

Reviews of Recent Books



Nutritional Evaluation of Food Processing, edited by Robert S. Harris and Harry von Loesecke. John Wiley & Sons, New York, 1960, pp. 612, \$12.00.

The publication "explosion" in scientific literature drives the specialist into ever narrowing areas. The production of a comprehensive review is best left to a number of competent authorities rather than one or two. Here we have thirty-three authors, each a specialist in his assigned field. The editors have capably merged the material into an organized whole, with relatively little overlapping. The text is clear, concise and easily followed, in part due to the use of frequent subheads in bold type. To each chapter is appended a bibliography, listing as many as 300 references.

As the title suggests, the book is devoted to the processing of foods and the nutritional implications. In addition, there is a fifty-page review on how agricultural practices affect food composition. Also, the discussions of food values go well into some of the basic concepts of nutrition as revealed in recent research, e.g., amino acid essentiality and imbalances, antimetabolites, trace minerals, etc. The coverage is up-to-the-minute; ionizing radiation sterilization is given eleven pages.

A good index is extremely important in a text to be used frequently for reference. We can rate this one perhaps better than average. There are a number of obvious omissions. For instance, the page which carries the most information about margarine is not listed at all. The effect of radiation sterilization on food utilization is well discussed on page 537, a reference not to be found in the index. In several cases, all inclusive subjects should be broken down into subtopics. Of great assistance to the searcher after specific information, however, should be the detailed table of contents. There, under the thirteen chapter headings are listed some 200 subheads.

In some instances the authors fall into an error often noted in other publications where before-and-after-processing data are compared. The use of laboratory or pilot plant facilities in transforming raw foods into storable products can produce more drastic changes than occur in commercial practice. The laboratory-produced canned milk, for instance, is not the same as that purchased on the open market. A statement on page 411 in another connection could well apply here: "Conclusions based upon such studies should not be extended beyond the scope of conditions existing in the study."

There are a few disappointing omissions. Hydrogena-

tion of fats is discussed in detail from the chemical point of view (six pages); the nutritional implications are scarcely mentioned.

The text does well what it set out to do, document the handling and processing of food "from garden to gullet" in its scientific aspects. The book is of irreplaceable value to the researcher, teacher, student and writer. It is hoped that those writers who love to portray to the public the "destruction" of food values in processing will read and heed.

FRANK E. RICE

Medicinal Chemistry, 2nd edition, edited by Alfred Burger. Interscience Publishers, Inc., New York, pp. 1,243, \$37.50.

The practice of medicinal chemistry as an art or science has grown enormously in the past decade. Although the volume of published data is staggering, much important and relevant material, particularly crucial negative findings, remains buried in the files of industrial firms and in the minds of individual chemists. Any attempt to make a coherent and comprehensive statement of the current status can at best achieve only partial success. This long, heavy and expensive text serves to confirm this judgment.

Dr. Burger has called upon thirty-five associates to prepare chapters on special subjects since one man is no longer capable of preparing a book of this sort. The various chapters are of unequal length and completeness. Some are merely brief summaries of some outstanding developments, while others appear to be relatively thorough surveys. The section on vitamins represents a good summary of the chemical knowledge in this field. In contrast, other chapters such as those on diuretics, hypnotics and sedatives, merely skim the surface.

It is regrettable that a text published in 1960 covers the literature only up to the middle of 1957. One might reasonably have expected a better quality of printing in a text of this price. Another more serious criticism is perhaps inherent in the nature of the material covered. Since it is manifestly impossible for a book of this sort to be really complete in coverage, the alternative is to utilize selected examples to illustrate the principles of the practice of the science. Such a text, while lacking the detailed coverage of a reference work, would be more useful for it could present the reader with a better understanding of the philosophy and technics of the medicinal chemist.

Regardless of its limitations, the book is relatively unique in its coverage and will continue to serve as a starting point for many wishing to survey the literature in selected areas.

I. H. SLATER

Clinical Endocrinology, I, edited by E. B. Astwood. Grune & Stratton, New York, 1960, pp. 724, \$18.75.

This valuable book of sixty-eight chapters is an expansion and revision of a volume, *Progress in Clinical Endocrinology*, published ten years ago. The authors are eighty-two experienced investigators and each treats his section with an individualistic approach which in many ways is refreshingly novel. For example, the seven chapters on the pancreas include mechanism of action of insulin, glucagon, fat metabolism in experimental diabetes, nonpancreatic diabetes, oral hypoglycemic agents (two) and hypoglycemia associated with tumors. In other words certain areas in the general field of endocrinology were selected for special discussion. These subjects would seem to be those in which significant progress has been made recently.

Both experimental and clinical chapters are presented. There are 169 illustrations and a detailed index.

This is not a standard textbook of endocrinology and thus the title may be somewhat misleading. A number of endocrine disorders are not mentioned. Nor, for example, will the reader find a discussion of the insulin treatment of diabetes. On the other hand, as a collection of diverse essays on certain aspects of endocrinology, this book is up to date, wide in range and excellent in quality.

S. O. W.

Basic Facts of Body Water and Ions, by Stewart M. Brooks. Springer Publishing Company, New York, 1960, pp. 159, \$2.75.

This small, soft cover book is intended for the student and practitioner of nursing, medical technology and pharmacy. It therefore is written in a simple direct style and presupposes little background information on the part of the reader. It attempts to review the basic facts in physiology and biochemistry, and a little clinical medicine, relating to fluid and electrolyte balance, edema, renal failure, etc.

While much information is straightforward, there are several weak spots which one should recognize. Thus the "low salt" syndrome is said to be the most common fluid-electrolyte derangement, nothing is said about parenteral fat solutions, and certain pharmaceutical preparations are singled out for mention to the exclusion of others. "Calcium should be avoided whenever possible" in a digitalized patient, etc.

In view of the many monographs on this complex subject, one must perforce compare this book to its

"competitors." In the reviewer's opinion, there are several better books available on the subject.

S. O. W.

Annual Review of Medicine, Vol. 11, edited by David A. Ryland. Annual Reviews, Inc., Palo Alto, 1960, pp. 453, \$7.00.

The 1960 edition of this well known series contains a chapter on nutrition by Jolliffe and Goodhart. Special attention is given to the lipid-atherosclerosis problem and to recent contributions to our knowledge of vitamins. As usual, these volumes are a most useful compendium of significant papers, and hence invaluable for a quick survey of the many active fields of medicine.

S. O. W.

Medical Surveys and Clinical Trials. Some Methods and Applications of Group Research in Medicine, edited by L. J. Witts. Oxford University Press, New York, 1959, pp. 325, \$8.00.

Despite the vast expansion in the field of *clinical* research there are surprisingly few books on the topic. This multi-authored volume concentrates on "group research" as distinguished from the intensive study of a few individuals. Both approaches, of course, are absolutely essential for the further progress of medicine.

In an earlier day, workers in the field of public health and tropical medicine had already explored this fertile area. Soon nutrition scientists (e.g., in pellagra and beriberi) were developing studies on large population groups. With the advent of sulfonamides and antibiotics the whole field of therapeutics took on a new look. It now became necessary to support one's conclusion with "figures."

Professor Witts of the University of Oxford has gathered a group of able and experienced scientists and together they have produced a highly informative well written and important book. Among the subjects covered are retrospective and prospective studies, placebos, prophylactic and therapeutic trials and prevalence surveys. Methods are discussed in the first half; their application to various clinical states in the second. Our readers will be especially interested in Sinclair's chapter on "The Assessment of Nutriture" and the comments by Bronte-Stewart and Pickering on cardiovascular diseases. Equally interesting are chapters on child development, genetics, cancer and mental diseases among others.

Those interested in human nutrition can well appreciate the value of research on population groups. Much of what is current in our thinking about lipids and atherosclerosis, infant feeding and kwashiorkor, for example, are based on dietary surveys and wide-range therapeutic trials. This book, therefore, should be read by all who undertake work involving numbers of patients. It is a valuable addition to a vital segment of clinical research.

S. O. W.

