

and there statements have been left that now require emendation, *e.g.* the sovereignty of Bosnia (p. 146), and there are a few surprising omissions, *e.g.* the Murman railway. The treatment of Europe by political unities has many advantages except where the principle of self-determination has been allowed to run riot in the creation of small States. In such cases Prof. Lyde has not literally adhered to the system.

The book retains its merits and some of its defects. It is not a text-book to which the student can turn for full treatment of any part of Europe, and it contains many statements that need to be tested in the light of facts and close examination. In tracing causal relationships the author not infrequently jumps steps in his argument, and this does not make the book any too easy to read. On the other hand, he is never commonplace and never wearies his readers by telling him the obvious. Every page is stimulating, unexpected, and provocative. Prof. Lyde's picture of Europe is impressionist and extraordinarily vivid. To an uncritical mind the book might be misleading, but the intelligent reader with some knowledge at his command should find its ideas and suggestions invaluable in a study of the complex human problems of Europe.

The lack of coloured maps, which were in the original edition, is no loss. A folded black and white political map of central Europe has been added. The sketch maps and diagrams have been retained with little change. In a few cases revision would not be amiss.

*Morphologie générale. Membres et ceintures des vertébrés tétrapodes : Critique morphologique du transformisme.*

Par Prof. L. Vialleton. Pp. viii + 710. (Paris : Gaston Doin, 1923.) 60 francs net.

PROF. VIALLETON is the leader in France of the school of modern transformists who believe in the Darwinian explanation of the evolution of genera and species by the process of the natural selection of small variations, but consider that the larger groups have arisen by a more rapid process of profound mutation. To illustrate this doctrine he presents us with a handsome and very useful monograph on the limbs and girdles of the cheiropterygial Vertebrata. The descriptions given of the various bones and articulations are clearly written, and the numerous illustrations throughout the text are excellent. As a work of reference for students of osteology this monograph is invaluable.

Students of morphology will naturally turn with special interest to the chapters dealing with the theoretical conceptions of the origin of the girdles and of the pentadactyle appendages, but they will be disappointed to find that there is no reference to Graham Kerr's important external gill hypothesis or to Goodrich's brilliant researches on the nerve supply of the limbs and his support of the lateral fold theory. The author seems to favour a theory expounded by A. C. Geddes in 1912, which is based on the supposition that there is an anterior and central region of the body of Vertebrata which is not and never was metamERICALLY segmented. Such a theory is, no doubt, acceptable to the modern transformist, but it will be difficult to persuade the morphologists of the older school that the structure of the Vertebrata as we know them is not founded on a completely metamERICALLY segmented ancestral type.

*The New Theories of Matter and the Atom.* By Prof. Alfred Berthoud. Translated from the French by Eden and Cedar Paul. Pp. 259. (London : George Allen and Unwin, Ltd. ; New York : The Macmillan Co., 1924.) 10s. 6d. net.

PROF. BERTHOUD'S book is very attractive both in its literary style and in the form in which it has been issued by the publishers. The scope of the book, dealing as it does with electrons, X-rays, radioactivity, isotopism, quanta and atomic structure, is familiar, so that the way in which the matter is presented is of more importance than the table of contents. Whilst it does not shirk the mathematical method of exposition, the book is eminently suitable for the reader whose knowledge of mathematics is too small to enable him to follow the more technical treatises of some of the physical writers.

As a professor of physical chemistry, the author is well acquainted with the limitations of the typical chemist in this direction, and the style and value of his book can therefore be expressed clearly by saying that it describes the physical developments of the present day in a form in which they can be understood and appreciated by chemists. This statement implies that the book is also suitable for the general scientific reader. The fact that most of the pages contain only a single fount of type, broken here and there by a series of cross-headings and varied only by a sparing use of italics, has the happy effect of creating the impression that the volume is not a mere text-book, to be used when "cramming" for an examination, but a book to be read and enjoyed in an arm-chair. It can therefore be heartily commended to those who read for pleasure, as well as to those whose reading is dictated by more urgent necessities.

*Les Protéines.* Par Jacques Loeb. Traduit de l'Anglais par H. Mouton. (Nouvelle Collection scientifique.) Pp. viii + 243. (Paris : Félix Alcan, 1924.) 10 francs.

THE original volume of which this is a translation is already familiar to English readers, and there is therefore no need to recapitulate the author's views with regard to the significance of the Donnan theory of membrane equilibria in explaining the colloidal behaviour of protein solutions. In his preface to the French edition, dated October 1922, the author stated that the work was to appear in two parts, the first part being devoted to the stoichiometric and colloidal properties of proteins and the second to the theory of colloidal properties.

The present volume, published in 1924, after the author's demise, represents the first half only of the complete work, the translation of the second half not yet being completed. It contains two new chapters dealing respectively with the electric charge and stability of suspensions and emulsions, and the crystalloidal character of the solutions of certain natural proteins in water. In the latter chapter the author discusses the question whether proteins are kept in solution by the same forces which determine the solubility of crystalloids in water or by the electric double layers which keep particles of oil in suspension in water, and arrives at the conclusion that the conditions