

Book Reviews

Those who attended the International Congress on Clinical Chemistry at The Hague in 1987 saw an exhibition illustrating the development of the subject during the last four centuries. We who missed that opportunity are now more than adequately compensated by this book in which Professor Büttner and Dr Habrich describe all the exhibits, illustrate many of them, and add an extensive commentary.

The eight chapters, arranged in chronological order, correspond to the exhibition's showcases. Each is devoted to a major landmark in the subject and is centred on a personality who was representative of his age. The earliest figure, Franciscus Dele Bõe Sylvius (1614–72), introduces the chapter entitled 'Iatrochemical concepts prevail against the ancient humoral theory'; the others are Robert Boyle (1627–91), Antoni van Leeuwenhoek (1632–1723), A. F. Fourcroy (1755–1809), J. F. Heller (1813–71), Otto Folin (1867–1934), D. D. Van Slyke (1883–1971), and L. T. Skeggs (b. 1918), a representative of the early days of mechanized analysis. However, the authors have not merely concentrated on these eight men and they are too modest when they deny, in their preface, that they have demonstrated the continuity of clinical chemistry. They have, in fact, produced a good history of the subject, including numerous references to primary and secondary literature and brief but sound biographical accounts of many scientists; and they show clearly how clinical chemistry emerged as a separate discipline in Germany and Austria in the mid-nineteenth century.

Historians will be familiar with the microscopes of Leeuwenhoek and Hooke, but many pieces of apparatus are probably shown here for the first time. It is very instructive to see, for example, photographs of the four versions of the autoanalyser that Skeggs constructed between 1951 and 1953, and it is to be hoped that other contemporary scientists will be encouraged by his example to preserve the prototypes of their apparatus.

Finally, high praise must be awarded to the typesetters, Typotop of Stuttgart, and the printers, A. Bachmeier of Weinheim. Using the resources of modern printing technology they have produced a book in which the text, in two colours, and the illustrations, monochrome and coloured, are splendidly integrated.

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WIEBE E. BIJKER, THOMAS P. HUGHES, and TREVOR PINCH (editors), *The social construction of technological systems: new directions in the sociology and history of technology*, Cambridge, MA, and London, The MIT Press, 1987, 8vo, pp. xiii, 405, illus., £29.95/\$39.95.

The outcome of a workshop held at the University of Twente, the Netherlands, in 1984, this collection of thirteen papers is an important indicator of new directions in the history and sociology of technology. Organized into four sections, the book deals first with new manifestos for the study of technology—Pinch and Bijker's social constructivist approach, drawing on the sociology of scientific knowledge and the empirical programme of relativism, Hughes's use of systems metaphor and Michel Callon's network theory. A second group of papers considers models which might be used to simplify the "thick description" of political, cultural, economic and other factors in which explanation for technological change is to be sought. A third is devoted to detailed empirical case studies, and two final papers explore the relationship between artificial intelligence and the sociology of technology.

The editors provide a perhaps over-optimistic assessment of the degree of convergence between these new approaches. It is a measure of the challenge of the social constructivist position that most contributors, including advocates of network and systems theories, are at pains to define their stance in relation to it. Perplexingly, some appear to consider social constructivism a resource which may be "added to" the historian's armamentarium.

Two insightful empirical case studies—Bodewitz, Buurma and de Vries on drug regulation, and Yoxen on ultrasound—deal with medical issues. The book should not go unread by any who are trying to think long, hard and resourcefully about the nature of technology.

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