# Book Reviews

***Advances in protein chemistry.*** (Vol. 3.) M. L. Anson and John T. Edsall. (Eds.) New York: Academic Press, 1947. Pp. xii + 524. (Illustrated.) $7.50.

This third volume, like its predecessors, contains thorough and critical reviews by specialists of some of the fields of protein chemistry which have been particularly explored during the past few years.

In "The Chemical Determination of Proteins," P. L. Kirk discusses the physical and chemical methods used and emphasizes *inter alia* the pitfalls that can be encountered in the uncritical use of the Kjeldahl method for nitrogen in one or another of its innumerable modifications and the uncertainty of results obtained with salt fractionation of protein mixtures. This review is complemented by that of Max S. Dunn and Louis B. Rockland, "The Preparation and Criteria of Purity of the Amino Acids," which contains also a section on the synthesis of amino acids containing isotopic atoms. Particularly useful are the tables on the specific rotations, resolution, and solubilities of the amino acids, the Van Slyke nitrous acid and ninhydrin manometric methods, and the paragraphs on the semimicro Kjeldahl determinations. A table of references for microbiological determinations is also given.

Roger M. Herriott reviews the "Reactions of Native Proteins With Chemical Reagents" in oxidation, reduction, alkylation including the mustards and 2,4-dinitrofluorobenzene, acylation, deamination, diazotization, etc. Henry B. Bull presents "Spread Monolayers of Protein," primarily from the physical standpoint, while Alexander Rothen, in "Films of Protein in Biological Processes," reviews film transfer, spreading, enzyme films, immunological reactions, and his own results in studying plastic-covered protein films. Arne Tiselius, in "Adsorption Analysis of Amino Acid Mixtures," contributes a detailed discussion of the techniques and methods developed in his laboratory.

Anthony A. Albanese reviews "Amino Acid Requirements of Man," and Robert Elman, "The Use of Protein and Protein Hydrolyzates for Intravenous Alimentation." Both authors, however, seem to have overlooked an added use of protein hydrolyzates in the treatment of the hypoaminoacidemic crises of nephrotic children.

Leonor Michaelis discusses "Ferritin and Apo-Ferritin," and Alexander E. Braunstein reviews "Transamination and the Integrative Functions of the Decarboxylic Acids in Nitrogen Metabolism." The concluding article, "The Plasma Proteins and Their Fractionation," by John T. Edsall, is the most complete summary to date on the plasma proteins, their fractionation, physical properties, amino acid composition, and functions.

The great value of this book is enhanced by the very complete bibliographies and subject and author indexes.

FRANCIS P. CHINARD

*Rockefeller Institute for Medical Research, New York City*

***A bibliography of birds: with special reference to anatomy, behavior, biochemistry, embryology, pathology, physiology, genetics, ecology, aviculture, economic ornithology, poultry culture, evolution and related subjects.*** Reuben Myron Strong. Chicago: Field Museum of Natural History, 1939 (Pts. 1 and 2), 1946 (Pt. 3). Pp.464; 469; 522.

This is a monumental work for which no praise is too great. When one reads the subtitle above, one wonders if anything has been omitted. And when one has leafed through Parts 1 and 2 (including rules and symbols employed, key list of abbreviations for periodicals cited, list of periodicals not cited but related to birds, and author catalogue of references) and has searched through Part 3 (Subject Index), he is convinced that no effort has been spared to provide the investigator with everything of value (except distribution, and systematics or classification). And yet no one knows better than the former editor of Vol. III of the *Bibliography of fishes* how impossible it is to get all the citations. No bibliography is ever finished. But for all this, Dr. Strong's *Bibliography of birds* will be the sure and solid foundation on which avian bibliographers will build in the long future.

Years ago, when Dr. Strong first conceived the idea of a bibliography of birds, the reviewer's advice was asked as to the method of procedure. It was suggested that he take the *Bibliography of fishes* (imperfect as it would be found in places) as a guide and that he improve on this work wherever possible. This Dr. Strong has done.

In the front of Part 1 is a key list of abbreviations for periodicals cited, with the names of the periodicals printed in full. This section standardizes the abbreviations and is of great help to beginners and to any who have to do with little-known journals.

When one comes to look up a citation one finds the surname of the author in bold-faced type and his given names in italics, set in a line on the left by themselves. In the vertical line below the surname is the date of each article, also set in boldface. Having author and date of publication in a vertical line on the left, it is easy to pick out the article wanted. If more than one article has been published in one year, these are indicated as 1910a, 1910b. Had these been set 1910.1, 1910.2, as in the *Bibliography of fishes*, they would look better and, with the period separating the 1 from the 1910, would be more easily read. Then too, at outer top of right and left pages are abbreviated guide names in boldface. It would have been better to have put the full name.

Another improvement of great value is the appearance at the end of certain book or journal references (if these are rare or little known) of such hieroglyphics as IJC, etc. Reference to pages 12 and 13 of Part 1 gives the name of the library in which the rare book or journal may be found. This will be of inestimable value to a host of users.

If, as we often hear said, bibliography is the sound basis of all research, then Parts 1 and 2 may be likened to a great