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the sectarian tradition. Firstly, Flemming considers a corpus of imperial rationalist or eclectic texts, which includes the work of Rufus of Ephesus, Aretaeus the Cappadocian, the pseudo-Galenic *Introduction* and *Medical definitions*, as well as the works of the authors called *Anonymus Londinensis* and *Anonymus Parisinus*. Secondly she studies the *Gynaecology* of Soranus of Ephesus, the only extant methodist author of this period. The construction of women in the whole of the sectarian tradition is quite uniform: woman's health is relativized, for she is considered more female than human. Men and women have implicitly different positions in the medical goal of human health.

The last part of the book is devoted entirely to Galen and his treatment of women. Even though Galen was not systematic in this and none of his treatises was explicitly devoted to gynaecology, the whole of his extant work gives a rich description of the role of women in that period. In chapter 5, Flemming writes an introduction to the works of Galen where she summarizes the justification of authority based on his identification with the perfect practitioner and his understanding and construction of medical art. In Galen's works men are presented as objects of medical knowledge in so far as they understand themselves as such. Women were simply not included in this pattern. The last chapter presents a selection of Galen's texts dealing with female anatomy, pathology and therapeutics.

In her conclusions, Flemming provides an overview of all the topics considered previously: female practitioners treated women and were present to minister to female patients, but always subordinated to an *iatros*. The goal of the medical art was, indeed, human health, but women were relegated to an inferior position; a sexual asymmetry is present in the sources analysed. This sexual difference is hierarchical: women differed from men, and

not vice versa. These are some of the particularities of Roman medicine which contributed to the gendering of society and therefore to the making of Roman women.

The authors and works used as evidence are listed in an appendix, where the editions and translations used are also indicated. As a second appendix Flemming includes a collection of imperial inscriptions (with translations) which contain references to *medicae* or *iatrinae*.

One of the major merits of this research consists of its being based upon texts which in part have not been translated and for which there is no reliable edition. This applies above all to the majority of the works of Galen, for which the use of Kühn's edition is unavoidable. Flemming claims to have gone through all the works of Galen to write the third part of her book. She lists in the appendix 49 works that she has used and for some 22 of them there is no edition after that of Kühn. Flemming's translations are accurate and some of these texts have not been translated into a modern language before. The book is therefore very useful because it makes all these materials accessible to the non-classicist and offers an overview to those more familiar with classical texts.

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John R Millburn, *Adams of Fleet Street, instrument makers to King George III*, Aldershot, Ashgate, 2000, pp. xxii, 420, illus., £59.50 (hardback 0-7546-0080-7).

John R Millburn's latest book considers leading figures among British eighteenth-century instrument makers. He has collected and blended together a large amount of data from a rich variety of archives (parishes records, corporations and private archives, military records, etc.), and of

printed sources, including many London daily newspapers. To this he adds the examination of many known and unknown instruments.

The study encompasses the whole history of the Adams dynasty of instrument makers, from the origins of the business started by George Adams senior in 1734, to the bankruptcy of his youngest son Dudley in 1817. Millburn includes most if not all the aspects of the life and career of this London family of instrument makers, providing a comprehensive and vivid picture of public science during the eighteenth century. It thus shows a scene which includes instrument makers, customers, corporations, advertisement, public lectures, not only scholars and scientific academies. Unlike the blurred image concealed behind the instrument that appears in other works on the subject, the instrument maker's world is reconstructed and placed in a particularly wide context. Biographical material provided at intervals through the narrative brings into focus the three distinctive figures of George Adams I, George Adams II and Dudley Adams. George Adams I combined technical exploits, the management of a flourishing business aggressively adapted to a rapidly evolving demand (navigation, optics, astronomy, military orders) with advertisement schemes, trade strategies to obtain certain lucrative markets such as that of the Office of Ordnance, and plans to promote his own prestige. He was indeed promoted in the Grocers' Company, and secured the title of Instrument Maker to the Prince of Wales, the future King George III. George Adams II's agenda was rather different. Besides being a good instrument maker and businessman, he divided his time between his mystical and scientific interests, readings, lectures and publishing. He wrote many books on electricity, vision, instruments, surveying and experimental philosophy, published between 1784 and 1795, the year he died, and they served the contemporary development of public science

as well as his own business. His publishing was later continued by the instrument makers W & S Jones, to whom his widow sold the copyrights. On the other hand, Dudley, the last of the dynasty, resembled the figure of the mad inventor. He patented several of his inventions but was unable to carry on the trade during the difficult conditions of peace that followed the fall of Napoleon. The great decrease in military demand for instruments and other goods, his inability to adapt to a growing market in technology, and other factors, led to his bankruptcy in 1817. He ended his career in another activity, as a quack who treated his patients with electricity.

Along with discussions of technical questions, innovations and the use of agents for the promotion of products on the Continent, a wide range of historical fields enables the author to trace many sources of information useful to his story: business management, labour division, corporate competition through advertisements, plagiarism, career strategies in the corporations, rivalry among instrument makers, use of scientific publications, etc., all of which provide details that usefully fill out his story. Take, for instance, the influence of politics on the production of instruments. In 1773, an Act of Parliament prohibiting the falsification of gold coins led to a huge production of steelyards, money scales and other portable balances, that lasted only one year. The influence of war (the Seven Years' War, the Napoleonic wars) on the instrument makers' business is well analysed, supported with tables of bills and other evidence. This very detailed study concentrates on English history. Thus it is no surprise that certain current anglocentric clichés in the history of scientific instruments sometimes make the author forget the existence of the Continent, and undermine the power of his argument. Can one draw a direct line from the British George Adams II to the British J J Lister on achromatic microscopes without considering the influence of Continental

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makers such as Fraunhofer, Amici, Selligie and Chevalier? Also, the figures of the plate from the 1787 *Essays on the microscope* were not drawn thanks to an Adams microscope, but are copies, probably made by a camera obscura, of original figures taken from the works of Trembley (1744, 1747), Baker (1753), Rösel von Rosenhof (1755), and others.

This certainly does not affect the high quality of the book. Indeed, the impact of Millburn's work on historiography could go far beyond that of a well contextualized biography. More than his previous studies, this book marks a turning point in the standards necessary to produce a serious historical work on instrument makers. To counterbalance classical works on the technical and historical aspects of instruments, a larger scheme was needed capable of integrating historical research on political, civilian and professional connections implemented by instrument makers, along with their various strategies regarding advertising, corporations, management, trade, prestige, etc. The inclusion and integration of all these items and more within his pleasant narrative, and the use of rich and good iconographical resources, make Millburn's book a model for the genre.

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Michael Hunter, *Robert Boyle (1627–1691): scrupulosity and science*, Woodbridge, Boydell Press, 2000, pp. ix, 293, £50.00, US\$90.00 (hardback 1-085115-798-X).

This book presents three new essays together with eight previously published articles on Robert Boyle by one of the editors of the new complete edition of

Boyle's *Works* (edited with Edward B Davis, 14 vols, London, 1999–2000), and of the *Correspondence of Robert Boyle* (edited with Antonio Clericuzio and Lawrence Principe, 6 vols, London, 2001). At one point in this collection the judgement of James Boswell is quoted: "They only who live with a man can write his life with any genuine exactness and discrimination" (p. 259). In view of his editorial labours over recent years, it seems fair to say that Professor Hunter has indeed lived with Boyle, and this remarkable collection immediately impresses the reader with precisely the genuine exactness and discrimination that Dr Johnson's biographer had in mind. Surveying other literature on Boyle, Hunter suggests that Lawrence Principe's study of Boyle's alchemy, *The aspiring adept: Robert Boyle and his alchemical quest* (Princeton, 1998), is "arguably the most important book on Boyle yet published" (p. 5). Excellent as Principe's book is, its focus is highly specific, and Hunter's more wide-ranging survey of Boyle's life and work must surely be seen, henceforth, as the starting point for any proper understanding of Boyle.

The standard of the papers is uniformly high. Readers of this journal might be expected to be most interested in the two pieces which detail Boyle's work in, and attitude towards, medicine: 'Boyle versus the Galenists' (1997), a study of Boyle's suppressed critique of contemporary orthodoxy in medicine, and 'The reluctant philanthropist' (1996), a study of the difficulties, both personal to Boyle and more generally in Restoration England, inherent in the "free communication" of medical "secrets and receipts". But the collection also includes some fundamentally important pieces; most notably, 'How Boyle became a scientist' (1995), 'Casuistry in action' (1993), and 'Alchemy, magic and moralism' (1990). Each of these is crammed with insights about Boyle and the historical context from which he emerged, but taken