

BOOK NOTICES

Physiology of the Fungi. *Virgil Greene Lilly and Horace L. Barnett.* McGraw-Hill Book Company Inc. New York. First Edition. 1951. xii+464 pp. \$7.50.

The authors have recognized a need for an introduction to the literature as well as an advanced textbook in this much neglected field. As a specialized subject they rightly assume the students familiarity with the structure of fungi and a reasonable background in biological subjects and related sciences.

The discussions of fungal physiology are excellent, though brief. The treatment of the essential metallic elements, vitamins, fungi as test organisms, and action of fungicides and sporulation is especially timely and noteworthy. Excellent reference material is recommended.

The reviewer regrets that in a book of such limited size and great interest, so great a part is devoted to general background information which the authors assume in their introduction that the student already possesses. Reference is made to such topics as units of expressing composition, methods of presenting results, the general treatment of enzymes, carbohydrates, the definition of and determination of hydrogen ion concentration, all of which are available in more complete form in standard physiology texts which the students have undoubtedly studied previous to embarking on this advanced or graduate course.

ATWELL M. WALLACE

Carolina Quest. *Richard M. Saunders.* University of Toronto Press, Toronto, and University of South Carolina Press, Columbia. 1951. First Edition. xi+119 pp. Wood Engravings by *Sylvia Hahn.* \$3.50.

Carolina Quest is a delightful account of a historian-naturalist's trip to South Carolina in search of birds.

This reviewer was greatly impressed by the many picturesque descriptions and comparisons. One has the feeling that the writer has produced a work of especial interest, not so much for its profound scientific value but rather for its feeling. This strange quality arises perhaps from an unexpected admixture of the historical, sociological, and natural history interests of the author.

This book will be of interest particularly to those of us who have a fondness for travel and adventure as release from the tedium of daily routine. It is recommended for classes in ornithology and ecology as collateral reading, and will be welcome addition to every ornithologist's library.

FRED H. GLENNY

French-English Science Dictionary. *Louis DeVries.* McGraw-Hill Book Company. New York, Toronto, London. 1951. Second Edition. xii+596 pp. \$6.50.

This dictionary should prove a very helpful reference work for all students of science and particularly for those preparing for fulfillment of the doctorate foreign language requirements. Inclusion of all scientific terms would of course be a practical impossibility, but a glance through the book makes it apparent that the author has made an excellent choice of entries. The listing of many words which have exactly the same spelling in both languages seems superfluous. The author further underestimates the quality of perseverance of the average science student by stating in the introduction that the average science student would easily give up if he does not find the word he is looking for.

A separate list of terms in aeronautics, electronics, radar, radio and television brings this dictionary up-to-date in these newly developed fields. It would be more advantageous if this supplement were incorporated in the over-all listing. The handy format and the clear print make this a very attractive and useful book for any science student or research man.

NICHOLAS MOGENDORFF

Checklist of palaeartic and Indian Mammals, 1758 to 1946. *J. R. Ellerman and T. C. S. Morrison-Scott.* British Museum, London. 1951. 810 pp. 3 £ 5s.

This checklist is a critical revision of the mammals of the Palaearctic region and the Indian and Indo-Chinese subdivisions of the Oriental region, south of 20° N. in Africa and 10° N. in Malaya, and covers the taxonomic studies from the 10th edition of Linnaeus up to the end of 1946. All of the known references, basic to each species, are included in their proper places. Keys to genera and species are provided wherever they appear to be necessary as aids in identification. Otherwise, the descriptive literature is cited.

Useful and essential in any institution doing taxonomic work with mammals, especially for museums. Mainly a research reference.

FRED H. GLENNY.

World Economic Geography. *George T. Renner, Loyal Durand, Jr., C. Langdon White, and Weldon B. Gibson.* Thomas Y. Crowell Company, New York. 1951. x+758 pp. \$6.50.

This is an interestingly written textbook designed for an introductory course in economic geography or, as the authors prefer, a course in "geonomics." The authors apparently assume that the students who use it will have had a prior course in physical geography.

The book is profusely illustrated with more than 300 photographs and more than 150 maps and other illustrations. The great number of illustrations makes it necessary that many of them shall be small. Most of the pictures and maps serve their purpose well, although a few of the photographs are not well-chosen and some of them conserve space at the expense of clarity.

The book is organized in four parts. The first is brief and consists of a statement of principles and general background. Part 2 considers the industries of the farm, range, forest, and fishery. The organization of most of this part is based on climatic regions. Part 3 deals with minerals and manufacturing and part 4 deals with transportation and commerce. Each section is introduced by a chapter setting forth the principles governing the types of industry taken up in that section.

The book is well-organized and well-written throughout. One fault is its great volume of content—nearly 750 pages. It is too long for anything less than a five-semester-hour course and the relative lengths of its various parts does not favor its use for two three-semester-hour courses. Its use as a text is further handicapped by the great variation in length of chapters, which range from eleven to thirty-four pages. Still, it is a good book for those who can adjust it to their needs.

LOWRY B. KARNES.

A Laboratory Course in Biology. *James C. Adell and Louis E. Welton.* Ginn and Company, New York. 1951. vi+282 pp. \$2.20.

In this book the authors have developed the laboratory or experimental approach to biology to a greater degree than most biology textbooks do. Brief discussions of pertinent facts and principles precede each series of experiments. The experiments are so organized that the student can usually follow through them without reference to other sources of information. However, the experiments are presented in such a way that those students who are really interested will probably be stimulated to do further reading on the various topics. The selection of subject matter is excellent and emphasizes the major phases of biology that affect every-day living. The materials required are generally easily obtainable and within the financial reach of every school. Many items suggested for use can be obtained locally with very little expense. The emphasis throughout the book is on learning by doing. The presentation is refreshingly different from the monotonous work-books and laboratory guides that accompany so many high school and college biology texts. This book offers a challenge to both the teacher and the student to make biology a live and interesting subject.

W. C. STEHR.

Quantitative Chemical Analysis. *Leicester F. Hamilton and Stephen G. Simpson.* The Macmillan Company, New York. Tenth edition, 1952. xvii+529 pp. \$4.50.

The tenth revision of this book, formerly *Talbot's Quantitative Chemical Analysis*, includes discussions of theory, laboratory technique, and stoichiometry in well-balanced proportions. Directions for the analytical determinations, while concise, are sufficient to be followed by the student with a minimum of laboratory supervision.

College Physics. *Robert L. Weber, Marsh W. White, and Kenneth V. Manning.* McGraw-Hill Book Company, Inc., New York. Second edition, 1952. x+820 pp. \$6.50.

This revised second edition of *College Technical Physics* continues the original purpose of the book, namely, ". . . to help students acquire an exact knowledge of basic physical principles and the ability to apply these principles with confidence and facility in the solution of physical problems." The emphasis on problem solving is clearly evident. Calculus notations are avoided in the text, but several important derivations carried out by calculus methods appear in the Appendix.

The Chemistry of Organic Compounds. *James Bryant Conant and Albert Harold Blatt.* The Macmillan Company, New York. Fourth edition, 1952. viii+655 pp. \$5.90.

This is an up-to-date revision of a textbook for the first year's course in organic chemistry.

Principles of Chemistry. *Joel H. Hildebrand and Richard E. Powell.* The Macmillan Company, New York. Sixth edition, 1952. xii+444 pp. \$4.50. (Also available bound with Reference Book of Inorganic Chemistry. *Wendell M. Latimer and Joel H. Hildebrand.* The Macmillan Company, New York. Third edition, 1952. xii+625 pp. \$7.50.)

A textbook which in the authors' words: ". . . does not present one person's notions of how general chemistry should be taught, but is rather the fruit of cooperative effort by members of a large department who have believed that good research and good teaching are equal obligations."

Man and the Biological World. *J. Speed Rogers, Theodore H. Hubbell, and C. Francis Byers.* McGraw-Hill Book Company, Inc., New York. Second edition, 1952. xiv+690 pp. \$5.75.

This new second edition includes a wealth of skillfully drawn illustrations not present in the original text. The book is designed for a one-course presentation of biological principles.

Biology: Its Human Implications. *Garrett Hardin.* W. H. Freeman & Company, San Francisco. Second edition, 1952. xii+720 pp. \$5.00.

As stated by the author: "The viewpoint throughout this work is that science is more than a collection of facts and theories. In a broad sense, science is one of the humanities, and by no means the least of them . . ."

Blakiston's Illustrated Pocket Medical Dictionary. *Normand L. Hoerr,* Editor-in-Chief. The Blakiston Company, Philadelphia. 1952. xvi+1029 pp. Plain, \$3.25; Thumb-Indexed, \$3.75.

A new dictionary with full, unabridged definitions of over 33,000 medical terms. The illustrations are grouped together on 24 pages at the back. Four of the six editors are associated with Western Reserve University.

Functional Anatomy of the Mammal. A guide to the dissection of the cat and an introduction to the structural and functional relationship between the cat and man. *W. James Leach.* McGraw-Hill Book Company, Inc., New York. Second edition, 1952. x+276 pp. \$4.50.

The book is intended to be used with actual laboratory dissections by all students beginning work in anatomy.

Bacteria. *Stanley Thomas and Thomas H. Grainger.* The Blakiston Company, Philadelphia. viii+623 pp. \$5.50.

A completely new text for an introductory course in bacteriology written from a biological point of view. The relationships of bacteria and allied organisms to their environment are stressed. A definitely workable key for classifying bacteria down to genera is included.

A Field Guide to the Butterflies of North America, East of the Great Plains. *Alexander B. Klots.* Houghton Mifflin Company, Boston. 1951. xvi+349 pp. \$3.75.

This new handbook is an addition to the Roger Tory Peterson Field Guide Series. Its composition and illustrations follow the system which proved so successful with Peterson's *Field Guide to the Birds*. Besides bringing butterfly and skipper taxonomy up to date, the book includes much new life history and ecological information about these insects.