

ume of this series is highly timely. The present volume is composed of 10 articles written by 12 contributors, four British and eight American, each of whom has been engaged for a number of years in work related to the topic he deals with.

In the introduction, the background and general picture of Protozoa as biochemical and phylogenetic tools are discussed interestingly. "Comparative biochemistry of flagellates" reviews the nutritional requirements and chemistry of some of the organelles of certain mastigophorans. The third article brings to light all available information on the synthesis of starch in *Polytomella*. Nutrition and metabolism of free-living ciliates are discussed in the fourth and sixth chapters, while the relationships of the rumen ciliates to ruminants and of xylophagous flagellates to termites and woodroach are reviewed in the seventh article. The ninth chapter deals with the present state of our knowledge of the chemotherapy of malaria and other diseases caused by hemozoic protozoans. The last article on comparative studies on amebas and amebicides considers free-living and parasitic amebas with special reference to *Entamoeba histolytica*.

The organization and presentation are excellent. References are abundant and up to date. Typographical errors are remarkably small in number and of minor character. For example, "*A. quadrimaculatus*" (the genus name should have been given fully) following "*Aedes aegypti*" (p. 228) appears in the index as "*Aedes quadrimaculatus*" (p. 363). This book is an excellent summation of the present state of biochemistry in relation to certain protozoans. It, like the first volume, makes a highly useful reference book and guide for those who are or intend to be students of protozoology and biochemistry.

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Ciba Foundation Symposium on Chemistry and Biology of Pteridines. G. E. W. Wolstenholme and Margaret Cameron, Eds. Little, Brown, Boston, 1954. xiv + 425 pp. Illus. \$8.

The Chemistry and Biology of Pteridines is an account of a symposium on pteridines sponsored by the Ciba Foundation. This symposium consisted of 29 participants who had been invited by this foundation both to present formal papers and to contribute to informal discussion on the chemistry and biochemistry of this interesting class of compounds. This volume represents the first printed account of a symposium of this

type, and the 28 papers contained in it are indicative of the wide scope of work involved. The book is divided into two parts: the first part contains 16 papers on the chemistry of pteridines, and the second part has 12 papers dealing with the biological aspects.

The reader will find the book to be interesting partly because of the wide variety of subjects covered and the interesting nature of the informal discussion. The section on the chemistry of these compounds may not prove to have as wide an interest as those dealing with their biochemistry. The biochemical subjects discussed will be of interest to all students of biochemistry in view of the fundamental role that is played by folic acid and its derivatives in metabolism.

This book will prove of value to the biochemist, because it gives an over-all picture of the occurrence of these compounds, which are widely distributed in nature both as pigments whose functions are unknown and as essential parts of enzyme systems. The biological importance of many of these compounds remains unknown, and it is reasonable to expect that this book will stimulate more research on this interesting class of compounds.

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Chemisorption. B. M. W. Trapnell. Academic Press, New York; Butterworths, London, 1955. vii + 265 pp. Illus. \$6.80.

During the past 15 years there has been a great deal of important new work concerned with chemisorption on solids. As the author explains, this monograph was written to fill a gap in the existing literature on the subject in which neither a selective nor an exhaustive treatment is to be found. The happy result has been a lucid and concise exposition on chemisorption which is a delight to read and a model for scientific writing.

Particular effort appears to have been made to discuss numerous recent developments. The thoroughly up-to-date character of the book becomes immediately evident on examination of the literature references. More than half of all the scientific papers drawn upon in the text have appeared since 1940. Such topics as the application of the field emission microscope to investigations of the mobility of adsorbed layers, the relevance of Pauling's new theory of metals to the interpretation of their catalytic activity, and the role of the semiconductor properties of several oxides in the decomposition of N_2O are touched upon.

By an admirable economy in style and in organization, the abundant material on chemisorption is compressed into 10 chapters requiring fewer than 300 pages. Yet very little seems to have been omitted, and a nice balance is maintained in the presentation of experimental detail and theory. Space is even found to illustrate the bearing of chemisorption on heterogeneous catalysis, as is evidenced by the last two chapters on catalytic specificity and on the mechanisms of catalytic reactions. There is hardly a doubt that this attractive little book affords an excellent introduction to chemisorption for the nonspecialist reader. For the specialist, this work will be important because a leading investigator in the field attempts to summarize the position today of our understanding of the chemical interactions of atoms and molecules with solid surfaces.

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The Skin, a Clinicopathologic Treatise.

Arthur C. Allen. Mosby, St. Louis, 1954. xv + 1048 pp. Illus. + plates. \$25.

The purpose of this book, according to the author, is to effect a better understanding between dermatologists and other practitioners of medicine. For those interested in dermatology and sufficiently familiar with histopathology, A. C. Allen certainly presents an extraordinarily well-prepared treatise and this in a field where unanimity of opinion is the exception. He chose the atlas type much like his monograph *The Kidney* in 8½ by 11½ in. format. Every chapter has an ample bibliography—in all there are more than 2000 references. Wherever systemic changes occur, aside from those in the skin, Allen describes and illustrates them lavishly, in this way linking the experience of the dermato-histopathologist with that of the general pathologist. He also gives excellent group discussions of entities in which his experience as a pathologist will stimulate dermatologic thinking.

His criticism of dermatologic terminology is shared by dermatologists. Correcting it will take much study and international cooperation, for which there has been no opportunity during the past 15 years. He offers no suggestions himself.

The field of allergic and eczematoid eruptions is not clearly presented, and at times Allen's remarks are at variance with generally accepted terminology and conceptions.

In covering therapy, the author is sometimes adequate. Frequently he confines himself to the newest and least tried medications that have not been generally

accepted. This refers especially to the use of steroids and antibiotics.

A little less than one-third of the book is devoted to tumors of the skin, and this part especially is liberally illustrated with clinical and microphotographs. The author has had an unusual opportunity to select cases from various hospitals and the Armed Forces Institute of Pathology and shows great skill in utilizing his material. Every phase has been well covered, the discussion of the pathology is clear and to the point, and the therapy follows the latest accepted principles.

The book as a whole shows superior technical execution. The photography is splendid, and the reproductions are without flaws. It deserves to be a reference volume in every hospital library and every pathologist's office, but trainees in dermatology will also greatly appreciate it.

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New Books

Agricultural Regions of the United States. Ladd Haystead and Gilbert C. Fite. Univ. of Oklahoma Press, Norman, 1955. 288 pp. \$4.

Quantitative Spectrochemical Analysis of Silicates. A scheme of quantitative dc arc analysis of the silicate minerals, rocks, soils and meteorites. L. H. Ahrens. Pergamon Press, London; Addison-Wesley, Cambridge, Mass. 1955. 122 pp. \$3.75.

Laboratory Identification of Pathogenic Fungi Simplified. Elizabeth L. Hazen and Frank Curtis Brown. Thomas, Springfield, Ill., 1955. 108 pp. \$5.50.

Brazing Manual. Committee on Brazing and Soldering, American Welding Soc. Reinhold, New York; Chapman & Hall, London, 1955. 193 pp. \$4.75.

Cardiolipin Antigens, Preparation and Chemical and Serological Control. WHO Monogr. No. 6. Mary C. Pangborn, J. O. Almeida, F. Maltaner, A. M. Silverstein, and W. R. Thompson. World Health Organization, Geneva, ed. 2, 1955 (Distr. by Columbia Univ. Press, New York). 52 pp. Paper, \$1.25.

Real Projective Plane. H. S. M. Coxeter. Cambridge Univ. Press, ed. 2, 1955. 226 pp. \$4.75.

Handbook of Private Schools. An annual descriptive survey of independent education. Porter Sargent, Boston, ed. 36, 1955. 1252 pp.

The Liver and Cancer. A new cancer theory. Kasper Blond. Wright, Bristol, Eng., 1955 (Distrib. by Williams & Wilkins, Baltimore). 220 pp. \$6.50.

Eternal Energies. John H. Ward. Richard Smith, Rindge, N.H., 1955. 286 pp. \$3.50.

Clinical Toxicology. Clinton H. Thienes and Thomas Haley. Lea & Febiger, Philadelphia, rev. ed. 3, 1955. 457 pp. \$6.50.

Introduction to Chemical Pharmacology. R. B. Barlow. Wiley, New York; Methuen, London, 1955. 343 pp. \$6.25.

Society and Medicine. Lectures to the Laity, No. XVII. Iago Galdston, Ed. International Universities Press, New York, 1955. 131 pp. \$3.

Harmonic Analysis and the Theory of Probability. Salomon Bochner. Univ. of California Press, Berkeley, 1955. 176 pp. \$4.50.

Geologische Bau der Sudamerikanischen Kordillere. Heinrich Gerth. Gebruder Borntraeger, Berlin, 1955. 264 pp. DM. 52.50.

Elements of the Theory of Real Functions. J. E. Littlewood. Dover, New York, rev. ed. 3, 1954. 71 pp. Paper, \$1.35; cloth, \$2.85.

Scientific and Technical Societies of the United States and Canada. Natl. Acad. of Sciences-Natl. Research Council, Washington, ed. 6, 1955. 441 pp. \$7.50.

Grundlagen der Analytischen Chemie und der Chemie in Wässrigen Systemen. Fritz Seel. Verlag Chemie, GMBH Weinheim/Bergstrasse, Germany, 1955. 348 pp. DM. 29.

College and University Business Administration. vol. 2. Natl. Committee on the Preparation of a Manual on College and University Business Administration. American Council on Education, Washington, 1955. 267 pp. \$4.50.

Schools of Psychoanalytic Thought. An exposition, critique, and attempt at integration. Ruth L. Munroe. Dryden Press, New York, 1955. 670 pp. \$7.50.

Fundamental Fundamentals. Albert Brill. Philosophical Library, New York, 1955. 199 pp. \$3.75.

General Chemistry Workbook. Conway Pierce and R. Nelson Smith. Freeman, San Francisco, 1955. 255 pp. \$1.65.

Rome beyond the Imperial Frontiers. Mortimer Wheeler. Philosophical Library, New York, 1955. 192 pp. \$7.50.

Altes und Neues über konvexe Körper. Band III. H. Hadwiger. Birkhäuser, Basel, Switzerland, 1955. 115 pp. F. 13.50.

A Dictionary of Terms in Pharmacognosy and Other Divisions of Economic Botany. George Macdonald Hocking. Thomas, Springfield, Ill., 1955. 284 pp. \$9.75.

Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

Boletín Técnico. No. 7, *Segunda Contribución al Estudio de la Biología Floral de la Vid* en Mendoza, Pedro A. Zuluaga and Enrique Zuluaga; No. 8, *Materiales para la Biología de Margarodes Vitium Giard (Homop. Sternorrhincha) Parasito Radicular de la Vid* en Mendoza, Adrian Ruiz Leal; 85 pp. No. 9, *Determinación de Expresiones Vegetativas en Vid y su Aplicación en el Análisis de Ensayos Culturales*, Jose Vega and Juan M. Fox, 27 pp. No. 10, *Estudio Comparativo de Levaduras Champaneras*, Robert Vega, 40 pp. Universidad Nacional de Cuyo, Mendoza, Argentina, 1954.

Computer Directory, 1955. Computers and Automation, vol. 4, no. 6. Berkeley Enterprises, Inc., New York 11, 1955.

Graduate Theses 1944-1954. Comp. by Genevieve L. Reidy. College of Forestry, State Univ. of New York, Syracuse, N.Y., 1955. 116 pp.

The Southwestern Corn Borer in Arkansas. Bull. 553. L. H. Rolston. 40 pp. *A Comparison of Silage Preservatives.* Bull. 557. O. T. Stallcup. 16 pp. Agr. Expt. Sta., Univ. of Arkansas, Fayetteville, 1955.

The Sterling Story. Sterling Drug Inc., New York 18, 1955. 38 pp.

The Use of Woodchips and Other Wood Fragments as Soil Amendments. Bull. 593. Herbert A. Lunt. Connecticut Agr. Expt. Sta., New Haven, 1955. 46 pp.

Hospitalization of Mental Patients. A survey of existing legislation. 100 pp. \$1.25. *Alcohol and Alcoholism.* Report of an expert committee. WHO Technical Rpt. Ser. No. 94. 14 pp. \$0.30. *Legislation Affecting Psychiatric Treatment.* Fourth report of the Expert Committee on Mental Health. No. 98. 25 pp. \$0.30. World Health Organization, Palais des Nations, Geneva, 1955.

Experiments on the Possible Relationship between Soil Resistivity and Dowsing Zones. vol. III. S. W. Tromp. Foundation for the Study of Psycho-Physics, Leiden, Holland, 1955. 35 pp.

Study of Half-Chromatid Fragments in Meiosis of the Hybrid Bromus Trinii × B. Maritimus. Publ. in Botany, vol. 28, No. 1. Marta Sherman Walters. Univ. of California, Berkeley, 1955. 13 pp. 35¢.

Associations de Gyrins dans les Etangs et les Lacs du Parc du Mont Tremblant. Adrien Robert. Univ. de Montreal, Montreal, 1955. 78 pp.

Pfizer Spectrum Index. Inserts 54 to 115. Pfizer Laboratories, Brooklyn 6, 1955. 53 pp.

Invariance of Field Theory under Time Inversion. Notas de Física No. 16. J. Tiomno. 24 pp. *Equacao de Proca em Coordenadas Esfericas.* No. 18. Samuel Wallace MacDowell. 9 pp. *Mass Reversal and the Universal Interaction.* No. 19. J. Tiomno. 11 pp. *On the Mechanism of Fission at Very High Energy.* No. 20. Luis Marques. 3 pp. *A Casual Interpretation of the Pauli Equation (A).* No. 21. D. Bohm, R. Schiller, J. Tiomno. 28 pp. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, 1954.

Signs of the Health Times. A condensed report of the public interest portion of the program at the 35th annual meeting of the National Health Council, 23-25 March, New York City. The Council, New York 19, 1955. 64 pp. \$1.

Fenix, Revista de la Biblioteca Nacional. No. 9. Biblioteca Nacional del Peru, Lima, 1955. 438 pp.

Boletín de Extension. No. 8, *Clarificación de los Vinos.* Aquiles Maveroff P. Universidad Nacional de Cuyo, Mendoza, Argentina, 1954. 13 pp.

Proceedings of the XIth General Assembly Held in the Hague from August 23rd to September 2nd, 1954. vol. X, pt. 8. *Administrative Proceedings.* International Scientific Radio Union, Brussels. 125 pp. \$2.

L'Amenagement des eaux douces de la recherche piscicole. R. Vibert. Conseil Supérieur de la Pêche, Paris, 1954. 49 pp.