

Book Reviews

quality of its students, and the records of its graduates, it is clear that Harvard has played a most significant role in the development of American medicine. Having brought European medicine to America, it became and remains a centre of excellence.

This is readily verified by observing the work of the men who have made this enviable reputation possible. The book is divided into three chronological phases: the earliest stage comprising the School's first eighty years of existence; 1869 to 1909, dominated by Charles William Eliot, President of Harvard University, who viewed the Medical School during its first period of existence as "a sort of trading corporation as well as a body of teachers"; from 1906, during which time Harvard became one of the most renowned schools in the world.

The galaxy of fame displayed by the authors is staggering, a sequence of men who were not only brilliant teachers but also research workers of international repute. A brief selection would include Waterhouse, the Warrens, Oliver Wendell Holmes, Bigelow, Bowditch, Shattuck, Theobald Smith, W. B. Cannon, Reid Hunt, Folin, Enders, Minot, Christian, and Cushing. A list of the School's graduates is equally impressive.

In the most recent period of history, from 1906, the narrative is divided into medical specialties, this being the only satisfactory method of handling the large amount of material. Throughout there is adequate documentation and the text is eminently readable. The School will be proud to have such an excellent record of its faculty, the only sadness being the fact that the senior author, Dr. H. K. Beecher, its distinguished Professor of Anaesthetics, did not survive to see the book's publication.

SALLY SMITH HUGHES, *The virus: a history of the concept*, London, Heinemann Educational Books, (New York 8vo, Science History Publications), 1977, pp. xix, 140, illus., £3.90.

An enjoyable little book, tracing the nineteenth-century background to rational ideas on the nature of infectious agents, where it covers much the same ground as William Bulloch's classic *History of bacteriology*. Based on a London University thesis, it then moves on to a very thorough discussion of the relative merits of the works of Ivanovski and of Beijerinck on tobacco mosaic disease, and of Loeffler and Frosch on foot-and-mouth disease, for the formation of the concept of filterable viruses. To justify the somewhat sweeping title of the book, Dr. Hughes has added a chapter purporting to follow the further development of the virus concept in the twentieth century, which has the appearance of having been put together perhaps a shade too hastily.

The latter period is also summarized in the form of a very long table which would be useful were it not marred by omissions and a few inaccuracies. Thus it is surprising to find Dr. Hughes crediting Lode and Gruber with "discovery" (in any case a strong term in the circumstances) of the virus of fowl plague when it is clear from a number of the papers she quotes (including the one by Lode and Gruber themselves) that Centanni reported the outbreak of fowl plague, and the filterability of its agent, to sessions of the Academy of Medicine and Science at Ferrara in March and April of 1901, and that similar observations were made by Maggiora and Valenti at Modena

Book Reviews

in June, before the epizootic was carried up into the Inn valley where its progress from July onwards was finally reported by Lode and Gruber in November of the same year.

It is equally surprising, not to say saddening, to encounter Flexner and Lewis as “discoverers” of the virus of poliomyelitis, with no mention anywhere in the book of the pioneering transmission experiments made by Landsteiner and Popper in 1908, or of the filter experiments by Landsteiner and Levaditi published in November of 1909 which did in fact precede the observations made by Flexner and Lewis, if only by a mere three weeks.

Even if Landsteiner was amply rewarded in due course for his outstanding work in immunology, it seems rather ungrateful to disregard his early contributions to virology. And although Flexner is remembered with affection and respect for his work and influence as the first director of the Rockefeller Institute, this influence was not used to best advantage where poliomyelitis research was concerned, as J. R. Paul has pointed out in *A history of poliomyelitis* (1971).

The volume is nicely produced, although the few illustrations do not quite match the general standard. All in all, a book to be welcomed.

MICHAEL W. DOLS, *The Black Death in the Middle East*, Princeton, N. J., Princeton University Press, 1977, 8vo, pp. xvii, 390, illus., £14.90.

A great deal has been written on the Black Death in Europe, especially its onslaughts on the western parts of it, but until now there has been no comprehensive study in English of the pandemic in the Middle East. The author, an Assistant Professor of History at California State University, who carried out much of his excavations in Cairo, has tackled, with scholarly thoroughness and immaculate documentation, the medical, social, economic, demographic, and religious aspects of this topic; so that his book is, and will remain for some time, the authoritative work on the subject.

It is based mainly on Arabic sources, many of which have not been made known to the West before; all Arabic, however, has been transliterated. The section on medical details reveals occasional deficiencies, but the author has obviously taken special advice in this area. There is an extensive bibliography of plague in the Middle East.

The book's main purpose is to recount and account for events and results of the Black Death, which were also seen in the West, but mainly the dramatic destruction by it of the Middle Eastern population, and the effects of subsequent epidemics. Again as in European countries, the social and economic repercussions, as seen in Egypt and Syria, were of special significance. The author is also concerned with the means of the disease's transmission, with the chronology of its advance through the Middle East on its way to Europe, and with subsequent outbreaks, which also had widespread demographic, social, and economic consequences. It is of special interest to compare and contrast the social implications with similar events in the West, and to note the relative religious influences.

This is an excellent book that opens up a new chapter in the history of plague, little of which has been previously known in the West. Despite its seemingly narrow interest, it will be of importance to medical historians, students of Islam, medievalists, and to those concerned with the history of diseases, especially tropical.