very sad that the BMJ Publishing Group has presented this work in such a dry format—as it stands one wonders if it will have found its way into many medical Christmas stockings. This is a shame, since this is certainly not a self-congratulatory, self-referential history, and deserves a wide readership both within and outside the history of medicine community.

## Andrew A G Morrice, Wellcome Institute

Springer-Verlag: History of a scientific publishing house, Heinz Sarkowski, Part 1, 1842–1945: Foundation, maturation, adversity, 1842–1945, transl. Gerald Graham; Heinz Götze, Part 2, 1945–1992: Rebuilding, opening frontiers, securing the future, transl. Mary Schäfer, Berlin and Heidelberg, Springer-Verlag, 1996, pt 1, pp. xviii, 448, illus.; pt 2, pp. xxvi, 416, illus., £58.00, DM 124.00 (3-540-61744-2).

For most English-speaking historians "Springer-Verlag" is indelibly associated with two things: science and medical periodicals, and the creation of Robert Maxwell's Pergamon Press. The latter emerged in 1946 as a consequence of Springer's far-sighted effort to enter the British (and so, international) publishing market through partnership with Butterworths, the legal and scientific publishers. From the assets of this failed partnership (including three Springer periodicals) Maxwell created his post-war empire. This matter is dealt with only briefly and circumspectly in the second volume of this substantial and excellently illustrated history that celebrates 150 years of Germany's largest and most important scientific and medical publishing house.

Like Michael Faraday, the firm's founder, Julius Springer (1847–77), was apprenticed to a bookbinder and bookseller in Berlin before *Wanderjahre*, learning the book trade in Frankfurt, Heidelberg, Strasbourg, Zurich and Paris. When he returned to Berlin in 1842 he established a bookshop that dealt in "domestic and foreign literature", and published a small number of short-lived political periodicals (it

being the revolutionary vor-März period), children's books and school textbooks, to which pharmacy and forestry books were added as specialisms from 1851. (Forestry science loomed large in the first fifty years of the firm's development; here is a significant discipline hitherto ignored by historians of German science and its universities.) The bookshop was sold in 1858, when the firm committed itself entirely to publishing. Two sons, Ferdinand (1846-1906), trained like his father as a bookseller, and Fritz (1850-1944), a graduate engineer, added science, medicine and technology to the firm's specialities; but it was the two grandsons, Ferdinand ir (1881–1965) and Julius jr (1880-1968), who transformed the family business into Germany's leading science publisher and who made it an international post-war success.

How this was achieved is dealt with in scholarly detail by Heinz Sarkowski in the first volume, based upon the firm's rich collection of surviving records. Eduard Vieweg at Braunschweig was probably the first German publisher to see that there was a growing market for science books and periodicals, and he had cultivated the chemists Justus Liebig and Hermann Kolbe as advisers. In emulation. the Springer family's ploy was to identify a man of science as an editor of a new journal and then encourage him to author texts as well as acting as a talent spotter. For example, in 1859 the firm launched the important weekly Pharmazeutische Centralhalle für Deutschland under the editorship of the pharmaceutical chemist Hermann Hager. Within a few years, this led to the production of a pharmaceutical calendar and yearbook and a series of monographs by Hager on elementary pharmacy, pharmaceutical chemistry, microscopy, as well as the important Handbuch der pharmazeutischen Praxis (1875-78). Although not a new concept, the firm was to enjoy particular success in publishing "Handbooks" that summarized existing knowledge in pharmacy, engineering and, from the 1880s, medicine.

Once Robert Koch's Imperial Health Department began to use Springer for its publications, the opportunity arose to establish Zentralblätter and Handbücher for the various growing medical specialisms; by 1914, 75 per cent of the firm's output was in engineering and medicine and a largish group of German scientists found additional employment as advisers on monthly retainers. Sarkowski provides a gripping account of the dangerous thirties when the firm's Jewish genealogy and its high profile of Jewish authors and editors made it vulnerable to the discriminatory Ayran employment regulations.

"Scientists cannot do without the industriousness of a publisher," said Rudolph Virchow, whose Archiv für pathologische Anatomie was taken over by Springer in 1920. That industriousness is revealed in detail in the second volume written by Heinz Götze, a former pathologist and member of the firm's management since 1949 who writes from personal experience rather than as an historian. Available in German since 1992 (volume 2, 1994), the fine English translations by Gerald Graham and Mary Schäfer demonstrate Springer's commitment to English as the lingua franca of science and medicine. At the same time, authors and publishers have produced a useful and absorbing account of the growth of European and international science publishing. The first volume, in particular, will form a valuable source of information and interpretation concerning the growth and significance of science publishing up to 1945.

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Adrian Desmond, Huxley: evolution's high priest, London, Michael Joseph, 1997, pp. xiv, 370, £20.00 (0-7181-3882-1).

When in 1994 Huxley: the devil's disciple appeared, some reviewers criticized the fact that Desmond ended his biography of Huxley with the year 1870, i.e., twenty-five years short of the actual end of Huxley's life. In the book, no indication was given that a second volume was in the making, to cover the last quarter century of Huxley's remarkable career. With

this new book, Desmond provides an effective answer to the early criticism (in the U.S., Desmond's two-volume Huxley biography has been published, more sensibly, as a single, 800-page book).

Another criticism of volume one concerned the extent to which Desmond portrayed Huxley as severely disadvantaged by his working-class background, having needed to wrestle his way up the social ladder, obstructed all the way by the vested interest of a rigid class system. Critics pointed out that for all his angry vilification of the establishment, Huxley did rather well out of it, having been elected to the Royal Society at the early age of twenty-five and having secured three choice metropolitan chairs before he was forty. Now, in the second volume, this criticism, too, is being answered, in that Desmond highlights the honour and power that were accumulated by Huxley. The pushy Tom Huxley of volume one, who "clawed his way from the East End slums to the presidency of the British Association for the Advancement of Science", has become, in volume two, "Evolution's High Priest", and as Privy Councillor to the Queen, part of the establishment.

This change of focus does not mean that the British class system is wielded less forcefully as an instrument of historical explanation in Desmond's second instalment of Huxley's life. In fact, in an extraordinarily frank and partially facetious—one presumes—autobiographical paragraph (p. 263), Desmond attributes his preference for writing the history of science in the form of the social turmoil of individual lives, to the social niche that his own ancestry occupied in British society. And indeed, it is the social constructionism, combined with Desmond's detailed and rich knowledge of the sources, that gives depth to his analysis of Huxley's many activities and a stimulating zest to the narrative style.

During the last quarter of his life, Huxley was less preoccupied with producing sustained scientific research than with working out the consequences of Darwin's theory for social, political and religious life. Desmond depicts Huxley as the leading figure to bring about the