Book Reviews

Technical Education. Its aims, organisation and future development. P. F. R. Venables. Bell, London; Essential Books, Fairlawn, N.J., 1955. 645 pp. 42s.

The present problem of an adequate supply of technical and scientific manpower is of a world-wide nature. This book is primarily concerned with the question of technical education in Great Britain. There the field of technical education is regarded as consisting not only of engineering and the physical sciences, but also pharmacy, botany, zoology, building, textiles, plastics, pottery, art, commerce and so forth. Although much of the detailed discussion with respect to the facilities and enrollments of the principal technical institutions, out of the approximately 400 listed, is of minor interest to American technologists, a great deal of educational theory and experience is of mutual interest. Charles Morris has said, "The trouble is that a study of physics and chemistry does not encourage boys to go into industry. It tends to make them hang around laboratories all their lives. The need is to fire the imagination of boys at school with the exciting possibilities of work in the technological field." Such colorful quotations will be received with smiles by many industrial recruiters in this country, because the pressure during the last decade in the United States has been to emphasize greatly the desirability of more physics and chemistry as being the very things that do fire the imagination of the top-level minds.

The book discusses in much detail the course content of British education in engineering, building trades, art, and commerce, as well as the sciences. It will be surprising to American readers to note how very small a fraction of the total enrollment in British technical schools is in the full-time day-student category. A far larger percentage of part-time and night-school students are handled there than in this country.

Some of the early chapters of the book deal extensively with the theory of co-operative courses (called sandwich courses in England), and fairly evaluate the pros and cons of this form of training. Contrary to U.S. belief, the theory of part-time work, part-time study, was originally initiated at the Royal Technical College, Glasgow, about 1880, and the University of Cincinnati was the first in this country, around 1905, to establish co-op. Venables has visited many of the technical schools in this country, including many of our co-op institutions, and he points out the pitfalls as well as advantages for certain classes of students for combined industry-college training as against the more common straight 4-year course of education.

Some of the concluding chapters deal with academic freedom, institutional administration, finance, and student problems. The book will serve as a valuable reference book for technical educators in this country, even though it is doubted that many will feel justified in spending time in reading it completely.

A similar evaluation of American technical education by an equally competent author (or authors) would be very valuable at the present time, and for the near future, during which time there will certainly be an increasing pressure on the part of American industry for a more basically trained man than has been the average engineering product in the past. The present book will serve as an excellent guide for anyone with the energy to do an equivalent job of authorship.

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Biochemical Mechanisms in Inflammation. Valy Menkin. Thomas, Springfield, Ill., ed. 2, 1956. 437 pp. Illus. $9.50.

This is the second edition of a monograph published in 1950 under the title, *Newer Concepts of Inflammation*. The first edition consisted of the text of four lectures presented before the Midwest Seminar of Dental Medicine in 1948 to which had been added a series of long and complicated footnotes. The present edition contains three times as many pages as the first. The title has been changed, and most of the footnotes of the first edition have been inserted into the text proper, many of them verbatim. Valy Menkin has added descriptions of more of his own experiments, some old and previously unpublished, others carried out since the appearance of the first edition. The detailed descriptions of Menkin's own experimental studies are irregularly interspersed with sketchy, incomplete, and somewhat superficial reviews of recent work of others in this and closely related fields.

If this book was intended to present another extensive review of Menkin's own investigations, to emphasize his methods and approach in studying inflammation (including fractionation of the exudate and chemical characterization to its components), to plead for general use of the terms he has coined through the years, to catalog the confirmations of his findings and terminology by others, to preserve his claims of priority in suggesting concepts and hypotheses, and to offer a stout, often bitter, defense of his interpretations and evaluations of his own experiments and his ideas of their significance against any and all who have criticized or disagreed with them, its purposes have been accomplished. Furthermore, the book can be recommended without reservation to those whose interests in this field are such as to coincide with Menkin's.

However, for those who purchase the book with the thought that they will obtain a more or less objective and balanced summary of recent investigations of the inflammatory process and its accompanying phenomena, it will be a disappointment. Menkin has omitted or mentioned only briefly several significant studies by others. The text is continually interrupted by violent polemics in which Menkin accuses his critics of having disregarded some one or another of his numerous publications, of having drawn erroneous conclusions from inadequate data, of having failed to support some statement by factual experimental evidence, of misquoting him, of making unwarranted inferences, and especially, of expressing opinions that conflict with his own without having first attempted to duplicate his results using his exact techniques in the same animal species under the same experimental conditions. I found these defenses repetitious, discursive, distractive, and occasionally in poor taste.

Although Menkin frankly states in several places that he has not reviewed or attempted to review all of the recent work in this field, this admission in and of itself cannot be said to enhance the book's value. Furthermore, I in no way deny Menkin's right to publish a defense of his ideas and concepts at any length he may choose. Nor, to be sure, would Menkin deny my right to the opinion that his second edition is not worth its price to those who would purchase the book in the hope that it summarizes in