demonstration of transmissibility of a chicken sarcoma via cell-free filtrates, and his later work on the concept of carcinogenesis as a two-stage mechanism. But Saunders has already disarmingly apologized for any omissions which may have accidentally occurred; and we can only congratulate him on the vast amount of information he has single-handedly accumulated for the benefit of present and future historians.

Lise Wilkinson, Wellcome Institute

W F Bynum (ed.), Gastroenterology in Britain: historical essays, Wellcome Institute for the History of Medicine Occasional Publications No. 3, London, The Wellcome Trust, 1997, pp. 138, £8.00 (1-869835-64-6).

An engaging slim compilation of 138 pages, small enough to slip into a jacket pocket, this book offers diverse accounts of British contributions to gastroenterology that run the gamut from panegyric to paean. The most delightful is by Roy Porter, that most prolific of current historians, on 'Biliousness', followed closely by that of Denis Gibbs who, an American notes with pleasure, is the "Apothecaries Lecturer in the History of Medicine". His essay is entitled: 'The demon of dyspepsia'. Other essays are more personal reminiscences about the development of gastroenterology, hepatology, and the like, which will entertain those named and their acolytes, but may prove of lesser value to those outside the original select circle of British gastroenterology. In reviewing the "British" contributions to the discussions about gastric acid, Hugh Baron manages a political syncretism which gives British citizenship to Paracelsus, Spallanzani and Tiedemann, to name only a few, a feat that leaves those from William Beaumont's home state grateful that he too was not Anglicized for a place in the pantheon, although Gibbs states, on what grounds I do not know, that Beaumont was born a British subject.

All in all, this is a most engaging read.

Editor W F Bynum says it all in his introduction, "If psychiatry is half of medicine, then gastroenterology might lay fair claim to much of the remaining territory".

Gastroenterologists who do no endoscopy will certainly agree.

Those who have slogged through more than a few contributions about American gastroenterologists and parallel developments in the States, however, may wonder whether parochial histories like this one are of sufficient archival value to deserve a book form. Even before the advent of general gastroenterology journals, not to mention the jet plane, fax, and e-mail, the medical world had become so very interrelated that, for example, it can be very difficult to isolate the influence of Johns Hopkins Hospital on Yale Medical School without considering the influences of that genial Canadian William Osler on both, even after he had found a home in Oxford. The essays would have been of greater interest outside the UK if all authors had followed the lead of the first two.

Howard Spiro, Yale University

Arthur Hollman, Sir Thomas Lewis: pioneer cardiologist and clinical scientist, London, Springer-Verlag, 1996, pp. xx, 300, illus., DM 89.00, SFr 78.50 (3-540-76049-0).

Thomas Lewis (1881-1945) was one of the most important and interesting British physicians of his day. After initial studies in Wales, he went on to study at University College, London, the institution where he was to spend most of his career. Lewis focused his early investigations on the cardiovascular system. At first he analysed pulse tracings obtained by the polygraph, but starting in 1909 he turned to the investigation of the heartbeat using electrical records created by the newlyinvented electrocardiograph (ECG). Lewis went on to apply this tool to great effect in the analysis of all manner of abnormal cardiac rhythms, but most notably to the irregularly irregular pulse known as atrial fibrillation.

Through his teaching and his publications, he played a major role in the acceptance of the ECG as a clinical tool. Lewis was supported by the Medical Research Committee for work during the First World War on the disease entity initially known as "soldier's heart" and reconstructed during the war as the "effort syndrome". Following the war Lewis studied in detail the response of the skin to cold and to injury, as well as the nature of the pain that surrounds an area of cutaneous injury. Along the way, he provided critical research training opportunities to many younger physicians who were to become the next generation of leaders in the UK and U.S. But perhaps Lewis's most important contribution was to encourage the creation of an idea of clinical science and experimental clinical research in Britain.

There has previously been no book-length biography of Lewis, and all of those who study clinical medicine and medical research in twentieth-century Britain should be grateful to Arthur Hollman, a distinguished cardiologist and a former student of Sir Thomas Lewis, for writing the book under review. In this labour of love Hollman provides us with a detailed and thorough look at Lewis's work, based not only on a careful review of most of Lewis's published books and papers but also on extensive use of unpublished material, including some in the author's personal collection that he plans to donate to the Royal College of Physicians of London. But the book's scope goes far beyond Lewis's scientific studies. Hollman details how Lewis connected as a human being to those around him: as a husband, father, mentor, editor, colleague, commentator on issues of scientific policy, and inveterate bird watcher (a sport that drove some of his ostensibly scientific travels and one that he enjoyed alongside some of the finest scientists of the day).

True to his stated intentions, the author throughout focuses on Lewis "without, as a rule, describing what other investigators were doing at the same time" (p. ix). This limitation on his gaze may explain his failure to have recourse to what other authors have had to say about Thomas Lewis and cardiology during the

period. By failing to engage with the significant secondary historical literature, this volume becomes most useful as a detailed recounting of Lewis's life rather than as an analytic work of history.

Joel D Howell, University of Michigan

Edwin Clarke and C D O'Malley, The human brain and spinal cord: a historical study illustrated by writings from antiquity to the twentieth century, Norman Neurosciences Series, No. 2, 2nd ed., rev. and enl., San Francisco, Norman Publishing, 1996, pp. xviii, 951, illus., (0-930405-25-0).

Edwin Clarke and Kenneth Dewhurst, An illustrated history of brain function: imaging the brain from antiquity to the present, Norman Neurosciences Series No. 3, 2nd ed., rev. and enl., San Francisco, Norman Publishing, 1996, pp. xiii, 188, illus., \$135.00 (0-930405-65-X).

The idea of writing these books came to Edwin Clarke (1919-1996) in May 1961 during breakfast in a Chicago hotel with Charles D O'Malley (1907-1970). They were published in 1968 and 1972 respectively. The two works supplement each other: The human brain and spinal cord is an anthology of selected passages of classical texts on the anatomy and physiology of the brain and An illustrated history of brain function is its iconographic counterpart. Why was it necessary to reprint them now? Clarke supplied the answer in his preface to the second edition of The human brain and spinal cord: the book "has never been superseded or even rivalled" and "it was accorded an overwhelmingly favourable reception in twentythree reviews". Surprisingly, it was never reviewed in Medical History.

In the first chapter, *The human brain and spinal cord* gives a general overview of cerebral matters in antiquity and the medieval period; other chapters deal with a specific nervous structure or function. There are short excerpts from texts of various authors (the most frequently quoted being Galen) preceded