LICENSE OR LIBERTY:

PUBLIC HEALTH AND MEDICAL LICENSURE’S MOVERS AND MOTIVES, 1870s to the 1910s

Peter A. Swenson
Yale University
March 2021

Between the 1830s and the 1870s America was a land of medical liberty. Virtually anyone could legally pose as a healer, prescribe and administer medicines, and even perform surgeries. Except in a few Southern states, medical practice laws from before and after the war of independence had been repealed or become dead letter. Occasionally a new law would appear on the books, only then to be repealed or ignored. In the 1820s, poor white males began shouldering aside property owners in exercise of their new right to vote in state elections. During the Jacksonian era of medicine, the orthodox professional heirs of Dr. Benjamin Rush, signer of the Declaration of Independence, lost ground to a grass roots rejection of privilege in medicine. Populist politicians eliminated the advantages once extended to mainstream or “regular” practitioners. They lost their exclusive right to call themselves doctors or physicians, a useful distinction in competition with unlicensed healers. They also lost their exclusive right in civil law to compel deadbeats to pay their fees and special standing to offer medical testimony in criminal and civil justice proceedings.1

In the era of medical anarchy, there was much experimentation and fluidity. Bloodletting waned away, especially in the huge and sometimes fatal volumes Rush recommended. In all probability, 68 year-old George Washington probably died of blood loss after three doctors drained up to one gallon, or more than half his blood volume, over nine or ten hours to treat his asphyxiating throat infection. He was also administered the purgatives tartar emetic and calomel (mercury chloride, a dangerous neurotoxin). But ultimately, the milder methods and materia medica of the era’s unorthodox practitioners gained ground even among regulars, partly a result of consumer demand. However violent purgings of the bowels with calomel persisted among regulars well into the 1860s. It hastened the death of many Union and Confederate soldiers suffering from typhoid and dysentery. It was not until Abraham Lincoln ceased taking mercury pills in 1861 for "hypochondriasis" (melancholia) and

constipation that his occasional—mercurial indeed—“towering rages” ceased. They made him “cross,” Lincoln said.2

Circulation into and out of the profession was common. In the 1830s, Frenchman Alexis de Tocqueville observed that as Americans drifted to and from medicine and other lines of business, they were “never fettered by the axioms of their guild and evade all prejudices of their profession.” Tocqueville also observed that Americans, unlike the French, displayed a “defiant and restless” outlook toward authority figures offering to help them in their struggles with the “ills and hardships of life.” Perhaps no one more embodied this ethos of the patient as sovereign consumer than Mark Twain, who believed “any mummery will cure” so long as the patient had strong faith in it. Over time, Twain threw his hopes at many diverse medical wares for himself and his family, and then withdrew them when his capricious faith failed him. Disappointing doctors were not spared his uproarious wit.3

The hiatus in state licensing of doctors was a result of a political insurgency of “irregular” or alternative medical systems and sects like the eclectic, homeopathic, hydropathic, osteopathic, and even “mind cure” practitioners that Twain variously turned to. For a time, the most important “irregular” undercurrent of medicine was Thomsonianism, a do-it-yourself, mail-order system of botanical therapeutics accessible even to the minimally literate for treatment of others or oneself.4 The Thomsonians were a political force to be reckoned with. In Connecticut, the Democratic Party’s victory against the Whigs in 1842 gave the governorship to a champion of the Thomsonians who worked to abolish the state medical society’s delegated authority to issue licenses. Agitation by Thomsonians brought an end to licensing in New York two years later. Benefiting from a “Second Great Awakening” of fundamentalist Christianity, their propaganda emphasized freedom of religion and conscience as well as other bodily, economic, and intellectual freedoms supposedly anchored in the constitution.5

Ultimately, Thomsonianism was eclipsed by the eclectic school of medicine, which emerged out of chaotic factionalism among the Thomsonians. Eclectics, unbound by the Thomsonians’ pharmacopeia of botanical remedies, sought broader legitimation and wealthier patients by establishing degree-granting medical colleges of their own, just like

---


the regulars. More important than eclecticism in educated circles was homeopathic medicine, a German import. Homeopaths, benefiting from revulsion against the harsh purgative remedies of the regular, or what they called the “allopathic” school, espoused the theory that therapeutic efficacy could be achieved with infinitesimal dilutions of substances whose effects, when imbibed in far greater quantities, mimicked the symptoms of the disease to be treated and thus activated the body’s own healing powers. Despite withering criticism and scorn from the regular camp, most notably in physician Oliver Wendell Holmes, Sr.,’s lectures on “homoeopathy and its kindred delusions,” homeopathy took off and spread during the 1840s. Unlike eclectics, graduates of their schools appealed widely to wealthy and powerful elites, mostly in urban areas of the North.6

Until 1867, licensing remained in the law books in only a small number of states, mostly Southern, according to an 1869 survey of 24 states, but those were possibly not rigorously enforced, if at all. Maryland initiated a halting revival of licensing in 1867, but its law setting up a board of medical examiners was repealed the following year. The revival then began in earnest, but only with weak legislation in Ohio, Minnesota, and Kansas in 1868, 1869, and 1870. Around 14 others followed by 1880.7 In principle, medical freedom was being trampled on, but in reality, anarchy prevailed until stronger laws requiring more rigorous training were passed in the 1890s and 1900s. Although they penalized unlicensed medical practice, the first laws were crudely crafted, lax in their standards, and hard to enforce. Mostly, they linked licensure with membership in or review by selective medical societies or, more commonly, graduation from state-chartered medical schools. Overtaxed prosecutors had better and more popular things to do than chase down medical miscreants. Fierce legislative battles weakened the laws and slowed their improvement.

Great economic, social, and cultural change coincided with and contributed to the end of medical libertarianism. But medical science, at least in the realm of therapeutics, was not a contributor. As Holmes had put it in 1860, medicine was as “sensitive to outside influences, political, religious, philosophical, imaginative, as is the barometer to changes of atmospheric density.” The evolving practice of medicine was only “professedly” founded on evidence and induction.8 Indeed, something other advancing therapeutic science drove licensing and its effects on medical teaching and practice. “Germ theory” was entirely new, scantly believed, and promised more in the way of public sanitary and private hygienic possibilities than curative ones. New serums and vaccinations were only fond wishes; after smallpox, rabies was the first disease to meet its match in a successful vaccine, which appeared in the mid-1880s. The diphtheria antitoxin and typhoid vaccine only appeared the following decade. Pathology and diagnostics far outpaced cures in the 1870s. Doctors, not just their patients, were massively duped by advertisements for “patent medicines” in hundreds of cheap medical journals. Sulfa drugs and antibiotics, steroidal, hormonal, and other useful medicines were not on the horizon. Even antiseptic surgery was rare, so doctors were dangerous disease vectors. William Keen, surgeon of President Grover Cleveland, was one of

---

6 Harris L. Coulter, Divided Legacy: The Conflict Between Homoeopathy and the American Medical Association (Berkeley: North Atlantic, 1982), 56-58; Rothstein, American Physicians, 152-170, 234-236; Oliver Wendell Holmes, Homoeopathy and Its Kindred Delusions (Boston: Ticknor, 1842).


8 Oliver Wendell Holmes, “Currents and Counter-Currents in Medical Science,” in Holmes, Medical Essays, 1842-1882 (Cambridge MA: Riverside, 1891), 177.
the first to apply it, having first heard Joseph Lister speak on it in Philadelphia in 1876 just as licensing was taking off. Doctors attending President James Garfield in 1880 did not use it when digging with their dirty fingers to retrieve his assassin's bullet. Their repeated and unsuccessful probings were the ultimate cause of an unnecessary death. As Charles J. Guiteau, the shooter put it, he was not guilty of murder, for "I simply shot at him." He had been inspired to execute "the Divine will," and when the bullet failed him, "the doctors finished the work."9

Despite the still abysmal state of regular therapeutics in the 1870s and 1880s, state legislators increasingly heeded calls from within the profession for new "medical practice acts" to give only educated doctors legal access to patients. By 1880, half of the states and territories had licensing laws, and by 1890, 41 out of 46 states did. But perversely, the laws requiring supposedly legitimate medical degrees spurred the indiscriminate chartering of a burgeoning number of for-profit medical schools. Thus began an overlapping second phase of the licensure movement. In the 1890s, medical reformers persuaded state lawmakers to set up boards of examiners to test recent graduates and only recognize their degrees if they were from "reputable" medical colleges, or those deemed "in good standing," not just any state-charted college. For example, by 1900, 29 of 46 states required board examinations, and almost all the rest followed by 1905. Such measures hardly put a total end to alternative cults and commercial "quackery," but they were the first steps toward the reassertion of professional authority in American medical commerce, legal affairs, and public policy making and administration.10

MOVERS AND THEIR MOTIVATIONS

Why was there a revival of medical licensure in the 1870s? Curiously, historians have barely researched the question, leaving others to surmise and theorize. General accounts are almost exclusively descriptive and lack a focus on causes. Two accounts of events in Massachusetts and West Virginia suggest contradictory conclusions, and therefore provide no basis for generalization.11 That has not prevented a prevailing, near-hegemonic argument from evolving and enduring among scholars of various disciplines who pretend to know the cause: medical associations exercising their political clout to impose licensing and thus reduce the supply of physicians, shut down competing irregular sects, and therefore raise physician incomes. Protecting the public, although a commonly professed purpose, was secondary or even mere subterfuge to persuade reluctant legislators. Richard Shryock, the only medical historian to have dedicated much attention to licensing, surmised that an important motive for licensing, along with "educational and scientific" ones, was that getting a medical degree was too easy and "too many schools were turning out too many graduates to make practice profitable." Not offering any evidence for that pecuniary motive, he excused himself from the task of deeper analysis, saying simply that the appeal for quality

---

was "so intertwined with economic interest as to make conclusions about the relative potency of each motivation almost impossible."\(^{12}\)

The pecuniary or petty interest argument has often been repeated with feeble evidentiary foundation and muscular certainty. Sometimes scholars assume that that ideology, dressed up as economic theory, eliminates the need for evidence. Free-market conservative economists are the most fervent proponents of the monopoly argument, and not coincidentally, the harshest critics of medical licensing itself. Nobel laureate Milton Friedman, for example, declares with utter certainty in *Capitalism and Freedom* that licensure not only increases the price, but has also "reduced both the quantity and the quality of medical practice." Friedman sees no essential difference between the motives of physicians and those of other occupational groups in lobbying successfully for state licensing laws in the late 19\(^{th}\) and early 20\(^{th}\) centuries. He lumps doctors with "barbers, librarians, scrap tobacco dealers, egg graders, guide dog trainers, yacht salesmen, tree surgeons, well diggers, [and] tile layers" in their motives to maximize income by minimizing competitive entry.\(^{13}\) George Stigler, a fellow Chicago school economist and Nobel laureate adds beauticians and morticians to the list of monopoly seekers and equates the motives of doctors with those of huge corporations in the oil, airline, trucking, and banking industries seeking shelter from profit-squeezing competition.\(^{14}\) Reuben Kessel, a like-minded Chicago schooler whose work also influences critics of organized medicine past and present, sees only subterfuge in physicians' quality arguments. The medical profession's lay allies in its monopolizing mission, he argues, were merely "dupes" of a medical profession disguising its "highly parochial interests."\(^{15}\) Ronald Hamowy, a historian of public health and avowed libertarian, shares those views. He charges, again without evidence, that medical reformers of the late 19\(^{th}\) century spoke with "unblushing hypocrisy" for professing to protect the public with licensing legislation. Their "almost evangelical euphoria" about a crusade for "nothing short of a sanitary utopia" was just "specious identification of the profession's interests with those of the public at large."\(^{16}\)

The selfish view of the medical politics behind licensure is not confined to free market conservatives. Historical sociologist Paul Starr takes a similar position. Overall, he says, organized medicine sought "control of markets, organizations, and governmental policy" with a core strategy of "augmenting demand and controlling supply." Medical licensing and shutting down bad medical schools feeding graduates to lax licensing boards was one of the supply side measures. Licensure, he says, was part of a general movement in the late 19\(^{th}\) century of "plumbers, barbers, horseshoers, pharmacists, embalmers and sundry other groups." A low estimation of their average earnings cited in the AMA journal may have been, he says, "self-serving." According to Starr, the profession's reformers wanted to shut down the many cheap medical schools whose degrees were recognized by licensing authorities because the overproduction of doctors depressed earnings, while the working class and lower-middle class " riff raff" admitted into practice needed to be "sloughed off" so that the


profession could become a respected and powerful profession.\textsuperscript{17} Historians Gerald Markovitz and David Rosner, likewise, attribute the interrelated objectives of stricter licensing and shutting down medical schools to a “near obsession” with the glut of doctors. “Only the physician viewed the profession as ‘overcrowded,’” they say, “for only he suffered from the surplus of competitors.” The public benefited, by contrast, from the resulting low fees.\textsuperscript{18}

Against this grain, economist Kenneth Arrow, also a Nobel laureate, has weighed in with a contrary perspective on medical licensure that downplays the economic or other motives of doctors. For him the decisive political agency is not organized medicine but an amorphous “society,” which steps in to remedy market failure in unregulated medical commerce. Differing radically from Friedman’s faith in the free market, he argues that because of an endemic “uncertainty” problem or “informational inequality” (“information asymmetry” in current economic terminology), citizens as patients lack the ability to shop intelligently, i.e., judge the quality of medical practitioners and evaluate them against the fees they have to pay. Thus, the interplay of unfettered supply and uninformed demand fail to produce an efficient supply of quality medical care, not Friedman’s best of all possible worlds. In other words, because individual freedom and aggregate welfare fail to coincide as they do in markets where there is more perfect information, “public pressure” external to the medical profession—and responding to “deeper causes” than its economic interests—steps in to limit freedom of choice exercised by those wishing to become healers and therefore those who seek them.\textsuperscript{19}

\textbf{WHAT REFORMERS SAID}

Though Friedman, Stigler, and Kessel offer a plausible theory about causal agency, they lack evidence. Arrow offers neither evidence nor a strong theory of agency. Medical historians have supplied little to adjudicate, having also, like the economists, not examined the sincerity of reformers’ express motives. Among those, not surprisingly, was to weed out ignorant physicians who were “dangerous to the community,” as elite Philadelphia physician and civic activist John B. Roberts put it in 1885.\textsuperscript{20} According to William Osler in 1889, a high priest of the profession, a medical educator of enormous stature, and fervent proponent of rigorous premedical as well as undergraduate medical education, licensing was needed to shield people from “the depredations of ignorant graduates and quacks.”\textsuperscript{21} Lay proponents of licensing were often persuaded, as in Massachusetts, where Robert Treat Paine, Jr., a wealthy financier, philanthropist and social reformer, presented an 1880 petition to the state legislature calling for licensing to protect the public from “quackery, imposture, and fraud.”\textsuperscript{22}

A different, but still non-selfish motive unexplored in the historical literature for licensure concerned private hygiene and public sanitation. AMA president T. G. Richardson

\textsuperscript{17} Starr, \textit{Social Transformation}, 8-9, 24, 85, 103, 116-117, 232.
\textsuperscript{20} John B. Roberts, “The Legal Control of Medical Practice by a State Examination,” \textit{Journal of the American Medical Association} (hereafter \textit{JAMA}) 4:10 (March 7, 1885), 257-258.
\textsuperscript{22} “The Practice of Medicine Hearing on the Petition of the Social Science Association,” \textit{Boston Evening Transcript}, February 17, 1880.
complained in 1878 that a very large proportion of the profession had received no instruction on hygiene, though they were the very people who should be “teachers of the laws of health.” Stricter educational requirements, including classes on public health, were needed.\(^{23}\) In Roberts’s essay “The Doctor’s Duty to the State,” written while serving as president of the elite American Academy of Medicine, he declared that the greatest benefit of good licensure laws was “the protection of the public health from ignorant physicians”--declared that a doctor should instruct the laity on mental as well as physical hygiene, which worked hand in hand.\(^{24}\) Detroit Medical Society’s president C. J. Lundy likewise called for stringent licensing to ensure the entry of practitioners trained for “instruction of our citizens regarding the importance of sanitary measures, and the best means of limiting the spread of contagious disease.”\(^{25}\) In 1894, tuberculosis expert Charles E. Winslow addressed AMA colleagues on “The Physician and the State,” saying that it was the educational duty of every physician “to enthuse the people along the line of sanitation,” and therefore “to prevent as well as to cure disease.” To make that possible, “uneducated and unprincipled physicians” needed to be legislated out of existence.\(^{26}\)

Other public health missionaries saw a medical license as a necessary qualification in the meritocratic staffing of government authorities entrusted to carry out large scale preventive measures and conduct or sponsor research on the cause and spread of disease. In 1876, physician Stephen Smith, founder and first president of the American Public Health Association, blamed poor standards in the country’s medical profession for the fact that American public health authorities, in international comparison, stood “on the very lowest plane.” The relations between professional standards and public health were “so intimate that it is impossible for one to advance without a corresponding advance of the other.” Reaching back to ancient Rome, Smith noted that the city’s control of medical practice followed a long era of medical anarchy and appalling death rates from disease. Licensing coincided in time and purpose with the introduction of the city’s aqueducts for bringing pure water from afar, improving sewerage, public baths, and road drainage. “In the progress of time,” he said, “it became apparent that there was a vital relation existing between the public health service and the qualifications of those who practiced the medical art.”\(^{27}\) There was also a military angle in the public health argument for improving licensing laws that allowed badly educated doctors into the profession. In his 1899 address to Tennessee doctors, T. J. Happel—Secretary of the state’s Board of Medical Examiners--blamed the “horde of incompetents” and “large numbers of moral degenerates” in the army medical corps for the fact that more soldiers died from infectious disease than from enemy fire during the recent occupation of Cuba and Puerto Rico. It was a “blot upon the medical escutcheon,” and “a disgrace to the civilized world.”\(^{28}\)

**WHO WERE THE REFORMERS?**

\(^{23}\) T. G. Richardson, “Address of the President,” Transactions of the American Medical Association 29 (1878), 107.


\(^{25}\) C. J. Lundy, “State Regulation of Medical Practice,” JAMA 8:3 (January 15, 1887), 60.


\(^{28}\) T. J. Happel, “Quo Vadis?” JAMA 32:6 (February 11, 1899), 273-274.
Because of the low esteem in which the American medical profession was held, according to eminent Harvard surgeon J. Collins Warren in 1881, state politicians were not easily persuaded that licensing laws were not “framed in the sole interest of the medical profession.”29 Many if not most citizens and politicians of the time agreed with medical libertarians’ scornful dismissal of paternalistic, public-spirited claims about the value of licensing as a cynical ploy to rob both patients and healers of their liberties and money. Licensure, they thought, made hypocrites of self-professed “scientific” physicians because it would neutralize the forces of innovation and progress that competition unleashed.

Because of those opinions, as well as historiographical inattentiveness to the issue, what reformers professed about the need for licensure needs to be scrutinized to judge if it was merely subterfuge to dupe legislators. One way to do that is to investigate who they were. “In evaluating any utterance or action,” according to Aristotle, “one must take into account not just the moral qualities of what is actually done or said, but also the identity of the agent or speaker, the addressee, the occasion, the means, and the motive.”30 Following that advice, the remainder of this article examines licensure’s leadership in ten states, and to the extent possible, scrutinizes their motives in light of their careers and character.

**KANSAS, 1870**

The earliest leader of licensure’s revival about whom information is readily available was Cornelius Ambrose Logan, a wealthy and eminent Kansas physician. One of Leavenworth, Kansas’s leading citizens, Logan agitated for the Kansas law of 1870, which made it illegal to practice medicine without a diploma either from any “reputable” medical school in the country or examination by a state or county medical society. (What constituted reputability or how to establish it—an impossible task at the time—were not specified.) No common practitioner struggling in competition with uneducated healers, Logan was a substantial investor in coal mining, and he is credited with developing the industry in the state. After leaving medicine for a long stretch, Logan ran unsuccessfully for nomination to the U. S. Senate in 1873. The same year, President Ulysses Grant appointed him to serve as a high-level diplomat in Chile. As minister plenipotentiary in the 1880s, he mediated between Chile and Peru on America’s behalf to try and bring an end to the War of the Pacific.31

Logan’s medical career was distinguished by pursuit of scientific knowledge and its dissemination. He founded Kansas’s first medical journal in 1867, the *Leavenworth Medical Herald*, a high quality publication that featured, for example, lengthy passages of Lister’s “On the Principles of Antiseptic Surgery” the following year. Logan had embarked on the study of medicine in 1850 as an apprenticeship of Reuben D. Mussey, then serving as president of the AMA. In 1868 he was subsequently awarded an honorary master’s degree from Yale University. Logan’s scientific interests lay more in questions of disease etiology and prevention than diagnostics and therapeutics. In 1861, Logan published on “the remote and proximate causes of miasmatic fever,” and later, as president of the Kansas Department of Sanitary Relations in 1865, a well-regarded report on health conditions in the state. In 1867,

---

Logan helped draft an ultimately unsuccessful law for the registration of births, marriages, and deaths in Kansas as a needed tool for execution of the health board’s work in tracking and preventing disease. As a sideline in Chile, he researched “The Physics of Infectious Diseases,” an epidemiological treatise.32

Nothing we know about Logan suggests that his motivations for a licensing law included a desire to limit entry into the practice of medicine for economic reasons, but details about the politics of its passage are not available to reject the pecuniary interest hypothesis. Nevertheless, it bears mentioning that preventing disease, Logan’s main medical concern, was widely expected by medical leaders to reduce the common practitioners’ sources of income. As the president of the Missouri state medical society put it, “Anyone can see that enforcing sanitary legislation suppressing epidemics, and securing to the people good health will not put any great amount of wealth into the pockets of the physicians.” In 1900, noted the Philadelphia Medical Journal, the medical profession’s altruism was “lessening its own work and diminishing its own income.”33

**MASSACHUSETTS, 1877-1894**

By contrast to Kansas, a great deal of information is available about multiple protagonists and their stated concerns at least in one phase of the licensure movement in Massachusetts, much of it from an article by Samuel L. Baker on events in 1880. For that reason, as well their central concern for public health shared with C. A. Logan, that failed legislative attempt merits an extended investigation. Other failed efforts to get a law passed occurred in 1877, 1878, 1884-1885, 1889, 1890, and 1891.34 Ferocious opposition delayed passage of a law until very late in the licensure wave, in 1894. Surprisingly, the Massachusetts Medical Society was not involved in 1880. Instead, the most important force leading the legislative drive was a lay organization with only a handful influential members from the medical profession, the American Social Science Association (ASSA). Headquartered in Boston, the ASSA’s purpose was scientific research for the ultimate end of “regulating and improving society.” Progressivism’s mother organization, the ASSA formed in 1865 to “collect all facts, diffuse all knowledge, and stimulate all inquiry, which have a bearing on social welfare.” Seeking good governance in a corrupt, chaotically evolving society, it resolved to study and promote reforms in the areas of suffrage, finance, jurisprudence, social economy, and social order.35

The ASSA’s membership overlapped all segments of elite society, especially in the Northeast. Among its founding members were a few physicians, including most notably Edward Jarvis and Henry Ingersoll Bowditch. Jarvis, president of the American Statistical Society, was no longer a practitioner, and Bowditch, also a pioneering epidemiologist, was scientifically engaged in preventing more than treating disease. Many other founding

---


34 Reginald H. Fitz, “The Legislative Control of Medical Practice, Part 3,” *Boston Medical and Surgical Journal* 130:26 (June 28, 1894), 638-640.

members of the ASSA were nationally prominent politicians, including the progressive-minded James Garfield, financier James J. Higginson, publisher Horace Greeley, scientist Louis Agassiz, educator Daniel Coit Gilman, clergyman Erastus O. Haven, philanthropist Thomas Wentworth Higginson, and many more, including abolitionists Wendell Phillips and William Lloyd Garrison. Utilitarian philosopher John Stuart Mill, a British inspiration, was among the corresponding members from abroad.36

To deal with "sanitary relations," one of the ASSA's objects listed in its constitution, it created a 30-member Health Department Committee, whose most important activities included assisting with the formation of departments of health in various states. The Health Department Committee put licensing on the ASSA's agenda. Although ¾ of its members were doctors, none was an officer of the Massachusetts Medical Society or its Boston area affiliate. One quarter of the committee members were laymen. Three were Massachusetts Institute of Technology professors, including MIT's founder, William Watson, a mathematician and engineer. The ASSA committee's main spokesman was philanthropist Robert Treat Paine, Jr., the great grandson of the signer of the Declaration of Independence of the same name. Paine had acquired a fortune in railroads and mining while young and continued in the business world serving on boards of directors of the Massachusetts Cotton Mills and other huge companies. One of his main philanthropic efforts was the financing of homes for workers.37

Medical members in the committee towered over the average Massachusetts doctor in income and prestige, being highly sought-after by wealthy patients. They stood to gain virtually nothing by excluding the medical riff-raff with a licensing law. About two-thirds were Bostonians connected to two elite institutions, Harvard Medical School and Massachusetts General Hospital. Among the eminent medical leaders on the health committee were its chairman, the dermatologist Edward Wigglesworth, the gynecologist Ernest W. Cushing, and the psychologist and philosopher William James. Charles Follen Folsom, secretary of the Massachusetts State Board of Health, was the pre-eminent public health reformer on the health committee and, like ASSA cofounder Jarvis, a specialist in the study of mental illness and its incidence.

One of the ASSA health committee's first moves was to circulate a petition advocating medical licensure to elite members of Massachusetts business, society, and medicine. Addressed to the state legislature in January 1880, the petition listed four reasons of "extreme importance to the whole community" for a licensing law. The first was the absurdity of allowing "any person who claims to treat disease" to sign a death certificate and diagnose the cause of death, which rendered "ridiculous" the law requiring such certificates to be signed at all. The second concerned the indispensable role of suitably educated doctors not only in private practice but, to assist government officials and judges in carrying out their duties "in various social and semi-legal relations." Among those were declaring insanity and testifying in criminal and civil courts about causes of injury and death. The third reason for limiting admission to the practice of medicine was that no one "can judge between educated physicians and ignorant pretenders personally unknown to

36 Thomas L. Haskell, The Emergence of Professional Social Science: The American Social Science Association and the Nineteenth-Century Crisis of Authority (Baltimore: Johns Hopkins, 1977), 98.
them,” especially in times of emergency. Self-designated physicians could inflict “great harm and loss to the sick and to the frequent injury or ruin of young men and women.” Finally, although one could sue for malpractice, most medical pretenders had no assets to attach, and worse, there were no criminal penalties for medical injury or manslaughter in cases of “culpable ignorance.”

Paine presented the petition, with 65 names attached, to the Massachusetts legislature. It was notable for the prestige and wealth of its signatories. The large majority, at least fifty-eight, hailed from the upper-class stratum. Some were prominent academics, clergymen, and other professionals. Among the physicians to sign was Harvard professor Henry Pickering Bowditch, a groundbreaker in the physiological investigation of disease etiology. Also putting his name on the petition was the vanguard of higher scientific education, Charles W. Eliot, president of Harvard University. Joining him was a member of the Harvard Board of Fellows, Massachusetts politician John Quincy Adams II, son of Charles Francis Adams (a founding member of the ASSA), and grandson of the sixth U.S. President. Most of the remaining signatories were officers or directors in banking, insurance, and manufacturing. For these development-minded businessmen in an age when harnessing science increasingly brought mastery of markets, disease prevention as a technically tractable problem was probably of commercial as well as philanthropic value. Among them was Oliver W. Peabody, a founding partner of Kidder, Peabody & Company, which was recently emerging as one of the country’s first major investment and commercial banking houses. He was joined by other powerful bankers, Nathaniel Thayer, Henry Lee (of Lee Higginson), and Jonathan Ingersoll Bowditch, the director of the American Insurance Company, the Old Boston National Bank, and the Massachusetts Hospital Life Insurance Company. Also signing was W. H. Forbes, vice president of Continental Telephone Company (son of John M. Forbes, merchant, railroad financier, and Republican politician) and Augustus Lowell, who among many other things, was director of the Merrimack Manufacturing Company and the Lowell Manufacturing Company, which together controlled an enormous share of the country’s textile market.

On the ASSA’s behalf, the notable attorney Albert E. Pillsbury testified before the Joint Legislative Committee on Public Health in 1879 that the need for qualified doctors to sign death certificates as “one of the most important” reasons for licensure. Pillsbury is known today for, among other things, drafting the by-laws of the National Association for the Advancement of Colored People. Following Pillsbury was John Shaw Billings, a professor of hygiene at the University of Pennsylvania and an emerging national public health figure who served with Bowditch on a short-lived National Bureau of Health. Billings explained that “until we can ensure that our physicians have a reasonable amount of competency, we cannot get reliable data and we cannot have a satisfactory system of public hygiene.” Later, in 1883, Billings would write that “the registration of vital statistics depends for its efficiency to a very large extent upon some system of registration of physicians and midwives.” Two years later Billings would publish a treatise on Mortality and Vital Statistics in the United States, having already played a pioneering role in developing a system of vital statistics for the U.S. Census report of 1880.
The problem of poor vital statistics was of special concern for Charles Folsom, the secretary of the Massachusetts State Board of Health and Lunacy, who also testified. Folsom's earlier career as a physician, his intellectual influences, and his experiences on the health board corroborate the genuine humanitarian and public health motives behind the licensure campaign. According to a friend and biographer, Folsom was "by inheritance and by temperament a reformer, a hater of injustice, of oppression, and of immorality." He grew up in a family of ardent abolitionists and volunteered to treat former slaves for the Freedman's Bureau after the Civil War. Unlike most doctors, Folsom upheld "the natural right of women to do what nature fitted them to do and especially to practice medicine if they wished."42

Folsom had been chosen for the health department job by his clinical mentor, the famous pulmonologist, Henry Ingersoll Bowditch, who had brought the state health agency into being. Bowditch's character sheds light on why he chose Folsom. Like Folsom, he was also an ardent opponent of "that monster slavery." In 1854 Bowditch helped form and lead the Anti-Man-Hunting League--a secret network of 469 members who abducted slave hunters in order to spring their captives. He succeeded in getting Massachusetts General Hospital to admit black patients. He too was "a decided woman's rights man," and tried but failed to persuade the Harvard medical school to admit women. Like other privileged medical elites of the time, Bowditch was a therapeutic skeptic. He had studied with Pierre Louis in Paris, the founder of "the numerical method," the gathering of data to evaluate therapeutic methods. With records of bloodletting and subsequent outcomes, Louis showed that bloodletting was of no curative value. Bowditch's therapeutic skepticism and his interest in clinically intractable diseases motivated his focus on prevention through public health measures like drainage of swampy land in residential areas, a cause, his research seemed to show, of tuberculosis. In 1876, Bowditch heralded the arrival of a new "epoch of state preventive medicine" to an international medical congress in Philadelphia, a time "in which the medical profession is aided by the laity" to pursue the great task of preventing disease. Three years later, during a far-ranging yellow fever epidemic, he helped persuade lay and political elites and thus the U.S. Congress to create the short-lived National Bureau of Health, on which he as well as billings served.43

Folsom, in part through his mentor Bowditch, was an intellectual heir of towering leaders like Lemuel Shattuck and Edward Jarvis in the collection and use of statistics in medicine for scientific and public health purposes. Jarvis, Bowditch's friend, was president of the American Statistical Association when he called the ASSA's very first meeting to order. Jarvis had agitated throughout New England for the creation of state boards of health and, under their direction, the collection of vital statistics. He was the protégé of Lemuel Shattuck, known today as the father of American vital statistics. Shattuck was the lay founder of the statistical association that Jarvis presided over, and a force for improving the federal census. He was the author of the 1850 Massachusetts Sanitary Commission report which laid out a blueprint for the board of health that Bowditch eventually realized, and

42 James Jackson Putnam, Memoir of Charles Follen Folsom (Cambridge MA: John Wilson, 1908), 9, 17.
Folsom later ran. The first stage of Shattuck’s project was to have a state board of health execute laws “relating to the enumeration, the vital statistics, and the public health of the inhabitants.” The “sanitary survey” it was to conduct would use a uniform nomenclature of diseases and their causes, including “atmospheric” (environmental) ones. Jarvis “steadfastly held to the collection of vital statistics as the critical determinant of harmonious social order.”

According to Bowditch, little could be learned to avert disease “as long as the registration of health statistics is left in the hands of men, non-professional, and who have no just appreciation of the difficulties or value of such investigations.” Not surprisingly Folsom, as an intellectual heir of Jarvis, Shattuck, and Bowditch, agreed on the urgency of a licensing and duly testified on it in the state legislature. He probably presented findings from his 1877 health department report in his testimony. The report included responses from a survey of doctors, undertakers, sextons, and town clerks across the state about negligent, vague, patently false, and sometimes flippant reporting on causes of death. Sometimes laymen filled in the blanks with guesses, hearsay, and the opinions of family members and friends. A sample of alleged causes included “artry lung bursted,” “billirm feever,” “canker,” “dires,” “dropsy,” “fits,” “inforamation lungs,” “inward spasm,” “lung fever,” “stopage,” “troubled in the brain,” and “worm fever.” Sometimes babies perished from “teething,” and one baby even fell victim to “infancy.” In one case, according to a respondent, the cause of death was “five doctors.” One doctor blamed the inaccuracy and vagueness on “the great diversity of skill among those have the title of ‘Doctor,’ in this land of medical liberty.” Another complained that the death reports of often grossly ignorant “empirics” were accorded credibility equal to those of educated physicians. A town clerk was so distrustful of doctors that he took the liberty on occasion to correct their death certificates.

Doctors, Folsom explained in his 1877 report, should accurately be able to diagnose typhoid fever, a mass killer of the time, and should cite it as the cause of death instead of its dangerous sequelae (intestinal hemorrhage and pneumonia, for example), as they often did. Thus, he concluded, some system or law regulating entry into the practice of medicine was needed, i.e., “legal restrictions upon irregular and incompetent physicians.” Without a diploma from a “responsible medical college,” he maintained, a person claiming to be a doctor should be excluded from the privilege of signing any medical certificate.” One suspects, therefore that Folsom was a key figure in the first stab at a licensing law in Massachusetts the year of his report. In 1879, two years after that unsuccessful attempt, Folsom introduced a partial remedy, at least for underreporting. His board promulgated a rule--enforced with fines for non-compliance--requiring all medical practitioners who attended a person during his last illness to submit a certificate recording the duration of the

---

45 Bowditch, *Consumption in New England: Or Locality One of Its Chief Causes* (Boston: Ticknor and Fields, 1862), 76.
last sickness and the cause and date of death. But this was only a solution to underreporting: the problem of diagnostic competency of the reporters remained.

Despite the impressive lineup of licensure’s proponents, ferocious opposition led to a large majority vote against the proposed law. Among those crowding the Massachusetts House of Representatives in protest were, as the New England Medical Gazette called them, “medical blacklegs,” among them “deceitful clairvoyants, long-haired spiritualists, necromancers, wizards, witches, seers, magnetic healers, pain charmers, big Indian and negro doctors, abortionists, harpies who excite the fears and prey on the ‘indiscretions’ of the young of both sexes.” A more organized and perhaps more respectable looking contingent of opponents in an impressive sounding National Constitutional Liberty League (NCLL) appeared a few years later to block subsequent attempts in Massachusetts. One NCLL sympathizer, arguing against “medical slavery” quoted Herbert Spencer, Thomas Huxley, and William Gladstone for support of his caveat emptor position. Gladstone was of the view that “a man should be as free to select his doctor as his blacksmith, for he alone is to profit or suffer by his choice.” Incorporated in Boston in 1888, the NCLL was founded by Joseph Rodes Buchanan, founder and professor of Cincinnati’s Electric Medical Institute. A famous exponent of mind cures and spiritual and psychic phenomena—the inventor of “psychometry”—he had attracted a substantial following since the 1840s. Shortly before the founding of the NCLL, Buchanan published his Manual of Psychometry, which he said heralded “the dawn of a new civilization.” A subsequent book, Periodicity, boasted in its subtitle that the titular phenomenon, which he discovered, was “the law of all life,” and, for that matter, “the absolute law of the entire universe.” Edgar Allan Poe was its “most brilliant adherent,” according to the New York Times.

The NCLL’s secretary was J. Winfield Scott, who in 1886 had led the opposition to licensing in his former state of Iowa. On the opposition’s behalf, he edited the Medical Liberator, a journal devoted to “improved systems of cure, human rights, and emancipation from medical despotism.” Scott relocated from Iowa to conduct the fight in Massachusetts. By 1894, Scott claimed, the NCLL had conducted over twenty campaigns in states across the country against imposing or improving licensing legislation. One reason for its successes was that “the average Legislator is tired and ‘sick unto death’ of the profession’s pretended interest in the protection of the people.”

Strangely, according to a Boston Medical and Surgical Journal account of the licensers’ travails, “the sentiment of a great majority” of the Massachusetts Medical Society “was one of entire indifference,” while only “a small portion thought it worthwhile to put themselves

---

48 Folsom, “Registration,” 234, 244, 261-262; Charles F. Folsom, M.D., circular letter, signed Boston, June 1879, Cushing Medical History Library, Yale University; Robert Gutman, “Birth and Death Registration in Massachusetts, 1870-1900,” Milbank Memorial Fund Quarterly 37:4 (October 1959), 391-392.
49 “Shall the Practice of Medicine Be Regulated?” New England Medical Gazette 15:3 (March 1880), 65.
52 “Editorial Notes,” Iowa State Medical Reporter 4:7 (April 1887), 277; “Medical Legislation,” Iowa State Medical Reporter 4:12 (February 1888), 481; Reginald H. Fitz, “The Legislative Control of Medical Practice, Part 4,” Boston Medical and Surgical Journal 131:1 (July 5, 1894), 1-2; “Medical Liberty (?) Literature,” Cincinnati Lancet-Clinic 30 (April 15, 1893), 454.
on record at all.”53 The main reason was that the majority disliked the licensing reformers’ call to license homeopaths and eclectics. As in many other states, the Massachusetts reformers regarded licensing non-regulars as a politically necessity because many—mostly homeopaths—enjoyed great popularity among well-to-do laymen. Also, friendliness toward both groups was helped by the fact while they disagreed on therapeutics, they agreed on hygienics, or the responsibility of unsanitary living conditions and environs for deadly disease. They were therefore potential collaborators in the public health mission. Indeed, Folsom’s earlier reporting directive had already required “any physician” of any persuasion to report causes of death, and thus conscripted them into an army for state preventive medicine.54 In short, the move for licensing in the 1870s began as one for inclusion, not just exclusion, and was pushed by laymen and physicians who had no personal or organizational agenda involving raising doctors’ incomes.

NEW YORK, 1874

In New York, public health played a seemingly subordinate role. More important, apparently, was a concern to have only qualified doctors serve in what the Massachusetts reformers called “social and semi-legal relations.” In New York, as in other states, medicine’s reformers were disturbed by the chaotic, sometimes comedic, and often perjurious aspects of American medicine colorfully displayed in courtrooms across the land. As a historian of medical jurisprudence puts it, courtroom elicitations of medical evidence “made physicians look scientifically weak, internally divided, and dangerously unprofessional.” Because courts were reluctant to favor or discriminate against different kinds of physicians for hire in the adversarial process, the result was that the reputation of all were damaged.55

In New York, plans to promote a licensing law emerged out of discussions held in 1869 in the Medico-Legal Society of New York. A small organization, but perhaps the largest, most active, and longest lasting of a number of similar state entities, it focused on the intersection of law and medicine involved in criminal prosecutions and civil disputes. Formed two years earlier, it attracted an equal mix of academically minded lawyers and doctors interested in questions of medical jurisprudence and forensics. The medico-legalists hoped to tame the jungle of fee-for-service medical opinions that judges and juries had to tangle with in judging medical cause and effect. In their place they hoped to create a body of scientific knowledge to which judges, doctors, and lawyers, with the help of a corps of experts in medical jurisprudence, could hold each other accountable. Vital issues of the day included mental capacity to stand trial and the insanity defense—which the sensational trial of President Garfield’s assassin would bring to a head in 1881.56 Other complex forensic, tort, and procedural matters explored in the society’s discussions and early papers included the distinction between a medical witness and medical expert, suicide and intemperance in connection with life insurance, criminal abortion and infanticide, the manufacture, sale, and administration of often fatal abortifacients, toxicology, responsibility for death by anesthesia, and real versus feigned injuries from railroad accidents.

54 Folsom, “Registration,” 260.
At its founding, the society’s most notable physician member was the neurologist William A. Hammond, the former Surgeon General of the Union Army. Among other things, Hammond published on the medico-legal value of confession as evidence of guilt and the problem of evaluating the extent and consequences of spine injuries in injury suits against railroads. The key figure behind the legislative effort, however, was physician Stephen Rogers, the author of articles exploring matters like the influence of alcoholism on civil and criminal responsibility. In his 1871 inaugural address as president of the society, Rogers called for “legally and definitely fixing the requirements of those who may presume to consider themselves skilled in human medicine and surgery.” One precondition for medico-jurisprudential order, the society thought, was to tighten the educational standards for entry into medicine.57

Promotion of public health was not ostensibly a motive for championing licensing, judging from the medico-legal society’s members, its early discussions, articles, and political agitation. But founding member Hammond, influenced by Florence Nightingale’s teachings about hospital sanitation, had been a pioneer in introducing extraordinary preventive measures in the Union army, and was a controversial detractor of ignorant army physicians’ fixation on worthless and often dangerous mercury cures for typhoid fever, typhus, diphtheria, cholera, and everything else.58 Also, by 1877, just as Rogers began pushing for licensing, the medico-legalists were actively branching into public health matters. Incoming president George H. Yeaman (one of the four Kentucky congressmen whose votes were needed in 1865 to pass the 13th Amendment abolishing slavery), declared that because public health was in the medico-legal society’s proper ambit, it was justified in promoting better sewerage, drainage, and tenement house construction, the latter so as not “to destroy their occupants with typhoid, scarlatina and diphtheria.”

The New York medico-legalists’ first public health priority was protecting children from the sale of tainted and adulterated milk and the widespread “insalubrity of school houses.” After a report on “school-room poisoning,” which invoked a consensus that the organization’s purview had always included “any question of importance appertaining to State Medicine,” the society commenced efforts to inform the public and push politicians to correct the evils, including possibly prosecuting school officials for criminal negligence. On that committee was Arthur N. Bell, editor of The Sanitarian, and one of the country’s most prominent public health leaders.59 A wealthy and influential railroad lawyer Clark Bell—no identifiable relation of Arthur Bell—served as the society’s president between from 1872 to 1874 and then again for twenty years straight starting later that decade. The Medico-Legal Journal, which Bell founded and edited, continued to publish on medical jurisprudence, but it also contained regular discussions of public health issues, especially tuberculosis, one of Bell’s pet causes.

The New York medico-legalists were clearly motivated by matters larger than the economic travails of the average physician. To their disappointment, they discovered that only a

minority of the New York State Medical Society wished to cooperate. In 1872 the association voted formally to reject the law under consideration without offering its own. Many of the society's members, being regulars, objected—as would Massachusetts doctors later—to legitimizing homeopaths and eclectics. Others thought the law would be ineffective, because it deputized the three main medical societies to administer the system, and therefore vastly overestimated their officials' willingness to face public censure for litigating against charlatans and quacks with popular followings and newspaper connections. Others thought the various medical societies might abuse their power, fearing invidious discrimination against graduates of substandard schools as well as those without any diploma at all.

Another significant source of opposition, Rogers noted, came from doctors who thought that “if people wish to be fools and employ all sorts of pathics and quacks . . . they deserve to suffer.”

According to George F. Shrady, the respected editor of The Medical Record, “We should count a large majority [of the profession] on the side of the opposition.” Rogers declared that it was to the “everlasting shame” of the mean, selfish, and ignorant regulars who voted against licensing and thus slowed its passage and allowed a bad one to pass. One of the oldest of them had actually persuaded the governor to veto a good bill that passed the legislature in 1872 on the grounds that “it was not the business of the medical profession, nor of the law” to protect dupes and victims of ignorant doctors. In contrast, the homeopaths and eclectics supported the law. Thus, without backing from the New York Medical Society, a law finally passed in 1874--after a “burlesque act” instead of a serious deliberative process according to Rogers. Because the medical society's failure to confront the combined forces of medical libertarianism—including a vocal contingent of drug manufacturers—it was a pitifully weak version of what had been hoped for. It was a “miscarriage” and a “legislative monstrosity.”

CALIFORNIA, 1876

The linkages between public health, medico-legal, and licensure issues in New York were not exceptional, as attested to by T. G. Richardson, president of the AMA in 1878. They were three of the essential goals of doctors “as humanitarians, as moralists, [and] as Christians” that he enumerated in his 1878 inaugural address. But unlike Massachusetts and New York, medico-legal issues do not seem to be prominent concerns. In California, for example, public health, and certainly not the pecuniary interests of the medical profession, emerges as most important from an examination of leaders of the licensure movement. The key mover behind its 1876 law was Thomas Muldrop Logan, whose 1874 presidential address to the AMA on "state medicine" identified him as one of the many progressive public health reformers across the country. A medical scientist who, like Bowditch and many other elite physicians, had sought additional training in Europe after graduation, epidemiology was his

---

60 Transactions of the Medical Society of the State of New York for the Year 1870 (New York: Medical Society of the State of New York, 1870), 41-42.
61 George F. Shrady, “The Utility of Medical Legislation,” The Medical Record 10 (March 6, 1875), 169.
64 Richardson, “Address of the President,” 102-104.
specialty. His 1851 study of “medical topography” or local environmental influences on disease had been noted favorably by the AMA’s Standing Committee on Medical Literature. The AMA’s Transactions later published his reports on state medicine, public hygiene, and epidemics in California. So animated by the subject was he that he “voluntarily and without compensation” investigated outbreaks of communicable disease, relying on data from physicians throughout California whom he recruited as correspondents.65

Logan was also a medical organizer. But judging by the pursuits of the California State Medical Society, which he co-founded in 1870, it was nothing like a doctors’ trade union as medical libertarians supposed. In 1871, with Logan as its president, the state society prevailed upon the legislature to enact a bill creating a State Board of Health. Logan assumed the position of permanent secretary of the board. During his tenure, he published extensively on malaria and tuberculosis and other infectious diseases, ventilation of public school rooms, regulations for the handling of the dead—and, in general, the “salubrity of public institutions.” While serving as AMA president in 1874, Logan oversaw the drafting of California’s medical practice act. His reason for fighting what he called the “chaotic condition” of his profession was a hope for its scientific, not economic betterment.66

Logan relied on Edward Robeson Taylor, a medical educator, lawyer, civic reformer, and poet to draft California’s medical practice act. A trained but non-practicing physician, Taylor had quit medicine for the law after only two years in practice. He had been “stricken with feelings of guilt” when he discovered how little he could honestly do in exchange for patients’ fees with the day’s puny therapeutic possibilities. The remarkable Taylor was a close friend of the radical thinker and labor activist Henry George, whom Taylor urged to put his ideas into what became Progress and Poverty, the hugely influential book about how and why inequality and poverty only increased with economic growth. Having painstakingly read every single page of the manuscript Taylor even set the type for its first, non-trade edition of 1879.67 Much later, after serving with distinction simultaneously as vice president for curriculum at Cooper Medical College and dean at the Hastings College of Law, the reluctant Taylor allowed himself to be pressured by civic reformers in 1907 to run for the mayoralty to clean up the city’s rampant corruption. In about three hectic years, as a political as well as medical progressive, he sanitized and reorganized the city government, kick-started the rebuilding of the city’s infrastructure ruined by the 1906 earthquake and fire, and presided over the creation of the Municipal Railway and Hetch Hetchy water and power system. During a second outbreak of the bubonic plague in 1907 Taylor cleared out the city health department, installed outstanding medical professionals, and set up a


Citizens Health Committee of prominent people to organize a massive war against the city's rats.68

**ILLINOIS AND ALABAMA, 1877**

In Illinois, the key mover behind a law passed in 1877 was John Henry Rauch, a non-practicing physician and nationally prominent public health missionary. After graduating from the prestigious University of Pennsylvania medical school, the young and ambitious Rauch settled in Iowa to pursue his medical career. But his heart was not much in clinical practice. He combined a side interest as a naturalist with medicine in his 1851 report on the “Medical and Economic Botany of Iowa” for the newly organized Iowa State Medical Society, which in 1858 he would serve as its president. As an active member of the Iowa Historical and Geological Institute, Rauch collected ichthyologic specimens from the upper Mississippi and Missouri rivers for the great geologist and naturalist Louis Agassiz--a founding member of the ASSA, and possibly the most famous American scientist of his time. Agassiz described Rauch’s collections as “splendid.” Around the same time Rauch helped persuade the U.S. Congress to conduct a geological survey of Iowa.69

From Iowa, Rauch moved on in 1859 to teach *materia medica* and medicinal botany at Rush Medical College in Chicago. Again, such things could not contain him for long. In 1870 he traveled to Venezuela with the combined purposes of improving the sanitary conditions of its gold miners and collecting unusual specimens for the Chicago Academy of Natural Sciences. More importantly, Rauch helped organize a Board of Health for the city of Chicago, and served on it for a number of years, until 1873. There he authored eight reports on the sanitary history of Chicago, drainage in the city, pollution of the Chicago River, the need for public parks, and more. The beginnings of the city's drainage, water supply, park systems, and many public works are attributed to his exertions. Among them were the building of a water tower and pumping station, a tunnel under Lake Michigan for a water intake crib two miles away from the dangerously polluted shoreline waters, and the deepening of the Illinois and Michigan canal, which reduced the flow of sewage into the lake. Sharp drops in deaths from typhoid fever resulted. He was also the political mover behind the city's extensive park system. Lincoln Park, close to Lake Michigan, was created at his behest by eliminating a large cemetery whose water runoff from rotting remains, he insisted, poisoned the lake.70

Gaining stature beyond Illinois, Rauch joined nine other original organizers of the American Public Health Association in 1872 and served as its first treasurer. He became its president three years later. That year he also served on the U.S. Interior Department's Sanitary

---


Committee for the Centennial Commission. In the 1870s he also served on the American Medical Association’s section on State Medicine and Public Hygiene along with Bowditch and Billings of Massachusetts and another outstanding medical leader of the late nineteenth-century public health movement, Agrippa Nelson Bell, editor of *The Sanitarian*.71 Galvanized by the 1878-1879 yellow fever epidemics, Rauch formed of the Sanitary Council of the Mississippi Valley as well as the River Inspection Service of the short-lived National Board of Health, both of which he led.72 Later, in 1884, still serving as the chief executive of the Mississippi sanitary council, Rauch published on the exclusion and prevention of cholera in North America. In 1885, because of Chicago’s position within twenty-four to forty-eight hours of every important port on the Gulf and Atlantic coasts, he undertook an inspection of all their quarantine systems. From that position of knowledge Rauch began agitating for reviving something like Bowditch’s defunct National Board of Health with the creation of a permanent cabinet-level, federal department of health as the only efficient way of improving the country’s coastal defenses against disease.73

Tellingly, Rauch’s licensing law of 1877 followed, by only one day, the passage of a companion act he also authored creating the Illinois State Board of Health. The Board of Health was charged with the responsibility of regulating physicians and midwives as well as issuing and enforcing sanitary regulations and public quarantines. Consistent with the medical alliances in Massachusetts and other states, the Illinois board was comprised of a mixture of regular, homeopathic, and eclectic physicians. The support and cooperation of these practitioners, if well trained in their separate medical schools, were needed both for passage of the laws and to build, in Rauch’s words, an effective “force in sanitary science and public hygiene.” The board also supervised a new bureau of vital statistics. However, Rauch lamented in the following decade that he had failed so far to persuade the state legislature to give the health board the powers it needed to enforce their collection, thus leaving them still “in an imperfect and unsatisfactory condition.”74

In Alabama, Jerome Cochran, another nationally prominent public health reformer, was the driving force behind a medical practice act passed in 1877, the same year as Illinois. In Alabama, Cochran was celebrated as a “yellow fever fighter” and “father of Alabama public health.” Since his medical school days, he had been interested in disease prevention, and as early as 1866 started publishing on malaria, yellow fever, and other epidemic diseases that commercial shippers brought into his adopted town of Mobile, Alabama, on the coast of the Gulf of Mexico.75 Cochran’s push for state level reform began the same year he entered medical politics in the city of Mobile. In 1871, while serving as professor of chemistry in the Medical College of Alabama (where he later occupied a chair in public hygiene), Cochran drew up an ordinance adopted by the city of Mobile to create a Board of Health, which he

---

71 “Minutes of the Section on State Medicine and Public Hygiene” *Transactions of the American Medical Association* 26 (1875), 296.

72 Sanitary Council of the Mississippi Valley,” *Mississippi Valley Medical Monthly* 3:10 (October 1883), 472-473.


then ran as its first Health Officer. He had been appalled by the corrupt and dishonest practices of the Gulf coast city’s previous health officers, mostly hired as tawdry job seekers, including mostly businessmen but also a doctor or two. Among the problems he saw was the suppression of evidence of yellow fever outbreaks at the behest of local commercial interests, who thereby outraged the citizens and health officials of the inland city of Montgomery, where potentially infected cargo from Mobile was headed. For his disloyalty to local commercial interests Cochrane was fired from the job in 1873 after a turnover in political control.76

Like in California, but unlike in Massachusetts, New York, and Illinois, organized medicine in Alabama was a powerful force behind licensing, but only because Cochran was its organizer in chief. Not focused on clinical medicine and its pecuniary rewards, he criticized fellow doctors for their fixation on remedies for common ailments while neglecting the unremunerative prevention of “social and dietetic problems.” His interest in prevention led him, like other reformers, to push for quality vital statistics. For his expertise on and exertions for public health above city and state levels, Cochran was nationally recognized. Only two years after passage of the licensing law, he published a fifty-page treatise on “The Theory and Practice of Quarantine.” The same year he was appointed a member of National Yellow Fever Commission, having been nominated for the spot by the American Public Health Association. Upon his death in 1896, Cochran was eulogized by John B. Hamilton, editor of the recently started Journal of the American Medical Association and former surgeon general of the U.S. Marine and Hospital Service, the precursor of the U.S. Public Health Service. Hamilton praised Cochran as a man of vast erudition who rose to become a preeminent figure in the science of preventive medicine. Not only that, his political “handiwork” offered “the best model for Medical Legislation in other States.”77

The model Hamilton referred to involved, first, the creation of a state public health authority, and then passage of a medical practice act authorizing it to administer medical licensing. Uniquely, Cochran’s plan called for the state medical society and its county units to serve simultaneously, ex officio, as state and county boards of health. Endorsed in 1873 by the Medical Association of the State of Alabama (MASA), which Cochran helped organize, the health board law was enacted by the state legislature in 1875. Aiding passage, no doubt, was the fact that MASA, which organized around ninety-five percent of all doctors in the state, mobilized to elect a great number of doctors to the state legislature. It was indeed a “near-majority” according to J. N. McCormack’s account—a strange but explicable phenomenon considering the political chaos in Alabama after the Civil War.78 Cochran’s board was also charged with collecting vital statistics. Later, in 1882, he lamented that vital statistics were, despite his law, still not being collected in most counties “with a sufficient completeness to make them of any real value.” For that he chastised county medical societies, acting in their statutory capacity as local boards of health, for being “culpably negligent of their duty.”79

Two years after passage of the law creating boards of health, the Alabama legislature passed a Medical Practice Act, again authored by Cochran, which handed the examination process and licensure decisions to MASA and its local affiliates. The state’s medical colleges, Cochran felt, had been pumping out doctors miserably qualified for public as well as clinical service. Rigorous examinations required for licensing would staunch the flow, and simultaneously force the colleges to improve along lines dictated by the organized doctors. For his integrated medical organizing, public health, and licensing work, Cochran, the medico-political tsar of Alabama, gained the admiration of like-minded reformers across the country. The organization he led, according to his biographers, “went from zero influence on the public health and hygiene of the State, to almost complete control of such serious functions as quarantine, licensing of doctors, licensing of midwives, draining of malaria-sodden swamps, disposal of sewage, purifying of water.”

WEST VIRGINIA 1881

The main mover behind early licensing in West Virginia was James Edmund Reeves, another reformer whose wide-ranging interests were not those of well-trained doctors struggling to make a good living in the face of unschooled competition. Reeves, yet another medical organizer, founded the state’s medical society. Unlike licensors in other states, Reeves harshly criticized all non-regular practitioners, including homeopaths. That was politically realistic, because their appeal had not extended far into the South. But he also wanted to clear out self-identified regulars who, as “empirics,” lacked any rigorous training. For that Reeves founded the Medical Society of West Virginia in 1867 to elevate the practice of medicine on scientific grounds and thereby to “render quackery odious.” Like other medical leaders across the states, he saw the new society as a platform to promote medical training that included basic scientific as well as clinically relevant knowledge of anatomy, physiology, chemistry, materia medica, pathology, and more.

According to historian James Mohr, passing a medical practice act had nothing to do with public health, even though Reeves combined licensing with the creation of a state health board in the same law. The health department was to administer the licensing provisions. Indeed, there seems to be no record of Reeves claiming a public health purpose in licensing. Mohr actually argues that even though he “cared sincerely about public health,” the board’s creation “had never been solely an end in itself; it was principally a means of obtaining the power to license physicians.” Public health was a “stalking horse” behind which licensing was hidden from politicians reluctant to introduce it. But to judge from Reeves’ career, this seems implausible, because public health was his abiding passion, and he was to achieve state and national renown for it. As a fledgling doctor, practicing with only independent study and apprenticeships behind him, Reeves gained regional acclaim for controlling an outbreak of typhoid fever in his home town. In 1859, shortly before

---

80 Morris and McClary, Cochran, 54, 69-70, 96-97, 153, 188, 198, 201, 207.
82 Mohr, Licensed to Practice, 64, 66. Mohr firmly bases his conclusion on a speech by Reeves published in Transactions of the Medical Society of the State of West Virginia (Wheeling, WV, 1882), 714-730. However, I cannot find grounds for it in the speech.
undertaking formal studies at the University of Pennsylvania, a top medical publisher put out Reeves’ important treatise on typhoid’s spread and treatment. It called for caution and a healthy dose of skepticism in the use of pharmaceuticals. He also authored a reference work on microscopy.83 After relocating to the capital city of Wheeling and founding the state medical society, Reeves began agitating for reform of municipal hygiene. Well before pushing for a combined state public health and licensing law, he persuaded the city council in 1868 to establish a health department and assumed its leadership. As Wheeling’s health officer, the progressive-minded physician developed a concern for the health consequences of industrialization, and therefore called for what today is called “occupational medicine,” or preventive and therapeutic treatment of work-related disease and injury. Active in the American Public Health Association from its founding in 1872, Reeves was elected its president in 1885. In 1887 he served as vice president of the section of Public and International Hygiene of the International Medical Congress, having organized the very first International Medical Congress in 1876.84

Along with licensing as a function of a public health department that Reeves prevailed on the state legislature to create, it was to collect and process vital statistics, taking the matter of reporting deaths out of the hands of undertakers and burial ground sextons.85 Shortly after passage of the combined licensing and public health law, Reeves delivered a lengthy address to fellow doctors on his victory, devoting the bulk of his thoughts to progress in medical and sanitary science and the public health aspects of the law passed. He also celebrated his legislative success with the publication of a lengthy article in the newly created Journal of the American Medical Association. In it he fervently extolled “the eminent domain of sanitary science.” Proclaiming that “public health is public wealth,” he praised fellow “progressive minds” in the medical profession for establishing state boards of health in twenty-eight other states and thereby saving “thousands of lives and hundreds of thousands of dollars.” In his presidential address to the American Public Health Association in 1885, Reeves joined Rauch and many other reformers in calling for the creation of a “permanent and well supported national health bureau,” without which it would be “impossible to bring sanitation in this country up to the level of its rapid advancement in Europe.”86

**REVISIONS IN MISSOURI AND KENTUCKY, 1883, 1889**

Public health missionaries also played important roles in pushing for improvements in licensing laws. For example, Missouri’s first law of 1874, about which little can be found, was revised in 1883 with the assistance of Willis P. King, a surgeon and professor of gynecology at Missouri State University and the University of Kansas City. As a chief surgeon of the Missouri Pacific Railway System, King did not suffer from excess competition

---

86 *Transactions of the Medical Society of the State of West Virginia* (Wheeling, WV, 1882), 714-730; Reeves, “The Eminent Domain of Sanitary Science,” *JAMA* 1:21 (December 1, 1883), 612-618; “James Edmund Reeves,” *New Orleans Medical and Surgical Journal* 48:8 (February 1896), 501-502; Reeves, “The President’s Address,” *Public Health Papers and Reports Presented at the Meetings of the American Public Health Association* 11 (1885), 6-7.
from low fee earners. Known by colleagues as “a progressive man,” he later served as
president of the state medical society and a vice president of the AMA. That there was a link
in Missouri between licensing and disease prevention appears in the fact that the licensure
law was passed the same day as the one creating a state board of health. In exchange for the
grant of monopoly to practice, physicians were required to report to the new state board all
births and deaths occurring in their practice for the purpose of improving the state’s vital
statistics. Later, in 1894, King would assume the role as the health board’s secretary.
According to a history of medicine in Missouri published in 1900, “most of the reputable
medical men and many prominent citizens of the State” saw the “real object” of the licensing
law to be to “ascertain, and remove, if possible, all conditions tending to impair or
jeopardize the public health.” The “proper regulation of medical practice” was an
“important condition of success in attaining this, its paramount object.”

Much more is known about Joseph Nathan McCormack, the key figure responsible for an
1889 revision of Kentucky’s first licensing law, a weak one passed in 1874. Like Rauch,
Cochran, and Reeves, J. N. McCormack was another towering figure in public health politics.
In the 1870s, McCormack’s first decade as a fledgling clinician in Bowling Green, the town’s
business interests attacked him with intense bitterness when he publicly warned citizens
about the arrival of yellow fever. His courage as a progressive reformist had already
manifested itself in his valedictory address to fellow medical graduates of the Miami
University of Cincinnati, in which he expounded on the mental and physical equality of the
sexes. Later, like many young doctors of the era, he interrupted his early practice to further
his medical education with stays in London, Edinburgh and Vienna. Perhaps in a small part
because of a near-fatal bout of typhoid fever, within ten years of graduating it was clear that
public health, not his very successful surgical practice, was where his heart was. In 1879, at
the age of thirty-two, McCormack instigated the creation of the Kentucky State Board of
Health, which he led for over thirty years, interrupted only by a stint working as an
architect and builder of a reorganized AMA. Like Cochran in Alabama, who he greatly
admired, McCormack made himself known across the country as a consummate medical
organizer, for he thoroughly rebuilt the Kentucky State Medical Society, county by county,
turning it into a far larger and more efficient force in progressive state politics as well as
ethical and scientific improvement.

In the 1880s McCormack began assuming a national role in public health, and medical
politics in general. In 1883 he helped found, along with national public health pioneer
Stephen Smith, the National Conference of Health Boards, in which he held top leadership
roles until 1893. In that capacity he conducted interstate measures to suppress an imminent
cholera epidemic, which earned him, in 1888, a commendation from President Grover
Cleveland. Some of McCormack’s Kentucky work redounded to the benefit of people in other
states. In 1903, he reported findings of a state investigation that blankets in railroad
sleeping cars were laundered only once in six months. In the aftermath, Pullman cars began
to be equipped with freshly laundered sheets to go with the blankets. In 1913 he introduced
his invention, the “Kentucky Sanitary Privy,” to combat hookworm infestations, a fly-proof,

---

87 M. A. Goldstein, One Hundred Years of Medicine and Surgery in Missouri (St. Louis: St. Louis Star, 1900), 151-
152; Harold Walter Eickhoff, “The Organization and Regulation of Medicine in Missouri, 1883-1901,” PhD
Dissertation, Department of History, University of Missouri, August 1964, 52, 54-57; “Sketch of Dr. Willis P.
King,” Medical Mirror 4 (June 1893), 270.

88 “Dr. J. N. McCormack, 1847-1922,” AJPH 12:7 (July 1922), 619; “Death of Dr. J. N. McCormack,” The Optical
Medical Journal 21 (January 1923), 22.
liquefying, self-cleaning facility connected to a concrete septic tank. The design was widely adopted in Kentucky, other states, and even other countries. In 1907 the American Association for the Advancement of Science included him in its list of the 100 most influential leaders in the fields of medicine, public health, science and social reform. At his death in 1922 he was praised for having drafted laws passed "in many other states dealing with public health, the practice of medicine and medical education." 89

In sum, J. N. McCormack embodied the integration of the public health movement with other aspects of progressive medical politics, from the licensing movement to professional organization building. He was not worried about being undercut by unschooled operators and quacks when his revision passed in 1889. For over thirty years of service for public health in Kentucky, he demanded no increase in his 1879 starting salary of $1,200—what his stenographer was paid in 1912. In 1900, he even donated more than has salary during a smallpox epidemic in thirty-five Kentucky counties for inspection measures. The board lacked extra funds, and some county board officials had been resigning. Later, to help out with Kentucky efforts to eradicate hookworm disease, he had the state board redirect part of salary to pay for an extra microscopist needed for inspections.90

FROM LICENSING LAWS TO MEDICAL EDUCATION REFORM

By 1901, every state in the union had passed a licensing act.91 But practically all of them failed to block the entry into medical practice of virtually or totally unschooled young men--and small numbers of women. A particularly bad example was the Texas law of 1876, which superseded the first law of 1873, the work of the president of the Texas State Medical Society, Robert Henry Harrison, Sr. Harrison was a wealthy man who would in later years breed race horses on a 2,000 acre farm with a 200-acre racetrack complex. Harrison’s medical expertise and activism, displayed in publications from 1873 to 1876 on epidemics in Columbus, Calvert, and Dennison Texas and plans for a state board of health. In 1875, he submitted a bill to the legislature to establish a Board of Health and Vital Statistics. It passed the lower chamber but died in the upper. Stubborn political resistance and legislative miserliness saw to it that an effective and well-funded state department of health would not be instituted until 1909.92

Politics also saw to it that Texas’s 1876 medical practice act would be a fiasco. Until 1907, political corruption and fierce lobbying defeated repeated attempts to fix it. In the view of a fellow reformer, the low intellectual and ethical quality of the average legislator, who was paid a laborer’s wage, was a big obstacle. The politicians snubbed and laughed at the state’s medical reformers, calling them agents for the AMA, “a great medical trust,” echoing well-organized medical libertarians who handed them arguments and bribes.93 The law had

93 “Texas State Medical Association,” Texas Medical Journal 15:12 (June 1900), 623; “Only a Diploma Required,” Texas Medical Journal 15:6 (December 1899), 336-337; H. A. West, “Maladministration of Public Medical Affairs
required a degree from a chartered medical school from any state, but those only had to be “certified” for a fee by a county clerk, who of course was not required much less motivated or equipped to investigate the authenticity of the documents or the quality of the schools. Alternatively, applicants could be examined by district medical boards for various competing branches of the profession. But if they were appointed at all, according to the Texas Medical Journal, it was for “personal or political reasons . . . and hence in some districts there are boards not only incompetent but corrupt, and an examination is a matter of dollars and cents for them.” In short, the whole “system (?)” was a “farce.”

What Texas reformers experienced was the unintended and indeed perverse consequences of the initial surge of licensing in the 1870s and 1880s. Because most did little more than require medical degrees, the initial licensing laws had the effect of spurring the indiscriminate chartering of a spate of new for-profit proprietary medical schools. Between 1880 and 1900, the number of medical schools climbed almost 70 per cent while the United States population grew by only around 52 per cent. In 1889, there was one medical school for every 520,000 or so Americans while each medical school in Britain supplied about 840,000 thousand Britons. Each medical school in Sweden served about 1.5 million, in Germany about 2.4 million, in France about 4.5 million, and in Austria about 6 million. In 1900 there was a total of around 160: 124 of the regular school, 22 homeopathic, and 14 eclectic or “nondescript.” The chairman of the AMA Council on Medical Education Arthur Dean Bevan complained that “We have almost as many medical schools as the rest of the world—one to 174 for the rest of the civilized world.”

As medical historian Shryock noted, medical reformers’ intense “attack on superfluous schools” came late in the century after the early licensure movement had gotten off the ground. But superfluity was not the biggest problem. Reformers lamented that the vast majority of medical colleges were of abysmal quality, some not much more than diploma mills charging fees low enough and requiring courses short enough to attract a large enough pool of applicants. As the Texas Medical Journal put it, “we all know . . . that the majority of medical colleges are individual enterprises, run to make money, and that almost anybody, anywhere, can get a charter for a few dollars, to establish a medical college.” Many students came to them straight off the farm with only some high school education and virtually no scientific knowledge or advanced mathematical skills. Turnover and failure rates were high.

For the elite of the profession, medical education in America was an embarrassment. St. Louis physician Charles A. Todd complained in 1890 that “diplomas from the United States are regarded as contemptible in Europe.” William Eggleston, Assistant Secretary of the Illinois Board of Health, declared that anyone who compared medical study at chartered medical schools in the United States with those in the rest of the world “is compelled to

---

95 “Medical Educational Statistics,” JAMA 37:13 (September 28, 1901), 838.
97 “Only a Diploma,” 337.
blush for his country.” Obstetrician Samuel Potter, an expatriate Briton, but still a member of Britain’s Royal College of Physicians, noted that any American physician who found himself in the company of European doctors typically encountered “a feeling of contempt for American medical education and persons.” It was so pervasive that “polite as he may be,” the European “is never able to wholly disguise it.”

The number of badly prepared students the burgeoning diploma industry enrolled and graduated grew twice as fast as the population, by 112 per cent. Doctors’ real incomes actually fell even as the economy grew and other incomes rose to keep up with the cost of living. A survey in 1907 of nine states found no rise in doctors’ nominal incomes in 25 years despite an increase in the cost of living of about 24 percent in the previous decade alone. In 1900 there was about one doctor for every 600 inhabitants, when one per every 2,000, or perhaps 1,500 in thinly settled areas, would probably have been sufficient even under “present hygienic conditions” according to astronomer and mathematician Henry S. Pritchett, head of the Carnegie Foundation, and a fervent ally of medical education reformers.

In short, doctoring “was the poorest way to get rich,” according to the reform-minded Richard Cabot of Harvard and Massachusetts General Hospital. He was one of the lucky ones, wealthy both from his inheritance and from charging wealthy patients on a sliding scale. A paper-thin slice of the profession tending very wealthy patients could earn $25,000 or more annually according to a 1902 study. Even a “comfortable” practice bringing in at least $3,000 was “very much like the proverbial hen’s teeth” according to the Cincinnati Lancet-Clinic. A yearly take of around $1,000 was the average, a figure brought up by the high numbers at upper the tail of the skewed distribution. The median was thus significantly lower. Official statistics from around 1910 show that around 40,000 doctors earned a proletarian income of $500 a year, barely above the average for all adult males. A unionized coal miner, steel worker, or machinist could do better.

In this context, reformers hoping on improving licensing laws and their enforcement did indeed lament the economic condition of the profession. In 1885, Philadelphia physician John B. Roberts thought it would be wise to “weed out” people who were “ignorant of medical science” and who, by charging for their services, “increase the difficulty of an educated physician gaining a livelihood.” In 1901, according to Thomas J. Happel, Secretary of the Tennessee State Board of Medical Examiners, from “a common business standpoint” it behooved the profession to call for better enforcement of weak licensing laws. But such comments were rarely heard in public debate, because reformers feared looking like they

---

were “simply nursing their own pecuniary interests.” Because of the low esteem in which the profession was held, according to eminent Harvard surgeon J. Collins Warren in 1881, it was extremely difficult to disabuse state legislators of their view that the laws sought were “framed in the sole interest of the medical profession.”

That elite, public spirited, and often wealthy medical reformers’ expressed worries about physician poverty have been used to support the pecuniary interest argument, but without examining what was at stake in the reformers’ minds. According to Gerald Markowitz and David Rosner, historians of public health and related issues, the driver of reform to reduce the number of medical schools and doctors was the result of a “near obsession” with the glut. “Only the physician viewed the profession as ‘overcrowded,’ for only he suffered from the surplus of competitors.” In other words, the public’s main interest lay in keeping fees low. But reformers thought otherwise, and for compelling reasons. The public, they argued, suffered from the depressive effect of low incomes on the quality of the profession. Poverty was a morally hazardous territory for physicians and therefore economically as well as medically injurious to naive patients. The wealthy J. N. McCormack—the major force behind licensure and public health in Kentucky—told public audiences in 1907 that “poverty in the medical profession” was “one of the great menaces to the public health in this country.” McCormack felt sorry for patients and doctors alike. Poor doctors, with needy families at home, were “daily forced to take what is almost blood-money from a class of widows, teachers and working-women, in their times of affliction, whose incomes are so scanty [even] when well. Poor, badly educated doctors found it hard to follow Osler’s aphorism: “Don’t do too much. Remember how much you do not know. Do not pour strange medicines into your patients.”

Reformers witnessed a Gresham’s law of excessive competition among medical schools and the practitioners they pumped out. If bad did not entirely drive out good, they thought, it thrived all too well. It was the survival of the foulest, or what economists call “adverse selection,” hardly a meritocratic natural selection process. Theodore W. Schaefer, a professor of chemistry at Kansas City’s University Medical College, said “the degraded organism . . . crowds out higher species.” It was the “survival of the low, shrewd and cunning,” for “the inferior medium tends to displace the superior.” In short, the market was an overindulgent disciplinarian; the invisible hand was all thumbs. Schaefer himself did not have to worry about excessive competition from the profession’s lower life forms. A scholarly man who dabbled in entomology, his research and journalistic subject matter ranged from urinalysis to medical education and public health. Notable is his 1907 study on sulfur dioxide pollution in industrial settings, probably one of the first ever identifying it as a serious risk factor for asthma, bronchitis, and pneumonia.

In economist George Akerlof’s seminal formulation of the adverse selection problem, when information about quality is deficient, a condition endemic to medical practice, prices can

104 J. N. McCormack, “Things about Doctors which Doctors and Other People Ought to Know,” Journal of the Michigan State Medical Society 6 (January 1907), 37.
drive quality, not the other way around. Low prices drag quality down. Adverse selection's slide toward the bottom affected the medical schools responsible for the profession's embarrassment. "In order to exist," observed Nathan S. Davis in 1889, the founding father of the AMA, medical schools had to underbid the other colleges, either by lower fees, or shorter courses and terms of study, or less rigid requirements for entrance and or for graduation, or "all of these." They were no different from manufacturers of goods who "put out an inferior article so as to underbid competitors." The result was overproduction of poorly trained graduates because the public could not distinguish good from bad doctors as they could the bread and butter they ate. Also, in contrast with the medical libertarians, reformers thought competition among medical schools and doctors failed as an engine driving and spreading useful innovations. As an editorial in the Journal of the American Medical Association put it in 1888, the glut of competitors could only "lower the moral tone of physicians." "Unwholesome competition tends only to make the morally loosely-inclined physician worse; but it does not make the conscientious physician better, or more careful, or more scientific."107

The second phase of the licensure movement logically required and overlapped with a growing movement for medical education reform, a story that cannot be told in any detail here. Reformers saw more stringent license laws as leverage that only state governments could wield to force bad medical schools to improve or perish. The key was to allow only graduates of medical schools undergoing inspection and accreditation to be licensed, and--as further quality control of both schools and students--require their graduates to pass increasingly difficult examinations. One of the pioneers of the second phase, which started off slowly in the 1880s, was the nationally celebrated public health missionary John H. Rauch of Illinois, who had also been a groundbreaker in its first phase. In 1886, Rauch expressed grave concern about the glut of doctors struggling to make a living in his state and around the country. The excess, he told fellow doctors in the AMA House of Delegates, led to the kind of bitter rivalries and sharp competition over patients that had a "demoralizing"—i.e., corrupting—effect "to the individual, to the profession, and to the public." Rauch was celebrated by fellow reformers in other states for his pioneering investigations begun in 1883 to investigate which schools across the country met his 1880 "Schedule of Minimum Requirements," the nation's first, rather crude and unofficial, accreditation effort. His board made available yearly reports on his findings in a publication that less industrious authorities in other states could use when their laws gave them the authority or required them to turn away license applicants from schools that were not "reputable" or "in good standing."109

Improving information about the dramatically different quality of medical schools helped discerning medical school applicants and state authorities neutralize the competitive forces of adverse selection, leading to gradual improvements at the upper end and, after 1904, a slowly declining number of schools. Concurrent efforts by medical education reformers in

---

107 Nathan S. Davis, "Competition, Supply and Demand, and Medical Education," JAMA 11:11 (September 15, 1888), 382-383.
the AMA leading up to and after the famous Flexner report of 1910 led to a further decline in the number of schools and rising quality in the 1910s and 1920s. The research for the report had been a secret collaboration of the Carnegie Foundation with the AMA, which had already begun its own inspections and surveys in 1906, a great improvement over Rauch’s rudimentary surveys. The banner headline of a New York Times article on the AMA-instigated Flexner report read “FACTORIES FOR THE MAKING OF IGNORANT DOCTORS.” Its subhead was “Carnegie Foundation’s Startling Report That Incompetent Physicians Are Manufactured By Wholesale In This Country.” Abraham Flexner’s favorite word for describing many of the schools and their facilities was “wretched.”

Carrots and sticks were applied by a lay-professional alliance of license law and medical education reformers. State funding and philanthropic endowments, the carrots, did much of the work by liberating medical schools from their complete dependence on student fees. The dozens of proprietary schools received none of that largesse, were not able to raise their standards, and thus expired or merged with university or non-profit medical schools. Of equal if not greater importance was the stick of state licensing laws that imposed increasingly stringent standards on medical schools and their graduates, including pre-medical requirements for admission, four years of rigorous pre-clinical scientific and practical clinical work in accredited teaching hospitals, and the like. The second phase was the work of sincere reformers, many of whom, like Rauch in Illinois and Harrison in Texas, were active in the early licensure movement that both preceded it and--because of its perverse effects--set it in motion. Neither phase was the work of a mass of doctors mobilized to assert their pecuniary interests at the public’s expense. 