

**William Williams Keen, January 19, 1837 - June 7, 1932 / [Franklin H. Martin].**

**Contributors**

Martin, Franklin H. 1857-1935.

**Publication/Creation**

Chicago : Surgical Pub. Co., 1932.

**Persistent URL**

<https://wellcomecollection.org/works/xuu7rgew>

**wellcome  
collection**

Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

32

## MEMOIRS

WILLIAM WILLIAMS KEEN

JANUARY 19, 1837—JUNE 7, 1932

*"I believe in God and in Evolution. To all sincere seekers after truth: who revere the Bible as the word of God; who revere nature as the work of God; and who believe that rightly interpreted they must surely agree. . . . To develop great men . . . and then by death to quench them in utter oblivion would be unworthy of Omnipotence. To my mind, it is simply an impossible conclusion. Man's soul must be immortal."* W. W. Keen.

THE death of this eminent surgeon—the lover of his personal God, a patriotic fighter for his beloved country, who wore its uniform in two wars (in the Great War at the age of eighty years)—has brought the whole thinking world to attention in admiration of a fine and useful life, and the profession of medicine mourns with deep sorrow the passing of a beloved comrade. His was a devoted service of seventy years in the practice of the great learned profession—scientific medicine. He was an ardent supporter of every moral, scientific, and progressive advance in civic, state, and national affairs.

The American College of Surgeons and its official journal, SURGERY, GYNECOLOGY AND OBSTETRICS, acknowledge a personal loss. Dr. Keen was the first surgeon of our country to accept and have conferred upon him an Honorary Fellowship in the College. He contributed to many of its scientific meetings, and lent his inspiring presence at numerous of its annual sessions. He was an early subscriber and a frequent contributor to the columns of the Journal. In the Great War—the eldest member of the Medical Reserve Corps—he was a personal friend. By his pen, his personal contacts, his orations, and his friendly advice he was an inspiring aid to those of us who had to do with enrollment for war.

During his span of life—ninety-five years—his was the rare privilege of witnessing and participating in every advance in surgery, and of knowing all of the great men in medicine of his day. He began his medical studies in the Fall of 1860, and graduated in March, 1862. He early "declined to be a champion of the Past" but assumed the rôle of "a Herald of the Dawn." In 1922, in his oration delivered on the occasion of the conferring upon him of the Bigelow Medal, he took as his theme *Sixty Years of Surgery*.<sup>1</sup> He compared the poverty of knowledge

<sup>1</sup> Boston M. & S. J., 1922, clxxxvii, 592-600.

and meagerness of resources in the 60's with the wealth of both in 1922, and said he wished he could "return in 1982 to converse with the Bigelows, the Grosses, the Mayos, the Flexners, and the Lovetts of that wonderful day." The first operation he ever saw was the removal of an upper jaw by Joseph Pancoast, and his first operative case—in the days of the Indian wars—removal of an arrow which had penetrated deeply just below the left eye. He was office student of Jacob DaCosta and John Brinton while he studied at Jefferson Medical College.

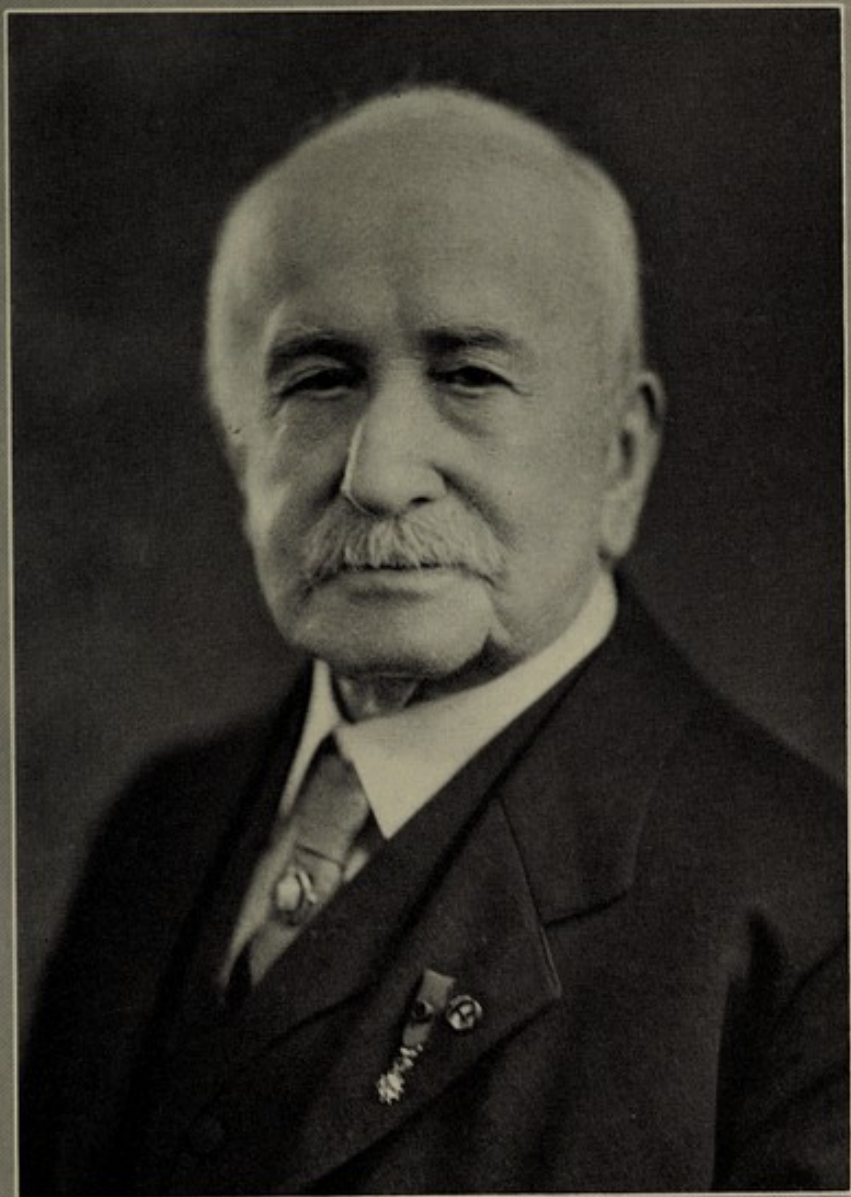
Sworn into service as assistant surgeon in Washington, July 4, 1861, he witnessed actual warfare in the Battle of Bull Run. Just after the Civil War he was a pupil in Paris of Pouchet, son of Pasteur's opponent. In 1865 he was a pupil in Virchow's laboratory. On the occasion of Lister's visit to Philadelphia in 1876, Keen became fully converted to Lister's views.

Keen's course of lectures at Jefferson on *Pathological Anatomy* in 1866-1867 was the first ever given in Philadelphia. The first official course in surgical pathology was authorized in 1897. In the 60's assistants in the dissecting room often came directly to the surgical clinics to assist in operations. Pancoast, Gross, and all others "operated in discarded, blood-stained coats, the veterans of a hundred fights." The teaching faculty consisted of seven professors and one demonstrator—*anatomy*. There were no ward classes. At Jefferson, they had two rooms, with five or six beds each, for the most serious cases.

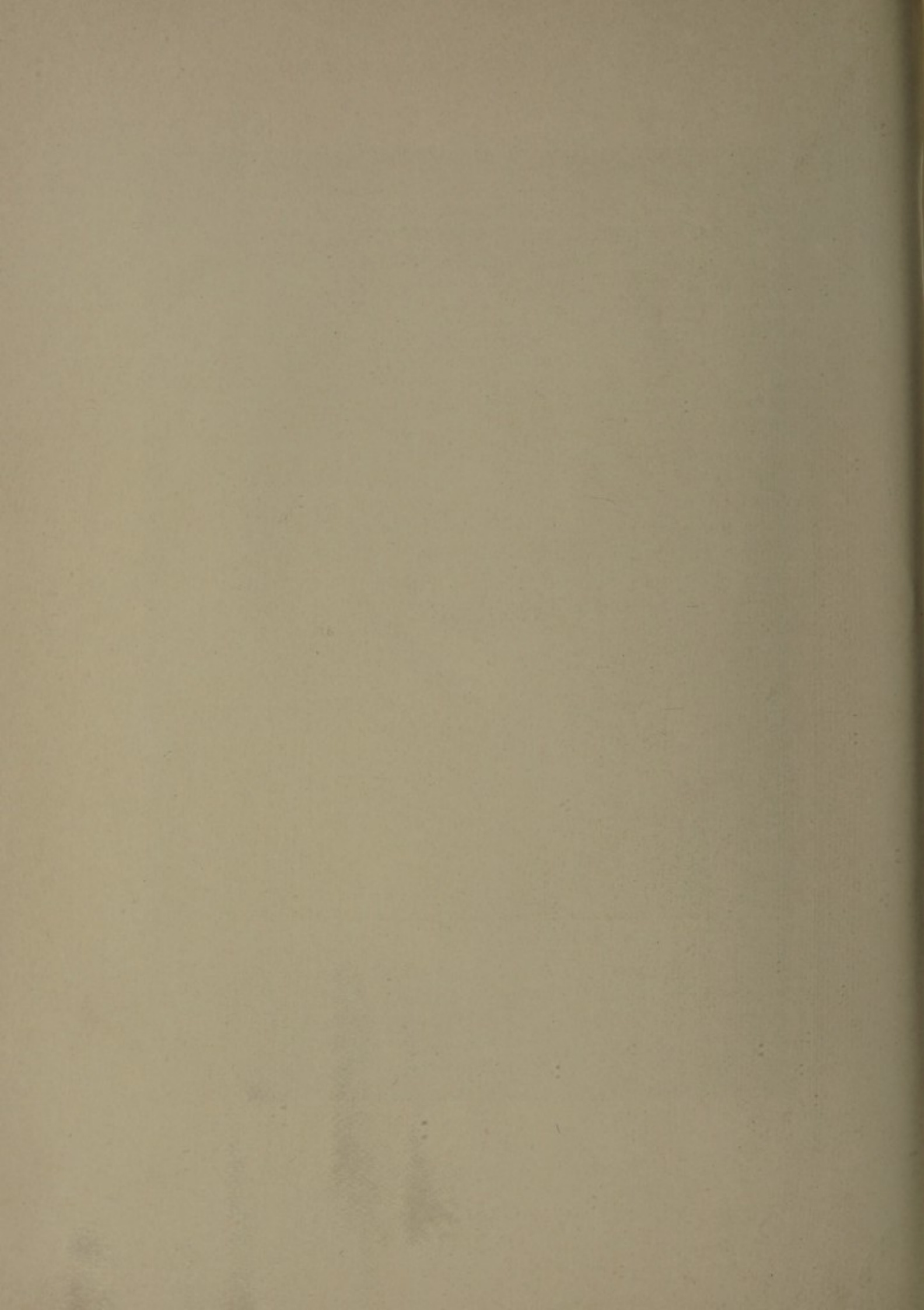
The first laboratory of research in the United States was established in 1884. As late as the 80's there were in most hospitals no trained nurses. The first clinical thermometer he ever saw was brought to him from London in 1876 by Weir Mitchell. Of the blood, knowledge was most primitive. The electrocardiograph was not even a dream; no radium and no X-rays; no knowledge of test meals. Until the 80's or 90's, smallpox was the only enemy combated by vaccination. There were no serums, and no knowledge of how to prevent tetanus, diphtheria, malaria, yellow fever, and other diseases. The real cause of tuberculosis was not known until 1882. Protective measures for the well were not even thought of; there was no knowledge of bacteria and bacteriology. Vaccination, anaesthesia, and antiseptics (including bacteriology), Keen rated as "the three greatest blessings in the realm of medicine conferred on man since the Christian era began," and Lister's genius in applying Pasteur's discoveries to surgery "wrought the greatest revolution surgery has ever witnessed."

Nothing was known of endocrine glands and their important functions, nor of hormones and their mechanism. There was no Schick test, Noguchi test, Pirquet test, Wassermann reaction, etc. Nothing was known of the spread of diseases by the fly, the flea, the mosquito, the louse, the rat, and the cattle tick. So-called sanitation was ineffective, because bacteria were unknown.

In the operative surgery of Keen's surgical youth he listed amputations, ligation of arteries, occasional excision of joints, removal of external tumors,



H. H. Keen



ovariotomy, cutting for stone in the bladder. Gall stones were first removed from the gall bladder by Bobbs, of Indianapolis, in 1867. Goiter operations were infrequent. Ophthalmology and the other specialties were just becoming visible. Surgery of the head, the chest, and the abdomen was rare. The cause of appendicitis was not known until 1886. There was occasional plastic surgery. In 1895 diphtheria antitoxin was discovered. Operations for quiescent hernia were rare.

Instruments were not disinfected; there were no artery forceps. Absorbable catgut ligatures were introduced by Lister in 1869. There were no modern retractors, and hypodermic syringes and the aspirator were not in general use until toward the end of the Civil War. Gauze "sponges" came into general use in the late 70's or early 80's, prior to which only marine sponges were used, both in clean and in suppurating cases. In dislocations of the hip, and sometimes of the shoulder, the "barbarous block and pulley" were used. Fractures of the base of the skull were almost uniformly fatal. "Mastoid disease" was unknown by Gross and Erichsen, in 1859. Cerebral localization was foreshadowed by Hughlings Jackson in 1867. Localization and subsequent removal of a tumor of the spinal cord were first described by Gowers' and Horsley in 1888. Chevalier Jackson was not born till 1865. "In the chest, the heart lies in a straight line only one inch from the surface, yet, as Frederic Lee has strikingly said, it took surgery, with laggard step, twenty-four centuries to travel that one inch." "Imagine, if you can," said Keen, "the forlorn condition of the doctor sixty years ago—without everything except his eyes, his ears, and his fingers; then you can appreciate the triumphal march of medicine during a single lifetime."

Dr. J. Chalmers DaCosta, Keen's successor as professor of surgery in Jefferson in 1907, said of him: "Dr. Keen was always calmer, quieter, kinder, pleasanter, the worse the surgical situation was, and I never saw it get the best of him."

Dr. Keen was a great teacher. He once said: "I always feel at the Jefferson Hospital as if I were on the run with a pack of lively dogs at my heels. Students are the best whip and spur I know." He was a great man, a great American, a great surgeon, and the beloved dean of our medical profession. He knew the joy of living. The "wondrous love of God for Man and the final lofty destiny of the Human Race" was to him "the most impressive, the most inspiring thought of all the ages." In speaking to a group of graduates, he said: "If in your own life you realize the characteristics of the ideal physician . . . if you attain to old age, when the hairs whiten and the crow's feet begin to show, when your natural forces are abated, you will then not be alone in the world, but will have honor, love, obedience, troops of friends, and one Friend above all others, the Great Physician." We know this was and is his reward. The world is a better place for his having been here. His monument is built in the hearts of his thousands of friends, and his memory will live on through the ages. FRANKLIN H. MARTIN.

William Williams Keen was born in Philadelphia, January 19, 1837, the son of William W. and Susan (Budd) Keen. In 1867, he married Emma Corinna Borden, of Fall River, Massachusetts, who died in 1886. His children, all of whom survive him, are Corinne (Mrs. Walter J. Freeman), Florence, Dora (Mrs. George W. Handy), and Margaret (Mrs. Howard Butcher, Jr.).

Degrees received include A.M., Brown University, 1859; M.D., Jefferson Medical College, Philadelphia, 1862; Sc.D., 1912; LL.D., from Brown in 1891, Northwestern and Toronto in 1903, Edinburgh in 1905, Yale in 1906, St. Andrews in 1911, and Pennsylvania in 1919; Ph.D. from the University of Upsala in 1907; Sc.D. from Harvard in 1920; Doctor, *honoris causa*, University of Paris, 1923.

After study in Europe during 1864-1866, he established himself in practice at Philadelphia. During 1866-1875 he conducted the Philadelphia School of Anatomy; lecturer in pathological anatomy at Jefferson Medical College, 1866-1875; professor of artistic anatomy, Pennsylvania Academy of Fine Arts, 1876-1889; professor of surgery, Woman's Medical College, 1884-1889; professor of surgery, Jefferson Medical College, 1889-1907, and professor emeritus from 1907.

Assistant surgeon U. S. Army in 1861, and acting assistant surgeon 1862-1864. He volunteered for the Spanish-American War, but owing to its short duration, his services were not required; 1st Lt., M. R. C., U. S. A., 1909; major, 1917-18. Member of the National Research Council 1917-18.

Charter trustee, Crozer Theological Seminary, from 1867; trustee and fellow, Brown University, from 1873; president, American Surgical Association, 1899, American Medical Association, 1900, College of Physicians, Philadelphia, 1900-1901, International Congress of Surgery, Paris, 1920 (the first American to hold the office), Congress of American Physicians and Surgeons, 1903, American Philosophical Society, 1907-1917; honorary fellow, Royal College of Surgeons of England, Edinburgh, Ireland, Italian Surgical Society, American College of Surgeons; associate fellow, American Academy of Arts and Sciences; honorary fellow, Boston Surgical Society (awarded Bigelow gold medal); awarded Colver-Rosenberger medal of honor, Brown University; gold medal by Pennsylvania Society of New York. Officer, Order of the Crown of Belgium, 1920; officer, Légion d'Honneur, France, 1923; member, Founders and Patriots of America, Loyal Legion, Medical Veterans of the World War, Sigma Xi.

Author of *Reflex Paralysis, and Gunshot Wounds and Other Injuries of Nerves* (both with Weir Mitchell and Morehouse), 1864; *Keen's Clinical Charts*, 1870; *History of the Philadelphia School of Anatomy*, 1874; *Early History of Practical Anatomy*, 1870; *History of the First Baptist Church of Philadelphia*, 1898; *Surgical Complications and Sequels of Typhoid Fever*, 1898; *Addresses and Other Papers*, 1905; *Animal Experimentation and Medical Progress*, 1914; *The Early Years of Brown University, 1764-1770*, 1914; *Ether Day Address*, 1916; *Treatment of War Wounds*, 1917; *Surgical Operations on President Cleveland*, 1917; Colver Lectures at Brown University on "Medical Research and Human Welfare," 1917; *Selected Papers and Addresses*, 1922. Editor: *Heath's Practical Anatomy*, 1870; *Diagrams of the Nerves of the Human Body*, by W. H. Flower, 1872; *American Health Primers*, 1879-1880; *Holden's Medical and Surgical Landmarks*, 1881; *Gray's Anatomy*, 1887; *American Text-Book of Surgery*, 1892, 1903; *I Believe in God and in Evolution*, 1922; *Everlasting Life*, 1924; *Keen's System of Surgery*, 1906-21.

For much of the material contained in the above sketch, I am indebted to Dr. Keen's writings, to *William Williams Keen* by Wilfred Pickles, M.D., of Providence, Rhode Island (Rhode Island M. J., 1927, x, pages 1-10), and to *Who's Who in America*.