ERASMUS DARWIN, The botanic garden, Erasmus Darwin, 1791, London, Scolar Press, 1973, 4to, pp. viii, xii, 214, 128, v-vii, 184, illus., £10.00.

Erasmus Darwin (1731–1802), grandfather of Charles, was an outstanding Midlands physician, and, in addition, a prominent scientist, inventor, and founder of the Birmingham Lunar Society. However, he also enjoyed great fame as a poet and this book presents an excellent facsimile reproduction of his most important poem. The first part (1791) deals with all parts of science and technology and the second (1789) with the fertilization processes in plants. Darwin's appended notes cover a wide range of topics: meteors, comets, luminous insects, steam engines, electricity, geology, the Portland vase, winds, etc. When published it was very well received, and it is said that it influenced Wordsworth, Coleridge, Keats, and Shelley. Certainly Darwin was able to handle his rather dull material with poetical skill, humour, sensitivity, and ingenuity.

The Scolar Press, which is achieving a reputation for high-quality reprints, has reproduced the work faithfully and elegantly; the price is a modest one, when the quality and the size of the volume are taken into account. There is a brief introduction by Desmond King-Hele, which includes an account of Darwin's life and achievements, with a detailed consideration of *The botanic garden*. This book, therefore, exhibits the qualities of the best kind of reprint: impeccable reproduction, scholarly introduction by a recognized authority, and a modest price.

R. B. FREEMAN, *The works of Charles Darwin. An annotated bibliographical handlist*, second edition, Hamden, Conn., Archon Books, (Folkestone, Dawson), 1977, 8vo, pp. 235, illus., £10.00.

The first edition of this book appeared in 1965 and it proved to be an exceedingly valuable bibliographical tool. It is now revised and enlarged and consequently is even more useful. The first part contains lists of all the editions and issues of books, pamphlets and circulars, both British and translated into foreign languages, from 1835 to 1975, the whereabouts of material from manuscripts unpublished in Darwin's lifetime, and letters published in his lifetime together with the more important collections printed since then. The second part is a list of papers, notes and letters originally published in serials.

Even though it appears to be comprehensive, Mr. Freeman claims that his book is by no means complete. It will nevertheless be an essential reference book for all who are studying Darwin and evolutionary theory.

Despite its title it is much more than a handlist, for there are extended discussions of each item, in which Mr. Freeman demonstrates his very extensive knowledge of Darwin and his work. It is to be hoped that his praiseworthy endeavour will stimulate others to produce similar bibliographies of equally outstanding and influential scientists.

J. R. BUSVINE, Insects, hygiene and history, London, Athlone Press, 1976, 8vo, pp. viii, 262, illus., £6.95.

Bed bugs, fleas, lice and itch mites have been the main professional interest of Professor Busvine, who holds the chair of entomology at the London School of

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Hygiene and Tropical Medicine. It is, therefore, appropriate that he should trace the history of their unwelcome symbiosis with man. He contends with justification that their importance to history is undoubted and extensive, because an awareness of their prevalence helps us to comprehend certain human social habits and manners. It is also useful knowledge when perusing the literature, non-scientific and scientific, of periods when infestations were universal.

His scholarly and well-written book is well organized, fully documented, and pleasantly written, although there are too many small errors and mis-spellings. It offers some support for the thesis that the best person to write on a scientific topic is he who is fully aware of modern knowledge and also a competent historian, although Professor Busvine does occasionally assess the past in the light of the present and levels unwarranted judgements.

The work deals with the scientific, the medical (transmission of plague and typhus in particular), literary, and historical aspects of man's ectoparasites, the most fascinating section being the one that deals with his reaction to them. The author's audience will, therefore, be a wide one, which his book richly deserves.

PAUL F. CRANEFIELD, Claude Bernard's revised edition of his Introduction à l'étude de la médecine expérimentale, New York, Science History Publications, 1976, 8vo, pp. xii, 1-162 and 1*-163*, £21.00.

Bernard's classic work *Introduction*, appeared in 1865 and this is a revised edition of it, originally intended as an introduction to his *Principes de médecine expérimentale*, a book that was never published. The full text in French is given in facsimile on one side of the page and facing it are the author's corrections that have been incorporated, showing how it differs from the 1865 edition. It seems that only two copies survived.

On the whole the differences between the two editions are minor, but the editor claims that the subtle stylistic emendations are of significance. Passages dealing with vivisection, with the distinction between observation and experiment, with the *milieu interne*, with determination, statistics, and the role of hypothesis are also noteworthy although minor. They give some indication of Bernard's evolving thought, but none is of great significance and they do not warrant the high price asked for this volume.

DAVID WILSON, Penicillin in perspective, London, Faber & Faber, 1976, 8vo, pp. x, 298, viii, £4.95.

It has long been suspected that the accepted description of the discovery and therapeutic use of penicillin is not entirely accurate. Professor Ronald Hare's *The birth* of penicillin (London, 1970) and Professor Sir Ernst Chain's lecture of 1971 have helped to set the record straight and this book contributes further to the process. The author, who is a science writer and broadcaster, has collected together all the available data and presents what seems to be the most acceptable, detailed account so far available. He has carried out extensive research and presents his facts and conclusions in a lucid, undramatic style, with some documentation. The picture gradually clarifies but there are still problems the resolution of which will probably have to await the demise of all who were concerned with this remarkable venture.

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