

## History of Surgery

### United States Excerpted from the Illustrated History of Surgery

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John Syng Dorsey (1783–1818), the nephew of Philip Syng Dorsey, commenced his medical apprenticeship under the guidance of his uncle. During his tenure in his uncle's practice, Dorsey attended classes at the University of Pennsylvania, where he earned his medical degree in 1802. In 1803, he embarked on a journey to London and Paris to further enhance his education. Upon his return to the United States, he established a medical practice in Philadelphia and, in 1807, was appointed as a professor of surgery at his alma mater. Shortly thereafter, he was designated as a surgeon at Pennsylvania Hospital.

Due to the inadequacy of the chair of physics, who concurrently held the chair of surgery and lacked proficiency in writing, Dorsey was commissioned to compile the former's lectures and course materials into a comprehensive surgical textbook. In response to this request, Dorsey authored the two-volume *Elements of Surgery*, published in 1813, which is recognized as the first systematic treatise on surgery in the United States. That same year, he was appointed as a professor of Materia Medica at the University. In 1818, he succeeded Caspar Wistar (1761–1818) in the chair of anatomy. In 1812, Dorsey gained recognition for reporting the first successful ligation of the external iliac artery in the United States. Regrettably, his promising career was abruptly terminated; he succumbed to typhus just days after delivering his inaugural lecture on anatomy.

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*Figure 1- John Syng Dorsey, nephew of Philip Syng Dorsey, who apprenticed under his uncle at a young age. As Dorsey's uncle was an innovative and skilled surgeon but did not consider himself capable of writing, the responsibility for documenting original contributions fell on his nephew's shoulders (Historical Collections of the Philadelphia College of Physicians).*

George Hayward (1791–1863) pursued his medical education at the University of Pennsylvania, graduating in 1812. Following his studies, he traveled abroad to study under the eminent Astley Cooper before returning to Boston. Upon his return to the United States, he co-founded a private

medical school with John Collins Warren. Notably, Hayward was the first American surgeon to perform surgical operations utilizing ether anesthesia, accomplishing a thigh amputation on November 7, 1846. His most significant publication, *Surgical Reports and Miscellaneous Papers* (1855), included a landmark article detailing the successful surgical treatment of vesicovaginal fistula in 1839.

George Bushe (1793–1836), born in Ireland, completed his medical and surgical education in Europe before being invited to America in 1828 to take on the role of professor of anatomy at Rutgers Medical College. A respected surgeon, Bushe dedicated himself to teaching surgery daily in his clinic for nearly three years. His most impactful work, *A Treatise on the Malformations, Injuries, and Diseases of the Rectum and Anus* (1837), holds the distinction of being the first book in the United States exclusively devoted to colon and rectal surgery. Tragically, Bushe succumbed to tuberculosis shortly after completing this manuscript, just prior to its publication.

George Frick (1793–1870) graduated from the University of Pennsylvania in 1815, after which he dedicated several years to studying under George Bear (1763–1821) in Vienna. Upon his return to Baltimore, Frick established himself as an ophthalmic surgeon at the Baltimore Clinic and the Baltimore General Hospital. He is acknowledged as the author of the first ophthalmology textbook in America, *A Treatise on the Diseases of the Eye* (1823). In 1840, Frick retired from his medical career and spent the remainder of his life in Europe.

J. Kearny Rogers (1793–1851) undertook his studies under Dr. Post and graduated from the College of Physicians and Surgeons of New York City in 1816. Following a period of study in Europe, he returned to the United States and was appointed as a surgeon at New York Hospital. Rogers is particularly noted for his pioneering published paper that detailed the first successful treatment of an ununited fracture of the humerus using wiring, which appeared in American journals in 1827.

John Rhea Barton (1794–1871) graduated from the University of Pennsylvania in 1818 and soon after became a surgeon at Pennsylvania Hospital. He is primarily recognized for his introduction of osteotomy as a treatment for joint ankylosis in 1826. Barton's contributions also extend to the development of a specific type of bandage shaped like the letter "8," intended for fractures of the mandible, as well as a design of obstetrical forceps characterized by a fixed curvature and a long anterior blade. This particular forceps is employed in cases where the fetal head is in a transverse position and elevated, often in conjunction with a fracture of the distal end of the radius.

Alden March (1795–1869) commenced his studies in anatomy and surgery at Boston Medical School in 1818 and subsequently obtained his medical degree in 1820. In 1834, he founded a non-profit medical school in Albany, New York, and five years later, he became the chief director and organizer of Albany Medical College, which later merged with Union College. March held the chair of surgery at the institution until his death and served as the president of the American Medical Association (AMA) in 1864. Although he did not author any significant written works, he published several articles in medical journals, including one concerning splinting for hip diseases (1853) and another discussing a forceps design utilized in the repair of cleft palates (1855).



*Figure 2- This notable surgical kit belonged to John Methauer and played a significant role in the first successful use of metallic sutures for repairing a perineal tear and rectovaginal septum in America in 1833. The metallic sutures from Methauer's instruments are visible in the bottom left of the accompanying photograph. While the ivory handles of Methauer's tools are aesthetically appealing, they are not sterilizable, indicating that this instrument set belongs to the pre-antiseptic era, as antiseptic principles were not widely embraced in America until the late 1880s (Mütter Museum, College of Physicians of Philadelphia).*

John Methauer (1787–1875) earned his medical degree from the University of Pennsylvania in 1809 and subsequently returned to his native Virginia, where he would spend the majority of his professional career. From 1835 to 1836, he held the position of professor of surgery at Washington Medical College in Baltimore. In 1837, Methauer established a private medical institute that, a few years later, became affiliated with Randolph-Macon College. He is notably recognized for performing the first successful repair of a damaged perineum and rectovaginal septum in America in 1833, thereby pioneering the use of metallic sutures in these procedures. Methauer's innovative techniques for perineal repair significantly influenced surgical practices, resulting in numerous publications throughout the 1840s and 1850s that expanded upon his initial findings.



*Figure 3- George McClellan (Author's personal collection)*

George McClellan (1796–1847), who studied under John Singh Dorsey, graduated with his medical degree from the University of Pennsylvania in 1819. Residing in Philadelphia, he played a pivotal role in the establishment of Jefferson Medical College, where he served as a professor of surgery from

1826 to 1838. Following his death, his son, John McClellan (1823–1874), compiled his father's lectures and writings into a book titled *Principles and Practice of Surgery* (1848), which included an insightful description of shock.

Alban Goldsmith (1795–1876) is a notable figure in the history of American surgery. He changed his surname from Smith to Goldsmith due to a New York State law enacted in 1839. Although he never obtained a formal medical degree, he apprenticed under esteemed figures such as Ephraim McDowell and Philadelphia surgeon Joseph Parrish (1779–1840). It is believed that Goldsmith was present during the first ovariectomy performed by McDowell in 1809. In 1833, he was appointed as professor of surgery at Ohio Medical College; however, his contract was not renewed four years later due to his contentious temperament. He subsequently accepted a position at the New York College of Physicians and Surgeons, but his tenure there lasted only two years. The remainder of his career was devoted to private practice. Goldsmith's most significant published work is *Diseases of the Genitourinary Organs* (1857).

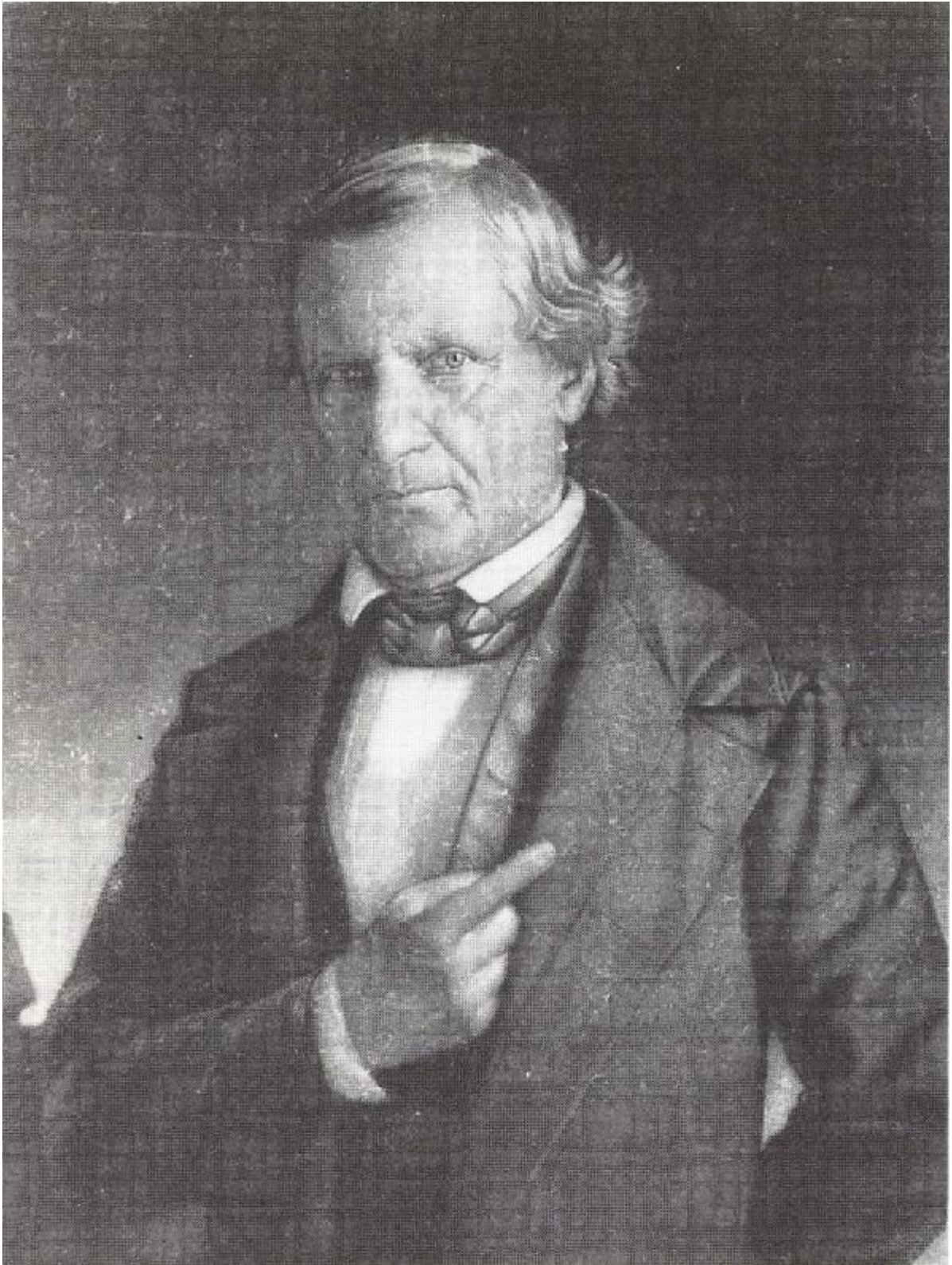
Nathan Ryno Smith (1797–1877) studied under his father, Nathan Smith, and received his medical degree from Yale University in 1823. He initiated his medical practice in Burlington, Vermont, where he co-founded the University of Vermont's medical school in 1825 alongside his father. Initially serving as the institution's first professor of anatomy and surgery, he later accepted the chair of anatomy at Jefferson Medical College. In 1827, Smith transitioned to the University of Maryland as a professor of surgery. Following a brief period at Transylvania University, he spent the subsequent forty years in Baltimore. His published works include *Surgical Anatomy of the Arteries* (1830) and *Treatment of Fractures of the Lower Extremity by the Use of the Anterior Suspensory Apparatus* (1867). Notably, he reported the first thyroidectomy performed in America in 1835 and invented a splint designed for lower limb fractures in 1860.

John Atlee (1799–1885) was born in Lancaster, Pennsylvania, and graduated from the University of Pennsylvania in 1820. He dedicated both his personal and professional life to private practice within his hometown, where he also served as a member of the anatomy and physiology faculty at Franklin and Marshall College. In 1843, Atlee garnered widespread acclaim for his report on a successful ovariectomy, a procedure he significantly contributed to popularizing in America. The following year, he made history by performing the first bilateral oophorectomy.

Homer Bostwick (1862) was a surgeon in New York who is often overlooked in historical accounts. He is believed to have been among the first specialists in urology in America. Practicing in New York City, Bostwick made substantial contributions to the field through his written works, which include:

*A Treatise on the Nature and Treatment of Seminal Diseases, Impotency, and Other Kindred Affections* (1847).

*A Complete Practical Work on the Nature and Treatment of Venereal Diseases and Other Affections of the Genito-Urinary Organs of the Male and Female* (1843).



*Image 4 - William Gibson (from the author's personal collection)*

William Gibson (1788–1868) pursued his medical education in Edinburgh, where he earned his degree from the University of Edinburgh in 1809. Upon his return to the United States, he assumed the role of professor of surgery at the University of Maryland. Later, he succeeded a retiring physician at the University of Pennsylvania, where he remained until his own retirement in 1855. In 1824, Gibson published *Institutes and Practice of Surgery*, a two-volume work that became the second systematic textbook on surgery in the United States. His notable surgical achievements include performing the first ligation of the common iliac artery in America in 1820 and successfully completing the first double cesarean section on a woman in 1835 and again in 1838. Additionally, Gibson authored the acclaimed travelogue *Rambles in Europe* in 1839, which featured brief biographies of prominent European surgeons and was published in 1841.