A.I.Ch.E. JOURNAL

The Increasing Importance of Technical Books

The writing of books has always been one of the more important functions of the engineer, particularly one in academic circles. In the quite recent past it was the textbook with its exposition of first or advanced principles which played an essential part in the process of education. There is still a great need for such books, but there is now an even greater need for scholarly works, the authors of which must act as interpreters and judges of the burgeoning periodical literature. Such, indeed, is about the only hope that such literature may ever be understood or effectively used. Various information retrieval systems may allow the user to find what has been done, but they will not permit him to evaluate the work without reading it with care. The author of a scholarly interpretive book thus performs a function enormously more useful than that of any retrieval system, and his contribution to the advance of the profession should be reckoned in thousands or tens of thousands of manhours.

It is probable that such books should be of rather restricted subject matter. Two excellent, recent examples may indicate a trend. Van Ness's "Classical Thermodynamics of Non-Electrolyte Solutions" and Satterfield and Sherwood's "The Role of Diffusion in Catalysis" are both fine books in which the authors have confined themselves to a part of a broad field and covered that part thoroughly. They are both up-to-date in their treatments of the periodical literature. The student of these fields can study these books and will find consultation of the original literature essentially unnecessary, except in those cases in which unusual detail is sought.

Editors of engineering periodicals could and should require more extensive use of these and other books. In some respects introductions and theoretical sections of technical papers are exceptionally wasteful. In introductions importance of subject matter is often unduly stressed, and application or utility is often overdone. Theoretical sections are often repetitive, despite much editorial effort. The ideal introduction might well be something like this: "This paper starts with equation XV-2 of Book Title by Author: It represents an attempt to examine the first assumption on which that equation is based."

In any case, the authors of textbooks and scholarly interpretative works deserve a great deal of credit and appreciation. It is a manifestation of something seriously wrong that their financial rewards are usually so meager. Let us salute them and proffer our thanks.

HB