

RANDOLPH SHIPLEY KLEIN (editor), *Science and society in early America: essays in honor of Whitfield J. Bell, Jr.*, Philadelphia, American Philosophical Society, 1986, 8vo, pp. 426, \$30.00.

Whitfield J. Bell, jun., is a distinguished American historian of medicine and science upon whom the mantle of learning lies lightly. A man whose warmth of character endears him to all who meet him, his natural modesty is the equal of his many other virtues. Originally a pupil of that great American historian of medicine, Richard H. Shryock, Whit Bell's doctoral dissertation at the University of Pennsylvania was 'Science and Humanity in Philadelphia, 1775-1790'. A popular teacher at Dickinson College where he was Boyd Lee Spahr Professor of History, he went on to the College of William and Mary, and whilst there he was a visiting editor of the prestigious *William and Mary Quarterly*. Perhaps his major contribution to American history was his editing with Leonard Larabee of the *Papers of Benjamin Franklin*. He then joined the staff of the American Philosophical Society, the oldest and most prestigious learned society in the United States, founded by Franklin in 1743. Serving first as Associate Librarian, then as Librarian, and finally as Executive Officer, he continued to publish a stream of articles and books on eighteenth-century America, as well as giving a generous helping hand to the many scholars who turned to him in Philadelphia for help and advice. After many years of devoted service to the American Philosophical Society, Dr Bell retired in 1984 to continue the scholarly activities that have always delighted him.

It was particularly appropriate that on 19 April 1984, the anniversary of the day of Lexington and Concord, the President of the Society at dinner in the Down Town Club in Philadelphia presented Whit Bell with the Franklin medal. The original medal was struck in 1906 to mark the 200th anniversary of the birth of Benjamin Franklin. One copy in gold was presented "under the direction of the President of the United States" to the Republic of France. There were also 150 copies struck in bronze, 100 for distribution under the direction of the President and fifty for the use of the American Philosophical Society. As the Society's President, Jonathan E. Rhoads, said on that occasion: "The Society has awarded the Franklin medal very infrequently. This evening we present this rare medal to a rare individual, Whitfield J. Bell, Jr."

On the same occasion, the President announced that the Society intended to publish a book in its *Memoir* series which was to be a collection of essays in honour of Dr Bell. The book was not ready for publication at that time and only an advanced mock-up was presented along with the Franklin medal. Two years later the *Essays*, published under the title *Science and society in early America* and ably edited by Randolph Shipley Klein, have now appeared. It is a tribute to Dr Bell that twelve of America's most distinguished historians, many of them fellow members of the American Philosophical Society, have contributed the essays that are included in this volume. They are on topics that particularly reflect Dr Bell's manifold interests in early America.

Esmond Wright contributes a characteristically lucid account of Benjamin Franklin as "The Old England Man". He gives a masterly insight into Franklin's life in London, his original belief in the virtues of eighteenth-century British Imperialism, and his conversion, not solely caused by the bitter attack made upon him by Solicitor-General Wedderburn in the affair of the Hutchinson letters, to an America wholeheartedly committed to Independence and to the Republican cause. Edwin Wolf follows with a dissertation on Franklin's medical books, which were so sadly dispersed after his death. The breadth of Franklin's interest is well illustrated by the range of 153 medical books that he formerly owned and which have now been located. W. W. Abbot gives an account of the mission by William Byrd to the Cherokee in 1758, a fruitless attempt to drum up Indian warriors to fight on the side of the Virginians after the disastrous defeat of General Braddock at Fort Duquesne. The editor himself contributes a fascinating essay on 'The men of '68; graduates of America's first medical school'. These pupils of John Morgan and William Shippen, all from the Delaware Valley, ranged in age from twenty-one to thirty-six years at the time of their graduation. None is recalled as a national hero, but several, particularly Jonathan Potts, David Jackson, and James Tilton, were to be prominent supporters of the Revolution. 'That Awful Stage (the search for the State House Yard Observatory)', by Silvio Bedini, refers to the construction in 1769 in the yard at the back of the old State House of an observatory built so that members of the American Philosophical Society might observe the

transit of Venus in that year. This was an important contribution to international collaboration in science in those early days when America was little known for its contributions to scientific achievement, apart from Franklin's important studies of electricity. The observatory found a further niche in American history when it was the scene of "a great concourse of people" on 8 July 1776. From the stage of the observatory, Colonel John Nixon publicly read the Declaration of Independence to the crowd, who responded with three huzzas. It was John Adams who declared that the Declaration had been proclaimed "from that Awfull Stage". Bedini's account of the search for the long-lost observatory and for the instruments it housed is one of the most illuminating of these essays.

Benjamin Henry Latrobe, America's first professional architect and engineer, is described in a revealing sketch by Edward C. Carter, and there is then a compelling analysis by Marvin E. Wolfgang of attitudes to imprisonment in Pennsylvania between 1787 and 1829. 'Cotton textiles and industrialism', by Thomas C. Cochrane, introduces the Industrial Revolution in America to the reader, and this topic is continued by Brooke Hindle in an outstanding analysis under the title 'The American Industrial Revolution through its survivals'. Beautifully illustrated, it provides fascinating insights into the development of technology in nineteenth-century America. Joseph Ewen then describes the books belonging to Benjamin Smith Barton, the largest natural history collection in America before 1815. The essays continue with an account of the foreign members who were Biological Scientists belonging to the American Philosophical Society during the eighteenth and nineteenth centuries by Bentley Glass, and concludes with a biographical sketch of Louis Agassiz as an early embryologist in America by Jane M. Oppenheimer. Born in Switzerland, Agassiz emigrated to America in 1846, and he therefore belonged to a different century from that which he has so engaged Whit Bell's attention.

To anyone who enjoys the variety offered by a book of essays, this is an outstanding collection. For those unfamiliar with American history, it gives rare insights into the affairs of early America. There is naturally a particular orientation to the intellectual, scientific, and technological achievements of Philadelphia, to which so much of Whit Bell's work has been directed. It will give great pleasure not only to Dr Bell's friends but to all who are interested in the history of medicine and science in the United States. The title is appropriate and the illustrations well chosen. One of the best features of the book is the frontispiece, a delightful portrait of Dr Bell that illustrates so well his generous character. It also gives a glimpse of him as "that rare combination of outgoing enthusiastic teacher with a warm interest in people and a quiet painstaking scholar", which was how the American Philosophical Society described him upon his election to membership in 1964.

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ROBERT WOODS and JOHN WOODWARD (editors), *Urban disease and mortality in nineteenth-century England*, London, Batsford, 1984, 8vo, pp. 255, £19.95.

Population history, perhaps more than most of the "new social history" that has been developed over the last twenty years, has been overtly dependent on one main source. Thanks to back projection, the historical demography of England between the sixteenth and early-nineteenth centuries no longer suffers from the constraints imposed by individual parish-based reconstitution studies. The demography of the post-parish register era (1837 to the present day), however, remains tied to the Annual Reports of the Registrar General with their decennial supplements and is likely to remain so until the Registrar General decides to end the permanent ban on public access to the Civil Registers which contain the basic demographic data.

The present collection of essays on urban disease and mortality shows the strengths as well as the weaknesses of a near-exclusive reliance on what successive Registrar Generals thought fit to publish on the demography of nineteenth-century England. For example, it requires no great ingenuity to chart the process of demographic change at national level or the higher mortality of the cities compared with the country. It is considerably more difficult to decide on the relative significance of each of the various hypotheses; improved diet, medical initiatives, environmental