

of this interesting phenomenon, O'Connell, director of the Vatican Observatory, has provided an excellent book which will be welcomed by scientists and laymen alike. The author lays to rest, gently and finally, the theory which has been supported by many psychologists, and even by some astronomers, that the phenomenon is purely physiological in origin. Excellent color photographs made at the Vatican Observatory, both at sunset and at sunrise, seem to settle the question beyond doubt.

The reproductions of photographs taken by C. Treusch—80 in color and about 140 in black and white—are especially to be recommended. Only a fraction of them are of the green flash, but all of them concern low sun phenomena, notched and banded suns, and so forth—effects of irregular atmospheric refraction near the horizon. The color photographs of the green flash are particularly impressive when one realizes that, on the average, the phenomenon is visible only a few times a month and then only for a second or so. I have seen the green flash many times in the last 20 years, and I have often tried to photograph it in color, but none of my color prints will match the best of Treusch's.

The green flash is not as well known as it should be. It is not to be found in the indices of the elementary astronomy texts on my library shelves, nor is it to be found under "green flash" or "green ray" in recent editions of the *Encyclopedia Britannica* or *Encyclopedia Americana*, although it is included in the *Great Soviet Encyclopedia*. Sea captains, retired after a half century or more of service, have told me that it was only after retirement that they had heard of the green flash and had observed it.

There is an excellent bibliography of 313 entries, in two sections—"Theory" and "Observations." Each of these sections is arranged alphabetically by author. The next generation will doubtless be better informed on the green flash than this one is.

CHARLES H. SMILEY

Ladd Observatory, Brown University

Dairy Cattle, Judging and Selection.

William W. Yapp. Wiley, New York; Chapman and Hall, London, 1959. x + 324 pp. Illus. \$5.95.

In this text on the physical characteristics of dairy cattle, the author portrays associations between type of cattle and milk production. Standards of excellence and common defects in dairy cattle are well portrayed by the illustrations.

A considerable portion of the text is devoted to the author's philosophy concerning the importance of type appraisal and the contributions it has made to the

development of the dairy production industry. The techniques of good judging are thoroughly discussed. Procedures for handling the show ring are set forth clearly.

This book will be of interest to the experienced dairyman, the student, and the newcomer to the field.

R. F. DAVIS

Dairy Department,
University of Maryland

New Books

Abelian Varieties. Serg Lang. Interscience, New York, 1959. 268 pp. \$7.25.

Animal Life. Lorus J. Milne and Margery Milne. Prentice-Hall, Englewood Cliffs, N.J., 1959. 382 pp. \$6.95.

Birth of an Island. Millicent E. Selsam. Harper, New York, 1959. 47 pp. \$2.50 (juvenile book).

The Cellular Slime Molds. John Tyler Bonner. Princeton Univ. Press, Princeton, N.J., 1959. 158 pp. \$4.

The College Influence on Student Character. An exploratory study in selected colleges and universities made for the Committee for the Study of Character Development in Education. Edward D. Eddy, Jr. American Council on Education, Washington, D.C., 1959. 197 pp. \$3.

Constitutional Diagrams of Uranium and Thorium Alloys. Frank A. Rough and Arthur A. Bauer. Addison-Wesley, Reading, Mass., 1959. 159 pp. \$5.

The Content and Style of Oral Literature. Clackamas Chinook myths and tales. Melville Jacobs. Univ. of Chicago Press, Chicago, 1959. 293 pp. \$5.

Curare and Curare-Like Agents. D. Bovet, F. Bovet-Nitti, G. B. Marini-Bettolo, Eds. Elsevier, Amsterdam, Netherlands, 1959 (order from Van Nostrand, Princeton, N.J.). 489 pp. \$15.75.

Elements of Physical Metallurgy. Albert G. Guy. Addison-Wesley, Reading, Mass., 1959. 544 pp. \$9.50.

Family Worlds. A psychological approach to family life. Robert D. Hess and Gerald Handel. Univ. of Chicago Press, Chicago, 1959. 319 pp. \$5.

The Fearful Choice. A debate on nuclear policy conducted by Philip Toynbee. Wayne State Univ. Press, Detroit, Mich., 1959. 112 pp. \$2.50.

Function of the Human Body. Arthur C. Guyton. Saunders, Philadelphia, Pa., 1959. 595 pp. \$7.50.

The Guidance Function in Education. Percival W. Hutson. Appleton-Century-Crofts, New York, 1958. 697 pp. \$6.

Histochemical Technique. W. G. Bruce Casselman. Methuen, London; Wiley, New York, 1959. 205 pp. \$3.25.

A History of Western Morals. Crane Brinton. Harcourt, Brace, New York, 1959. 512 pp. \$7.50.

Immunity and Virus Infection. Symposium held at Vanderbilt University School of Medicine. Victor Najjar, Ed. Wiley, New York; Chapman & Hall, London, 1959. 270 pp. \$10.50.

An Introduction to Advanced Dynamics. S. W. McCuskey. Addison-Wesley, Reading, Mass., 1959. 271 pp. \$8.50.

Introduction to Nuclear Power Costs. Arnold Rochman. Simmons-Boardman, New York, 1959. 50 pp. \$2.95.

Japan, China, and the West. The economics of competitive coexistence. H. Michael Sapor. National Planning Assoc., Washington, D.C., 1959. 79 pp. \$2.

The Logic of Scientific Discovery. Karl R. Popper. Basic Books, New York, 1959. 480 pp. \$7.50.

Methods Based on the Wiener-Hopf Techniques for the Solution of Partial Differential Equations. B. Noble. Pergamon, New York, 1958. 256 pp. \$10.

Méthodes numériques interpolation—dérivées. J. Kuntzmann. Dunod, Paris, 1959. 269 pp. F. 3600.

Millions of Years Ago. Prehistoric life in North America. Edwin H. Colbert. Crowell, New York, 1959. 153 pp. \$2.75.

Mono- and Sesquiterpenoids. vol. II. P. de Mayo. Interscience, New York, 1959. 327 pp. \$7.50.

A New Design for Living. Ernest Holmes and Willis H. Kinnear. Prentice-Hall, Englewood Cliffs, N.J., 1959. 249 pp. \$3.95.

Obligatory and Facultative Insects in Rose Hips. Their recognition and biometrics. Biological Monogr. No. 26, W. V. Balduf. Univ. of Illinois Press, Urbana, 1959. 194 pp.

1001 Questions Answered about the New Science. David O. Woodbury. Dodd, Mead, New York, 1959. 371 pp. \$6.

The Onset of Stuttering. Research findings and implications. Wendell Johnson et al. Univ. of Minnesota Press, Minneapolis, 1959. 254 pp. \$5.

Orbit. A picture story of force and motion. Hy Ruchlis. Harper, New York, 1958. 147 pp. \$2.75.

Organic Peroxides in Radiobiology. R. Latarjet. Pergamon, New York, 1958. 153 pp. \$9.50.

Ozeane Salzlagertstätten. Grundzuge der Entstehung und Metamorphose ozeaner Salzlagertstätten sowie des Gebirgsverhaltens von Salzgesteinsmassen. Hermann Bochert. Gebrüder Borntraeger, Berlin, 1959. 245 pp. DM. 48.

The Plasma Proteins. Clinical significance. Paul G. Weil. Lippincott, Philadelphia, Pa., 1959. 144 pp. \$3.50.

Readings in General Psychology. Paul Halmos and Alan Iliffe, Eds. Philosophical Library, New York, 1959. 260 pp. \$6.

The Scientific Revolution, Challenge and Promise. Gerald W. Elbers and Paul Duncan, Eds. Published in cooperation with the President's Committee on Scientists and Engineers by Public Affairs Press, Washington, D.C., 1959. 288 pp. \$6.

Seeds and More Seeds. Millicent E. Selsam. Harper, New York, 1959. 62 pp. \$2.50 (juvenile book).

The Silent Language. Edward T. Hall. Doubleday, Garden City, N.Y., 1959. 240 pp. \$3.95.

Wasserbestimmung mit Karl-Fischer-Lösung. Ernst Eberius. Verlag Chemie, Weinheim, 1958. 179 pp. DM. 19.60.

What's Wrong with U.S. Foreign Policy. C. L. Sulzberger. Harcourt, Brace, New York, 1959. 255 pp. \$4.50.

The Yearbook of the Royal Society of London. 1959. Royal Society of London, London, 1959. 287 pp.