

System," "The Circulatory System," "The Respiratory System," "The Alimentary and Excretory Systems," and "The Endocrine System." Both Langley and Cheraskin demonstrate their pedagogic acumen by orienting the reader with nearly 12 pages of basic biological information prior to taking him on an enjoyable academic excursion in the fields of physiology. This serves to orient the student who is approaching his first course in physiology.

Every physiologist has his own way to present physiological facts. The authors, in their unique approach, elected to divorce the usual stockpile of facts from their textbook. In so doing, they present a general view of human physiology; they purposely omit the common disparities; and further, they lean with considerable force upon dogmatic statements. No doubt, some will disagree, while others will hasten to jump to their support. Those who disagree will likewise take sharp issue with them for their omission of all bibliographic references.

The Physiology of Man should be useful without too much restriction in the general education courses that are now in vogue. Further, it seems reasonable that this book should prove to be a worth-while companion for students in the nonlaboratory college courses in human physiology. Now that global events have made man more inquiring of the internal activity of his dynamic body, it seems reasonable to point to this new book as a palatable way in which to satiate man's immediate fulfillment of that desire.

In the final analysis, the methodology employed in the graphic presentation of physiological expressions in this book should be a guide to successful teaching of human physiology. Herein lies a multitude of examples for immediate incorporation into many general, human physiology courses.

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Silicified Middle Ordovician Trilobites. H. B. Whittington and W. R. Evitt, II. Geological Society of America, New York, 1953. 137 pp. Illus. + plates. \$3.

Silicified fossils offer unequaled opportunities for studying structural details, because the specimens can be freed of the surrounding rock by chemical methods. Recent discoveries of silicified trilobites in early Paleozoic strata of the Great Basin and the Shenandoah Valley of Virginia have advanced our knowledge of these extinct arthropods. After several shorter publications, the authors now present an extensive monograph where 16 species from Virginia, distributed among 8 genera, are described and illustrated in detail. The preservation of the material is so excellent that probably little more could be learned about the exoskeleton of these 400-million-year-old organisms if we had the living animals before us. The authors have given a masterful treatment of the subject, including a study of development, besides the descriptions of the genera and species. It is obvious, even to the layman,

that an essential feature of work of this type is adequate illustration. Also, in this respect the authors have done full justice to their material. Years of labor spent in preparing the delicate fossils and developing appropriate photographic techniques have produced splendid illustrations, many of which are stereograms portraying the full three-dimensional form of the objects. In addition to the photographic reproductions, restorations presented in line drawings give clear pictures of the aspect of the entire animals. The Geological Society of America is to be congratulated for the excellence of the photogravure reproductions and the typographic quality of the book as a whole.

This monograph of Whittington and Evitt sets such a high standard in paleontologic research that it will doubtless become a classic in trilobite literature. Aside from its value to the specialist, I believe that even the neozoologist interested in other fields could profitably read it—or at least glance at the wonderful photographs—if only to find out how much has been learned about these ancient dwellers of the seas through patient field and laboratory work.

The authors are now engaged in extending these studies, with special attention to the larval development which is becoming known for many silicified trilobites. In view of their past performance, further contributions are eagerly awaited by paleontologists.

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***Recent Progress in Hormone Research*, Vol. VIII.**

Proceedings of the Laurentian Hormone Conference. Gregory Pincus, Ed. Academic Press, New York, 1953. 603 pp. Illus. \$10.80.

The Laurentian Hormone Conference is seemingly a fixed feature on the endocrinological horizon, and the publication of their annual transactions is an event looked forward to with anticipation. Volume VIII, containing the proceedings of the 1952 meeting, which has recently made its somewhat belated appearance, is no exception. Excluding one or two, most of the papers represent consolidation of old gains rather than the establishment of new ones. This, however, detracts nothing from the value of the book and simply reflects the fact that endocrinology, like other sciences, occasionally has its quieter moments.

As always, the papers presented are broad in their scope and stimulating in their variety. There is something here for almost everyone, from the organic chemist to the practicing physician. Anyone professionally interested in endocrinology, whether as a teacher, investigator, or clinician, should have this volume, along with its companions, available for reading and reference. Taken all together, the series tells in a vivid, interesting, and authoritative fashion the story of endocrinology in recent years.

In the present volume, as in the others, the papers are grouped in several sections: I. Chemistry and Biochemistry of Adrenocorticosteroids; II. Adrenocortical Physiology—Symposium on Diseases of Adapta-

tion; III. Physiology of Reproduction; and IV. Growth Hormone and Metabolism. There are three to five papers in each section and of them all, Section I is the most highly technical and least likely to appeal to the general reader. I was most interested in Section II and grateful for the opportunity to sit on the sidelines, so to speak, and watch a new and, to be sure, incomplete concept of disease being hammered out in the discussion.

Some new advances are recorded, particularly in Sections III and IV. The paper on relaxin was welcome as well as stimulating, as was the discussion of the growth hormone and its possible relation to diabetes. Their inclusion was timely and added considerably to the value of the book. As a paper on fetal endocrinology was included in this volume, perhaps it is not too much to expect something on invertebrate endocrinology or comparative vertebrate endocrinology in the near future.

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Probability and Information Theory, with Applications to Radar. P. M. Woodward. McGraw-Hill, New York; Pergamon Press, London, 1953. 128 pp. Illus. \$4.50.

This attractively printed and charmingly written little book lives up to the promise of its prefaces (editor's and author's), but the description on the dust cover is somewhat misleading, for, quoting the latter, "It is directed toward the reader who, without any highly advanced mathematical knowledge, wishes to link his practical intuition and experience with precise mathematical theory." Such a reader, if he has no knowledge of probability, complex variable, Fourier transforms, and advanced circuit theory, will capitulate early. The superior senior undergraduate in engineering or physics, the graduate student, and the specialist should enjoy this succinct treatment of the field.

The first chapter, on probability, discusses the basic concepts, Bernoulli's theorem, moments, generating functions, characteristic functions, the convolution integral, Poisson and normal distributions and entropy as a measure of spread—all this and more in 25 pages. Twenty pages cover wave-form analysis and noise (including Parseval's theorem and the sampling theorem); approximately the same space is devoted to information theory. The remaining four of the seven chapters deal with the statistical problem of reception, theory of radar reception, the mathematical analysis of radar information, and the transmitted radar signal. These are based, for the most part, on several articles by the author and I. L. Davies and will interest the specialist.

In my opinion, the book would benefit from (i) a more extensive bibliography (only nine references are given—none to Wiener and many other important contributors); (ii) inclusion of a discussion of important relevant topics, for example, filtering and pre-

diction, which are touched on too briefly or entirely omitted; and (iii) more detailed development (the book would be short and still concise at twice its present length). It is to be hoped that the author will attempt this in a future edition, the more so as his expository skill is clearly high.

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New Books

Psychische Komponenten der Sinnesorgane. Eine Psychophysische Hypothese. Bernhard Rensch. Georg Thieme Verlag, Stuttgart, Germany, 1952. 200 pp. Illus. DM 22.50.

Soil and Fertilizer Phosphorus in Crop Nutrition. Agronomy Ser. Vol. IV. W. H. Pierre and A. G. Norman, Eds. Academic Press, New York, 1953. 492 pp. Illus. \$9.

Elementary Introduction to Molecular Spectra. Børge Bak. North-Holland, Amsterdam; Interscience, New York, 1954. 125 pp. Illus.

Organic Chemistry. A brief course. Robert Ward Getchell. McGraw-Hill, New York, 1954. 278 pp. \$4.

Soft Magnetic Materials for Telecommunications. A symposium held at the Post Office Engineering Research Station in April, 1952. C. E. Richards and A. C. Lynch, Eds. Interscience, New York; Pergamon Press, London, 1953. 346 pp. Illus. + plates. \$9.

An Introduction to Laboratory Technique in Bacteriology. ed. 3. Max Levine. Macmillan, New York, 1954. 413 pp. Illus. + plate. \$4.50.

Television Receiver Design. Monograph 2. Flywheel Synchronization of Saw-tooth Generators. Electronic Valves, Book VIII B. P. A. Neeteson. Philips' Technical Library, Eindhoven, Netherlands, 1953. U.S. distr.: Elsevier Press, Houston. 156 pp. Illus.

Connective Tissues. Transactions of the Fourth Conference, Feb. 18–20, 1953. Charles Ragan, Ed. Josiah Macy, Jr. Foundation, New York, 1953. 197 pp. Illus. \$3.75.

Complex Variable Theory and Transform Calculus. ed. 2. With technical applications. N. W. McLachland. Cambridge Univ. Press, New York, 1953. 388 pp. Illus. \$10.

II Cancro: Cause e meccanismo delle proliferazioni. Vol. I. Camillo Brioschi Editore, Milan, 1953. 421 pp.

II Cancro: Biologia del tessuto neoplastico. Vol. II. Camillo Brioschi Editore, Milan, 1953. 743 pp.

Soils and Fertilizers. ed. 4. Firman E. Bear. Wiley, New York; Chapman & Hall, London, 1953. 420 pp. Illus. \$6.

Biochemistry and Physiology of Nutrition, Vol. I. Geoffrey H. Bourne and George W. Kidder, Eds. Academic Press, New York, 1953. 569 pp. Illus. \$13.

Renal Function. Transactions of the Fourth Conference, Oct. 22–24, 1952. Stanley E. Bradley, Ed. Josiah Macy, Jr. Foundation, New York, 1953. 189 pp. Illus. \$3.50.

Bakteriologische Nährboden. Ausgewählte Nährbodenrezepturen für das Medizinisch-Bakteriologische Laboratorium. Lothar Hallmann. Georg Thieme Verlag, Stuttgart, Germany, 1953. 252 pp. Illus. DM 19.80.

Intertidal Invertebrates of the Central California Coast. S. F. Light's Laboratory and Field Text in Invertebrate Zoology, rev. by Ralph I. Smith et al. Univ. of California Press, Berkeley, 1954. 446 pp. Illus. \$5.