national officers, the visiting delegates and the college members of Sigma Xi followed.

Dr. Shapley and Dr. Baitsell officiated at the formal installation ceremonies, which took place at 3 p.m. in one of the small college chapels. The new charter was accepted in behalf of the Tufts Chapter by President Carmichael, while Dr. Ellery responded for the society. The newly installed chapter elected the following officers:

President, Dr. Basil G. Bibby, dean of the Tufts College Dental School; Vice-president, Dr. Katharine F. Billings, instructor in geology; President-elect, Dr. Paul Warren, professor of botany; Treasurer, Dr. Herman Sweet, assistant professor of biology; Secretary, Dr. Nils Y. Wessell, dean of men.

A tea and reception followed at the home of President and Mrs. Carmichael. In the evening a dinner in honor of the national officers was attended by delegates and Tufts Chapter members. A public lecture followed, with Dr. George David Birkhoff delivering an address on "The Mathematical Nature of Modern Physical Theories."

NILS Y. WESSELL,

Secretary

## SUMMER SESSION IN APPLIED MATHE-MATICS AT BROWN UNIVERSITY

For the third summer, Brown University in its program of advanced instruction and research in mechanics, offers instruction and research direction in a twelve-weeks session beginning on June 14. A dozen graduate courses of a variety of grades are offered. These are largely in subjects related to mechanics, such as elasticity, fluid dynamics, theory of flight and partial differential equations; but there is one comprehensive course in mathematics of ultra-high frequencies in radio, which is particularly designed for those who expect to engage in research in that field. The staff in residence consists of Stefan Bergman, Lipman Bers, L. N. Brillouin, Willy Feller, G. E. Hay, Witold Hurewicz, P. W. Ketchum, Willy Prager and J. D. Tamarkin. In addition a dozen lectures each are scheduled for K. O. Friedrichs, R. E. von Mises and S. P. Timoshenko.

This program is supported by the U. S. Government, the Carnegie Corporation and the Rockefeller Foundation; tuition fees are remitted. There is an overwhelming demand from government agencies and industries for men from this school to do research in the mathematics underlying engineering.

Inquiries may be directed to the Dean of the Graduate School, Brown University, Providence, R. I.

## THE COLUMBUS MEETING OF THE AMER-ICAN PHYSICAL SOCIETY

The two hundred and fifty-fourth meeting of the American Physical Society will be held at the Ohio

State University on April 30 and May 1. The departure from the Eastern seaboard is due to the unavailability of Washington and Baltimore, to the fact that the last meeting was in New York and the next one will be in Pennsylvania, and to the courtesy of the Ohio State University in offering its hospitality for the second time in less than four years. The meeting will be held jointly with the Ohio Section of the society and Section F (Physics) of the Ohio Academy of Science. The first session will begin at 10:30 o'clock on Friday morning. The headquarters hotel will be the Deshler-Wallick.

A lecture by Dr. Peter Debye, chairman of the department of chemistry of Cornell University, on "The Magnetic Approach to the Absolute Zero of Temperature" will be given at 8 o'clock on Thursday evening before the Ohio Chapter of Sigma Xi. Contributed ten-minute papers will be given in two sessions—on Friday morning at 10:30 and on Saturday afternoon at 2:00. An invited paper by K. Lark-Horovitz, head of the department of physics at Purdue University, on "Semi-Conductors: Their Properties and Their Uses" will be given on Friday afternoon at 2:00.

A part of the symposium in honor of Galileo (who died in 1642) and Newton (born in 1642), which was arranged by the American Association for the Advancement of Science for its New York meeting of December last and which was abandoned when that meeting was called off, will be given at the Columbus meeting through the courtesy of Professors Henry Crew and Louis T. More, who have consented to make available papers that were originally to have been read at the New York meeting. These will be presented on Friday afternoon, beginning at 3:30. Dr. Crew will speak on "Galileo, the Pioneer Physicist" and Dr. More will discuss "Newton's Philosophy of Nature."

A symposium on applied infra-red spectroscopy will be held on Saturday morning at 10:00. The speakers and their topics are: R. Bowling Barnes, American Cyanamid Company, "Applied Infra-Red Spectroscopy"; J. R. Downing, du Pont Experimental Station, "Applications of Infra-Red Spectroscopy to Chemical Research"; H. H. Nielsen and Ely E. Bell, of the Ohio State University, "Automatic Recording Vacuum Infra-Red Grating Spectrometer."

The annual dinner will be held at the Deshler-Wallick Hotel at seven o'clock on Friday evening, when Dr. Charles F. Kettering, of the General Motors Corporation, will speak on "Looking Forward through Research." Members and guests are requested to make advance reservations by letter or card addressed to Dean Alpheus W. Smith at the Mendenhall Laboratory of Physics, the Ohio State University, Columbus.

The council of the society will meet on Friday morn-