

quire one already versed in the literature to extract the truth from the footnote revision. Even, however, if the student succeeds in this, he will soon be confused by the plain unrevised statement on p. 106 that the course of cleavage is different in lamellibranchs and gastropods, whereas the recent work has demonstrated a fundamental similarity. It is also to be regretted that the editor should, apparently, have felt unable to replace some of the older figures with more accurate recent ones; not a single figure from the newer works is introduced.

A feature of the revision that will be heartily welcomed is the appendices to the lists of literature, in which the works published since 1893 are included. An important omission from the usually full and accurate lists is that of Heath's valuable paper on *Ischnochiton*, the more noticeable from the scantiness of the literature of the embryology of the *Amphineura*.

Misprints are not common, but it is rather a serious one that credits Hatschek's figures of the cleavage of *Amphioxus* given on p. 537, to Salensky. The present writer finds his initials once F. K. and again F. H., which arouses the suspicion that others also may have ground for complaint.

Take it all in all, the book is a good translation of the standard work on the subject, and the revision will at least suffice to guide the serious student to the more recent literature.

F. R. L.

The Play of Man. By KARL GROOS. Translated by ELIZABETH L. BALDWIN, with a preface by J. MARK BALDWIN. New York, Appleton & Co. 1901. Pp. 412. Price, \$1.50.

This is not a drama, as the ambiguous title might signify, but a scientific treatise on sport and pastime, the performance of life's activities not for serious purposes, but for the solitary or cooperative pleasure in them. The author includes in his term the playful activity of the sensory apparatus in feeling, temperature, taste, smell, hearing and sight; the playful use of the motor apparatus, and the playful use of the higher mental powers. His second order of play is socionomic, that is, it takes two or more

to fight, play chess, torment, haze, court, cooperate in diversion. The facts and results of over play and diseased play are not neglected.

Part III. is devoted to theoretical explanation of sport, the author finding its groundwork in the following:

1. The discharge of superabundant vigor—the physiological cause.

2. Activities of ancestors wrought in their children in the form of hereditary predispositions—the biological cause.

3. Pleasurableness and freedom from purpose—the psychological cause.

4. The enjoyment of imitating what produces agreeable or intense feelings—the esthetic cause.

5. The strengthening of the social tie—the sociological cause.

The closing pages are devoted to the relation of play to pedagogics. We have only space to quote one sentence, "At school one should learn to work, and he who does everything playfully will always remain a child." The reader will find throughout the work a becoming modesty in view of a new science, and a goodly portion of playfulness to relieve the monotony of dull classification.

O. T. M.

Text-book of Inorganic Chemistry. By VICTOR VON RICHTER. Edited by PROFESSOR H. KLINGER, University of Königsberg. Authorized translation by EDGAR F. SMITH, Professor of Chemistry in the University of Pennsylvania, assisted by WALTER T. TAGGART, Instructor in Chemistry. Fifth American from the tenth German edition. Carefully revised and corrected. With sixty-eight engravings on wood and colored lithographic plate of spectra. Philadelphia, P. Blakiston's Sons & Co. 1900. Pp. 430. \$1.75.

The continued popularity of this book is shown by the frequent editions; in this edition, notices on liquid air, the new gases in the atmosphere, and ten pages of physical chemistry introduced into the chapter on metals, indicate careful revision, and a desire to bring the book up to date, without changing its general character. The characteristic of von Richter's book is the great amount of condensed