

so-called unit character can not readily be regarded as something located originally in a chromosome or chromomere. . . . It may be argued, therefore, in criticism of the Mendelian conception of unit characters, that it takes little or no account of the metabolism of the organism as a whole." How great a heresy to proceed from Cambridge! The book is indeed a mine, but the function of the reviewer can not be to extract the ore.

It is pleasing to find the volume dedicated to Mr. Walter Heape, to whom we owe so great a part of what is known of the physiology of the oestrous cycle, as well as much besides that is pertinent to this volume. More pleasing still is the style in which the whole work is written. In reading this volume one never tires, and there is little chance of getting lost. Adequate reference to an enormous literature and a comprehensive index add value to the book.

Dr. Marshall's pioneering treatise brings abundant help and inspiration to investigators within the several divisions of its field, and will ably and authoritatively serve the needs of the practical breeder and gynecologist.

OSCAR RIDDLE

Methods of Organic Analysis. By HENRY C. SHERMAN, Ph.D., Professor of Food Chemistry in Columbia University. Second edition. Rewritten and enlarged. New York, The Macmillan Co. 1912. \$2.40 net.

The author has collected in this volume the methods of analysis of the more important organic compounds especially as applied to plant and vegetable substances and their manufactured products. They include such subjects as alcohols, aldehydes, sugars, oils, fats, waxes, soap, milk and preservatives. The best recognized methods have been selected and attention called to precautions necessary to secure satisfactory results.

One who wishes to know the best methods of analysis can not do better than consult this book, as the author has increased its value by adding, at the end of each chapter, a list of reference books and journal references for the past ten years. The use of this book by stu-

dents would certainly give them practise in a considerable variety of analyses and make them capable of handling any ordinary problem presented.

J. E. G.

A College Text-book on Quantitative Analysis. By H. R. MOODY, S.B. (M.I.T.), A.M., Ph.D. (Columbia), Associate Professor of Analytical and Applied Chemistry, College of the City of New York. New York, The Macmillan Co. 1912. 165 pages. \$1.25 net.

This book, as the author states, is designed to be used by those who may be taking up quantitative work by themselves or with an instructor whose classes are too large to admit of much individual attention. It contains very explicit directions regarding every detail and is intended to make obvious the unnecessary pitfalls that consume time. For the purpose for which it is designed and for use in a brief course in a high school or college this book should be of great value in training the student in exact methods of procedure; but it seems too mechanical to put in the hands of a graduate student who is making a specialty of chemistry and is approaching the subject in a broad and comprehensive manner.

J. E. G.

Qualitative Organic Analysis. By F. B. THOLE, B.Sc. (London), F.C.S., London University Exhibitioner in Chemistry, Lecturer in Organic Chemistry, East Ham Technical College, with an introduction by H. E. DUNSTAN, D.Sc. (London), Head of the Chemical Department, East Ham Technical College. London, Methuen & Co., Ltd.

In the introduction attention is called to the fact that "no royal road exists for the identification of an organic compound." The aim of this book is to afford a concise treatment of the subject on simple and logical lines, proceeding from the determination of the elements present in each case to the final characterization of the compound. The author has given a description of the common operations in practical organic chemistry, de-

termination of the melting and boiling points and preliminary tests for the elements present, before taking up the identification of the class and individual. These are clearly and concisely stated and should lead to the identification of the more important organic substances, provided the identification is substantiated by the preparation of the substance itself, without which no identification is really satisfactory.

J. E. G.

Notes on Qualitative Analysis. By HORACE G. BYERS, Professor of Chemistry, University of Washington, and HENRY G. KNIGHT, Director of Experiment Station, University of Wyoming. New York, D. Van Nostrand Co. 1912. \$1.50 net.

We have here a further addition to the already too numerous volumes on qualitative analysis. The author has devoted, as we find to be the case in most of the recent books on this subject, the first fifty or so pages to a discussion of the physical-chemical principles of the subject before taking up the chemistry of the metals and their separation. The usual methods of analysis are used in most cases and at the end of each chapter questions of a general nature regarding the metals of that group and their compounds are added. One feature of the book which is to be specially commended, owing to the increasing use of special alloys, is the introduction of a chapter on the analysis of materials containing the so-called rare metals.

J. E. G.

Sociology in its Psychological Aspects. By CHARLES A. ELLWOOD, Ph.D., Professor of Sociology in the University of Missouri. New York and London, D. Appleton & Co. 1912. Pp. 402.

This is a thoughtful book, based on wide reading and careful scholarship. The large range of subjects with which it deals have all, at one time or another, attracted the serious attention not only of sociologists, but of many psychologists as well. The presentation of these subjects follows a logical order. The first

six chapters are largely introductory. They discuss the conceptions, methods and problems of sociology and the relation of sociology to other sciences. Later chapters treat of the origin of society, social coordination, social self-control, the rôle of instinct, feeling, intellect, imitation and sympathy in the social life, the social mind and forms of association. The final topics are entitled social order, progress and the nature of society.

The chief unifying feature of the book is the author's conception of society. Society he defines as a group of individuals carrying on a collective life by means of mental interaction. In consequence the fundamental task of the sociologist becomes the study of the continuously changing coordinations or coadaptations of the activities of the members of groups and of the relations of groups to the environment. Sanctioned modes of coordinated activity become institutions. Systems of government, law, religion, morality and education, however, are not to be understood from the standpoint of any single mental element, such as instinct, imitation, sympathy, feeling, desire or intellect. Nor are they to be understood from the standpoint of any special science, such as geography, ethnology or economics. A synthetic view is necessary.

During the course of the book, Professor Ellwood views this central position from almost every conceivable abstract point of view. The terms society, sociology, the collective life process, the unit of investigation in sociology, social psychology, social coordination, intermental stimulation, instinctive association, social forces, social mind, social consciousness, social will, public opinion, social organization, social control and many others that have appeared in sociological articles or books during the past twenty years, are all defined with great care and considered in detail. The various meanings that have been read into them by those who invented them or who have used them most are discussed. The reader is told in clear language exactly how these meanings differ from each other and from Professor Ellwood's own conceptions.

The value of the work thus accomplished is