

Dr. Mütter's Marvels: A True Tale of Intrigue and Innovation at the Dawn of Modern Medicine.

Edited by Cristin O'Keefe Aptowicz, B.F.A. New York, Gotham Books, 2014. Pages: 369. Prices: \$27.50 Hardcover, \$10.99 e-book (Kindle).

The drama of inhaled anesthesia is rich in colorful players, and Thomas Dent Mütter (1811–1859) is qualified in that regard. Immediately after Ether Day in Boston (October 16, 1846), he introduced surgical etherization in Philadelphia against academic opposition. Anesthesia is not the sole focus of this rich biography, but there is much pith pertaining to our field, and we should remember Mütter.

Mütter earned his medical degree from the University of Pennsylvania when he was 20 yr old. He then worked as a surgeon's mate aboard a ship so that he could study surgery in Paris. Aptowicz proposes that American surgical students of the time flocked to Paris because of the relative acceptance of anatomical dissection there. Of course, there were other attractions, including an ambiance nicely conveyed in the book. Armed with Parisian lessons, contacts, and élan, Mütter proved a gifted surgeon upon return to Philadelphia. In particular, he was noted for plastic surgery for patients with cleft palate and others with cutaneous contractures after burns. He was the inaugural Professor and Chair of Surgery at Jefferson Medical College from 1841 to 1856. Some of his policies are of particular interest to an anesthesia audience. For instance, he spent much time preparing patients psychologically for surgery. This included repeated massage of tissues he would later be operating upon in the awake patients. When Aptowicz stressed the strong rapport of Mütter and his patients, I was reminded of a classic article by Henry K. Beecher (see Egbert *et al.*¹). Mütter clearly had a sense of the importance of context in the experience of pain, and he probably also had appreciation of the placebo response. At the same time, he strove for patients to be fully informed of that to which they consented. Mütter also recognized the importance of postoperative care. Rather than shuffle freshly postoperative patients off to home in horse-drawn carts, he successfully campaigned for recovery rooms and postsurgery wards.

Ether Day of 1846 is recounted at about the mid-point of the book. Aptowicz does not dwell on the events in Boston, and sticklers might quibble with her account. She implies that William T. G. Morton (1819–1868, dentist, administered ether anesthesia on October 16, 1846, Massachusetts General Hospital) had sometimes blended ether with nitrous oxide. The important point is that Mütter embraced etherization for surgery and was the first to use it in Philadelphia (in December 1846). It would be interesting to learn how he prepared for his first administration of ether anesthesia to a patient, and I wonder if Mütter, like Crawford Long (1815–1878, surgeon, administered the first clinical ether anesthetic in 1842), had witnessed frolics while a medical student at the University of Pennsylvania. However that may be, Aptowicz documents impressive skepticism toward inhaled anesthesia in the influential city of Mütter. The leading foe was Charles D. Meigs (1792–1869, Professor of Obstetrics at Jefferson Medical College, Philadelphia, Pennsylvania). Meigs elicited a 7-yr moratorium on inhaled anesthesia from the trustees of Jefferson, and he routinely overdosed sheep with lethal doses of ether as warning demonstrations to medical students.

Edward R. Squibb (1819–1900, manufacturer of pharmaceuticals) was a medical student at Jefferson before he founded a root of the firm of Bristol-Myers Squibb. He initially sided with Meigs on the danger of etherization, but he soon became the major producer of reliably pure ether required for predictable anesthesia.

Professor Meigs is of course known to historians for his opposition to the idea of contagion in puerperal fever. Aptowicz paints him as a thoughtful person who was overly conservative at the “dawn of modern medicine.” Among his contemporaries, Mütter was unusually clean and tidy in his operating attire and instrumentation. However, he was not prescient enough to lead the way to aseptic surgery. Indeed, he succumbed to tuberculosis at the age of 48 yr, and he may have spread that scourge. Throughout the book, Aptowicz emphasizes Mütter's compassion; knowledge of his contagiousness would have stopped his career even earlier.

Even though Mütter did not explicitly hit on the idea of aseptic surgery, it was fortuitous for anesthesiology that he practiced fairly clean surgery. Aptowicz points out that, early on, anesthesia did not obviously improve perioperative mortality. Mütter could not have championed anesthesia had his patients suffered the ordinary rates of sepsis.

It is interesting that much of Mütter's surgical practice was needed because of the unsafe work environments that most laborers had to accept. For instance, his burn-scarred patients had been working near flames while dressed in flammable clothing. Ironically, many matchstick factory workers came to him with jaw necrosis from chemical poisoning. Aptowicz provides broad socioeconomic, political, educational, and scientific perspectives of Mütter's world.

I primarily enjoyed this book as a means to get a better sense of the surgery scene of the mid-1800s. There are many graphic and revealing anecdotes best told by Aptowicz. The book would be a good prelude to a visit to the Mütter Museum in Philadelphia (<http://muttermuseum.org/>, accessed July 24, 2015). At least one contemporary likened Mütter to P. T. Barnum (1810–1891, showman, founder of Barnum's American Museum and, later, the eponymous circus) in that he had a flair for kindling public interest. Mütter gathered many exhibition pieces, and his collection has been preserved and extended by the College of Physicians of Philadelphia (<http://www.collegeofphysicians.org>, accessed July 24, 2015). I see that, like myself, Aptowicz first visited the museum on a class trip during young school days.

Aptowicz supplements the paperback version of the book in an enhanced e-book edition with added audio information and insights about Mütter and his times (see also <http://aptowicz.com/non-fiction/mutter/>, accessed July 24, 2015).

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Reference

1. Egbert LD, Battit G, Turndorf H, Beecher HK: The value of the preoperative visit by an anesthetist: A study of doctor-patient rapport. *JAMA* 1963; 185:553–5

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