Edgar Holden, M.D., of Newark, New Jersey: Provincial Physician on a National Stage Sandra W. Moss Xlibris, 2014 559 pages \$34.99 ISBN: 9781499021288 DOI: http://dx.doi.org/10.14713/njs.v3i1.75

"There is no medical wilderness between New York and Philadelphia," declared Dr. Ezra Mundy Hunt in 1888, responding to criticism from a fellow New Jersey physician that the state's physicians had been slow to accept germ theory. But through the 19<sup>th</sup> century, New Jersey was, if not a wilderness, indeed a medical hinterland. The state had no medical school (until 1954), its small hospitals were modest compared to the large, well-established facilities in New York and Philadelphia, and its physicians were held in low public esteem, struggling to compete against sectarian practitioners and quacks. Partly as a result, historical study of New Jersey medicine in that era has remained, in Dr. Sandra Moss's words, in "perennial obscurity."

Her remedy is *Edgar Holden, M.D., of Newark, New Jersey: Provincial Physician on a National Stage.* In recounting the life of the long forgotten Holden, Moss has also produced the fullest history to date of 19<sup>th</sup> century New Jersey physicians, medical practice, and medical institutions.

The book's introduction compares the careers of two contemporary graduates from the College of Physicians and Surgeons in the City of New York (known as P&S, now Columbia University's medical school), Edgar Holden and Theodore Janeway. For Moss, the diverging professional trajectories of these two men "[mirror] to a great extent the contrasts between Newark and New York." While Janeway rose to hold professorships and institutional presidencies in the New York City medical establishment, Holden remained in New Jersey, and though successful in a range of medical endeavors, achieved far less renown. Ironically, through

this biography, Moss has done more for Holden than any modern biographer has done for Janeway or a host of New York and Philadelphia medical luminaries of that era.

Early chapters discuss Holden's family history, upbringing, and undergraduate and medical education. These chapters demonstrate Moss's approach throughout the book. Over a decade of research, Moss has unearthed every documentary trace of Holden's life and work, from his published articles, to family papers held by descendants, to an 1880 reference in *The Brotherhood of Locomotive Fireman and Enginemen's Magazine*. She uses this rich detail to place Holden's life in fuller context; in discussing his P&S education between 1859 and 1861, she provides a history of the school from its founding in 1767, and profiles P&S professor John Call Dalton, a pioneer in physiology. These seemingly tangential digressions slow the narrative of Holden's life, but ground the reader for later developments, such as explaining Holden's own physiological research, especially with pulse, decades later. Generally, Moss avoids medical jargon, allowing a reader new to American medical history to follow its evolution clearly.

Among Moss's strongest chapters are the two concerning Holden's Civil War experience, the most dramatic phase of his life. He served as a surgeon on Union ironclad ships, and witnessed the historic battle between the *Merrimack* and the *Monitor*. While the battle of the ironclads and Civil War medicine in general are well-trodden historical ground, Moss's focus on Holden provides fresh insight into the perils of naval service. She offers an analysis of "ironclad fever," a curious condition described by Holden in a published article, which may have been carbon monoxide poisoning. Holden concluded his military career stationed at Ward's Hospital in Newark, and remained based in the city for the rest of his life.

The two chapters on Essex County medicine in the mid-19<sup>th</sup> century provide both an overview of midcentury American medicine and a detailed survey of the region's institutions and

notable practitioners. Moss thoroughly discusses the early histories of the Newark City Dispensary, St. Michael's Hospital, the Hospital of St. Barnabas, the German Hospital (now Clara Maass), Newark City Hospital (now University Hospital), and many other facilities. These chapters could stand alone as a reference work on the beginnings of Essex County and Newark health care.

Holden's medical activities amid this gradually developing environment occupy the book's later chapters. Beginning with his day-to-day work as a general practitioner and drawing heavily on his published medical articles. Moss uses Holden's medical career to explain the state of medical practice and knowledge in various medical subjects: obstetrics, cardiac disease, laryngology, tuberculosis, public health, and more. Of particular interest are Holden's three experiences in devising improved medical instruments. The first was the spygmograph, a device used to create a graphical recording of the pulse. In the early 1870s, Holden's improvements to the sphygmograph led to a prize-winning essay. However, the sphygmograph had considerable technical diagnostic weaknesses. eventually superseded and and was by the sphygmomanometer-the familiar blood pressure cuff. The second was a series of pulmonary instruments (the "pneumasirene," unison resonator, and anemometer) to assess lung function and detect tuberculosis, the disease which had likely killed his brother and first wife. The third was the Holden divulsor, a laryngological instrument designed to pierce the trachea to aid insertion of a tracheostomy tube, a critical technique in cases of diphtheria. Though none of these innovations left any lasting mark on medical practice, Moss uses their stories to illuminate Holden's creative diagnostic and therapeutic approaches to longstanding challenges in chronic and acute diseases of his time.

An impressive chapter concerns Holden's longtime work for Newark's Mutual Benefit Life Insurance Company (MBLIC). He became a medical director in 1870 and remained with the firm until his death in 1909. Insurance medicine is a little-discussed topic in medical history, and Moss once more provides a strong overview. Perhaps Holden's most notable accomplishment for MBLIC was his preparation of the *Mortality and Sanitary Record of Newark, N.J.*, documenting the years 1859 to 1879. This rare work, recently digitized by Rutgers University Libraries (http://go.rutgers.edu/imp0dv5t), features extensive data, colorful charts, and city maps showing "every Death from Preventable Disease" in Newark in 1872 and 1876.

Dr. Moss's biography of a "Provincial Physician on a National Stage" itself occupies a provincial publishing state: it is a self-published work. But this is no "vanity press" production. Rather, it is a serious academic work worthy of a university press, featuring over 500 pages of content that includes chapter summaries, 43 well-chosen illustrations, footnotes, 37 pages of bibliography on both Holden and New Jersey medical history in general, and a thorough index. *Edgar Holden, M.D.* is available via Amazon and Xlibris, in hardcover, softcover, and as a reasonably priced e-book. In any format, it is an essential work in New Jersey medical history.

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