

the important developments in study and research have been drawn upon and used with the older material to make a consistent whole. Several chapters have been completely rewritten and two new chapters have been added. Certain rearrangements have been made in the interests of teaching, which like other changes reflect the experience of the years of classroom use by the author and others, but the general sequence of topics followed in the first edition, which means a chapter devoted to each important type of food, is unchanged. In both editions the following subjects are treated: production and preparation for market with statistical and economic data; proximate composition and general food value, sanitation, methods of inspection and standards of purity; and composition, digestibility, nutritive value and place in the diet.

The last decade has witnessed a very great interest in vitamins and a large addition to the knowledge of them. This newer work is particularly well treated in the book and in such a way that it falls into line with other factors which make up food value.

A new chapter deals with food adjuncts, unclassified food materials and extra foods eaten between meals, as well as salt, spices, flavoring extracts, vinegar and household and commercial beverages, substances about which information is not readily available. There is also a new chapter on food budgets and food economics.

The appendices are an important feature of this volume, as of the earlier one, and have been increased by a table on food products as sources of vitamins A, B and C, and another dealing with food legislation.

The subject index which concludes the volume is full and well arranged.

It is evident that the author has taken unusual pains in the selection of his material and in its arrangement and presentation and it is a readable book as well as a text-book and work of reference for general use.

As should be the case the author in making this book has drawn largely on his own extensive and important research work and study of food and nutrition problems. This adds not only to the interest of the book but greatly to its value.

C. F. LANGWORTHY

WASHINGTON, D. C.

Evolution or Christianity. By WILLIAM M. GOLDSMITH, Ph.D. The Anderson Press, Winfield, Kansas. 50 cents.

UNDER the title of "Evolution or Christianity," Professor William M. Goldsmith undertakes to meet the various anti-evolutionists on their own ground.

He considers patiently all those whose ideas are in print, showing in what degrees each can be convicted of ignorance or dishonesty. Meanwhile he upholds the belief that there is no necessary conflict between Christianity and evolution, except when one or both is grossly misunderstood. There is no conflict between verified knowledge, on the one hand, and the sense of awe, reverence, duty and love on the other. The warfare of science rages around non-essentials.

Dr. Goldsmith is a young teacher of science, well trained and well informed. His work is issued in cheap form for wide distribution. It is a response to a real need in these days, and it is a pity and a shame that such necessity exists.

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SPECIAL ARTICLES

ULTRAVIOLET LIGHT AND SCURVY

IN his most interesting "Treatise on Scurvy," written in 1757, Lind repeatedly emphasizes the fact that scurvy is more prevalent in northern latitudes and that it usually occurs in southern latitudes during the rainy season and is improved by change of weather. He speaks of the fact that in several channel cruises when the weather was fine there was no scurvy after 12 weeks, but that on two cruises during cold rainy weather scurvy broke out in a month. In view of the fact that ultraviolet light can prevent the occurrence of rickets, Lind's book at once suggests that it may have been the lack of sunlight rather than the presence of moisture which led to outbreaks of scurvy during the rainy season.

This possibility is strengthened by a review in the *Lancet* (Vol. 1, 1917, p. 462) which states that in the winter of 1915 the Turkish wounded, who were suffering with scurvy, were greatly improved by exposure to sunlight. These results naturally suggest that ultraviolet light might have a beneficial effect both in the healing and in the prevention of scurvy. However, three series of experiments on guinea pig scurvy have shown entirely negative results.

Experiment I: Twelve guinea pigs, weighing about 290 gms each, were divided into two lots, with some light and some dark animals in each group. Six were depilated once a week on one side over an area of approximately 15 sq cm and radiated daily for 10 minutes at a distance of 12 inches from a Hanovia Alpine Sun quartz mercury arc, running on 110 D.C. at 58 volts and 3 amperes (11 lithopone units of ultra-violet light). The guinea pigs showed a very marked erythema followed by desquamation. A control experiment showed that the depilation in itself did not affect the health or rate of growth of the animals.