop William Lawrence as chairman, and Dean Wallace B. Donham, of the Graduate School of Business Administration, as executive chairman, was able to announce the receipt of \$2,000,000 toward the construction of the building and \$1,000,000 for endowment. The firm of Coolidge, Shepley, Bulfinch and Abbott was selected as architects.

## THE SOUTHWEST ARBORETUM OF THE BOYCE THOMPSON INSTITUTE FOR PLANT RESEARCH

TWELVE hundred persons attended the dedication of the Boyce Thompson Southwest Arboretum at Superior, Arizona, sixty miles east of Phoenix, on April 6. The arboretum is at the base of the old Pickett Post Mountain and had an ideal setting for the dedication.

Boy Scouts of Superior acted as guides to the throngs visiting the institution, which was dedicated to the service of mankind. F. J. Crider is director of the arboretum. He is assisted by Fred Gibson and Palmer Stockwell.

The arboretum now has more than 3,000 specimens of plants, many of them native to the Southwest desert country. Hundreds of them have been imported from foreign countries. Through the study of these plants it is hoped to bring new products to Arizona soil.

This year some 600 new plants have been added to the gardens. Flora from the tropics and the Orient have been transplanted with the view of making them staple agricultural products of this section.

Giant tortoises imported from the Galapagos Islands attracted much attention from the visitors. The flower gardens, cactus gardens and the nursery also attracted attention. An interesting machine makes an autographic record day by day of the growth of the giant or Sahuari cactus. This machine shows that the cactus shrinks at a certain period each day.

Four Hopi Indians gave a number of their tribal dances at the luncheon hour and the University of Arizona band played during the afternoon.

Dr. William Crocker, director of the Boyce Thompson Institute for Plant Research at Yonkers, N. Y., presided in the absence of Mr. Boyce Thompson.

President Leroy Shantz, of the University of Arizona, and Professor William Trelease, of the University of Illinois, gave short addresses. Governor John C. Phillips, of Arizona, spoke in appreciation of the work of Mr. Thompson in establishing the arboretum.

## THE FIFTH INTERNATIONAL BOTANICAL . CONGRESS

THE executive committee of the Fifth International Botanical Congress, of which Professor A. C. Seward, F. R. S., of the University of Cambridge, is president, requests that the following announcements should be made public: Motions on the subject of nomenclature for consideration by the congress should be in the hand of the rapporteur général, Dr. John Briquet, before September 30, 1929.

Motions must be presented in the form of additional articles (or amendments) to the rules of 1905-1910, drawn up in the form adopted in the International Code, and must be drafted as briefly as possible in Latin, English, French, German or Italian. At least one hundred printed copies must be presented.

According to the decisions of the Brussels Congress, 1910, only motions relating to new points which were not settled in 1905 and 1910 can be presented. Motions which do not answer to these conditions shall only be discussed if the Cambridge Congress, 1930, decides to take them into consideration.

For further information about the program of work for nomenclature, apply to the rapporteur général, Dr. John Briquet, Conservatoire botanique, Geneva (Switzerland).

## SYMPOSIA ON THEORETICAL PHYSICS AND CHEMICAL KINETICS

A SYMPOSIUM on theoretical physics will be conducted at the University of Michigan during the summer session of 1929, June 24 to August 16. The following physicists will participate:

- E. A. Milne, University of Oxford: "Problems in Astrophysics, and Vector and Tensor Methods in Statics and Dynamics."
- K. F. Herzfeld, the Johns Hopkins University: "Statistical Mechanics."
- Leon Brillouin, University of Paris: "Quantum Statistics."
- Edward Condon, Princeton University: "Introduction to Quantum Mechanics."
- P. A. M. Dirac, University of Cambridge: "Advanced Quantum Mechanics."
- D. M. Dennison, University of Michigan: "Band Spectra."

In addition to the lectures on the subjects announced, discussion groups will be organized for the consideration of special subjects and problems. These discussion groups will be conducted by the symposium lecturers. The privilege of attending the symposium and seminars, and of carrying on research in the laboratories and libraries of the university during the summer session will be extended to holders of the degree of doctor of philosophy or of doctor of science. Those desiring to avail themselves of this privilege should correspond with Professor H. M. Randall, director of the physical laboratories of the University of Michigan.

The School of Chemistry of the University of Minnesota announces a symposium on chemical kinetics to be held from July 29 to August 31 during the summer session. Professor H. S. Taylor, of Princeton University, and Professor M. Polanyi, of the Kaiser Wilhelm Institute, Berlin, will be in residence as guests. Professors S. C. Lind and R. S. Livingston, of the University of Minnesota, will also take part. Professor Taylor will lecture on "Catalysis and Photochemistry," Professor Polanyi on some phase of chemical activation, Professor Lind on "Chemical Activation by Ionizing Reagents" and Professor Livingston on "Chemical Kinetics in Solution."

## SCIENTIFIC NOTES AND NEWS

THE medical faculty of the University of Munich has conferred the degree of M.D. *honoris causa* on Professor Graham Lusk, professor of physiology in the medical college of Cornell University.

THE Bruce medal of the Astronomical Society of the Pacific, recently awarded to Dr. Frank Schlesinger, director of the Yale Observatory, has been presented to him by Professor Ernest W. Brown at a meeting in the Lampson Lyceum at New Haven.

AT the recent General Assembly of the National Chemical Society of Poland in celebration of the tenth anniversary of its founding, Colonel Marston Taylor Bogert, professor of organic chemistry at Columbia University, was elected an honorary member.

DR. HEINRICH TIETZE, professor of mathematics, and Dr. Wilhelm Manchot, professor of organic chemistry, both of the University of Munich, have been elected members of the Bavarian Academy of Sciences. As corresponding members have been elected Dr. Otto Dimroth, professor of chemistry at Würzburg, and Dr. Wilhelm Meinardus, professor of geography at Göttingen.

CHARLES J. RHOADS, a Philadelphia banker, president of the Indian Rights Association, has been invited by Mr. Hoover to succeed Charles H. Burke, who resigned several weeks ago as head of the Indian Bureau.

MAJOR-GENERAL AMOS A. FRIES on March 28 completed his work as chief of the Chemical Warfare Service. He is succeeded by Colonel Harry L. Gilchrist, who has been given the rank of major-general.

PRESIDENT HOOVER has requested the Assistant Secretary of Agriculture in the previous administration, Renwick W. Dunlap, to continue in office. As assistant secretary, Mr. Dunlap has given special attention to the farms owned and operated by the department and to agricultural appropriation matters,