

# Reviews of Recent Books



**Food for Better Performance**, by R. C. Hutchinson. Cambridge University Press, New York, 1958, pp. 102, \$2.75.

All of us want to eat well and live well, of course. There are many problems in selecting scientific criteria of "eubiosis," usually equated with freedom from disease and with longevity, and in documenting their relations to nutrition. But living well also involves well-being and good performance. While this constitutes the heart of the popular interest in human nutrition, the nutritional scientist is likely to be ill at ease when these subjects are brought up. The problem of the criteria of "goodness" raises perplexing questions, and rigorous experimentation in this area is difficult at best, if not impossible.

Dr. Hutchinson's aim is not to tackle the tricky problems of methodology or to add to the fund of existing factual information. He is writing for the intelligent layman rather than for his professional colleagues. Consequently, he introduces his presentation by chapters on the nutritive function of the more important food components, and on food utilization and energy requirements. A discussion of alterations of body weight is also inserted, without taking sides on the potential conflict between the definition of the desirable weight as "the weight at which one looks, feels and performs best" and, again, as an actuarial norm.

The core of the volume is the last three chapters dealing with physical activity and foods, mental activity and concentration and the desirable feeding patterns, respectively. The author's principal counsel will not arouse a stormy controversy, as far as its wisdom is concerned: Avoid the extremes. Adverse effects of an empty stomach or of overeating on performance can be combated by reducing the quantity of food eaten at each meal and increasing the frequency of meals to five or six by the addition of mid-morning and mid-afternoon snacks and light late supper. He warns the reader that the food eaten at the main meals must be adjusted downward so that the total amount of food consumed is not increased, advice easier to give than to follow.

Nutritionists will most likely believe that the evidence concerning the virtues of the proposed eating pattern, especially of what the author delightfully calls the "tea breaks," is less solid than one would like. In particular, the effects of rest-pauses alone, of fluid intake that has pharmacologic action but no nutritional value, and of food intake of specified caloric value and nutrient composition, are not clearly separated.

Those concerned with the effects of food on industrial performance will be uncomfortable when looking at a graph (p. 77) which is supposed to represent "a typical daily production curve for a routine industrial operation in which the human element plays a prominent role." The ordinate is not quantified. If, as the author states, "the data from which the curve was drawn were such that a quantitative comparison could not be made," why then proceed to make just such a comparison between the working rates in the early afternoon following a light snack (a good thing) and a full meal (a bad idea)?

Frank G. Boudreau stated fifteen years ago that "there was and still is sore need for controlled studies to throw light on the influence of diets and of various food factors on health and work output." The statement is not much less valid today, especially as far as performance is concerned. For the lay reader Dr. Hutchinson has summarized much that is known. Perhaps the chief value of his book for the professional reader will be the questions that remain in regard to industrial nutrition in general and in regard to fatigue (with depressed production rates toward the end of the morning and afternoon work period) and boredom (with decreased output at the middle of each work period), in particular. If mid-period snacks alleviate both fatigue and boredom, the mechanisms are probably different. In boredom the role of food is likely to be personal (emotional) and interpersonal rather than biochemical. This would not make, of course, the between-meal feeding any less practically relevant.

J. BROŽEK

**The Megaloblastic Anemias**, by Victor Herbert. Grune & Stratton, New York, 1959, pp. 181, \$6.00.

In this relatively short monograph the author has prepared a thorough discussion of megaloblastic anemias. Based on over 600 references, many exceptionally current, the review classifies megaloblastic anemias due to vitamin B<sub>12</sub> deficiency under the main headings of inadequate ingestion, defective absorption and inadequate utilization. A similar etiologic classification is used for folic acid deficiencies. The clinical picture, differential diagnosis and therapy are also fully presented.

Most of the concepts are orthodox according to current views. However, Dr. Herbert believes the term "megaloblastic anemia of pregnancy" should be discarded for reasons clearly stated. He also suggests that approximately 6  $\mu$ g. a day is a better estimate of the maintenance requirement of vitamin B<sub>12</sub>. Large

parenteral doses of the vitamin are recommended in the initial treatment of patients with this deficiency.

The author discusses only briefly his own views on the role of intrinsic factor in vitamin B<sub>12</sub> transport (*Am. J. Clin. Nutrition*, 7: 433, 1959) and indeed it can be said that the many conflicting observations and opinions in this field are all fairly represented.

This is a neat, thoughtful and complete treatise on a clinically important topic and the book can be recommended both as a reference source for investigators and as a useful practical guide for clinicians. S. O. W.

**Medical Discoveries: Who and When**, by J. E. Schmidt. Charles C Thomas, Springfield, Ill., 1959, pp. 555, \$14.75.

The author, according to the jacket of his new book, is President of the American Society of Grammatolators. (A grammatolator is an idolator of words.) Dr. Schmidt's book is a dictionary listing about 6,000 medical and related scientific discoveries. Each entry gives the name of the discoverer, his profession, nationality, floruit (i.e., 1777-1858) and the date of the discovery. By perusing this text, one can learn, for example, when ipecac was introduced in Europe, who first recognized ozena as a clinical entity, or who introduced the wool skein test for color vision. It is evident that much research has gone into preparing the entries. The author prides himself on having unearthed the given name as well as the surname of most of the discoverers.

In a treatise of this magnitude, one can find several items to quibble about. "Vitamin B<sub>3</sub>, discovery of" and "Vitamin B<sub>5</sub>, discovery of," for instance, will send most of us to other sources to find the meaning of these obsolete terms. The insertion of cross indexed references to two other dictionaries (recently published by Dr. Schmidt) in a compendium of medical discoveries would seem somewhat questionable, as would the entry "Cesium, effect of, on rate of oxidation of sewage" to describe an observation by the author himself.

On the whole, this book offers an unusual source of valuable information about many important and relatively obscure discoveries. It should prove useful as a reference text. J. E. WING

**Vitamins and Hormones. Advances in Research and Applications, Vol. XVII**, edited by Robert S. Harris, G. F. Marrian and Kenneth V. Thimann. Academic Press Inc., New York, 1959, pp. 324, \$14.00.

The seventeenth volume of this well known series of essays reflects the thin boundaries between nutrition, endocrinology and metabolism. Ashmore and Weber, for example, discuss the role of the enzyme, glucose-6-phosphatase in carbohydrate metabolism. This substance is affected by various hormones. Estrogens, serotonin and ergothioneine are also discussed.

Dalderup points out certain interesting similarities between atherosclerosis and toxemia of pregnancy. The biochemistry of the vitamin K group and the metabolism of folic acid round out the volume.

The usual high standards of this series have been maintained and again readers will find this volume a useful and authoritative collection of reviews.

S. O. W.

**History of the American Dietetic Association**, by Mary I. Barber. J. B. Lippincott Co., Philadelphia, 1959, pp. 328, \$6.00.

This book is the official history of the American Dietetic Association since its organization in 1917 to the present. It relates the growth in membership from the ninety-eight persons attending the first Dietitian's Conference in Cleveland to approximately 14,000 members in 1959. The author is well qualified to write such a history, for she has been a most active member in many capacities. She has drawn freely from articles in the Association's journal and from the detailed records of Mrs. Anna Boller Beach.

A publication such as this undoubtedly serves the membership of the Association. Many will experience a sense of nostalgia on reading it; they may justifiably take pride in the accomplishments in less than half a century. This reviewer, however, believes that the book serves other useful purposes. It serves as an objective record of the growth of a profession. The Association has fostered higher standards of academic preparation for the dietetic profession; has established a nationwide internship program; has set high levels of performance in the areas of administration, community nutrition, diet therapy and education so that food service for the well and the sick continues to improve; has established criteria for nutrition and dietetic courses in nursing and medical curricula; and has published for thirty-five years a journal which is authoritative in content and held in esteem by dietitians and nutritionists in medical circles and by food service groups. As an inspiring record of accomplishment, the book may well serve to enlighten young women seeking a career in a profession of ever-increasing prestige, where the demands far exceed the supply. This book will serve as a valuable reference in public and school libraries.

C. ROBINSON

**Gouty Arthritis and Gout. An Ancient Disease with Modern Interest**, by Thomas E. Weiss and Albert Segaloff. Charles C Thomas, Springfield, Ill., 1959, pp. 221, \$7.50.

"This compilation of theories, facts, clinical observations, pathology, treatment, and extensive bibliography, was undertaken to furnish the student, clinician, and investigator with a usable reference on gout." This quotation from the preface of the book adequately summarizes the contents. The authors have succeeded in carrying out their intentions as outlined in the preface.

The book is divided into well organized chapters so that one may use it with ease and efficiency as a source of reference for the many aspects of gout and gouty arthritis.

The largest portion of the book is concerned with a



description of the meticulous treatment of all phases of gouty arthritis. For this reason, the book will probably be of most value to clinicians. It is highly recommended to all physicians interested in this intriguing disease.

K. R. CRISPELL

**Evaluation of Protein Nutrition. Report of the Food and Nutrition Board.** Publication 711 of the National Academy of Sciences—National Research Council, Washington, D. C., 1959, pp. 60, \$2.00.

This important monograph was prepared by the Committee on Amino Acids of the National Research Council Food and Nutrition Board. The members are Drs. Andrews, Follis, Jr., Harper, Hegsted, Holt, Jr., Phippard, Williams and Allison (chairman). It is an evaluation of dietary protein meals which surveys protein and amino acid requirements, effects of deficiencies and (interestingly) excesses, dietary content and amino acid supplementation.

Of particular current interest is the discussion on lysine supplementation. In general the Committee does not anticipate any improvement of the normal diet in this country by supplementation of cereals with lysine.

Much attention is paid to the concept of biological value, the percentage of absorbed nitrogen retained in the body. On this basis the relative "values" of proteins are compared.

This is a clear and concise summary of the protein problem in the United States today. It may be taken as the considered opinion of some of the best informed workers in the field.

S. O. W.

**Nutritional Diagnosis**, by Grace A. Goldsmith. Charles C Thomas, Springfield, Ill., 1959, pp. 164, \$5.50.

This concise, well written monograph provides an up-to-date and authoritative account of nutritional diagnosis. Clinical recognition of nutritional disease is emphasized with attention to pertinent biochemical alterations, pathophysiology and therapy. An introductory chapter provides the reader with the background and philosophy of the author who is an expert in this field. There are well documented discussions on caloric undernutrition and obesity; protein, carbohydrate and lipid metabolism; and mineral and vitamin nutrition. A short chapter on the future of nutritional diagnosis stresses the importance of being cognizant of both primary nutritional diseases and of nutritional observations in other diseases. The text is clearly and interestingly written. Both the index and a selected bibliography are adequate.

This monograph is a welcomed addition to medical literature. Its brevity and simplicity will make it a valuable book for medical students, practitioners and members of allied professions who are interested in nutrition.

C. M. LEEVY

#### BOOKS RECEIVED

Books received for review by *The American Journal of Clinical Nutrition* are acknowledged here. As far

as practicable, those of special interest are selected, as space permits, for review.

*World Review of Nutrition and Dietetics*, edited by Geoffrey H. Bourne. J. B. Lippincott Co., Philadelphia, 1960, pp. 272, \$12.00.

*Ciba Foundation Study Group No. 4. Virus Virulence and Pathogenicity*, edited by G. E. W. Wolstenholme and Cecilia M. O'Connor. Little, Brown & Co., Boston, 1960, pp. 114, \$2.50.

*Kochsalzarme Kost*, by H.-J. Holtmeier. Georg Thieme Verlag, Stuttgart, 1960, pp. 416, DM 39 (\$9.30).

*From Fish to Philosopher. The Story of Our Internal Environment*, by Homer W. Smith. Ciba Pharmaceutical Products, Inc., Summit, New Jersey, pp. 304.

*Food Enrichment in South Africa*. South African Council for Scientific and Industrial Research, Pretoria, South Africa, 1959, pp. 157, 21s.

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

*Food Preferences of Men in the U. S. Armed Forces*, by David R. Peryam, Bernice W. Polemis, Joseph M. Kamen, Jan Eindhoven and Francis J. Pilgrim. Department of the Army, Chicago, 1960, pp. 160.

*Vitamin B<sub>12</sub>*, by Lester E. Smith. John Wiley & Sons, Inc., New York, 1960, pp. 196, \$3.00.

*Anorexia Nervosa. Its History, Psychology, and Biology*, by Eugene L. Bliss and C. H. Hardin Branch. Paul B. Hoeber, Inc., New York, 1960, pp. 210, \$5.50.

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

*Essentials of Fluid Balance, 2nd edition*, by D. A. K. Black. Charles C Thomas, Springfield, Ill., 1960, pp. 135, \$4.50.

*British Medical Bulletin, Volume 16, No. 2. The Thyroid Gland*. British Council, London, May 1960, \$3.25.

*The Thyroid-Vitamin Approach to Cholesterol Atherosclerosis and Chronic Disease: A Ten-Year Study*, by Israel Murray. Vascular Research Foundation, New York, 1960, pp. 132.

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

*Aids to Biochemistry, fifth edition*, by S. P. Datta and J. H. Ottaway. Ballière, Tindall & Cox, London, 1960, pp. 266, \$3.75.

*The Chemical Senses in Health and Disease*, by H. Kalmus and S. J. Hubbard. Charles C Thomas, Springfield, Ill., 1960, pp. 95, \$3.75.

*The Year Book of Endocrinology*, edited by Gilbert S. Gordan. Year Book Publishers, Inc., Chicago, 1960, pp. 384, \$8.00.

*Medicinal Chemistry, 2nd edition*, edited by Alfred Burger. Interscience Publishers, Inc., New York, 1960, pp. 1243, \$37.50.

