Book Reviews

Advances in Veterinary Science, Vol. 1. C. A. Brandly and E. L. Jungherr, Eds. Academic Press, New York, 1953. 431 pp. Illus. $9.

This first volume of a proposed series on *Advances in Veterinary Science* consists of eight chapters: Animal Diseases and Human Welfare; Virus Diseases; Sulfonamides; Antibiotics; The Infertility Problem of Cattle; Bovine Mastitis; Swine Diseases; and Veterinary Public Health. The various chapters, written by experts in their respective fields, contain up-to-date information, documented by an exhaustive list of references. Some of the subject matter deals with progress and findings primarily in the veterinary field; other information pertains to public health and preventive medicine transcending the spheres of human and veterinary medicine. Thus the book will be of value to the veterinary practitioner, the researcher, and the public health worker.

The comprehensive reviews of the literature on sulfonamides and antibiotics contain the available information on dosages for the different animal species, the toxicology, and the susceptibility of various pathogens to the action of these therapeutic agents. Bovine mastitis is dealt with from the standpoint of etiology, diagnosis, prophylaxis, and therapy. Bacterial and viral infections of swine are discussed, with emphasis on the essential need for more adequate research and less reliance upon control by disposal of infected herds and replacement with new animals free of disease. There is a discussion of the methods of study of virus diseases, and a review of the more important virus infections of the different animal species. Infertility of cattle is analyzed from the standpoint of the effect of nutrition, heredity, endocrine imbalance, and infection.

The importance of animal diseases transmissible to man is properly stressed and the more common ones of the zoonoses are discussed. In addition, due significance is attached to the effect of animal losses in general upon human welfare by reducing the available world supply of animal products for human consumption. The cost of the more important diseases of livestock and poultry in the United States is tabulated, estimated at one and a half billion dollars annually. The ever increasing scope of veterinary public health from a national and international standpoint is well illustrated in a discussion of the activities in this field by such agencies as the United States Public Health Service, the Pan American Sanitary Bureau, and the World Health Organization.

It is gratifying to see the information contained in this volume made available to the veterinary profession, and to medical scientists in general. As stated in the Preface, ". . . the scope of veterinary science, together with the great expansion of study and research in the specialized fields, has produced a literature so comprehensive that no one can keep abreast of all advances." And by looking toward additional publications in this series, the editors anticipate that "by enlisting the efforts of different authorities on the same subject at succeeding periods, it is hoped to maintain a broad, but fluid, front line of modern knowledge." We shall eagerly look forward to the future volumes.

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Sex Determination. ed. 3. F. A. E. Crew. Methuen, London; New York, Wiley, 1954. vii + 68 pp. $1.50.

This little book is sound, but its usefulness is limited. The reader who already has a fair knowledge of genetics and cytology will find little beyond the usual textbook treatment of the salient facts; the beginner would do better to start with a well illustrated treatment. Eight pages are devoted to *Lymantria dispar,* but plants are disposed of in a five-page chapter, along with fishes and *Paramecium.* Reference to the bibliography will not lead the reader directly to such pertinent papers as Warmke's "Sex determination and sex balance" in *Melandrium* (1946). The most valuable feature of the book is the historical thread which runs through most of it. Relegation of speculations to a final chapter, appropriately labelled, is commendable. There are 146 references, well chosen for the most part, and a 56-word glossary.

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The Physiology of Man. L. L. Langley and E. Cheraskin. McGraw-Hill, New York, 1954. 609 pp. Illus. $5.50.

This is a very unusual book in that it incorporates some of the better ideals of teaching in an elaboration of the principles of general, human physiology. *The Physiology of Man* is very well written, and the diagrams illustrating the text are original and very interestingly presented. Of further interest is the unique fashion in which many physiological concepts are presented as an integrated pattern throughout the entire book.

The authors state: "This book is dedicated to the proposition that learning can be fun." I share this thought wholeheartedly. Throughout the text, the authors have attempted to interdigitate some very humorous cartoons depicting the sequence of events associated with physiological expressions. This is certainly a measure of their originality and their down-to-earthness in textbook writing. Their clear, simple, picturesque style will gain considerable popularity for their book.

This book is divided into five parts: "The Nervous

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-