

chapter is devoted to special transformations, with detailed discussion of linear transformations and stereographic projections, but without reference to group theory. The account of algebraic transformations necessarily introduces Riemann surfaces, the two-sheeted ones being mainly considered. Riemann's conjecture, that any simply connected surface can be represented uniquely, continuously, and conformally on the area of a circle, has been made the foundation of many brilliant investigations by such mathematicians as Heine, Schwarz, Weierstrass, Osgood, Poincaré, and Koebe. A general account of the whole question is given in the book before us, without entering into the necessarily elaborate pure mathematics involved in much of the work on the subject. The last chapter, dealing with conformal representation by means of elliptic functions, was written by Dr. Blaschke, Dr. Lewent having died before his plan was completed. In the present translation, Dr. Jones and Mr. Williams have provided a very readable introduction to the theory of conformal representation. Some matters are discussed in the German text in a descriptive (rather than a scientific) way, but the translation is none the less acceptable on that account. W. E. H. B.

*Kolloidchemie der Protoplasmas.* Von Prof. Dr. E. Lepeschkin. (Monographien aus dem Gesamtgebiet der Physiologie der Pflanzen und der Tiere, Band 7.) Pp. xi + 228. (Berlin: Julius Springer, 1924.) 9 gold marks.

THE author has catered for the student in a very thorough manner, and devotes the first quarter of the book to a complete survey of the various physico-chemical phenomena associated with colloids, particularly proteins. The colloid chemistry of protoplasm is then developed and discussed from different points of view until finally the author presents a detailed and up-to-date account of the behaviour of protoplasm under the action of physical agents, such as temperature, light, and electricity, and that produced chemically by acids, alkalis, neutral salts, and non-electrolytes. One feels, however, that more might have been made of the effects of low temperatures and particularly of freezing temperatures, including, as it does, not only the temperature factor but also those due to desiccation and probably change in acidity. The book will appeal in particular to the plant physiologist.

There is one very fine plate containing twenty-two microphotographs of several living systems under different conditions, but surely a book of this nature is lacking in having no diagrams whatsoever. It is, nevertheless, well written, covers a wide field, and treats a difficult subject in a most interesting and clear manner.

*A Monograph of the Birds of Prey (Order Accipitres).* By H. Kirke Swann. Part I. Pp. xi + 52 + 5 plates. (London: Wheldon and Wesley, Ltd., 1924.) 26s. net.

IN this monograph, which is being issued in twelve parts, Mr. Swann is bringing up-to-date the results of his recent intensive study of the diurnal birds of prey. In his introduction, which includes a chapter on falconry and hawking, it is stated that he now recognises 322

species and 692 subspecies or forms, while the genera employed number 100. In 1874 Sharpe (Catalogue of the Birds in the British Museum, vol. 1) gave the number of species as 377, but many of these are now considered subspecies. It will therefore be seen that in the last fifty years the number of apparently distinguishable forms has nearly doubled.

Part I. deals with the New World vultures and some of those of the Old World. Each form is separately discussed; its synonymy is given, then its distribution and different plumages in detail, followed by general remarks and notes on food and nesting. We are glad to observe that the status of each species is clearly shown; the typical race is first described; any subspecies bears the same number with the addition of a letter. This arrangement, we think, might with advantage be adopted by modern authors. The changes in nomenclature are many, and are in strict accordance with the rules of priority.

The letterpress and paper are excellent, and the coloured plates, which are by Mr. Gronvold, leave nothing to be desired. We heartily congratulate the author on the production of this work. The edition is limited to 412 copies.

*Chemistry in the Service of Man.* By Prof. Alexander Findlay. Third edition, revised and enlarged. Pp. xix + 300 + 4 plates. (London: Longmans, Green and Co., 1925.) 6s. net.

PROF. FINDLAY'S book, which has now reached a third edition since its first appearance in 1916, is one of the best accounts of modern chemistry for the lay reader. Unlike many books of this kind, it is written in a dignified style and without insistence on commercialism. The subjects dealt with cover various fields, and the book cannot fail to continue to be popular. It is very suitable for general reading by pupils in higher forms of schools as well as for those older readers who have not specialised in chemistry, since it supplements the ordinary text-books. Three new chapters on radioactivity and atomic structure, on the rare gases of the atmosphere, and on metals and their alloys, have been added in the new edition, and the whole has been revised and brought up-to-date.

*The Rare Earths: their Occurrence, Chemistry, and Technology.* By Dr. S. I. Levy. Second edition. Pp. xvi + 362. (London: E. Arnold and Co., 1924.) 18s. net.

THE volume under notice is especially characterised by its eminently readable style. The subject is dealt with exhaustively, yet the material is presented in such a way that an honours student could read the whole with profit, whilst the expert will find full references to recent work apart from the detailed treatment in the text. Methods of separation and tests are dealt with as well as the chemical properties of the elements, and the names, occurrence, and composition of the minerals. The book will be welcomed by chemists, and is well printed, and provided with an adequate index. Theoretical considerations of classification and atomic structure are considered, but a just sense of proportion has been preserved. The book contains all the information that the chemist who is not a specialist in this department will require.