

up a section of their own, are a new feature in flea study and are exquisitely done.

The work is dedicated to Karl Jordan, father and dean of the students of fleas the world over, and friend, companion, and associate of the late N. C. Rothschild. Through the foresight and vision of Rothschild and Jordan the *Catalogue* now becomes possible.

Volume I contains: a foreword related to the history of the Tring Museum and the work of Rothschild and Jordan there; an introduction that covers the scope of this effort, the phylogenetic relationships of the fleas, and a series of other pertinent items; a most extraordinary glossary; a key to the superfamilies and families of fleas; a review of the family Tungidae that covers six species of Tunga, 14 of Hectopsylla, and two of Rhynchopsyllus; a 288-page review of the family Pulicidae that covers 15 species of Echidnophaga, one each of Delopsylla, Juxtapulex, Moeopsylla, Centetipsylla, Nesolagobius, Spilopsyllus, Ornithopsylla, Actenopsylla, Synopsyllus, and Parapulex, two each of Archaeopsylla, Aphropsylla, and Parodontis, three each of Pulex and Cediopsylla, five each of Hoplopsyllus, and Synosternus, six of Pro-caviopsylla, eight of Ctenocephalides, 54 of Xenopsylla. All of these species are keyed, illustrated, and described together with world-wide records. The appendix contains the "deed of gift," dated 27 February 1913, bestowing the Rothschild collection of fleas to the British Museum. There is also a portion of the "last will and testament" of N. C. Rothschild, endowing the collection for the Museum. The index is brief but adequate. Figure 466 is a fold-up map of the world, illustrating the zoogeographical areas. The final 100 pages of the volume are the photomicrographs with their tables of explanation.

As one browses through the pages of the *Catalogue*, one is ever conscious of the presence of the ghost-writers, Nathaniel Charles Rothschild and Karl Jordan, the pioneers of siphonaptery, whose works are here commemorated.

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Quantitative Organic Analysis via Functional Groups, Sidney Siggia. Wiley, New York and Chapman & Hall, London, ed. 2, 1954. 227 pp. Illus. \$5.

The author has expanded by 75 pages the first edition of this brief book on the quantitative determination of functional groups in organic compounds. The introduction of 14 new procedures now makes available clear and concise directions for about 38 functional groups. Minor changes have been made in the methods presented in the first edition, where experience showed that increased accuracy and precision could be obtained. The literature source of each method is given, and the author has indicated the scope and limitations of the procedures.

A brief discussion of the use of phase diagrams for

analyzing mixtures by titration to a turbidimetric end-point has been added. Also, a short discussion, with a good specific example, of the value of functional group determination in the identification of compounds is included.

This book is useful, not only to all analytical chemists but also to research chemists.

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Books Reviewed in THE SCIENTIFIC MONTHLY

August

Arctic Bibliography, vols. 1-3, Arctic Institute of North America (Supt. of Documents). Reviewed by Trevor Lloyd.

Jaarboek, 1952-1953, Koninklijke Nederlandse Akademie van Wetenschappen (Noord-Hollandse Uitgevers). Reviewed by D. ter Haar.

The Living Brain, W. Grey Walter (Norton). Reviewed by Robert H. Oster.

General Virology, S. E. Luria (Wiley; Chapman & Hall). Reviewed by S. Edward Sulkin.

Advances in Virus Research, vol. I, Kenneth M. Smith and Max A. Lauffer, Eds. (Academic Press). Reviewed by G. W. Beadle.

Mitosis, Franz Schrader (Columbia Univ. Press). Reviewed by D. G. Catcheside.

Paying for Medical Care in the United States, Oscar N. Serbein, Jr. (Columbia Univ. Press). Reviewed by Russell V. Lee.

Chemical Methods in Industrial Hygiene, Frederick H. Goldman and Morris B. Jacobs (Interscience). Reviewed by Karl L. Dunn.

Educational Wastelands, Arthur E. Bestor (Univ. of Illinois Press). Reviewed by Fletcher G. Watson.

Energy in the Future, Palmer C. Putnam (Van Nostrand). Reviewed by Warren Weaver.

Keeping and Breeding Aquarium Fishes. C. W. Emmens (Academic Press). Reviewed by Christopher W. Coates.

New Books

Insect Fact and Folklore. Lucy W. Clausen. Macmillan, New York, 1954. xiv + 194 pp. Illus. \$3.50.

A Treatise on Conic Sections. George Salmon. Chelsea Publ., New York, ed. 6, 1954. xv + 399 pp. Illus. Paper, \$1.94; cloth, \$3.25.

The Structure of Metals and Alloys. William Hume-Rothery and G. V. Raynor. Institute of Metals, London, ed. 3, 1954. viii + 363 pp. Illus. + plates. \$5.50.

Learning Theory, Personality Theory, and Clinical Research. The Kentucky Symposium. Donald K. Adams et al. Wiley, New York; Chapman & Hall, London, 1954. ix + 164 pp. Illus. \$3.50.

Optical Image Evaluation. Proc. NBS Symposium held 18-20 Oct. 1951. National Bureau of Standards, Washington, 1954 (Order from Supt. of Documents, GPO, Washington 25). x + 289 pp. Illus. \$2.25.