

**Cosmology**

A Text for Colleges. By Prof. J. A. McWilliams. Second revised edition. Pp. x+243. (New York: The Macmillan Company, 1938.) 9s. net.

TO many readers this book will seem old-fashioned, with little reference to the technical problems which face the modern scientific worker. For one thing, the bibliographies given at the end of each chapter and at the end of the book show a complete disregard of the recent technical literature by leading specialists on mathematical and physical theory. Father McWilliams approaches his problems from a scholastic angle. But there is no reason for giving the impression that scholasticism is necessarily backward.

Many readers would be interested to know how the fundamental ontological and cosmological theories of scholasticism can be interpreted in terms of modern scientific discoveries; and this interpretation is, no doubt, possible. This book, however, is valuable in suggesting such an approach, provided one could go much further than the elementary details it takes into account. The argumentative method adopted is also refreshing. As to the controversial issues involved, the author repeats the classical solutions, where he could use, with greater effect, examples and arguments from recent scientific discoveries.

**PHYSIOLOGY****Nahrung und Ernährung**

Altbekanntes und Neuerforschtes vom Essen. Von Dr. Hans Glatzel. (Verständliche Wissenschaft, Band 39.) Pp. vii+256. (Berlin: Julius Springer, 1939.) 4.80 gold marks.

THE author of this book set himself the task of presenting the elements of the science of nutrition in a manner which would make them intelligible to every German citizen. An introductory section discusses food and nutrition in the animal kingdom and the physiological basis of nutrition. Dr. Glatzel then considers the composition and distribution of the foodstuffs within the Third Reich and the effective methods of conditioning, preserving and cooking. The role of the sense-organs in digestion is adequately described and, in the treatment of the hygiene of eating, the author takes great pains to emphasize the distinction between hunger and appetite. In dealing with food-requirements and the variations, the effectiveness of the Allied blockade in 1914-18 receives considerable prominence, indications being made to suggest that such a condition can never again be possible in Germany. Particular food-fads and dietetic methods are examined and, where necessary, exposed. In an excellent chapter the author discusses the significance of food and nutrition in myth and religion. In conclusion, nutrition is related to the social problem, due regard being paid to the organization of Germany's food economy. The real purpose of the book is revealed in its last sentence: "Von den Nahrungs-wahl jedes einzelnen, von seinem gutem Willen und seiner Einsicht hängt es aber auch ab, wie schnell und

wie vollständig wir das grosse Ziel erreichen: Deutschlands Nahrungsfreiheit."

A glossary and suggestions for further reading are appended, although there is no index. T. H. H.

**The Newer Knowledge of Nutrition**

By Prof. E. V. McCollum, Dr. Elsa Orent-Keiles and Dr. Harry G. Day. Fifth edition, entirely rewritten. Pp. ix+701. (New York: The Macmillan Company, 1939.) 18s. net.

IT is like meeting an old and much-loved friend after many years to have in one's hand a new edition of "McCollum". This is the fifth and it appears after an interval of no less than ten years, which is a whole epoch in the recent history of nutritional science. In its preparation Prof. McCollum has had the assistance of two collaborators, Elsa Orent-Keiles and Harry G. Day, and I rather feel the work has to a slight extent lost individuality as a result. But that is a small fault to find with a work that so ably and so adequately reviews the wide range of human and animal nutrition. Indeed, instead of a slight sense of disappointment that the book has not quite the 'personality' earlier editions had, one should feel very grateful that Prof. McCollum and his two colleagues have succeeded in producing a little more than six hundred very readable pages from their survey of so vast a literature. It need scarcely be said that the work is indispensable to all who wish to keep abreast with nutritional science and its application to human and animal welfare. But Prof. McCollum must realize that having produced what has for long been regarded as a standard work, we shall all be greatly disappointed if we are obliged to wait ten years for the next edition. J. C. DRUMMOND.

**The Physiological Basis of the Art of Singing**

By Haydn Hemery. Pp. xviii+139. (London: H. K. Lewis and Co., Ltd., 1939.) 10s. 6d. net.

SINGING is without question an art, but there should be at least an element of science in the training of singers. The technique employed is very difficult to discover from conversation with teachers of singing. The difficulty is partly due to lack of common vocabulary, and too often also the same words are used by singers and scientists with quite different meanings.

The literature of voice training is comparatively small. The 'secrets' of the teachers have been for the most part passed down by word of mouth from one generation to the next. Mr. Hemery has attempted to supply the written deficiencies in a way in which teachers of singing can learn more of the scientific side of their work. The simple and clear anatomical diagrams are perhaps the most valuable part of the book.

For the scientific reader the book is scarcely satisfying, nearly every page leaving a number of queries in the mind. Moreover, the science is curiously mixed with unscientific statements, as, for example, in the numbered captions to one of the chapters, which runs thus: "Love is unification at an emotional level, for it is impossible to love and be wise."