

Reviews of Recent Books



Proceedings of Symposium on Nutritive Aspects of Preserved Food (SIK-Publication 115), Swedish Institute for Food Preservation Research, Göteborg, 1956, pp. 173, 30:-Sw. Fr.

There were 63 participants in this Symposium, representing eight countries, although most were from Sweden. The following are some of the salient points covered:

In spite of pasteurization, quite a number of people acquire diseases through milk. Extensive losses of valuable food have also taken place through milk bacteria. Gradually higher and higher temperatures are required in pasteurization to avoid all serious direct or indirect contamination by this channel. Sterilized milk may be considered completely safe, and in several countries milk sterilization is gradually becoming common practice.

With regard to toxicity in foods, it is pointed out that a substance in its free state may be toxic but harmless in combined form. As an example, the fluorine in the intestines of whales, seals, and several other animals, which constitute the basis of food of the Greenland Eskimos, is so high that it is far above the toxic levels; but apparently it is organically bound in such a way that no danger exists.

From enzymic model experiments it is known that a fat-protein complex (lipoprotein), for instance, is more readily attacked by the fat-splitting enzymes (lipases) than is the isolated fat. The proteinases seem to show the reverse reaction, being more active when the protein is free. These are basic facts which in the future will give a new approach to the technique of food preservation.

It was concluded from papers presented in this Symposium that the canning processes as a whole result in a remarkable degree of conservation of nutrients, provided reasonable precautions are taken by the canner. Delays in handling the raw materials must be avoided; the methods used in blanching vegetables must be closely controlled, so as to avoid the extraction and loss of water-soluble vitamins at this stage; and excessive sterilization processes must not be used, if the full thiamine content is to be retained. B. SURE

A Symposium on Amino Acid Metabolism, edited by W. D. McElroy and H. Bentley Glass, The John Hopkins Press, Baltimore, 1955, pp. 1048, \$12.50.

Roughly one-fourth of the 58 papers comprising the symposium deal with general aspects of amino acid

metabolism, the remainder with specific amino acids. The contributions consist of general reviews up to 50 pages in length and of shorter papers describing features of the metabolism of individual amino acids. The result is one of the most comprehensive presentations of this rapidly evolving field to be found anywhere.

Presentations that the writer found of special interest included the discussions of amino acid oxidases, decarboxylations, and transaminations by Meister and the extensive review of transport of amino acids into cells by Christensen. Striking progress in the experimental study of protein formation by a number of contributors are of fundamental significance, especially to those concerned with nutrition. These reports include descriptions of the synthesis of three enzyme systems by disrupted staphylococci in the presence of ATP, hexose diphosphate, an amino acid mixture, and RNA and DNA or their equivalent as purines and pyrimidines. Deserving mention also, is the hypothesis of Dubnoff, who ascribes to vitamin B₁₂ an ability to induce activity in enzymes which exist in the cells in an inactive state. According to this view, all enzymes within the genetic capacity of an organism are synthesized. However, many remain inactive because of instability in the absence of substrate. These may be reactivated by vitamin B₁₂.

The key position of glutamic acid in metabolism in the citric acid and urea cycles receives emphasis by many participants. Schema are presented describing the biosynthesis and degradations of histidine, the branched chain amino acids, threonine, the methyl transfer cycle, lysine, the sulfur-containing amino acids, the succinate-glycine cycle, and the aromatic amino acids. A section is devoted to the role of the amino acids in purine synthesis.

New or recent information concerning sites of action of certain vitamins and co-factors is presented. Thus, serine biosynthesis from glycine involves pyridoxal but is enormously accelerated by tetrahydrofolic acid. Evidence that citrovorum factor acts as a co-factor in formate exchange by the way of formyl folic acid is offered. A summary by H. Bentley Glass is helpful.

This new volume in the McCollum-Pratt Symposium series provides stimulating reading in the field of amino acid metabolism. The reviewer considers it to be indispensable to those concerned in anyway with amino acid or protein metabolism. J. G. RHEINHOLD

The Diabetic's Cookbook, by Clarice B. Strachan, with introduction by Charles H. Best, M.D., The Medical Arts Publishing Foundation, Houston, 1955, pp. 304, \$6.50.

The author of this cookbook is a homemaker who has developed the recipes during the years of care of her own diabetic son. The recipes have been checked by two dietitians, Mary Ellen Dambold and Julia Ann Barney.

The purpose of this book is "to introduce variety or flexibility into the prescribed diet." Calculations of the recipes are based on the six meal exchange lists. Six recipe sections, namely breads, fat exchanges, fruit exchanges, meat exchanges, milk exchanges, and vegetable exchanges, include those recipes most closely related to each of these exchange lists. Eight major recipe sections—beverages, cakes and cookies, candies, gelatine and pudding desserts, frozen desserts, pastries, salads, and sandwiches—include recipes that may be related to any of the exchange lists. For example, a sandwich may be equally related to the bread and meat exchanges.

Only one recipe is detailed on a page. The calculations for each ingredient are given, and in bold type the exchange value of one serving is indicated. Thus, at a glance the patient may determine whether a recipe will fit into his prescription.

For the most part, family size recipes are given so that the homemaker may use them in her meal planning. The ingredients are those readily available and methods of preparation are clearly given. The recipes using Sucaryl® will be of special interest since they do permit greater variety within a diet prescription.

The cost of the book will, no doubt, be a deterring factor to some patients who might well profit by the guidance provided therein. The author is to be commended for her well organized, clear presentation.

C. ROBINSON

A Pictorial History of Medicine, by Otto L. Bettmann (foreword by Philip S. Hench), Charles C Thomas, Springfield, Ill., 1956, pp. 318, \$9.50.

For many years the name "Bettmann Archive" has appeared under some of the most interesting illustrations of historical medicine to be found anywhere. From this vast storehouse (said to contain over one million prints) Otto Bettmann has selected 1000 pictures which highlight medical progress from the Egyptian god, Horos, to Osler, Roentgen and Ehrlich. The pictorial material is supplemented by a lucid running commentary which clearly indicates a wide knowledge of medical history.

As might be expected, the largest section is devoted to medicine in the middle ages. The vividness of many of these prints forms unexcelled teaching material for a proper appreciation of the growth and development of medicine. In addition to medicine as it was practised, there are many pictures of the individuals whose work or personality produced a profound impression on their contemporaries or on posterity.

With an index and a foreword by the Nobel Laureate, Philip S. Hench, this book should prove useful as well as entertaining. The price seems reasonable considering the high cost of publishing pictures at the present time. Any person who has more than a passing interest in the struggles, the victories and defeats, the discoveries and the quackeries of medicine through the ages will enjoy this book. For anyone it will enhance the appreciation of our profession.

S. O. W.

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.

Of Water, Salt and Life, Lakeside Laboratories, L. W. Frohlich & Co., New York, 1956, pp. 72.

Ageing in Transient Tissues (Ciba Foundation Colloquia on Ageing, Vol. 2), Little, Brown & Co., Boston, 1956, pp. 263, \$6.75.

Internal Secretions of the Pancreas (Ciba Foundation Colloquia on Endocrinology, Vol. 9), Little, Brown & Co., Boston, 1956, pp. 292, \$7.00.

Cookery Encyclopaedia, Philosophical Library, New York, 1956, pp. 480, \$10.00.

Observations on Krebsien in the Management of Cancer, A. C. Ivy, J. F. Pick and W. F. P. Phillips, Henry Regnery Co., Chicago, 1956, \$2.50.

Kenney Visits the Hospital, Julia Ann Bartosh, Exposition Press, New York, 1956, pp. 62, \$2.50.

Bulletin World Health Organization, WHO, Geneva, Switzerland, 1956, pp. 837, \$2.00.

Experimental Tuberculosis (Ciba Foundation), Little Brown & Co., Boston, 1956, pp. 396, \$9.00.

Applied Animal Nutrition, by E. W. Crampton, W. H. Freeman & Co., San Francisco, 1956, pp. 478, \$6.50.

History of Hygiene, by H. E. Sigerist, Oxford University Press, 1956, pp. 78, \$3.00.

The Use of Chemical Additives in Food Processing, National Academy of Sciences—National Research Council, Washington, 1956, pp. 90, \$2.00.

