

well treated. Some thirty-odd pages are devoted to "morphological crystallography," chiefly in its computing aspects, and the rest of the science of crystallography is compressed into some four pages. This leaves much of the subject untouched. For example, a discussion of the plastic behavior of minerals, a topic now of great interest in several advancing research fronts, is missing. Certainly this section presents an ill-balanced account of the crystallographic aspects of mineralogy, and might better have been omitted than treated as it is.

The reviewer would hesitate to criticize the authors' choice of fonts for headings except for the fact that two more volumes of this work are yet to appear, and they could be made much more readable by a different selection of headings. Properly chosen, headings divide the work into coordinate and subordinate parts whose relative ranks are obvious. In this volume, however, headings of four different ranks are all printed in bold face type of approximately 10 point size. These are differentiated only by use of capitals and italics, all of which look much alike in heavy type. The reviewer suggests that in subsequent volumes of Dana's System, the authors follow the excellent style set in the 1932 edition of Dana-Ford's "Textbook," which is a condensation of the System.

These two criticisms are trivial compared with the solid virtues of the book. Nowhere else can the mineralogist find such a complete or up-to-date compilation and arrangement of mineral species data. The authors are to be congratulated on a splendid achievement and on performing a welcome service. Among other things, this volume will stand as a monument to one of the co-authors, the late Dr. Harry Berman, who lost his life in an aircraft accident while serving the Allied cause in his chosen field of mineralogy.

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FRESH-WATER SNAILS

The Molluscan Family Planorbidae. By FRANK COLLINS BAKER. (Collation, revision and additions by Harley Jones Van Cleave.) xxxvi + 530 (including 141 plates) + 1 portrait. Urbana: University of Illinois Press. 1945. \$14.50.

To this taxonomic monograph, the late F. C. Baker has contributed the magnificently figured results of years of dissection and of microscopic study of radulae, in addition to photographs of the shells of most American forms and of examples of the foreign genera. On the basis of these new data, collated with those of other students, the Planorbidae of the world, after exclusion of the Bulinidae, are divided into 4 subfamilies and 34 genera: Planorbinae with 12, Segmentininae with 11, Helisomatinae with 7 and

Planorbulinae with 4 genera. *Choanomphalus* (Choanomphalinae) and *Poecilospira* are considered "groups of uncertain affinities." All the divisions are defined carefully, with lists of "valid" forms and notes on distribution. Although opinions may vary in regard to the generic rank of some of these groups, their content and relationships are carefully worked out, so far as present knowledge permits. A chapter on general ecology discusses planorbids as intermediate hosts for trematodes.

A principal difficulty is that the wealth of new and compiled data, in this indispensable reference book, is indexed imperfectly, probably due to F. C. Baker's untimely death. Especially in such a thorough revision, with so many new or unfamiliar combinations, the lack of an alphabetic list of the specific and sub-specific terms forces a perusal of all the book to find in what genera the forms, most of which were described in *Planorbis*, are now included. In addition, the nine new species and seventeen varieties described in part 13, and several of the names which appear in the plate explanations, are omitted from the systematic account. In this connection, the author probably meant to put *Menetus coloradoensis* (p. 230) in *Promenetus* (p. 178). Also, *Tropicorbis orbiculus dunkeri*, a "new name" (p. 494) is not included in the index to new forms but appears only in the plate index, and then under *T. obstructus*. Incidentally, the "index to text" lists seventeen "new varieties" (p. 525) but only fourteen "varieties, new" (p. 526). Misspellings are fairly infrequent, although they include fourteen species names in *Gyraulus* (pp. 66-71). But, despite these minor defaults of taxonomic desuetude, Van Cleave, with his interesting biography, careful bibliography and fine portrait, has shaped an admirable monument to an eager investigator and inspiring friend.

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