

ics, but he covers the work of Kepler and Newton and the principles of modern, man-made satellite flight. An interesting and detailed description of one particular satellite flight, that of Explorer I, is the subject of Heller's lecture. The most technical account in the book is Ehrcke's detailed mathematical analysis of satellite motion; King's discussion of the known data concerning the atmospheres of Venus and Mars is also technical. Simon gives an interesting description of biological physics, and includes a fascinating description of his own balloon flight to an altitude of approximately 90,000 feet. The series concludes with Levitt's stimulating discussion of the future space possibilities of fission, fusion, and solar energy (solar-sailing and photon-rockets are included); the strange relativistic effects that will occur at speeds approaching the speed of light are also considered.

The eminent scientists who delivered these lectures seem to have made a serious effort to get information across to the nonexpert. In almost all cases, they have succeeded well in accomplishing this challenging task. The level of most of the articles is about right for most of the readers of *Science*, and the book should merit their attention.

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**A Treasury of Science.** Harlow Shapley, Samuel Rapport, and Helen Wright, Eds. Harper, New York, ed. 4, 1958. xiii + 776 pp. Illus. \$6.95.

Anthologies are difficult books to review because the reviewer must exercise a considerable amount of personal and subjective judgment. Either he likes the selections the compilers have included in their book or he doesn't. If the latter, he can always compile his own.

Some years ago I indicated that I liked the *Treasury of Science* [*Science* **104**, 430 (1946)]. Two editions later, I still find the book rewarding reading.

Arranged by large topics with numerous subdivisions, the book treats of science and the scientist, the physical world, the world of man, and the rocket and the atom. It is, of course, not possible to list all of the authors included in this scientific smorgasbord. Suffice it to suggest, therefore, that the interested

reader will find tidbits from the writings of Sir J. Arthur Thomson, Patrick Geddes, Albert Einstein, Alan Gregg, and Ivan Pavlov. He will also find selections from Copernicus, Galileo, Newton, Bacon, Darwin, and Huxley.

Although most of the material appeared in the earlier editions, several new sections bring the book closer to today's newspaper headlines. Thus, there is a report on radio astronomy by A. C. B. Lovell, George Wald writes on the origin of life, and Warren Weaver reviews some of the thinking on the genetic dangers of fallout.

In summary, with this new edition *The Treasury* has attained the status of a classic and deserves to be read as well as quoted.

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**Air Pollution Control.** W. L. Faith. Wiley, New York; Chapman and Hall, London, 1959. vii + 259 pp. Illus. \$8.50.

This book is intended for those with technical training who are not specialists in the field of air pollution, as well as for intelligent laymen. It is not intended for those seeking a comprehensive treatise on air pollution, for it does not go into any particular phase of air pollution from a fundamental standpoint.

The introductory chapter describes the most important problems of air pollution somewhat superficially. It is surprising that, in the discussion of property damage, there is no mention of the damage to masonry and statuary which occurs in England.

The chapter on meteorology covers general factors that influence the stability of polluted atmospheres. A discussion of smoke problems is followed by a chapter dealing with other particulate materials such as dusts, fumes, and mists. Typical data showing the sources of dustfall and the concentrations encountered in various areas where air pollution exists are given. This material includes a section on sampling and the appraisal of stacks for dusts and fumes as well as brief descriptions of some instruments. In my opinion, sampling procedures should have been treated separately for all cases. Sampling and its concepts assume certain knowledge

which is not readily available to the so-called intelligent layman.

The problem of controlling aerosol emissions is discussed in the section on dust, with a brief résumé of the various devices used, after the discussion of sampling. Again, the treatment is descriptive rather than fundamental.

The discussion of gases is similar to the discussion of the particulate problem, with particular emphasis on sulfur dioxide, hydrogen sulfide, and hydrogen fluoride. Again, sampling methods and control are covered by descriptive materials. Odor problems are discussed in a separate chapter.

Because of the author's personal interest in automobile exhaust, and because of the fact that the Los Angeles area has a serious problem in this respect, the discussion of automobile exhaust and its problems is rather complete. The treatment will be useful to those interested in assessing the present status of the Los Angeles problem.

Separate chapters on air pollution surveys and the legal aspects of air pollution complete the book.

An overall appraisal indicates that the author achieved at least one of his objectives. The book presents some concepts of air pollution to individuals with a technical background. I doubt that it will appeal to the intelligent laymen, as Faith presumed it would.

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## New Books

*The ABC of Relativity.* Revised edition edited by Felix Pirani. Allen & Unwin, London; Essential Books, Fair Lawn, N.J., 1959. 139 pp. \$3.75.

*Basic Data on Plasma Physics.* Sanborn C. Brown. Technology Press and Wiley, New York; Chapman & Hall, London, 1959. 344 pp. \$6.50.

*Directory of Nuclear Reactors.* vol. 1, *Power Reactors.* International Atomic Energy Agency, Vienna, Austria, 1959 (order from International Publications, 801 Third Ave., New York). 214 pp. Paper, \$3.50.

*The Exploration of Space.* Arthur C. Clarke. Harper, New York, rev. ed., 1959. 214 pp. \$4.50.

*Exploring the Structure of Matter.* Jean-Jacques Trillat. Translated by F. W. Kent. Interscience, New York, 1959. 214 pp. \$4.85.

*A Field Guide to Bird Songs of Eastern and Central North America.* Houghton Mifflin, Boston, Mass., 1959. 2 records, \$10. The records contain the songs and calls of more than 300 species of land and water birds.