

PROFESSOR H. A. KRAMERS, University of Utrecht.

*Quantum Mechanics and Classical Models.* (First half.) Vector models for atoms and molecules. Rotation of polyatomic molecules.

PROFESSOR W. F. COLBY, University of Michigan.

*Theory of Band Spectra.* A development of the problem of molecular spectra. This course will cover the recent work, both in classification and theory of radiation from molecules.

PROFESSOR GEORGE E. UHLENBECK, University of Michigan.

*Application of the Theory of Probability in Physics.* This course will contain a detailed treatment of the fluctuation-phenomena, of the theory of Brownian motion, and of their recent applications.

PROFESSOR J. R. OPPENHEIMER, California Institute of Technology.

*General Quantum Theory of Transitions.* (First half.) Methods for investigation of elementary collisions. Interaction between radiation and matter.

PROFESSOR OTTO LAPORTE, University of Michigan.

*Quantum Theory of Atomic Spectra.* A study of the structure of atomic spectra from the theoretical viewpoint. Interaction of electrons within the atom. Laws governing term separations. Hyperfine structure.

### THE BOTANICAL SOCIETY OF AMERICA

THE Botanical Society of America will this year hold two summer meetings: it will participate in the summer meeting of the American Association for the Advancement of Science at Pasadena, California, and it will hold an eastern meeting at Pennsylvania State College, State College, Pennsylvania.

The Pasadena meeting will be held from June 16 to 20. Regular sessions will be held in the mornings beginning on Tuesday, June 16. Excursions to places of special interest will be made in the afternoons.

Botanists will find the Pasadena region full of interest; the parks and gardens abound with tropical and subtropical exotics; the mountains, desert and sea

are easily accessible and exhibit an unusually diversified native flora.

In addition to the afternoon excursions arranged by the association, the Botanical Society will conduct a week-end (June 19-21) field-trip to places of special botanical interest, if enough botanists wish to go.

Those planning to participate in the meetings must forward the title and a short abstract of their papers so as to reach the chairman of the program committee not later than May 4. A request for a lantern, if desired, should also be made at that time.

The chairman of the program committee is Dr. L. R. Abrams, Stanford University, California.

The eastern meeting will be held from Tuesday, June 16, to Friday, June 19. On the evening of the sixteenth there will be a general gathering, followed by an address and an informal reception. The next three days will be devoted to an inspection of the experimental work in botany conducted at the College Experiment Station, to field trips, to round table discussions on various topics, and to demonstrations of scientific material by members of the society. On Thursday there is planned an all-day trip to Bear Meadows and the Alan Seeger Monument. The country around the college is diversified botanically and these trips should be of particular interest.

The meeting will be informal in character throughout and no scientific papers will be presented. Members remaining over for Saturday or the week-end will have opportunity for additional field trips, the privileges of the Country Club, or of cabins in the mountains, with a choice of golf, trout fishing and other diversions.

State College may be conveniently reached by rail, but is most readily accessible by motor car over good roads from all directions.

Suggestions as to topics for discussion and requests for space and apparatus for demonstrations should be sent to the chairman of the local committee, Professor Frank D. Kern.

## SCIENTIFIC NOTES AND NEWS

At the annual meeting of the National Academy of Sciences, in Washington, D. C., an evening lecture will be given on April 27 by Professor James H. Breasted, of the University of Chicago. The subject is "The Rise of Man and the Dawn of Research."

THE John Scott Prize of the City of Philadelphia, consisting of a bronze medal and \$1,000, has been awarded to Orville S. Peters, Chevy Chase, Maryland; for his invention of the electric telemeter. Dr. Peters was from 1910 to 1918 assistant physicist at the Bureau of Standards.

THE doctorate of science will be conferred by the

Georgia School of Technology on Mr. Harry F. Guggenheim "in recognition of his high standing in the scientific engineering and aeronautical fields." The occasion of the conferring of the degree will be the formal dedication at commencement on June 6 of the Daniel Guggenheim School of Aeronautics.

PRESIDENT MASARYK, of Czechoslovakia, has conferred the Order of the White Lion, Fourth Class, on Dr. Frederick G. Novy, professor of bacteriology and chairman of the executive committee of the Medical School of the University of Michigan.

THE French Government has named Jerome Alex-