

Meetings

American Physical Society

1953 Annual Meeting at Harvard

Approximately three hundred contributed papers and seventeen invited addresses on the general program, and an additional eleven invited papers on the programs of three separate symposia, were presented at the annual meeting of the American Physical Society at Cambridge, Massachusetts, January 22-24. Some two thousand physicists registered for the three-day meeting, which was held on the campus of Harvard University and which included programs in theoretical and experimental nuclear, atomic, and molecular physics, the solid state, microwave spectroscopy, cryogenics, magnetic properties, fluid dynamics, biophysics, and a variety of other topics.

Of the special symposia, the first featured three papers (by G. K. Green, H. S. Snyder, and J. P. Blewett) dealing with the Brookhaven cosmotron and with prospective use of the principle of alternate gradient focusing in accelerator design. The Society's Division of Electron Physics presented a symposium of four papers: "Electron Physics in the Upper Atmosphere" (Marcus O'Day), "Studies of Thermally Ionized Gases Produced by Shock Waves" (Arthur Kantrowitz), "Studies in Oxide-Coated Cathodes" (L. S. Nergaard), and "The Strong-Focusing Synchrotron" (M. S. Livingston). The Division of Fluid Dynamics symposium, concerned primarily with boundary layer behavior at high velocities, included papers by G. B. Schubauer, F. H. Clauser, C. C. Lin, and H. W. Liepmann.

Invited papers on the general program of the meeting were given by Francis Bitter, P. W. Bridgman, H. G. Dehmelt, R. H. Dicke, E. L. Hahn, G. R. Harrison, J. A. Hornbeck, G. F. Hull, Sr., P. D. Johnson, A. F. Kip, Gunnar Lindström, H. V. Neher, L. S. Osborne, E. C. Pollard, James Rainwater, Julian Schwinger, and Alexander Zucker.

J. H. Van Vleck's retiring presidential address, presented on the afternoon of January 23rd during the joint ceremonial session of the American Physical Society and the American Association of Physics Teachers, was entitled "Two Barrier Phenomena", and dealt in turn with the deleterious effects of present visa policy upon science and scientists, and with some specific aspects of the behavior of atoms in the ammonia molecule. On the evening of the same day the ballroom of the Hotel Continental in Cambridge was filled to capacity for the banquet of the Society and the Associa-

tion. The after-dinner speaker was J. A. Stratton, vice president and provost of the Massachusetts Institute of Technology, who provided his audience with some penetrating observations on the conditions and limitations of contemporary scientific and engineering education, both in this country and in England. The recently established Oliver E. Buckley Solid State Physics Prize, awarded for the first time at the banquet, was presented to William Shockley of Bell Labs, who responded by producing, apparently from nowhere, a large and brilliant nosegay of feather flowers.

This year's spring meeting of the Physical Society will take place in Washington, D. C., April 30th through May 2nd, with sessions at the two headquarters hotels, the Shoreham and the Wardman Park. Other forthcoming meetings will be held in Rochester, N. Y. (June 18-20), and at Albuquerque, N. M. (September 2-5).

Laboratory Teaching

Discussed at AAPT Annual Meeting

The twenty-second annual meeting of the American Association of Physics Teachers was held, in conjunction with the annual meeting of the American Physical Society, at Harvard University January 22, 23, and 24. Registration and the programs of the first two mornings were held in Burr Hall, the new Harvard building devoted to the interests of the physical science courses in general education. Burr Hall, very modern as regards architecture, has two large lecture rooms, four small conference rooms, some offices, and a "hide-out" where a lecturer may be protected from interruption during those last crucial minutes before a class.

The greatest emphasis in the short papers presented at this meeting was on the underlying philosophy of laboratory teaching and the approaches that have been worked out at various institutions. An introductory round table on the aims and methods of undergraduate laboratory teaching had a panel consisting of V. E. Eaton, H. V. Neher, C. L. Henshaw, and Sanborn C. Brown. Dr. Eaton, of Connecticut Wesleyan, provided a good summation of the topic by stating that the object of laboratory work in physics is neither to make the student into a laboratory technician nor to give him experience with all kinds of equipment nor to teach him fundamental principles *through* the laboratory, but rather to give him an opportunity to share such problems of the research worker as the empirical determination of a relation between various experimentally observed quantities, the emphasis on graphical expression as an important tool, some first-hand acquaintance with the scientific method, and some understanding of errors. Various speakers emphasized the desirability of flexibility in the laboratory program and of the selection of problems, at all levels, which are interesting and challenging. That precludes the type of experiment whereby a well-known law is checked. If possible, every experiment should include an element of surprise. This is worked out differently in the elementary laboratory