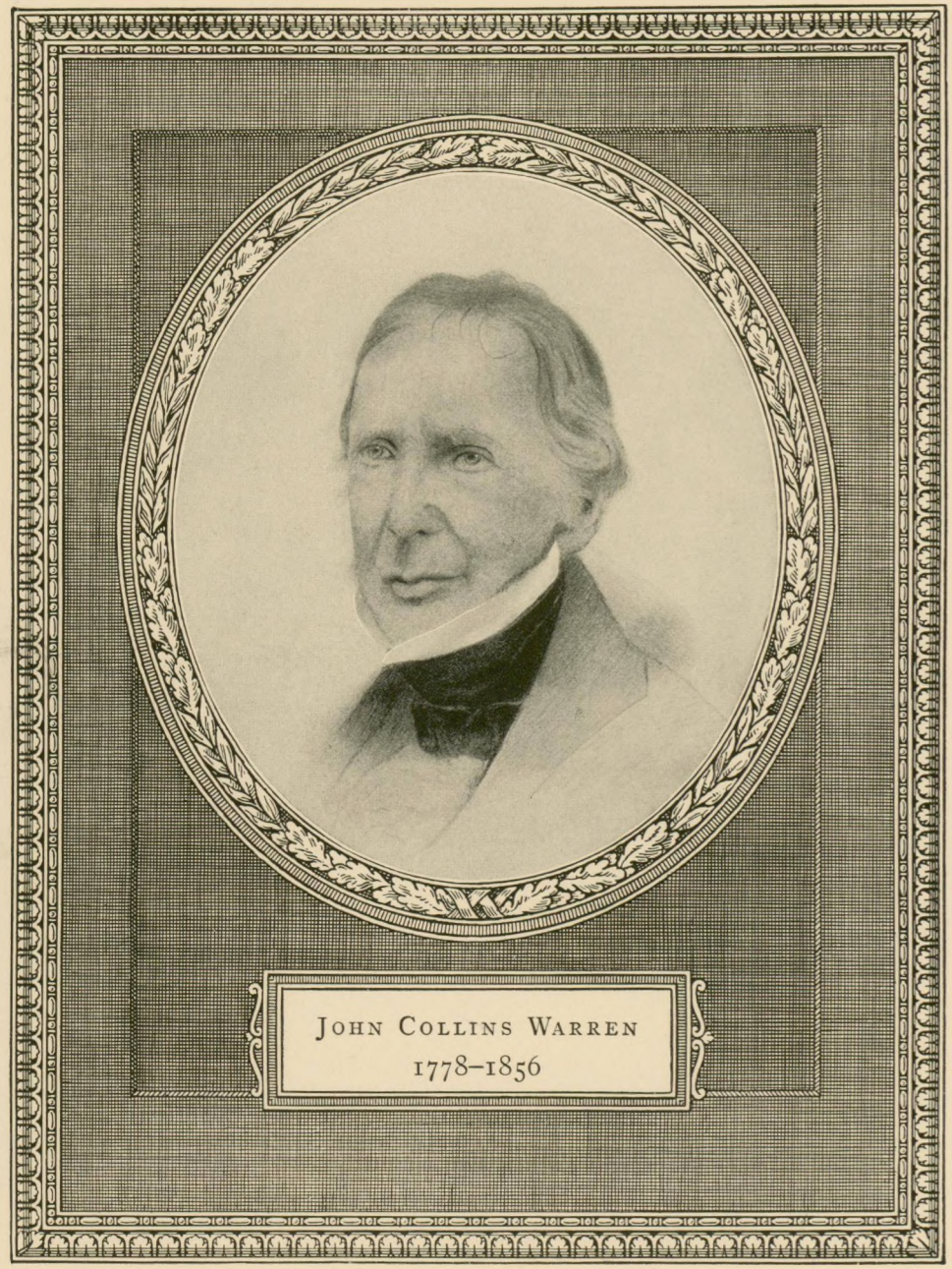

JOHN COLLINS WARREN
1778–1856

MASTER SURGEONS OF AMERICA

JOHN COLLINS WARREN

JOHN COLLINS WARREN was born in Boston on August 1, 1778. His grandfather, Joseph, was a prosperous farmer settled in Roxbury. His father, Dr. John Warren, was the younger brother of Dr. Joseph Warren, the Revolutionary patriot who was killed at Bunker Hill. John Warren was one of the founders of the Harvard Medical School. Warren's mother, Abigail, was the daughter of John Collins, Governor of Rhode Island from 1786 to 1789.

Warren received a good education in the Boston Latin School, graduating with honors and being the first to receive the Franklin Medal. Entering Harvard College in 1793, he graduated in 1797 with a class of 54, having a part in the commencement exercises.

He was not strong in body and not much given to worldly pleasures but strong in will-power and in resolution to make the most of his opportunities. His serious bent of mind seems to have been partly inherited and partly molded from his environment. His grandmother, a pious lady held in great esteem in her community, was still living. She had brought up a family, two of whom had been conspicuous examples of patriotism, his father John having also served in the Revolutionary Army as surgeon. Some of these qualities may also have been derived from Governor Collins, particularly those which enabled him in after life to rule with a stern hand.

At the time of his graduation, he had formed no decision as to the future; nor does he appear to have been biased by any parental influence. He was the eldest child of a family of seventeen and the economic situation was probably a trying one. A mercantile career seemed the obvious solution of the difficulty but the call of medicine must have been in the blood for, at the close of a year's time, he entered the Harvard Medical School. After a year of study in this institution, which was still in its infancy, he decided to complete his medical education in Europe. Accordingly he embarked for London in June, 1799, and on his arrival made an arrangement with Mr. William Cooper, surgeon at Guy's Hospital, to be his dresser for a year, for which he paid a fee of 50 guineas. As Mr. Cooper was the senior surgeon and made comparatively few hospital visits during the week, Warren had from the beginning almost complete control of his patients. Mr. Cooper was near the close of his professional life and before Warren left London

was succeeded by his nephew, Astley Cooper; and there was then formed between the pupil and his distinguished teacher a friendship that lasted throughout life. In London were great opportunities for study at the clinics of Cline in surgery, of Haighton in midwifery, of Abernethy at St. Bartholomew's; and at St. George's, under Sir Everard Home, he was enabled to get almost at first hand the teaching of the new science of surgical pathology, so recently inaugurated by Hunter.

A European medical education would have hardly been complete at this period without a visit to the Royal Infirmary in Edinburgh, where he passed the following academic year. The faculty of this school contained names still remembered as leaders in medical thought at that time, such as Munro in anatomy, John and Charles Bell in surgery, Hope in chemistry, and Gregory in medicine. Warren also became a member of the Royal Physical Society of Edinburgh, which brought the students and teachers into close contact for discussion and study.

In June, 1801, Warren left Edinburgh for Paris and passed the following winter in the household of Dubois, one of Napoleon's distinguished surgeons. This enabled him to meet many of the prominent teachers of that day. His clinical studies were conducted chiefly at La Charité. His chief pursuits were chemistry under Vauquelin and anatomy under Ribes, Chaussier, Roux, and Dupuytren. Bichat was one of the great lights of this period, which was a brilliant one in medicine. These with daily visits to the hospital occupied him somewhat more than 12 months. He notes that the French students with whom he was thrown were green from the Revolution and were for the most part a rude and vulgar set. Many hours were spent at the Jardin des Plantes, where he acquired a taste for natural history that became conspicuous in later years.

At the end of the following summer, he went to London and sailed for New York, arriving there in the autumn of 1802. He brought home with him the degree of M.D. from St. Andrews. On his return he was immediately plunged into a large practice, owing in part to the ill-health of his father, who had been for many years the leading practitioner of Boston. Warren records the fact that in the following summer, when he had entire charge of his father's work, he made some 50 visits a day. During the next winter, he acted as prosector to his father for anatomical lectures at Cambridge.

In 1803 he married Susan Powell Mason, daughter of Hon. Jonathan Mason, a prominent merchant of Boston; and in 1805 he occupied a house on Park Street, in which he resided for the remainder of his life. It was a roomy mansion, situated in the center of the residential quarter of a town which preserved strongly the earmarks of its English origin. The medical school was still in Cambridge and the apprentice system seems to have not yet been wholly abandoned. The Park Street house provided space not only for a class of medical students to foregather in a room with its sanded floor but for a certain period found room to accommodate a dispensary service.

In 1806 Warren was appointed adjunct professor of anatomy and surgery in Harvard University. He became prominent in the work of the Massachusetts Medical Society and, in collaboration with his life-long friend and colleague, Dr. James Jackson, he edited the *Pharmacopœia*, published by this society in 1808. Previous to 1811, no M.D. degree had been issued by Harvard but in 1819, Dr. Warren received the distinction of an honorary M.D. degree from this University.

Dr. James Jackson had been appointed professor of the theory and practice of medicine in the place of Dr. Benjamin Waterhouse; and Warren, at the time of the death of his father in 1815, became professor of anatomy and surgery. These two men set about to lay out a more comprehensive plan for medical education. Their appeal in a circular letter to the public in 1810 became a document of especial interest, for in it there was called attention, not only to the great benefits of a hospital to suffering humanity but to the important part which it played in the scheme for medical education. Their statement, "A hospital is an institution absolutely essential to a medical school," probably marks the first formal effort to elaborate an organization so characteristic of modern methods. A new medical school building was completed in 1815 and the Massachusetts General Hospital was opened for patients in 1821. The tie that bound these institutions was not as close as would be thought necessary at the present time but it served its purpose fairly well at that early period. At the opening of this hospital, Dr. Warren was appointed visiting surgeon and Dr. Jackson, visiting physician. These two constituted practically the hospital staff for many years.

On the death of Caspar Wistar in 1818, the professorship of anatomy in the University of Pennsylvania was offered to Dr. Warren; and it may be interesting to mention in this connection that later, on his return from Europe in 1838, he was offered the position of professor of anatomy and dean of the faculty in the University of New York. To both of these invitations he returned a decisive answer in the negative.

In 1812, the *New England Journal of Medicine and Surgery* was issued under the auspices of the medical school and this periodical was subsequently merged (1828) with the *Medical Intelligencer* to form the *Boston Medical and Surgical Journal*, a weekly publication in operation ever since. Dr. Warren became its first editor; and numerous articles on medical subjects flowed from his pen. A treatise on "Diseases of the Heart" and one on "Comparative Anatomy of the Nervous System" were among his early writings.

Dr. Warren brought back from Europe many novel ideas in the way of operative surgery, among which may be mentioned the operations for aneurism and strangulated hernia; the latter of which, he states, met with considerable opposition at first. He was one of the first to perform operations on the fissures of the hard and soft palates after the manner of Roux. His surgical practice became a commanding one, as had been that of his father before him. He notes later (1852)

that "the operations of lithotomy in Boston within the last sixty years have been performed by my father, myself, or my son" (Mason Warren). His position as editor fitted him well to record in writing a vast amount of surgical experience covering this long period. His most important publication was a book in 1837, "Surgical Observations on Tumors," which received a great deal of attention in this country and in Europe, and was translated into the German language. It is evident also that he had the intention of writing a book on "Clinical Surgery." The manuscript for this work, which had accumulated in great quantity but was never published, covers a most interesting period of surgical practice during the early part of the century. A few examples will suffice to illustrate this point. An operation for the removal of a loose cartilage from the knee joint is given in detail: the patient, after slight suppuration and some fever, attaining full convalescence and a satisfactory result. Several cases of dislocation of the hip joint are given and we find here, not only the old-time method of reduction by pulleys but a detailed statement of the method of reduction by taxis, such as was described by Bigelow and others a quarter of a century later. The reduction of a dislocation of a shoulder joint is effected by a method corresponding accurately to that now known as Kocher's Method.

After some 30 years of active work, Dr. Warren turned his practice over to his son and made a trip through Europe with his family. He renewed his acquaintance with Sir Astley Cooper and revisited the scenes of his study in Edinburgh, seeing there Sir Charles Bell. In Paris, he met Louis for the first time and obtained from Civiale the details of his new operation for lithotrity—which he was instrumental in introducing into this country on his return.

Mrs. Warren died in 1841 and two years later he married Anne Winthrop; after her death in 1851, he made another European visit, receiving great hospitality from political as well as professional friends. It was during this journey that he met Brodie and Clarke in London, and Velpeau in Paris. Although this trip was undertaken in search of health, the benefit proved only temporary and he was unable, on his return, to go back to full, active professional life but did devote much time and labor to scientific and literary work and was fully occupied in these pursuits almost to the date of his death.

Dr. Warren was elected a corresponding member of the Royal Academy in Paris, as well as of the Medical Society of Florence; an honorary member of the Medical and Chirurgical Society of London; and he also belonged to the American Philosophical Society of Philadelphia and to numerous other medical and scientific organizations both in this country and abroad.

In 1846 the medical school, which by this time had outgrown its building, was removed to a new site nearer the hospital. Dr. Warren took this opportunity to present his collection of anatomical specimens to the University, accompanied by a suitable endowment, and it has since been known as the Warren Museum of

Anatomy. He also left directions that, on his death, his body should be dissected and his skeleton prepared, articulated, and hung in the Museum, where it remains to this day. He had passed through the trying times which ultimately terminated in the passage of the Anatomy Act. Those who may feel inclined to criticize such a disposition of his body, have only to refer once more to the repulsive details of the trial of Burke and Hare[1] and the fate of some of those professors whom they served, to look upon Dr. Warren's judgment from a new point of view.

In 1849 the American Medical Association held its annual meeting in Boston and Dr. Warren was elected president and delivered the annual address at the gathering in Cincinnati the following year. A pen-picture of Dr. Warren by a contemporary gives an interesting description of the personality of the man: "His appearance was remarkable, and such as to attract the attention of everyone who came in contact with him. His almost painfully thin yet upright form; his high forehead covered with scanty gray hair; his shaggy eyebrows shading his bright piercing eyes; the deep lines in his strongly marked face—all showed the man of iron will and cool, fearless determination. Nor was this in any way disproved by the high, brusque, authoritative tones of his voice when lecturing or about to engage in some operation. Here the wonderful steadiness of his hand, the unyielding, unimpressionable character of his nervous system, when interested in any detail of his profession, showed one reason for his professional success."

Dr. Warren was a man of deep religious turn of thought and a devoted member of St. Paul's Episcopal Church. For 30 years he was president of the Massachusetts Temperance Society and contributed largely of his means toward its success. Of his experience in this work, he says: "On the whole, I can with confidence say that if I had never tasted wine, my life would have been more healthy and longer, and more comfortable. The efforts which I have been called to make in the temperance reformation operating, as they have done, more extensively on the prosperity and happiness of the community, are a source of more satisfaction than any other labors. Probably my other occupations might have been as well or better performed by someone else; but perhaps it would have been difficult to find another person who would have been willing to undergo the opposition, ridicule, labor, and expense in the cause of temperance."

Dr. Warren's collection in the domain of comparative anatomy and of fossil remains gradually accumulated and, in 1846, when the bones of a mastodon were discovered in the State of New York, he purchased it and had a fireproof building constructed, in which to house the entire collection. He published an elaborate work on the bones of this mastodon. The skeleton at the present time is in the collection of the American Museum of Natural History in New York and is known as the Warren mastodon. At the time of his death he was president of the Boston Society of Natural History.

[1] Notable British Trials, Burke and Hare. Edinburgh: William Roughead, 1921.

But the crowning event of Dr. Warren's career was the part that he played in the introduction of surgical anæsthesia. On October 16, 1846, he performed a major operation at the Massachusetts General Hospital while the patient was under the influence of ether administered by Dr. William T. G. Morton. The experiment was so successful that it was used in other operations on the following days. This experience showed that ether as an anæsthetic agent was "safe, certain, and complete"—a triple feat which announced to the world that what had been dreamed of for many years had become a reality. In the obituary address, at the time of the death of Dr. Warren on May 4, 1856, Dr. Oliver Wendell Holmes made the following reference to this historic episode: "He had reached the age when men have long ceased to be called on for military duty; when those who have labored during their days of strength are expected to repose; and when the mind is thought to have lost its aptitude for innovating knowledge, and to live on its accumulated stores; yet nothing could surpass the eagerness with which he watched and assisted in the development of the newly discovered powers of etherization. It is much for any name to be associated with the triumphs of that beneficent discovery; but when we remember the reproach cast upon Harvey's contemporaries, that none of them past middle age would accept his new doctrine of the circulation, we confess it to have been a noble sight when an old man was found among the foremost to proclaim the great fact—strangely unwelcome, as well as improbable, to some who should have been foremost to accept it—that pain was no longer the master, but the servant, of the body."

J. Collins Warren.