

The Early Years (1811–1896)

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IN 1810 AN APPEAL was issued to the public by Drs. James Jackson and John Collins Warren, along with the support of the Reverend John Bartlett of the Boston Almshouse, to establish a general hospital in the city of Boston. In their letter of August 20, 1810, Drs. Jackson and Warren wrote, “When in distress, every man becomes our neighbor” (1). As a result, the Massachusetts General Hospital (MGH) was founded in 1811, having been chartered by the Massachusetts legislature. As such, it is the third oldest general hospital in the United States and the oldest in New England. The meeting to establish the hospital by citizens and physicians of Boston in 1811 included such luminaries as John Adams and John Quincy Adams; they established the early mission to treat all persons in need, regardless of social status, income, or citizenship. As the saying went, “Every man our neighbor” (1).

The demands of the War of 1812 delayed plans and fund-raising, which took a number of years: the cornerstone of the Bulfinch Building (which remains the historical center of the hospital to this day) was laid on July 4, 1818 (figure 1.1). The first patient was admitted on September 3, 1821, and admissions grew quickly from that time onward: there were 18 during the last months of 1821 and 122 in 1822. There were approximately 60 patient beds when the hospital opened, and this had expanded to 93 by the time the wings of the Bulfinch Building were completed in 1823.

The first surgery occurred on September 21, 1821, for “prolapsus ani.” For the first two decades the hospital was for inpatients only, but the Out-Patient Service was started on October 16, 1846 (Ether Day; see below).

Prominent physicians and surgeons in the first 50 years of the hospital included, in approximate order of their association with the hospital, James Jackson, John Collins Warren, Walter Channing, Jacob Bigelow, John Barnard Swett Jackson, Oliver Wendell Holmes, Henry Ingersoll Bowditch, Henry Jacob Bigelow, Samuel Parkman, J. Mason Warren, and George C. Shattuck Jr. From the earliest days, autopsies were performed by physicians and surgeons, and this constituted the early “pathology” activities at the MGH. Special mention in this regard should be made of Dr. John Barnard Swett Jackson (figure 1.2), who was the first physician in the hospital to focus substantially on anatomic pathology. He was the first Professor of Pathological Anatomy in the United States (appointed in 1847), occupying the professorship at Harvard Medical School. (At the time MGH was the only hospital affiliated with the medical school.) He was also curator of the pathological collection of the Boston Society for Medical Improvement and of the Warren Museum at the medical school (the latter having been founded by John Collins Warren). Dr. Jackson’s catalogue of the Cabinet of the Boston Society for Medical Improvement was considered



Figure 1.1 The Bulfinch Building (left) and the adjacent Harvard Medical School on North Grove Street, 1853

by a Philadelphia professor as “the most valuable contribution to pathological anatomy made up to that date in this country” (2). In the words of Oliver Wendell Holmes, who knew Dr. Jackson: “He . . . was never tired of working at his specimens, to get them into the best condition and show them off to the best advantage. . . . He was the picture of cheerful content in the midst of the fragmentary specimens of nature’s handiwork by which he was wont to be surrounded. No student in the first blush of his boyish enthusiasm was ever more full of excitement . . . in illustrating some fact by a new preparation, or in rendering presentable some dilapidated tenant of his immortalizing receptacles” (3).

Pathology in that day, however, was gross pathology only, since the microscope had not yet been introduced widely into practice. As a result, individuals like Dr. Jackson focused exclusively on macroscopic pathology, and another quote from Oliver Wendell Holmes on Dr. Jackson would be broadly applicable to “pathologists” of the time: “What he knew he knew thoroughly, but he never pretended to have the slightest

knowledge beyond what his honest naked eyes could teach him. He was not ashamed of their nakedness: in fact it was next to impossible to coax him to look through a microscope” (3).

The most significant date in the early history of the hospital was October 16, 1846, which came to be known and celebrated each year as Ether Day. On this day ether was first used in public to produce surgical anesthesia: William Green Morton administered the agent and John Collins Warren performed the operation, removal of a jaw tumor from a patient named Gilbert Abbott. At the end of the procedure, Dr. Warren uttered his famous understatement, “Gentlemen, this is no humbug.” Indeed, it deeply influenced the future of pathology as well, since the emergence of modern surgery would generate the discipline of surgical pathology.

The 1860s, when the Civil War resulted in many casualties that required surgical attention, and the 1870s, when antiseptic techniques were combined with anesthesia, ushered in the modern surgical era, when the MGH began its existence as a large surgical hospital. Indeed, by

the 1890s, surgical admissions would outnumber medical admissions by a ratio of five to three. As discussed below, the first full-time surgical pathologist would join the hospital staff in 1888.

THE RELATIONSHIP TO HARVARD MEDICAL SCHOOL

Harvard Medical School (HMS) began as informal training programs at the Cambridge campus of Harvard College, whereby students served apprenticeships with local physicians. In 1810 the school moved from Cambridge to Boston. At this time the need for medical students to spend time at hospitals was recognized, and one of the rationales for the founding of MGH was to provide a training hospital for HMS. In 1816 the school underwent administrative reorganization and moved to Mason Street near the Boston Common, where it was housed until 1846. Also in 1816 the position of Dean was created to provide better oversight of medical education.



Figure 1.2 John Barnard Swett Jackson

Many of the early physicians at MGH served as deans of HMS; nearly all of them during the first 50 years were MGH physicians: John Collins Warren (1816–1817 and 1821–1826), James Jackson (1817–1818), Walter Channing (1819–1820 and 1826–1847), Jacob Bigelow (1820–1821), Oliver Wendell Holmes (1847–1853), John Barnard Swett Jackson (1853–1855), George C. Shattuck Jr. (1864–1869), and Calvin Ellis (1869–1883).

In 1847 the medical school moved from Mason Street to North Grove Street, adjacent to the original Bulfinch Building of the hospital (figure 1.1). HMS would be housed at the North Grove Street campus through 1883, when it moved to Boylston Street. (It moved to its current Longwood Avenue site in 1906.) The North Grove Street years would solidify the strong relationship between HMS and MGH that remains to this day; MGH is the oldest and largest of the HMS teaching hospitals. During the North Grove Street years, it was relatively easy for HMS faculty to participate in patient care at MGH, and for MGH physicians and surgeons to spend time teaching at HMS. Most classes had associated clinical sessions held at the MGH. The Boylston Street site was not too far from the hospital, but the physical separation of the Longwood Avenue site from MGH would prove a growing challenge to day-to-day interactions between MGH and HMS.

THE RISE OF MICROSCOPY, BACTERIOLOGY, AND CHEMISTRY

The nineteenth century saw the development of microscopy, chemistry, and bacteriology as clinical disciplines. Microscopy grew quickly in relevance over the second half of the nineteenth century, initially as a result of the great physician/surgeon-pathologists, such as Sir James Paget in Britain and Rudolf Virchow in Germany. Indeed, Paget had used the term *surgical pathology* in his published lectures to the Royal College of Surgeons in 1853. As microscopes became more readily available and their utility was demonstrated, their use to study diseases expanded exponentially

over the next few decades. Microscopy became the investigative technique of the time and easily passed into clinical work in hospitals.

Similarly, bacteriology underwent rapid expansion in the mid- and late nineteenth century, through the work of luminaries such as Louis Pasteur and Robert Koch. A number of infectious diseases, perhaps most notably tuberculosis, were linked with the presence of particular bacteria that could be seen under the microscope, that could be grown under particular conditions in the laboratory, or that could be transmitted in laboratory animals. The findings were rapidly carried over to the United States, and clinical laboratory techniques for the analysis of bacteria were in place by the 1880s and 1890s.

Clinical chemistry began initially through examination of urine samples in the early to mid-nineteenth century, when the discipline of clinical chemistry began in Germany and Austria in the late 1830s and the 1840s. Blood and urine analyses were developed and enabled the detection of glucose, bile acids, urea, and protein, and microscopy was added as a means of examining urine. Techniques remained variable, however, and there was little consensus on whether these analyses provided information of clinical use; many thought that the analyses were more appropriate for research purposes. As a result, clinical chemistry did not enter routine practice until the 1860s and 1870s in Germany and until about 20 years later in Britain (4).

THE CHEMISTS, MICROSCOPISTS, AND PATHOLOGISTS

Given the emergence of these new fields of clinical study, the MGH recognized early on that physicians with specific expertise in the laboratory were of considerable importance to clinical care. Oliver Wendell Holmes had introduced the microscope as an aid for the instruction of the HMS students at MGH. In turn, the MGH was the first hospital in the United States to establish a position for a Chemist and Microscopist.

In 1847 the Trustees made recommendations regarding the probable needs of the hospital in these areas. The report is worth quoting in detail, since it outlines both the clinical and investigative roles expected. The recommendations are perceptive and prescient, since they largely reflect current roles for pathologists in academic medical centers:

During the last few years the science of medicine has made great advancement from the powerful aid which it has received from the study of organic chemistry and the knowledge and use of the microscope. Some of the most beneficial results in medical knowledge have been obtained from these departments of science, and in the more obscure diseases it is highly necessary that the constituents of matter, both in their organic and anatomical relations, should be thoroughly investigated by the Chemist and the Microscopist.

So important and beneficial have been the results growing out of the facilities which the microscope has afforded in the investigation of disease that microscopy and organic chemistry are now considered legitimate specialties and a few among our most promising and intelligent medical men devote themselves entirely to these interesting studies. It should be a source of satisfaction to those who, whilst feeling that the claims of humanity should be paramount in this institution, can justly feel a scientific pride that here have had their origin some of the most valuable improvements in medicine and surgery. The Mass. Gen. Hospital may challenge comparison with any like institution in the world not only in the blessed results which have grown out of the alleviation of sickness and suffering, but in the knowledge that science has here had patient and successful supporters.

As it was the intention of the founders of this institution that the Mass. Gen. Hospital, whilst abounding in noble charity should at the same time advance the doctrines of medical science by supporting and aiding these means of

investigation and research that belong to modern times, your committee would propose the passage of the following votes:—

Voted: That a Chemist and Microscopist be appointed to this institution and the incumbent shall have the following qualifications:

1st. He shall be acquainted with the microscopic structure and appearance of both the healthy and diseased tissues of the human body.

2d. He shall have a knowledge of organic and analytical chemistry sufficient to enable him to perceive constituents of diseased products.

3d. He shall be well acquainted with post mortem labors, so as to be able to appreciate and improve all opportunities that may occur for the advancement of science.

The Duties of this officer shall be as follows:

Viz. In the Medical Departments. Under the direction and at the discretion of the Physicians to examine microscopically the healthy and diseased secretions of the human body.

In the Surgical Departments. Under the direction and at the discretion of the Surgeons he shall in the same way examine and analyse all growths, tumours and diseased parts that may be removed from patients by operation or otherwise.

Autopsies. He shall be present at and assist if necessary in making all of the autopsies both medical and surgical, that may occur in the Hospital, in order to take advantage of all the opportunities afforded him by inspection of the dead body.

Records. The appearances and peculiar phenomena met with in any of the above examinations shall be inserted in the records of the cases to which they belong, and when by the above course judiciously followed out an accumulation of valuable knowledge shall have been made, the officer may under the patronage of the Hospital and at the discretion of the Surgeons and Physicians publish it to the world as the result of his labors in this department. (5)

The decision was to have an annual election of the Trustees for the position of Chemist and Microscopist. Along with each election would be “a statement of the scientific qualifications which should be required, and a defining of the duties to be exacted of him, in the Medical and Surgical Departments, in attendance on autopsies within the walls of the Hospital, and in the preparation of records of his observations, with the privilege, when matters of sufficient importance have accumulated as results, of publishing them to the world, under the patronage of the Hospital, and at the discretion of the Surgeons and Physicians” (6).

The hospital had the good sense to appoint highly competent individuals to these positions over the years:

John Bacon Jr., Chemist and Microscopist, 1851–1855; Chemist, 1855–1863

Calvin Ellis, Curator of the Pathological Cabinet, 1854–1870; Microscopist, 1855–1870

Reginald Heber Fitz, Microscopist and Curator of the Pathological Cabinet, 1871–1888; Pathologist, 1888–1892

James Clarke White, Chemist, 1863–1872

Edward Stickney Wood, Chemist, 1872–1905

The first position to be filled was that of Chemist and Microscopist, by John Bacon Jr. (figures 1.3 and 1.4). He graduated from HMS in 1840 and helped to found the Boylston Medical School in 1850. His interest in chemistry was an early one—he taught chemistry and toxicology at the Boylston Medical School. HMS wooed a number of the Boylston faculty to HMS, including Bacon, who joined HMS as a professor of chemistry in 1857 (7). Bacon’s recommendation in 1855 to separate the position of Chemist from that of Microscopist presumably related to the increase in clinical chemistry responsibilities, since by 1862 Dr. Bacon “was authorized to employ an assistant in the performance of his duties, in such way and at such time as he cannot



Figure 1.3 John Bacon Jr. (Harvard University Archives, call no. HUP Bacon, John [1])

attend to them himself, at an expense not exceeding \$250.00 annually” (8). Dr. Bacon was Chemist until 1863, when his health and other duties occasioned his resignation. He remained a professor of chemistry at HMS until 1871 and died in 1881. An obituary in a local paper remarked: “He was a gentleman of most amiable character, intelligent, careful and industrious in the pursuit of his profession. He was an excellent chemist, a good teacher. He took especial delight in microscopy.”

Dr. James Clarke White followed as Chemist until 1872. He graduated from HMS in 1856 and spent time in Vienna as a pupil of Ferdinand von Hebra, the great dermatologist. Not surprisingly, White’s primary interests were in dermatology, and once he had stepped down as Chemist, he devoted his practice to dermatological issues (see chapter 18). He was a prolific writer, served as an Editor of the *Boston Medical and Surgical Journal*,

and held the first chair of dermatology in the United States (at HMS).

Dr. Edward Stickney Wood followed White, serving as Chemist for over 30 years, but primarily as a consultant, as he maintained his laboratory at HMS. He graduated from Harvard College in 1867 and from HMS in 1871. During his medical school training he served as a house pupil at MGH and then spent six months in 1872 studying chemistry in Berlin and Vienna. He became an Assistant Professor of Chemistry at HMS in 1871 and a Professor of Chemistry in 1876; he developed most of the medical school curriculum in medicinal chemistry. Wood was very active, serving in a number of local medical societies and

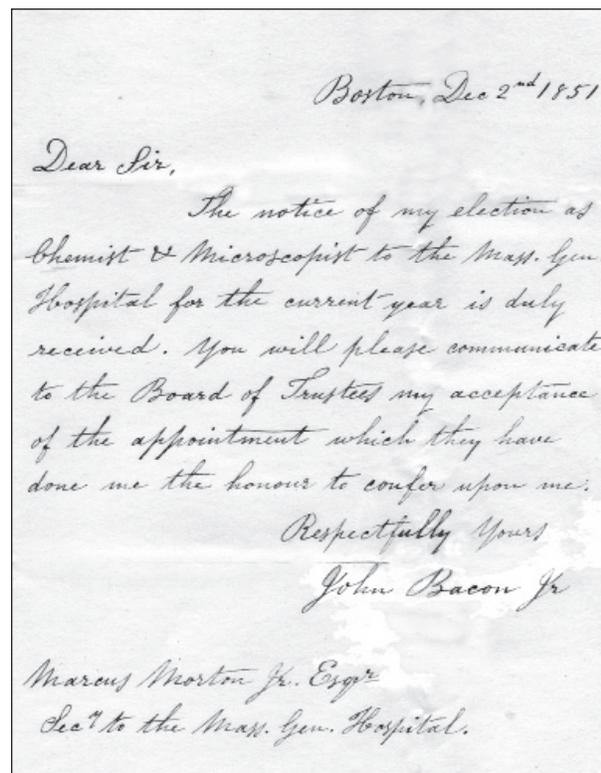


Figure 1.4 Acceptance letter from John Bacon to the MGH Trustees, December 2, 1851: “Dear Sir, The notice of my election as Chemist & Microscopist to the Mass. Gen. Hospital for the current year is duly received. You will please communicate to the Board of Trustees my acceptance of the appointment which they have done me the honour to confer upon me. Respectfully Yours, John Bacon Jr.”

translating *Urinary Analysis*, the textbook by Carl Neubauer and Julius Vogel. He also revised part of Francis Wharton and Moreton Stillé's textbook on medical jurisprudence, and it was said that "there was hardly a case for trial for capital crime in New England for twenty years where his knowledge of chemistry and especially his skill in the demonstration of blood stains, was not required" (9). "He had a remarkable knowledge of poisons and of the means of detecting their presence in the human body, and had also made a very careful study of blood stains. As a witness he was quiet, imperturbable, and evidently concerned only to declare the truth. His character, quite as much as his knowledge and skill, lent weight to his testimony" (10).

The second position to be filled was that of Curator of the Pathological Cabinet. The Pathological Cabinet had been established by the hospital in 1854, with \$100, and the office of the Curator was created "to preserve morbid specimens and arrange them in the way best fitted to make them useful; and that he should make all autopsies excepting such as shall be made by the attending physicians and surgeons; and shall observe all the regulations now in force or that may be made respecting them" (8). The first Curator was Dr. Calvin Ellis (figure 1.5), who held the position from 1854 until 1870. In 1855, when Bacon recommended separating the roles of Chemist and Microscopist, Dr. Ellis would also become the hospital Microscopist.

Calvin Ellis graduated from Harvard College in 1846 and HMS in 1849, and then served as a house pupil at the MGH. He pursued training in clinical medicine and pathology in France and Germany, and with John Barnard Swett Jackson at MGH and HMS. Ellis had a very successful career at HMS, serving as Professor of Clinical Medicine, 1867–1883, and as Dean, 1869–1883. He wrote a large number of papers on a wide variety of topics, including a highly respected article on tuberculosis, but his magnum opus on diagnosis, entitled *Symptomatology*, remained unpublished



Figure 1.5 Calvin Ellis

at the time of his death. His character is captured in the following account:

Whether we consider Calvin Ellis as the cheerful, courteous, successful physician; the able, forceful, writer; the lucid, systematic, scientific teacher; the progressive reformer of medical thought and methods of teaching; or as one of Harvard's generous benefactors, we find that he did all things well. Ellis was unquestionably one of the most valuable teachers the Harvard Medical School has had. He showed that we must place the diagnosis of disease upon a scientific basis, he scouted mere authority. Nothing was to be regarded settled until proven. "Snap" diagnoses were beneath his notice, and so-called intuition in diagnosis was to him little less than charlatanism. He taught that every step in the diagnosis should be proven. In this he drilled his pupils in a fashion which to many other teachers seemed slow and overdone. *Diagnosis by elimination* was his method. How well



Figure 1.6 Reginald Heber Fitz

he succeeded is shown by the fact that if there is one distinguishing mark about Harvard Medical graduates to-day it is their adherence to this method (7).

The dominant figure of this era, however, in terms of his influence on medicine and pathology at the MGH, was Reginald Heber Fitz. (Dr. Fitz's life and accomplishments are covered in detail in chapter 2). He was the first person to hold the title of Pathologist at the MGH. His clarification of the nature of acute appendicitis (he coined the term) changed the practice of surgery, and his work on acute pancreatitis was also of major importance. Dr. Fitz was highly regarded by the hospital and its leadership. In some ways, it is Dr. Fitz who was the first "Chief of Pathology" at MGH: although his role antedated the department's existence, it was in part his work that convinced the hospital's leadership that a department of pathology was needed, and he proved highly influential in getting the proposal for a

department approved in the 1890s. Moreover, he was archetypical of the clinician-researcher studying human disease—a model for future academic pathologists. It is fitting, therefore, that Dr. Fitz's picture (figure 1.6) hangs with those of the other Chiefs of Pathology in the Chief's Conference Room in the current department.

Attention should also be drawn to the work of Dr. John Collins Warren (1842–1927; figure 1.7), a grandson of the founder of the hospital. He trained in Europe with eminent pathologists such as Julius Cohnheim, Rudolf Virchow, Carl von Rokitansky, and Louis-Antoine Ranvier, and he brought this approach back to the MGH. Warren did important studies on the nature of a variety of diseases, including early studies of breast cancer, and in 1895 he authored an authoritative textbook entitled *Surgical Pathology and Therapeutics* (figure 1.8)—one of the first texts to stress the integration of gross and microscopic pathology. Warren was probably the first American to use needle biopsies to evaluate breast lesions and to utilize frozen sections for rapid diagnosis. In this regard, appropriately, the current home of much of the Pathology department at MGH is the Warren Building—named after the many members of the Warren family who contributed to the hospital. A large plaque currently fills a wall in the lobby of the Warren Building, honoring



Figure 1.7 J. Collins Warren

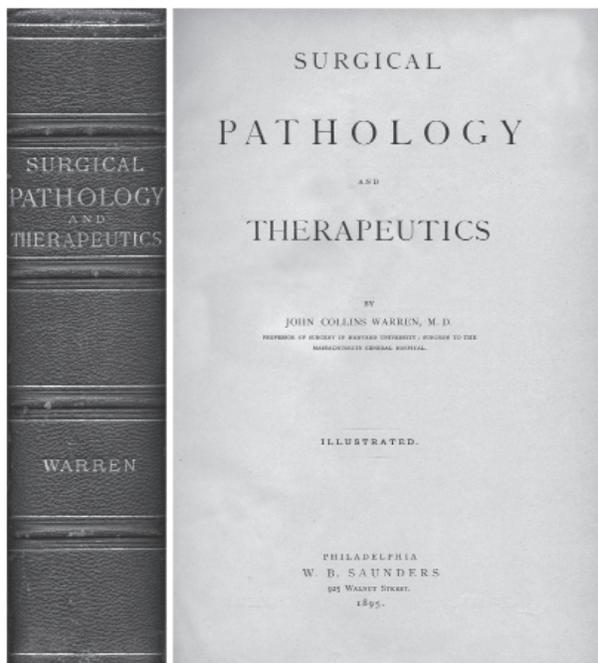


Figure 1.8 Surgical Pathology and Therapeutics, spine and title page, 1895

seven of the Warrens who practiced medicine in Boston, at the MGH and at HMS (figure 1.9).

With the increasing work done in the field of pathology at the hospital in the 1880s, donations were directed toward support of the pathological

work in the hospital; thus was established the Samuel Cabot Fund for pathological investigation, “the income of which is to be used for the payment of the services of a pathologist at the Hospital, who shall hold himself in readiness at all times to make such pathological examinations and investigations as shall be required by the visiting physicians and surgeons.” The position of Assistant Pathologist was created from this fund in 1888, and “the title of curator of pathological cabinet changed to pathologist” (8). These developments explain Dr. Fitz’s change in title in 1888, from Microscopist and Curator of the Pathological Cabinet to the simpler title Pathologist—one that has continued to the present day to designate the most senior members of the department.

The increasing work brought about the need for additional pathologists to work with Dr. Fitz at the MGH. The two who joined in the 1880s were Drs. William W. Gannett and William Fiske Whitney. Dr. Gannett had entered HMS in 1874 and was the first student to extend his studies to a fourth year for postgraduate work, receiving his degree in 1879 after serving as a house pupil at the MGH. After a year in Strasbourg and Vienna studying pathology and microscopy

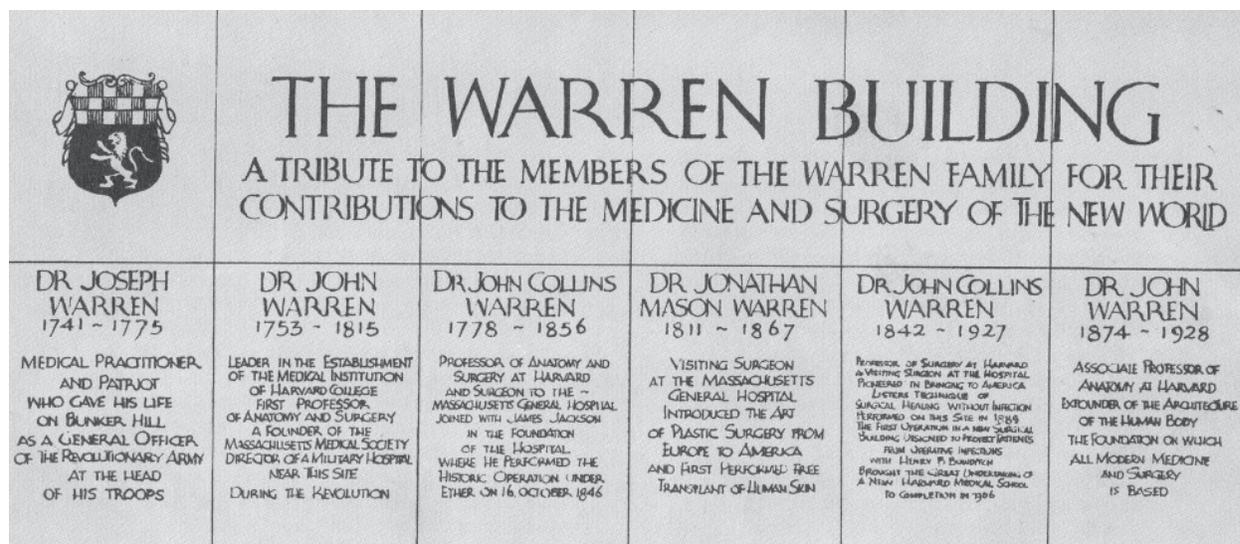


Figure 1.9 Commemorative marble wall honoring the contributions of the Warren family to MGH and HMS, in the lobby of the Warren Building

with Friedrich von Recklinghausen and Heinrich Waldeyer, he returned to MGH to start his career as an assistant in pathology, helping Dr. Fitz provide practical instruction in performing autopsies. A fellow medical student had given him the nickname “Buzz” because, like a buzzard, he was fond of postmortem materials. In addition to serving this role at MGH, he spent much of his efforts before 1891 as pathologist to several other Boston hospitals, including McLean, Boston City, Boston Lunatic, and Carney, and he is said to have regretted not being able to devote more time to the already detailed neuropathological examinations that he did at the Boston Lunatic Hospital (11). His later career, partly at the MGH, where he held appointments as Physician to Out-Patients and then Visiting Physician, was oriented more to outpatient clinical medicine. Dr. Whitney, a graduate of the HMS class of 1875, was a house officer at the MGH in 1875 and then spent three years studying pathology in Austria, France, and Germany. He was recruited to the newly created position of Assistant Pathologist, relating primarily to surgical pathology, in 1888. Dr. Whitney would go on to a long and influential career at the MGH and at HMS (chapters 3 and 16) (12).

THE CREATION OF THE LABORATORIES AND THE DEPARTMENT

The Allen Street House had been built in 1874; it was officially named by a vote of the Trustees in 1875 for its location on Allen Street, which formed the northern border of the hospital grounds. (Currently, the same street no longer bears that name, but constitutes the northern limb of Blossom Street.) The Allen Street House accommodated an autopsy theater and rooms for storage of specimens in the Pathological Cabinet. In designating the Allen Street House for this purpose, the Trustees had “kept in view the two purposes of a hospital set forth in the circular of Dr. James Jackson and Dr. John Collins Warren published in 1810, viz., to succor the poor in

sickness, and to promote facilities for students to acquire medical knowledge” (8).

But by the early 1890s the Allen Street House had long been inadequate for the needs of the hospital. Indeed, in 1893 the Trustees reported that laboratory work was done “partly in a little den fitted up under the front steps, and unfit for human occupation; partly in the nurses’ rooms connected with the wards; partly at the Medical School, a mile away; partly at the pathological room in the department of out-patients, where the pathologist is now on duty for one morning of the week; and partly in a small room connected with the Allen Street House, ill adapted for the purpose, and fitted up with some temporary and imperfect facilities for the work which had to be done, and for which there was no other place.”

The limitations of the laboratories were exacerbated by the increasing importance of laboratory diagnosis, which had become an essential component of hospital diagnosis—and a growing component of outpatient diagnosis. Other hospitals in the United States had forged ahead with developing advanced laboratories, and by 1893 at the MGH “urgent representations have been made by the Staff of the necessity of proper laboratory facilities, and there can be no question that the Hospital is at present far behind the times in this respect” (figure 1.10). The Trustees responded by successfully soliciting contributions to a laboratory fund that would enable construction of new facilities and creation of a dedicated laboratory department. In addition, the Trustees set aside money to pay for a pathologist to study in European laboratories in order to bring expertise back to the MGH. With input from Dr. William Councilman, the Professor of Pathology at HMS, the Trustees chose Dr. James Homer Wright for this position (chapters 3 and 4). Yet, as late as 1897 the Trustees felt that the fund for maintaining the laboratory had not yet reached the amount necessary to sustain its day-to-day expenses, and they made the increase of this fund by \$25,000 its highest budgetary priority.

Massachusetts General Hospital
Boston Dec 6th 1893

The Trustees of the Mass Genl Hospital
Gentlemen:-

At a meeting of the Visiting Staff held Dec 6th 1893 the question of the establishment of a Pathological Department to the Hospital was brought up & a plan for such a department was submitted to the Staff by Dr. W. T. Councilman.

After a careful discussion of the subject it was voted that Dr. Councilman's report be submitted to the Trustees for their earnest consideration.

It is proper to add that this plan has the cordial approval of Dr. W. F. Whitney Pathologist to the Hospital.

Respectfully yours
J. Collins Warren
Secretary

Figure 1.10 Letter from J. Collins Warren to the Board of Trustees of the MGH: “Gentlemen, At a meeting of the Visiting Staff held Dec 6th 1893 the question of the establishment of a Pathological Department to the Hospital was brought up & a plan for such a department was submitted to the Staff by Dr. W. T. Councilman. After a careful discussion of the subject it was [voted?] that Dr. Councilman’s report be submitted to the Trustees for their earnest consideration. It is proper to add that this plan has the cordial approval of Dr. W. F. Whitney, Pathologist to the Hospital. Respectfully yours, J. Collins Warren, Secretary.”

Looking back at these events in 1899, three years after the founding of the department, Dr. Wright wrote: “The foundation of clinical or pathological laboratories in exclusive connection with hospitals is a comparatively recent thing in this country, where it is only beginning to be generally recognized that our knowledge of the nature and causes of diseases has reached the dignity of a science with great possibilities for the good of the human race; and that properly equipped laboratories are quite as necessary for the proper cultivation of this science as are laboratories for biology, chemistry, or physics.”

He further emphasized how unusual such laboratories were in the United States, and that their existence was critical to furthering medical knowledge: “At the present time, there are probably not more than half a dozen such special laboratories, that are worthy of the name, in this country; while in some European countries, particularly in Germany, the hospital laboratory has been regarded for many years as a necessary department of a large hospital, and it is largely due to these laboratories that Germany has been able to add so much to medical knowledge, for most of the remarkable progress in medicine and surgery has been made possible through experiments and observations carried on in them.”

Once again, the hospital had maintained a forward-thinking approach to clinical care and to research. It had recognized the emerging role of a centralized hospital laboratory, and had funded the required recruitment of faculty and the renovation of space. As a result of its vision, the Clinico-Pathological Laboratory would open in the Allen Street House in October 1896.

REFERENCES

1. Garland JE. *Every Man Our Neighbor: A Brief History of the Massachusetts General Hospital, 1811-1961*. Boston: Little, Brown, 1961 (repr., Boston: Massachusetts General Hospital, 2008).
2. Shattuck F. The physicians of the first century. In *Massachusetts General Hospital, Memorial and Historical Volume*. Boston: MGH, 1921.
3. Holmes OW. John Barnard Swett Jackson. *Boston Med Surg Journal* 110:63-66, 1879.
4. Rosenfeld L. Clinical chemistry since 1800: Growth and development. *Clinical Chemistry* 48:186-197, 2002.
5. Washburn F. *The Massachusetts General Hospital: Its Development, 1900-1935*. Boston: Houghton Mifflin, 1939.
6. Bowditch N. *A History of the Massachusetts General Hospital*. Boston: MGH, 1872.
7. Harrington T, Mumford J. *The Harvard Medical School: A History, Narrative and Documentary*. New York: Lewis Publishing, 1905.

8. Wright JH. The Pathological Department. In *Massachusetts General Hospital: Memorial & Historical Volume, along with Proceedings of the Centennial of the Opening of the Hospital*. Boston: MGH, 1921.
9. Kelly HA. *A Cyclopedia of American Medical Biography*. Vol. 2. Philadelphia: W. B. Saunders, 1912.
10. Eliot C. *Reports of the President and the Treasurer of Harvard College*. Cambridge: Harvard University, 1904–1905.
11. Anonymous. William Whitworth Gannett, M.D. (1853–1929). *New Eng J Med* 200:1177–1179, 1929.
12. Warren J, Mixter S. Dr. William Fiske Whitney. A tribute to a pioneer in modern pathology. *Boston Med Surg Journal* 186:113–115, 1922.