

amphetamines, dextro, levo, and methyl derivative, and their relationships to the natural sympathetic mediators and synthetic relatives. Although there are major chemical and pharmacological qualities common to the entire group, accentuations of the cardiovascular, respiratory, and central nervous effects allow subdivision into these respective types. The amphetamines fit particularly well into the latter division, for they induce wakefulness, lessen fatigue, and lighten mood. In fact, they might be called the charter members of the new psychic energizer society. The mechanism of their action may be in part a blocking of amine oxidase, an enzyme which normally is free to destroy natural sympathomimetic agents, and in part direct stimulation of the normal receptors for the latter agents.

Much attention has been paid to the toxic potentialities of the amphetamines. Ordinarily the hazard is slight, but abuse may lead to excessive fatigue and possibly to mental disturbances. In animals, addiction is possible, though its existence in man is largely one of definition. This is discussed in the last chapter, "Sociological aspects," where both the author's observations in Japan and his broad general interests contribute to a most interesting assessment.

It is a pleasure to note the appearance of this volume on the eve of Chauncey Leake's elevation to the presidency of the American Association for the Advancement of Science. The book is characteristic of an able man of many interests.

WINDSOR CUTTING

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Applied Solar Energy Research. A directory of world activities and bibliography of significant literature. Jean Smith Jensen, Ed. Association for Applied Solar Energy, Phoenix, Ariz., ed. 2, 1959. xxi + 275 pp.

Applied Solar Energy is intended to provide a central catalog of the world literature on applied solar energy and of the activities of laboratories and individuals at present engaged in this area of research.

The scope of the bibliography has been somewhat restricted in this edition. Several related areas—"Control of the sun in architecture, day-lighting,

and . . . the architectural aspects of weather; the influence of the sun on weather; solar physics; and other sources of (unconventional) energy"—have been omitted, and only a few papers on photosynthesis are listed.

In gathering information for the section covering world research activities, questionnaires were mailed to research groups currently or recently engaged in solar research. The activities are grouped alphabetically by country and, for each country, alphabetically by name of the laboratory. The summary for each laboratory includes a brief description of projects completed since 1955 or now under way. In most cases, the scientists active in the program are listed.

The bibliography section is arranged by subject, and there is an author index. Under each subject, the arrangement is chronological; cross references are used. The literature searched included *Chemical Abstracts*, *Physics Abstracts*, *Applied Science and Technology Index*, *Electrical Engineering Abstracts*, *Fuel Abstracts*, and earlier bibliographies in the field. An attempt was made to fill in material published up to the end of 1954 (the cut-off date for the first edition) and to cite papers published since that date.

In the introduction, Farrington Daniels reviews the progress made since 1955 and comments on important advances. Daniels remarks, "Considering all the fields of activity in solar energy utilization that have been reviewed here, it is evident that considerable progress has been made in research and development during the four years since the Arizona Symposia in 1955."

New Books

Biological Psychiatry. Jules H. Masserman, Ed. Grune and Stratton, New York, 1959. 354 pp. \$9.75. The proceedings of the scientific sessions of the Society of Biological Psychiatry held at San Francisco in May 1958. pt. 1, "Neuroanatomy and neurophysiology"; pt. 2, "Clinical research"; pt. 3, "Psychopharmacologic research"; pt. 4, "Drugs in psychiatric therapy"; pt. 5, "Evaluations and discussions."

Chemical Process Principles. pt. 2, *Thermodynamics.* Olaf A. Hougen, Kenneth M. Watson, Roland A. Ragatz. Wiley, New York; Chapman and Hall, London, ed. 2, 1959. 680 pp. \$9.75.

College Arithmetic. W. I. Layton. Wiley, New York; Chapman and Hall, London, 1959. 212 pp. \$3.50.

The Concepts of Sigmund Freud. Bartlett H. Stoodley. Free Press, Glencoe, Ill., 1959. 286 pp. \$6.

Diagnostic Laboratory Hematology.

George E. Cartwright. Grune and Stratton, New York, ed. 2, 1958. 261 pp. \$6.75.

Dictionary of Aeronautical Engineering. J. L. Nayler. Philosophical Library, New York, 1959. 324 pp. \$10.

An Electronic Outline of Organic Chemistry. S. Horwood Tucker. Univ. of London Press, London, 1959. 494 pp. 63s.

The Encyclopedia of Witchcraft and Demonology. Rossell Hope Robbins. Crown, New York, 1959. 571 pp. \$7.50.

Engineering Mechanics Statics. Irving H. Shames. Prentice-Hall, Englewood Cliffs, N.J., 1959. 303 pp. \$4.75.

Exotic Aquarium Fishes. A work of general reference. William T. Innes. George S. Myers, Ed. Innes, Philadelphia, Pa., ed. 19, 1959. 541 pp. \$9.75. Fishes that have proved their worth as aquarium pets are described and illustrated; fishes that cannot be kept in aquariums or that cannot be obtained are excluded. Information on the care of fish is included and chapters are devoted to plants, classification of fishes, and collecting and transporting of fishes.

Extractive Metallurgy. Joseph Newton. Wiley, New York; Chapman and Hall, London, 1959. 539 pp. \$9.75.

Foundry Engineering. Howard F. Taylor, Merton C. Fleming, John Wulff. Wiley, New York; Chapman and Hall, London, 1959. 414 pp. \$9.75.

The Heinz Handbook of Nutrition. A comprehensive treatise on nutrition in health and disease. Published for H. J. Heinz Co. McGraw-Hill, New York, 1959. 449 pp. \$5.75.

Metabolism in the Rumen. E. F. Anni-son and D. Lewis. Methuen, London; Wiley, New York, 1959. 184 pp. \$2.75.

The Moon Car. Hermann Oberth. Translated by Willy Ley. Harper, New York, 1959. 98 pp. \$2.95.

Narcotics. Lingo and lore. J. E. Schmidt. Thomas, Springfield, Ill., 1959. 213 pp. \$4.25.

The Natural Thing. The land and its citizens. Pieter W. Fosburgh. Macmillan, New York, 1959. 263 pp. \$4.75. A collection of essays on conservation. Fosburgh was editor of the *New York State Conservationist* for 10 years; some of the essays are expanded and rewritten material from that publication.

Neuropharmacology. Transactions of the fourth conference, 25-27 September 1957, Princeton, N.J. Harold A. Abramson, Ed. Josiah Macy, Jr. Foundation, New York, 1959. 285 pp. \$5.

New Dimensions of Flight. Lewis Zarem. Dutton, New York, 1959. 256 pp. \$4.50.

Nomography. A. S. Levens. Wiley, New York; Chapman and Hall, London, ed. 2, 1959. 304 pp. \$8.50.

Normal Children and Mothers. Their emotional opportunities and obstacles. Irving D. Harris. Free Press, Glencoe, Ill., 1959. 297 pp. \$6.

University Mathematics. A textbook for students of science and engineering. Joseph Blakey. Philosophical Library, New York, ed. 2, 1959. 581 pp. \$10.

The Vegetation of Wisconsin. An ordination of plant communities. John T. Curtis. Univ. of Wisconsin Press, Madison, 1959. 668 pp. \$7.50.