

view of enabling the imagination to grasp some idea of the "scale of magnitudes in the world of molecules". This is followed by a discussion of the bearing upon the theory of the study of ultra-microscopic particles. No mention is made of electrons, nor are the modern views of atomic structure dealt with. This is rather surprising, since an elementary discussion of the subject would probably make a stronger appeal to the young student's imagination than Planck's conception of energy quanta and Einstein's extension of his ideas, which are introduced into the section on specific heats. The chapter on classification is perhaps the weakest part of the book. It opens with a highly condensed scheme of qualitative analysis which seems to serve no useful purpose. Both the scheme and the doggerel verses which precede it might well be banished from the modern text-book. Classification of the elements is discussed up to the work of Mendeleeff, with the addition of elements discovered since then. No explanation is given of the atomic numbers which are to be found in the table on p. 289.

*Telegraphy and Telephony, including Wireless: an Introductory Textbook to the Science and Art of the Electrical Communication of Intelligence.* By Dr. E. Mallett. Pp. ix + 413. (London: Chapman and Hall, Ltd., 1929.) 21s. net.

ELECTRIC communication whether by wires or by radio is now an art of great commercial importance. It is not surprising, therefore, that there are many text-books written on the subject. Many of these deal with highly specialised applications and several are written for the telegraphist or the telephone linesman, but there are very few which attempt to give an outline exposition of the scientific principles on which the whole art is based.

In the book under notice, Dr. Mallett successfully gives such an exposition. It is designed to meet the needs of the university or technical college student who has studied electricity and magnetism up to the second year standard. It should prove useful for students preparing for the final examinations in telegraphy and telephony for the B.Sc. (Eng.) of the University of London. From the student's point of view it would have been desirable to include a few examination questions with complete solutions in various parts of the book. The explanation of the so-called skin effect is perhaps too brief, and in several places not sufficient stress is laid on the fact that sine assumptions have been made. We can commend this book to the student who intends to take up electric communication as a career.

*Human Biology and Racial Welfare.* Edited by Prof. Edmund V. Cowdry. Pp. xviii + 612. (London: H. K. Lewis and Co., Ltd., 1930.) 28s. net.

THIS book is addressed to the student about to specialise and to the general reader. It consists of twenty-five essays by eminent authorities in their own fields, and is divided into five parts leading from the origin of man to a consideration of his destiny. The contributions maintain a high

scientific level and nevertheless are so written as to be easily understood by those not acquainted with technical terms. This is a somewhat remarkable achievement. But it may be asked whether the editor has not set himself an impossible task. Though care has been exercised in arrangement, the effect cannot be other than to give the impression of a collection of scraps. The field is vast and those parts of it which are touched upon are briefly, sometimes very briefly, treated. There seems to be no reason why some problems are included and others omitted. The reader finds himself setting off on a number of journeys, and before he has got accustomed to the scenery he is off again in a new direction. Integration, which is presumably one of the objects of the book, is not achieved. Those to whom the book is addressed require a guiding thread, which perhaps could be given if the book was the work of one hand; but no one with a reputation to lose would attempt the task single-handed. A worthy attempt has been made to fill a gap which undoubtedly exists by the alternative method, but with a degree of success that is necessarily limited by the defects of that method.

*Fütterung der Haustiere: ihre theoretischen Grundlagen und ihre wirtschaftliche Durchführung.* Von Prof. Nils Hansson. Deutsch von Dr. Franz von Meissner. Zweite, umgearbeitete und erweiterte Auflage. Pp. xv + 274. (Dresden und Leipzig: Theodor Steinkopff, 1929.) 10 gold marks.

THE first edition of this work appeared in 1926. In the present edition, Prof. Hansson has reviewed the subject matter of the former edition in the light of the progress which has been made in animal nutrition research during the last decade. A chapter on vitamins, their distribution and significance, has been inserted. The question of the biological value of the constituents of feeding stuffs is also dealt with. Other new features of the present edition include: accounts of feeding stuffs which have been introduced recently into feeding practice; the scientific aspects of poultry nutrition; the regulation of bulk in the feeding of farm animals; the mineral requirements of different classes of farm stock. The tabular matter in the final section has been augmented by the inclusion of data showing the reactions of the ash constituent of the common feeding stuffs.

*The Material Culture and Social Institutions of the Simpler Peoples: an Essay in Correlation.* By L. T. Hobhouse, G. C. Wheeler, and M. Ginsberg. (The London School of Economics and Political Science: Series of Studies in Economics and Political Science, No. 3 of the Monographs on Sociology.) Pp. v + 299. (London: Chapman and Hall, Ltd., 1930.) 10s. 6d. net.

THIS is a photographic reproduction of a book first published in 1916, though there is no intimation to that effect and the title-page bears the date 1930. It was, and still is, a monograph of great value for the study of primitive peoples, but so much work has been done since it was compiled that it requires considerable additions and some revision.