

ogists, and consequently much is gibberish to anyone else. Illustrations are few and apparently capriciously chosen. Phrases such as "adult downs on apteria only," "secondaries aquitocubital," and "tarsus booted" convey no meaning whatever to me. It is revealing that the vast majority of the words defined in the glossary pertain to birds.

Despite any minor weaknesses, this book should have a long and useful life expectancy. It is a much-needed addition to the everyday working tools of the biologist.

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Modern Applied Photography. G. A. Jones. Philosophical Library, New York, 1957. vi + 162 pp. Plates. \$4.75.

This little book provides a bird's-eye view of the whole field of photography as applied in science, industry, and the arts. Photography here means more than "drawing with light"; it means activating any photosensitive surface, with or without the use of conventional cameras, by means of the whole spectrum of energy. There is hardly a field of investigation, an industry, a business, or an art which does not use photography in some sense. Yet people who already use photography would profit from reading this book. Not only would it extend their horizons but it might stimulate the production of new ideas for new applications in their own fields.

The treatment is functional. Chapters deal with photography as an aid to memory, scientific recording, photography by dim and bright light, recording of color, infrared sensitivity, ultraviolet photography, radiography, atomic particles, recording and analysis of motion, photography in production, and photography as an instructor. The bibliography is skimpy; for example, one of the most significant of the new books, published in 1955, is *Research Films in Biology, Anthropology, Psychology, and Medicine*, (Academic Press, New York); it is not listed. The book might well have been enlarged by the inclusion of additional illustrative examples of the processes described. However, this would have increased its cost.

This is a book of principles to stimulate the imagination, not a book of techniques to follow. Anyone using photography professionally (today this includes everyone) can find a flaw in its coverage. I use time-lapse photomicrography in recording the behavior of animal cells in tissue culture. The book discusses time-lapse photography in the study of plant growth and of the movement of clouds, and in the teaching of patterns in ploughing a field, but, alas,

does not discuss the cinephotomicrography of cells. Indeed, the author goes out of his way to say that the applications of time-lapse recording are very few; this is not in the spirit of the book, which admirably shows that the applications of photography are many.

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New Books

L'Automatique des Informations. Principes des machines (à calculer, en particulier). Opérant sur de l'information. F.-H. Raymond. Masson, Paris, 1957. 185 pp. Paper, F. 1600.

Human Relations and Power. Sociopolitical analysis and synthesis. Albert Mueller-Deham. Philosophical Library, New York, 1957. 441 pp. \$3.75.

The Experimental Control of Plant Growth. With special reference to the Earhart Plant Research Laboratory at the California Institute of Technology. Frits W. Went. Chronica Botanica, Waltham, Mass., 1957 (order from Ronald, New York). 360 pp. \$8.50.

Le Volume Sanguin des Poumons Chez l'Homme. Jacques Lammerant. Editions Arsica, Bruxelles, 1957. 192 pp.

Industrial Electronics Handbook. R. Kretzmann. Philips, Eindhoven, Holland; Philosophical Library, New York, 1957 (ed. 1 translated by Harley-Carter, ed. 2 revised by H. E. Kater and D. J. Mitchell). 305 pp. \$12.

Industrial Electronics Circuits. R. Kretzmann. Philips, Eindhoven, Holland; Philosophical Library, New York, 1957. Translated by D. J. Mitchell. 202 pp. \$10.

Water Waves. The mathematical theory with applications. J. J. Stoker. Interscience, New York, 1957. 595 pp. \$12.

Steinsalz und Kalisalze. Franz Lotz. Borntraeger, Berlin, 1957. 477 pp.

Tire Dynamics. Tire marks and their relationship to vehicle velocity prior to brake application. Andrew J. White. Motor Vehicle Research, Inc., South Lee, N.H., 1956. 282 pp.

Chemistry of the Rare Radioelements. Polonium-actinium. K. W. Bagnall. Academic Press, New York; Butterworths, London, 1957. 189 pp. \$5.

The Fundamental Constants of Physics. E. Richard Cohen, Kenneth M. Crowe, Jesse W. M. Dumond. Interscience, New York, 1957. 299 pp. \$7.50.

Science in Progress. Tenth series. Hugh Taylor, Ed. Yale University Press, New Haven, 1957. 268 pp. \$6.50.

Thermodynamics of One-Component Systems. William N. Lacey and Bruce H. Sage. Academic Press, New York, 1957. 387 pp. \$8.

Progress Report in Chemical Literature Retrieval. Gilbert L. Peakes, Allen Kent, James W. Perry. Interscience, New York, 1957. 229 pp. \$4.75.

Progress in Nuclear Physics. vol. 6. O. R. Frisch, Ed. Pergamon Press, New York and London, 1957. 304 pp. \$14.

Nouveau Traité de Chimie Minérale. vol. III. Group 1a, Rubidium, Césium, Francium; Group 1b, Généralités, Cuivre, Argent, Or. Paul Pascal, Ed. Masson,

Paris, 1957. 850 pp. Paper, F. 6000; cloth, F. 6900.

Functional Analysis and Semi-Groups. Colloquium Publ., vol. XXXI. Einar Hille and Ralph S. Phillips. American Mathematical Society, Providence, R.I., rev. ed., 1957. 820 pp. \$13.80.

Progress in the Chemistry of Organic Natural Products. vol. XIV. L. Zechmeister, Ed. Springer, Vienna, 1957. 385 pp. \$17.85.

Morphology of Plants. Harold C. Bold. Harper, New York, 1957. 692 pp. \$8.

Tratado de Doenças das Aves. vol. 1, *Doenças Produzidas por vírus*; vol. II, *Doenças Produzidas por Bactérias e Fungos*; vol. III, *Doenças Produzidas por Protozoários e Artropódes Parasitas*; vol. IV, *Doenças Produzidas por Helmintos, Doenças da Nutrição, Doenças dos Órgãos e Aparelhos Vícios, Envenenamentos Patologia do Desenvolvimento Higiene, Terapêutica Geral e Cirúrgica.* J. Reis and P. Nóbrega. Edições Melhoramentos, São Paulo, Brasil, ed. 2, 1957. 1553 pp. (4 vols. bound in two).

The Eye Goddess. O. G. S. Crawford. Macmillan, New York, 1957. 168 pp. \$10.

Gazéification et Oxydation des Combustibles. Bases théoriques et réalisations industrielles de la conversion oxydante. Jacques Meunier. Masson, Paris, 1958. 550 pp. Paper, F. 4500; cloth, F. 5200.

Electron Impact Phenomena. And the properties of gaseous ions. F. H. Field and J. L. Franklin. Academic Press, New York, 1957. 358 pp. \$8.50.

The Lipids. Their chemistry and biochemistry. vol. III, *Biochemistry.* Biosynthesis, oxidation, metabolism, and nutritional value. Harry J. Deuel, Jr. Interscience, New York, 1957. 1101 pp. \$25.

Encyclopedia of Chemical Technology. First supplement volume. Raymond E. Kirk and Donald F. Othmer, Eds. Interscience, New York, 1957. 992 pp. \$25.

Liver: Structure and Function. Hans Popper and Fenton Schaffner. Blakiston Div., McGraw-Hill, New York, 1957. 792 pp. \$20.

Van Nostrand's Scientific Encyclopedia. Aeronautics, astronomy, botany, chemical engineering, chemistry, civil engineering, electrical engineering, electronics, geology, guided missiles, mathematics, mechanical engineering, medicine, metallurgy, meteorology, mineralogy, navigation, nuclear science and engineering, photography, physics, radio and television, statistics, zoology. Van Nostrand, Princeton, N.J., ed. 3, 1958. 1846 pp. \$30.

Drying Farm Crops. Carl W. Hall. Agricultural Consulting Associates, Reynoldsburg, Ohio, 1957 (order from Edwards, Ann Arbor, Mich.). 359 pp. \$7.

Nuclear Radiation in Food and Agriculture. W. Ralph Singleton. Van Nostrand, Princeton, N.J., 1958. 391 pp. \$8.50.

The Ashanti. A proud people. Robert A. Lytard. Rutgers University Press, New Brunswick, N.J., 1958. 219 pp. \$5.

Does Man Survive Death? A symposium. Eileen J. Garrett, Ed. Helix Press, New York, 1957. 208 pp. \$3.75.

An Introduction to the Study of Stellar Structure. S. Chandrasekhar. Dover, New York, 1957. 513 pp. \$2.75.