

## Book Reviews

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*Medical America in the nineteenth century. Readings from the literature*, ed. by GERT H. BRIEGER, Baltimore and London, The Johns Hopkins Press, 1972, pp. x, 338, \$12.50, £5.95.

*Reviewed by George Rosen, Professor of the History of Medicine, Yale University, New Haven, Conn. 06510, U.S.A.*

American medicine was derivative in its origins. Beginning as an element of a culture brought from Europe by the first settlers, it was influenced by European sources and trends throughout much of its evolution. According to Dixon Ryan Fox, cultural transfers of this kind occur in four stages. First, a few educated in the mother country emigrate to the new settlement; then, the colonial youth are drawn back to the mother country for training; in the third stage, schools are established in the newly settled country but numerous students and teachers are still educated abroad; the fourth stage is present when the educational establishments of the younger country become independent and attract students to themselves.

Focusing more specifically on American medicine, Richard H. Shryock divided its development into five chronologic periods, of which three are of particular interest here. These are: the "Second Century, 1720–1820: Speculative 'systems' of pathology and heroic practice; The Middle Period, 1820–1870: Advent of 'modern' pathology and clinical studies; The Germanic Epoch, 1870–1920: Early influence of science on public health and surgery".

No matter whether Fox's or Shryock's stages of development are used in analysing the evolution of American medicine, the crucial transition during which it overcame its persistent cultural colonialism and began to rise to a level of scientific independence and leadership occurred in the second half of the nineteenth century and the early twentieth century, between 1865 and 1914. During this period there also began to emerge problems of community health which are still of major interest in the United States. An understanding of the process underlying this transition must take account of the conditions out of which it developed and the factors that entered into it.

However, the student of nineteenth-century American medicine who wishes to comprehend its evolution faces a major problem, the difficulty of finding one's way through the massive literature on the subject. For those who find themselves in this situation, aid is now available through the source book on medical America in the nineteenth century compiled and edited by Professor Brieger. Under eight headings: medical education, medical literature, the medical profession, medical practice, surgery, psychiatry, hospitals and hygiene, he has brought together thirty selections from medical periodicals and books, medical school prospectuses, and non-medical publications. There is a ninth section, with no headings, which offers the announcement of the John Hopkins Medical School. Logically, this belongs under medical education, but it is presented separately to symbolize the advent of a new period in American medicine. Each section has an introduction and a bibliographical note which serve to orient the reader and to provide continuity for the volume as a whole. In addition, each selection is preceded by an editorial note which provides a context for the material.

The items chosen for this source book range widely, from the well-known (Jacob

Bigelow on self-limited diseases) to the unexpected (E. L. Godkin's defence of homeopathy). Major attention is given to internal medicine, surgery and public health, and the selections give a good picture of these areas. One must question, however, whether this source book might not have been improved by somewhat greater attention to some events and trends of the middle and later nineteenth century.

As Brieger notes, the Civil War severely tested the American medical profession and in numerous ways it was found wanting. To exemplify how surgery was actually practised on the battlefield, he might have included or at least cited W. W. Keen's *An episode of the second battle of Bull Run*, which, though published in 1922, is based on contemporary material, particularly a list of the contents of a train of thirty-six wagons of medical supplies, and on notes of the circumstances under which they were used. Furthermore, the Civil War provided opportunities for medical investigation of considerable importance, such as the work of S. Weir Mitchell, George R. Morehouse and W. W. Keen at the Turner's Lane Hospital. In a similar class is Circular No. 6 of the Surgeon-General's Office on materials for a medical and surgical history of the war, which on its publication in 1865 was received with extraordinary interest by European physicians and surgeons. In short, concrete examples of knowledge obtained in the face of severe limitations are needed to present a more rounded picture of American medicine in the mid-nineteenth century.

This point applies as well to the continuing contacts with Europe, especially the links with Germany which were to be a powerful force for change during the last quarter of the century. These contacts were increased before the Civil War and were already significant before Americans began to migrate to German universities after 1870. This requires some attention to German physicians who emigrated to the United States from 1850 onward, bringing with them progressive ideas and the latest advances which they transmitted to American physicians. Ernest Krackowizer (1821–1875), a native of Austria, received a laryngoscope in 1858 and was the first in the United States to demonstrate the vocal cords. There were many others: Emil Noeggerath (1827–1925) who in 1876 read his paper on latent gonorrhoea and its importance as a cause of sterility in women, was a co-founder with Abraham Jacobi (1830–1919), the grandfather of American paediatrics, of the *American Journal of Obstetrics* (1868). The *American Journal of Ophthalmology* (1862) and the *Archives of Ophthalmology* (1869) were founded respectively by Julius Homberger and Hermann Knapp, both immigrant physicians, and the latter a student of Helmholtz and a professor at Heidelberg.

Finally, the point about immigrant physicians applies also to the specialization of medicine. True, Brieger refers to the phenomenon and indicates that he will deal with it in a succeeding volume, yet the fact of the matter is that the basis of specialization was created in the nineteenth century. These involved special hospitals, societies and journals such as those indicated above. Moreover, much paper and ink were devoted to the problems of specialism and the place of the specialist. This does not become apparent in Brieger's presentation.

However, aside from these qualifications, this is a well-organized volume which teachers and students of medical history will undoubtedly find very useful. This reviewer plans to recommend it to students, and wishes that it could be made available

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as a paperback. If this book has a second edition, and one hopes that it will, perhaps additions along the lines indicated above can be included. Finally, one may note that the book is well produced and has a useful index.

*Johannes Walaeus. Zijn betekenis vor de verbreiding van de leer van de bloeds omloop* [Johannes Walaeus. His significance in the recognition of the doctrine of blood circulation], by J. SCHOUTEN, Assen, Van Gorcum, 1972, pp. viii, 260, illus., Dfl. 46. Reviewed by Walter Pagel, 58 Millway, London, NW7 3RA.

Walaeus [Jan de Wale] (1604–1649) was the first to confirm and amplify by original experiments and observations Harvey's discovery of the circulation of the blood. At the time the latter was still widely contested—no less than twelve years after its publication in 1628. Nevertheless Walaeus has remained a cinderella of medical histories. Sprengel's account is quite good, but Haeser dismissed him in a few lines. Moreover he may well have misled into belief in an editio princeps of Walaeus' salient two letters to Th. Bartholin outside the latter's *Institutiones anatomicae* of 1641. We may add that belief in this ghost could have been fed by Primrose's *Animadversiones* "against Walaeus", already published in 1640. They were, however, really prompted not by any publication of Walaeus, but the thesis of Roger Drake which had been defended *sub auspiciis Joh. Walaei* in the same year. Nor has Haller's judicious verdict "eximii pretii" appended by Haeser anything to do with the price of this ghost in the bookshop, but it gives in two crisp words the praise which is indeed due to Walaeus. Even worse, his name fails to occur in any of the three volumes of the *Handbuch* or in Sudhoff, whilst Baas and Diepgen devote to him just a line of praise.

On 4 February 1640 Walaeus presided when his pupil Roger Drake (1608–1669) propounded his *Disputatio medica de Circulatione naturali seu cordis et sanguinis motu circulari pro Cl. Harveio* in sixteen chapters corresponding to those of Harvey's *De motu* of 1628. The reproduction of this *rarissimum* in facsimile is a valuable feature of Schouten's book (pp. 175–192). Earlier on, Walaeus should have met Thomas Bartholin who stayed at Leyden from 1637 to 1640 and elicited from him the "two letters" as a contribution to his new edition of his father's *Institutiones Anatomicae* (Leyden, Fr. Hackius, 1641). Their contents are carefully analysed in the present book and the changes and additions which Walaeus made in the subsequent edition of the *Institutiones* examined. As these are largely relevant to the motion of the blood little attention is paid to the *momentous quantified account of acid gastric digestion* followed up in the live dog which Walaeus added in the new edition of the *Epistolae* in 1645.

In 1641 Harvey and Harvey alone had been accorded the palm of the discovery and its significance by Walaeus. In 1645 he gave much space to the supposed ancient forerunners and the to us funny story of Sarpi as the original source from which Harvey was rumoured to have derived the secret. Bartholinus had been at Padua whence he reported the story (heard from Vesling) to Walaeus on 30 October 1642, with the rider that he was probing into it further—but nothing seems to have come of his effort. In 1643 the Padua edition of Harvey's *De motu* had appeared (under the auspices of Bartholinus) to which for the first time the Walaeus letters were appended—still in the original version and without Sarpi, probably in view of possible further