

There are many typographical errors in the book, and Volta's first name is consistently misspelled. The treatment of discoverers in both text and index is capricious and shows a poor sense of values. The various right- and left-hand mnemonic rules seem more confusing than helpful. The phrase "seat of emf" and the unnecessary neologism "microhm" (sic) are annoying, though terminology is usually treated carefully and sometimes with illuminating asides.

The paper used in the book does not do justice to the half tones, but the page format is pleasingly open and readable.

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***Pure cultures of algae: their preparation and maintenance.***

E. G. Pringsheim. Cambridge, Engl.: At the Univ. Press; New York: Macmillan, 1946. Pp. xii + 119. (Illustrated.) \$1.75.

Students of the algae will welcome the appearance of this valuable little work on the methods and techniques of preparing and maintaining pure cultures of algae. The author's experience over a period of many years, involving thousands of experiments, and his close familiarity with the literature make this book an authoritative account in this little-explored field.

The subject is introduced by an historical summary of the development of culture methods. This is followed by chapters dealing with the choice and use of materials, selection of various liquid and solid media, methods of isolating bacteria-free cells, suggestions for the maintenance and use of pure cultures, and the culture of species belonging to the several taxonomic groups.

The book is especially valuable because of the critical discussion of the advantages and shortcomings of different methods, procedures, and media employed in pure culture work. The use of soil-and-water cultures as a preliminary step in securing bacteria-free cultures is highly recommended. The influence of such factors as temperature, illumination, glassware, and character of the water used in media on the growth of algae is given adequate space.

On the whole, the book is stimulating and suggestive of numerous problems yet to be solved, many of which have an important bearing on the ecological relations in the world of microorganisms.

NOLAN E. RICE

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***A textbook of biochemistry.*** Philip H. Mitchell. New York: McGraw-Hill, 1946. Pp. xv + 640. (Illustrated.) \$5.00.

In about 600 pages of text material the author has included a surprisingly large and well-balanced body of information. Aside from a chapter on photosynthesis and a brief treatment of plant hormones, the emphasis is almost exclusively on animal biochemistry, with a

definite clinical slant. Accordingly, the book would be well suited for medical school courses in biochemistry, but less so for more general courses.

The presentation is, in the main, quite clear. It was felt, however, that for a book of this nature too many names of uncommon substances of minor importance (e.g. robinose, stachyose, brassicasterol, etc.) were included in the early parts of the text, thus making it more difficult for the beginning student to assimilate the "meat" of these sections.

For the most part, the more recent developments in the field up to two years ago have been adequately covered. The newer concepts of metabolism gained through the use of plasmapheresis, isotopes, tissue-slice studies, etc. are well presented. Such rapidly expanding subjects as biological oxidations, chemotherapy, vitamins, hormones, and dietetics have been discussed in a concise, up-to-date manner. No mention is made, however, of the important work of Beadle, Tatum, and others with X-ray-induced mutations of *Neurospora*. These studies have provided valuable information on the intermediary stages of metabolism, and the genetically different strains have proven exceptionally useful for microassays of many vitamins and amino acids.

Relatively few errors, typographical or otherwise, were noted. The author consistently misspells riboflavin, niacin, and biotin by adding a terminal "e" to each. Also, niacin is stated to be synonymous with nicotinic acid and/or its amide; actually, niacin should designate only the acid, whereas the amide is properly termed *niacinamide*. In one instance free (elemental) iodine is called *metallic* iodine.

The book contains many charts and tables and a lesser number of diagrams and photographs. Subject and author indexes are included. Very few references are cited in the text, but at the end of each chapter the author lists various monographs, review articles, and a few selected papers on topics discussed in that chapter.

All in all, this text can be recommended as a readable, up-to-date first course in biochemistry.

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***The principles and practice of tropical medicine.*** L. Everard Napier. New York: Macmillan, 1946. Pp. xvi + 917. (Illustrated.) \$11.00.

World War II has been a great stimulus to the study of diseases in the tropics as well as to the publication of books on tropical medicine. Some have been comprehensive works covering the entire field, by single authors or groups of authors; others have been brief compendiums for rapid reference. Dr. Napier's book comes between these extremes. In his own words, he wishes it considered a textbook for students, practitioners, and public health workers.

The author justifiably explains his omission of smallpox, typhoid fever, tuberculosis, and diseases of the eye, and his inclusion of tularemia and certain cosmopolitan helminthic infections. He has kept the description of

laboratory procedures to a minimum, expecting the student to have textbooks available on this subject.

The background and development of this book are interesting and explain its particular value and its limitations. Dr. Napier was, until 1943, director and professor of tropical medicine of the Calcutta School of Tropical Medicine. There he had worked for over 20 years and had become the recognized authority on the clinical aspects and chemotherapy of kala azar. With the beginning of the war with Japan, he found it necessary to establish a course in tropical medicine for medical officers of the armed forces of Great Britain and the United States who had had no previous experience in this field. His book is largely based on his comprehensive review of tropical medicine at that time. The first volume was published by Thacker, Spink, and Company in Calcutta in 1943. At that time, however, he came to the United States and completed his work here, publishing it in one volume. For this reason, the Calcutta portion of the book was lithographed in the United States with certain minor revisions, and the new part of the work was added in identical type, producing a uniform volume.

The particular value of this work lies in its authorship by a man who has had a very extensive personal experience in a country where many tropical diseases exist. The chapters dealing with these diseases have been written from the point of view of his own experience, which may be considered highly authoritative, particularly from the British point of view. The chapters on diseases not present in India are the result of his extensive review of the literature and personal contact with authorities on those diseases and are also, in general, excellent in their presentation.

The principal limitation of the book is that the Calcutta portion could not be adequately revised to include discoveries made during the war. Such changes as were made had to be inserted in such a way as to cause the least possible change in the text, and in some places are slightly confusing to the reader.

In addition to the infectious diseases, which constitute the great bulk of the text, there are valuable sections on effects of tropical climate on health, on nutrition and nutritional diseases in the tropics, and on snakes and snake bite.

The book is profusely illustrated with maps, charts, line drawings of parasites, life cycles, and photographs, many of which are original. The four colored plates devoted to intestinal parasites, arthropods, malaria, and snakes are in general well done, although a parasitologist would object to the four-nucleate cyst of *Endamoeba coli* and to the omission of the egg of *Schistosoma japonicum*.

The reviewer considers this work one of the most valuable contributions to tropical medicine and feels that it should be a part of every medical library. It should be widely used both as a student textbook and as a guide to practitioners of medicine, both in the tropics and in the temperate zones.

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## Scientific Book Register

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- BERRY, A. J. *Modern chemistry: some sketches of its historical development*. Cambridge, Engl.: At the Univ. Press; New York: Macmillan, 1946. Pp. x + 240. \$2.50.
- CHADWICK, HENRY D., and POPE, ALTON S. *The modern attack on tuberculosis*. New York: Commonwealth Fund, 1946. Pp. 134. (Illustrated.) \$1.00.
- COKER, ROBERT E. (Ed.) *Research and regional welfare*. Chapel Hill: Univ. North Carolina Press, 1946. Pp. xvi + 229. \$3.00.
- COKER, W. C. (Ed.) *Studies in science*. Chapel Hill: Univ. North Carolina Press, 1946. Pp. 375. (Illustrated.) \$3.00.
- CROCKER, E. C. *Flavor*. New York: McGraw-Hill, 1945. Pp. vii + 172. (Illustrated.) \$2.50.
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- GOLD, HARRY. (Ed.) *Cornell conferences on therapy* (Vol. I). New York: Macmillan, 1946. Pp. 322. \$3.25.
- HARRISON, SHELBY M., and ANDREWS, F. EMERSON. *American foundations for social welfare*. New York: Russell Sage Foundation, 1946. Pp. 249. \$2.00.
- HOSKINS, R. G. *The biology of schizophrenia*. New York: W. W. Norton, 1946. Pp. 191. \$2.75.
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- KOPAL, ZDENEK. *An introduction to the study of eclipsing variables*. Cambridge, Mass.: Harvard Univ. Press, 1946. Pp. x + 220. \$4.00.
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- NIELSEN, J. M. *Agnosia, apraxia, aphasia: their value in cerebral localization*. New York: Paul B. Hoeber, 1946. Pp. x + 292. (Illustrated.) \$5.00.
- POWERS, WENDELL H. (Ed.) *Advancing fronts in chemistry*. Vol. II: *Chemotherapy*. New York: Reinhold, 1946. Pp. 156. (Illustrated.) \$3.25.
- RUSSELL, BERTRAND. *Physics and experience*. Cambridge, Engl.: At the Univ. Press; New York: Macmillan, 1946. Pp. 26. \$50.
- SPIER, LESLIE. *Comparative vocabularies and parallel texts in two Yuman languages of Arizona*. Albuquerque: Univ. New Mexico Press, 1946. Pp. 150. \$2.00.