xed and easy to use. The volume lls a real need as it enables people in pharmaceutical industry to locate ease the meaning of terms that are difficult to find in other diction- s — *Frank M. Berger, Wallace ratories, Cranbury, N.J.*

ce-Charge Flow by P. T. KIRSTEIN, *al.*; 509 pages; $22.50; McGraw-ill Book Co., 1967.

he treatment of charged particle ion involves conventional aspects of amics, with some overlying complexi- from electric and magnetic force ns—providing sufficient evil for any day. If, in addition, the density of icles is such as to alter, either ially or totally, the "vacuum" ric field, then treatment of the flow problem indeed. It is *the* problem h electron tube workers have wed with diligence and success. , in this present text, the authors, ributing members themselves in the ing development of beam systems, e detailed the mathematical and sical bases for the treatment of such s as well as the techniques used to ve working systems. The resultant should be of value to students loping an understanding of the and to those scientists and engi- s actively participating in it. The hematical description of space charge s is thorough and well ordered for er understanding. The relevance of material to working beam systems ell-detailed. Problems given at the lusions of the several chapters are alue for formalized courses of study. erences to the archival literature are cient to direct any further examina- of source material. Areas discussed briefly, and considered beyond the e of the text by the authors, include e and physical instabilities in beam ems. Treatment of natural instabil- follows the present unsettled under- ding of these phenomena by the ing community. Treatment of thematical" instabilities (in iterative tions to beam flow problems) is iled for several boundary condi- s.—*J. M. Sellen, Jr., TRW Systems, Redondo Beach, Calif.*

Pogonomyrmex Harvester Ants: A Study of the Genus in North America by A. C. COLE, JR.; 222 pages; $7.50; The University of Tennessee Press, 1968.

Although we insect taxonomists dabble these days in chromosomes, electrophoresis, numerical phenetics, and other fashionable topics, our most important payoff product is still the taxonomic-revision of the family, genus or species-group, primarily based on gross morphology. Most ant genera, or large parts of genera, have never met their first reviser, but the quality and quantity of taxonomic revisions has improved dramatically in the last 15 years, due mainly to better taxonomic concepts and to the enlightened support of the U.S. National Science Foundation. To these influences we owe such fine recent monographs as Taylor's on *Ponera*, and the standard-setting *Acanthomyops* revision by M. W. Wing.

The monograph of the North American harvester-ant genus *Pogonomyrmex* by Cole, while it does not match the sophistication or quantitative detail of the Wing revision, nevertheless is a solid contribution in the new tradition. Cole recognizes 22 species (happily, no subspecies) of *Pogonomyrmex*, four of them newly described in this book, and places them into two subgenera, the status of which will eventually depend on a thorough study of the South American species.

One never really knows how sound a specialist's species are until his keys have been fully tested in practice, but in this case it already seems apparent that Cole's treatment is a great improvement over the previous revisions of Olsen and Creighton. Cole has studied this important genus closely for over 30 years, much of the time in the field, and he has made the first full use of the valuable characters of the males. It does seem that we have here a revision that will remain both definitive and useful for a long time.

Points that remain bothersome at the theoretical level are Cole's treatment of "hybrids" between, for example, *P. occidentalis* and *P. maricopa*, and his idea of "character convergence" between