

Book Reviews

use of the most recent researches; his general ideas, such as that of the position of man in the cosmos and the access which he has to truth and nature, are interpreted. The second part deals with his innovations in medicine and the third discusses the ancient, medieval, and contemporary sources, concluding with an account of the arguments of his adversaries. It would be difficult for any reviewer to improve on the brevity and balanced judgement of Pagel's final assessment:

Was he a scientist? Paracelsus worked in the *chemical* laboratory with experience, skill and ingenuity. He devised new methods, prepared new mineral compounds and greatly enriched the store of medicinal chemicals—chiefly by his care and success in detoxicating heavy metals. He finally drew up what may be called a skeleton outline of inorganic chemistry, a system from which he endeavoured to provide a chemical interpretation—however crude—of the processes of life and disease. . . .

Viewing him as a whole, however, his chemistry forms but one aspect of a cosmology and philosophy which are symbolic, 'mythical' and decidedly unscientific. However much inspiration and actual addition to chemical knowledge may be due to him, Paracelsus was neither a scientist nor a chemist in the modern sense.

His position in *medicine* is similar. He left shrewd observations and descriptions of diseases and pathological conditions. As a notable example we recall the 'Miner's Lung' and his first attempts at establishing 'Occupational Medicine'. There is also his modern-sounding insight into the role of drinking water and minerals in the aetiology of goitre and cretinism. There are the recommendations of mercury as a diuretic and the demonstration of albumen in urine. There are above all his unceasing struggle against the traditional system of Pathology and his attempts at replacing it by a new system . . . [but] it is not scientific—taken as a whole.

Replying to the question, 'Was Paracelsus original?', Pagel concludes that he

should be found original in his thinking in analogies, which in his case afforded a strange synthesis of medicine, alchemy, chemistry, religion, and cosmology—a synthesis that is entirely his own. There may yet come a time when his analogist teaching will sound less fantastic even to the scientist than it does today.

He goes on to tell us that the scientific insight of Paracelsus was part of a personal revelation which relates to the cosmos as a whole and to the Creator. Its aim was the knowledge that enables the philosopher to transcend his limitations and commune with the universe outside himself. It was a personal wisdom rather than scientific or even intellectual knowledge.

Quotation, unless it be more extensive than is usually permitted in a review, carries the risk of upsetting the fine balance of Pagel's judgements. The interested reader is urged to go to the book itself. It is expensive, but not dear, for it has been beautifully printed and illustrated by S. Karger of Basle, the publisher who, sixty years ago, was responsible for the publication of the text-book of medical history by Julius Pagel, the present author's father. The work is dedicated to Charles Singer and it was completed under the auspices of the Wellcome Trust.

F. N. L. POYNTER

The Circulation of the Blood. Two Anatomical Essays by William Harvey, together with nine letters written by him. The whole translated from the Latin and slightly annotated by KENNETH J. FRANKLIN. Oxford: Blackwell Scientific Publications, 1958; pp. xxiii, 184. 22s. 6d.

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In 1957 Professor K. J. Franklin published a new translation of Harvey's *De Motu Cordis* which was received with enthusiasm and unreserved praise. It was then suggested that he should re-translate the remaining circulatory writings, of Harvey, and fortunately he was able to accept the task. The book now under review is the outcome. The immense labour was somewhat diminished by the joy of intimate contact with the cerebration of a man of genius, but it was only made possible by the help of the members of Professor Franklin's Department at the Medical College of St. Bartholomew's Hospital, to whom the volume is charmingly dedicated.

Although Harvey's theories concerning the movement of the heart and circulation evoked much criticism, he preserved silence for twenty-one years before replying in print to his opponents. Thus in 1649, he published two essays addressed to one of his most illustrious adversaries, Jean Riolan (jr.). Riolan, who was Dean of the Paris Faculty of Medicine and a modified Galenist, recorded his criticisms in *Encheiridium Anatomicum et Pathologicum* (1649) and now Harvey considers each in turn, refuting them effectively with lucid reasoning and experimental fact. At times he is provoked to sarcasm, and suggests that the famous Frenchman may have been writing 'with a view to pleasing as many as possible and opposing none'. As clinical and experimental observations made since the publication of *De Motu Cordis* in 1628 are included in *De Circulatione Sanguinis*, these essays may be regarded as an appendix to the earlier work. There are also nine letters written to European physicians known to Harvey.

Until now, the translation of *De Circulatione Sanguinis* usually referred to has been that of Willis produced in 1847. This, however, contained a number of inaccuracies, as well as being written in a plethoric Victorian style. Professor Franklin, on the other hand, maintaining his reputation as the greatest modern interpreter of Harvey, has given us an elegant, and at times inspired, version of the ten separate items. As was to be expected, his translation of the Latin text is invariably appropriate and his English style not only matches the author but, owing to the frequent use of the modern idiom, perfectly clarity is obtained.

This book closely resembles Professor Franklin's *De Motu Cordis* both in the arrangement of English and Latin texts and also in format. The preface, which contains useful suggestions concerning the most advantageous course to adopt when reading the book, is followed by a short biographical sketch. The letters and essays appear next with short explanatory notes appended to them, and then the Latin version, taken from the *Opera Omnia* of 1766; a short epilogue and selected references complete the volume. As with the earlier book, *De Motu Cordis*, the illustrations and decorations have been selected with great discrimination; production is excellent.

Some readers may wish to be told in the text of the annotations, rather than finding later that they exist, but the author is probably correct in placing no unnecessary obstacle in the way of those absorbing Harvey's brilliant reasoning. Others may consider that some of the letters seem to have little connection with Harvey's circulatory theories.

But these are very minor criticisms. The book needs no recommendation to those who have already sampled Professor Franklin's scholarship. He has supplied a work which helps to bring Harvey further into the limelight which already illuminates him. It shows more clearly than ever how he stood out amongst his contemporaries. Whilst he used the lucid, painstaking, scientific approach to a physiological problem, they lost themselves in their circuitous arguments and unverified theorizing.

EDWIN CLARKE