BOOK REVIEW

CHANDIRAMANI (K. G.): Metal Cutting Technology and Experiments. Pp. 316. Tata McGraw-Hill Publishing Co. Ltd., New Delhi, 1975. Price : Rs. 28·50.

There is an increasing awareness that industrial and technological growth is spurred by scientific knowledge coupled with engineering application. Both are inter-dependent and compliment to each other. Scientific knowledge paves the way for engineering application and engineering application makes the basic concepts clearer. But metal cutting tools and procedures are still largely established by the old case method. This activity has resisted the impact of modern technology and the scientific method nor only due to the complexity of the operations but also largely due to the attitude held towards metal cutting in our engineering schools.

In the present book, the author has tried to present his ideas in clear and precise language duly supported by evidence in the form of graphs, charts and other relevant data. The objectives have been explained in a number of commonly observed results rather than presenting a large mass of empirical constants. Thus the wide scope of metal cutting has well been presented, and its relation to other fields of science and engineering is also indicated.

The book is divided into two volumes and Volume 1 describes Metal Cutting Technology in eleven chapters. Experiments, definitions and data have been explained in two chapters in Volume 2 followed by an alphabetical subject index.

Nearly 30 experiments, presented in the book cover a large field of the machine shop practice, ranging from shop analysis of metals through the necessary mathematical calculations to demonstrations and establishments of known theories in the subject.

Certainly the lucid text and copious diagrams contained in the book, especially in Volume 2, *Experiments, Definitions and Data Leave* nothing to chance and mathematical approach is kept to a minimum.

The book is illustrated throughout with clear drawings on almost every page with such necessary mathematics as, for instance, the Geometry of cutting tool, etc., which have been worked out in full.

Another novel feature of this book is that some topics like Mechanics of metal cutting, centre lathe, etc., have been introduced with a brief historical background of the field concerned and this approach makes the book highly informative and interesting.

In a book of this type which is solely designed for experiments, one cannot expect any bibliographic references for further reading. But however, for the theoretical aspect described in the first 170 pages, the reviewers feel that a list of selected references is essential for those who desire to pursue the subject.

In the opinion of the reviewers, the book is a very useful addition to the existing literature on the subject and deserves to be used both by the students and teachers of the subject.

Indian Institute of Science,
Bangalore-560012 (India.)

T. K. S. IYENGAR, *Executive Editor.*
G. S. R. RAO, *Asst. Librarian*