sion under the personal direction of Professors Fermi, Bloch, Goudsmit and Uhlenbeck, at which recent developments of theoretical physics will be discussed. Holders of the doctor's degrees may attend all sessions as guests of the university.

In addition to the symposium proper, the department of physics offers a very complete schedule of graduate courses, with special facilities for research in the following fields: spectroscopy, throughout the entire spectrum from x-rays to the far infrared, chemical analysis by spectroscopic methods, sound, vacuum tube phenomena and high-frequency measurements. For additional particulars and announcements address the director of the Physical Laboratories, University of Michigan.

THE HARVARD SUMMER GRADUATE SCHOOL OF ASTRONOMY

THE summer of 1935 marks the inauguration of the Harvard Summer School of Astronomy which is to meet concurrently with the Harvard Summer School of Arts and Sciences. While, in the past, the department of astronomy has offered instruction in elementary astronomy during the summer and has made available facilities for research under the guidance of members of the staff of the observatory, this reorganization of summer instruction provides particularly an extension of the opportunities for advanced instruction, for the pursuit of research, and for profit from informal conferences and colloquia. At the same time the program of elementary instruction has been extended.

The staff of the department is enlarged during the summer session by a number of visiting astronomers who offer seminars in their special fields, contribute to the informal discussions, and assist in the guidance of those engaged in research.

The equipment available to graduate students at the observatory and at the astronomical laboratory includes:

1. The collection of some 400,000 photographic plates accumulated by means of the many photographic telescopes at the three stations of the observatory—at Cambridge, at Oak Ridge and at the southern station, formerly at Arequipa, Peru, but, since 1927, at Bloemfontein, South Africa.

2. The library containing a complete collection of current journals, publications of observatories and astronomical treatises.

3. The telescopic equipment at Cambridge and Oak Ridge, comprising five visual telescopes with apertures ranging from 15 inches to 6 inches, fourteen photographic refractors with apertures ranging from 16 inches to 1¼ inches, the 24-inch reflector and the 61-inch Wyeth reflector equipped for photoelectric and spectrographic work. The Oak Ridge Station is located in the town of Harvard, 25 miles west of Cambridge, is easily accessible and possesses dormitory facilities for those engaged in observational work and a cottage for recreational purposes.

4. Accessory equipment comprising a Schilt photometer, a Moll microphotometer, a new microdensitometer, measuring machines, star-counting machines and telescopic photometers for use in visual variable-star photometry.

5. A completely equipped machine shop located at the Astronomical Laboratory, available for the use of those engaged in graduate study who desire to experiment in the construction of special apparatus.

Members of the visiting staff include:

Dr. Ira S. Bowen, of the California Institute of Technology, known for his solution of the riddle of nebulium and for his other applications of atomic theory to the prediction and verification of unidentified lines in astrophysical sources.

Dr. Freeman D. Miller, of Denison University, engaged in studies of the structure of the Milky Way on the basis of star counts.

Dr. Peter M. Millman, of the University of Toronto, an authority on meteors and meteor spectra.

Dr. Antonie Pannekoek, of the Astronomical Institute at Amsterdam, known for his studies of the galactic system and in recent years interested in problems dealing with the production of spectral lines in stellar atmospheres.

Dr. Otto Struve, director of the Yerkes Observatory of the University of Chicago, known for his interest in the spectroscopic problems that the stars present and for his contributions to the study of interstellar matter.

Dr. Olin C. Wilson, of the Mount Wilson Observatory, whose work concerns the interpretation of stellar spectra and related astrophysical problems.

PRESIDENT ANGELL AND THE SOCIETY OF EXPERIMENTAL PSYCHOLOGISTS

TRIBUTE was paid to President James R. Angell, of Yale University, as a pioneer and leader in the development of the science of psychology at a dinner given in his honor on April 5 in New Haven by a group of leading psychologists. Professor Walter R. Miles, president of the Society of Experimental Psychologists, in session at Yale, introduced President Angell and called attention to the fact that thirty years ago he became full professor of psychology at the University of Chicago and first head of the department in which many distinguished psychologists have been trained. A correspondent writes:

"For fifteen years President Angell was intensively engaged in experimentation and his scientific contributions are many. He also wrote a text-book on psychology which was the first after that of William James to come into wide-spread use in schools and colleges and to become an important factor in the dissemination of knowledge of psychology. He was for many years editor of *The Psychological Monographs,*

the series of research publications, and he was the fifteenth president of the American Psychological Association.

"With Professor John Dewey, who was at Chicago at the same time, President Angell was largely responsible for shifting the emphasis from the study of the structure and elements of mental life to the process of adaptation of the individual to the environment. President Angell has also long been distinguished as a collaborator and as a lecturer in the field of psychology. In his talk at the dinner President Angell reviewed the tremendous development of psychology in recent decades. He said that the science of psychology and human relations has never been more important from the point of view of the needs of the world than it now is and he urged concentration on the study of motivation as the present greatest concern of civilization."

The Society of Experimental Psychologists was organized as a national professional society of restricted membership at Yale in 1928. It has a membership of forty of whom half were at the meeting, which was devoted to informal discussions of psychological problems. Professor Walter Hunter, of Clark University, a former student of President Angell, was elected president for the coming year. The eighth annual meeting, next year, will be held at Clark University.

SCIENTIFIC NOTES AND NEWS

PROFESSOR FRANK SCHLESINGER, director of the Yale University Observatory, will preside over the biennial congress of the International Astronomical Union which will be held at Paris from July 9 to 17.

HONORARY doctorates of laws will be conferred in June by the University of Edinburgh on Dr. M. M. Ogilvie Gordon, geologist; on Professor J. G. Kerr, Regius professor of zoology at the University of Glasgow; on Professor J. Laird, Regius professor of moral philosophy at the University of Aberdeen, and on Dr. Alfred N. Richards, professor of pharmacology at the University of Pennsylvania.

SIR JAMES HOPWOOD JEANS has been nominated for election to a newly established chair of astronomy in the Royal Institution, London.

DR. CLARK WISSLER, curator-in-chief of the department of anthropology at the American Museum of Natural History, was elected dean of the scientific staff at a meeting of the council held on April 1. Dr. H. E. Anthony, curator of the department of mammalogy, was elected secretary of the council.

THE Distinguished Service Gold Medal of the National Foundation of Optometry has been awarded to Dr. Theodore A. Brombach, lecturer in optometry at the University of California, for his work on color field studies. The medal was presented by Dr. Karl T. Compton, president of the Massachusetts Institute of Technology.

IN recognition of "distinctive service for twenty-five years" as dean of the School of Pharmacy of Purdue University, Dr. C. B. Jordan was recently presented with an illuminated parchment by members of the faculty of the school and with a gold watch by J. K. Lilly, Sr., a member of the board of trustees of the university. The presentation took place at a banquet given at the close of the fifth annual Druggists' Business Conference. Tributes were paid to Dr. Jordan in a series of three-minute addresses made by Dr. Robert P. Fischelis, president of the American Pharmaceutical Association, representing the nation; F. V. McCullough, Indianapolis, secretary of the Indiana Pharmaceutical Association, and E. A. O'Harrow, Bloomington, president of the Indiana Board of Pharmacy, representing the state, and Dr. E. C. Elliott, president of the university.

THE American Chemical Society announces that the first Eli Lilly and Company award in biological chemistry, carrying $1,000 in cash and a bronze medal, will go to Dr. Willard M. Allen, of the University of Rochester. Dr. Allen, who is only thirty years old, receives the prize for the preparation and chemical purification of the sex hormone progestin. The presentation will be made at the eighty-ninth meeting of the society in New York during the week of April 22, when Dr. Allen will read a paper on his research work. Professor Edward Bartow, of the State University of Iowa, president-elect of the society, was chairman of the committee of award. Other members were: H. T. Clarke, Columbia University; L. J. Henderson, Harvard University; W. R. Bloor, University of Rochester; H. B. Vickery, Connecticut Agricultural Experiment Station; P. A. Shaffer, Washington University, and D. D. Van Slyke, the Rockefeller Institute.

THE D'Arsonval Prize has been awarded by the French Society of Electrotherapy and Radiology to Dr. Etienne Hubert Henrard, Belgian physician, for a thesis on "Short Hertzian Waves and Their Medical Applications."

A JOINT meeting of the Louisiana Academy of Sciences with the Louisiana-Mississippi branch of the National Council of Teachers of Mathematics and of the section of the Mathematical Association of Amer-