



The Catholic Brahmin and the Anatomy Act of 1898: Thomas Dwight and the Normalization of the Medical Cadaver Supply in Late Nineteenth-Century Massachusetts

The Harvard community has made this article openly available. [Please share](#) how this access benefits you. Your story matters

Citable link	http://nrs.harvard.edu/urn-3:HUL.InstRepos:37945124
Terms of Use	This article was downloaded from Harvard University's DASH repository, and is made available under the terms and conditions applicable to Other Posted Material, as set forth at http://nrs.harvard.edu/urn-3:HUL.InstRepos:dash.current.terms-of-use#LAA

The Catholic Brahmin and the Anatomy Act of 1898: Thomas Dwight and the
Normalization of the Medical Cadaver Supply in Late Nineteenth-Century Massachusetts

Dominic William Hall

A Thesis in the Field of History
for the Degree of Master of Liberal Arts in Extension Studies

Harvard University

May 2018

Abstract

This study builds on unexplored correspondence between Harvard Parkman Professor of Anatomy Thomas Dwight (1843–1911) and Harvard University president Charles Eliot (1834–1926) regarding the modification of Massachusetts anatomy law that resulted in the 1898 *An Act Relative to the Promotion of Anatomical Science*. The correspondence provides the project's central research question: What conditions existed to allow the two Harvard academics, principally Dwight, to manufacture a coordinated campaign to legalize the mandatory surrender of Massachusetts's unclaimed dead? Massachusetts was the first American state to pass an anatomy act in 1831 that provided for the optional surrender of the state-managed dead to Massachusetts medical schools. This act, while a triumph for the Massachusetts medical education community, failed to create a consistent and reliable cadaver supply as body surrender was left to the discretion of institution superintendents. The Dwight-Eliot 1898 law solved this concern by making cadaver surrender mandatory. This thesis is an analysis of the conditions and motivations that allowed for the development and passage of the 1898 *An Act Relative to the Promotion of Anatomical Science*. It does so by exploring a series of sub-research questions, pursued through the published writings and unpublished correspondence of Thomas Dwight, as the act's main proponent and author. Dwight's works are further framed and contextualized through published descriptions of the multiple revisions of the state's anatomy acts and the various annual reports of the boards and institutions that managed the state dead.

This analysis posits several distinction conclusions. It argues that the 1883 scandal at the Tewksbury almshouse augmented and made public the already antagonistic application of the 1831 anatomy act in Massachusetts, and in order to limit this resistance and to develop a systematic cadaver supply chain, Dwight and Eliot collaborated on a deliberate effort to develop a mandatory surrender law for the unclaimed dead. This effort benefited both men in that it gave Dwight his reliable and legal cadaver supply and provided Eliot with a necessary reform in his campaign to modernize Harvard Medical School. It further argues that Dwight's dual-identity as a legacy member of the Boston elite and as a Catholic was vital in politically drafting and directing the mandatory anatomy act through the late nineteenth century Massachusetts legislature, and that the success of the law directly fueled his anatomical scholarship. Lastly, Dwight's efforts created a more ethical and transparent cadaver, creating an accountable and trackable body that often ended its scientific journey with burial.

Dedication

Dedicated to Jaime

Acknowledgements

I would like to acknowledge Professor John Stilgoe for his patience in reading through my drafts and revisions, and for being a consistent, encouraging presence throughout this process.

I would like to acknowledge Professor Donald Ostrowski for his help revising my thesis proposal and finished product, and for his assistance in navigating the thesis process.

Lastly, I would like to acknowledge the staff of the Center of the History of Medicine, Francis A. Countway Library of Medicine, Harvard Medical School for their support and research assistance, particularly Professor Scott Podolsky, Emily Gustainis, Jack Eckert, and Jessica Murphy.

Table of Contents

Dedication	v
Acknowledgments	vi
I. Introduction: Massachusetts and the History of the Legal Medical Cadaver	1
Primary Research Question: The Dwight-Eliot Correspondence	2
Anatomy Law in Nineteenth-Century Massachusetts	3
Thomas Dwight and the Anatomy Act of 1898	8
II. Tewksbury Almshouse Investigation and the Motivation for Anatomical Reform ...	15
Birth of Legalized Anatomy in Massachusetts and Optional Body-Surrender ...	18
The Tewksbury Almshouse Investigation	25
III. Thomas Dwight: Anatomist and Professor	43
Education in Europe	46
Teaching and Research at Bowdoin College	49
Return to Harvard Medical School	54
IV. Thomas Dwight: Catholic Scientist	60
Thoughts of a Catholic Anatomist	61
The Morality of Human Dissection	67
Dwight and Darwin	73
V. Thomas Dwight, Charles Eliot, and the Anatomy Act of 1898	76
Eliot Reforms at Harvard Medical School	77
The Eliot Reforms and Human Dissection	82
Mandatory Body Surrender	85

The National Perspective	88
<i>An Act Relative to the Promotion of Anatomical Science</i>	92
Catholic Impact on the 1898 Anatomy Act	104
Success of the 1898 Anatomy Act	106
VI. Conclusion	112
VII. Bibliography	121

Introduction

Massachusetts and the History of the Legal Medical Cadaver

Massachusetts pioneered legal cadaver acquisition by American medical schools. Its 1831 *An act more effectually to protect the sepulchres of the dead, and to legalize the study of anatomy in certain cases* was the first United States law to provide unclaimed, state-managed dead to licensed medical schools and legalize the anatomical investigation of such bodies.¹ The Massachusetts model inspired the adjacent New England states of New Hampshire (1834) and Connecticut (1833) to develop similar legislation.² However, despite Massachusetts's proactive efforts regarding body acquisition and the social and legislative influence of its medical academies and physicians, the act, even with multiple revisions, proved continually insufficient for the growing cadaver needs of the state's medical educational community. The prime culprit of this deficiency was well known to the Harvard physicians who relied upon and advocating for these anatomy acts. Excepting a brief period between 1855 and 1859, it was optional for almshouse, hospital, workhouse, and sanitarium superintendents to surrender the unclaimed dead to medical schools. This study examines of how a Harvard anatomist, Thomas Dwight (1843–1911), reversed this reality and drafted and shepherded a mandatory anatomy law through the Massachusetts legislature.

¹ Edward Mussey Hartwell, *The Study of Anatomy, Historically and Legally Considered* (Boston: Tolman & White, 1881), 17.

² Frederick C. Waite, "The Development of Anatomical Laws in the States of New England," *New England Journal of Medicine* 233, no. 24 (December 1945): 721. Both the Connecticut and New Hampshire anatomy acts were repealed shortly thereafter, 1834 and 1842 respectively, further suggesting that conditions in Massachusetts were more accepting of anatomical investigations.

Primary Research Question: The Dwight-Eliot Correspondence

This study builds on unexplored correspondence between Dwight and Harvard president Charles Eliot (1834–1926).³ These letters, analyzed in chapter five, present this study’s central question: What conditions existed to allow Thomas Dwight and Charles Eliot to manufacture a coordinated campaign to legalize the mandatory surrender of Massachusetts’s unclaimed dead? This research question relies on various subsidiary questions. Did the 1883 Tewksbury almshouse scandal exacerbate the hostility around cadaver sourcing, prompting the Dwight and Eliot collaboration? Was the change in anatomical law a fundamental part of Charles Eliot’s educational reform at Harvard Medical School? Did the anatomy act lead to increased cadaveric volume, and, given that medical cadavers usually represent the most socioeconomically vulnerable community members,^{4 5 6} who were the majority of these anatomical subjects? Did Dwight pursue this legal change to fuel his anatomical research interests in as much as his dissection teaching responsibilities? Lastly, did the passage of the mandatory law depend on the uniqueness of Thomas Dwight as a Boston Brahmin, research scientist, and a leading Catholic figure?

³ *Records of the President of Harvard University, Charles W. Eliot, 1869–1930*, Box 37, 84, Harvard University Archives., Harvard University.

⁴ Edward C. Halperin, “The Poor, the Black, and the Marginalized as the Source of Cadavers in United States Anatomical Education,” *Clinical Anatomy* 20, no. 5 (July 2007): 489–495.

⁵ D. C. Humphrey, “Dissection and Discrimination: The Social Origins of Cadavers in America, 1760–1915,” *Bulletin of the New York Academy of Medicine* 49, no. 9 (September 1973): 819–827.

⁶ Ann Garment, Susan Lederer, Naomi Rogers, and Lisa Boulton, “Let the Dead Teach the Living: The Rise of Body Bequeathal in 20th-Century America,” *Academic Medicine* 82, no. 10 (October 2007): 1001.

I argue that the 1883 scandal at the Tewksbury almshouse augmented and made public the already antagonistic application of the 1831 anatomy act in Massachusetts, and in order to limit this resistance and to develop a systematic cadaver supply chain, Thomas Dwight and Charles Eliot collaborated on a deliberate effort to develop a mandatory surrender law for the unclaimed dead. This effort benefited both men in that it gave Dwight his reliable and legal cadaver supply and provided Eliot with a necessary reform in his campaign to modernize Harvard Medical School. I further argue that Dwight's dual-identity as a legacy member of the Boston elite and as a Catholic was vital in politically drafting and directing the mandatory anatomy act through the late nineteenth century Massachusetts legislature, and that the success of the law directly fueled his anatomical scholarship. Lastly, Dwight's efforts created a more ethical and transparent cadaver, creating an accountable and trackable body that often ended its scientific journey with burial.

Anatomy Law in Nineteenth-Century Massachusetts

This study articulates an untold narrative in the history of anatomy literature. Much is written about John Collins Warren and the 1831 *An act more effectually to protect the sepulchres of the dead, and to legalize the study of anatomy in certain cases* as the first American anatomy act. These explorations fail to cover Dwight's augmentation of the Warren bill into a more effective mandatory vehicle. This investigation provides a case study for the under-examined legal and transitional history of the pre-body donation anatomy acts and their relationship with the unclaimed dead. Grave robbing and "resurrectionism" approaches dominate the history of anatomy

literature. The Dwight-Eliot narrative marks a deliberate, thoughtful, and legal approach to legislative change and was not a clandestine affair of which cadaver acquisition is so often saddled. This thesis also places the much-studied science and religion dynamic into the sphere of medical cadaver acquisition. In the Dwight narrative, Catholicism is foundational to the creation and passage of the turn-of-the century anatomy act. As a Catholic, Dwight identified, morally and spiritually, with the acquired. Lastly, while the legal definitions and structural logistics have changed throughout the course of Massachusetts' anatomical history, the bodies of its community members have been used educationally since Harvard Medical School's origins in 1782. In order to truly understand the modern relationship between cadaver and society on this continuum, it is integral to articulate the period between the body snatching and the whole-body anatomical gift eras.

Much of the American, and especially Massachusetts, scholarship on anatomy act development relies on the work of Edward Mussey Hartwell (1850–1922) and Federick C. Waite (1870–1956). The scholars' regional and national surveys of anatomy laws and their evolution are foundational to modern historical anatomy scholarship, and were written when legal developments were contemporary to their publications, particularly with Hartwell. Hartwell conducted his work at the beginning of his career⁷ while a fellow at Johns Hopkins University. He delivered a comprehensive paper at the September 9, 1880 American Association of the Social Sciences meeting entitled "The

⁷ At Johns Hopkins, Hartwell became a noted research physiologist and advocate of physical education. In 1891, he left Hopkins to become the Director of Physical Training for the City of Boston and became a well-published theorist of physical education. For more on Hartwell, see Roberta Park, "Edward M. Hartwell and Physical Training at the Johns Hopkins University, 1879–1890," *Journal of Sport History* 14, no. 1 (1987): 108.

Study of Anatomy: Historically and Legally Considered,” later published in 1881.⁸ This pre-Tewksbury and pre-Dwight-Eliot reform paper offered a historical introduction to anatomical science and ended with a comprehensive survey of late-century American anatomy laws. Hartwell defined each state law as “liberal,” “illiberal,” or silent as it pertained of cadaver availability,⁹ and created a framework from which Dwight could consider Massachusetts’ anatomy acts.

In addition to identifying it as liberal, Hartwell placed Massachusetts law at the origins of the legal anatomy movement in the United States and devoted significant copy to the evolution of John Collins Warren and Abel Lawrence Peirson (1794–1853)’s *An act more effectually to protect the sepulchres of the dead, and to legalize the study of anatomy in certain cases*.¹⁰ He published several more papers on American anatomical law and its evolution in the *Boston Medical and Surgical Journal* in late 1880, including a work entitled “The Early American Anatomists, and the legal status of anatomy in Massachusetts before 1880.”¹¹ Perhaps presaging Dwight’s pending effort, Hartwell lamented in his 1880 “Recent American Anatomy Acts” that “It is unfortunate that American anatomists are forced to dance attendance upon public functionaries for ‘permits,’” and “would that [Massachusetts] might inaugurate an administrative form

⁸ Hartwell, *The Study of Anatomy*.

⁹ Hartwell, *The Study of Anatomy*, 33-37.

¹⁰ Hartwell, *The Study of Anatomy*, 16-28.

¹¹ Edward Mussey Hartwell, “The Early American Anatomists, and the Legal Status of Anatomy in Massachusetts before 1800,” *Boston Medical and Surgical Journal* 103, no. 23 (December 1880): 538–541.

which should prevent the present wasteful decomposition of valuable material at the bottom of graves.”¹²

Writing well after the Dwight-Eliot reforms, Frederick C. Waite concentrated on the historical development of New England and Massachusetts anatomy law, including a rich foray into the region’s grave robbing legacy.¹³ In his 1945 “The Development of Anatomical Laws in the States of New England,” Waite divided New England anatomical science into four historical phases.¹⁴ The first phase (1641–1824) pertained to the reliance on the executed for dissection and pointed to the first such recognized colonial provision in the 1641 Massachusetts’ *Body of Liberties* and the first post-colonial legislation in Massachusetts’ 1784 *An Act Against Dueling*. Waite’s second phase (1831–1842) focused on the legal extension onto dead requiring state burial and Massachusetts’ pioneering 1831 Warren and Peirson act. The third phase (1869–1871) was one of deficiency rather than of growth. Waite posited that educational reform at medical schools had increased teaching cadaver need, exposing the insufficient optional surrender system. Waite’s fourth phase (1884–1898) offered a response to the third and marked the rise of mandatory anatomy laws. In this Massachusetts was preceded by Pennsylvania (1883), Vermont (1884), Connecticut (1893), New Hampshire (1897) and Maine (1897).¹⁵ Waite noted the 1898 Massachusetts’ mandatory act, but failed to mention

¹² Edward Mussey Hartwell, “Recent American Anatomy Acts,” *Boston Medical and Surgical Journal* 103, no. 26 (December 1880): 608.

¹³ Frederick C. Waite, “Grave Robbing in New England,” *Bulletin of the Medical Library Association* 33, no. 3 (July 1945): 272–292.

¹⁴ Waite, “The Development of Anatomical,” 716–726.

¹⁵ Waite, “The Development of Anatomical,” 725.

Dwight's legislative efforts despite the direct corollary to the 1831 Warren and Peirson campaign so celebrated by both Waite and Hartwell.

Waite's regional analysis does not place Massachusetts within a national perspective like Hartwell's survey, but Johns Hopkins' anatomist and embryologist George B. Jenkins produced an indirectly complementary national survey to that of Hartwell's in 1913, two years after Dwight's death.¹⁶ Unlike Hartwell and Waite, Jenkins provided no special space for Massachusetts in his surveying of states' attorney generals nor did he provide deep historical background to his contemporary legal environment. Jenkins' report highlighted several specific qualities that the then Massachusetts' anatomy law shared with other states. These included: no former military personnel could be provided to medical schools; relatives and friends could revoke subjects from medical use; no strangers or travelers who died of sudden illness could be surrendered; bodies must be held uncut for three days for potential identification; bond was required for each removed body guaranteeing proper use; bodies could not leave Massachusetts; and dissected remains must be buried after use.¹⁷ Neither Jenkins nor Waite makes special mention of Dwight as the principal actor in changing Massachusetts anatomy law. At present, the Dwight-Eliot campaign is absent from the core narrative.

¹⁶ George B. Jenkins, "The Legal Status of Dissecting," *Anatomical Record* 7, no. 11 (November 1913): 387–399.

¹⁷ Jenkins, "The Legal Status of Dissecting," 387–399. Jenkins did make special favorable mention of the availability of the executed in Massachusetts for dissection, one amongst only three states. He hoped that their potentially immediate use would promote histological investigations

Thomas Dwight and the Anatomy Act of 1898

Despite the 1898 anatomy act being an untold historical narrative, Dwight himself left evidence within his published works that the lobbying effort was necessary and vital. He lionized the 1820's campaign of his maternal grandfather, John Collins Warren (1778-1856), to legalize anatomy in Massachusetts, stating that it "must rank as one of the greatest services which Harvard has rendered to civilization" in a speech he gave at the 1906 opening of Harvard Medical School's new campus.¹⁸ He likely saw himself integral in continuing the work of his much-admired grandfather. Dwight felt strongly about a sanctioned and transparent cadaver supply. In his 1886 article "Anatomy Laws Versus Body-Snatching," he declared that a "body is, as it were, only loaned to science" and must be "decently buried in a cemetery; if possible, in one of the creed of the deceased."¹⁹ In the same passage, he held himself and Harvard unusually accountable, claiming that, "for many years, not a single body has been received by the anatomical department for which I am not ready to give an account."²⁰ In a historical vacuum, Dwight's statements could be dismissed as self-justifying marketing on behalf of a maligned profession. However by combining such statements with what we know of his legislative work, his sentiments become sincere.

Dwight's Massachusetts lobbying and reform actions may have been part of a larger American program. As part of the Association of American Anatomists (AAA) Committee on the Collection and Preservation of Anatomical Material, Dwight reported

¹⁸ Harvard Medical School, *Dedication of the New Buildings of the Harvard Medical School, September Twenty-Fifth and Twenty-Sixth, Nineteen Hundred and Six* (Boston: Faculty of Medicine 1906), 11.

¹⁹ Thomas Dwight, "Anatomy Laws "Versus" Body Snatching," *Forum* 22 (1896): 501-502.

²⁰ Dwight, "Anatomy Laws," 501-502.

at the group's 1895 annual meeting on a survey it conducted on university acquisition and disposition of anatomical material. The results were published with Dwight's AAA presidential address in the September 1896 *Science*.²¹ The Committee had sent a circular letter to anatomy professors in one hundred and seventy-three medical schools and twenty-five medical journals, eventually concluding that the national supply was insufficient. In this same work, Dwight argued a mandatory law would correct this concern. However, he feared that the 1883 Tewksbury almshouse scandal, as an event of public import, stood in his way in Massachusetts. Given the optional cadaver surrender framework, Tewksbury's negative publicity was distressing for the recently appointed anatomy professor. Dwight consistently yet indirectly criticized Governor Benjamin Butler as the scandal's main antagonist and his grandstanding at Harvard's expense. In his 1895 AAA presidential address, Dwight lamented that the, "The cry of outrage on the poor is a sure card in the hand of the political demagogue, especially when it is raised against some honored institution."²² Dwight was most certainly recalling the Tewksbury hearings, and if he was not observing a depressive effect in cadaveric volume from the scandal, he certainly feared the possibly.

Despite being an often-cited example of anatomical malfeasance, the outcomes of the Tewksbury hearings are underexplored. The legislative investigating committee ultimately pronounced Butler's charges unsubstantiated and false, and there was no

²¹ J. E. Mears, J. D. Bryant, and Thomas Dwight, "Report of the Committee on the Collection and Preservation of Anatomical Material," *Science* 3, no. 55 (January 1896): 77–84.

²² Thomas Dwight, "Our Contribution to Civilization and to Science--Presidential Address by Dr. Thomas Dwight, Harvard Medical School," *Science* 3, no. 55 (January 1896): 76.

action taken against Harvard as a body acquirer.²³ In the historical literature, the Tewksbury event is often used as evidence both Benjamin Butler's grandstanding populism and as a well-publicized anatomy scandal. It is difficult to believe that such a public analysis of a charitable institution providing the dead to the Commonwealth's most elite institution of higher learning would not have left its mark but little has been written on this subject. Dwight, however, clearly carried Tewksbury with him into his campaign for a mandatory anatomy act.

Like the Tewksbury almshouse scandal, Dwight himself is a frequently mentioned yet under-analyzed subject. He has recognized scientific importance. His *The Intracranial Circulation* was awarded a first prize by the Boylston Medical Society in 1867²⁴ and Dwight's 1878 *The Identification of the Human Skeleton. A Medico-Legal Study* was similarly recognized by the Massachusetts Medical Society in 1878.²⁵ This later paper is considered the first of its kind in the United States and has provided Dwight with the posthumous title as the "Father of Forensic Anthropology."²⁶ He is credited with starting a program of original scientific anatomical research at Harvard Medical School for the first time in its history and augmenting the collections of the Warren Anatomical

²³ Dominic Hall, "John Collins Warren, Thomas Dwight, and the Development of a Legal and Regular Anatomical Supply Chain in 19th-Century Massachusetts" (paper presented at the annual meeting for the American Association of the History of Medicine, Minneapolis, Minnesota, April 28–May 1, 2016).

²⁴ Thomas Dwight, *The Intracranial Circulation: An Essay to which was Awarded the First Prize of the Boylston Medical Society for 1867* (Cambridge, MA: the author, 1867).

²⁵ Thomas Dwight, *The Identification of the Human Skeleton: A Medico-Legal Study: To which was Awarded the Prize of the Massachusetts Medical Society for 1878* (Boston: D. Clapp, 1878).

²⁶ T. D. Stewart, *Essentials of Forensic Anthropology, Especially as Developed in the United States* (Springfield, IL: Thomas, 1979), xi–xii.

Museum.²⁷ Given Dwight's academic and scientific importance, it is surprising that no in-depth treatment of the anatomist exists. He is often overshadowed in Harvard anatomical history by his Warren ancestors and his immediate predecessor, the poet and anatomist Oliver Wendell Holmes (1809–1894).

The majority of the biographical literature on Dwight is memorials written contemporary with his death and, while all mention his anatomical commitment, few speak of his direct legislative work. Almost all of the short articles present Dwight as an anatomy professor and a devout Catholic, with equally footing given to both. In his eulogizing “An Appreciation of Dr. Dwight,” printed in the December 1911 *Sacred Heart Review*, Thomas Harrington recalled Dwight's accountable dissection room and his revolutionary method of making frozen sections of cadaver. With equal biographical weight, Harrington mentioned that, “[Dwight's] ardent faith was his life” and “militant Catholicism was as real to him as militant patriotism was to his Warren ancestors.”²⁸ In the same *Sacred Heart Review*, John T. Bottomley remembered that Dwight's rosary crucifix dangled out of his pocket during lectures.²⁹ Dwight's first cousin once removed and fellow Harvard anatomist John Warren (1874–1928) gave a similar accounting in his “Thomas Dwight, M.D., L.L.D.,” published in a 1911 *Anatomical Record*, drawing focus to both his anatomical and Catholic works.³⁰ The January 1912 *Boston Medical and*

²⁷ Thomas F. Harrington, *The Harvard Medical School: A History, Narrative and Documentary. 1782–1905*, ed. James Gregory Mumford (New York: Lewis, 1905), 12.

²⁸ Thomas Harrington, “An Appreciation of Dr. Dwight,” *Sacred Heart Review* 47, no. 2 (December 1911), 21.

²⁹ John T. Bottomley, “Dr. Dwight in the Lecture-Room,” *Sacred Heart Review* 47, no. 2 (December 1911), 23.

³⁰ John Warren, “Thomas Dwight, M.D., L.L.D.,” *Anatomical Record* 5 (1911): 531–539.

Surgical Journal offered multiple “Memorials to Dr. Thomas Dwight” mentioning his science, teaching, and Catholicism as equal components of a complex figure.³¹ These missives by those who knew him best all state that Dwight’s faith and profession were inseparable, and while such biographical accounts are complimentary by design, their consistency suggests sincerity in their portrayal.

As forensic anthropology had yet to be recognized, the memorials contemporary to Dwight’s death did not recall him as “the father of forensic anthropology,”³² and as has been mentioned, there have been no substantive additions to the biographical literature on Dwight since these eulogizing accounts. In addition to the under-appreciation of his scientific legacy, Dwight’s modification of Massachusetts anatomy law is virtually unknown. His Catholic legacy, which should include the anatomy act, left more enduring monuments. In 1910, while suffering through terminal cancer, Dwight was chosen as the first president of the Boston Guild of Saint Luke, the Catholic physicians group supported by the Archdiocese of Boston.³³ This guild, the predecessor to the Catholic Medical Association, may have been the first of its kind in the United States.³⁴ Similarly, a student group at Harvard Medical School, called the Dwight Society, was founded by the Boston Guild of Saint Luke’s in 1946 to support Catholic students in their reconciliation of faith and profession. Yet none of these accounts tie Dwight’s religion to the 1898 anatomy law.

³¹ John Collins Warren, “Memorials to Dr. Thomas Dwight,” *Boston Medical and Surgical Journal* 166, no. 1 (1912): 7–11.

³² Stewart, *Essentials of Forensic Anthropology*, xii.

³³ Harrington, “An Appreciation of Dr. Dwight,” 19.

³⁴ Catholic Medical Association, “History,” accessed February 28, 2017, <http://www.cathmed.org/about/history/>.

Dwight enlisted Catholics in the legislature to help pass the bill and he certainly dissected Catholic bodies. In this he saw no crisis of faith or compromise of science, and left a published legacy defining this lack of conflict. His article “Mutations,” published in the April 1905 *Science*, argued that the vast amount of insignificant human variation found in the dissection room countered the purposeful preservation of mutations in the Darwinian sphere.³⁵ In 1908 Dwight delivered an address entitled *The Church and Science* before the American Federation of Catholic Societies, then meeting in Boston, where he proclaimed “what an absurdity to speak of any conflict or dissention between them [science and religion]. ... truth cannot contradict with truth.”³⁶ In “Our Contribution to Civilization and Science,” the Harvard anatomist confidently assured his audience that the thinking that human dissection “might be displeasing to God” was “mistaken.”³⁷ For Dwight, science served faith and did so even in the most visceral and vilified scientific endeavor, that of human anatomy. This study investigates this rationale and its manifestation in a legal code that affected the medical education at Harvard Medical School and the state of Massachusetts.

This thesis explores the biographical narrative of Thomas Dwight in order to explore the circumstances that led him to be the chief architect of Massachusetts’ 1898 *An Act Relative to the Promotion of Anatomical Science*, and the main operator in altering the optional body-surrender provision that long plagued the Massachusetts anatomical community. Moreover, the study illuminates the larger medical culture

³⁵ Thomas Dwight, “Mutations,” *Science* 21, no. 536 (April 1905): 529–532.

³⁶ Papers of Thomas Dwight, 1869-1873 (inclusive), Box 1, Folder 4, Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

³⁷ Dwight, “Our Contribution,” 16.

changes in which Dwight worked, and their influence on the law, particularly the Tewksbury almshouse scandal and the Charles Eliot led reforms at the medical school that promoted scientific research. The unexplored, late-century correspondence between Dwight and Eliot prove they entered into a collaboration to change the anatomy law, and this thesis maps how, why, and with whom the Harvard men were able to achieve their goal. Chapter one explores the Massachusetts anatomical laws that preceded Dwight's and the Tewksbury almshouse scandal, and the impact these events had as precedents and motivations for Dwight's legislative campaign. Chapter two discusses the scientific legacy and education of Thomas Dwight, integral in his quest for greater access to human remains. Chapter three looks at Dwight as a Catholic scientist, and how that pedigree allowed him to push forward with moral and spiritual conviction in his anatomical efforts while enlisting later Catholic support for his 1898 bill. Chapter four discusses the Dwight-Eliot legislative campaign, its framework within the Eliot reform movement at Harvard Medical School, and how Dwight was the unique figure required to align forces to affect needed reform. The thesis concludes with a discussion on the impacts of the 1898 law and how the changes it delivered inform Dwight's scientific legacy. This thesis establishes a new narrative within the often-described aspects of Massachusetts anatomy law history. Dwight was a solution to a problem created by his predecessors and established the framework that allowed the scientist to permanently modify the flow of human remains into Massachusetts medical schools within the pre-whole-body-gift anatomical era.

Chapter I

Tewksbury Almshouse Investigation and the Motivation for Anatomical Reform

The crux of the following investigation is the debate over the words “may” and “shall” and their impact on the legislative language that governed the relationship between the unclaimed dead and the anatomical teaching community in nineteenth-century Massachusetts. The first-in-the-country law that legalized anatomy and inaugurated this complexity was the John Collins Warren, M.D., Abel Lawrence Peirson, M.D., and Massachusetts Medical Society-executed *An Act more effectually to protect the Sepulchres of the Dead and to legalize the study of anatomy in certain cases*.³⁸ This act, signed into law by Governor Levi Lincoln (1782-1868)³⁹ on February 28, 1831,⁴⁰ allowed the licensed Massachusetts physician and medical student “to have in his possession, to use and employ human dead bodies, or the parts thereof for purposes of anatomical inquiry and instruction.”⁴¹ It did not grant medical schools full autonomy to utilize the unclaimed dead, however. Section three of the 1831 act declared “it shall be lawful for the Board of Health, Overseers of the Poor . . . to surrender the dead bodies of

³⁸ General Court of Massachusetts, *Laws of the Commonwealth of Massachusetts, Passed at Several Sessions of the General Court, Beginning May, 1828, and Ending March, 1831* (Boston: Dutton and Wentworth, 1831), 574-576.

³⁹ Levi Lincoln Esq. was a Harvard College graduate who served as governor of Massachusetts from May 25, 1825 to January 1, 1834. In addition to signing the 1831 anatomy act into law, Lincoln addressed the Massachusetts legislature on May 29, 1830 recommending a legislative investigate into anatomy legalization (Edward Mussey Hartwell, *The Study of Anatomy, Historically and Legally Considered* (Boston: Tolman & White, 1881), 76-78.

⁴⁰ General Court of Massachusetts, *Laws of the Commonwealth of Massachusetts*, 576.

⁴¹ General Court of Massachusetts, *Laws of the Commonwealth of Massachusetts*, 575.

such persons . . . as may be required to be buried at the public expense . . . for the advancement of anatomical science.”⁴² While the act legalized body acquisition and anatomical dissection, it did not actually require the public dead to be made available to requesting medical schools. The April 1, 1834 *An Act in addition to “An Act more effectually to protect the Sepulchres of the Dead and to legalize the study of anatomy in certain cases”* made section three’s optionality more explicit. The margin notes stated that the “Board of Health, &c. may surrender to physicians the bodies of persons liable to be buried at the public expense.”⁴³ The “may” entrenched a middle-person and their predilections between the cadaver and the desirous physician.

Despite this optionality, there is little doubt as to what Thomas Dwight thought of the legislation that he credited to his maternal grandfather, John Collins Warren. In his September 25, 1906 address on the laboratory sciences at the dedication of Harvard Medical School’s new campus, Dwight professed that Warren’s work to pass the first anatomy act in the English-speaking world “must rank as one of the greatest services which Harvard has rendered to civilization.”⁴⁴ Dwight believed strongly in the impact that the legal and accessible cadaver had on scientific medical progress, and the ability of that science to alleviate human suffering in the clinic. The new campus in the Boston’s

⁴² General Court of Massachusetts, *Laws of the Commonwealth of Massachusetts*, 574-575.

⁴³ General Court of Massachusetts, *Laws of the Commonwealth of Massachusetts, Laws of the Commonwealth of Massachusetts, Passed at Several Sessions of the General Court, Beginning Jan., 1834, and Ending April, 1836* (Boston: Dutton and Wentworth, 1836), 281.

⁴⁴ Thomas Dwight, “Speaking for the Laboratories,” in *Dedication of the New Buildings of the Harvard Medical School, September Twenty-Fifth and Twenty-Sixth, Nineteen Hundred and Six* (Boston: Faculty of Medicine, 1906), 8.

Longwood neighborhood, referred to as “the great white quadrangle,”⁴⁵ was built to enable and embody this laboratory-augmented health care. Every speaker at the 1906 dedication promoted this association.

The campus architect Charles Allerton Coolidge (1858-1936) referred to the campus as “devoted to medical research and teaching.”⁴⁶ The Harvard Medical School Dean, William Lambert Richardson (1842 – 1932), invoked Harvard University president Charles Eliot in his remarks, calling the campus “the means for a new start for medical education and research in our country.” The comingling of teaching and research continued speaker after speaker. Frederick Cheever Shattuck (1847-1929), the Jackson Professor of Clinical Medicine, rhetorically transformed medical education into scientific endeavor, framing the teaching hospital experience as “truly a laboratory for the relief, cure, and study of the experiments wrought by disease on human beings.”⁴⁷ Dwight similarly espoused this vision, seeing “everywhere the laboratory departments adding more copiously to the knowledge directly applicable to the welfare of our neighbors.”⁴⁸ For Dwight, improved health outcomes and quality teaching were fueled by scientific investigations into the mechanics of the human body. His laboratory research required a consistent cadaver supply in order to meet its potential and he marked the opening of “the great white quadrangle” by celebrating his grandfather’s achievement in anatomy law by design.

⁴⁵ Henry K. Beecher and Mark Altschule, *Medicine at Harvard. The First 300 Years* (Lebanon, NH: University Press of New England, 1977), 173.

⁴⁶ Charles Allerton Coolidge, “Representing the Architects, Announced the Completion of the Buildings,” in *Dedication of*, 6.

⁴⁷ George Cheever Shattuck, “Represented the Clinics,” in *Dedication of* ..., 15.

⁴⁸ Dwight, Thomas, “Speaking,” 10.

Birth of Legalized Anatomy in Massachusetts and Optional Body-Surrender

Dwight's late nineteenth-century efforts to modify Massachusetts body sourcing was a response to Warren's initial legislation and its inadequate cadaver surrender provision. Dwight's 1898 act was impossible without its 1831 predecessor. However, the familial physicians and their respective laws were driven by different procurement environments. Warren's inaugural effort was designed to translate an illegal practice into a legitimate one, while Dwight was augmenting an existing legal framework. Warren, like the majority of his anatomical and surgical peers, was an admitted grave robber. In the 1860 semi-autobiographical *The Life of John Collins Warren, M.D.*, compiled from his letters and journals by his brother Edward Warren, John Collins detailed several stories of illegal body procurement, including a near arrest during a 1796 North Burying Ground exhumation. Outside the graveyard, Warren set up sophisticated extralegal "resurrecting" networks. In 1828, he developed an importation scheme in which a New York City middleman shipped him fourteen to sixteen bodies, mostly likely disinterred, in barrels at twenty-five dollars apiece.⁴⁹ At home, Warren looked for additional teaching remains aboveground and employed extralegal methods for their acquisition as well. In order to obtain the body of a "very remarkable" Native American individual with severe osteomalacia, Warren convinced an undertaker to switch the body with a log inside its coffin.⁵⁰ For Warren, communities needed competent, well-trained physicians and those

⁴⁹ Michael Sappol, *A Traffic of Dead Bodies, Anatomy and Embodied Social Identity in Nineteenth-Century America* (Princeton, New Jersey: Princeton University Press: 2002), 115.

⁵⁰ Edward Warren, *The Life of John Collins Warren, M.D.: Compiled Chiefly from his Autobiography and Journals* (Boston: Ticknor and Fields, 1860), 419.

physicians required quality education through dissection. He was honest and practical about the illegal realities of body acquisition to support this need.

There was nothing unique about Warren's unauthorized efforts, and the subject of grave robbing has been well analyzed within the history of medicine literature.⁵¹ The relationship between the disrupted grave and the medical student was a recognized nineteenth-century reality. In the spring of 1796, Dartmouth College announced the formation of a medical school. The following June, the General Assembly of New Hampshire responded by making grave robbing illegal with penalties including up to a \$1,000 fine, up to a year in prison, and up to thirty-nine lashes from a whip.⁵² The public knew that formal medical school education resulted in disinterred bodies. Neighboring Vermont passed a similar anti-grave robbing law in 1804 either in response to Dartmouth student and faculty border forays or as a reaction to the University of Vermont appointing its own professor of surgery and anatomy, John Pomeroy (1764-1844), that same year.⁵³

The law that the Warrens and Massachusetts' resurrectionists would have been subjected to, if caught and convicted, was passed thirty years after Harvard Medical School's founding. In 1815, Massachusetts passed *An Act to Protect the Sepulchres of the Dead*, which carried roughly the same penalties of its peer New Hampshire law, minus the lashing. It was not the first disinterment law in Massachusetts. The 1692 colonial *An*

⁵¹ Ann Garment, Susan Lederer, Naomi Rogers, and Lisa Boulton, "Let the Dead Teach the Living: The Rise of Body Bequeathal in 20th-Century America," *Academic Medicine* 82, no. 10 (October 2007): 1000.

⁵² Frederick Waite, "Grave Robbing in New England," *Bulletin of the Medical Library Association* 33, no. 3 (July 1945), 274.

⁵³ John W. King, "Dr. John Pomeroy and the College of Medicine at the University of Vermont," *Journal of the History of Medicine and Allied Sciences* 4, No. 4 (Autumn 1949), 398.

Act, Against Conjuraton, Witchcraft, and Dealing with Evil and Wicked Spirits made exhumation for sorcery punishable by death.⁵⁴ This colonial legislation should be read as a witchcraft prevention measure rather than a reaction to medical grave robbing.⁵⁵ The Salem Witch Trials began in 1692 and *An Act, Against Conjuraton* was most likely part of the legislative response to that manufactured crisis.

When Harvard Medical School opened in 1782, there were two legal, yet inadequate, avenues for acquiring teaching remains for Dwight's great-grandfather, John Warren (1753-1815), then the professor of surgery and anatomy. The 1641 *Massachusetts Body of Liberties*, considered one of the earliest legal codes in New England, stated that "the body of any man so put to death be unburied 12 howers, unlesse it be in case of Anatomie"⁵⁶ While the clause is not a definitive promotion of anatomical science, it affirms that the anatomization of executed criminals was legal and a tolerated behavior. The Massachusetts' legal code was more explicit in 1647, allowing the remains of executed criminals to be read and anatomized once every four years for studies in "physick and chirurgery."⁵⁷ In the Harvard Medical School era, the legislature passed the 1784 *An Act Against Dueling*, which permitted medical dissection for killed duelists. More punitively, if a surviving dueler was convicted of murder and was subsequently

⁵⁴ Waite, "Grave Robbing," 273.

⁵⁵ Anatomy in Massachusetts does predate the 1692 statute. Between 1632 and 1647, an Ipswich, Massachusetts physician named Giles Firmin performed a teaching dissection. It is the first known such event in colonial American (Oliver Wendell Holmes, *Medical Essays, 1842-1882* (Boston, New York: Houghton, Mifflin and Company, 1891), 278.

⁵⁶ William Henry Whitmore, *A Bibliographical Sketch of the Laws of the Massachusetts Colony from 1630 to 1686. In which are included the Body of liberties of 1641, and the Records of the Court of Assistants, 1641-1644. Arranged to Accompany the Reprints of the Laws of 1660 and of 1672.* (Boston: Rockwell and Churchill, 1890), 48.

⁵⁷ Frederick C. Waite, "The Development of Anatomical Laws in the States of New England," *New England Journal of Medicine* 233, no. 24 (December 1945), 718.

executed, it was mandated that the body be turned over to the anatomist.⁵⁸ As with the dissection of the executed overall, the anti-dueling measures were mechanisms of criminal deterrence. Anatomization was seen as a discretion of the dead. As an apparent moral equivalent, murdered duelers could also choose to be buried next to public highways with stakes driven into their graves.

Bodies were also acquired by societal ambivalence. John Warren dissected deceased soldiers without familiar relations when he was the Boston Continental Army Hospital's chief surgeon from 1777 to 1783.⁵⁹ In his autobiographical notes, John Collins Warren mentions dissecting paupers during Harvard Medical School's founding period, averaging not more than two a year, despite no specific law legitimizing such activity.⁶⁰ These bodies became available as no one was or would be present to object and they required state burial. Such situations were rare or dependent on unreliable events like war. Moreover, they were not enough and extralegal sources or legal remedies were required. This network of illegal, insufficient legal, and forgotten bodies was untenable and undesirable, and in the 1820s Massachusetts physicians rallied to change this unpleasant reality.

In February 1829, Salem physician and Harvard Medical School graduate Abel Peirson proposed that the Massachusetts Medical Society form a committee to lobby the state legislature to secure an anatomy act in Massachusetts.⁶¹ The Society adopted the proposal and appointed Peirson, John Collins Warren, and Ebenezer Alden (1788-1881)

⁵⁸ Waite, "The Development," 718.

⁵⁹ Warren, *Life of*, 404.

⁶⁰ Warren, *Life of*, 404.

⁶¹ Waite, "The Development," 720.

“to prepare a petition to the legislature to modify the existing laws which operate to forbid the procuring of subjects for anatomical dissection.”⁶² In September of that year, that committee evolved into a larger group, and the Society worked to influence the public and the Massachusetts legislature in its favor. In September 1829, it distributed a circular, in print and in newspapers, out of Salem and most likely authored by Peirson, entitled an “Address to the Community on the Necessity of Legalizing the Study of Anatomy,” which the Society determined “has gone into almost every family in our community, and has been extensively read.”⁶³ The Massachusetts Medical Society actively pursued progressive change in the anatomy laws with this community relations campaign.

By January 1830, a bill had been introduced, but failed. Its legislative committee “did not think it expedient to purpose any alteration of the laws at the present time; because in a community like ours, it is necessary that laws should proceed from and be supported by public opinion.”⁶⁴ This sentiment did not elude the Society. They had directly petitioned the public with the “Address to the Community,” and maintained pressure on the legislature. John Collins Warren, who was then chairman of the Committee of the Massachusetts Medical Society, On Anatomy, and possibly the Society’s most influential presence given his Brahmin and Revolutionary pedigree, gave lectures in the Massachusetts’ House of Representatives on the need of human dissection for physician training. By the spring, the pressure on the public and their representatives

⁶² Hartwell, *The Study of Anatomy*, 21.

⁶³ George Hayward, *Surgical Reports, and Miscellaneous Papers on Medical Subjects* (Boston: Phillips, Sampson and company, 1855), 312.

⁶⁴ Waite, “The Development,” 720.

in Boston produced the desired effect. On February 28, 1831, *An Act more effectually to protect the Sepulchres of the Dead and to legalize the study of anatomy in certain cases* was signed by Governor Lincoln.

This proved the first anatomy act in the United States to move cadaver acquisition away from the executed and the illegally disinterred and onto the state's unclaimed dead. It permitted the optional surrender of individuals being buried at the public expense to be used anatomically within the Commonwealth of Massachusetts. Presented as a grave-protection measure, the act increased the grave robbing penalties to up to two years in jail and 2,000 dollars. Moreover, and perhaps most critically for the physician community, the act specifically stated that medical dissection was legal within Massachusetts. However, the optional surrender provision made for difficult implementation. Despite its legalization, in part passed the Massachusetts Medical Society's community relations campaign, medical dissection, still associated it with criminality, was an undesirable post-mortem outcome. Historically, it was reserved for those who violated society's most sacred laws. Murderers, arsonists, rapists, and duelists were the legally dissected.

Any almshouse or work-farm superintendent had to measure public displeasure against his support for physician education before releasing a cadaver, which was not a favorable risk/reward proposition for the medical community. Medical educators saw state officials as obstacles rather than partners, and this pattern demonstrably motivated Dwight later in the century for further legislative change. Circa 1850, after his retirement, John Collins Warren marked the Boston House of Industry superintendent as a practically problematic collaborator, stating he "opposed great difficulties to the execution of this law; but he dying in 1847 an ample supply was obtained for the medical school

afterwards.” Warren did not give this serendipitous leadership change all the credit, and suggested the “influx of Irish paupers and the great mortality among them” also grew the cadaver supply.⁶⁵ In 1855, Harvard and Massachusetts General Hospital surgeon George Hayward (1791-1863) lamented the law’s failure as “the supply has not been, perhaps, as great as could be wished,” but he too placed hope in the “the increase of population and pauperism.”⁶⁶ However, the increase in population, poverty, and the state dead did not self-remedy the cadaver supply problem. As late as April 1896, Dwight was meeting with the Overseers of Poor to inquire why so many bodies “escape us.”⁶⁷

Despite resistance by the public dead’s caretakers, there was some anecdotal evidence of public’s acceptance of the anatomy act, perhaps thanks of the Massachusetts Medical Society circular. In a November 1831 editorial in the *Boston Medical and Surgical Journal*, Isaac W. Mulliken recounted a tale of dissecting a man in broad daylight and getting his neighbors to help move and bury the anatomized remains. Mulliken declared that “Now, the people are almost unanimously of opinion (at least in this region) that the law of last winter is a judicious and good one, and seasonably enacted.”⁶⁸ Anecdotes do not make a pattern of universal public acceptance, and the superintendents acted as expected, restricting access and creating an unreliable teaching supply. In his 1880 review of the American anatomy landscape, “Recent American

⁶⁵ Warren, *Life of*, 411.

⁶⁶ Hayward, *Surgical Reports*, 309.

⁶⁷ Thomas Dwight to Charles Eliot, 7 April 1896, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

⁶⁸ Isaac Mulliken, “Popular Feeling Respecting the Anatomy Law,” *Boston Medical and Surgical Journal* 5, no. 12 (1831): 190-191.

Anatomy Acts,” Edward Mussey Hartwell mused that “It is unfortunate that American anatomists are forced to dance attendance upon public functionaries for ‘permits,’” and, offering a local solution, “would that [Massachusetts] might inaugurate an administrative form which should prevent the present wasteful decomposition of valuable material at the bottom of graves.”⁶⁹ Hartwell’s paper was a clear call to action to modify existing law, one in which Dwight was quite familiar, as he cited the historian’s argument in his own work.⁷⁰

The Tewksbury Almshouse Investigation

Thomas Dwight recognized the problem of the public official, and believed that with nothing to gain and everything to lose, these cadaveric middlemen were strongly influenced by public perception, often excited by politicians. In his 1896 “Anatomy Laws “Versus” Body-Snatching,” Dwight cautioned that “Many officials live in a state of terror of the demagogue, which is truly pitiful; for the cry of desecration of the bodies of the poor is one of the tricks of his trade, and officials may well hesitate to involve themselves in difficulties for the sake of what is to them an abstract question.”⁷¹ This representative of the Massachusetts state was not a hypothetical bogeyman. Dwight was obliquely referring to the 1883 Tewksbury almshouse scandal that threatened the cadaver supply in the same year he became Harvard’s Parkman Professor Anatomy. The “demagogue” was equally specific. For Dwight, one-term populist governor, Benjamin Franklin Butler

⁶⁹ Hartwell, *The Study of Anatomy*, 30.

⁷⁰ Thomas Dwight, “Anatomy Laws “versus” Body Snatching,” *Forum* 22, (1896), 493.

⁷¹ Dwight, “Anatomy Laws,” 500.

(1818-1893), who publically admonished the almshouse for mismanagement and for providing teaching cadavers to medical schools, was a significant regressive force on medical progress.

On April 30, 1852, a Massachusetts legislative special committee recommended that almshouses be created in Tewksbury, Bridgewater, and Monson in response to increasing immigration-related pauperism and appropriated \$100,000 to see the plan through.⁷² The almshouse at Tewksbury was open for inmates on May 1, 1854, and proved an instant necessity.⁷³ By the end of the first week, the population had risen to six hundred and sixty-eight admitted residents and to eight hundred individuals by the end of its first month in operation.⁷⁴ The institution responded to the growing community of foreign national homeless. By the end of 1854, the resident population was 2,139, of whom eight hundred and forty-seven were born in Ireland.⁷⁵ The state almshouse at Tewksbury was almost tailor-fit to meet the needs of the 1831 anatomy act and the cadaver requirements of Harvard Medical School.

The Tewksbury almshouse was not the only state-owned human management settlement within reach of the Boston physician community and its cadaver needs. There had been a Boston almshouse since 1725, versions of a sanitarium on Rainsford Island had been in operation since 1737, and the House of Industry had been established in Boston since 1788. The mid-nineteenth century saw a growth in state housing for the sick

⁷² The State Infirmery of Tewksbury, *A Short History* (Boston: 1920), 1.

⁷³ The State Infirmery of Tewksbury, *A Short History*, 1.

⁷⁴ State Almshouse of Tewksbury, *Annual Report of the Inspectors of the State Almshouse at Tewksbury* (Boston: William White, 1854), 3.

⁷⁵ State Almshouse of Tewksbury, *Annual Report of the Inspectors*, 5-6.

and indigent. In addition to Tewksbury, the state established sister institutions. The Worcester Insane Asylum (1833), the State Lunatic Hospital at Taunton (1854), the Monson almshouse (1854), the Bridgewater Almshouse for Paupers (1855), the Northampton State Hospital (1856), and the Westborough Insane Hospital (1886) were all more or less contemporary with the institution in Tewksbury.

All of these agencies were potential cadaver source institutions under the 1834 *An act in addition to "An act more effectually to protect the sepulchres of the dead, and to legalize the study of anatomy in certain cases,"* which allowed the optional surrender of bodies "require to be buried at the public expense."⁷⁶ However, with its large resident population and general proximately to the Boston medical schools (approximately twenty-five miles), Tewksbury was an excellent and known cadaver supplier. Moreover, the almshouse had a relatively favorable death rate. One hundred and sixty-one of its residents died in the opening year of 1854 or seven-and-a-half percent of its population at the time, mostly from infectious disease like tuberculosis and cholera.

In part because of that death rate, the Tewksbury almshouse was repeatedly investigated by the state for administrative mismanagement. The first significant complaint that lodged within the public consciousness was delivered in 1876 by F. B. Sanborn (1831-1917), then chairman of the State Board of Charities. Sanborn recommended to Massachusetts Governor Alexander Hamilton Rice (1818 -1895) that the long-term Tewksbury superintendent Thomas J. Marsh and his immediate family

⁷⁶ General Court of Massachusetts, *Acts and resolves passed by the General Court of Massachusetts* (Boston: White & Potter, 1834) 280-281.

members be relieved from their employment, without immediate success.⁷⁷ In 1873, during a state inspection, the Board of State Charities recorded poor sanitary conditions and ventilation in Tewksbury's foundling (motherless infants) unit. While those conditions were being slowly addressed, the Board was alerted to another problematic condition in 1874. Mentally-ill women were being isolated as punishment, and by May and June of 1875, a high mortality rate was reported in those residents.⁷⁸ Finally, the Board alerted the Legislature that overall discipline at Tewksbury was lacking, and the diffuse accountability within the six Marsh family members employed at the almshouse might be the root cause. As evidence, the Board pointed to several illegitimate children born out of unsanctioned sexual relationships between inmates.⁷⁹ These investigations initiated Tewksbury's problematic reputation, which Butler resurrected and profited from in his 1883 campaign, particularly in regards to Marsh nepotism and high infant mortality. It is worth noting, however, that when the 1876 *Annual Report of the Board of State Charities* enumerated the charges against Tewksbury, it never mentioned any exploitation of the unclaimed dead. If this was of a concern, it did not reach to the level of enthusiasm that Butler later applied to it, suggesting he was the missing ingredient for Tewksbury's most memorable public shortcoming.

⁷⁷ *Newspaper Clippings Relating to the Charges of Mismanagement of the State almshouse at Tewksbury*, Volume 2 (1883-1887), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School, 9. Sanborn was a Concord transcendentalist, newspaper reporter for the *Springfield Republican*, and an invested reformer of Massachusetts public charities, serving from 1879 to 1888 as the General Inspector of Charities. (The Concord Public Library, "Franklin Benjamin Sanborn Papers, 1845-1936 (bulk 1845-1905)," accessed on October 10, 2017, https://concordlibrary.org/special-collections/fin_aids/F_B_Sanborn).

⁷⁸ Board of State Charities of Massachusetts, *Thirteenth Annual Report of the Board of State Charities of Massachusetts to Which are Added Reports from its Departments* (Boston: Albert J. Wright, 1877), 13-15.

⁷⁹ Board of State Charities of Massachusetts, *Thirteenth Annual Report*, 16.

Certainty a byproduct of the 1876 legislative investigation of Tewksbury, Chapter 291 of the 1879 *Acts and Resolves of Massachusetts* placed the Board of Charities in an oversight role over the almshouse, without completely superseding the authority of its Board of Trustees and superintendent.⁸⁰ For Butler, the Board of Charities became the governmental agency on which he framed the Tewksbury abuses in his populist investigation. Undeterred by the Board reforms prompted by the 1876 investigation, Butler maximized the political mileage of Tewksbury. He made the abuses part of his failed campaign for governor in 1878 as an independent, his successful Democratic campaign for governor in 1882, and his inauguration speech in January 1883.⁸¹ Once in the governor's office, Butler fulfilled his campaign promise and launched a full-throated, public crusade against the almshouse, in which he was the chief complainant.

The Tewksbury almshouse investigation of 1883 was a political affair, one that had far reaching consequences for the charity and medical communities. Amongst the politics, it is difficult to untangle Tewksbury's abuses and the truth may be rest in-between the salacious charges of the Democrat Butler and the Republican-majority Board of Charities' pragmatic, yet incomplete reforms. The then chairman of Board of Charities was Republican Thomas Talbot (1818-1885), who was twice a governor of Massachusetts.⁸² Former U.S. Attorney General Ebenezer R. Hoar (1816-1895) and his younger brother Massachusetts U.S. Senator George F. Hoar (1826-1904) were well-used stand-ins for both Massachusetts' Republicanism and anti-Butlerism in press accounts.

⁸⁰ *Newspaper Clippings*, Volume II, Harvard Medical Library, 11.

⁸¹ *Newspaper Clippings*, Volume II, Harvard Medical Library, 18.

⁸² Talbot may have been sympathetic to Butler's arguments regarding cadaver access at Tewksbury. In 1879, he vetoed an expansion of the Massachusetts' anatomy act that would have sanctioned mandatory cadaver surrender. (*Newspaper Clippings*, Harvard Medical Library, 9.)

The August 1, 1883 cover of *Puck* magazine depicted George Hoar trying to unsuccessfully paint over the Tewksbury scandal over the headline, “The whitewash is too thin.”⁸³

These politics were personal as well as ideological. Ebenezer Hoar and Benjamin Butler successfully thwarted one another’s Republican Party political aspirations multiple times. Hoar rallied votes against Butler’s gubernatorial nominations in 1871 and 1873, and Butler thoroughly beat Hoar in their race for a House of Representative seat in 1876.⁸⁴ This animosity helps explain why Butler was so keen to sully Harvard’s reputation in his 1883 investigation. Hoar served intermittently as an Overseer of Harvard College and as a member of its Corporation Board between 1857 and 1887, and was president of that Board during the Tewksbury event. Butler certainly believed Hoar punished him through Harvard, and claimed in his autobiography that the college broke its tradition of awarding Massachusetts governors an L.L.D. to reprimand Butler for his attacks on Harvard through Tewksbury.⁸⁵

While the dramatics of middle-to-late nineteenth-century intra-Republican party politics fueled the Tewksbury almshouse investigation, there were indeed substantive charges. The governor claimed that certain foodstuffs purchased for the inmates like butter and coffee went instead to almshouse officers and their families, and that up to sixty-to-seventy percent of Massachusetts’ government appropriations to the almshouse

⁸³ Disability History Museum, “The Whitewash is too thin,” accessed on October 20, 2017, <http://www.disabilitymuseum.org/dhm/lib/detail.html?id=3267>.

⁸⁴ Moorefield Storey, *Ebenezer Rockwood Hoar: A Memoir* (Boston: Houghton Mifflin Company, 1911) 228, 235, 252-255.

⁸⁵ Benjamin F. Butler, *Autobiography and Personal Reminiscences of Major-General Benj. F. Butler: Butler's Book: A Review of his Legal, Political, and Military career* (Boston: A.M. Thayer & Co., 1892), 976.

went to these same individuals' salaries.⁸⁶ Butler argued that vendor and supply contracts were designed to benefit almshouse trustees.⁸⁷ He reiterated the discipline concerns formerly articulated by the Board of Charities. In his testimony and questioning, Butler outlined a sophisticated scheme to steal and sell the inmates' clothing.⁸⁸ Of all these shortcomings and abuses, the governor placed the blame firmly at the feet of superintendent Thomas Marsh and lobbied for his removal.

However, these administrative concerns did nothing concrete to threatened Harvard's cadaver supply nor would they have resulted in Dwight's later illustrations of the demagogue turning the public against anatomical teaching. Butler reserved special attention to the body sourcing- relationship between Harvard and Tewksbury in his questioning and testimony and those horrific details left little to public's imagination. Butler's most potent charge regarded the high infant-mortality rate at Tewksbury and its alleged corollary impact on the large number of dissected infant bodies that Harvard was accused of harboring. To substantiate these charges, Butler relied on the subpoenaed testimony of Harvard physician John Dixwell (1848-1931), who Butler said identified himself as an "enthusiastic student of anatomy" while at Harvard Medical School from 1869 to 1873.⁸⁹ So much relied on Dixwell's testimony that the defense, led by Tewksbury attorney Edward P. Brown (1840-1909), spent significant time classifying the

⁸⁶ *Newspaper Clippings*, Volume II, *Harvard Medical Library*, 36.

⁸⁷ *Newspaper Clippings*, Volume II, *Harvard Medical Library*, 36.

⁸⁸ Benjamin Butler, *Argument before the Tewksbury Investigation Committee* (Boston: Democratic Central Committee, 1883), 10-14.

⁸⁹ Butler, *Argument before*, 36. Further proof exists regarding Dixwell's claims of his anatomical enthusiasm. Through at least two donations in 1872 and 1877, Dixwell donated at least ten anatomical preparations to Harvard's Warren Anatomical Museum, including a fetal skeleton and a human skull. (*Museum Database*, Warren Anatomical Museum in the Francis A. Countway Library of Medicine.)

physician as unreliable and unstable.⁹⁰ Butler was forced to spend similar time producing witnesses to bolster Dixwell's reputation.⁹¹

This characterization of Dixwell as a liar devolved from the questionable veracity of his principal claim that the almshouse provided hundreds of dead infants for Harvard dissectors, which withered under the intense scrutiny of the investigation. Dixwell testified that he and other students acquired one hundred and fifty to two hundred infant bodies from the steward in charge of the Harvard Medical School "dead house" for three to five dollars apiece, and that these bodies came from Tewksbury.⁹² In his testimony, Dixwell intimated that this infant dissection was extra-curricular to his Harvard anatomical instruction, but for Butler, that nuance mattered little and the school was still culpable. Butler also secured testimony from two other men that reported bodies in Harvard storage "piled up like cordwood, higgledy-piggledy, the dead infants between the adults' legs."⁹³ Obviously, for an anatomist like Dwight, concerned with how public perception impacted superintendents' willingness to surrender remains, such declarations, whether true or not, were damaging. It was doubly problematic that the charges were laid at the medical school's front door and tied to a major cadaver source in Tewksbury.

⁹⁰ Massachusetts General Court. House of Representatives, *Argument of Edward P. Brown before the Committee on Public Charitable Institutions, in the Matter of Mismanagement of the State Almshouse at Tewksbury*. (Boston: Wright & Potter, 1883), xiv-xv.

⁹¹ Massachusetts General Court. Committee on Public Charitable Institutions, *Report of Hearings before the Joint Standing Committee on Public Charitable Institutions under the Order for Said Committee to Investigate the Management, Control, and Condition of the Public Charitable Institutions, and the Special Charges of the Mismanagement of the State Almshouse at Tewksbury*, Volume 2 (Boston: 1883), 2928-2929.

⁹² Butler, *Argument before*, 35.

⁹³ Butler, *Argument before*, 35

Harvard Medical School rallied to defend itself. On May 14, 1883, Charles Burnham Porter (1840-1909), who was the School's anatomy demonstrator when Dixwell was a student and responsible for stocking the dissection laboratory, testified that no infant bodies were acquired by the medical school nor were any brought into the dissection room during Dixwell's tenure. Porter further testified that he was not aware of Harvard providing infant bodies for private dissection, through the steward or otherwise.⁹⁴

Harvard Medical School obstetrics professor and future dean William Lambert Richardson (1842-1932) declared that there were no infants in the anatomy department outside of the museum's teratological specimens. Anatomy professor and specimen preparator Richard Manning Hodges (1827-1896) supported Porter's and Richardson's assertions,⁹⁵ and Dr. John Foster Bush, Dixwell's former Harvard Medical School classmate and occasional dissecting companion, also denied seeing infant bodies in the anatomy laboratory.⁹⁶ The collective weight of these established Harvard medical men provided an effective counter argument to the accusations of Dixwell, and cast sufficient doubt on Butler's claims of Tewksbury infants being dissected at Harvard.

Dixwell's testimony was further burdened by problematic logic. His claims regarding infant bodies were spectacular, which while providing potency for Butler's accusations, set a high-bar for believability. Dixwell claimed that he saw between one hundred and fifty and two hundred Tewksbury infant bodies during his time at Harvard Medical School and that he personally dissected fifty to sixty of them a year. According

⁹⁴ *Newspaper Clippings*, Volume II, Harvard Medical Library, 40.

⁹⁵ Massachusetts General Court. House of Representatives, *Argument of Edward P. Brown*, xiii.

⁹⁶ Massachusetts General Court. House of Representatives, *Argument of Edward P. Brown*, xiii.

to a Republican Party pamphlet critical of Butler, the almshouse reported that during 1870, 1871, and 1872 (the final three years of Dixwell's Harvard tenure) forty-four, thirty, and sixty-six infants died each year, respectively.⁹⁷ Reconciling the numbers of Tewksbury infant dead with Dixwell's dissection estimates suggested that essentially every unclaimed dead infant at Tewksbury was sent to Harvard Medical School and that Dixwell was their exclusive dissector.

Further complicating the impact of Butler's accusations, in October 1879, the Tewksbury trustees ceased taking in motherless infants,⁹⁸ and in March 1880, the state legislature passed an act placing these foundlings in private homes.⁹⁹ The frequent death of the motherless at Tewksbury was no longer a substantial issue by 1883. The Dixwell narrative was difficult to superimpose on the almshouse in light of these reform efforts. Infants dying post-October 1879 would have been with their mothers and, even accounting for the superintendent and inmate power differential, it is near impossible to believe that fifty to sixty of such individuals would have been available. However, the dissected infant narrative and its indictment of the Republican state was too tempting for Butler in his efforts to motivate Massachusetts' underprivileged, regardless of the reality. Such claims, veracity notwithstanding, made Thomas Dwight nervous. The surrender of unclaimed adults to anatomists was already difficult to defend to the Massachusetts' public, and salacious, well-publicized concerns like baby dissecting gave institutions little

⁹⁷ *The Record of Benjamin F. Butler since His Election as Governor of Massachusetts*, (Boston: [s.n.], 1883), 12.

⁹⁸ *Newspaper Clippings Relating to the Charges of Mismanagement of the State almshouse at Tewksbury*, Volume 1 (1883-1887), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School, 12.

⁹⁹ General Court of Massachusetts, *Acts and Resolves Passed by the General Court of Massachusetts in the Year 1880* (Boston: Rand, Avery, & Co., 1880), 96.

incentive to cooperate with Harvard. Butler, however, was evidently not concerned with medical education in Massachusetts and pushed the public atrocity fulcrum further. In court arguments and through witnesses, he offered six examples of human skin tanning tied to Harvard Medical School and Tewksbury. The most explosive specimens were a slipper made from a woman's breast and the tattooed skin of a C. J. Eklund, who died in the almshouse in August 1879.¹⁰⁰ He physically produced both during his July 15, 1883 speech before the legislature's Tewksbury Investigation Committee.¹⁰¹ Butler relied on the tanned skin as influential evidence. Four out of the eight engravings in the published version of his 1883 testimony, *Argument before the Tewksbury Investigation Committee*, were of tanned skin.¹⁰²

Despite their powerful visceral impact, the tanned skin, like the dead infants, did not overwhelm the almshouse defense. Tewksbury lawyer Brown rebutted Butler's skin evidence in his own July 13, 1883 argument before the committee, stating that the specimens were not directly tied to the almshouse and that any human tissue taken from the Harvard laboratories was tanned clandestinely by students, without knowledge of the staff and faculty.¹⁰³ The legality and acceptableness of human skin specimens was an issue of context and audience. The Warren Anatomical Museum, within the same Harvard Medical School anatomy department as the dissection laboratory, had a "Skin and Appendages" section that exhibited the "Skin of an adult male, dissected from the umbilicus to the knees" and the "skin of the face of child, minutely injected, and

¹⁰⁰ Butler, *Argument before*, 37-38.

¹⁰¹ Butler, *Argument before*, 37-38.

¹⁰² Butler, *Argument before*.

¹⁰³ Massachusetts General Court. House of Representatives, *Argument of Edward P. Brown*, x-xii.

dissected off, in the form of a mask.”¹⁰⁴ Such specimen making was a sanctioned and accepted activity at the medical school and published publically in the catalogue of the museum. While publically damaging, the tanned skin did not push the legislative committee towards Butler’s ultimate conclusions.

While it is difficult to ascertain the truth of Tewksbury investigation given the inquest’s politics, Butler certainly cast Harvard’s Department of Anatomy and its interactions with Massachusetts’ anatomy law in a negative light. The governor referred to anatomical education as the “so-called interests of science,”¹⁰⁵ and rallied the socio-economically vulnerable against Harvard anatomists decrying that “paupers’ skins . . . are tanned now for the slippers of the aristocrats.”¹⁰⁶ He targeted veterans and the foreign-born citizens by ridiculing the privileged who “stayed at home . . . and skinned paupers, while these foreigners so much sneered at were fighting our battles.”¹⁰⁷ Whether solely for political effect or not, Butler seemed to despise the dissection of the unclaimed poor, and the 1831/1834 anatomy act itself. In his 1883 published *Arguments*, all eight of the woodcuts focused on the abuse of the dead at Tewksbury, depicting tanned human skin, grave robbing, bodies stacked for dissection, and vermin eating human remains. None of the administrative challenges or abuses of the Marsh family was so illustrated.

Despite Butler’s objection to the practice of dissection and his politicizing of the Tewksbury almshouse as a conduit for teaching remains, the legislature’s investigative

¹⁰⁴ J. B. S. Jackson, *A Descriptive Catalogue of the Warren Anatomical Museum* (Boston: A. Williams and Company, 1870), 49.

¹⁰⁵ Butler, *Argument before*, 34.

¹⁰⁶ Butler, *Argument before*, 38.

¹⁰⁷ Butler, *Argument before*, 39.

committee did not bring charges against Harvard and its anatomical practices. F. B. Sanborn, as Inspector of Public Charities, determined that in providing bodies to Harvard the almshouse was only complying with the 1831/1834 law.¹⁰⁸ The State Board of Health, Lunacy, and Charity made a similar determination in the 1883 almshouse *Annual Report*, stating that the providing of dead to medical schools “was in conformity with law.”¹⁰⁹

Outside of the body-related concerns, many of the other charges leveled at the almshouse by Governor Butler were refuted by charity board member Clara T. Leonard’s 1883 inspection report to the State Board of Health, Lunacy, and Charity,¹¹⁰ and the investigation proved more political theater than practical reform effort. That is not to say that it was without impact at Tewksbury or Harvard Medical School. The much-maligned superintendent Thomas Marsh and his relatives lost their positions and were replaced by a physician, C. Irving Fisher. Food for the sick was improved and regulated by medical recommendation. Efforts were made for stricter inmate discipline¹¹¹ and able-bodied inmates were required to work.¹¹² The governance was changed. In April 1883, the Board of Health, Lunacy, and Charity was codified as the supervising agency over the almshouse trustees – a role they continued until the legislature established a new state

¹⁰⁸ *Newspaper Clippings*, Volume 2, Harvard Medical Library, 27.

¹⁰⁹ State Almshouse at Tewksbury, *Thirtieth Annual Report of the Trustees of the State Almshouse at Tewksbury* (Boston: Wright & Potter, 1883), 5.

¹¹⁰ Clara T. Leonard, *The Present Condition of Tewksbury* (Boston: Franklin Press, 1883).

¹¹¹ State Almshouse at Tewksbury, *Thirtieth Annual Report*, 10.

¹¹² “The State Almshouse at Tewksbury,” *The Boston Medical and Surgical Journal* 109, No. 18 (1883), 428.

almshouse board of trustees in 1884¹¹³ Perhaps most critically, the Tewksbury investigation did not yield the desired results for Benjamin Butler. He lost the election of 1884 and the governorship returned to Republican hands in the form of George Dexter Robinson (1834-1896).

The investigation did impact Tewksbury's unclaimed dead and their relation to the 1831/1834 anatomy act, but the almshouse reformed and improved their compliance with the anatomy act rather than hiding behind its optional surrender provision. Harvard's new Parkman Professor of Anatomy may have directly influenced this reform. In July 1884, when Governor Robinson appointed five men and two women to oversee the state almshouse, Thomas Dwight, M.D. was made a trustee. Change was occurring prior to Dwight's involvement, however, further suggesting that the almshouse never intended to cease supplying Harvard dissectors. An 1883 *Boston Society for Medical Improvement* article highlighted a series of new body acquisition policies at Tewksbury, including the return and burial of dissected remains to the almshouse cemetery.¹¹⁴ During state management, the new superintendent Fisher surveyed the cemetery and each of the buried was given an iron marker indicating an identifying number and whether they were a child or an adult. Each grave was logged in the institutional records.¹¹⁵ Moreover, in 1883, during the investigation, a Massachusetts special committee chaired by Henry Pickering Walcott (1838-1932) made recommendations for better ethical compliance with state anatomy law. The committee suggested that a new dead house be constructed

¹¹³ Massachusetts General Court, *Acts and Resolves Passed by the General Court of Massachusetts in the Year 1884* (Boston: Wright & Potter Printing Co, 1884), 273-275.

¹¹⁴ "The State Almshouse at Tewksbury," 428.

¹¹⁵ State Almshouse at Tewksbury, *Thirtieth Annual Report*, 12.

to enable longer on-site preservation, that bodies be given directly to agents from the requesting medical schools, and that remains be returned after use for burial at Tewksbury. Six of the seven Board members endorsed the recommendations, with the one dissent believing all the dead should be buried immediately.¹¹⁶

Dwight's impact as a trustee may have occurred on a practical level as the almshouse worked towards a more ethical and efficient burial and dissection program. The recommended dead house with cold storage was built in 1884.¹¹⁷ In 1885, a new series of "Rules and Regulations" were approved by the State Board of Health, Lunacy, and Charity to manage the Tewksbury relationship with dissectors. Of these new regulations, the trustees reported that this new policy allowed "the demands of science and the rights of the dead to respectful treatment and decent burial are now both protected."¹¹⁸ This deference to scientific investigation would have received a hearty endorsement from Professor Dwight. However, there was evidence that the almshouse took their role as a responsible provider of the dead seriously, well beyond a reactionary stance to Butler's accusations. In April 1884, the State Board, the trustees not yet back in control, voted to suspend the ability of the Boston College of Physicians and Surgeons to acquire the dead for anatomical teaching. The State Detective Force brought a complaint against College student William Greeley for "improper use and treatment of a head of a human body."¹¹⁹ The suspension was based on concerns that this act could "outrage

¹¹⁶ State Board of Health, Lunacy, and Charities, *Fifth Annual Report of the State Board of Health, Lunacy, and Charities of Massachusetts* (Boston: Wright & Potter, 1884), xlvi.

¹¹⁷ State Almshouse at Tewksbury, *Thirtieth Annual Report*, 10.

¹¹⁸ State Almshouse at Tewksbury, *Thirty-Second Annual Report of the Trustees of the State Almshouse at Tewksbury* (Boston: Wright & Potter, 1885), 6-7.

¹¹⁹ State Board of Health, Lunacy, and Charities, *Fifth Annual Report*, xxvii.

public feeling.”¹²⁰ This language mirrors that of the 1831/1834 anatomy act, suggesting, along with the adoption of the “New Rules and Regulations,” that the Board was making an effort to comply with the anatomy act while continuing to respect the dead.

The Butler investigation did not stop the state almshouse from providing the dead to Harvard Medical School dissectors, and in some sense, through reform, brought the practice into an ethical, administrative space that was easier to defend to the public. Despite this, Thomas Dwight was concerned of the long-term effect of Butler’s haranguing on dissected babies and human skin slippers. The Massachusetts medical establishment was also concerned. A *Boston Medical and Surgical Journal* article in 1883, while discussing the lack of evidence to Butler’s claims, remarked that the state’s charities should not be the “playthings for politicians and much less demagogues.”¹²¹ Dwight himself noted that the medical school felt a shame from the charges that Butler laid against them. He stated that Butler worked “to arouse popular prejudice against dissection and the Harvard Medical School” with some success as “the dominant party in the Medical School, with short sighted timidity, looked upon dissection as something to apologize for, instead of to glory in.”¹²²

Dwight never forgot the accusations of Benjamin Butler, and the 1883 Tewksbury almshouse scandal, as an event of public import, precipitated and crystallized his active response to change Massachusetts anatomy law. Given the optional cadaver surrender framework, Tewksbury’s negative publicity was distressing to the new Harvard anatomy

¹²⁰ State Board of Health, Lunacy, and Charities, *Fifth Annual Report*, xxvii.

¹²¹ “The State Almshouse at Tewksbury,” 428.

¹²² Thomas Dwight, “Reminiscences of Dr. Holmes as Professor of Anatomy,” *Scribner’s Magazine* (January 1895) 126.

professor and Dwight consistently criticized Governor Butler's grandstanding at Harvard's expense as the century wore on. As mentioned previously, in his 1896 *Anatomy Laws Versus Body-Snatching*, Dwight cautioned that "Many officials live in a state of terror of the demagogue, which is truly pitiful; for the cry of desecration of the bodies of the poor is one of the tricks of his trade."¹²³ Similarly, in his 1895 address as president of the Association of American Anatomists, Dwight lamented that the, "The cry of outrage on the poor is a sure card in the hand of the political demagogue, especially when it is raised against some honored institution."¹²⁴ Dwight was recalling the Tewksbury hearings in both references and if he was not observing a depressive effect from the scandal in terms of cadaver volume, he certainly feared it as a possibility.

Starting in 1831, the anatomy infrastructure in Massachusetts began a long evolution toward a natural conclusion at the end of the century. Despite being one of the few states in the country that attempted to realistically meet the cadaver needs of its respective medical schools, the provisions of optional surrender created too vulnerable an environment for a teaching method that the public found odious. Butler's approach to Tewksbury proved how easily a politician could capitalize on the difficult to defend practice of dissection, especially when trying to rally the under-privileged. The poor pauper dying without relations in a state almshouse was an excellent symbolic stand-in for the disenfranchised poor, the commodification of the dissected being apt metaphor for the heavily worked immigrant. While the Almshouse and Harvard Medical School survived the Tewksbury investigation, Thomas Dwight saw the power and threat in future

¹²³ Dwight, "Anatomy Laws," 500.

¹²⁴ Thomas Dwight, "Our Contribution to Civilization and to Science--Presidential Address by Dr. Thomas Dwight, Harvard Medical School," *Science* 3, no. 55 (January 1896): 76.

Benjamin Butlers, especially ones who might last more than one legislative year. Further, the investigation highlighted the power of reform and bureaucratic adjustment. Rather than ceasing to provide bodies, the almshouse improved the ethics and efficiency of its compliance with the 1831/1834 act. The scandal both offered the ultimate threat and the administrative path forward. All that path forward required now was the catalyst of a driven individual in Thomas Dwight.

Chapter II

Thomas Dwight: Anatomist and Professor

Like the Tewksbury almshouse scandal, Thomas Dwight is a frequently mentioned yet under-analyzed historical subject. However, for the purposes of this account, the devout Catholic, exacting anatomical scientist, and member of a Boston Brahmin family¹²⁵ proved the necessary composite and catalyst to provoke legislative change around body sourcing in 1898. Dwight had exemplary scientific credentials. His *The Intracranial Circulation* was awarded a first prize by the Boylston Medical Society in 1867¹²⁶ and his 1881 *Frozen Sections of a Child; Fifteen Drawings from Nature*¹²⁷ was described as “a model in its line, and could hardly be surpassed in excellence typographical as well as anatomical” in a contemporary *The Chicago Medical Journal and Examiner* review.¹²⁸

Dwight is generally accepted as the “father of American forensic anthropology, and his 1878 *The Identification of Human Skeleton, A Medicolegal Study* is considered

¹²⁵ Dwight was the grandson of John Collins Warren, who is often credited with performing the first anesthesia assisted surgery, and was the great-grandson John Warren, principal founder of Harvard Medical School. The Warren family has been in eastern Massachusetts since 1630. (John Collins Warren, *Genealogy of Warren: With some Historical Sketches* (Boston: J. Wilson and Son, 1854).

¹²⁶ Thomas Dwight, *The Intracranial Circulation: An Essay to which was Awarded the First Prize of the Boylston Medical Society for 1867* (Cambridge Mass: Thomas Dwight, 1867).

¹²⁷ Thomas Dwight, *Frozen Sections of a Child* (New York: W. Wood, 1881).

¹²⁸ H. D. V., “Reviews. Article XIV,” *The Chicago Medical Journal and Examiner* 45 (October 1882): 406.

the first tract of its kind.¹²⁹ He impacted general American topographical anatomical teaching, writing the skeleton, gastro-pulmonary, and accessory organs of nutrition sections for the 1907 George A. Piersol edited *Human Anatomy, Including Structure and Development and Practical Considerations*,¹³⁰ which was lauded as “the first complete text-book of human anatomy of any considerable importance written and produced in this country entirely by American authors.”¹³¹ It continued through nine English-language editions. At his 1911 death, the *Journal of the American Medical Association* described Dwight as “one of the foremost anatomists of America.”¹³²

This anatomical scholarship elevated the scientific rigor and reputation of Harvard Medical School’s anatomy department. Under Dwight’s leadership as the Parkman Professor of Anatomy, the department enjoyed its peak curriculum status.¹³³ In his commemorative 1906 *The Harvard Medical School, 1782-1906*, Harold Ernst, who was the Professor of Bacteriology contemporary with Dwight, referred to the course year of 1897-1898 as the “high-water mark of anatomical instruction” in terms of total student time.¹³⁴ That year Dwight lectured first-year students up to four times a week from the

¹²⁹ Thomas Dwight, *The Identification of the Human Skeleton: A Medico-Legal Study: to which was Awarded the Prize of the Massachusetts Medical Society for 1878*, (Boston: D. Clapp, 1878).

¹³⁰ George A Piersol, *Human Anatomy, Including Structure and Development and Practical Considerations* (Philadelphia: J. B. Lippincott, 1907).

¹³¹ W. H. Lewis, “Human anatomy, including structure and development and practical considerations” by Thomas Dwight, Carl A. Hamann, J. Playfair McMurrich, George A. Piersol and J. William White. With 1734 illustrations, of which 1522 are original and largely from dissections by John C. Heisler. Edited by George A. Piersol. Philadelphia and London: J. B. Lippincott Company, 1907. Price, \$7.50. 2088 pages,” *The Anatomical Record* 2, no. 7 (1908): 284.

¹³² “Thomas Dwight, M.D,” *Journal of the American Medical Association* 57 (1911): 1057.

¹³³ Harold Ernst, *Harvard Medical School, 1782-1906* (Boston: 1906), 18.

¹³⁴ Ernst, *Harvard Medical School*, 18.

start of the academic year through Christmas and laboratory dissections were available eight hours a day from October 15th through May.¹³⁵ The department at the turn-of-the-century Harvard Medical School was one of its largest divisions. A 1906-1907 appropriations memorandum sent to Harvard President Charles Eliot described an anatomy department with nine Assistants in Anatomy and one Instructor in addition to the Parkman Professor, only smaller than the departments of surgery and of medicine.¹³⁶

Dwight's reign as a dynamic Parkman Professor of Anatomy began in 1883, the same year as the Tewksbury almshouse sensation, and he maintained the post until his 1911 death. While his Warren family pedigree strongly suggested a Harvard human anatomy birthright, Dwight's reputation was well honed prior to his appointment. He graduated from Harvard Medical School in 1867,¹³⁷ the same year he won the Boylston prize, and became a House Officer at the Massachusetts General Hospital. While at the medical school, Dwight cultivated an interest in human anatomy. He was offered a rare opportunity for voluntary duties in the dissection room, helping the demonstrator, David W. Cheever, prepare cadavers for Oliver Wendell Holmes' lectures.¹³⁸ As with many nineteenth-century Harvard Medical School graduates of means, Dwight supplemented his medical and surgical education in Europe. During this post-graduate training, he

¹³⁵ Harvard Medical School. *Announcement of the Harvard Medical School of Harvard University for 1897-98* (Cambridge: Harvard University, 1897), 44.

¹³⁶ Medical School, 1906-1907, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Box 187, Folder "Medical School, 1906-1907," Harvard University Archives, Harvard University.

¹³⁷ Dwight graduated from Harvard Medical School despite not finishing his Harvard undergraduate degree. Prior to 1901, an undergraduate degree was not required for medical school admission. The undergraduate requirement became one of Charles Eliot's principal reforms.

¹³⁸ Thomas Dwight, "Reminiscences of Dr. Holmes as Professor of Anatomy," *Scribner's Magazine* 17, no. 1 (January 1895): 123.

landed at the University of Munich, where under the tutelage of anatomist Nikolaus Rüdinger (1832-1896), Dwight developed the frozen section preparatory science that later became his pedagogical hallmark.

Education in Europe

This Munich experience provoked and solidified Dwight's direction and ambition. He chose to study there as he "wished to become an anatomist" and because Rüdinger allowed for "plenty of material and personal attention."¹³⁹ The "material" or cadaveric remains were perhaps of equal value to the dedicated instruction. Munich set Dwight on the course that led him to reform Harvard and Massachusetts anatomy. In Europe overall, Dwight exposed himself to the myriad branches of medicine, allowing him to refine the course of his future. He described a surgery to remove a man's upper jaw by German surgeon Bernhard von Langenbeck (1810-1887) as "a beautiful operation."¹⁴⁰ In regards to studying obstetrics, while doing his "stern duty" to educate himself, the more he saw of it, the more it "disgust[ed]" him.¹⁴¹ This educational diversity ran counter to Dwight's true desires, however. He felt "obliged to study contrary" to his surgical and anatomical interests, and disliked devoting himself "to branches much more necessary than

¹³⁹ Thomas Dwight to Mary Collins Dwight, 2 February 1869, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁴⁰ Thomas Dwight to Mary Collins Dwight, 18 July 1867, Correspondence, 1867-1867 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁴¹ Thomas Dwight to Thomas Dwight, Sr. 29 October 1867, Correspondence, 18 July 1867, 1867-1867 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School. Dwight does not indicate why obstetrics disgusted him. It is possible that as a devote Catholic he found the fetal destructive practices necessary to save a woman's life troubling.

agreeable.”¹⁴² Dwight felt responsible to develop a well-rounded medical education while in Europe, but his letters home clearly indicate a desire to follow a path towards scientific anatomy, which was “one of the greatest accomplishments of an elegant medical education,”¹⁴³ despite such a path being impractical for a successful medical career. In a letter to his mother, Mary Collins Dwight (b.1816), Dwight apologized, “Your advice very justly in your last that I must begin with medicine – it is only too true but my taste is so strong for anatomy and my desire so great to attain some position therein at home.”¹⁴⁴ The practicality and income stability of a clinical career did not dissuade Dwight from his path and passion.

Dwight and his Harvard peers studying in Europe transported biological knowledge, clinical technique, and pedagogical material back into the United States. After Munich, but before coming home, Dwight made several notable additions to his teaching and scientific arsenal. In 1869, in Paris, he “purchased bones . . . to the amount of 120 francs among them a very handsome skull that takes to pieces showing every part beautifully.”¹⁴⁵ In addition to augmenting his teaching and research collection, Dwight pushed to acquire technical and professional enhancements to facilitate his future innovation and employment. After Paris, Dwight and his first cousin John Collins Warren

¹⁴² Thomas Dwight to Mary Collins Dwight, Correspondence, 17 September 1867, 1867-1867 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁴³ Thomas Dwight to Thomas Dwight, Sr. 29 October 1867, Correspondence, 18 July 1867, 1867-1867 (inclusive), Harvard Medical Library.

¹⁴⁴ Thomas Dwight to Mary Collins Dwight, 23 February 1869, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁴⁵ Thomas Dwight to Mary Collins Dwight, 21 May 1869, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

II¹⁴⁶ (1842-1927) traveled to Glasgow to witness and absorb the antiseptic surgical technique of Joseph Lister (1827-1912). Warren and Dwight considered it their “duty”¹⁴⁷ to investigate the advancement, which they “wanted to carry home.”¹⁴⁸ After spending a morning in observation with Lister in his clinic, Dwight and Warren shared dinner with the great surgeon. In addition to the professional benefit for the future surgeons, the young physicians felt an obligation to the American professional community, which they would soon be a part, and for the well being of their future patients.

In a letter home to his mother about the Lister experience, Dwight remarked that “It makes me quite enthusiastic to begin work to get out of German theories into practical surgical wards again.”¹⁴⁹ He would never be a surgeon of note and even eventually gave up clinical practice entirely to focus on academic anatomy. However, the Lister interaction is telling, especially when considered with Dwight’s adaptation Rüdinger’s frozen section technique. It conveyed a need to take on progressive knowledge and to translate that information into practice. Dwight did not eschew the gritty labor of medical science. Unlike his anatomical predecessor at Harvard Medical School, Oliver Wendell

¹⁴⁶ John Collins Warren II was the namesake and grandson of Dwight’s grandfather, John Collins Warren. Warren II became a surgical pioneer at Massachusetts General Hospital and was one the principal motivators for the new Harvard Medical School campus in the Longwood area of Boston in 1906. Dwight and Warren served on the Harvard faculty together for 36 years.

¹⁴⁷ Thomas Dwight to Mary Collins Dwight, 11 June 1869, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library.

¹⁴⁸ Thomas Dwight to Mary Collins Dwight, 18 June 1869, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁴⁹ Thomas Dwight to Mary Collins Dwight, 18 June 1869, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

Holmes,¹⁵⁰ Dwight never ceased dissecting in favor of his demonstrators and, with the modification of Massachusetts' anatomy law, he engaged the legislative minutiae needed to propel the accessible cadaver forward. Dwight's Lister moment also marks the medical crucible in which he was forged. With the development of German medical theory and the advent of anesthesia twenty-five years earlier, Lister's significant victory over surgical infection in 1865 helped to end medicine's barber-surgeon era and promoted the rise of the laboratory-responsive clinic. Dwight was beginning his career in this age of scientific optimism, returning to America as both scientist and physician, ready to move medicine forward.

Teaching and Research at Bowdoin College

Dwight broke ground on his American anatomical career at Bowdoin College's Medical School of Maine between 1872 and 1876.¹⁵¹ He was hired as Bowdoin's lecturer in anatomy in 1872 and that brief assignment promptly evolved into an 1873 professorship.¹⁵² He imported his frozen sections technique immediately into the classroom. In 1872, according to his lecture notes, "frozen sections were made transversely through a heart" and in 1873, "frozen sections were made through all the principal joints of the body." In both instances, the sections were used in classroom

¹⁵⁰ Ernst, *Harvard Medical School*, 8.

¹⁵¹ The Maine legislature established the Medical School of Maine under the Trustees and Overseers of Bowdoin College on June 27, 1820 just a few months after Maine was recognized as a separate state from Massachusetts by the United States Congress. The school received a negative assessment in Abraham Flexner's 1910 *Medical Education in the United States and Canada* from which it never recovered and closed in 1921 (George J. Mitchell Department of Special Collections & Archives Bowdoin College Library, "Medical School of Maine: Historical Records and Files 8.2," accessed on February 15, 2018, <https://library.bowdoin.edu/arch/archives/msmg.shtml>.)

¹⁵² Bowdoin College, *General Catalogue of Bowdoin College and the Medical School of Maine, 1794-1912* (Brunswick, ME: Bowdoin College, 1912), 32.

demonstrations and then installed in the museum for preservation. He excitedly anticipated their success and impact, writing to his mother in 1872 that he” introduced an innovation in the dissecting room which I think has never been tried in America in regard to the arrangement of the work and it promises to succeed perfectly.” It is evident from his time at Bowdoin that Dwight endeavored to change anatomical pedagogy in the United States and did so at the earliest opportunity.

According to his own accounting, Dwight’s teaching innovations were successful and viewed as groundbreaking. Again writing home, he declared,

I think that I may say that I am a success. All my innovations have worked beautifully, and the class is extremely attentive to dry lectures on the most difficult bones of the head. I lectured the other day on one which is considered particularly difficult and the demonstrator who was present told me that it was the best lecture he ever heard on that bone.¹⁵³

Moreover, Dwight viewed his success and impact as progressive, writing to his mother that “My lectures are even more successful than last year and my position all that could be desired.”¹⁵⁴ While one should measure Dwight’s enthusiasm against the dynamic of a young man making a positive impression on his mother, especially considering that mother was the daughter of John Collins Warren, one of Harvard’s greatest surgeons and anatomists, his letters home convey his self-assured and mission-driven academic trajectory.

In addition to Bowdoin providing the opportunity for Dwight to establish himself for the Harvard position that he truly coveted, his scientific forays into the healthy

¹⁵³ Thomas Dwight to Mary Collins Dwight, 25 January 1873, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁵⁴ Thomas Dwight to Mary Collins Dwight, 25 January 1873, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library.

variations of the human skeleton, a science that required the repeated analysis of human remains, began to evolve and translate into mainstream societal impact. In 1874, Dwight found himself as an expert medical witness in James Lowell's trial for the murder of his wife, Elizabeth. On October 15, 1873, a headless skeleton was found in the woods outside Lewiston, Maine. Without the head, anatomical testimony was required to identify the remains and the state attorney relied to two physicians, Dwight and H. L. K. Wiggin. While Lowell's attorney questioned Wiggin's authority, Dwight's detailed testimony and exacting presence allowed for little objection or questioning.¹⁵⁵ Despite his youth, Dwight was already respected and seen as an authority. He laid out his scientific opinion and professional qualifications as simple matters of fact.

Dwight introduced himself to the court as having "given special attention to anatomy ever since I began the study of medicine" and "devoted special attention to it since I have been in practice."¹⁵⁶ He re-assembled and articulated the potential skeleton of Elizabeth Lowell in his laboratory with considerable care, and summarily presented his reading of the remains to the court with little color or flourish. Based on bone weight and pelvic dimensions, the skeleton was female. She was five feet and four and a quarter inches tall in life and between twenty-five to thirty-five years of age at death. The remains had been exposed for two to ten years by the time she was discovered.¹⁵⁷ From the skeletal remains Dwight evoked a flesh and blood young woman.

¹⁵⁵ Harris M. Plaisted, *Report of the Trial of James M. Lowell, Indicted for the Murder of His Wife, Mary Elizabeth Lowell: Before the Supreme Judicial Court of Maine, for Androscoggin County; Containing the Evidence, Arguments of the Counsel and the Charge of the Court, in Full, with the Verdict of the Jury and Sentence of the Prisoner, and an Appendix* (Dresser, McLellan & Company, 1875), 85-92.

¹⁵⁶ Plaisted, *Report of the Trial of James M. Lowell*, 89.

¹⁵⁷ Plaisted, *Report of the Trial of James M. Lowell*, 89-92.

In his closing argument, the state's attorney, empowered by Dwight's confident narrative, relied on the Bowdoin professor's medical testimony to transform the headless skeleton into Elizabeth Lowell,¹⁵⁸ which helped secure James Lowell's conviction. Dwight's self-assuredness was directly related to his consistent efforts in the dissection room, his dedicated study in Europe, and his indefatigable review of the anatomical literature. Starting in 1872, Dwight began delivering a "Report on Anatomy" and a later report "Recent Progress in Anatomy" in the pages of *The Boston Medical and Surgical Journal*.¹⁵⁹ These biannual comprehensive anatomical literature reviews for his New England colleagues, which lasted through approximately fifty editions between 1872 and 1896, reflected his constancy for knowledge absorption and his drive to establish himself as an anatomical authority.

The research and authority that allowed Dwight to serve as such a potent witness in the Lowell trial was solidified in the anatomical literature with his *The Identification of the Human Skeleton: A Medico-legal Study*, which was awarded the 1878 prize of the Massachusetts Medical Society.¹⁶⁰ The published guide, which Dwight described as "practical directions of how to work,"¹⁶¹ was the first of its kind in America and afforded him the legacy as a founder of American forensic osteology. Dwight's focused experience with the human body was embedded in *The Identification of the Human*

¹⁵⁸ Plaisted, *Report of the Trial of James M. Lowell*, 201.

¹⁵⁹ Thomas Dwight, "Report on Anatomy," *The Boston Medical and Surgical Journal* 87, no. 10 (1872): 163-169.

¹⁶⁰ Dwight, *The Identification of the Human Skeleton*.

¹⁶¹ Dwight, *The Identification of the Human Skeleton*, 5.

Skeleton and became the cornerstone for his main scientific contribution, the statistical analysis of variations within the human skeleton.

Each chapter in *The Identification of the Human Skeleton* was a signpost for a different area of skeletal identification, including sex determination, age, time since death, height estimation, and whether the bones were human or not. Dwight presented both his own data and that of other respected anatomists, often in tables, to code medico-legal identification into a practical and scientific reality. With his own human bodywork, he both proved the veracity of his anatomical peers and logically dissected their mistaken presumptions. Dwight was sharp in his criticisms. He described William Guy's (1810-1885) and David Ferrier's (1843-1928) theories on female spine length and depth either as "too absurd for criticism" or "literally true ... but too slight to be of any importance," depending on how one interpreted their data.¹⁶² Dwight referred to Friedrich Gustav Jakob Henle's (1809-1885) theories on certain proportional differences in the female sternum as "entirely incorrect."¹⁶³ Guy, Ferrier, and Henle were accomplished medical and anatomical authorities. Henle has kidney and hair follicle structures that still carry his name and in 1841, he published the first systematic monograph on histological anatomy.¹⁶⁴ Dwight desired to augment and correct the anatomical canon, and *The Identification of the Human Skeleton* marked his authoritative beginning, as long as he had enough cadaveric volume to propel his work.

¹⁶² Dwight, *The Identification of the Human Skeleton*, 31.

¹⁶³ Dwight, *The Identification of the Human Skeleton*, 32.

¹⁶⁴ National Library of Medicine, "Medical Dictionary," accessed on September 2, 2017, <http://c.merriam-webster.com/medlineplus/henle's+layer>.

Return to Harvard Medical School

Whether due to scientific achievement, pedagogical innovation and success, or the eventual retirement of Oliver Wendell Holmes, Harvard Medical School gradually called the descendent of its first two anatomists back home. On March 6, 1872, Harvard University President Charles Eliot invited Dwight to be the instructor on comparative anatomy in Harvard College's natural history division for the academic year of 1872-1873.¹⁶⁵ He taught the course on comparative anatomy to college juniors three times a week for half of the year.¹⁶⁶ The instructorship in comparative anatomy was new and Dwight, who was most likely filling in the teaching responsibilities for the terminally ill Jefferies Wyman (1814-1874),¹⁶⁷ only held his position at Harvard College for one year before moving onto Harvard Medical School, where he would teach for the next thirty-seven years. Between 1874 and 1880, Dwight served as Harvard Medical School's instructor in histology,¹⁶⁸ traveling back and forth from Maine to Boston for the first few years of the appointment.

Dwight was Harvard Medical School's first dedicated instructor in histology.

Prior to 1873, microscopic anatomy and pathology was embedded in Holmes' lectures

¹⁶⁵ Charles Eliot to Thomas Dwight, 6 March 1872, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁶⁶ Harvard University, *The Harvard University Catalogue* (Cambridge, MA: C. W. Sever: 1872), 72.

¹⁶⁷ Thomas Dwight to Mary Collins Dwight, 14 March 1872, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School. In this same letter Dwight, in regards to his Harvard position, relates "that the Portland physicians are very jealous of me as they had set their hearts are sending one of their men."

¹⁶⁸ Harvard Medical School. *Annual Catalogue of the Medical School*, (Cambridge, MA: Charles W. Sever, 1873-1880), 4.

and within the laboratory work of younger instructors like pathologist Reginald Fitz (1843-1913).¹⁶⁹ While mostly dedicated to topographical and baseline anatomical instruction at Bowdoin, Dwight received specialized microscopy training in Europe, which he stated was of great importance to those going into anatomical science,¹⁷⁰ and was proud of the microscope he purchased in Vienna.¹⁷¹ He was confident with the instrument, updating Holmes, who initially brought microscopes to the American anatomical classroom,¹⁷² on the current status of European histology.¹⁷³ This confidence may have resulted from a technical edge over his former teacher. In a letter home to his mother, Dwight referred to Holmes' inquiries on the quality and types of microscopes in Europe as "naive."¹⁷⁴

As with his use of frozen sections at Bowdoin and with the re-assembling Elizabeth Lowell's skeleton in Lewiston, Dwight believed in experiential and tactile knowledge, which was evident in his histology classroom. He relied only on short lectures before commencing with the microscope work, and taught in a laboratory rather than an auditorium. Dwight's students cut and prepared their own histological

¹⁶⁹ Ernst, *Harvard Medical School*, 113-114.

¹⁷⁰ Thomas Dwight to Mary Collins Dwight, 6 May 1868, Correspondence, 1867-1867 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁷¹ Thomas Dwight to Mary Collins Dwight, 27 January 1869, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁷² Eleanor Tilton, *Amiable Autocrat: A Biography of Dr. Oliver Wendell Holmes* (New York: Henry Schuman, 1947), 149.

¹⁷³ Thomas Dwight to Mary Collins Dwight, 20 January 1869, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁷⁴ Thomas Dwight to Mary Collins Dwight, 20 January 1869, Papers of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library.

specimens.¹⁷⁵ In June 1880, the Harvard Corporation brought this pedagogical approach further into the curriculum and elevated Dwight to the faculty as the instructor in topographical anatomy and histology, a post he held until June 11, 1883, when he officially assumed the Parkman Professor of Anatomy. Dwight served as the Parkman Professor until his 1911 death, and it was from that post that he altered Massachusetts anatomy law.

Given Dwight's academic and scientific importance, it is surprising that no in-depth treatment of the professor exists. Within Harvard's anatomical legacy and the established Medical School publications, Holmes and Dwight's Warren ancestors (both John and John Collins) overshadow him. For example, when referring to the succession from Holmes to Dwight as Parkman Professor, the 1906 celebratory *The Harvard Medical School, 1782-1906*, which was published for the dedication the Medical School's Longwood campus and was handed out to faculty, school donors, and distinguished guests, stated that, "Every effort was made by the Faculty to find at home or abroad a "worthy successor to Dr. Holmes." These efforts failing, it became necessary in June, 1883, to appoint Dr. Thomas Dwight."¹⁷⁶ Dwight's feelings regarding this characterization are unknown, but he was certainly aware of it. At the same 1906 ceremony in which the volume was offered, Dwight was a speaker, presenting on the campus's laboratories.¹⁷⁷

¹⁷⁵ Ernst, *Harvard Medical School*, 114.

¹⁷⁶ Ernst, *Harvard Medical School*, 11.

¹⁷⁷ Harvard Medical School, *Dedication of the New Buildings of the Harvard Medical School, September Twenty-Fifth and Twenty-Sixth, Nineteen Hundred and Six*. (Boston, Faculty of Medicine, 1906) 8-12.

Dwight had the pedagogical and scientific background and experience to equal his appointment as the Parkman Professor of Anatomy. He taught five years of Bowdoin anatomy, gradually rose the ranks of Harvard Medical School's anatomy department, and was a published and award winning scientific author. In fact, after initially disparaging the appointment, *The Harvard Medical School, 1782-1906* focused on the above points to explain the hire, although mostly in an effort to counter any claims of Warren family nepotism.¹⁷⁸ Whatever the perceived hesitation, Dwight was well groomed for the appointment. Moreover, while he would never be considered a superior lecturer, author, or poet to Holmes, Dwight was a more advanced and progressive scientific anatomist.

In his 1861 *Borderlines of Knowledge in Medical Science*, Holmes referred to anatomy as “an almost exhaustive science,” and classified the recollections of his own anatomical contributions as a “scanty catalogue” that served as a reminder that the anatomist will “see little that has not been noted by those who have gone before him.”¹⁷⁹ Dwight felt differently, developing a new form of scientific anatomy in forensic osteology and pursuing advancements in preservation technology in the dissection laboratory. While not addressing Holmes directly, in 1896, Dwight refuted the previous generation's belief that anatomy lacked new frontiers, stating that the “grossness of that error is now patent.”¹⁸⁰ Holmes saw Dwight as a worthy successor. In an 1890 letter from the former Parkman Professor to the current one, Holmes stated that it was always his

¹⁷⁸ Ernst, *Harvard Medical School*, 11.

¹⁷⁹ Oliver Wendell Holmes, *Border Lines of Knowledge in Some Provinces of Medical Science. An Introductory Lecture, Delivered before the Medical Class of Harvard University, Nov. 6, 1861*. (Boston: Ticknor and Fields, 1862), 17, 19.

¹⁸⁰ Thomas Dwight, “The Progress of Anatomy during the Past Twenty-Four Years,” *The Boston Medical and Surgical Journal* 135, no. 22 (November 1896): 545-547.

wish that Dwight followed him at Harvard.¹⁸¹ He endorsed Dwight's ability in an earlier letter, complimenting his "long, continued, unwearied and intelligent labor in Anatomy" that propelled him to the post.¹⁸² Holmes also recognized Dwight's inevitable assumption to the Parkman Professorship and wrote to his former student that "I only hope I did not keep you waiting too long for the place which you fill so ably."¹⁸³ The appointment of an anatomy professor at Harvard Medical School in the nineteenth-century was a considerable investment. Its holders became institutions. From 1782 to 1911, the school had only four anatomy chairs, John Warren (thirty-three years), John Collins Warren (thirty-two years), Holmes (thirty-five years), and Dwight (twenty-eight years). Each man represented a generation of medical student practice and teaching and with that, came a significant opportunity to influence their community and anatomical understanding at large.

Dwight assumed the Parkman Professorship at a pivotal time. The 1883 Tewksbury almshouse event both endangered the cadaver supply and placed medical dissection firmly into the public imagination. Harvard Medical School itself was engaged in the active reform process being pursued by Charles Eliot and the retirement of each old-guard faculty member allowed for generational change to a gain hold. The art of medicine was receding to the science of medicine, and the Parisian observational school

¹⁸¹ Oliver Wendell Holmes to Thomas Dwight, 17 October 1890, Papers of Oliver Wendell Holmes, 1838-ca.1900 (inclusive), Boston Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁸² Oliver Wendell Holmes to Thomas Dwight, 28 June 1883, Paper of Thomas Dwight, 1869-1873 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

¹⁸³ Oliver Wendell Holmes to Thomas Dwight, 4 September 1887, Papers of Oliver Wendell Holmes, 1838-ca.1900 (inclusive), Boston Medical Library.

of Holmes's cohort was giving way to the German laboratory practice of Dwight and his colleagues.

The ground was fertile to revolutionize and stabilize the cadaver supply, making it as systematic and reproducible as laboratory science. Dwight had the professional background, the education, and the desire to make the cadaver routine. Moreover, his scientific aspirations in healthy skeletal variation required a greater cadaveric yield, which gave him professional and reputational stake in more remains. Beyond scientific need and a stable anatomical classroom, Dwight's reform impulse had moral implications steeped in his ardent Catholicism. One could dissect and respect the cadaver at the same time. As a student, he was impressed by the treatment of the remains at Harvard Medical School and mentally noted the clean sheets and careful draping that composed each subject.¹⁸⁴ As will be explored in the following chapter, perhaps more than his quest for knowledge or the drive to make his professional mark, it was Dwight's Catholicism that was responsible for the 1898 anatomy act.

¹⁸⁴ Dwight, "Reminiscences of Dr. Holmes," 123.

Chapter III

Thomas Dwight: Catholic Scientist

Thomas Dwight was a multi-dimensional historical figure and beyond being a scientist and the anatomy professor, he was an earnestly religious Catholic, whose faith impacted all aspects of his medical career, including the anatomy act campaign. Dwight's Catholicism was a fundamental part of his everyday life. Students remember his rosary peeking out of his pocket during anatomical lectures.¹⁸⁵ In his memorial to Dwight, Thomas Harrington recalled, "militant Catholicism was as real to him as militant patriotism was to his Warren ancestors."¹⁸⁶ He wrote several tracts on reconciling Catholicism and science, culminating in his 1911 *Thoughts of a Catholic Anatomist*, which was sanctioned by the Boston Archdiocese. Before analyzing Dwight's specific impact on Massachusetts anatomy law, it is wise to remark on his religiosity, which undoubtedly informed his anatomical supply efforts and helped bring about his campaign of reform. Moreover, it is critical to reconcile Dwight's faith and utilizing human dissection to support the health of the living.

Dwight was not born into a Catholic family. He was baptized at age twelve in 1855 when his mother, Mary Collins (Warren) Dwight and her sister converted to Catholicism.¹⁸⁷ This began Dwight's steadfast and active faith. He was a diligent officer

¹⁸⁵ Thomas F. Harrington, *The Harvard Medical School: A History, Narrative and Documentary, 1782–1905*, ed. James Gregory Mumford (New York: Lewis, 1905), 12.

¹⁸⁶ Thomas F. Harrington, "An Appreciation of Dr. Dwight," *The Sacred Heart Review* 47, no. 2, (1911): 21.

¹⁸⁷ Walter E. Sullivan, "Thomas Dwight, 1843-1911," *Pi Beta Bi Quarterly* (May 1928): 1.

of the Boston St. Vincent de Paul Society.¹⁸⁸ In 1882, he founded Boston's Society of Nocturnal Adoration with a small group of associates who kept a devotional vigil on the first Friday of every month.¹⁸⁹ The Church recognized and awarded his faith. In 1885, Dwight received an appointment to the St. Thomas Aquinas Academy of Philosophy and Medicine in Rome.¹⁹⁰ He wrote tracts, notably *Commonplaces in History*¹⁹¹, defending Catholicism's impact on the New World. His conviction of belief was unquestionable. On his deathbed, he requested that his children and pending widow join a Catholic seminary and pursue religious orders.¹⁹² Dwight's Catholic impact endured beyond his family's commitments. In the 1940s, a social group for Catholic students, the Dwight Society, was formed at Harvard Medical School.¹⁹³

Thoughts of a Catholic Anatomist

Dwight's *Thoughts of a Catholic Anatomist*,¹⁹⁴ his widely recognized tract of science-driven Catholic apologetics, proved a valiant effort to unify the physician's faith and profession. The work revealed a culmination of a lifetime of bridging the divide between Catholicism and anatomy, and was a concrete testament of the rationale of a

¹⁸⁸ Sullivan, "Thomas Dwight," 4.

¹⁸⁹ Sullivan, "Thomas Dwight," 4.

¹⁹⁰ Thomas Dwight, Letters relating to Thomas Dwight and the Dwight Society at the Harvard Medical School 1908-1956, Harvard University Archives, Harvard University.

¹⁹¹ Thomas Dwight, *Commonplaces in History* (Boston: Review Publishing Co. 1900).

¹⁹² Dwight, "Letters relating to Thomas Dwight and the Dwight Society."

¹⁹³ Dwight, "Letters relating to Thomas Dwight and the Dwight Society."

¹⁹⁴ Thomas Dwight, *Thoughts of a Catholic Anatomist* (New York: J. J. Little & Ives Company, 1912).

devoutly religious scientist. The book was first published in June 1911, and went through three early printings, the last being in January 1912.¹⁹⁵ Dwight just saw the first edition published before his September 8, 1911 death.¹⁹⁶ He labored through terminal cancer while writing *Thoughts* and suffered with the disease for two years prior to his death. While the position of the text at the end of life suggests an attempt at absolution for a lifetime of anatomical work, there is no reason to believe that circumstance influenced the narrative or to question Dwight's sincerity, given his established Catholic record. However, it is worth noting, that Dwight's father, Thomas Sr., also had a late-life Catholic revelation, converting on his deathbed in 1876.¹⁹⁷

Dwight's own publication record reveals a lifetime of navigating the convergences and divergences of anatomical science and Catholicism. He states plainly in *Thoughts*, "It is many years since I began this book, which I have thrown aside again and again."¹⁹⁸ Such statements can be contrivances, but these exact lines of thought were present in earlier works. In his September 1890 *Introductory Lecture* at Harvard Medical School, Dwight detoured into metaphysics in an area where one would assume the necessity of scientific detachment. He repackaged and deconstructed Thomas Henry Huxley's intellectual tool from the 1863 *Evidence as to Man's Place in Nature*,¹⁹⁹ which recommended that the reader visualize themselves as residents of Saturn examining a

¹⁹⁵ Dwight, *Thoughts*, copyright page.

¹⁹⁶ John Warren, "Thomas Dwight, M.D., LL.D.," *The Anatomical Record* 5, no. 11 (1911): 531, 535.

¹⁹⁷ Sullivan, "Thomas Dwight, 1843-1911," 1.

¹⁹⁸ Dwight, *Thoughts*, vi.

¹⁹⁹ Thomas Henry Huxley, *Evidence to Man's Place in Nature* (London and Edinburg: Williams and Norgate, 1863).

naked human preserved in a cask of rum as an objective way to comment on man's structure.²⁰⁰ Dwight modified the anecdote and added a bee and an ant to the cask for comparative purposes,²⁰¹ and utilized the comparisons to elucidate his thoughts on the human soul for his medical student audience. He repeated the same Huxleyian modification twenty years later in *Thoughts* to the same effect.²⁰²

This repetition of rhetorical device affirms a fundamental tenet of Dwight's Catholic and anatomical philosophy, and presents a long-held, unwavering intellectual position on the immortality of humankind and the fungible nature of their corporeal body, forging a practical unity of an anatomical science informed by religious faith. For Dwight, and for the hypothetical Saturnians, the examination of the tangible state of the human, ant, and bee reveals the base similarities in comparative structure and the overall animal nature of human's physicality. However, such an examination fails to capture the instincts of the ant or bee or the uniqueness of humans, in particular their free will, intelligence or, most importantly, their soul.²⁰³ Dwight defined humankind as "a rationale animal consisting of body and soul" who "In body ... is simply animal."²⁰⁴ To the 1890 audience of medical students, Dwight reinforced humankind's free will and soulful essence by asking them to look within themselves for evidence of identity and sensation.

²⁰⁰ Thomas Dwight, "The Scope and the Teaching of Human Anatomy," *Boston Medical and Surgical Journal* 123, no. 15 (October 1890): 337.

²⁰¹ Dwight, "The Scope," 337.

²⁰² Dwight, *Thoughts*, 157-158.

²⁰³ Dwight, "The Scope," 337.

²⁰⁴ Dwight, "The Scope," 337.

Here, in his teaching, he did not separate anatomical science from religious conviction, just as he maintained his faith on the dissection table.

It was Dwight's "duty" on account of his position as the Parkman Professor to demonstrate that a Catholic could be a man of science.²⁰⁵ This was of critical importance as he feared an ominous change in universal religious sentiment ("excepting always the Catholic Church") and a growing *Zeitgeist* in which the denial of God was in "fashion, and ... affected as an evidence of true enlightenment."²⁰⁶ In *Thoughts*, Dwight did not understate his trepidation, and stated that the atheist who lacks a "Lawgiver" has no logical imperative to "obey law."²⁰⁷ The primary cause of this decay was the proliferation of Darwinian Theory of evolution and its acceptance as "fundamental fact" by the "ignorant, half-educated masses" as a system of biology and a "monistic" philosophy of life.²⁰⁸ Here Dwight's anti-Darwin fervor was crowned by his long-held elitism. In an 1869 letter to his mother regarding vivisection, Dwight rankled at the Boston laity's outcry against the practice even though he abhorred it. He exclaimed, "it is a tyranny not to be endured that the ignorant should tell the learned what they may do."²⁰⁹ Dwight encapsulated this fear of the shifting religious framework in *Thoughts* with the rhetorical question, "Has science then taught us a new gospel."²¹⁰

²⁰⁵ Dwight, *Thoughts*, vi.

²⁰⁶ Dwight, *Thoughts*, 3.

²⁰⁷ Dwight, *Thoughts*, 5.

²⁰⁸ Dwight, *Thoughts*, 6.

²⁰⁹ Thomas Dwight to Mary Collins Dwight, Box 1, Folder 4, Papers of Thomas Dwight, 1869-1873 (inclusive). Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

²¹⁰ Thomas Dwight, *The Church and Science: An Address before the American Federation of Catholic Societies at Boston, August 9, 1908*. (Boston, 1908), 6.

Dwight rejected this “new gospel” and relied on his personal crucible of Catholicism and science as its remedy. As might be expected, he did not subscribe to the conflict model popularized by John William Draper's 1874 *History of the Conflict between Religion and Science* and Andrew Dickson White's 1896 *History of the Warfare of Science with Theology in Christendom*. In 1908, Dwight delivered an address entitled *The Church and Science* before the American Federation of Catholic Societies, then meeting in Boston, in which he proclaimed “what an absurdity to speak of any conflict or dissention between them [science and religion]. ... truth cannot contradict with truth.”²¹¹ In this speech Dwight articulated a different conflict, one between true religion, namely the Catholic Church, and “a sham science, resting on unproved assertions and on unjustified negations, which aims to overthrow religion.”²¹² The anatomist took aim at materialistic Darwinism, and the “senseless, hopeless scheme of existence” he believed that it promoted. This anti-evolutionary zeal supported Dwight's religious rationalization for human dissection.²¹³

In the 1908 American Federation address, Dwight located this monistic and pantheistic outburst within France and its nineteenth-century program of forced, and occasionally violent, secularization. As representative of both France's shortsighted path and the cohesion of Catholicism and science that Dwight saw as ideal, he recounted to the Boston audience the cancelling of an 1885 feast and grape blessing in the town of St. Just. The feast was reinvigorated by the mere appearance of a wizened, bent Louis

²¹¹ Dwight, *The Church*, 2.

²¹² Dwight, *The Church*, 2.

²¹³ Dwight, *The Church*, 3.

Pasteur, who Dwight stated was “the foremost figure of science ... in the world.”²¹⁴

Pasteur proved the perfect foil for Dwight’s narrative, as he was Catholic, a member of the scientific elite, and responsible for dismantling the theory of spontaneous generation, which limited the ability to argue that living organisms could form from non-living matter.²¹⁵ For Dwight, Pasteur provided scientific evidence of a designing God and the creationist origins of life.

In the same speech, Dwight deployed the names of Faraday, Newton, and Kelvin as believer scientists and proof against the absolutism of the conflict model between science and religion and the secularization of science.²¹⁶ By offering these individuals as evidence, he insinuated himself within this pantheon and evoked a reverence for high-status scientists. Embodying their tradition, no tension between anatomical science and Catholic faith resided with Dwight. The existence of *Thoughts of a Catholic Anatomist* is evidence of this lack of tension. The text received a *Nihil Obstat* or a proof of no anti-Catholic sentiment from the Boston Censor Librorum P. J. Supple and an *Imprimatur* or religious endorsement from Boston Archbishop W. H. O’Connell.²¹⁷ According to Church authorities of the time, Dwight’s science was religiously acceptable, affording no conflict to scriptural teachings.²¹⁸ Not only did Dwight himself not question that faith and

²¹⁴ Dwight, *The Church*, 13.

²¹⁵ Dwight, *The Church*, 13-14.

²¹⁶ Dwight, *The Church*, 6.

²¹⁷ Dwight, *Thoughts*, ii.

²¹⁸ William H. O’Connell appears to have been interested in physician’s issues, possibly inspired by Dwight as a prominent local example. In 1912, O’Connell founded the first Catholic Physicians Guild in the country in Boston. (Catholic Medical Association, “History,” accessed on December 3, 2010, [http://www.cathmed.org/about/background/history/.](http://www.cathmed.org/about/background/history/))

science and dissection and Catholicism could coexist, the Church in which he faithfully believed licensed these beliefs.

The Morality of Human Dissection

Dwight believed in the morality of human dissection and even suggested that Harvard Medical School should “glory in” rather than apologize for their dissection practices after the Tewksbury affair.²¹⁹ He could envision himself within the dissected subject. In *Frozen Sections*, he placed the reader within the manipulated cadaver, recommending that the viewer, “imagine that you are looking down into your own body.”²²⁰ Moreover, for Dwight, Catholicism had long ago sanctioned cadaver investigations. Appealing to the ultimate terrestrial religious authority, he articulated the Papacy’s thought process regarding dissection during the American Federation address, although in a circumspect narrative. However, before historically justifying the dissection theater, he allowed the audience that anatomical practice “involves so much that is repulsive in man,”²²¹ but implored his listeners that such prejudice threatens medical progress.

To evoke Papal comfort for his audience, Dwight juxtaposed this seemingly moral tension against the long multi-century anatomical tradition of Catholic Italy, and by listing the many anatomical structures with Italian names imprinted from their initial

²¹⁹ Thomas Dwight, “Reminiscences of Dr. Holmes as Professor of Anatomy,” *Scribner's Magazine* 17, no. 1 (January 1895) 126.

²²⁰ Thomas Dwight, *Frozen Sections of a Child* (New York: W. Wood, 1881), preface.

²²¹ Dwight, *The Church*, 8.

describers.²²² Like the example of Pasteur, Dwight was empowered by the stature of Catholics like Andreas Vesalius (1514-1564), “the greatest anatomist the world ever saw,”²²³ and his great advances in anatomical knowledge made while living in the Catholic strongholds Italy and Spain. The individual descriptive successes of Vesalius and others (Dwight also cited Mondino de Luzzi [ca. 1270-1326] and Gabriele Falloppio [1523-1562]) are not necessarily evidence of a Catholic Church permitting cadaver dissection, but for Dwight the cumulative impact of Italian anatomists suggested a Vatican sanction and provided theological support for his life’s work. Moreover, as with Pasteur, the culmination of Catholic anatomists again placed Dwight within a company of anatomical heroes, elevating Catholic science and his own personal advancements. Also in the address, almost as an aside, Dwight dismissed as fiction the often-mentioned 1300 Papal Bull of Boniface VIII, which supposedly prohibited dissection.²²⁴

Dwight’s Catholic Church was a moral instrument, and for the anatomist, humankind’s fundamental belief in right and wrong provided “one of the strongest proofs of God.”²²⁵ Given Dwight’s focused and dogmatic philosophy (in a memorial, David Cheever stated Dwight lacked a “certain breath of view”²²⁶), it is logical that the anatomist would emphasize morality in the context of the United States’ anatomy laws. In his 1895 presidential address to the Association of American Anatomists (AAA), entitled “Our Contribution to Civilization and Science,” the Harvard physician lectured

²²² Dwight, *The Church*, 8.

²²³ Dwight, *The Church*, 10.

²²⁴ Dwight, *The Church*, 10.

²²⁵ Dwight, *Thoughts*, 69.

²²⁶ Sullivan, “Thomas Dwight,” 4.

on the moral shortcomings of the insufficient anatomy laws in the United States, as “a social question of the first importance.”²²⁷ As with Dwight’s speech thirteen years later to the Catholic Federation, the AAA address sympathized with the public that dissection was an “abomination to the popular mind,” thanks to deep-rooted fears regarding disturbing the grave and a mistreatment of the physical body of the dead, but was also an educational necessity.²²⁸

This “abomination” owed its origins to a mistaken religious concept, the “superstition” that dissection can injure the dead.²²⁹ Dwight’s 1896 address tackled this belief directly, conveying “I have far more respect for those who opposed dissection on the grounds, however mistaken, that it might be displeasing to God.”²³⁰ This statement reveals in Dwight’s confidence in his religious conviction. Firstly, it rejected any notion that cadaver dissection displeases God, but perhaps even more telling, it marked Dwight’s honor of religious sentiment and respect of God. This was a Catholic concept of God, and Dwight’s notion of absolute faith was derived from the Catholic Church. For Dwight, it was this unflinching acceptance of “unchangeable dogma” and “immovable” faith that insulated the Catholic scientist against materialistic Darwinism and crippling self-doubt.²³¹

²²⁷ Thomas Dwight, “Our Contribution to Civilization and to Science--Presidential Address by Dr. Thomas Dwight, Harvard Medical School.” *Science* 3, no. 55 (January 1896): 12.

²²⁸ Dwight, “Our Contribution,” 12.

²²⁹ Dwight, “Our Contribution,” 15.

²³⁰ Dwight, “Our Contribution,” 16.

²³¹ Dwight, *Thoughts*, 10.

Dwight supported this confidence with an understanding of Church history and, considering his faith in the immutable tenets of the Vatican, the medieval institution he highlighted seemed even preferred to the present. In his 1896 follow-up *Forum* article to his AAA address on anatomy laws, “Anatomy Laws ‘versus’ Body Snatching,” Dwight again countered the 1300 Bull of Boniface VII, claiming that it pertained to a Crusades’ practice of eviscerating and boiling the dead for easier cadaver transport back from the Holy Lands. He stated that, “Dissection was never forbidden; on the contrary theologians of Salamanca at the time of Vesalius pronounced it lawful. Nothing can be produced to the contrary.”²³² Again, for Dwight, the Catholic Church offered clarity and absolution for his science. Regarding anti-dissection sentiment, much as with materialistic evolutionary rhetoric, Dwight placed the feeling at the feet of the ignorant and superstitious, motivated by the Butlerian “terror of the demagogue,” and its political fear mongering regarding the desecration of the bodies of the poor.²³³ While Dwight attempted to refrain from disparaging a revolted public, he believed that their sentiment was bolstered by misinformation, through events like the Tewksbury almshouse scandal, and that they were being persuaded into an amoral position.

Not surprising, in both the 1895 presidential address and the 1896 article on anatomy laws, Dwight’s moral and therefore Catholic compass navigated him towards the promotion of legalized dissection, and he decried the ambiguous state of the pedagogical dissection environment. Dwight argued that the lack of or the under-enforcement of mandatory anatomy acts led physicians to rob graves or employ

²³² Thomas Dwight, “Anatomy Laws versus Body Snatching,” *The Forum* 22 (December 1896): 494.

²³³ Dwight, “Anatomy Laws,” 500.

“resurrectionists.” Dwight cited the example of Washington, D.C., which lacked an anatomy act until 1895, and where hundreds of medical students dissected illegally obtained cadavers each year within blocks of the nation’s capital.²³⁴ In his address to his fellow anatomists, Dwight advocated for a religious solution and, in the 1896 article, he advocated that dissection room subjects should be buried in their respective Catholic or Protestant cemeteries when the religious practice of the individual was known.²³⁵

Dwight went further in the *Forum* article, affording the cadaver personal status and stating that the body was “only loaned to science,” and that all religious belongings or emblems removed prior to dissection should be returned and placed in the coffin at burial.²³⁶ Dwight’s Catholicism both provided him with the foundation to operate dissections as teaching tools and supply him with the moral predilections to protect the grave. He could honor the dead without contradiction. Moreover, given what is known of Dwight’s strength of conviction, the moral treatment of the dead should not be considered a public relations maneuver to protect his profession but as an honest belief. Indignation occasionally overwhelmed Dwight’s religious sentiment. In his 1895 address, he suggested that communities who failed to pass anatomy provisions “deserve to be treated by surgeons ignorant of anatomy.”²³⁷

Thomas Dwight was part of an anatomical tradition and a hereditary lineage at Harvard Medical School. His grandfather, John Collins Warren, among many other achievements, founded the Warren Anatomical Museum in 1847 and lobbied the

²³⁴ Dwight, “Anatomy Laws,” 499.

²³⁵ Dwight, “Our Contribution,” 13.; Dwight, “Anatomy Laws,” 501.

²³⁶ Dwight, “Anatomy Laws,” 501.

²³⁷ Dwight, “Our Contribution,” 14.

Massachusetts' state legislature for the passage of the United States' first, yet optional, anatomy act in 1831. Like his grandson, Warren was a man of faith. He was a committed Protestant, mostly identifying with the Episcopalian tradition, as is evidenced in several chapters of his autobiography dedicated to his religious experience and religious correspondence.²³⁸ In one such letter, Warren trusted in God after the confessed limitation of his science. He answered a patient's plea to alleviate her suffering by proclaiming, "these sufferings were the visitation of the Supreme Goodness, and ought not to be met with impatience, but a full confidence in his goodness, and a resignation to his decrees."²³⁹

Rather than relying on Warren's religious statements as proof of his passions, his personal accounts of some of his brazen body snatching episodes prove more telling of his position on the moral value of anatomical education and dissection. When Warren switched the body of a man with severe osteomalacia with a log in his coffin, he justified it as follows,

Such instances as the above may appear improper to those who do not appreciate the importance of the objects. But the surgeon and the teacher have a high moral duty to perform to their patients and to the community; and, in the eye of reason and religion, they will be less culpable for preserving articles so very important and useful, than if, through fear or neglect, they allowed them to be wasted in the bottom of a grave.²⁴⁰

²³⁸ Edward Warren, *The Life of John Collins Warren, M.D.: Compiled chiefly from his Autobiography and Journals* (Boston: Ticknor and Fields, 1860).

²³⁹ Warren, *The Life of*, 184.

²⁴⁰ Warren, *The Life of*, 419-420

This honest and bold expression of belief allowed for no fear of divine judgment or even the sense of an immoral act. Moreover, Warren proved his free conscience beyond doubt in his final life act. He had his medical peers and friends dissect him and articulate his skeleton after he died and requested that it be exhibited at the medical school, where it still resides.²⁴¹

However muddled by cultural similarities, familial glorification, and significant shifts in the anatomical and evolutionary eras, it is clear that neither Warren nor Dwight feared divine retribution for their post-mortem applications. Faith justified them both, despite different versions of the Christian tradition. Dwight was comforted by the divinity of the immortal soul and Warren took solace within the moral calculus of relieved suffering. Religion and faith provided the fulcrum for anatomizing rather than an obstacle to be rationalized around.

Dwight and Darwin

Dwight's faith empowered him to dissect, principally through his trust in the Church and his belief in the soul. This belief elevated humankind to a special creation beyond the grasp of Darwinian evolution. However, not only did his strong faith enable anatomical discovery, Dwight's expertise supported this faith, specifically as a counter argument to aspects of Darwinian descent of humankind. In his article "The Significance of Anomalies," Dwight dismantled the prevailing view of anatomical reversion, which suggested that physical anomalies were manifestations of humankind's animal past as

²⁴¹ Dwight, "Anatomy Laws," 501.

one looked backwards down their line of descent.²⁴² As with his testimony in the Lowell trial, the article was straightforward and exacting. Dwight discussed three anomalies that exhibited reoccurrence in people but did not appear in the anatomy of the anthropoid apes: the supra-condyloid process, the third trochanter, and the para-mastoid process.²⁴³

In the short article, he dismissed in turn the possibility that each anomaly was a product of descent driven reversion, as he concluded,

Those of us who look upon natural selection pure and simple as quite inadequate to what is already required of it, will not be disposed to call upon it to do double duty. Those who like myself, believe in design and in a limited evolution founded on law, while they may explain by teleology such instances as the last mentioned, can by no means apply that doctrine to anomalies.²⁴⁴

Dwight expressed a near-identical sentiment within a more involved narrative in *Thoughts of Catholic Anatomist*.²⁴⁵ Afforded the ability to dissect, examine, and describe the human body via Catholicism, Dwight provided an intellectual victory with his science so emboldened. In a subject dear to the scientist, *Thoughts* remarked that the study of anomalies along with variations “has been my favorite line of research for many years.”²⁴⁶ He had no illusions that by dismantling the reversion principle that he would disprove overall natural selection theory, but this minor rebuke suggested that natural selection may not have value as a universal philosophical code, and, for Dwight, this

²⁴² Thomas Dwight, “The Significance of Anomalies,” *American Naturalist* 29, no. 338 (February 1895): 130.

²⁴³ Dwight, “The Significance,” 131.

²⁴⁴ Dwight, “The Significance,” 134.

²⁴⁵ Dwight, *Thoughts*, 207-219.

²⁴⁶ Dwight, *Thoughts*, 205.

would have been sweet solace that perhaps “a new gospel’ of Darwinian evolution had not yet fully arrived.

At least as it pertains to the character of Thomas Dwight, the suggestion that strong religious faith and the anatomizing of the human body could not co-exist was a false conception, and one that would remove any need for moral justification as he pursued the mandatory anatomy act. Moreover, anatomical science strengthened Dwight’s religious conviction, and, it was the physician’s Catholic faith that allowed him to practice dissection free from fear and divine pressure. Dwight found moral positions within the anatomical lexicon as he advocated for improved anatomy laws. He dismantled notions of the conflict between science and religion, and made peace with the destruction of humankind’s animal body by taking measure in the freedom of his immortal soul. Dwight’s unification of science and religion was straightforward and logical. Moreover, it clearly enabled him to function in a complicated ethical landscape. He was a compelling and partially noble historical figure, who, allowed for the cross pollination of religion and one of humankind’s more challenging scientific pursuits. It was this collective background that allowed him to pursue changes in Massachusetts anatomy law.

Chapter IV

Thomas Dwight, Charles Eliot, and the Anatomy Act of 1898

The Harvard Medical School to which Thomas Dwight returned in 1874 to teach histology proved a significantly different institution than the one from which he graduated in 1867. The deep-rooted school was engaged in a transformative reform process instigated by Harvard University President Charles William Eliot. This new Harvard Medical School proved an ideal platform for Dwight to pursue anatomical science and to cultivate the legal adjustments his scholarship so required. Dwight graduated from a medical school that was a degree-mill, driven by a fee-for-lecture economic model that prejudiced student quantity over academic rigor. Eliot labeled the faculty as “a sort of trading corporation as well as a body of teachers” in his 1870-1871 *Annual Report* to the Harvard Board of Overseers.²⁴⁷ The Harvard president had strong opinions regarding the medical school’s student body as well, calling them “persons of scanty preliminary training” engaged in a “deplorable system of instruction” in the same document.²⁴⁸ Going further in a later 1874-1875 *Annual Report*, Eliot reflected on the pre-1871 graduates, which would have included Dwight, as “ignorant undisciplined men . . . with the scantiest technical preparation, to their own lasting injury and that of the

²⁴⁷ Charles William Eliot, *Forty-Sixth Annual Report of the President of Harvard College, 1870-1871* (Cambridge: University Press, 1872), 19.

²⁴⁸ Eliot, *Forty-Sixth Annual Report*, 20.

community.”²⁴⁹ The president’s criticism was based on direct observation. In 1856, a young Eliot was tasked by Harvard College professor Josiah Parson Cooke (1827-1894) to teach chemistry at the medical school. Eliot saw first-hand both, “the low quality of the majority of the medical students,” and how the higher quality students, while ignoring months of repetitive and perennially unchanging lecture, came alive in the dissecting-room, during autopsies, and within their clinical opportunities.²⁵⁰ This early experience, at the origins of Eliot’s academic career, demonstrated the inferiority of the baseline medical students and the educational experiences required to attract and maintain the gifted. If the future president desired to increase the quality of the students, the educational model must evolve. The stakes were well defined for Eliot, and starting in 1871, he sought to reform the obvious shortcomings of the general Harvard Medical School students and their “shocking illiteracy.”²⁵¹

Eliot Reforms at Harvard Medical School

Eliot’s assessment of Dwight’s peers was not novel and was shared, albeit with a different interpretation, by even the most conservative members of the medical school faculty. Eliot’s chief antagonist, Professor of Surgery Henry Jacob Bigelow (1818-1890), conveyed similar opinions on student literacy. However, he feared that by instilling the Harvard president’s preference for written final exams, half the students would struggle

²⁴⁹ Charles William Eliot, *Annual Reports of the President and Treasurer of Harvard College, 1874-1875* (Cambridge: Press of John Wilson and Son, 1876), 24. In the 1874-1875 *Report*, Eliot was critiquing both Harvard Medical School and Harvard Law School students and graduates.

²⁵⁰ Charles William Eliot, *A Late Harvest: Miscellaneous Papers Written between Eighty and Ninety* (Freeport, NY: Books for Libraries Press, 1971), 34.

²⁵¹ Eliot, *A Late Harvest*, 25.

due to their illiteracy.²⁵² Moreover, for Bigelow, illiteracy was not necessarily a disqualifying factor for a potential student nor an indicator of a terrible future physician. David W. Cheever, in an 1890 memorial lauding Bigelow's life and career, remarked that the celebrated surgeon "believed that the average community required only an average doctor, and that the average doctor needed only an average knowledge."²⁵³ Bigelow recognized the realities that Eliot articulated, but found curriculum and entrance requirements reform unnecessary to serve community need. Dwight was cognizant of the deficiencies of his basic training. In his *Scribner's Magazine* essay on Holmes, he recalled his oral final exam with his predecessor. Expecting the usual "not severe" testing, he was surprised by Holmes' difficult questions.²⁵⁴ Dwight later inquired if this severity was usual practice, to which Holmes replied, "Oh no! When you are examining a man who is to practise where he gets a quarter of a dollar for a visit, you cannot expect great knowledge." Dwight's anecdote articulates the pre-Eliot mission. The majority of students were trained for self-fulfilling mediocracy, while future faculty and medical innovators like Dwight (or Holmes or Bigelow) required advanced self-education. The thirty-five-year old Eliot was not alone in his desire to reform. Much of the younger faculty in 1871, although trained by the more conservative Bigelow²⁵⁵ and Holmes, saw

²⁵² Kenneth M. Ludmerer, *Learning to Heal: The Development of American Medical Education* (Baltimore: Johns Hopkins University Press, 1996), 12.

²⁵³ William Sturgis Bigelow, *A Memoir of Henry Jacob Bigelow* (Boston: Little, Brown and Company, 1894), 197.

²⁵⁴ Thomas Dwight, "Reminiscences of Dr. Holmes as Professor of Anatomy," *Scribner's Magazine* 17, no. 1 (January 1895): 125.

²⁵⁵ Dwight also studied under Bigelow while at Harvard, but did not think that the accomplished surgeon was beyond reproach. While observing Langenbeck in Berlin, Dwight was struck by the surgeon's speed and efficiency, "not wasting no time in refinements which I think is the fault with Bigelow." (Thomas Dwight to Mary Collins Dwight, 31 July 1867, Correspondence, 1867-1867 (inclusive), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.)

its merit and supported the Harvard president's vision. James C. White (1833-1916), David W. Cheever, and new Harvard Medical School Dean Calvin Ellis (1826-1883) were all invested in renovating the curriculum through Eliot's greater involvement in school affairs.²⁵⁶ Some older faculty did support reform. Shattuck Professor of Morbid Anatomy J. B. S. Jackson (1806-1879) made one of first reform appeals at a 1869 faculty meeting, proposing that students pass all course final examinations rather than the then required five out of nine.²⁵⁷ Jackson voted for every reform that Eliot and the younger faculty proposed, and the reformers found "great encouragement" in the support of the most senior member of the faculty.²⁵⁸ Jackson was an exception amongst the older faculty, however, and it was the younger men who laid the foundation for Eliot prior to his first medical school faculty meeting in 1869.

James C. White began the reform movement with three 1866 *Boston Medical and Surgical Journal* editorials. He advocated for many of the practices that Eliot and the medical faculty would later adopt, including a fixed three-year teaching period, written course final examinations with mandatory passing, and the addition of medical research to the school's mission.²⁵⁹ The White editorials were forward thinking beyond the idea of immediate reform. He saw a timely opportunity in the lessening of Massachusetts'

²⁵⁶ Michael Francis Nigro, Jr., "Reform at Harvard Medical School in 1871" (Undergraduate honors thesis, Harvard College 1966), 30.

²⁵⁷ Nigro, Jr., "Reformat Harvard," 30.

²⁵⁸ Eliot, *A Late Harvest*, 42.

²⁵⁹ James C. White, "Medical Education-New Professorships in the Medical Department of Harvard University," *Boston Medical and Surgical Journal* 74, no. 3 (February 1866): 63-64.

control of the Harvard Board of Overseers²⁶⁰ and the developing national movement in medical education for sanctioned exams and an accountable licensing systems for graduates.²⁶¹ The Jackson exam proposal and the White editorials demonstrate that elements of the faculty desired to reposition Harvard Medical School to produce high-quality physicians and medical scientists, and, as with Dwight and mandatory anatomy law, all that was required was the catalyst of a highly motivated individual in Charles Eliot.

The quality of the students was an indictment of the education system at Harvard Medical School and what it required of them. The reforms necessary to develop superior graduates were within the faculty mindset but required operationalization. Eliot started that process in earnest in a February 1871 letter to Dean Calvin Ellis.²⁶² He set forth a multipoint agenda, much of it resonant of the White editorials. Medical training at Harvard Medical School was to be a three-year course, divided into two terms a year of approximate similar length. Students would be given three exams a year, partially written, and were required to pass finals in all nine departments. Two of the terms over the three-year period had to be spent in medical school residence. Finally, the fee

²⁶⁰ James C. White, "Election in Harvard University," *Boston Medical and Surgical Journal* 74, no. 25 (July 1866): 508.

²⁶¹ James C. White, "Censorial Duties-Medical Education," *Boston Medical and Surgical Journal* 75, no. 5 (August 1866): 106-107.

²⁶² "College Correspondence July 20, 1870 - August 31, 1871," Box 5, Folder 9, Harvard Medical School. Office of the Dean. Records, 1828-1904 (inclusive). 1869-1874 (bulk), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.

schedule was to be normalized and students were to pay two hundred dollars for the entire year rather than on a per course basis.²⁶³

The Eliot-Ellis plan came to near complete fruition in short order. A broadside detailing the 88th *Annual Announcement* for the 1871-1872 course year articulated how the third oldest medical school in the United States had been “radically changed.”²⁶⁴ Outside of the new payment system, the broadside illustrated, in some fashion or another, all the reforms structured in Eliot’s letter to Ellis. This was a clear point of pride for Eliot, who, in a 1909 address, reflected on the 1870-1871 medical school “revolution” as “on the whole, the most constructive part of my work.”²⁶⁵ The intensity and degree of the Eliot reforms resonated with the faculty. Holmes famously likened the university experience under Eliot to being “turned . . . over like a flapjack” with “never such a bouleversement” been before at Harvard Medical School.²⁶⁶ It was into this renewed educational culture that Dwight entered when Eliot recruited him to substitute for the ailing Jefferies Wyman as an instructor in comparative anatomy in 1872.

²⁶³ “College Correspondence July 20, 1870 - August 31, 1871,” Box 5, Folder 9, Harvard Medical School. Office of the Dean. Records, 1828-1904 (inclusive). 1869-1874 (bulk), Harvard Medical Library

²⁶⁴ Center for the History of Medicine, Francis A. Countway Library of Medicine, “88th Annual Announcement,” accessed on December 22, 2017, <https://collections.countway.harvard.edu/onview/exhibits/show/broad-foundation/item/6570>.

²⁶⁵ “Address at Harvard Medical School Faculty meeting,” Harvard University. President's Office. Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Box 222, Folder 305, Harvard University Archives, Harvard University.

²⁶⁶ John T. Morse, Jr., *Life and Letters of Oliver Wendell Holmes, In Two Volumes, Volume II* (Boston and New York: Houghton, Mifflin and Company: 1896), 190.

The Eliot Reforms and Human Dissection

This reform culture was both a critical platform and a potential motivator for Dwight's late-century efforts to make the anatomy act mandatory. Anatomy and body dissection were a crucial and directly mentioned piece of Eliot's systemic package. Reform step "3." in Eliot's 1871 letter to Ellis was "Require a certain amount of dissection by every candidate."²⁶⁷ The Harvard president considered the anatomical spaces, and while he knew them to be vital, found them lacking. He described the 1860s dissecting rooms as "rude . . . with scanty supervision" and a place "in which the manners and customs were as rough and unwholesome as the room and its accessories."²⁶⁸ Rather than do away with the problematic teaching method, Eliot sought improvement, similar to Dwight when at Bowdoin, and factored this rehabilitation into his formal effort. At the March 21, 1871 medical school faculty meeting that formalized the Eliot reforms, referred to as *The New Plan Of Instruction*, amongst the fee and schedule modifies, it was decreed that "A certificate that the candidate has dissected satisfactorily once at least the (3) parts of the body, shall be required."²⁶⁹ Eliot also positioned the school to increase and even prioritize anatomical laboratory work over didactic lecture. The aforementioned *Announcement* declared that, "laboratory work will be substituted for, or added to, the usual didactic lectures," and that every student would have consistent access to

²⁶⁷ "College Correspondence July 20, 1870 - August 31, 1871," Box 5, Folder 9, Harvard Medical School. Office of the Dean. Records, 1828-1904 (inclusive). 1869-1874 (bulk), Harvard Medical Library.

²⁶⁸ Charles William Eliot, "Medical Education of the Future," *Educational Reform: Essays and Addresses* (New York: The Century co., 1901), 345-347.

²⁶⁹ Nigro, "Reformat Harvard," 90.

laboratories and their associated materials²⁷⁰ Human dissection, properly done and supervised, was codified in the Eliot reforms. However, to fulfill this pedagogical promise, the president required an anatomy professor to embrace the reformatted curriculum and reconstitute the cadaver supply chain to ethically and reliably meet Eliot and the faculty's needs.

When transferred into the medical school proper in 1873, Dwight's educational responsibilities were within Eliot's pedagogical approach and expanding curriculum, as he taught the laboratory sciences of histology and topographical anatomy until his 1883 elevation as the Parkman Professor. Dwight's various medical school appointments represented the scientist-driven faculty growth that White highlighted in his 1866 *Boston Medical and Surgical Journal* editorials on reform.²⁷¹ By the time Dwight emerged as head of Harvard anatomy in 1883, he was well poised to transform the historic department and the cadaver supply system in Massachusetts. In an echo of Holmes' "flapjack" statement, Harvard Medical School historian Thomas Harrington believed that "Dwight's election to the Chair of Anatomy meant much for Harvard; it mark[ed] the beginning of a new school of medicine."²⁷² The anatomist became a trusted vehicle of the larger Eliot campaign.

When Dwight became the Parkman Professor, the prevailing winds of the Eliot reforms and the community relations disaster of the Tewksbury scandal provided a crucible for the 1898 anatomy law. Butler's show trial demagoguery threatened the

²⁷⁰ Center for the History of Medicine, "88th Annual Announcement,"

²⁷¹ White, "Medical Education," 64.

²⁷² Thomas F. Harrington, "An Appreciation of Dr. Dwight," *The Sacred Heart Review* 47, no 2 (1911): 20.

cadaver supply at a time when human body demands were accelerating. Eliot's reforms institutionalized competent anatomical instruction through laboratory dissection, which required a consistent legal cadaver. Moreover, Eliot restricted illegal sourcing. Possibly in a response to the Tewksbury event, the president wrote to the medical faculty in 1883 mandating that the university no longer pay for extralegal cadavers.²⁷³ This change was apparently discussed at a November 24, 1883 medical school faculty meeting, in which the school appointed Dwight and Henry Pickering Bowditch (1840-1911), then dean, to form a committee to "make further representations to the corporation upon the subject" of anatomical supply.²⁷⁴ Dwight had little choice but to augment the legal supply and was placed in direct line with the university governance and finance to affect this change.

Locally, it was apparent that Dwight did not inherit the best of dissection laboratories, even outside of the Tewksbury realities and exaggerations. Alfred Worcester (1855-1951), an 1883 graduate of Harvard Medical School, recalled that the dissection room was in a "wooden shed" outbuilding in which "the stench was terrible" and "cadavers" were so scarce that the students were always behind their schedule for dissecting."²⁷⁵ Despite these structural realities, Dwight was an excellent foil for reform. He believed wholeheartedly in systemic anatomical science's promise for alleviating physical suffering. Moreover, there was no need to delude himself on the morality of his

²⁷³ Thomas F. Harrington, *The Harvard Medical School; a History, Narrative and Documentary. 1782-1905* (New York, Chicago: Lewis Publishing Company, 1905), 666.

²⁷⁴ Harvard Medical School. Faculty of Medicine, *Harvard University School of Medicine, Minutes and Records of the Faculty of Medicine, Volume 4, February 1882 to June 1890*, Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School, 91.

²⁷⁵ Center for the History of Medicine, Francis A. Countway Library of Medicine, "Reminiscences," accessed December 30, 2017, <http://stage.collections.countway.harvard.edu/onview/items/show/6573>.

exercise. Dwight believed the dead body lacked any divinity through his interpretation of Catholic principals, and his faith was true and not a justifying device. He could move forward with clarity and purpose.

Mandatory Body Surrender

The 1898 *An Act Relative to the Promotion of Anatomical Science* was not the first mandatory cadaver surrender law in Massachusetts' legal history. In 1845, the legislature passed *An Act concerning the Study of Medicine*. Section one of that act declared that the various overseers of the poor “shall, upon request, give permission to any regular physician, duly qualified according to law, to take the dead bodies of such persons as are required to be buried at the public expense.”²⁷⁶ The law permitted the usual protections allowing the dying to preemptively opt-out of post-mortem dissection and a prohibition on dissecting strangers or travelers, but its main objective was to make anatomical surrender mandatory. The act had a limited legal window. In 1855, a legislative commission was appointed to revise and consolidate the legal code of Massachusetts and Chapter 27 of the Massachusetts legal code, *On the Promotion of Anatomical Science*, was among a large group of laws so altered, finally being passed into law in 1859. In many ways Chapter 27 in 1859 code was similar to that of 1845, with one definitive difference. It returned cadaver sourcing by state institutions to an optional practice.²⁷⁷

²⁷⁶ General Court of Massachusetts, *Acts and Resolves Passed by the General Court of Massachusetts in the Years 1843, 1844, 1845; Together with the Rolls and Messages* (Boston: Dutton and Wentworth, 1845), 571-572.

²⁷⁷ General Court of Massachusetts, *Acts and Resolves Passed by the General Court of Massachusetts in the Year 1855; Together with the Rolls and Messages* (Boston: Dutton and Wentworth, 1855), 195.

Similar to the 1898 modification in Massachusetts anatomy law, scant record survives or has been authored regarding the motivations for and effects of the initial alteration in 1845 or its eventual repeal in 1859. Hartwell, in his contemporaneous and exhaustive 1881 *The Study of Anatomy, Historically and Legally Considered*, gave little insight on the 1845 to 1859 mandatory period.²⁷⁸ Harold Ernst, in his *The Harvard Medical School, 1782-1906*, mentions both the 1845 mandatory provision and its 1859 repeal, but similarly does not provide additional context.²⁷⁹ However, the 1845 act does have hallmarks of a physician origin. The title, *An Act concerning the Study of Medicine*, does not mention anatomy or the dead and highlights a pedagogical mission. The law only required a twenty-four hour waiting period before a body could be turned over, a positive development in pre-embalming anatomy. Ernst suggests that the mandatory law was driven by the influence of John Collins Warren.²⁸⁰ Indeed, there is a handwritten note from March 17, 1845 entitled “Suggestions for the Anatomy Bill” in the Warren Family Papers, suggesting the anatomist’s involvement. This could account for the 1859 repeal as well, as Warren died in 1856 and was not available to lobby against the change.

Curiously, despite an environment of reform at Harvard Medical School and a clear impetus for an ethical and legal cadaver for post-Tewksbury dissection, Dwight did not actively pursue wholesale improvements in anatomical legislation until the mid-1890s. However, he did selectively assert himself administratively early in his tenure. In October 1883, the faculty voted to fully empower Dwight and the dean, Henry Pickering

²⁷⁸ Edward Mussey Hartwell, *The Study of Anatomy, Historically and Legally Considered* (Boston: Tolman & White, 1881), 28.

²⁷⁹ Harold Ernst, *The Harvard Medical School, 1782-1906* (Boston: 1906), 6-10.

²⁸⁰ Ernst, *Harvard Medical School*.

Bowditch, to manage the transportation of dissecting material.²⁸¹ The motivation for this realignment is not evident, but the result was a consolation of cadaver responsibilities for the new professor. In March 1884, Dwight requested that the faculty form a new course of special instruction in anatomy. The faculty response conveyed the pathological effect of Tewksbury. The proposal was declined in that, while current anatomical supply met course needs, the faculty “deemed inadvisable to make public announcement of Special Courses in Anatomy” to ensure the “successful preservation” of the dissectible.²⁸² The anatomical supply survived Tewksbury intact, but the faculty believed the school’s needs were best served by allowing the public to forget again medical education’s relationship with the dead. Dwight saw this as the majority faculty opinion, accusing them of “short sighted timidity” in their failed efforts to keep Holmes from sharing the dissecting rooms with visiting dignitaries at an 1883 celebration of the new Boylston campus.²⁸³

Dwight was logically and progressively increasing his authority over the Harvard cadaver supply, but he did not pursue legislative change until over a decade into his professorship. While being dissuaded from expanding anatomical instruction, it is worth considering if he was satisfied with the state of his laboratory in the 1880s and early 1890s. In his 1896 “Anatomy Law ‘versus’ Body-Snatching,” Dwight praised his dissection program, stating that he liked “to boast that, for many years, not a single body has been received by the anatomical department for which I am not ready to give an

²⁸¹ Harvard Medical School. Faculty of Medicine, *Harvard University School of Medicine, Minutes and Records of the Faculty of Medicine*, 91.

²⁸² Harvard Medical School. Faculty of Medicine, *Harvard University School of Medicine, Minutes and Records of the Faculty of Medicine*, 107, 109.

²⁸³ Dwight, “Reminiscences of Dr. Holmes,” 126.

account.”²⁸⁴ This confidence could have been a byproduct of Eliot’s 1883 prohibition on extralegal cadavers or Dwight’s own efforts to account for Harvard’s medical dead. However, a legal supply and consistent and sufficient supply did not necessarily align in nineteenth-century America. In the same 1896 article, Dwight lamented that “the supply is much hampered by the prejudices, the superstition, the timidity of superintendents and boards of management” and that “Many officials live in a state of terror of the demagogue . . .”²⁸⁵ Dwight may have been able to account for every cadaver, but he did not have as many as he needed or desired. His delay at legislative intervention might have been a Tewksbury-provoked caution.

The National Perspective

If the threat of a new Tewksbury scandal and the University reform at the medical school created the conditions for a mandatory anatomy act, it was Dwight’s placement as a national leader in anatomical science that provoked his local campaign. In 1894, the relatively young Association of American Anatomists (AAA)²⁸⁶ elected Dwight as their third president and he focused his one-year term on the national anatomical supply. His December 1895 presidential address at the Association’s annual meeting, unapologetically entitled “Our Contribution to Civilization and to Science,” was a wide-ranging call to action concerning the use of the dead. Dwight did not deny the public’s aversion to laboratory anatomy, recognizing that it is “an abomination to the popular

²⁸⁴ Thomas Dwight, “Anatomy Law versus Body-Snatching,” *The Forum* 22 (December 1896): 501-502.

²⁸⁵ Dwight, “Anatomy Law,” 500.

²⁸⁶ The American Association of Anatomists was founded in 1888.

mind” and that the “mad wrath” caused by grave robbing was “well justified.”²⁸⁷ Rather than disguise this anatomical reality, he argued that the dissection community should “recognize” this common feeling and “soften it by removing all just cause of complaint” by committing to bury the anatomized and ensuring that no insult is done to remains in academic care.²⁸⁸

Beyond appropriate laboratory practice, “Our Contribution to Civilization and to Science” chastised those states that lacked proper anatomy laws, equating these failures with anatomical grave robbing in terms of disgust. However, even states with laws were unsatisfactory for the exacting Harvard anatomist as most contained the “radical defect” of optional compliance for almshouse superintendents and boards of health. Given the pale of Tewksbury that still gripped Harvard Medical School, Dwight pivoted the anatomical community to the legal solution once desired by his Warren grandfather and never far from his mind, positing that the “mandatory law would free them from all responsibility.”²⁸⁹ Perhaps presaging the pending effort in Massachusetts, Dwight’s lecture was a mission statement, stating firmly the “duty in our several States to do our utmost for the passage of a law that shall advance science, protect the grave and do credit to the community.”²⁹⁰

Dwight’s opinion in “Our Contribution to Civilization and to Science” was not solely derived from personal experience. As with his published anatomical science, his

²⁸⁷ Thomas Dwight, “Our Contribution to Civilization and to Science--Presidential Address by Dr. Thomas Dwight, Harvard Medical School,” *Science* 3, no. 55 (January 1896): 75-77.

²⁸⁸ Dwight, “Our Contribution,” 75-77.

²⁸⁹ Dwight, “Our Contribution,” 75-77.

²⁹⁰ Dwight, “Our Contribution,” 75-77.

legal hypothesis was governed by accumulated data. In addition to serving as the AAA president in 1895, Dwight, with J. D. Bryant of the Bellevue Hospital Medical College and J. Ewing Mears of Pennsylvania College of Dental Surgery, staffed the Committee on the Collection and Preservation of Anatomical Material. During the December 1895 meeting, and made public in the January 17, 1896 *Science*, this Committee reported on a circular letter they sent to anatomy professors in one hundred and forty-eight United States medical schools, twenty-five foreign medical schools, and twenty-five American and foreign medical journals regarding the acquisition and disposition of anatomical material.²⁹¹ The survey focused on body availability, governing legal structures, and cadaver preservation, and painted an informative, if admittedly narrow, national picture. The surveyed responded with striking honesty. Of the forty-two respondents, twelve stated they received remains partially or completely outside of the law.²⁹² However, this legal ambiguity did not necessarily translate into academic dissatisfaction with respective anatomy acts. Approximately half of the respondents expressed some degree of satisfaction with their state laws.²⁹³ Eight of the responding anatomists marked their laws as having obligatory surrender provisions, which would have been the standard for a satisfactory act for AAA President Dwight. In the end, the Committee remarked that the overall national supply was insufficient as less than half of the respondents believed their supply chains were adequate, legal or otherwise. To remedy this lack, the Committee

²⁹¹ J. Ewing Mears, J. D. Bryant and Thomas Dwight, "Report of the Committee on the Collection and Preservation of Anatomical Material," *Science*, No. 55 (January 1896): 77-84.

²⁹² Mears, Bryant, and Dwight, "Report of the Committee," 77-84.

²⁹³ Mears, Bryant, and Dwight, "Report of the Committee," 77-84. Ten of the forty-two respondents left this question blank. The assumption being that these included fifteen universities required to acquire bodies all or in part outside of the law.

concluded that remains must be “obtained wholly under legal enactment” in a manner that would be “compulsory.” To achieve this new reality AAA should work to secure such a law in every state.²⁹⁴ As a data driven scientist, Dwight was compelled by such evidence, and as a man of conviction, he was obliged to respond to the course he so unequivocally recommended on multiple fronts. If the anatomist was hesitant towards legislative action before, his experience as a national leader set him on a path to reform Massachusetts law.

As evidenced in these lectures and writings, Dwight was transparent in his desire to modify anatomy law in order to fuel the ethical and wholly legal laboratory. Unlike common depictions of the skulking resurrectionist and anatomy professor, his criticisms and recommendations were public record. In 1896, contemporary to his AAA presidency, Dwight published his “Anatomy Laws ‘versus’ Grave-Robbing” in the December issue of the popular *Forum* magazine.²⁹⁵ The article echoed his national anatomical transactions, perhaps serving as an analogous public relationships effort to the Massachusetts Medical Society’s 1829 circular “Address to the Community on the Necessity of Legalizing the Study of Anatomy.” As was his style, Dwight was formulaic in his critique and response. The anatomist found it “curious to observe that everywhere there seems to have been a greater readiness to have dissection practised surreptitiously than to put it on a solid legal basis.”²⁹⁶

²⁹⁴ Mears, Bryant, and Dwight, “Report of the Committee,” 84.

²⁹⁵ Dwight, “Anatomy Laws,” 493-502.

²⁹⁶ Dwight, “Anatomy Laws,” 502.

An Act Relative to the Promotion of Anatomical Science

As with his presidential address and the AAA committee report, Dwight's argument was targeted. "Anatomy Laws" remarked that legislatures "will not do what is imperative for anatomy," and "they wink at the disgusting trade in the dead, at the fact of corpses being sent about the county in boxes and barrels, to be finally thrown away as refuse."²⁹⁷ His argument and stance now fully public, Dwight began to lay the foundation for his campaign. At the December Harvard Medical School faculty meeting, the same month "Anatomy Laws" was published, Dwight motioned that the faculty request that the Harvard Corporation take "such measures as may be deemed advisable to improve the laws regulating the supply of Anatomical material."²⁹⁸ On his own provocation, Dwight cultivated a faculty sanction for his desired legislative effort, directing himself into the sympathetic arms of Harvard president and educational reformer Charles Eliot.

With or without the medical faculty's full knowledge, Dwight and Eliot were already in correspondence. Shortly after his AAA address, Dwight brought the matter to the Harvard president's attention. In a February 11, 1896 letter, perhaps answering a direct inquiry from Eliot, he recommended that "preparations may be made for taking up the matter in earnest next year, which will be a favorable time if the fall elections go as

²⁹⁷ Dwight, "Anatomy Laws," 502.

²⁹⁸ Harvard Medical School. Faculty of Medicine, *Harvard University School of Medicine, Minutes and Records of the Faculty of Medicine, Volume 5, June 21, 1890 to June 21, 1899*, Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School, 305.

they probably will.”²⁹⁹ Articulating his main objective definitively, Dwight affirmed “What we want is the “shall” applicable to a larger number of institutions.”³⁰⁰ Dwight’s faith was misplaced or misinformed. By April 1896, Dwight warned Eliot of legislation that was threatening the already constricted body supply.³⁰¹ *An Act Relating to Medical Examiners*, approved on May 26, 1887, set forth rules for the unclaimed that directly countervailed anatomists’ ability to secure remains, placing full disposition authority with medical examiners.³⁰² The law positioned all remains not claimed by family or friends to be buried within forty-eight hours without provisions for anatomical intervention. For Dwight, it was drafted “in ignorance of anatomical claims,” and was an impediment to laboratory progress.³⁰³ While it is unclear if or why the by then nine year old law forced Dwight to intervene ahead of his schedule, he immediately focused on rewriting state anatomical law.

Dwight told Eliot that Harvard could no longer wait until the next legislative session to start the debate. Massachusetts law was progressing away from the needs of medical schools, and Dwight was concerned about the paucity of supply. On April 6,

²⁹⁹ Thomas Dwight to Charles Eliot, 11 February 1896, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁰⁰ Thomas Dwight to Charles Eliot, 11 February 1896, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁰¹ Thomas Dwight to Charles Eliot, 6 April 1896, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁰² General Court of Massachusetts, *Acts and Resolves Passed by the General Court of Massachusetts in the Year 1887* (Boston: Wright and Potter Printing Company), 934.

³⁰³ Thomas Dwight to Charles Eliot, 7 April 1896, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

1896, he had his meeting with the Chairman of the Overseers of the Poor, presumably William P. Fowler, in which he concluded that “a great many” cadavers “escape us.”³⁰⁴ A mandatory anatomy act needed to be placed in-between the superintendents and the medical examiners. Dwight was both confident of passage as such an act “is so evidently proper that it ought to pass” and fearful of a thorough public debate. He advocated that the Harvard Corporation introduce a bill while the legislature was on leave as it was “more likely to go easily for want of time to discuss it.”³⁰⁵ Dwight recognized the difference between the logic of his own anatomical convictions and the predilections of the public towards their communally managed dead. However, his caution also belied a tactical plan. The off-session bill would test the “temper of the Legislature” before a “more serious effort” to pass a mandatory bill.³⁰⁶ Dwight’s correspondence with Eliot reinforces the idea that the Harvard Corporation, or at least its president had designs to modify the law. The results of Dwight’s meeting with the Chairman of the Overseers of the Poor and the medical examiner law transformed quickly from an existential threats from which to react into an opportunity to pursue a common objective.

Dwight’s first legislative effort was either a close failure or a near success. As he recalled to Eliot a year later, when prompting a campaign renewal, their 1896 attempt to rewrite the code was approved by the Massachusetts House of Representative only to be

³⁰⁴ Thomas Dwight to Charles Eliot, 7 April 1896, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁰⁵ Thomas Dwight to Charles Eliot, 7 April 1896, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁰⁶ Thomas Dwight to Charles Eliot, 7 April 1896, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

defeated in the State Senate.³⁰⁷ As with the 1887 medical examiners act, a third-party event motivated Dwight to immediately rededicate himself. The father of an enthusiastic anatomy student named Gould conveyed to Dwight that the 1896 attempt would have been successful if proper legislative stewardship had been in place.³⁰⁸ While encouraged, Dwight advised Eliot not to introduce this new legislation “distinctly as a Harvard measure but to let other schools work with us.”³⁰⁹ By heeding the guidance of Gould, a former state legislator, and accepting the necessity of including the other Massachusetts’ medical schools, Dwight began building an informal coalition with himself as the central operator. Tewksbury had damaged the Harvard brand when it came to anatomical concerns and non-Harvard actors blunted the perception that the university was exclusively profiting from the state dead. Realistically, Dwight saw no tangible benefit from excluding the other medical schools, relaying to Eliot that “They will claim their share anyway.”³¹⁰

For expediency’s and efficiency’s sake, Dwight was selective with his coalition. In his same letter to Eliot regarding Gould and the other Massachusetts medical schools, he firmly stated that there was no need to ask the Harvard medical school faculty to make

³⁰⁷ Thomas Dwight to Charles Eliot, 1 December 1897, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁰⁸ Thomas Dwight to Charles Eliot, 1 December 1897, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁰⁹ Thomas Dwight to Charles Eliot, 1 December 1897, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³¹⁰ Thomas Dwight to Charles Eliot, 1 December 1897, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

a formal request of the Harvard Corporation to pursue a new legislative petition.³¹¹ The anatomist displayed an arrogance and self-reliance informing Eliot that he would communicate with the Corporation directly. Beyond excluding the faculty, Dwight wondered aloud on the impact of proceeding “without any direct sanction of the University.” However, while dismissing large sections of the Harvard administrative network, Dwight sought skilled allies with specific reach and influence. Suggesting a prior conversation with Eliot regarding legislative partners, Dwight looked towards two new members of the Harvard Board of Overseers, past state representative and future Federal Judge Francis Cabot Lowell (1855-1911) and recent chairman of the Massachusetts State Board of Health Henry Pickering Walcott,³¹² as being available to “do what they can.”³¹³ Dwight was both avoiding bureaucracies that could slow his desired legislative pace and cultivating members of those formal bodies to selectively empower his effort. His approach suggests that perhaps larger Harvard found solace in avoiding the true specifics of medical education and the dissection room, and, despite his confidence in the merits of the legislation, he was concerned about anatomical perception even within the allied halls of Harvard. Dwight believed that the scars of Tewksbury ran deep within the faculty.

³¹¹ Thomas Dwight to Charles Eliot, 1 December 1897, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³¹² As the chairman of the special committee charged in 1883 with looking into the abuses of the Tewksbury almshouse, Walcott was well aware of the pressures and potential shortcomings evident in an optional cadaver supply chain.

³¹³ Thomas Dwight to Charles Eliot, 1 December 1897, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

Eliot's response to Dwight's bold intimation of delaying Harvard University sanction is not preserved, but the president appears to have endorsed the approach. Less than two weeks after his letter regarding Gould, Dwight was nearly finished with a draft petition for Judge Lowell's review.³¹⁴ Dwight also increased his cadre of trusted consultants, soliciting opinions and support from the Tufts Medical School Dean John Lewis Hildreth (1838-1925) and Boston University Medical School Dean Israel T. Talbot (1829-1899).³¹⁵ Talbot was preconditioned to support and inform Dwight's petition. Boston University was also drawn into the Tewksbury scandal and Talbot was questioned at length during the hearings.³¹⁶ Dwight drafted the petition quickly. The needs of the community were entrenched in him. Moreover, he had well-vetted language on hand. According to AAA's Committee on the Collection and Preservation of Anatomical Material, Pennsylvania's 1883 act *For the promotion of medical science by the distribution of and use of unclaimed human bodies for scientific purposes, and to prevent unauthorized uses and traffic in human bodies* was a model law in that it provided "provisions necessary to compel compliance on the part of public officers and to protect the citizens of the Commonwealth in all of their rights."³¹⁷ Given his compact timeline,

³¹⁴ Thomas Dwight to Charles Eliot, 13 December 1897, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³¹⁵ Thomas Dwight to Charles Eliot, 13 December 1897, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³¹⁶ Massachusetts General Court. House of Representatives, *Argument of Edward P. Brown before the Committee on Public Charitable Institutions, in the Matter of Mismanagement of the State Almshouse at Tewksbury*. (Boston: Wright & Potter, 1883), xxxviii.

³¹⁷ "Anatomical Law of the State of Pennsylvania, Enacted June 13, 1883," *Science* 3, No. 55 (January 1896), 84-86.

Dwight could deploy the recommendation he already presented to the national anatomical community and model Massachusetts after Pennsylvania.

Dwight did not follow his own advice, deciding that his recommended model apparently did not fit Harvard's anatomical needs. The 1883 Pennsylvania law and the eventual 1898 Massachusetts *An Act Relative to the Promotion of Anatomical Science* differed in minor and fundamental ways.³¹⁸ While both laws had exceptions for individuals with known family relations and travelers, the Massachusetts act added veterans and current military to the list of protected dead, particularly those of the American Civil War and the Spanish-American War. The Massachusetts act allowed for individuals to prohibit anatomical dissection before their death, and gave family and friends up to fourteen days after death to identify remains. Pennsylvania had no such provisions.³¹⁹ Pennsylvania law did set strict guidelines with defined penalties, prohibiting out of state use of the Commonwealth's unclaimed dead.³²⁰ Massachusetts required the same but was much less explicit. More fundamentally, however, was the difference in how the laws mandated the distribution of the dead. Pennsylvania vested such authority in a state anatomy board and it was this body that was charged to notify medical schools of body availability. Dwight had no interest in codifying such a middleman and placing a distribution board in between Harvard and the public dead,

³¹⁸ General Court of Massachusetts, *Acts and Resolves Passed by the General Court of Massachusetts in the Year 1898* (Boston: Wright and Potter Printing Company), 436-437.

³¹⁹ General Court of Massachusetts, *Acts and Resolves*, 436-437.

³²⁰ "Anatomical Law of the State of Pennsylvania," 84-86.

stating as much to Eliot in a February 11, 1896 letter.³²¹ He crafted his legislation to permit the public institutions themselves to surrender their unclaimed dead directly and, outside of the special conditions articulated with the law, they had little recourse to deny medical schools requests.³²² Such a system would benefit the most-organized and best-funded medical schools, and Dwight had confidence in his ability to maximize the law's eventual use.

The key achievement of the Pennsylvania law was its mandatory surrender provision, and above all else, that was the mechanism that Dwight most wanted emulated in Massachusetts. After its passage, when articulating the Massachusetts law's central elements to Eliot, Dwight highlighted that public institutions had to transport their unclaimed dead three days after a medical school request. The other "essentials" he presented to Eliot included the requirement for schools to hold remains for fourteen days for potential identification, and that all anatomical activities must be covered by bond.³²³ Rather than the recommended 1883 Pennsylvania law, the 1898 act more closely resembled Massachusetts' 1859 act *Of the Promotion of Anatomical Science* with the chief modification being the shift from the problematic "may" to the celebrated "shall." Even with the cultural preconditions in the form of Tewksbury scandal and the Eliot reforms, the Dwight law was more of an augmentation of pre-existing statute than a radical rewrite. The anatomist believed that with consultation he could handle the

³²¹ Thomas Dwight to Charles Eliot, 11 February 1896, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³²² General Court of Massachusetts, *Acts and Resolves*, 436-437.

³²³ Thomas Dwight to Charles Eliot, 31 May 1898, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

measure with little intra-Harvard assistance. After writing Eliot to inform him that the draft was completed, Dwight offered that the Harvard president “not take the trouble to answer this (letter) unless you have some suggestion or otherwise.”³²⁴ Dwight had the matter well in hand.

However, the drafting of the law and advocating for its passage were distinctly different matters. In regards to passage, Harvard University was a liability rather than an asset, presumably due to the Tewksbury investigation and the smoldering populist feeling that an oversized Harvard presence could enflame. Harvard Medical School Dean William Lambert Richardson³²⁵ suggested that the petition drafted by Dwight be signed by the Presidents of the Massachusetts Medical Society, Massachusetts Homeopathic Medical Society, and the Massachusetts Eclectic Medical Society, and not have the legislation be a direct product of any one medical school.³²⁶ Dwight was uncomfortable turning something so critical to his future work and anatomical legacy over to third parties, confiding in Eliot that it was “pretty mortifying to work “tali auxilio.”³²⁷ However, Dwight moved forward as directed by his dean.

³²⁴ Thomas Dwight to Charles Eliot, 17 December 1897, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³²⁵ Like Boston University medical school dean Talbot, Richardson was also questioned by Butler during the Tewksbury investigation. As the professor of obstetrics, he possessed insight the presence of infant cadavers at Harvard Medical School in 1883.

³²⁶ Thomas Dwight to Charles Eliot, 17 December 1897, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³²⁷ Thomas Dwight to Charles Eliot, 17 December 1897, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

The process was dependent on others once submitted. In addition to Major Gould, whose son was the enthusiastic anatomy student that encouraged Dwight to renew his campaign in 1897, Dwight commended two men in particular to President Eliot for Harvard administration appreciation. Outside of the state legislature, Dwight cited Boston City Hospital physician W. A. Morrison as having had “great influence with the Legislature” and who “worked very hard” for passage of the act.³²⁸ Inside the Massachusetts law-making body, Dwight related that a “Mr. Myers,” presumably future Republican House Speaker James J. Myers of Cambridge, did a “great deal” in getting the anatomy act through the House, and even prevented the addition of amendments of which Dwight found problematic but on which he was willing to compromise.³²⁹ These were just the individuals that Dwight suggested Eliot thank personally, but Harvard was further indebted. Dwight indicated that he too had “written a good many letters of thanks.”³³⁰ In the end, Dwight’s instinct proved correct and that once the bill was properly introduced, its allies were able to steward it through the Massachusetts House and Senate. By properly preparing and maneuvering the legislation, the thoughtful anatomist had ensured its success.

³²⁸ Thomas Dwight to Charles Eliot, 31 May 1898, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³²⁹ Thomas Dwight to Charles Eliot, 2 June 1898, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³³⁰ Thomas Dwight to Charles Eliot, 2 June 1898, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

Catholic Impact on the 1898 Anatomy Act

While in most cases the 1898 act benefitted from Harvard staying in background, Thomas Dwight himself was integral in the mobilization of the Catholic community to support or at least not vehemently oppose the legislation. In this Dwight was a unique figure. He was an entrenched member and leader of the Boston Catholic community. Dwight established the devotional group the Society of Adoration of the Blessed Sacrament in 1883, and was dedicated to Catholic charity work through the St. Vincent de Paul Society.³³¹ Later, while a trustee of the Boston Public Library, Dwight fought for the inclusion of Catholic literature and for the exclusion of texts he believed anti-Catholic.³³² The Boston Catholic hierarchy saw him as a secular peer and one who was devoted to the inclusion of Catholic faith in scientific life. Dwight believed in the co-existence of anatomical dissection and religious faith. He was able to earnestly convince Catholic leaders that human dissection did not harm the soul and could be performed on and by the faithful.

Dwight's letters to Eliot indicate that the faith community supported Dwight's efforts in a way possibly unachievable by another Harvard physician. Specifically, Dwight credited a Father Sullivan and the Irish-born Vicar-General of the Archdiocese of Boston, William Byrne, as instrumental in the passage of the law. However, he measured their impact in "break(ing) up the unanimity of the opposition" rather than generating

³³¹ Thomas F. Harrington, "An Appreciation of Dr. Dwight," *The Sacred Heart Review* 47, no 2 (1911): 21.

³³² Harrington, "An Appreciation," 21.

positive votes.³³³ Dwight considered that was more than he could have hoped for from the Catholic legislators, writing Eliot that “some of that element are not be controlled.”³³⁴ As a rare Catholic Boston Brahmin, Dwight may not have related with the non-elite members of the Catholic community, but he was an informal ambassador between the Boston Church community and the Harvard Corporation. In April 1899, Charles Francis Donnelly asked Dwight to obtain President Eliot’s support for a lecture by Cardinal James Gibbons to the Harvard Catholic Club after a previous attempt was canceled due to the Spanish-American War.³³⁵ In another instance, Dwight complained to Eliot that the son of a Catholic colleague, Dr. Hasket Derby, was assigned an anti-Catholic history on the Reformation as a Harvard College Freshman.³³⁶ Perhaps stemming from the relationships formed during the legislative process or preceding it, Dwight was a Catholic of influence at Harvard, and these relationships had a demonstrable impact on *An Act relating to the Promotion of Anatomical Science*. However, as with the case of the Harvard Catholic Club, Dwight resented his Catholic tokenism, objecting to Eliot for being used as “go-between in what is not my own affair.”³³⁷ Whether or not he

³³³ Thomas Dwight to Charles Eliot, 31 May 1898, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³³⁴ Thomas Dwight to Charles Eliot, 31 May 1898, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³³⁵ Thomas Dwight to Charles Eliot, 2 April 1899, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³³⁶ Thomas Dwight to Charles Eliot, 2 April 1900, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³³⁷ Thomas Dwight to Charles Eliot, 2 May 1899, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

appreciated his informal ambassadorial role, it proved critical to Massachusetts anatomy law history.

One Catholic ally appears to have influenced the 1898 act beyond others. According to Dwight, lawyer Charles Francis Donnelly (b.1836) was the one chiefly “attending” to Harvard’s “Catholic interests.”³³⁸ While Dwight does not provide details to Eliot on Donnelly’s lobbying work on behalf of the anatomy bill, the lawyer had reach into the highest levels of the Catholic hierarchy. It was Donnelly that connected Cardinal James Gibbons with the Harvard Catholic Club in March 1898, possibly in regards to the anatomy bill.³³⁹ This was the same meeting that was canceled due to the Spanish-American War, but it does suggest the important influence of Donnelly and the force of Dwight’s Catholic relationships. The legislative relationship between the two men ran deeper than the anatomy bill. Donnelly enlisted Dwight’s help when the Massachusetts House passed a bill allowing state inspection of private schools, and Dwight in turn requested aid of President Eliot.³⁴⁰ Dwight, while cautious of alienating any supporters of his anatomical agenda, was concerned about any intrusion into Catholic education and supported Donnelly’s efforts to curb the bill.³⁴¹ Eliot apparently believed that the

³³⁸ Thomas Dwight to Charles Eliot, 3 March 1898, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³³⁹ Thomas Dwight to Charles Eliot, 3 March 1898, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁴⁰ Thomas Dwight to Charles Eliot, 3 March 1898, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁴¹ Thomas Dwight to Charles Eliot, 3 March 1898, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

Donnelly-Dwight relationship was important enough to the health of the anatomy bill that he wrote a letter supporting Donnelly's campaign against the educational bill; although Donnelly never publically printed the letter.³⁴²

Donnelly was well versed in the relationship between medical schools and Massachusetts' unclaimed dead and the misery imposed by a poorly legislated anatomy law. In 1883, Governor Butler appointed Donnelly to the very Board of Charity that oversaw the Tewksbury almshouse.³⁴³ Despite being a Democrat and a Butler appointee, Donnelly sided with his Board of Charity colleagues, determining that nothing improper had occurred at Tewksbury. Butler did not reappoint Donnelly to the Board, but Republican Governor Robinson did so in January 1884.³⁴⁴ Given this pedigree, Donnelly would have been sympathetic to Dwight's crusade and, at minimum, realized the critical importance of properly governing the problematic subject matter of human dissection.

Ironically, it may have been his experience with Butler that allowed him to support Dwight's cause. Whether true advocates of preventing state inspection of Catholic schools or self-interested parties pursuing the Catholic vote for their own bill, both Eliot and Dwight spoke at the March 1888 hearings on the education bill. Eliot gave a lengthy address lamenting that the bill under consideration "widened that breach" between Catholic and Protestant communities in Massachusetts, and allowed the state to deal with parochial schools "in a manner objectionable" to the Roman Catholic

³⁴² Thomas Dwight to Charles Eliot, 10 March 1898, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁴³ Katherine Eleanor Conway, Mabel Ward Cameron, *Charles Francis Donnelly: a memoir, with an account of the hearings on a Bill for the Inspections of Private Schools in Massachusetts in 1888-1889* (New York: James T. White and Company, 1909), 22-23.

³⁴⁴ Conway and Cameron, *Charles Francis Donnelly*, 22-23.

community.³⁴⁵ Dwight spoke full-throatedly as a Catholic family man, stating that the “law as unjust as it is absurd,” as it was his right as a father to decide the schooling of his children and not the government’s. Invoking his ancestry, Dwight asked what his Revolutionary ancestors would have thought of legislation that placed so much authority with a government body. Whether an alliance of convenience or conviction, the ultimate result was the same. *An Act Relative to the Promotion of Anatomical Science* was signed by the Governor on May 27, 1898, and the 1898 anti-Catholic education bill was defeated.

Success of the 1898 Anatomy Act

The 1898 anatomy act delivered exactly as Dwight intended. In August 1899, he wrote multiple letters to Eliot celebrating the increase in available cadavers and asking for further funding to match the prodigious acquisition, requesting 1,000 dollars over the normal annual department appropriation.³⁴⁶ Moreover, Dwight was optimistic that once new body sources were appropriated, the yield could be increased by twenty to twenty-five percent. While concerned about the burgeoning cost, he still pushed Dr. Brooks, the demonstrator, to acquire remains “at any price.”³⁴⁷ In late August, Dwight was considering building extra frames in the refrigerator to increase its cadaver capacity. He was concerned it would soon be beyond its hundred and fifty body threshold. Despite this

³⁴⁵ Conway and Cameron, *Charles Francis Donnelly*, 35-37.

³⁴⁶ Thomas Dwight to Charles Eliot, 8 August 1899, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁴⁷ Thomas Dwight to Charles Eliot, 8 August 1899, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

bounty, Dwight cautioned Eliot against cutting off any funding, stating, “I beg you to believe that the best way, for the present at all events is to pay. There is no better advertisement for a school than plenty of material, both for students and graduates.” He reminded Eliot that the Harvard president had once said “that the expense was secondary.”³⁴⁸

The acquisition landscape was looking even more favorable. The Massachusetts Attorney General had interpreted the law so that a blanket request was valid for each public institution, and anatomists did not have to make requests on a cadaver-by-cadaver basis.³⁴⁹ It is evident from the near frantic concerns in Dwight’s letters that Eliot did not anticipate the law to be successful so soon and that growing costs were quickly becoming a concern. Dwight was unrelenting, encouraging Eliot to continue to fund the pace. Cadavers were never without value to Dwight, and he envisioned specialty courses in children’s anatomy, orthopedic anatomy, and ear, nose, and larynx anatomy in an August 29, 1899 letter to the president.³⁵⁰ Dwight’s career had been focused on developing the mandatory anatomy law, and the promise it offered for his scientific interests were too exciting to consider any retrenchment.

Despite of or in light of the bill’s success, Eliot remained invested in the implementation of the law after its passage and showed particular interest in the per

³⁴⁸ Thomas Dwight to Charles Eliot, 20 August 1899, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁴⁹ Thomas Dwight to Charles Eliot, 20 August 1899, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁵⁰ Thomas Dwight to Charles Eliot, 29 August 1899, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

cadaver cost in order to control expenses. In addition to imprecise figures from Dwight, Eliot petitioned Assistant Professor of Anatomy Franklin Dexter for subject costs. Dexter informed the Harvard president that “The greater proportion of the subjects come from Tewksbury, the M.G.H., + City Hospital.”³⁵¹ Tewksbury was the most economical. The cost to bring a cadaver to the medical school was ten dollars and the almshouse covered the return transport to the hospital, the coffin purchase, and the burial costs at their own expense. As a comparison, Dexter outlined the costs associated with body acquisition from Boston City Hospital. According to the itemized costs outlined by the Dexter, the coffin was five dollars, the transport back and forth to Harvard was six dollars, the burial permit was one dollar, the grave itself cost five dollars, and the bond was fifty-five cents for a total cost of seventeen dollars and fifty-five cents.³⁵² As had been true since before and after the Tewksbury scandal and the subsequent 1898 anatomy bill, the Tewksbury Hospital remained an excellent and cost effective source for laboratory cadavers.

While the Tewksbury Hospital was presumably better managed and the health of its residents much improved after the 1883 scandal, it still produced significant amounts of dead bodies, claimed or otherwise, which provide a window into the demographics of the individual in the Harvard laboratory. Assuming that Tewksbury remained the principle source for the Harvard dissection room after the 1898 law, one can extrapolate the approximate demographics of the Harvard cadaver from the statistical tables published in the hospital *Annual Reports*. Tewksbury reported on an October through

³⁵¹ Franklin Dexter to Charles Eliot, 2 September 1899, Box 37, Folder Dexter, Franklin, 1899 Box 36, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁵² Franklin Dexter to Charles Eliot, 2 September 1899, Box 37, Folder Dexter, Franklin, 1899 Box 36, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

September calendar year. In the three years immediately succeeding the 1898 act, 1899-1901, 1,163 individuals died at the Tewksbury Hospital. Eight hundred and sixty-three of those dead or approximately seventy-four percent were males, with the remaining three hundred or twenty-six percent being female.³⁵³ These deaths were fairly evenly distributed across the Tewksbury-defined age brackets, with some exceptions. In groupings of ten years between the ages twenty and eighty, each decade range accounted for greater than ten percent of hospital deaths with the highest or approximately seventeen percent of deaths occurring between ages forty and fifty.³⁵⁴ The age bracket of five to ten years accounted for the least amount of deaths, registering only a quarter of a percent of overall deaths over three years. The sex and age of this Harvard cadaver is largely hypothetical. Not all of the Tewksbury dead would have been unclaimed and even amongst the unclaimed not all of the cadavers would have resolved in the Harvard dissection laboratory. Boston University, Tufts University, and others had a stake in the Tewksbury unclaimed. Additionally, the Harvard laboratory would have been stocked with cadavers from Boston City Hospital, Massachusetts General Hospital, and the State Farm at Bridgewater, amongst other sources. However, as Tewksbury did not list the age and sex of the unclaimed dead that were surrendered to medical schools and Harvard

³⁵³ Trustees of the State Almshouse at Tewksbury, *Forty-Sixth Annual Report of the Trustees of the State Almshouse at Tewksbury, Including the Report of the Superintendent and the Resident Physician, For the Year Ending September 30, 1899* (Boston: Wright and Potter Printing Company, 1899). Trustees of the State Almshouse at Tewksbury, *Forty-Sixth Annual Report of the Trustees of the State Almshouse at Tewksbury, Including the Report of the Superintendent and the Resident Physician, For the Year Ending September 30, 1900* (Boston: Wright and Potter Printing Company, 1900). Trustees of the State Almshouse at Tewksbury, *Forty-Sixth Annual Report of the Trustees of the State Almshouse at Tewksbury, Including the Report of the Superintendent and the Resident Physician, For the Year Ending September 30, 1901* (Boston: Wright and Potter Printing Company, 1901).

³⁵⁴ Trustees of the State Almshouse at Tewksbury, *Forty-Sixth Annual Report.*; Trustees of the State Almshouse at Tewksbury, *Forty-Seventh Annual Report.*; Trustees of the State Almshouse at Tewksbury, *Forty-Eight Annual Report.*

intake records have not survived, these *Annual Report* tables lend a fair approximation of who was represented on the Harvard dissection table.

The hospital *Annual Reports* also list the national origins or “nativity” of the inmates in its care. Similar to the death statistics, this data only gives an estimation of the nationality of the Harvard cadaver as the tables list the living inmate population in a given year. Death was not recorded by nationality. However, while one cannot assume a one-to-one ratio between the parentage of living and dead, this data presents a reasonable hypothetical demography. Between 1899 and 1901, the resident population at Tewksbury, while modulating heavily at any given time, was 9,596 individuals. During this period, 2,991 or thirty-one percent of the inmates were identified as being from Ireland, and 1,987 or approximately twenty-one percent of inmates were from Massachusetts.³⁵⁵ Sixteen percent of individuals were from the British Provinces or England, with the remaining thirty-two percent of inmates were from various American states and foreign countries, with no other region rising above five percent of the total. Beyond the problematic relying on a one-to-one living inmate to death ration, this nationality data must be viewed through a further historical lens. Not all nationalities would have been equal in terms of their remains being claimed or not. For example, presumably, individuals born in Massachusetts would be more likely to be claimed than individuals from Ireland or England due to geographic proximity. However, the *Annual Reports* can be used to present a rough estimate of this turn-of-the century Harvard cadaver. He was mostly likely a male adult born in Ireland or Massachusetts. This was

³⁵⁵ Trustees of the State Almshouse at Tewksbury, *Forty-Sixth Annual Report.*; Trustees of the State Almshouse at Tewksbury, *Forty-Seventh Annual Report.*; Trustees of the State Almshouse at Tewksbury, *Forty-Eight Annual Report.*

the individual that the success of Dwight's law had made available on an ever-growing basis as Harvard Medical School entered the twentieth century.

VI.

Conclusion

Thomas Dwight considered the 1898 *An Act Relative to the Promotion of Anatomical Science* his law, and defended it against those who sought to undermine Harvard's profit from it. In 1902, Dwight complained to Eliot that newly formed Boston College of Osteopathy was granted access to the state's unclaimed dead by the Massachusetts legislature.³⁵⁶ This affronted the Harvard anatomist. The osteopaths were outside of the Dwight-curated cohort of the Medical School of Tufts College, the Boston University School of Medicine, Boston College of Physicians and Surgeons, and Harvard Medical School.³⁵⁷ Always ready make a strategic correction, Dwight confronted the undertaker who transported the remains from Tewksbury to the "quacks" at the osteopathic college, knowing that undertaker "had too much at stake to dare to disobey" Harvard and the other chosen medical schools.³⁵⁸ His classroom remained well stocked, and he would soon begin to truly achieve the promise of his research. Dwight could not bear to have the growing supply so soon threatened. He had no plans to loosen his grip

³⁵⁶ Thomas Dwight to Charles Eliot, 18 January 1902, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

³⁵⁷ The Boston (Massachusetts) College of Osteopathy was founded in 1898 and was closed in 1944. (America's Lost Colleges, "Massachusetts College of Osteopathy, Boston and Cambridge, Massachusetts, 1898-1944," accessed on January 20, 2018, <http://www.lostcolleges.com/massachusetts-college-of-osteopathy>). The co-educational Boston College of Physicians and Surgeons was founded in 1880 and was closed in 1949. (snac, "College of Physicians and Surgeons (Boston, Mass.)," accessed on January 20, 2018, <http://snaccooperative.org/ark:/99166/w6s235cs>).

³⁵⁸ Thomas Dwight to Charles Eliot, 16 January 1902, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

the distribution of the legal dead in Massachusetts after being the main architect of what, in the end, was an approximate sixty-seven year effort on behalf of the Massachusetts medical community. As he affirmed to Eliot, the 1898 “anatomical law which has done us much good was, I may say, largely due to my efforts. I cannot be expected to sit still and see the good taken away.”³⁵⁹

The Harvard Department of Anatomy at the turn of the twentieth century was experiencing growth and success under Dwight. The laboratory and lecture curriculum and class time had expanded. Led by the Parkman Professor, original research was being conducted in the department for the first time in its history. Dwight was planning to develop further classroom dissection into new graduate courses, and wanted to launch special sessions in the anatomy of children and otolaryngological anatomy. *An Act Relative to the Promotion of Anatomical Science* and its burgeoning cadaver supply made these accomplishments and aspirations possible. This classroom expansion was only a part of the anatomical benefit of the new law for Thomas Dwight. As a devoted believer in the Eliot-led revolution at Harvard Medical School that placed scientific medical research firmly within its mission and its clinical promise to society, Dwight needed the 1898 act to pursue his academic goals.

Dwight explored the healthy variations within the human skeleton, and to investigate the depth and breadth of these variations, he required a healthy supply of research remains. Between 1898 and 1911, Dwight published multiple anatomical tracts whose conclusions required the dissection of multiple bodies, including but not limited

³⁵⁹ Thomas Dwight to Charles Eliot, 28 January 1902, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

to: “Description of the Human Spines Showing Numerical Variation in the Warren Museum of the Harvard Medical School” (1901)³⁶⁰, “The Clinical Significance of Variations of Wrist and Ankle” (1906)³⁶¹, and *Variations of the Bones of the Hands and Feet* (1907).³⁶² *Variations of the Bones of the Hands and Feet* was complemented by seventy-nine photographs and radiographs of the hand and foot bones of various subjects acquired by Dwight.³⁶³ Dwight left a tangible record of this research in Harvard’s Warren Anatomical Museum. Between the period of the 1898 law and his death, he created at least seven separate series of individual bones dedicated to the spine, femur, tibia, humerus, scapula, feet, and hands. All told, these series included five-hundred and twenty separate records in the museum catalogues and represented, at minimum, three hundred and eight-six individuals.³⁶⁴ The records do not indicate if Dwight dissected the individuals himself, but he was conduit for their collection and they correspond with his publication history and subject matter. He was acquiring individuals for research and, given the amount of remains in question, it was the 1898 act that provided this largess. The amount of individuals was substantial. A separate “Dwight Room” was created in the

³⁶⁰ Thomas Dwight, “Description of the Human Spines Showing Numerical Variation in the Warren Museum of the Harvard Medical School,” *Memoirs of the Boston Society of Natural History* 5, no. 7. (1901), 237-312.

³⁶¹ Thomas Dwight, “The Clinical Significance of Variations of Wrist and Ankle” *Journal of the American Medical Association* 47, no. 4 (July 1906): 252-255.

³⁶² Thomas Dwight, *Variations of the Bones of the Hands and Feet* (Philadelphia: London: J.B. Lippincott Company, 1907).

³⁶³ Dwight, *Variations*.

³⁶⁴ Descriptive Catalogue of the Warren Anatomical Museum, Vol. 10, 1898, Box 13, Warren Anatomical Museum. Records, 1835-2010 (inclusive), 1971-1991 (bulk), Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School. Dwight divided the skeletal remains of single individuals into multiple series, which accounts for there being more catalogue entries than individuals.

Department of Anatomy to house the prepared human remains that he collected during his tenure.³⁶⁵

Dwight was the perfect conduit to extend Charles Eliot's reforms into the Department of Anatomy. The transformation of the curriculum from a lecture-driven pedagogy to a laboratory and dissection-focused system synched with the skill set Dwight had accumulated at Harvard and in Europe. Dwight was never a focused clinician like many of his Harvard faculty predecessors, but was rather an academic scientist and professor, much like the former Assistant Professor of Mathematics and Chemistry, Charles Eliot. Dwight had a reformer's instincts and transformed Bowdoin's anatomical teaching in short order by employing his frozen-section technique. Similarly, collectively calculating the risks and opportunities, Dwight assessed the effect of Tewksbury scandal and used it to motivate the reforms he required. Unlike his Harvard peers, he did not shrink from Tewksbury's persuasive grasp but recognized it as a horror from which to adapt and respond.

In addition to his scientific temperament and his problem-solving acumen, Dwight was a Boston Brahmin, descended from Harvard Medical School aristocracy. His great-grandfather, John Warren, was one of the three founders of Harvard Medical School, and his grandfather, John Collins Warren, was its most influential anatomist and, in part, responsible for bringing anesthesia into surgical practice in 1846. His, great-great uncle, Joseph Warren (1741-1775), was a Revolutionary War hero who died at the Battle of Bunker Hill. As with John Collins Warren, Dwight was guided by his faith and pursued anatomical science and anatomical lawmaking because of it rather than in spite

³⁶⁵ Henry K. Beecher and Mark D. Altschule, *Medicine at Harvard: The First Three Hundred Years*, (Hanover, N.H.: University Press of New England, 1977), 96.

of it. He saw anatomical science as a means to relieve suffering through informed medicine, and firmly believed that once separated from its immortal soul no harm could be done to a corpse. Beyond this strength of conviction, Dwight's Catholicism allowed him to travel within communities other Harvard elites could not, a detail that proved critical for the anatomy bill. Dwight was a unique figure that was able to take advantage of his Brahmin, scientist, and Catholic experiences to create anatomical change.

However, as he once confided in Eliot, Dwight was never fully embraced by the Harvard Medical School community and, this outsider status, real or perceived, may have fueled his desire to achieve, and motivated him to leave a lasting legacy on par with that of his Warren ancestors. In a March 2, 1896 letter regarding Dwight's hopes for greater involvement in the museum, he confided in Eliot that, "Whatever degree of success I have had . . . has been won in defiance of the most influential parties in the Faculty." The anatomist no longer expected "fair play or civil treatment." He dealt with "open bullying and trickery," and had worked "under a continual sense of wrong" that "embittered my life and injured my health."³⁶⁶ The surprising candor of the letter does not offer specifics, but suggests that Dwight saw the Harvard president as a confidant beyond his immediate medical peers. Moreover, it conveys that the anatomist was constantly fighting to achieve what he believed vital despite personal cost, which was an integral attribute for an anatomical reformer. While it is logical to assume that Dwight's isolation was driven by his Catholic minority status, he does not mention this in the letter and nor were other instances of such prejudice apparent.

³⁶⁶ Thomas Dwight to Charles Eliot, 2 March 1896, Box 37, Folder Dwight, Thomas, 1893-1903, Records of the President of Harvard University, Charles W. Eliot, 1869-1930, Harvard University Archives, Harvard University.

Like its chief architect, *An Act Relative to the Promotion of Anatomical Science* persevered into the twentieth-century, and it continued to systemically provide Harvard Medical School with cadavers from Tewksbury and the Bridgewater State Farm. In the Department of Anatomy records in the Harvard Medical School Archives there is a series of funeral home receipts for body transportation, embalming, and burial.³⁶⁷ The arrangements that Dwight empowered with Tewksbury and Bridgewater were still intact after his 1911 death, and even the associated costs were largely consistent with the fees he accepted in 1899. Between 1916 and 1920 the Farm at Bridgewater State provided one hundred and twenty-five subjects to Harvard Medical anatomists and students at a total cost of \$1,480. During the same period, the Tewksbury Hospital proved a more ready supply, delivering four hundred and eighty-three subjects at a cost of \$3,475 to Harvard.³⁶⁸ Due to Dwight's effort, the specter of Benjamin Butler did not overwhelm the legal acquisition of the unclaimed dead from Tewksbury and even thirty-five years later the relationship between hospital and Harvard remained transactional and sound.

In response to the Butler hearings, the Tewksbury almshouse improved the ethics of its anatomy programs rather than deciding to activate its optional surrender rights under the 1859 anatomy law. Perhaps due to Dwight's influence as a trustee, the almshouse built a refrigerator room to provide longer periods for body identification. All individuals received identifying numbers and grave makers and had to be returned to the Tewksbury cemetery for burial after dissection. Instead of allowing the past to overwhelm it, the almshouse chose to move forward and reform its practice. Dwight's anatomy laboratory was similarly transparent and had a history of problem solving rather

³⁶⁷ Dominic Hall, "John Collins Warren, Thomas Dwight, and the Development of a Legal and Regular Anatomical Supply Chain in 19th-Century Massachusetts" (paper presented at the annual meeting for the American Association of the History of Medicine, Minneapolis, Minnesota, April 28–May 1, 2016).

³⁶⁸ Hall, "John Collins Warren."

than finding comfort in clandestine acquisition. Eliot certainly promoted the transparent dissecting room by outlawing university funding of extralegal supply in 1883. However, even before the 1898 act, Dwight publically boasted of his transparent dissection laboratory, stating that he could account for every cadaver in his speech the American Association of Anatomists annual meeting. In the same address, he advocated for reburial after dissection and for respecting the faith of the buried when known. After 1898, Dwight's anatomy program continued to bury the unclaimed and dissected.³⁶⁹ The cost outlays that Franklin Dexter sent President Eliot all included the cost of burial. Despite the quickly growing supply of legal cadavers, Dwight and Harvard continued to bury the remains from which they benefitted. At least in part, Dwight's arguments that a mandatory legal supply led to better ethical outcomes had some merit within the case of Massachusetts and Harvard. Given the candid discussions of the principle operators, it would be difficult to claim the school was still grave robbing at the end of the nineteenth century.

Why is the only discoverable evidence, up to this point, that Thomas Dwight and Charles Eliot successfully changed Massachusetts anatomy law represented in the archived letters from the anatomist to the Harvard president? Massachusetts anatomical law, particularly in the nineteenth century, is a well-travelled historical subject. Moreover, in 1898, there was precedent for taking a published victory-lap for passing a groundbreaking mandatory body surrender anatomy law. In 1898, the students of William S. Forbes (1831-1905) formed the W. S. Forbes Anatomical League of Jefferson Medical College, and convinced their Jefferson Medical College anatomy professor to publish a pamphlet, which they funded, on the history of the 1863 and 1883 anatomy laws in

Pennsylvania.³⁷⁰ *History of the Anatomy Act of Pennsylvania* culminates in the enactment of the very 1883 act *For the promotion of medical science by the distribution of and use of unclaimed human bodies for scientific purposes, and to prevent unauthorized uses and traffic in human bodies* that the AAA's Committee on the Collection and Preservation of Anatomical Material held up as model legislation in 1895. Physician and historian James R. Wright, Jr. argues that the pamphlet, amongst other items, developed Forbes into an anatomical hero despite his chief contribution being that he was arrested and acquitted for grave robbing, providing the justification for the passage of the revised law.³⁷¹ So persuasive was this narrative that Thomas Eakins painted a well-known portrait of Forbes in 1905, again funded by his admirers, to celebrate his anatomical accomplishment. Wright posits that, much like Dwight and his allies, a behind-the-scenes legislative actor deserves much more of the credit for the 1883 act, principally State Senator and physician William J. McKnight.³⁷² Without a known similar effort, Dwight and Eliot's campaign to change Massachusetts anatomy law has stayed relatively undiscovered in the historical literature. Dwight never publically writes of it, and few if any of his post-death memorials give it mention among his accomplishments, suggesting his contemporaries knew little of his efforts. Perhaps the 1898 *An Act Relative to the Promotion of Anatomical Science* was just a problem to be solved and a means to an end in Thomas Dwight's mission to expand the practical anatomical classroom and the reach of his

³⁷⁰ William S. Forbes, *History of the Anatomy Act of Pennsylvania*, (Philadelphia: The Philadelphia Medical Publishing Company, 1898).

³⁷¹ James R. Wright, "The Pennsylvania Anatomy Act of 1883: Weighing the Roles of Professor William Smith Forbes and Senator William James McKnight," *Journal of the History of Medicine and Allied Sciences* 71, no. 4 (October 2016), 422-446.

³⁷² Wright, "The Pennsylvania Anatomy," 422-446.

scientific research. Once achieved, it was to be defended and cultivated, but it in itself was simply a tool for greater progress.

VII.

Bibliography

America's Lost Colleges. "Massachusetts College of Osteopathy, Boston and Cambridge, Massachusetts, 1898-1944." Accessed on January 20, 2018. <http://www.lostcolleges.com/massachusetts-college-of-osteopathy>.

"Anatomical Law of the State of Pennsylvania, Enacted June 13, 1883." *Science* 3, no. 55 (January 1896): 84-86.

Beecher, Henry K. and Mark Altschule. *Medicine at Harvard. The First 300 Years*. Lebanon, NH: University Press of New England, 1977.

Bigelow, William Sturgis. *A Memoir of Henry Jacob Bigelow*. Boston: Little, Brown and Company, 1894.

Board of State Charities of Massachusetts. *Thirteenth Annual Report of the Board of State Charities of Massachusetts to Which are Added Reports from its Departments*. Boston: Albert J. Wright, 1877.

Bottomley, John T. "Dr. Dwight in the Lecture-Room." *Sacred Heart Review* 47, no. 2 (December 1911): 22-23.

Bowdoin College. *General Catalogue of Bowdoin College and the Medical School of Maine, 1794-1912*. Brunswick, ME: Bowdoin College, 1912.

Butler, Benjamin F. *Argument before the Tewksbury Investigation Committee*. Boston: Democratic Central Committee, 1883.

———. *Autobiography and Personal Reminiscences of Major-General Benj. F. Butler: Butler's Book: A Review of his Legal, Political, and Military Career*. Boston: A. M. Thayer, 1892.

Catholic Medical Association. "History." Accessed February 28, 2017. <http://www.cathmed.org/about/history/>.

Center for the History of Medicine, Francis A. Countway Library of Medicine. "88th Annual Announcement." Accessed on December, 22 2017. <https://collections.countway.harvard.edu/onview/exhibits/show/broad-foundation/item/6570>.

- . “Reminiscences.” Accessed December 30, 2017.
<http://stage.collections.countway.harvard.edu/onview/items/show/6573>.
- The Concord Public Library. “Franklin Benjamin Sanborn Papers, 1845-1936 (bulk 1845-1905).” Accessed on October 14, 2017. https://concordlibrary.org/special-collections/fin_aids/F_B_Sanborn.
- Coolidge, Charles Allerton. “Representing the Architects, Announced the Completion of the Buildings.” in *Dedication of the New Buildings of the Harvard Medical School, September Twenty-Fifth and Twenty-Sixth, Nineteen Hundred and Six*, 6-7. Boston: Faculty of Medicine, 1906.
- Correspondence, 1867-1867 (inclusive). Harvard Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.
- Disability History Museum. “The Whitewash is too thin.” Accessed October 20, 2017. <http://www.disabilitymuseum.org/dhm/lib/detail.html?id=3267>.
- Dwight, Thomas. “Anatomy Laws “Versus” Body Snatching,” *Forum* 22 (1896): 493–502.
- . “The Clinical Significance of Variations of Wrist and Ankle.” *Journal of the American Medical Association* 47, no. 4 (July 1906): 252-255.
- . *Commonplaces in History*. Boston: Review, 1900.
- . *The Church and Science: An Address before the American Federation of Catholic Societies at Boston, August 9, 1908*. Boston, 1908.
- . “Description of the Human Spines Showing Numerical Variation in the Warren Museum of the Harvard Medical School.” *Memoirs of the Boston Society of Natural History* 5, no. 7 (1901): 237-312.
- . *Frozen Sections of a Child*. New York: W. Wood, 1881.
- . *The Identification of the Human Skeleton: A Medico-Legal Study: To which was Awarded the Prize of the Massachusetts Medical Society for 1878*. Boston: D. Clapp, 1878.
- . *The Intracranial Circulation: An Essay to which was Awarded the First Prize of the Boylston Medical Society for 1867*. Cambridge, MA: the author, 1867.
- . “Mutations.” *Science* 21, no. 536 (April 1905): 529–532.

- . . “Our Contribution to Civilization and to Science--Presidential Address by Dr. Thomas Dwight, Harvard Medical School.” *Science* 3, no. 55 (January 1896): 75-77.
- . . “The Progress of Anatomy during the Past Twenty-Four Years.” *The Boston Medical and Surgical Journal* 135, no. 22 (November 1896): 545-547.
- . . “Report on Anatomy.” *The Boston Medical and Surgical Journal* 87, no. 10 (1872): 163-169.
- . . “Reminiscences of Dr. Holmes as Professor of Anatomy.” *Scribner's Magazine* 17, no. 1 (January 1895): 121-128.
- . . “The Scope and the Teaching of Human Anatomy.” *Boston Medical and Surgical Journal* 123, no. 15 (October 1890): 337-340.
- . . “The Significance of Anomalies.” *American Naturalist* 29, no. 338 (February 1895): 130-135.
- . . “Speaking for the Laboratories.” in *Dedication of the New Buildings of the Harvard Medical School, September Twenty-Fifth and Twenty-Sixth, Nineteen Hundred and Six*, 8-12. Boston: Faculty of Medicine, 1906.
- . . *Thoughts of a Catholic Anatomist*. New York: J. J. Little & Ives, 1912.
- . . *Variations of the Bones of the Hands and Feet*. Philadelphia: J. B. Lippincott, 1907.
- Eliot, Charles William. *Annual Reports of the President and Treasurer of Harvard College, 1874-1875*. Cambridge, MA: Press of John Wilson and Son, 1876.
- . . *Forty-Sixth Annual Report of the President of Harvard College, 1870-1871*. Cambridge, MA: University Press, 1872.
- . . *A Late Harvest: Miscellaneous Papers Written Between Eighty and Ninety*. Freeport, NY: Books for Libraries Press, 1971.
- . . “Medical Education of the Future.” *Educational Reform: Essays and Addresses*. New York: Century, 1901.
- Ernst, Harold. *Harvard Medical School, 1782-1906*. Boston: 1906.
- Forbes, William S. *History of the Anatomy Act of Pennsylvania*. Philadelphia: Philadelphia Medical, 1898.

Garment, Ann, Susan Lederer, Naomi Rogers, and Lisa Boulton. "Let the Dead Teach the Living: The Rise of Body Bequeathal in 20th-Century America." *Academic Medicine* 82, no. 10 (October 2007): 1000-1005.

General Court of Massachusetts. *Acts and Resolves Passed by the General Court of Massachusetts in the Years 1843, 1844, 1845; Together with the Rolls and Messages*. Boston: Dutton and Wentworth, 1845.

———. *Acts and Resolves Passed by the General Court of Massachusetts in the Year 1855; Together with the Rolls and Messages*. Boston: Dutton and Wentworth, 1855.

———. *Acts and Resolves Passed by the General Court of Massachusetts in the Year 1880*. Boston: Rand, Avery, 1880.

———. *Acts and Resolves Passed by the General Court of Massachusetts in the Year 1887*. Boston: Wright and Potter, 1887.

———. *Acts and Resolves Passed by the General Court of Massachusetts in the Year 1898*. Boston: Wright and Potter, 1898.

———. *Laws of the Commonwealth of Massachusetts, Passed at Several Sessions of the General Court, Beginning May, 1828, and Ending March, 1831*. Boston: Dutton and Wentworth, 1831.

———. *Laws of the Commonwealth of Massachusetts, Passed at Several Sessions of the General Court, Beginning Jan., 1834, and Ending April, 1836*. Boston: Dutton and Wentworth, 1836.

George J. Mitchell Department of Special Collections & Archives Bowdoin College Library. "Medical School of Maine: Historical Records and Files 8.2" Accessed February 15, 2018. <https://library.bowdoin.edu/arch/archives/msmg.shtml>.

H. D. V. "Reviews. Article XIV." *Chicago Medical Journal and Examiner* 45 (October 1882): 405-406.

Hall, Dominic. "John Collins Warren, Thomas Dwight, and the Development of a Legal and Regular Anatomical Supply Chain in 19th-Century Massachusetts." Presentation at the Annual Meeting for the American Association of the History of Medicine, Minneapolis, MN, April 28–May 1, 2016.

Halperin, Edward C. "The Poor, the Black, and the Marginalized as the Source of Cadavers in United States Anatomical Education." *Clinical Anatomy* 20, no. 5 (July 2007): 489–495.

Harrington, Thomas F. "An Appreciation of Dr. Dwight." *Sacred Heart Review* 47, no. 2 (December 1911): 19-21.

———. *The Harvard Medical School: A History, Narrative and Documentary. 1782–1905*, edited by James Gregory Mumford. New York: Lewis, 1905.

Hartwell, Edward Mussey. "The Early American Anatomists, and the Legal Status of Anatomy in Massachusetts before 1800." *Boston Medical and Surgical Journal* 103, no. 23 (December 1880): 538–541.

———. "Recent American Anatomy Acts." *Boston Medical and Surgical Journal* 103, no. 26 (December 1880): 608-612.

———. *The Study of Anatomy, Historically and Legally Considered*. Boston: Tolman & White, 1881.

Harvard University. *The Harvard University Catalogue*. Cambridge, MA: C. W. Sever: 1872.

Harvard University School of Medicine, Minutes and Records of the Faculty of Medicine, Volume 4, February 1882 to June 1890. Harvard Medical Library in the Francis A. Countway Library of Medicine. Harvard Medical School.

Harvard University School of Medicine, Minutes and Records of the Faculty of Medicine, Volume 5, June 21, 1890 to June 21, 1899. Harvard Medical Library in the Francis A. Countway Library of Medicine. Harvard Medical School.

Harvard Medical School. *Announcement of the Harvard Medical School of Harvard University for 1897-98*. Cambridge, MA: Harvard University, 1873-1880.

———. *Announcement of the Harvard Medical School of Harvard University for 1897-98*. Cambridge, MA: Harvard University, 1897.

———. *Dedication of the New Buildings of the Harvard Medical School, September Twenty-Fifth and Twenty-Sixth, Nineteen Hundred and Six*. Boston: Faculty of Medicine 1906.

Hayward, George. *Surgical Reports, and Miscellaneous Papers on Medical Subjects*. Boston: Phillips, Sampson, 1855.

Holmes, Oliver Wendell. *Border Lines of Knowledge in Some Provinces of Medical Science. An Introductory Lecture, Delivered before the Medical Class of Harvard University, Nov. 6, 1861*. Boston: Ticknor and Fields, 1862.

———. *Medical Essays, 1842-1882*. Boston, New York: Houghton, Mifflin, 1891.

- Humphrey, D. C. "Dissection and Discrimination: The Social Origins of Cadavers in America, 1760–1915." *Bulletin of the New York Academy of Medicine* 49, no. 9 (September 1973): 819–827.
- Huxley, Thomas Henry. *Evidence to Man's Place in Nature*. London and Edinburgh: Williams and Norgate, 1863.
- Jackson, J. B. S. *A Descriptive Catalogue of the Warren Anatomical Museum*. Boston: A. Williams and Company, 1870.
- Jenkins, George B. "The Legal Status of Dissecting." *Anatomical Record* 7, no. 11 (November 1913): 387–399.
- King, John W. "Dr. John Pomeroy and the College of Medicine at the University of Vermont." *Journal of the History of Medicine and Allied Sciences* 4, no. 4 (Autumn 1949): 393–406.
- Leonard, Clara T. *The Present Condition of Tewksbury*. Boston: Franklin Press, 1883.
- Letters relating to Thomas Dwight and the Dwight Society at the Harvard Medical School 1908-1956. Harvard University Archives. Harvard University.
- Lewis, W. H. "Human anatomy, including structure and development and practical considerations" by Thomas Dwight, Carl A. Hamann, J. Playfair McMurrich, George A. Piersol and J. William White. With 1734 illustrations, of which 1522 are original and largely from dissections by John C. Heisler. Edited by George A. Piersol. Philadelphia and London: J. B. Lippincott Company, 1907. Price, \$7.50. 2088 pages." *The Anatomical Record* 2, no. 7 (1908): 284–287.
- Ludmerer, Kenneth M. *Learning to Heal: The Development of American Medical Education*. Baltimore: Johns Hopkins University Press, 1996.
- Massachusetts General Court. *Acts and Resolves Passed by the General Court of Massachusetts in the Year 1884*. Boston: Wright & Potter, 1884.
- Massachusetts General Court. Committee on Public Charitable Institutions. *Report of Hearings before the Joint Standing Committee on Public Charitable Institutions under the Order for Said Committee to Investigate the Management, Control, and Condition of the Public Charitable Institutions, and the Special Charges of the Mismanagement of the State Almshouse at Tewksbury*. Boston: 1883.
- Massachusetts General Court. House of Representatives. *Argument of Edward P. Brown before the Committee on Public Charitable Institutions, in the Matter of Mismanagement of the State Almshouse at Tewksbury*. Boston: Wright & Potter, 1883.

- Mears, J. E., J. D. Bryant, and Thomas Dwight. "Report of the Committee on the Collection and Preservation of Anatomical Material." *Science* 3, no. 55 (January 1896): 77–84.
- Morse, John T. *Life and Letters of Oliver Wendell Holmes, In Two Volumes, Volume II*. Boston and New York: Houghton, Mifflin and Company, 1896.
- Mulliken, Isaac. "Popular Feeling Respecting the Anatomy Law." *Boston Medical and Surgical Journal* 5, no. 12 (1831): 190-191.
- Museum Database*, Warren Anatomical Museum in the Francis A. Countway Library of Medicine. Harvard Medical School.
- National Library of Medicine. "Medical Dictionary." Accessed on September 2, 2017. <http://c.merriam-webster.com/medlineplus/henle's+layer>.
- Newspaper Clippings Relating to the Charges of Mismanagement of the State almshouse at Tewksbury* (1883-1887). Harvard Medical Library in the Francis A. Countway Library of Medicine. Harvard Medical School.
- Nigro, Jr., Michael Francis. "Reform at Harvard Medical School in 1871." Undergraduate Honors Thesis. Harvard College 1966.
- Office of the Dean. Records, 1828-1904 (inclusive). Harvard Medical Library in the Francis A. Countway Library of Medicine. Harvard Medical School.
- Park, Roberta. "Edward M. Hartwell and Physical Training at the Johns Hopkins University, 1879–1890." *Journal of Sport History* 14, no. 1 (1987): 108-119.
- The Record of Benjamin F. Butler since His Election as Governor of Massachusetts*. Boston: [s.n.], 1883.
- Records of the President of Harvard University, Charles W. Eliot, 1869–1930. Harvard University Archives. Harvard University.
- Papers of Thomas Dwight, 1869-1873 (inclusive). Harvard Medical Library in the Francis A. Countway Library of Medicine. Harvard Medical School.
- Papers of Oliver Wendell Holmes, 1838-ca.1900 (inclusive). Boston Medical Library in the Francis A. Countway Library of Medicine. Harvard Medical School.
- Piersol, George A. *Human Anatomy, Including Structure and Development and Practical Considerations*. Philadelphia: J. B. Lippincott, 1907.

- Plaisted, Harris M. *Report of the Trial of James M. Lowell, Indicted for the Murder of His Wife, Mary Elizabeth Lowell: Before the Supreme Judicial Court of Maine, for Androscoggin County; Containing the Evidence, Arguments of the Counsel and the Charge of the Court, in Full, with the Verdict of the Jury and Sentence of the Prisoner, and an Appendix.* Dresser, McLellan, 1875.
- Sappol, Michael. *A Traffic of Dead Bodies: Anatomy and Embodied Social Identity in Ninetieth-Century America.* Princeton, NJ: Princeton University Press: 2002.
- Shattuck, George Cheever. "represented the Clinics." in *Dedication of the New Buildings of the Harvard Medical School, September Twenty-Fifth and Twenty-Sixth, Nineteen Hundred and Six*, 12-17. Boston: Faculty of Medicine, 1906.
- Snac. "College of Physicians and Surgeons (Boston, Mass.)." Accessed on January, 20 2018. <http://snaccooperative.org/ark:/99166/w6s235cs>.
- State Almshouse of Tewksbury. *Annual Report of the Inspectors of the State Almshouse at Tewksbury.* Boston: William White, 1854.
- . *Thirtieth Annual Report of the Trustees of the State Almshouse at Tewksbury.* Boston: Wright & Potter, 1883.
- . *Thirty-Second Annual Report of the Trustees of the State Almshouse at Tewksbury.* Boston: Wright & Potter, 1885.
- "The State Almshouse at Tewksbury." *Boston Medical and Surgical Journal* 109, no. 18 (November 1883): 428.
- The State Infirmary of Tewksbury. *A Short History.* Boston: 1920.
- State Board of Health, Lunacy, and Charities. *Fifth Annual Report of the State Board of Health, Lunacy, and Charities of Massachusetts.* Boston: Wright & Potter, 1884.
- Stewart, T.D. *Essentials of Forensic Anthropology, Especially as Developed in the United States.* Springfield, IL: Thomas, 1979.
- Storey, Moorefield. *Ebenezer Rockwood Hoar: A Memoir.* Boston: Houghton Mifflin Company, 1911.
- Sullivan, Walter E. "Thomas Dwight, 1843-1911." *Pi Beta Bi Quarterly* (May 1928).
- "Thomas Dwight, M.D." *Journal of the American Medical Association* 57 (1911): 1057.
- "Thomas Dwight, M.D., LL.D." *The Anatomical Record* 5, no. 11 (November 1911): 531-539.

- Tilton, Eleanor. *Amiable Autocrat: A Biography of Dr. Oliver Wendell Holmes*. New York: Henry Schuman, 1947.
- Trustees of the State Almshouse at Tewksbury. *Forty-Sixth Annual Report of the Trustees of the State Almshouse at Tewksbury, Including the Report of the Superintendent and the Resident Physician, For the Year Ending September 30, 1899*. Boston: Wright and Potter, 1899.
- . *Forty-Seventh Annual Report of the Trustees of the State Almshouse at Tewksbury, Including the Report of the Superintendent and the Resident Physician, For the Year Ending September 30, 1900*. Boston: Wright and Potter, 1900.
- . *Forty-Eighth Annual Report of the Trustees of the State Almshouse at Tewksbury, Including the Report of the Superintendent and the Resident Physician, For the Year Ending September 30, 1901*. Boston: Wright and Potter, 1901.
- Waite, Frederick C. "The Development of Anatomical Laws in the States of New England." *New England Journal of Medicine* 233, no. 24 (December 1945): 716-726.
- . "Grave Robbing in New England." *Bulletin of the Medical Library Association* 33, no. 3 (July 1945): 272-294.
- Warren, Edward. *The Life of John Collins Warren, M.D.: Compiled Chiefly from his Autobiography and Journals*. Boston: Ticknor and Fields, 1860).
- Warren, John. "Thomas Dwight, M.D., L.L.D." *Anatomical Record* 5 (1911): 531-539.
- Warren, John Collins. *Genealogy of Warren: With some Historical Sketches*. Boston: J. Wilson and Son, 1854.
- Warren, John Collins. "Memorials to Dr. Thomas Dwight." *Boston Medical and Surgical Journal* 166, no. 1 (1912): 7-11.
- Warren Anatomical Museum. Records, 1835-2010 (inclusive), 1971-1991 (bulk). Harvard Medical Library in the Francis A. Countway Library of Medicine. Harvard Medical School.
- White, James C. "Censorial Duties-Medical Education." *Boston Medical and Surgical Journal* 75, no. 5 (August 1866): 105-107.
- . "Election in Harvard University." *Boston Medical and Surgical Journal* 74, no. 25 (July 1866): 508-509.

———. “Medical Education-New Professorships in the Medical Department of Harvard University.” *Boston Medical and Surgical Journal* 74, no. 3 (February 1866): 63-64.

Whitmore, William Henry. *A Bibliographical Sketch of the Laws of the Massachusetts Colony from 1630 to 1686. In which are included the Body of liberties of 1641, and the Records of the Court of Assistants, 1641-1644. Arranged to Accompany the Reprints of the Laws of 1660 and of 1672.* Boston: Rockwell and Churchill, 1890.

Wright, James R. “The Pennsylvania Anatomy Act of 1883: Weighing the Roles of Professor William Smith Forbes and Senator William James McKnight.” *Journal of the History of Medicine and Allied Sciences* 71, no 4 (October 2016): 422-446.