

# Reviews of Recent Books



**Modern Nutrition in Health and Disease**, edited by M. G. Wohl and R. S. Goodhart, Lea and Febiger, Philadelphia, 1955, pp. 1062, illust. 207, \$18.50.

This text is a revised version of the popular volume *Dietotherapy* edited by Wohl 11 years ago. Those familiar with the earlier work will recognize that extensive reorganization and rewriting of the material has taken place. This is an obvious necessity because of the rapid advances which have evolved within the past decade in the science of nutrition. In order to achieve the objective of presenting "the salient advances in nutrition that have a direct bearing on the maintenance of optimum health and the prevention and treatment of the disease," the editors have assembled in this volume the contributions of 55 eminent authorities in this field.

Among the important additional discussions included in the present volume are those on body composition by Keys, hormonal control of metabolism by Ralli and Dumm, and the physiology of hunger by Brobeck, as well as other topics reflecting the newer knowledge accumulating from current nutritional studies. The book is arranged in three parts, the first of which deals with normal nutrition. The chapters devoted to protein metabolism by Geiger, and fat metabolism by Deuel, are excellent in their presentations of fundamental developments within these spheres of interest. The discussion of the vitamins is concisely abbreviated. The relatively small space devoted to many of the B-complex group is compensated by a chapter on the relation of diet to oxidation enzymes. The discussion of dietary interrelationships by Sure is admirably complete, being derived from an extensive list of references. Part 2 of the text is concerned with nutrition in disease. In this section, one finds an outstanding, well-illustrated dissertation on nutrition in relation to Dental Medicine by Shaw. In addition, there are chapters presenting the nutritional aspects of gastrointestinal diseases, diabetes, allergy, liver diseases, renal disorders, skin, nervous system diseases, and others in which diet therapy is an essential element. The emphasis on the practical aspects of dietary management is much in evidence. Part 3 deals with nutrition in periods of physiologic stress and contains an important treatise on food and nutrition in relation to work and environmental stress by Shils. Other physiologic stresses considered in the final section are geriatrics, pediatrics, pregnancy, and emergency feeding problems, each prepared by workers who have pioneered in these respective fields.

This book, through the completeness of its coverage of nutritional aspects of medicine, its subspecialties and

related subjects, is destined to be one of the most important reference texts for physicians and students available at the present time. The relatively brief discussion devoted to some of the vitamins and deficiency diseases is adequate for practical purposes; biographic references are provided for more thorough study of these subjects. This text can be unreservedly recommended as essential reading for all physicians engaged in the treatment of disease and for students who, in general, receive inadequate training in nutrition.

C. R. SHUMAN

**Mental Hygiene in Public Health** (second edition), by Paul V. Lemkau, McGraw-Hill Book Co., Inc., New York, 1955, pp. 486, \$8.00.

This very well written, interesting and authoritative text is probably the leading resource book available on the subject of public mental health. The author's general approach to the extremely far-reaching subject matter of mental hygiene as an area of public health planning is eclectic and not bound rigidly to any particular school of psychiatric thinking. Some may regard it as slightly unfortunate that the author has perhaps given too little attention to Dr. Freud's significant contributions to the understanding of personality development.

The scope of mental hygiene is so great that a book of a mere 500 pages can hardly be expected to be comprehensive. Nevertheless, Dr. Lemkau succeeds in touching upon most of the essentials in public mental hygiene programs. A sophisticated work, the book is nonetheless readily comprehended and is replete with illustrative case material well chosen for its applicability to everyday life. Hardly any student or professional in the field of public health or public welfare will fail to find something to interest him in this delightful text.

From the point of view of the nutritionist, there are several references in the book to the areas of relationship between nutrition and emotional disorder. Feeding and feeding problems of infancy, as well as the nutritional aspects of certain psychoses, are given brief consideration. It is perhaps slightly regrettable that the author has not allocated a greater quantity of content to nutrition's place in the field of mental health, because there is immanent in the field of nutrition a vast realistic function in preventive psychiatry. The student in this field would certainly desire a more extensive consideration of such topics as infant parent relationships intrinsic in the feeding operation; the significance of nutrition in such psychoses as delirium

tremens, Korsakoff's psychosis, certain toxic psychoses, and pellagra; and the very important place played by nutrition in the emotional problems of late age. It would also be desirable were there a more complete discussion of malnutrition as a form of social deprivation leading to emotional difficulties, as well as a consideration of the important role that nutrition plays in the therapy and rehabilitation of mental disturbances.

The author is a pioneer in the field of public mental health. Recent progress in the development of mental hygiene and the nationwide increased interest in this social pursuit are admirably reflected in Dr. Lemkau's revised and current material. Not only will a reading of this work serve as a stimulating introduction to the understanding of human nature, but, in addition, the information made available in the several appendices will enable the student to broaden his fields of knowledge by utilizing the extensive lists of references.

The tone of the text is simultaneously sound and humble. The author does not attempt to record the accumulated body of facts in mental health without frequently calling the reader's attention to what is not known. It thus serves also as a guidepost for research.

This is an altogether rewarding book for individuals who are interested in their own and social welfare.

MAURICE E. LINDEN

**Transactions of the 4th Meeting of the International Society of Geographical Pathology**, edited by H. Betz and F. C. Roulet, S. Karger, Basel and New York, 1953, pp. 652, Swiss fr. 46.80.

Our review of these transactions is regrettably late, and much work has been devoted to the subject of the meeting—hepatitis—since their publication. However, those who are not daunted by trilingual presentation will find here a great deal of valuable and by no means out-dated material on the various hepatitides. The descriptions of the peculiar features of hepatitis as it is seen in a number of countries and in a variety of pathologic states are especially interesting. There are numerous discussions of clinical and pathologic pictures, epidemiologic studies, and reports on biochemical findings and on animal experimentation in several species. The relationships between infectious hepatitis and cirrhosis, between hepatitis and cancer, and the influence of hepatitis on diabetes and pregnancy are explored.

Of special interest to nutritionists is Glynn's paper on "Nutritional Factors in the Aetiology of Hepatic Diseases" (in English), and Voigt discusses "The Dysproteinemia of Virus Hepatitis" (in German).

The coverage is world-wide, both with respect to subject matter and contributors. English readers will particularly appreciate the excellent papers by McCallum and Sherlock.

A. E. S.

**Advances in Food Research, Vol. VI**, edited by E. M. Mrak and G. F. Stewart, Academic Press, New York, 1955, pp. 398, \$9.00.

The following are a few of the salient points covered

in this 398-page volume, in which results of the researches of seven food industries have been thoroughly reviewed by specialists in the fields.

Important properties for candy-making applications have been determined in considerable detail for fats and starches. Significant recent progress has been made in stabilizing animal fats, particularly butter, against oxidative rancidity. Cocoa and chocolate have been studied more extensively for their specific applications in candy making than have any of the other ingredients of candies. The review on the spoilage of wines covers a literature of 100 years in a critical manner and interprets existing concepts in the light of recent knowledge. In the chapter on microbiology of animals it is stressed that, where practical, ultraviolet irradiation should be employed to reduce surface contamination and to permit more rapid tenderization. Use of antibiotics should be evaluated by the meat industry as a means of reducing contamination on meat surfaces. Most spoilage encountered in the frozen food field is due to improper handling of the product either prior to freezing or after it is thawed. In studies of the thermal destruction of thiamine in foods, the value of the kinetic approach has become evident. If further work is done along that line, one may expect rapid solutions of problems still outstanding.

This volume of *Advances in Food Research* should prove of immense value to all food technologists and industrial engineers engaged in food industries.

B. SURE

**The Role of Algae and Plankton in Medicine**, by Morton Schwimmer and David Schwimmer, Grune and Stratton, 1955, pp. 85, \$3.75.

During the past several decades numerous articles have appeared by botanists, nutritionists, and other scientific writers on algae and planktons as possible sources of foods for the increasing world population. This monograph is the first to assemble such knowledge of algae as is of interest to medicine. The microscopic algae are the simplest form of plant life, and the macroscopic algae are the seaweeds, which are used considerably in the Orient as extenders of foods, i.e., in soups, noodles, and in sauces. The planktons are divided into the phytoplanktons, which are the microscopic algae, and the zooplanktons, which are microscopic animals consisting of fish eggs and larvae of crabs, molluscs, and copepods.

The Chinese were perhaps the first to use algae for various diseases, especially goiter, which is understandable because of their high iodine content. The value of agar as a laxative is recommended by the U. S. Dispensary because of its colloidal property of absorbing and holding water without being digested. Since its utilization by Koch in 1881 for the culture and isolation of pathogenic organisms, agar has become an important adjunct of every hospital and bacteriological research laboratory. It is also used as a sealer and coating for pills.

Alginate acid is the hydrophilic colloidal polymer of

anhydro-beta-D-mannuronic acid, which is extracted from brown algae, especially the giant kelp. Alginates are being used in medicine as follows: (1) as a wound dressing; (2) as a mold for applying skin grafts; (3) as a hemostatic in brain and thoracic surgery; (4) as a decontaminant and therapeutic agent in mustard gas poisoning and burns; (5) as swabs in the bacteriological examination of eating utensils, since alginate "wools" adsorb more bacteria on wiping than does cotton. Anticoagulant and antibiotic properties of algal substances have also received attention. Laminarin, a product obtained from algae, has been used successfully as a blood plasma substitute on dogs in shock.

Microscopic algae have also been assigned an indirect role in some human disease states. The most familiar intoxications are the acute "paralytic" shellfish poisoning resulting from eating mussels and clams.

This is the most complete treatise on the use of algae in medicine. The word *plankton* in the title is superfluous, because only the phytoplanktons, which are microscopic algae, have a role in medicine. B. SURE

**Les Gastrites**, by F. Moutier and A. Cornet, Masson, Paris, 1955, pp. 404, bound 4.400 fr., paper 3.800 fr.

The problems raised by this study of gastric disorders are important ones, and their relevance is not limited to purely gastric questions. They also touch on complex biologic dysfunctions which involve, in the course of their development, almost the entire organism. The authors have approached this formidable subject armed with the experience of more than 12,000 gastroscopies. They attack it *qua* internists, familiar with general physiology and with all the techniques of medical science. For many problems they can offer conclusions, and they have also endeavored to be as complete as possible, for, without neglecting older studies, they have given the greatest weight to the modern research orientation.

A discussion of the chemistry and cytology of the stomach precedes a radiologic description applied to the various gastric entities, followed by a study of the normal and pathologic histology of the stomach wall, as well as of the evolutionary processes of its changes. The role of biliary reflux, clearly demonstrated by Lambling, is here given its due place. Radiology retains an honorable but restricted place in the diagnosis of gastric conditions.

The authors make a particularly careful and abundantly illustrated study of the histology of the gastritides. The reader can follow with them the elementary processes which lead, in a number of cases, to a single and common outcome: atrophic gastritis.

The clinical chapters are approached from the point of view of the problems posed by different etiologic factors. It is well-nigh impossible to set up simple schemata, and the authors recognize this very frankly.

The "superacute" gastritides, rare though they may be, are the object of a detailed analysis. Following this, the chapter on acute and subacute gastritides takes into account the different types of ulcerous gastritis. This allows one to understand the complex development of hypertrophic and atrophic chronic gastritides. Ingenious symptomatic and anatomic condensations permit the investigator to analyze and classify his personal cases.

Also studied are the gastritides seen after partial gastrectomy, with cutaneous disorders, and with diseases of the blood. The role of allergy in the gastritides is also discussed. This role is probably quite important but is often difficult to prove in the absence of any foolproof objective criterion.

What about the relations between ulcer and gastritis? Cruveilhier's ulcer is not derived from a gastric ulceration. The two histologic entities are different. But the ulcer is often accompanied by a gastritis of one type or another. Cancer and gastritis: a difficult problem, about which one can say that every chronic gastritis creates a terrain favorable to the development of cancer, without necessarily determining its developmental potential.

Therapy occupies a prominent place in this work, whether it is a question of the treatment of gastritides with microbial infection by antibiotics, of antigestralgics, of synthetic antihistamines, or of anticholinergic agents. The role of surgery in the gastritides is restricted and exceptional. The authors trace all the nuances of its indications, possibilities, and dangers.

The bibliography comprises 600 references, most of them to recent works. This quite remarkable work, written with a typically French clarity, marks both a point of arrival and a point of departure, and represents an essential contribution to both gastropathology and general pathology. HUGUES GOUNELLE

Books received for review by the AMERICAN 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.

*The Diabetic's Cookbook*, by C. B. Strachan, Univ. of Texas Press, Austin, 1956, pp. 304, \$6.50.

*Inorganic Nitrogen Metabolism: Function of Metallo-Flavoproteins*, edited by W. D. McElroy and B. Glass, Johns Hopkins Univ. Press, Baltimore, 1956, pp. 728, \$10.00.

*Protein Malnutrition—Proceedings of a Conference in Jamaica*, edited by J. C. Waterlow, Cambridge Univ. Press, 1955, pp. 277.

*Ciba Foundation Symposium on Experimental Tuberculosis: Bacillus and Host with an Addendum on Leprosy*, Little, Brown & Co., 1955, pp. 396, \$9.00.