

Asa Gray

by A. Hunter Dupree. The leading American botanist of the nineteenth century, Asa Gray, helped to raise the standards of science in America by co-operating with the greatest European scientists of his day—including Darwin, who worked closely with Gray until his death. "Can unhesitatingly be acclaimed as one of the most distinguished contributions to historical scholarship to come out of this Darwinian centennial year."—*N. Y. Times Book Review*

A BELKNAP PRESS BOOK \$7.50

Our Sun

by Donald H. Menzel. Since World War II enormous strides have been made in our understanding of the sun and solar processes. New techniques, such as radio astronomy and rocket study of the ultraviolet spectrum, have been perfected . . . terrestrial nuclear research has helped clarify the manner in which solar energy is generated . . . and new theoretical methods have led to radically new concepts. Here is a fascinating account of these new developments—of special concern to a generation that must solve the practical problems of space exploration. Illustrated.

\$7.50

Proceedings of an International Symposium on the Theory of Switching

Edited by the Staff of the Computation Laboratory, Harvard University. The advent of large-scale digital computers has led to the invention of many new kinds of switches and to an enormous growth in both the variety and number of applications of switching theory. This symposium brings together the results of research in over 140 universities, industrial research organizations, and government agencies. 742 pages, two volumes, 435 illustrations.

\$15.00

Coming this month

APPROACH TO ACHAEOLGY
by Stuart Piggott. A unique work stressing the theory and technique of archaeological investigation. Illustrated.

\$3.00

Harvard

University Press

Cambridge 38, Mass.



term stability disturbance waveform can be observed on an oscilloscope or spectrum analyzer. (Pitometer Log Corp., Dept. Sci228, 237 Lafayette St., New York 12, N.Y.)

■ **OSMOMETER** determines the vapor-pressure lowering of dissolved solutes by comparison of rates of evaporation of unknown and reference solutions. Small drops of solutions are placed in small loops formed by thermocouples. The assembly is placed in a chamber humidified by an aliquot of the reference material, and temperature difference is observed when steady state has been reached (about 15 min). (Rosemount Engineering Co., Dept. Sci229, Minneapolis, Minn.)

■ **AUDIO RESPONSE PLOTTER** provides a continuous single-sweep 20- to 20,000-cy/sec test signal and records test-system output on a 40 db-range logarithmic chart of a pen recorder. The oscillator is directly connected to the recording drum. Sensitivity is sufficient to record signals 40 db down from 10 mv. (Southwestern Industrial Electronics, Inc., Dept. Sci232, 10201 Westheimer Rd., Houston 19, Tex.)

■ **HARDNESS TESTER** is adapted to measurement of radioactive metals by mechanical linkages that extend control functions through the wall of a test cell. Seals on each coupler permit the cell to be isolated from outside atmosphere. Both Knoop and 136-deg diamond pyramid indenters are used with a dual system of weights from 1-to-3000 and 1-to-10,000 gm. Images from the viewing microscope are brought to an eyepiece outside the test cell. A mechanical stage carrying a turntable vise provides accurate traverses in two directions. Vise jaws can accommodate specimens up to 1¼ in. in diameter. The latter must be placed in the vise by mechanical hands or other accessory systems. (American Chair and Cable Co., Dept. Sci236, 929 Connecticut Ave., Bridgeport 2, Conn.)

■ **CLEANLINESS TESTER** assigns numerical values to surface cleanliness where nonbonded soils are involved. Soil is removed from the surface under test by pressure-sensitive tape and the latter is fixed to a microscope slide. Optical density of the composite is measured by the tester which is a densitometer specifically designed for that purpose. Reading is provided by a linear 0-to-1000 scale with accuracy said to be 1/10³. (Branson Ultrasonic Corp., Dept. Sci237, 40 Brown House Rd., Stamford, Conn.)

JOSHUA STERN

National Bureau of Standards,
Washington, D.C.

Letters

Support of Science by College Student Body

Associated student bodies of American colleges and universities have yearly budgets for student activities which may include hundreds of thousands of dollars. Monies generally come from the sale of student-body tickets, from admissions, and from publications. Expenditures include the support of athletics, music and arts, publications, publicity, administrative salaries, and general activities. In so far as is known by us, no student body has budgeted funds for the support of scientific research.

The Associated Student Body of Long Beach State College established a research board composed of students and faculty to further basic research on the campus. The purposes are (i) to provide increased opportunity for students to engage in scientific research; (ii) to increase scientific knowledge; (iii) to provide an activity which is a source of interest, pride, and prestige for the student body as a whole, and for the college; and (iv) to emphasize the need for acquainting the public with the goals and values of basic research.

The primary function of the research board, consisting of four students and three faculty members from the various areas of science, is to approve deserving research proposals submitted by student-faculty teams. Funds may be used for equipment, supplies, or salaries. Projects will be supported for a 1-year period; however, additional funds may be requested.

While the amount budgeted the first year is small (\$1000, representing about 0.6 percent of the total student-body budget), it demonstrates that the undergraduate student realizes the value and the importance of supporting basic research.

DONALD J. REISH
RICHARD B. LOOMIS

Department of Biological Sciences,
Long Beach State College,
Long Beach, California

High-Altitude Observation

I have recently read with great interest the article by R. C. Staley "High-altitude observation techniques" [*Science* **130**, 845 (2 Oct. 1959)]. I would like to make the following comments relative to some recent developments.

1) The altitude limit of the rocket-grenade experiment for temperature

SCIENCE, VOL. 130