

Carrying this theme a step further, Ross Talbot sees the 1960's as "the decade of decision" for which our farm policies are totally inadequate; and he proposes a White House conference on farm policy as a "new and dynamic framework" for dramatizing the problem, reconciling ideological and personality differences among the major farm organizations, and "working out a rational farm policy in terms of our national interest."

Finally, Wallace Ogg turns the spotlight on the Extension Service as an organization that must, because it is the one that can, assume responsibility for bringing about profound nationwide changes in the attitudes of college and university leaders, farmers, and nonfarm people; these changes are required to integrate foreign and domestic policy. "If the Extension Service does not accept this new role it may not be possible to have the kind of foreign agricultural policy that the world situation demands from the United States."

Symposia are *ipso facto* not uniform in quality, but as a whole this one reaches a high level of conception and execution.

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Saturday Science. Andrew Bluemle, Ed. Dutton, New York, 1960. 333 pp. Illus. \$5.95.

Accelerators. Machines of modern physics. Robert R. Wilson and Raphael Littauer. Doubleday, New York, 1960 (available to secondary-school students and teachers through Wesleyan University Press, Columbus 16, Ohio). 187 pp. Illus. Paper, \$0.95.

The current ferment in public education is illustrated by the publication of these books. They represent two of the many recent programs aimed at improving high-school science education. In addition, their availability to the general public illustrates the way in which many of these programs are growing in scope, influencing other levels of formal and informal education.

Saturday Science is a compilation of articles by scientists from the Westinghouse Research Laboratories. In recent years, Westinghouse has invited many outstanding high-school seniors to at-

tend a series of Saturday morning lectures by staff scientists who discuss their own research fields. The students are considered to be members of the Westinghouse Science Honors Institute.

A group of the Saturday morning lectures have been rewritten for this book. Although the origin sometimes shows, for on many occasions the reader misses the exciting demonstrations which must have illustrated the sessions, the translation into printed form succeeds well.

The book is divided into two parts. The first (9 chapters), called "Some principles," has subjects ranging from radioactivity to the chemistry of solids to propulsion. The second part, entitled "Some techniques," considers mathematical and experimental methods for scientific study.

The book jacket announces that a new series of educational television programs, "Lab. 30," is being based in part on *Saturday Science*. The television series should benefit from the scientific competence of the contributors to the book.

By now, most scientists have heard of the exciting, controversial work of the Physical Science Study Committee. Their reworking of the high-school physics course has encompassed a new textbook, laboratory materials, films, and a series of monographs on special topics in physics. Their ideas are filtering upwards and downwards in our educational system, influencing course content and presentation in colleges and universities and in the lower grades of public schools.

Characteristically, the monographs in the "Science Study Series" are intended for the general public as well as for students. Almost 100 volumes are planned, all on topics within or relevant to physics, and all written by experts. [For reviews of published volumes see *Science* **130**, 616 (1959) and **131**, 219 (1960)]. *Accelerators* is a fine example of the excellence of the series. Wilson is the director of the Laboratory of Nuclear Studies at Cornell University, and Littauer is one of his colleagues. Both have had extensive experience in the design of accelerators and in their use in significant experiments.

The book begins with a discussion of why physicists need high-energy accelerators, and it proceeds to give a historical account of their development, always clarifying the physical principles employed. It discusses the

Cockcroft-Walton machine, the Van de Graaff accelerator, the other linear accelerators, and the many circular machines. The limitations of the various accelerators are indicated along with the techniques which overcome some of the limitations. The book concludes with a discussion of acceleration on a grander scale—that which produces cosmic rays.

Accelerators is well-written and should prove understandable to anyone with a command of only elementary physics. By having the reader concentrate in detail on a single topic, the book should present him with additional perspective on the broad range of physical principles relevant to a penetrating study in a special field.

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Pasteur and Modern Science. René Dubos. Doubleday, New York, 1960 (available to secondary-school students and teachers through Wesleyan University Press, Columbus 16, Ohio). 189 pp. Illus. \$0.95.

This book is a tribute to the man as well as a critical study of the life and accomplishments of one of the most celebrated and dedicated scientists of all time, Louis Pasteur. The author has met with a large measure of success in his endeavor to explain the influence of Pasteur's contributions upon the development of scientific progress in his own time and its continuing influence upon modern research.

René Dubos discusses how Pasteur moved forward in a logical sequence from his studies of crystals to his research on fermentation. The unchallenged evidence of his experiments overthrew the theory of spontaneous generation—a triumph that gave rise to modern microbiology and bacteriology. The author then elaborates on pasteurization, and he follows this with a detailed, fresh approach to Pasteur's theories on contagious diseases. These theories helped to expand researches in this field to include what Dubos beautifully and accurately calls "the domestication of microbial life." Dubos emphasizes Pasteur's awareness of the possibilities of controlling and destroying infective microorganisms not only by acting directly on them in their modified environment in the host body