

involving Green's theorem; however, Green's theorem is not proved in either of the two references cited by the author for a region bounded by such a general contour. The inclusion of more extensive bibliographies on the proofs of Cauchy's theorem and Green's theorem would have enhanced the value of Chapter IV.

Chapters VII and VIII are good introductions to their respective subjects. In considering these chapters, however, the student is to be reminded of the admonition given in the preface that the book is not intended to be encyclopedic in character. One of the most interesting sections of the volume is that dealing with the application of saddle-point integration to the problem of determining asymptotic expansions of the Bessel functions. The work on modular functions culminates with the proof of Picard's theorem, together with the extension of this theorem due to Carathéodory. By way of conclusion, references are given to the elementary proofs of Picard's theorem due to Borel, Bloch and Nevanlinna.

For the most part, and in all the basic work, the proofs given are modern in character and sufficiently complete in detail for the thoughtful reader. The reviewer noted a few places, however, which are likely to trouble the student. For example, on page 16 it is stated without proof that a non-decreasing bounded sequence tends to a limit. In a later section, on page 21, it is proved that an arbitrary sequence of real numbers has maximum and minimum limits. One wonders why the order of these two sections was not interchanged. In the preliminary discussion of Cauchy's theorem on page 59 the author has omitted the assumption that the domain be simply connected. It is to be remarked that in many places the term "domain" is used without specifying whether an open domain or a closed domain is meant. In several statements made in Chapter IV it is necessary to interpret "domain" as meaning "open domain."

Due to the comprehensive treatment of the subject-matter of Chapters X-XII, this book will appeal to those interested in differential equations. In evaluating the work as a whole, however, the reviewer feels that an unduly large proportion of the book is devoted to the study of particular functions, rather than to the general methods of function theory. This opinion is strengthened when one considers the omissions. The subject of analytic extension and the definition of the complete analytic function, using the terminology of the author, receive a very meager treatment. The entire geometrical aspect of analytic function theory is missing, and the terms "Riemann surface" and "algebraic function" do not appear in the book. There is no mention of analytic functions of two or more complex variables. These comments are not to be interpreted as adverse criticism. They are intended to emphasize, however, that this work shares with many

other books on the subject the property of not affording in itself a complete and balanced introduction to this important field of mathematical analysis.

The printing is excellent and the proofreading must have been done with great care. The reviewer noted only a few misprints, and these were of minor character. This book will doubtless be widely used as an introductory text on the subject.

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### TAXONOMY

*Procedure in Taxonomy, including a reprint of the International Rules of Zoological Nomenclature with Summaries of Opinions Rendered to the Present Date.* By EDWARD T. SCHENK and JOHN H. McMASTERS. Stanford University Press. viii + 72 pp. Price, \$2.00.

THIS timely little volume should prove very useful to all taxonomists, and serve as a guide to the younger group of naturalists unfamiliar with the rules and regulations which have been agreed upon by the International Congress of Zoology.

It is divided into eight chapters, the first of which constitutes the introduction and discusses binomial nomenclature. The second defines the systematic categories into which the animal kingdom is divided. The third discusses types and recommends a reduction of the many kinds of types that have been defined by superspecialists in recent years, recommending the use of a small number of definite type terms, all of which are in general use now. Chapter 4 offers suggestions for description of new species, which one hopes will be followed by the coming generation of naturalists, and which, if followed, will make comparison easier than is the case at the present time. Chapter 5 discusses the problem of specific names, while Chapter 6 deals with synonymy. Here again we find excellent suggestions. Chapter 7 offers basic suggestions where type material should be deposited, carefully avoiding the mentioning of such repositories, merely suggesting the qualifications that an institution should possess to merit being the custodian of type material. Chapter 8 deals with "Latin Terms and Abbreviations."

Pages 27 and 56 are devoted to a reprint of the International Rules of Zoological Nomenclature, together with the addition of the amendments to Article 25 of that code, that is, the article that covers the law of priority.

The last 17 pages are devoted to an index.

This little volume should find a place on the shelves of every zoological laboratory and worker in systematics, since it brings into very convenient form the method of taxonomic procedure now almost universally employed by systematists.

PAUL BARTSCH