

Book Reviews

expense of Willis and Sydenham? As with other sections there is a brief introduction, which is quite inadequate and contains several errors. There are no textual annotations, which in some cases are essential for elucidation, and the 'Select bibliography' (pp. 200–201) is pathetically inadequate. It is also curious that Dr. Charles Webster's remarkable recent work on seventeenth-century science is not included.

The majority of the selections in this book can be found elsewhere and have in fact in the last few years been reprinted repeatedly. What is needed now are readings from the less well-known authors who had important things to say but never said them in English. This book, in sum, cannot be recommended to students, and in any case its price will keep it off their shelves.

G. L'E. TURNER (editor), *The patronage of science in the nineteenth century*, Leyden, Noordhoff, 1976, 8vo, pp. vi, 218, Dfl.40.00.

After a brief editorial introduction there are five scholarly essays on the means of acquiring money for experimental research. Dr. Robert Fox writes on 'Scientific enterprise and the patronage of research in France 1800–70', Dr. J. B. Morrell on 'The patronage of mid-Victorian science in the University of Edinburgh', Professor D. S. L. Cardwell on 'The patronage of science in nineteenth-century Manchester', Dr. R. M. MacLeod on 'Science and the Treasury: principles, personalities and policies, 1870–85', and Dr. W. H. Brock on 'The spectrum of science patronage'.

The first three show the importance of self-help, voluntary action and individualism, which in Britain supplemented and complemented the state's contributions, the subject of Dr. MacLeod's paper. The decline of French science in the late nineteenth century was in part due to the scientists who renounced state aid. Although Germany is discussed, especially by Brock, more space should have been given to the support of scientific research there in the nineteenth century. It is usually said that the emergence of the full-time academic medical scientist in the nineteenth century took place in Germany because of university funding, but the explanation for this phenomenon is probably not quite so simple. In addition, the American scene, for example in medical research as discussed extensively by Professor Richard Shryock (*American medical research past and present*, New York, 1947), could have been mentioned.

However, as a first endeavour to cover a large topic Mr. Turner's book is eminently successful and he and his contributors deserve praise for an excellent publication. It is the first of a new series *Science in history*, edited by Mr. Turner, and its quality augers well for future titles.

COLIN A. RUSSELL, with NOEL G. COLEY and GERRYLYN K. ROBERTS, *Chemists by profession. The origins and rise of the Royal Institute of Chemistry*, Milton Keynes, The Open University Press, in association with The Royal Institute of Chemistry, 1977, 8vo, pp. x, 342, illus., £9.50.

The Institute was founded in 1877 and this book celebrates its centenary. A chapter entitled 'Alchemists, assayers and apothecaries' (pp. 5–28) surveys events before 1877, which together with discussions 'Who is a chemist?', 'The growth of chemical institutions', 'Chemical training before 1877', 'The growing role of chemical analysis', and 'Pressures for reform' leads up to the Institute's foundation. Its evolution is then

Book Reviews

considered. In general the book is a study of the development of the chemical profession, c. 1800 to 1976, and in it there is a skilful blending of the technical content of chemistry and the social factors operating on it from without, together with dissension and rivalry from within. Education, chemical techniques, and the effects of two world wars, industrial depression and the E.E.C. are also dealt with.

This book will be of special attraction to practising chemists, but also to pharmacists and medical personnel who are increasingly in contact with chemical concepts and techniques. In addition it will provide historians of science and medicine with a valuable survey of nineteenth-century British chemistry.

Journal for the History of Arabic Science, vol. 1, 1977, 2 issues per annum (spring and autumn), \$6.00 per annum.

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The inaugural volume of an international *Journal for the History of Arabic Science* was launched in May 1977, being the official organ of the Institute for the History of Arabic Science founded in Aleppo, Syria, in 1976 (see *Med. Hist.*, 1976, 20: p. 439). The need for this unique journal has long been felt: it is unique in that it is entirely devoted to the history of Arabic science and prints papers in Arabic as well as English and French. Historians of Arabic science will no longer have to publish the Arabic text and commentary of one paper in an oriental periodical, and to print elsewhere a version in an occidental language. Alternatively, if the Arabic texts with a translation and commentary are published together in a periodical of a general nature, however prestigious, they may not become known to most historians of science.

The Managing Editors, all of whom contributed scholarly papers to this volume, are Professor A. Y. al-Hassan and Professor E. S. Kennedy, who jointly deal with papers on mathematics, technology, and astronomy, and Professor S. K. Hamarneh, being in charge of contributions in the fields of medicine, pharmacy, and allied sciences. The Editors and an international Board of Editors are among the leading historians of Arabic science.

In his lucid editorial, Hamarneh outlines the purpose of this journal and explains successfully the connotation of the expression "Arabic-Islamic" science. This term is frequently used to embrace the great efforts of men of different religious creeds who flourished under Muslim rulers and wrote in Arabic, the language of the Koran, the holy book of Islam. They preserved part of the Greek heritage from extinction and made their own contributions. The Arabic tongue, Hamarneh writes, "has a remarkable proficiency, clarity, elegance and facility to embrace and articulate all the developing scientific and technical knowledge."

Present-day Iranians prefer to use the expression *Ṭibb sunnat-i Irān* "traditional medicine of Iran", rather than "Arabic-Islamic medicine". Their ancestors, to name only Ḥunayn, al-Rāzī, and Ibn Sīnā, made the greatest contributions to what should be called "traditional Irano-Arabic-Islamic medicine (or science)" or, probably in a modern short title, "traditional medicine (or science) of the Middle East", which would encompass Arabic, Persian and Turkish contributions, as well as those of