

These very recent results leave the issue of the resonance theory again in doubt. Nevertheless Wilkes' book is a very well-written account of the atmospheric tidal problem, its empirical results, and its theory. The volume has been well and attractively printed, but it is to be regretted that its price could not have been set considerably lower.

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Reviewed in Brief

Penicillin: Its Practical Application, 2nd ed. Sir Alexander Fleming. London, England: Butterworth; St. Louis, Mo.: C. V. Mosby, 1950. 491 pp. \$7.00.

Only four years have passed since the publication of the first edition of this book. During this time many new antibiotics have been discovered and their virtues heralded. Penicillin, the first member of this group to be described, has unequivocally maintained its position as the best. The present volume is a complete revision and about 100 pages have been added, including four new chapters and two appendices discussing penicillin resistance and, very briefly, the data on aureomycin and chloramphenicol. Sir Alexander was aided in this task by some 33 colleagues, most of whom were active in the preparation of the first edition.

This new volume will be welcomed by the many workers who enjoyed the first edition.

Proceedings of the First Clinical ACTH Conference. John R. Mote, Ed. Philadelphia-Toronto: Blakiston Company, 1950. 607 pp. \$5.50.

In the fall of 1946 a preparation of ACTH (adrenocorticotrophic hormone) was made available for research on the properties of the hormone in man. During the succeeding two years the effect of stimulating the adrenal cortex with ACTH was studied in normal human beings and individuals with obvious endocrine defects by a number of investigators.

The contents of this volume constitute the proceedings of a conference held in Chicago on October 21 and 22, 1949 under the auspices of Armour and Company. The attendance was limited to those workers who had been actively engaged in these studies. There are 52 formal papers with the supplementary discussions. It is perfectly clear from a perusal of these contributions (in some instances only one patient was studied) that they represent merely progress reports. As such, they will be of inestimable value in the planning of future research.

Surface Tension and the Spreading of Liquids. 2nd ed. R. S. Burdon. New York: Cambridge Univ. Press, 1949. 92 pp. \$2.50.

This is a remarkably fine treatment of the phenomenon of spreading of liquids over both solid and liquid surfaces. The author presents much of the pertinent literature, but concentrates on the theoretical aspects of the subject, and his analysis serves to show how rudimentary is our knowledge concerning even the forces which bring about spreading.

The present monograph is a second edition of this book, which originally appeared in 1940 in the Cambridge Physical Tracts series. Chapters 1 and 2 discuss the nature of surface forces and their measurement—a treatment that comprises the usual advanced textbook section on surface tension. Chapter 3, on the surface tension of mercury, is justified by the very considerable lack of agreement among observers as to what the value for the surface tension of Hg actually is. Chapters 4, 5, and 6 are devoted to a consideration of spreading on water and Hg. A number of the more obscure phenomena encountered in spreading studies are analyzed and indeed these chapters are the most useful ones for a reader with some previous knowledge of surface phenomena. Chapter 7 concludes with a consideration of spreading on solids (i.e., lubrication). Such phenomena, in spite of their obvious practical importance, are as poorly understood as spreading over liquids.

Medical Entomology. 2nd ed. Robert Matheson. Ithaca, N. Y.: Comstock Publ., 1950. 612 pp. \$7.50.

The first edition of this well-known text appeared in 1932 and established at once a most enviable reputation. The global aspects of World War II brought millions of people into intimate contact with insects and evoked to a marked degree an appreciation for the role they play in the well-being of mankind. Not only do they transmit bacteria mechanically, as was so beautifully demonstrated for the house fly and typhoid fever during the Spanish American War, but they are hosts to such forms as the etiological agents of filariasis, a disease that threatened members of our armed forces stationed in certain areas of the Far East. The development of insecticides such as DDT and repellants of the phthalate series were outstanding war measures for the protection of troops. These investigations and many others carried out during and since the war have immeasurably advanced our knowledge of insects in relation to diseases of man and animals.

The second edition of *Medical Entomology* has been completely rewritten and contains data available to the end of 1948. The contents are arranged in somewhat the same manner as in the first edition and the final chapter gives simple directions for collecting and preserving insects. The text is recommended to the physician, the public health worker, the medical student, and the layman as an authoritative survey of our present knowledge.

Quantitative Ultramicroanalysis. Paul L. Kirk. New York: John Wiley; London: Chapman & Hall, 1950. 310 pp. \$5.00.

The present volume is intended to summarize the current status of microgram procedures for analyses of all types that have been proved practical and to include the smaller-scale procedures of colorimetry that have been tested. The ten chapters are headed introduction, volumetric apparatus and technique, colorimetry: apparatus and technique, general apparatus and technique, microgram titrimetry, metallic constituents: titrimetric methods, nonmetallic constituents: titrimetric methods, volu-

metric gas methods, spectrophotometric methods, and physical methods. In the closing paragraphs the author points to the importance of an understanding of the chemistry of the cell and injects the sibylline note that there

are no insurmountable problems to prevent the ultimate chemical analysis of single cells.

The book is well written and is highly recommended to the teacher and student alike.



Scientific Book Register

AGRICULTURE

Agricultural Chemistry, A Reference Text; Vol. I: *Principles of Agricultural Chemistry*. Donald E. H. Frear, Ed. New York: D. Van Nostrand, 1950. 812 pp. \$9.00.

Advances in Agronomy, Vol. I. A. G. Norman, Ed. New York: Academic Press, 1949. 439 pp. \$7.50.

Plant Disease Handbook. Cynthia Westcott. New York: D. Van Nostrand, 1950. 746 pp. \$7.50.

Soils: Their Physics and Chemistry. A. N. Puri. New York: Reinhold, 1949. 550 pp. \$7.00.

BIOLOGY

Traité de Zoologie: Anatomie, Systématique, Biologie: Oiseaux, Vol. XV. Paris VI^e: Masson et Cie, 1950. 1164 pp. 6000 fr.

The Nature of Natural History. Marston Bates. New York: Charles Scribner's, 1950. 309 pp. \$3.50.

A History of Biology: A General Introduction to the Study of Living Things. Rev. ed. Charles Singer. New York: Henry Schuman, 1950. 579 pp. \$5.00.

Vom Molekül zur Organismenwelt: Grundfragen der Modernen Biologie. 2nd rev. ed. Ludwig von Bertalanffy. Potsdam, Germany: Akademische Verlagsgesellschaft Athenaion, 1949. DM 6.60.

Siphonaptera from Central America and Mexico: A Morphological Study of the Aedeagus with Descriptions of New Genera and Species. Robert Traub. Chicago: Chicago Natural History Museum, 1950. 127 pp. and 54 plates. \$4.00.

Botany: A Textbook for Colleges. 2nd ed. J. Ben Hill, Lee O. Overholts, and Henry W. Popp. New York: McGraw-Hill, 1950. 710 pp. \$5.00.

The Use of Auxins in the Rooting of Woody Cuttings. Kenneth V. Thimann and Jane Behnke-Rogers. Peterborough, Mass.: Harvard Forest, 1950. 344 pp. \$1.10 incl. postage.

Flore du Congo Belge et du Ruanda-Urundi: Spermatophytes. Vol. I. Bruxelles, Belgium: Institut National pour l'Étude Agronomique du Congo Belge, 1948. 446 pp. 300 fr.

Textbook of Physiology. 10th ed. William D. Zoethout and W. W. Tuttle. St. Louis, Mo.: C. V. Mosby, 1949. 710 pp. \$4.75.

The Theory of Inbreeding. Ronald A. Fisher. Edinburgh-London: Oliver and Boyd, 1949. 120 pp. 10/6 net.

Vegetable Gums and Resins. F. N. Howes. Waltham, Mass.: Chronica Botanica; New York: Stechert-Hafner, 1949. 188 pp. \$5.00.

CHEMISTRY

Technique of Organic Chemistry: Heating and Cooling; Mixing; Centrifuging; Extraction and Distribution; Dialysis and Electrodialysis; Crystallization and Recrystallization; Filtration; Solvent Removal, Evaporation, and Drying, Vol. III. Arnold Weissberger, Ed. New York: Interscience, 1950. 661 pp. \$10.00.

Elastomers and Plastomers: General Theory, Vol. I. R. Houwink, Ed. New York-Amsterdam: Elsevier Publ., 1950. 495 pp. \$7.00.

The Physical Chemistry of Electrolytic Solutions. 2nd ed. Herbert S. Harned and Benton B. Owen. New York: Reinhold Publ., 1950. 645 pp. \$10.00.

Anleitungen für die Chemische Laboratoriumspraxis: Chemische Spektralanalyse, Vol. I. Wolfgang Seith and Konrad Ruthardt. British Sector, Berlin: Springer-Verlag, 1949. 173 pp. DM 16.50.

Physical Methods in Chemical Analysis, Vol. I. Walter G. Berl, Ed. New York: Academic Press, 1950. 664 pp. \$12.00.

Chemie der Phenolharze. K. Hultsch. Berlin W35, Germany: Springer-Verlag, 1950. 193 pp. DM 22.60.

Dissociation Energies and Spectra of Diatomic Molecules. American ed. A. G. Gaydon. New York: Dover Publ., 1950. 239 pp. \$3.95.

Unfamiliar Oxidation States and Their Stabilization. Jacob Kleinberg. Lawrence, Kans.: Univ. Kansas Press, 1950. 131 pp. \$3.00.

Advances in Catalysis and Related Subjects, Vol. II. W. G. Frankenburg, V. I. Komarewsky, and E. K. Rideal, Eds. New York: Academic Press, 1950. 292 pp. \$6.80.

Introduction to Semimicro Qualitative Chemical Analysis. Rev. ed. Louis J. Curtman. New York: Macmillan, 1950. 391 pp. \$3.50.

General Chemistry. P. W. Selwood. New York: Henry Holt, 1950. 681 pp. \$4.60.

Fundamentals of Detergency. William W. Niven, Jr. New York: Reinhold Publ., 1950. 256 pp. \$5.50.

A Chemistry of Plastics and High Polymers. Patrick D. Ritchie. London: Cleaver-Hume Press; New York: Interscience, 1949. 288 pp. \$4.50.

Physical Chemistry of the Hydrocarbons, Vol. I. Adalbert Farkas, Ed. New York: Academic Press, 1950. 453 pp. \$8.50.

Colloid Science: Reversible Systems, Macromolecular and Association Colloids, Vol. II. H. R. Kruyt, Ed. New York-Amsterdam: Elsevier Publ., 1949. 753 pp. \$11.50.