



Gifted hands

America's most significant contributions to surgery

Seymour I. Schwartz

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In *Gifted Hands: America's Most Significant Contributions to Surgery*, Seymour Schwartz reviews the history of surgery in North America, covering the evolution and advances in this field from the colonial period to the present. The book chronicles the stories of individuals who first successfully invaded a body compartment or developed a life-saving technique that changed the way surgery was subsequently practiced. The stories contain fascinating detail about not only the surgeons, but also their patients, some of whom were essentially partners in the high-risk experiment that would either improve or end their lives. There is the unforgettable story of Jane Todd Crawford, the courageous patient who would become forever linked to a "daring" surgeon who launched the field of intra-abdominal surgery in 1809. Upon examining Crawford in her home, Dr. Ephraim McDowell said that he would attempt to remove the tumor (which had been incorrectly diagnosed as a growing fetus) if she could make it to his office. Crawford traveled alone for days on horseback, balancing the tumor on her saddle, but arriving intact for her appointment with history. The surgical proceedings, absent anesthesia or antisepsis, are hard to imagine in the present day. After recuperating for several weeks, she returned home by horseback, alone, and remained very much alive until age 78, having long outlived her surgeon.

Schwartz is at his best in presenting these clinical and timeless descriptions of events that shaped the history of surgery in America. There is the story of the first use of anesthesia in an operation performed by Dr. John Collins Warren, a founding member of the Massachusetts General Hospital,

its first surgeon, and founder of the *New England Journal of Medicine*. At Warren's planned surgery to remove a cervical tumor from a young man in his twenties, the first anesthesiologist, William Thomas Green Morton, arrived 15 minutes late, citing last-minute adjustments to the newly invented glass ether chamber. His tardy arrival marked an almost comical beginning to a persistent unrequited strain between two professionals in the same theater. However, with the tumor successfully excised, the patient reported that he felt no sensation of pain, but instead was only vaguely aware of the feeling that a blunt instrument was passing across his neck. Later, Dr. Warren famously noted that this was "the most valuable discovery ever made." Another surgeon, Harvey Cushing, who would later become known as the father of two fields of medicine, neurosurgery and endocrinology, developed the first anesthesia record when he was a medical student. He had become severely depressed when a patient receiving ether anesthesia by his hand succumbed, so he set out to invent a recording chart to document changes in vital signs and anesthesia delivery that, with little modification, continues to be used worldwide.

Gifted Hands is not a book written "to make them come alive without an agenda . . ." Schwartz has a clear agenda: to convince the reader that American surgery has earned a leadership role within the discipline. The reader learns of the origin of modern surgical training programs under William Stewart Halsted at Johns Hopkins, who sought to provide not only competent practitioners, but future generations of professors, with expertise in scientific investigation and clinical work. Like Halsted and Cushing before him, Alexis Carrel, the first to be awarded

a Nobel Prize for Physiology or Medicine for work performed mainly on American soil, spent years studying and training in Europe. Whereas entire volumes have been written about the history and development of individual fields of surgery, here these topics are covered in a few brief chapters. The argument for American preeminence is presented with little mention or note about the advances in Europe and elsewhere that were occurring in parallel. The more modern history of surgical advances is rife with stories of competition to be first, and for full press coverage. Those who lived through the 1960s and 1970s cannot help but recall the televised daily press conferences reporting the health status of the first heart transplant recipients, and the jingoistic fervor that occurred as international competition erupted to claim the first success. The reader interested in either the societal context that undoubtedly fueled American surgical advances or the "disdain" for American surgery referred to at the outset of the book will likely seek additional sources.

None of this detracts from Schwartz's very descriptive overview of American surgery, and the captivating stories of some of the leading doctors and their patient partners. The author is himself a leader in American surgery, with accomplishments that should be of rights noted in this book, including being founding editor of *Schwartz's Principles of Surgery*, the renowned textbook that formed the basis for educating generations of students and surgical trainees for decades. *Gifted Hands* is recommended to students of all ages, to surgical trainees, and to anyone interested in the history of surgery in America. This great read fills a void by previous texts that glossed over the stories of the surgeons and patients.