figuring in this book, the USA and Germany, but also to those of many others, including Japan, Britain and France as well as to the growth of international trade and business. Over the same period, there was increasing government regulation concerning the safety and efficacy of pharmaceutical products in many countries. However, relatively few detailed explorations of the development of safety regulation have been published, so this comparative study of the development of the regulatory frameworks in the USA and Germany between 1950 and 2000 is very welcome.

The parameters of the study and its main focus—the politics of regulation—are established in the first chapter. Arthur Daemmrich sets out to explore regulation vis-à-vis therapeutic cultures, the term he uses to encompass the complexity of the relationships which have developed between those primarily, although in varying degrees, concerned: "the state (including legislatures and regulatory agencies), the pharmaceutical industry, the medical profession, and disease-based organizations" (p. 4). However, as the later chapters and the drug case studies evidence, the existence and role in the process of disease-based organizations is largely confined to the USA and there it is seen most clearly in the case of HIV/AIDS.

The study as a whole makes it clear that differences of history, of political systems, of ways of delivering healthcare and of professional medical approaches have resulted not only in a lack of disease-based organizations in Germany, comparable to those of the USA, but also in the development of the very different regulatory regimes revealed in this book. To summarize the major difference, in the USA regulatory authority rests solely with the state, whereas in Germany it is shared across a network of state, industry and the medical profession.

Case studies on the adoption and use of terramycin, thalidomide and propanolol are used to highlight and explain the development of different systems in the two countries over the period 1950 to 1980. Thalidomide was, of course, the trigger for increasing regulation in the shape of more stringent testing requirements before

new drugs could be launched on the market in the USA and in many European countries. Although the USA escaped the worst effects of thalidomide because the FDA did not license it, the new requirements imposed took a longer time to meet and that impacted significantly on the introduction of propanolol; the discussion of this provides a strong contrast with the use of propanolol in Germany.

By 1980 pre-clinical and clinical trials had become an institutionalized process in drug development, a phenomenon explored at work in the later chapters, which focus on the last two decades of the twentieth century. The cases of the cancer therapy, interleukin-2 and the anti-AIDS drug, indinavir are used to illustrate and explore the nature of post-market drug introduction surveillance as well as the changing nature of the major relationships. In the final chapter the attempts to create an internationally harmonized regulatory system and the implications of such a system are discussed. Given the strength of national differences in the politics of medicine and perceptions of the patient, highlighted in this book, as articulated through the regulatory systems, now deeply embedded, it is hardly surprising that international harmonization encounters resistance.

It is no criticism of this significant and highly readable comparison of regulatory development in the USA and Germany, to suggest that further studies extending the comparison to other significant drug-producing and consuming countries would enhance our understanding.

Judy Slinn, Oxford Brookes University

Ralf Vollmuth, Traumatologie und Feldchirurgie an der Wende vom Mittelalter zur Neuzeit: examplarisch dargestellt anhand der "Grossen Chirurgie" des Walther Herrmann Ryff, Sudhoffs Archiv, Beiheft 45, Stuttgart, Franz Steiner, 2001, pp. 352, illus., €44.00 (hardback 3-515-07742-1).

The goal of this study is to present the state of the art in the field of what the author calls

"traumatology" (anachronistically using the term of a modern medical discipline), i.e. the treatment of injuries, and military surgery during the transition period from the Middle Ages to the early modern period. At the same time, it aims to provide a critical evaluation of the plausibility and effectiveness of the diagnostic and therapeutic procedures current during that time period. The basis for this evaluation is a thorough examination of the Grosse Chirurgie of Walther Herrmann Ryff, published in 1545. According to the great historian of surgery Ernst Gurlt (1898), Ryff's work is a representative compilation of the then current surgical techniques. The Chirurgie, as Vollmuth claims, not only provides detailed and richly illustrated material, it was also widely read and used.

The study starts off with a biographical section on Walther Hermann Ryff which provides basic information on the life and work of this early modern author. However, Vollmuth's emphasis on saving Ryff's reputation is a bit out of touch with the concerns of current historiography of pre-modern medicine. Among other things, he defends the surgeon's honour against the accusation of plagiarism by explaining that copying others' books was quite common at the time. This well-known fact, however, is one of the reasons why the issue of originality and priority has become more or less irrelevant for historians working on early modern medicine, so that Vollmuth's attempt at rehabilitating Ryff seems oddly beside the point.

What is even more problematic, however, is the study's analytic strategy. As the author explicitly states (p. 323), it consists in taking Ryff's book apart and reordering it according to modern concerns. Chapter 1 is a description of the surgical instruments shown and described in the *Chirurgie*. Chapter 2 consists in an alphabetically ordered list of all the drugs occurring in Ryff's book (pp. 82–170). Chapter 3, which the author characterizes as the central chapter, deals with the different injuries, their treatment, and the plausibility and efficacy of the surgical treatment procedures according to modern medical knowledge. The structure of this chapter deliberately follows modern textbooks of

surgery (p. 171). The first part is devoted to 'General surgery' and includes questions of anaesthesia and pain management, wound treatment, haemostasis and cauterization, complications and post-operative treatment. The second part discusses injuries of various body regions. This peculiar presentist structure might make it easier to find particular topics, in case one wants to compare them with other books, for example, but it also makes it harder to understand Ryff, and his book, in the context of his time. All in all Vollmuth's study combines an amazing erudition and thoroughness concerning philological and antiquarian details on the one hand, with an equally amazing naivety as to the aspects of cultural history of the topic, on the other.

**Thomas Schlich,** McGill University, Montreal

Susan Wheeler, Five hundred years of medicine in art: an illustrated catalogue of prints and drawings from the Clements C. Fry Collection in the Harvey Cushing/John Hay Whitney Medical Library at Yale University, Ashgate Publishing, 2001, pp. xxviii, 363, £85.00, US\$144.95 (hardback 0-8596-7992-6).

This catalogue lists and illustrates prints and drawings on medical themes from the Fry Collection at Yale University Medical Library. This wonderfully rich collection consists of about 2000 images gathered over almost thirty years by Dr Fry, who donated it to the library in 1955. The images span five centuries and include the work of over six hundred artists, including great masters such as Pieter Bruegel, Rembrandt van Rijn, Guercino, and Hendrick Goltzius. It is especially strong on French and British works, particularly images representing the interaction of doctors and patients, specific diseases and injuries, and therapeutic practices. Almost half of the works are satirical or humorous, including a large number of excellent caricatures by the French Honoré Daumier (1808-1879) and the British Thomas Rowlandson (1756-1827).