

development, influenced of course by trade, are weighty. The author recognises Hallstattian influences in certain of the fictilia of the late bronze age and argues for a definite settlement of people practising the culture on the evidence of sherds of pottery with Hallstatt features in Aberdeenshire, Morayshire, Shetland and some other localities. Owing to the practice of cremation, no anatomical evidence for this is available, and the conclusion must be regarded as tentative.

The same must be said of the theory regarding the Broch builders—but this is too large a question to be included in this review. All the author's conclusions will stimulate research and discussion, and are welcome on that account.

The descriptions throughout the book are not too technical, and are happy in the way they seize on the essential points. The maps of distribution, which have involved intensive work, are of much value.

Short Notices

De Venarum Ostiolis 1603 of Hieronymus Fabricius of Aquapendente (1533?–1619). Facsimile edition with Introduction, Translation and Notes by Dr. K. J. Franklin. Pp. viii+98+2 plates. (Springfield, Ill., and Baltimore, Md.: Charles C. Thomas; London: Baillière, Tindall and Cox, 1933.) 13s. 6d.

AN important early work by Fabricius has now been published by the History of Science Society with the aid of funds contributed by the Carnegie Corporation. All English readers who would fully understand the discovery of the circulation of the blood must, after studying the immortal "De motu Cordis", refer to the work of Harvey's precursor and teacher, Fabricius of Aquapendente, "De Venarum Ostiolis", and to that of his successor R. Lower, "De Corde". By his scholarly translations of both of these works, Dr. Franklin has now completed the early trilogy of the circulation—complete in facsimile and translation and with all the original plates. Discovery and publication were too often divided by long years. The first unintelligent glimpses of valves by Canano 1541, Estienne 1545, Sylvius 1541 and Colombo seem to have been unknown to Fabricius in 1574 when he first made his discovery, and another twenty-nine years elapsed before he published it. The salient points in his life are well indicated, and the construction of the anatomy theatre at Padua, where he lectured, is illustrated with architectural plans for the first time. The eight fine full-page engravings of the original have been well reproduced, but we regret that the folding plate, pages 10 and 11, was not mounted clear of the stitching.

R. T. G.

Müller-Pouillet's Lehrbuch der Physik. Elfte Auflage. Herausgegeben von A. Eucken, O. Lummer, E. Waetzmann. In 5 Bänden. Band 4: *Elektrizität und Magnetismus*. Teil 3: *Elektrische Eigenschaften und Wirkungen der Elementarteilchen der Materie*. Herausgegeben von Arnold Eucken. Pp. xviii+828. (Braunschweig: Friedr. Vieweg und Sohn A.-G., 1933.) 54 gold marks.

THE present volume of this well-known series of handbooks consists of the following parts: the free electron (cathode rays), by Gerthsen and Kossel; positive rays, passage of electrons through matter, by the same authors; discharges through gases, by Steenbeck; electrical structure of atomic nuclei, by Kirsch and Teller; atomic and molecular forces,

by Dunkel and Wolf; dielectric polarisation of atoms and molecules, and pyro- and piezo-electricity, by Wolf. The subject matter is treated simply throughout. Many useful numerical data are found scattered over the various sections. It is a particular merit of the volumes of this series that every effort is made to avoid rendering the reading irksome by inserting unnecessary formulæ or calculations. The physical argument is clearly presented and references to original papers are given in abundance in footnotes.

Earth, Radio and the Stars. By Dr. Harlan True Stetson. (Whittlesey House Publication.) Pp. xvii+336+9 plates. (New York and London: McGraw-Hill Book Co., Inc., 1934.) 10s. 6d. net.

THERE is always a peculiarly individual and peculiarly American quality about the work of Dr. Harlan True Stetson, and the present work is difficult to sum up on that account. The linkages amongst the rather diverse topics treated are somewhat slender and sometimes artificial, but as topics all are very interesting. Variations in longitude and latitude, the internal structure of the earth, sunspots in relation to terrestrial magnetism and radio reception, problems of the ionosphere, solar, lunar and stellar effects on radio transmission, cosmic clouds, cosmic rays, are parts of a science, more attractive than the name 'cosmeccology' which the author attaches to it, dealing with the relation of the earth to its cosmic environment. The book is often stimulating, sometimes irritating; it contains much that is difficult to find elsewhere, and it should be read.

Sound: a Physical Text-Book. By Dr. E. G. Richardson. Second edition. Pp. vii+319. (London: Edward Arnold and Co., 1935.) 15s. net.

WHEN Dr. Richardson's book first appeared in 1927, it was described in a full review in these columns as "a well-balanced account of the present state of knowledge in experimental acoustics" (NATURE, 120, 760; Nov. 26, 1927). Since then, much new work has been done on such subjects as sound-recording, echo-sounding, supersonics, architectural acoustics, limits of audibility, analysis of sounds, and so on; and the book has been expanded from 286 to 319 pages to take these and other advances into consideration. There are new chapters on impedance, supersonics, and the reproduction of sound.