

first division; and chapters on "Ethnology," "The History of Archæological Discovery," "Technology," and "Sociology and Religion," under the second division.

It is, we think, unfortunate that the authors have to a great extent followed the somewhat confused and redundant classification of Dieserud, in the subdivision of their material; it is impossible, for example, to prevent some overlapping in chapters dealing with "The Unfolding of the Antiquity of Man," and "The History of Archæological Discovery." Similar difficulties are met with in connection with other chapters in the book. The question of the classification of the subject-matter of anthropology is confessedly full of difficulties, and the authors no doubt found themselves to a certain extent tied down to the illogical systems at present in use.

The authors confess that their limited space necessitated many omissions, but we were surprised to find no mention of the Gibraltar skull in the chapter on "The Antiquity of Man." The chapter on "Anthropological Controversies" is full of interest, as showing how theology, politics, and economics interfered with the progress of the science.

There have been few, if any, complete histories of anthropology published before the appearance of this work, and the origin of each branch of this subject is so thoroughly explored to its source, that, we are impressed with the fact, that a great deal of original historical research must have been carried out by the authors in the collection of their material.

#### SOME BOOKS ON CHEMISTRY.

- (1) *Inorganic Chemistry for Advanced Students.* By the Right. Hon. Sir H. Roscoe, F.R.S., and Dr. A. Harden, F.R.S. 2nd edition. Pp. viii+476. (London: Macmillan and Co., Ltd., 1910.) Price 4s. 6d.
- (2) *Chemistry for Beginners.* By T. Jenks. Pp. x+309. (New York: F. A. Stokes Co.; London and Edinburgh: W. R. Chambers, Ltd., 1910.) Price 3s. 6d. (Chambers's Wonder Books.)
- (3) *The M.C.C. Periodic Chart of the Elements.* Pp. 45 (introduction) and chart (folded and bound). (London: Metallic Compositions Co., n.d.) Price 8s. 6d.

(1) **T**HE new edition of Roscoe and Harden's "Inorganic Chemistry for Advanced Students" differs from its predecessor (reviewed in NATURE of December 7th, 1899), mainly in the addition of new lessons or chapters on carbon compounds and on the radio-active elements. It is, however, very gratifying to see the new method of making hydrazine from ammonia incorporated so quickly in a text-book, and to find calcium cyanamide duly described as an inorganic compound amongst the compounds of calcium in a chapter which includes a brief but accurate description of the technical preparation of the metal by electrolysis of the fused chloride. The lesson dealing with crystals and isomorphism remains in some need of revision, as three distinct methods are used to

indicate the faces of the crystals in the various diagrams that are reproduced; as the symbols used are not explained the simplest remedy would probably be to omit them altogether from the diagrams. The issue of the new edition has supplied an opportunity for introducing the system of atomic weights in which  $O=16$  instead of  $H=1$ , and these values are now used throughout the book. The larger volume is intended to be used as a sequel to Roscoe and Lunt's "Inorganic Chemistry for Beginners," and an element such as chlorine, which has already been described in the smaller volume, is now referred to only under its metallic derivatives. In this way space has been saved for the introduction of more advanced work than could otherwise have been included within the limits of less than 500 pages.

(2) The "Wonder Book" on chemistry is the third venture which the author has made in seeking to interpret to the non-technical reader some of the more important facts and theories of modern science; the preceding volumes on electricity and photography are dedicated to "Young Readers"; the third volume is for "Beginners." The story is a readable one, and the statements made are usually accurate, at least when dealing with the facts of chemistry; the introduction of theories is responsible for a certain number of errors, as, for instance, where the existence of monatomic molecules is denied (p. 67), or ions are described as "even smaller than atoms" (p. 243); but the author has not hesitated to introduce his youthful readers not only to the atomic and molecular theories, but also to the periodic law and the theory of electrolytic dissociation. A less ambitious programme might have deprived reader and writer alike of the satisfaction of having covered the whole of the subject; but it is precisely because such a sense of perfected knowledge might arise after a perusal of the volume that one would hesitate to commend it to any but the lay reader who intends to remain a layman. As an introduction to the further study of chemistry its value would be very doubtful, since a teacher would probably prefer to deal with a beginner who had not made any attempt to study the subject rather than with one who had imbibed the theories somewhat vaguely outlined by the author. The book is well illustrated, and contains an excellent series of portraits of famous chemists, from Priestley to Mendeléeff.

(3) "The Chart of the Elements," compiled by the Metallic Compositions Company, is intended to summarise in diagrammatic and tabular form the properties of the elements as elucidated by the periodic system. It is intended largely for non-chemical readers who have occasion to make use of metals in various ways, and desire to know something of the properties of related elements which may possibly prove to have valuable technical qualities. An introduction of forty-eight pages is provided, the second part of which, on "The Periodic Law and its relation to Speculative Thought," differs fundamentally from the earlier descriptive and explanatory pages and reveals the author at work on what is evidently a favourite hobby or recreation.

T. M. L.