

BOOK REVIEWS

Modern Science and Technology. Robert Colborn, ed. 746 pp. Van Nostrand, Princeton, N.J., 1965. \$22.50.

Reviewed by Jacques E. Romain, Centre de Recherches Routières, Sterrebeek (Brabant), Belgium.

In our days of exponential growth of knowledge, no scientist or engineer may boast a specialist's understanding of every field of science and technology, but they all feel both a personal and a professional need for information on advances and breakthroughs in other fields than their own. Moreover, such readers, by virtue of their education and professional skills, are in a position to reach (and actually require) a more detailed understanding of progress and techniques in adjacent fields than the simple awareness available through occasional popular accounts written for the lay reader. These narrow requirements can only be met by the use of a particular language, namely, a language that is technical enough to convey precise information but whose technicality does not exceed the knowledge common to all scientists and engineers. The sole possible users of such a language are specialists who are willing to make the effort to eliminate any unnecessary specialized jargon and (rather rare) trained scientific writers with an advanced understanding of field they describe.

There exist few magazines that specialize in that kind of writing. One of them is *International Science and Technology*, for which the 81 contributions to this book were originally written. They have now been carefully updated and are offered in book form. The result is a beautiful volume which may be termed a selective interdisciplinary encyclopedia of progress in spearhead fields, for the use of scientists and engineers, of students, and of well-informed, educated readers. In spite of the number of writers, there is an indisputable unity in the presentation of the book, a token of successful editorial work. If allowance is made for the more esoteric tech-

nicality of some of the topics, all the articles provide easy reading for a scientist with a broad enough scientific background. Authors and editors must be congratulated for the attainment of a direct and pleasant style, which makes the reading of the book so fascinating that no scientist has an excuse for reading a detective story if this volume is around. The effectiveness in the exposition, and the pleasure in reading, are enhanced by a bountiful lot of two-color figures and diagrams, marginal sketches, photographs, and quite a few full-color pictures. To be praised also are the chapter heads (a brief summary and comments before each paper), suggestions for "further reading" at the end of each contribution, occasional cross references, and an integrated index for the whole book.

The subjects covered range from theoretical physics to industrial technology and include applied physics, electronics, chemistry, communications engineering, machining, planetary astronomy and space technology, geophysics, oceanography, control systems, and computers. The authors are American and foreign specialists; some of them are editors of *International Science and Technology*.

Methods in Computational Physics. Advances in Research and Applications. Vol. 3. Fundamental Methods in Hydrodynamics. Berni Alder, Sidney Fernbach, and Manuel Rotenberg, eds. 386 pp. Academic, New York, 1964. \$13.50.

Reviewed by J. Gillis, Weizmann Institute of Science, Rehovot, Israel.

This new addition to a justly esteemed series maintains the high standard to which we have become accustomed. The main emphasis is on basic computing procedures rather than on the solution of specific problems, and many of the procedures currently used in hydrodynamics are described. Four of the articles are devoted to the study of finite-difference systems in Eulerian, Lagrangian, or mixed coordinate systems. Two other articles

base themselves on the method of characteristics, and one article describes the particle-in-cell method, presumably for use when all else fails!

It would be impossible in the space of a short review to give details of the very interesting material in the book. However it can be recommended with confidence as likely to be of considerable help to those engaged in hydrodynamical computation, not least by virtue of the large number of constructive ideas scattered through its entire length.

Unlike earlier volumes in the series this one contains very few references to the computing machines used. Nevertheless, it is clear from the sizes and scopes of the problems reported that much of the work was done on very modern machines. The editors must therefore be congratulated on the success of the series in catching up with computer development, no mean feat in our day and age.

An Author's Guide to Scholarly Publishing and the Law. By John C. Hogan and Saul Cohn. 167 pp. Prentice-Hall, Englewood Cliffs, N. J. 1965. \$5.50.

Reviewed by Robert L. Weber, The Pennsylvania State University.

A publishing scholar should find much information of use to him, displayed in concise and accessible form, in this guide. One of the authors is administrator for patents and books at the RAND Corporation. The other is a member of the California Bar, with special interest in copyright law.

About half the book is concerned with various aspects of copyright. Some little known facts are mentioned, misconceptions clarified, and practical procedures outlined. One is told that the creator of an unpublished literary, musical, or artistic work has the protection of common-law copyright, and that this protection is perpetual. Premature publication of a thesis may jeopardize copyright or patents later sought for this material. Obtaining statutory copyright is de-