

Reviews of Recent Books

Nutrition and Diet Therapy (tenth edition) by F. T. Proudfit and C. H. Robinson, Macmillan Co., New York, 1950, pp. 950, \$4.50.

The tenth edition of this text has been revised so that it may readily be used with the *New Manual for Teaching Dietetics to Student Nurses* prepared by the American Dietetic Association. However, in the section which deals with the subject of normal nutrition, some of the details given are beyond the grasp of the student nurse due to her limited background in organic and biochemistry. An example of this is the discussion of the functions of the B-complex vitamins on pages 120 and 121 where the role of these vitamins in oxidative enzyme systems is described. Since the authors do present this book as a useful reference for college students of dietetics, the nutritionist in public health, the dietitian and the physician, perhaps they are justified in including these detailed discussions. In the teaching of student nurses, parts of the text must be simplified or even omitted in some instances.

It is gratifying to find a clear-cut explanation of the calculation of the diabetic diet according to the method which has been approved by the American Dietetic Association, the American Diabetes Association, and the U. S. Public Health Service—Diabetes Branch. Supplementary information concerning food exchange lists is found in the appendix.

Emphasis is constantly placed on the importance of using a normal diet as the basis for therapeutic diets. The listing in parallel columns of *foods allowed* and *foods to avoid* under specific conditions makes the dietary outlines much more useful.

Excellent material is included on food selection, preparation, and meal service for the patient and the family. This is valuable background information which aids the student nurse in applying her knowledge of food values in the hospital and in her future home. Small quantity recipes are clearly and accurately presented.

K.E.L.

Methods of Vitamin Assay (second edition), prepared and edited by the Association of Vitamin Chemists, Inc., Interscience Publishers, New York and London, 1951, pp. 301, \$5.50.

The Association of Vitamin Chemists, in sponsoring a second edition of this useful work, has continued the plan originally followed by making separate committees of experts responsible for each of the phases of vitamin methodology discussed. Only those methods are presented that have been successfully applied to the assay of a variety of materials. The

advice of numerous consultants and reviewers was obtained, including some of the foremost workers in the field. The result is an authoritative presentation of methods, each in a separate chapter, for vitamins A, carotene, ascorbic acid, thiamine, riboflavin, niacin, pantothenic acid, vitamin B₆, folic acid, biotin, and vitamin B₁₂. Methods for the last six are included for the first time in this edition. The material dealing with the others has been revised and brought up to date. Methods for other vitamins are discussed in less detail, but sufficient information is given to enable the prospective user to choose between the methods available. Chapters on sampling for vitamin analysis and on microbiological assay techniques continue to be valuable sources of information. The former includes a discussion of the statistics of sampling.

The main purpose of this book is to provide a manual for the analyst with directions for carrying out assays. These directions are given in full detail, step by step, with comments and annotations. For methods as complex as those used for assay of vitamins, minor differences in technique may influence substantially the results of a procedure, and the emphasis on detail is fully justified.

Alternative methods are listed, and where several methods exist, based on different principles, each is described.

The discussion of techniques is preceded in each chapter by a brief review of the history, chemical characteristics, various forms and functions of the vitamin. The specificity and major sources of error of the methods are evaluated. The plan of the volume prevents its being an up-to-the-minute source of information, and although there are a few 1950 references, most are dated 1948 and earlier. However, as a manual for laboratory workers in the field of vitamins, it is an indispensable tool. J.G.R.

The Vitamin B Complex by F. A. Robinson, M.Sc., F.R.I.C., John Wiley & Sons, New York, 1951, pp. 688, \$9.00.

The author of this book has performed a great service to workers in the nutrition field. The tremendous volume of published material on members of the vitamin B complex group is organized and summarized in convenient sections. For each member of the B family all important and recent findings relative to isolation, estimation, occurrence, analogous functions, and effects on microorganisms, plants, animals, and man are presented.

There are numerous references and a convenient subject and author index. The wide coverage of the pertinent literature can be judged by the fact that there are 45 references to a 5-page subsection on the microbiological production of riboflavin, and 48 references on the effect of biotin deficiency in animals.

As the author states in the preface, it is impossible to cover *all* aspects of the vitamin B group in complete detail, enough to satisfy clinicians, chemists, agriculturists, and physiologists. Thus the purely medical aspects are described in less detail than the biologic or pharmacologic aspects. Nevertheless, as a source book, a convenient reference and starting point in a literature survey, and as an attempt at integration of widely scattered data, this book can be heartily recommended. S.O.W.

Industrial Nutrition by Magnus Pyke, Macdonald and Evans, London, 1950, VII, pp. 205, 10 s.

The industrial worker shares with the other members of the species *Homo sapiens* many of the needs of the mythical but useful creation, the average adult man (and woman). What is so special about the man in industry that scientific bodies create Committees on the Nutrition of Industrial Workers* and authors publish articles and whole books† on this topic?

Well, several things. His caloric needs vary over a considerable range and their knowledge must form a basis for differential rationing in times of prolonged shortage of food. He is exposed to hot and cold working environments, and these affect some of his nutrient requirements. In several occupations, a contact with toxic compounds is unavoidable; there is limited evidence, based primarily on animal experimentation, that nutritional factors may increase the resistance to some toxic substances. Culinary rather than nutritional problems arise from working on different shifts, including the night shift. There is a problem of the optimal frequency and spacing of meals. Tenacious local dietary habits may foster or endanger adequate nutrition.

Most forms of malnutrition affecting the industrial worker will result in a fall of production efficiency. This is perhaps the most important single fact which has directed attention to the nutrition of the worker in industry. Thus, the provision of canteens during the First and, at a much accelerated rate, during the Second World War was dictated not by a newly gained nutritional insight but by the need to assure top production. The historically minded nutritionist may

* Food and Nutrition Board, National Research Council.

† R. S. Goodhart and M. E. Shils in *Clinical Nutrition*, Hoeber, New York, 1950, pp. 771, 171 references; E. Simonson, in *Nutrition Fronts in Public Health*, Nutrition Symposium Series No. 3, The National Vitamin Foundation, New York, 1951, pp. 72, 71 references.

wish to look up Noel Curtis-Bennett's *The Food of the People: Being the History of Industrial Feeding* (Faber and Faber, London, 1949) devoting considerable space to the development of industrial canteens. International Labor Office (*Nutrition in Industry*, Montreal, Canada, 1946) has presented the picture of wartime feeding of industrial workers in Canada, the United States, and Great Britain, with emphasis on industrial feeding management. But for a discussion of the nutritional principles on which a sound program of feeding industrial workers should be based, the reader must turn to the small, yet meaty, volume by Dr. Pyke.

The author has considered the problems of industrial nutrition within a larger framework of the scientific study of human nutrition, and although he makes an occasional excursion into dietetics, e.g., in discussing food wastage and the effects of cooking on the nutritional value of food, the focus of his presentation is on the relationship between the nutrition of industrial workers and their health and efficiency. The industrial physician and the industrial nurse, as well as the practical dietitian and the research worker concerned with human nutrition, will find this readable volume reliable in respect to known facts, and wise in its interpolations and practical recommendations.

JOSEF BROŽEK

Textbook of Biochemistry by E. S. West and W. R. Todd, Macmillan Co., New York, 1951, pp. 134, \$12.00.

A close examination of this textbook reveals the extensive development of biological chemistry within recent years and the growing importance of biochemical principles in the practice of medicine. Drs. West and Todd have not only expanded the classical chapters in this field but have also incorporated into this text the fundamentals of chemistry which provide the structure upon which biochemistry is based, the newer developments in biochemistry which lead to a better understanding of cellular chemistry and function, and the principles of biochemistry which relate to medicine and nutrition.

The chapters entitled "Introduction to Intermediary Metabolism," "Organic Phosphates in Metabolism," "Antimetabolic Agents," along with the chapters on metabolism, introduce the readers to the classical and recent methods used in the study of metabolism, the energy requirements for individual biochemical reactions, the role of hormones, vitamins, antimetabolites, and drugs as controlling agents in biochemical reactions, and the significance of metabolic derangements in medicine.

Detailed chapters on body fluids serve to introduce to beginners in the study of medicine the fundamentals related to the maintenance of the internal environment of the cell. This subject, though pioneered by the great Claude Bernard, has only recently been introduced into the biochemical curriculum.

Finally, this text has also emphasized the nutritional aspects of biochemistry. The chapters on nutrition and foods introduce the subject of nutrition to the medical curriculum. The authors should be congratulated on their efforts to introduce the subject early in the medical curriculum so that the student will realize the importance of nutrition later in his clinical studies and in clinical practice.

The authors are also to be complimented for their extensive use of charts and tables to illustrate the text and for their extensive bibliography. C.A.

Current Therapy 1952, edited by H. F. Conn, M.D., W. B. Saunders Co., Philadelphia, pp. 849, \$11.00.

This book of management of diseases occurring in medical practice is a summation of the work of some 275 contributors. It is developed under the able leadership of Dr. Howard F. Conn and twelve consultants. The consultants as well as the contributors are recognized medical teachers and authors, who have shown a special interest in the specific disease discussed. The book is arranged in 16 sections. Fifteen sections deal with definitive plans of therapy of specific diseases covered in the particular section, for example, Infectious Diseases, Diseases of the Cardiovascular, Respiratory, Digestive Systems, etc. Section 16 includes a roster of drugs, a table of metric and apothecary systems, and a table for making percentage solutions. The preceding 15 sections provide information on present-day methods of managing illness which in various authors' experience are of proved value. The individual discussions are brisk and detailed, and presented in a clear, concise fashion. This should prove particularly useful to the busy practitioner who is unable to keep up with the prodigious development in our knowledge of disease, synthesis of drugs, and changes in therapeutic modalities.

Since treating an individual afflicted with a disease requires knowing the "total" patient, and understanding the underlying physiologic and biochemical disturbances, as well as the morphologic background produced by the disease, it would have been desirable to have had a brief, to-the-point discussion of the background upon which a specific therapeutic plan is based. Limitation of space probably accounts for insufficient emphasis on this phase of the discussion. It is this reviewer's opinion that this could have been overcome advantageously by deleting the duplication of variant methods detailed by different authors discussing the same specific disease. After all, therapy of a disease has evolved from the experience of many physicians; the peculiar variant method of the original worker could have been presented in a condensed abstract form. The bibliography is very sparse, and in many discussions totally absent. However, this is not a serious defect. In general, the book will be found a very useful addition to the medical library of the practicing physician. The text throughout is

printed with a good large type and is set in a easy-to-read two-column format. The omissions noted above do not deter the reviewer from highly recommending it to the general practitioner and medical student. M.G.W.

Diseases in Old Age by R. T. Monroe, Harvard University Press, Cambridge, 1951, pp. xi + 407 \$5.00.

As the subtitle indicates, this is "a clinical and pathological study of 7941 individuals over 61 years of age" who entered the medical service of the Peter Bent Brigham Hospital in Boston between 1913 and 1943. Detailed statistics are presented on the incidence of the major diseases grouped in 11 categories and of other diseases occurring simultaneously with a given disease. Thus, malnutrition was recorded in 4 per cent of patients with psychoneurosis, while 27 per cent of the cases of cerebral arteriosclerosis associated with psychosis showed a definite to extreme loss of weight. In the case of cancer of the stomach, loss of weight was present at the time of admission in 83 per cent of the patients. The magnitude of the weight losses was not specified.

Chronic alcoholism, a peculiar form of malnutrition, was present in 4.7 per cent of the men and 0.8 per cent of the women. Malnutrition, in a generally understood sense, was mentioned in 21 per cent of chronic alcoholics.

The characterization of the general nutritional status and the classification of individuals into 5 categories (clearly underweight, approximately normal in weight, moderately, considerably, and extremely overweight) was based on clinical judgment, without reference to objective criteria. For the hospitalized old men, the percentages of individuals in these 5 categories were 31, 43, 17, 7, and 2; for women 20, 47, 21, 9, and 3. The comment is made that "obesity, then, is not a common problem in old age. Nor is it often a serious problem, for most of the obese cases . . . were quite free from cardiovascular, diabetic, and cerebral disorders" (p. 282). This is in striking contrast, at first glance at least, with the experience of the insurance companies, and underlines the need for a clarification of ideas and for further research in this area. Objective evaluation of the degree of obesity and combination of longitudinal with the cross-sectional approach are prerequisites of an effective attack on this problem.

Whereas general malnutrition was relatively frequent, specific diseases due to deficiency of vitamins were diagnosed in very few old people. One case of vitamin A deficiency, 48 of "avitaminosis B" (including beri-beri, sprue, polyneuritis, and a pellagra-like syndrome), 3 of scurvy, and 17 of osteomalacia. These statistics are probably to be trusted less than those on diseases of non-nutritional origin. The author admits that "it is possible that clinical recognition has been dull."

The section on nutritional disorders, forming only a small part of the book, will be found disappointing by the critical reader looking for solidly established facts. However, the difficulty inherent in obtaining the desired facts should not be minimized. The sound clinical judgment permeating the whole volume will be appreciated by the practitioner of geriatrics. With reference to matters nutritional, the author comments: "The geriatrician who is determined to conquer malnutrition must go far off the beaten path of medicine. His prescription is equal parts of good food, good cooking, good health, good people to eat with, good places to eat, good reasons for eating."

JOSEF BROŽEK

Annual Review of Medicine, Vol. 3, 1952, edited by W. C. Cutting, M.D., Annual Reviews, Inc., Stanford, 1952, pp. 442, \$6.00.

As with previous issues, this valuable review of current progress in selected spheres of medicine will be of particular usefulness to workers in academic and research fields. Of special interest to our readers is an excellently written review on tropical nutrition and kwashiorkor by J. W. P. Davies of Uganda, East Africa. Over 160 references are quoted and tie together a widely scattered world literature. Other nutritional reports are covered in other chapters. A detailed subject and author index lends practicality to this serviceable volume.

S.O.W.

The Master Dictionary of Food and Cookery and Menu Translator by Henry Smith, Philosophical Library, New York, 1951, pp. 263, \$4.75.

This book presents an alphabetical listing of cooking processes, dishes, and foods which may be unfamiliar to the average reader. The historical background and the English translation of foreign names are presented. Every gourmet will be interested in the fact that sausages were mentioned in the oldest cookery book known, A.D. 228, or that the Scotch ptarmigan turns white during winter and should be roasted if young or braised if old.

If curious epicurean lore interests one, this book will be useful.

S.O.W.

Books received for review by the *Journal of Clinical Nutrition* are acknowledged in this column. As far as practicable, those of special interest are selected, as space permits, for a more extensive review.

Food and Nutrition (second edition) by E. W. H. Cruickshank, Williams & Wilkins Co., Baltimore, 1951, pp. 443, \$6.50.

Bridges' Dietetics for the Clinician (fifth edition), edited by H. J. Johnson, Lea & Febiger, Philadelphia, 1949, pp. 898, \$12.00.

Diabetes Control by E. L. Bortz, Lea & Febiger, Philadelphia, 1951, pp. 264, \$3.50.

Low-Sodium Diet (A Manual for the Patient) by T. B. Rice, Lea & Febiger, Philadelphia, 1951, pp. 103, \$2.75.

Nutrition News

☆ *News of activities in the field of clinical nutrition should be submitted to the Editorial Office of the JOURNAL.*

THE REGISTRY OF NUTRITIONAL PATHOLOGY

The Registry of Nutritional Pathology is a new central agency for the accumulation of material in this specific field. This Registry is a unit of the American Registry of Pathology, within the Armed Forces Institute of Pathology, and is under the general supervision of the Committee on Pathology of the National Research Council. The American Institute of Nutrition which initiated the project has the general administrative responsibility and has a Committee to carry out this function.

The Registry has five main functions:

1. Accumulation and maintenance of collections of pathologic materials and related case records in such special fields of nutri-

tional diseases as are not commonly encountered in individual clinics.

2. Provision of consultation service.

3. Preparation of teaching material.

4. Establishment of facilities for the training of students and fellows in the pathology of nutritional diseases.

5. Facilitation of the accessibility of the materials for students and qualified investigators.

Autopsy material and biopsy specimens are solicited. They must be accompanied by a brief clinical history.

Further information is available from Dr. Herbert Pollack, 70 East 77th Street, New York, N. Y., Chairman of the Committee for the Registry of Nutritional Pathology.

