

Book Reviews

DOROTHY A. STANSFIELD, *Thomas Beddoes MD, 1760–1808*, Dordrecht, Reidel, 1984, 8vo, pp. xx, 306, Dfl.140.00/\$54.00.

Thomas Beddoes has been the subject of intermittent study, manifested through a succession of more or less specialized papers, mostly on his pneumatic studies. His political involvements have also been noticed, but usually in ways that do not reveal any substantial connexion between his science and medicine on the one hand, and his social and political activities on the other. Mrs Stansfield has succeeded admirably in demonstrating the unity of Beddoes' assorted enterprises, presenting him whole, through an interwoven thematic treatment that is broadly chronological.

Beddoes has long seemed a marginal figure, on the edge of the Lunar Society, in Edinburgh as Black's student, in Oxford as almost the first Regius Professor of Chemistry, in Bristol as Davy's employer and Coleridge's friend, and in the reform movements of the 1790s as a liberal and a democrat who was far from being a revolutionary. He has also appeared as a figure of fun, given to extravagant enthusiasms and devoted to pneumatic medicine that was ridiculed and caricatured in its own day. His biography by Stock was one-dimensional, and eschewed all controversy—a circumstance precluding consideration of much of Beddoes' life; and subsequent historians have found no central archive to fill in gaps. Mrs Stansfield, by using a greater variety of manuscript evidence, has produced a picture that in human terms is more credible, more humane, and more impressive than we previously possessed.

Beddoes studied at Oxford, worked in London under John Sheldon, a former pupil of John Hunter, travelled and met Lavoisier and other French chemists, returned to Oxford where he read lectures in chemistry and geology, left Oxford in political disfavour, moved to Clifton and set up his Pneumatic Institution, changed that institution for one more concerned with the general health of the poor, and devoted himself increasingly to preventive medicine; all the while, he was campaigning for political freedoms, popular education, and social reform.

He was unusually alert to developments in foreign science, notably in French chemistry and German medicine; he was much involved with Midlands industrialists and ironmasters; and he saw the potential social utility of science, whether in relieving food shortages or improving public health. His conviction that pneumatic chemistry would be important for medicine, and that health depended upon science, education, and social policies, gave a unity to his endeavours that still fell some way short of being a system—although the author would like to claim that Beddoes was at least “working at a system of coherent thought” (p. 96).

The book covers a lot of ground, and is lacking in any technical analysis of the scientific and medical debates in which Beddoes became embroiled; but these debates are at least indicated, so that the reader knows where to go for supplementary materials. The chapter on preventive medicine is of especial interest, describing Beddoes' systematic and long-term approach, his methods of collecting data, his advocacy of dispensaries rather than hospitals, his hopes for the use of data from military surgeons and others working with the armed forces, and much besides.

Beddoes' pneumatic programme failed of itself; he died before he could adequately implement his ideas on preventive medicine; but, as Mrs Stansfield argues, in science, medicine, and society, he served most effectively as a catalyst. She has told his story well.

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BENJAMIN V. WHITE, *Stanley Cobb. A builder of the neurosciences*, Charlottesville, University Press of Virginia, 1984, 8vo, pp. xviii, 445, illus., \$29.50.

In some quarters, Stanley Cobb (1887–1968) is still remembered as the man who introduced Carl Jung to a medical audience as Dr Sigmund Freud. More generally he is the psychiatrist-in-chief at the Massachusetts General Hospital from 1934 to 1954, when he assumed the mantle of Adolf Meyer in fostering the development of American psychiatry. Like Meyer, he was a well-trained neurologist, with experience in neuropathology and the

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related laboratory sciences, who turned to psychiatry relatively late in his career. Like Meyer, too, he adopted a broad, holistic standpoint and exercised his influence as much by his personal qualities as by his work and voluminous publications.

Benjamin White's biography is clearly an act of reverend devotion, complete with a family tree, Cobb's full bibliography, photographs, the transcript of taped reminiscences of a former student, a list of sources, and extensive notes. The profusion of anecdotes and professional detail, however, tend to obscure the essential lineaments of the man and the essentials of his achievement. A more concise, evaluative account in a larger historical perspective would have served him better in the long run.

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TH. W. ENGELMANN, *Some papers and his bibliography*, with introduction by Frits L. Meijler and foreword (in Dutch) by Dirk Durrer, Amsterdam, Rodopi, 1984, 8vo, pp. xvii, 264 [facsimile], xl, illus., Dfl.70.00 (paperback).

Engelmann (1843–1909) was born in Leipzig; he studied medicine there and in other German universities. After obtaining his PhD in 1867 with a thesis on the cornea, he went to Utrecht where he worked with Donders, a prominent physiologist and pioneer in ophthalmology. In 1871, Engelmann was appointed professor of histology and clinical biology and succeeded Donders in the chair of physiology after the latter's death in 1889. In 1897, Engelmann left for Berlin, where he replaced du Bois-Reymond.

The facsimile reprints of some of his papers (mostly in German, a few either in Dutch, French, or English) are of great interest; not only because of their contents but also because these papers were taken from Wenckebach's personal library (now in the University Library of Utrecht). They show Wenckebach's marking of interesting paragraphs. Engelmann's bibliography (245 papers) covers the period from 1859 to the end of 1907: those reproduced in Meijler's book are all from the significant decade 1893–1903. This period started with the discovery of the AV bundle by His and ended when Einthoven published his first electrocardiograms, made with his new string galvanometer; it also yielded most of the scientific work performed by Mackenzie and Wenckebach when they were still busy practitioners.

Durrer in his foreword and Meijler in his introduction, which contains a short but informative biographical notice, emphasize two of Engelmann's "firsts", which are now proving valuable for cardiology: the use of provoked extrasystoles to study the rhythmic properties of heart muscle, and the phenomenon of concealed conduction, as it was called by its rediscoverer Langedorff fifty years later. They give Charles Fish credit for "clearing the dust from Engelmann's work". On the other hand, Durrer also quotes Wenckebach, who, in his book on cardiac arrhythmia which was published in 1903 at Leipzig by the firm of Engelmann's father, gratefully acknowledged his debt to Engelmann's theory of myogenic activity. This indeed appears to be the crucial contribution by Engelmann to cardiac physiology. It was at variance with the time-honoured neurogenic theory but in accordance with the work of Gaskell and with several findings by others. Virtually all other cardiac research by Engelmann was connected with or could be considered a consequence of that fundamental issue.

In conclusion: a facsimile edition of authentic texts such as the present one surely deserves praise. Comprehension could have been facilitated by adding a comment and/or summary in English to individual papers, especially because only one paper of the series was written in that language. However, the book will serve well to focus attention on Engelmann as a prominent but now somewhat neglected pioneer of cardiac physiology.

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