

### Our Bookshelf.

*Principles and Practice of Butter-Making.* By Dr. G. L. McKay and Prof. C. Larsen. Third edition, largely rewritten. Pp. xiv+405. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1922.) 15s. net.

THE volume under notice is the third edition of one of the best-known American books on commercial butter-making; it deals with the subject with great thoroughness, and contains information which has been collected from the best sources. The introductory chapters give an account of the composition of milk, its secretion, and the conditions which influence secretion. Next come the properties of milk, and these are followed by an account of the changes which milk undergoes when heated. In an account of the peculiarities of butter fat, stress is laid upon the great value of this fat in nutrition, owing to its content of the fat soluble vitamin A. There are chapters on the enzymes and bacteria found in milk, and the causes which induce variations in the percentage of fat.

Sampling and testing of milk and cream, both from the point of view of fat content and suitability for butter-making, are dealt with, and the best creamery methods for the estimation of fat in butter are given, while there are also chapters dealing with modes of payment for milk and cream delivered to the factory.

The various types of separators and the best means of separating milk naturally occupy a prominent place, and the preparation of the cream for churning is fully discussed. Excellent chapters are written upon the churning, working, washing, and finishing of butter from the point of view of creamery practice. Packing and marketing of butter; defects and their causes; judging and grading; storing, particularly cold storage (descriptions of the plant are also given), are all dealt with fully.

*Handbook of Commercial Geography.* By Geo. G. Chisholm. New edition. Pp. xvi+824. (London: Longmans, Green and Co., 1922.) 25s. net.

ALL geographers and economists will welcome this new edition of Mr. Chisholm's well-known work with its scrupulous accuracy of detail. The previous edition was published eleven years ago: the present, a ninth edition, was almost ready when war broke out in 1914. The necessary delay in publication has enabled Mr. Chisholm to revise the book according to the present condition of the world. The book has been reset throughout, which has allowed the incorporation in the proper places in the text of the matter in several of the introductions of earlier editions, and the chapter on trade routes. The section on the British Isles has been extended considerably. Several new maps have been added including rainfall and actual temperature charts. The valuable statistical appendices have been revised to 1913 and increased in number. A new feature is a long list of alternative geographical names. While the book has grown, its well-known features remain unchanged, and few works of reference are better arranged or indexed than this standard volume on commercial geography. It is a monument of painstaking research; clear thinking, and encyclopædic

knowledge, indispensable not only to every serious student of geography and economics, but also to all engaged in trade and commerce.

*The Canary Islands: Their History, Natural History, and Scenery: An Account of an Ornithologist's Camping Trip in the Archipelago.* By D. A. Bannerman. Pp. xvi+365+pl. (London: Gurney and Jackson, 1922.) 30s. net.

THE problems presented by insular faunas and floras are of the greatest interest both to the student of geographical distribution and to the geographer. Chapters V. and VI. of this rather uncomfortably heavy book deal respectively with the affinities and origin of the Canarian flora, the modes of dispersal of the trees and plants, the distribution of animal and bird life in the Canary Islands, and some problems which they suggest. The author gives numerous examples of the influence of complete isolation on the differentiation of birds no longer able to interbreed with the continental stock from which they sprang; and in some cases, e.g. that of the Fuerteventura bustard, is able to suggest how the local conditions may have contributed towards the selection of geographical subspecies. The chapters on the origin, geology, and physical characteristics of the islands are convenient summaries for the general reader, while references to larger works and original papers will enable those who wish to consult the first-hand authorities.

*Les Maladies parasitaires des plantes (Infestation-Infektion).* Par M. Nicolle et J. Magrou. Pp. 199. (Paris: Masson et Cie, 1922.) 8 francs.

Two doctors of the Pasteur Institute have collaborated on the production of a text-book chiefly for the benefit of the medical profession. The ground covered is very wide, including diseases due to both insects and fungi. Part I. deals largely with gall formation, with short chapters on acarids and nematodes. The remaining parts give an outline of the diseases due to phanerogams, fungi, and bacteria, with a general discussion of such questions as virulence of attack and resistance to disease. The complete absence of illustrations is a very serious drawback, even though it be considered necessary on account of cost. A further disadvantage is the lack of a bibliography, which would partly have compensated for the very brief treatment of each subject. In other ways the book is well produced and will serve a useful purpose in making information on plant diseases available to medical men.

*Clocks and Watches.* By G. L. Overton. (Pitman's Common Commodities and Industries Series.) Pp. ix+127. (London: Sir Isaac Pitman and Sons, Ltd., 1922.) 3s. net.

MR. OVERTON has given us a most useful and interesting volume, describing the gradual evolution of time-pieces from the early water clocks, through the balance clock, down to the modern pendulum clocks and chronometers. There are many illustrations, and the various methods of compensating for temperature are described in plain non-technical language. In addition there are details, probably new to many readers, relating to the striking mechanism of clocks and of repeater watches. The latter are stated to have come