MEDICINE IN NEW ENGLAND
1790–1840

by Barnes Riznik

Old Sturbridge Village, Sturbridge, Massachusetts
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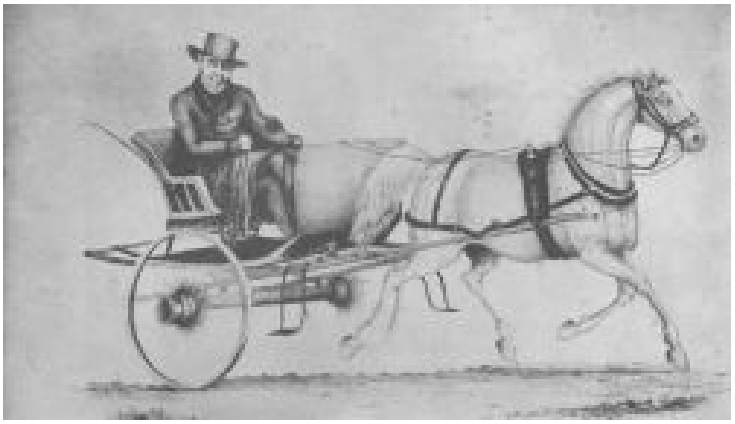
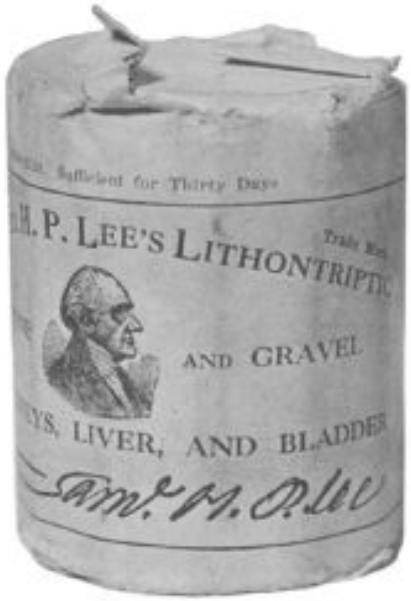


IN THE YEAR 1792 Dr. Peter Bryant arrived in the village of Cummington, Massachusetts, and established himself as a doctor or, as he would have put it, "a medical practitioner." "At the age of twenty-five, with my small stock of book knowledge, without experience in the ways of the world, my whole property consisting of a horse, a few books, and about twenty-five dollars worth of medicine," he wrote, "I launched out into the world to begin business . . . ." Bryant, who had learned the "art of physic" from his father in Bridgewater, practised medicine in Cummington for thirty years. He developed a wide general practice in the neighboring rural towns located halfway between the Connecticut River Valley and the Berkshires.

In an age before effective, pain-killing anesthetics were known, this young doctor soon acquired a reputation as a skilled surgeon and "male midwife." He became a member of the Massachusetts Medical Society in 1806 and received honorary degrees from both Williams and Harvard. Over the period of a number of years he collected a small but well-chosen library of American and British medical works and periodicals.

Bryant married and raised a large family, naming one of his five sons after the esteemed Edinburgh professor, Dr. William Cullen. He had hopes that this son, William Cullen Bryant, would join him in medical practice. The editor-poet later recalled that his father had taught him his love of literature and his first verses. "My father," the younger Bryant wrote, "delighted in poetry, and in his library were the works of most of the eminent English poets. He was not unskilled in Latin poetry, in which the odes of Horace were his favorites." Fortunately for Dr. Bryant, young Samuel Shaw of nearby Plainfield was eager to learn medicine. Bryant liked Shaw and accepted him as a medical apprentice for a term of three years, and the lively society of the Bryant family in Cummington gained another son when Shaw married one of Bryant's daughters in 1821.



A package of patented purgatives. Photo courtesy of James Harvey Young.

Both Bryant and Shaw were early nineteenth-century New England doctors who diligently studied the results of new medical observations, listened with respect to the opinions and advice of other colleagues about difficult cases, and then fearlessly expressed their own conclusions, all this at a time when confused understandings of the basic nature of illness were large obstacles for country practitioners to overcome. Many physicians, still bound by ancient Greek dogmas, based some of their medical understanding on Galen's premise that disease was a morbid state of the four "principle humors" (phlegm, blood, bile, and black bile). If humoral impurities were excessive, these men believed, illness could be treated by bleeding, purging, and sweating. They prescribed therapy of a bewildering range: they bled, blistered, purged, and sweated their patients and used numerous mineral and vegetable medicines. In one instance Catherine Greene, wife of Governor William Greene of Rhode Island, was attended by at least three of the state's prominent physicians who consulted over her lameness and in turn bled, blistered, and salivated their patient and gave her medicated baths, "a dicoction of prickly ash bark," mercury, and camphor. To many New England doctors one hundred and fifty

years ago, the more foul-tasting or rare the ingredients, the greater the chance that the prescription would drive out the disease. "Blunderbuss formulas" were held in high repute, and one Northborough, Massachusetts, physician boasted of using more than twenty-five different ingredients in one medical mixture.

Scientific argument over the nature of disease divided doctors in both Europe and America, especially after medical theorists took up extreme positions. The American medical extremist par excellence was the Philadelphian Dr. Benjamin Rush, who in the 1790's propounded a system in which all diseases were reduced to one and all therapy concentrated in a few "heroic" treatments. Rush was a striking example of a confident, impatient, Newtonian mind trying to bring order to a frustrating multiplicity of symptoms and diseases by constructing a framework of medical laws. As a medical student in Edinburgh, he had been impressed by the theories of his teacher, William Cullen. Cullen's pathology emphasized nervous disorders more than humoral conditions, but Rush went even further; he argued that nervous debility was neither a consequence of disease nor a disease itself but rather the cause of all diseases. Medically, the essence of Rush's system was the assumption of an underlying bodily reaction common to all illness regardless of specific diseases, all of which were caused by a state of excessive excitability. Though Cullen and other eighteenth-century medical theorists like Dr. Hermann Boerhaave of Leyden recognized the healing power of nature, Rush concentrated all treatments in extreme bleedings and purgings. He offered no clinical or other scientific proof to justify "heroic" medicine, and there was professional criticism of excessive bleeding among New England physicians. Many doctors, nevertheless, did employ depletion to treat any sort of ailment. Joseph Denison, a tutor at Yale College, observed that he was "blooded once or twice everyday" during an illness. While other measures were also employed in Denison's case, he reckoned that over the course of about ten days he lost, at seven or eight "operations," about a gallon of blood. Many practitioners also prescribed massive doses of mercury that supposedly cleansed the human system by causing saliva to pour from the mouth, and a chloride of mercury called calomel was sometimes administered in huge amounts. In one pathetic recollection a man who had been given sixty grains of mercury compound complained that he felt like some object "packed full of beans." It is not surprising that patients — or victims — of such prescribed therapy frequently considered their recovery a miracle, and one can imagine that only the strongest survived both illness and cure. One New England medical critic declared that a patient in the hands of some doctors had no better chance

of living than "the Chinese who, upon being attacked with any disease, calls in twelve or more physicians, and then swallows in one mixture, all the potions which each separately prescribes."

Dr. Shaw's office, showing a mortar and pestle, stone for mixing and smoothing liquids and powders, private dispensary, and desk. Plainfield, Mass.

The prevailing mood of medical thinking in New England was more empirical than theoretical, however, and New Englanders never swallowed whole Rush's radical ideas. Throughout the eighteenth and early nineteenth century, in all parts of New England, there were physicians of long practice who put much of their confidence in the healing powers of nature while making honest efforts to improve medicine and preserve the health of their communities. Many country practitioners, like Bryant and Shaw, began to read and collect medical periodicals that drew attention to new literature critical of traditional theories of disease. Dr. Stephen West Williams of Deerfield wrote that "a physician without the standard medical works of the day, and without some of the important medical periodicals of the time, by which alone he can keep pace with the improvements of the age, is like a mechanic without tools." Other New England physicians who rejected excessive bleeding and massive dosing were attracted by diverse medical notions and embraced new factions of homeopathy, hydrotherapy, and botanical medicine.

Nearly all country doctors had direct access to every family and every individual in it. It was common for a New England doctor to care for three or four hundred persons in his own town and surrounding villages. In 1828 one writer in The North American Review remarked that "the physician is not only brought into contact with all classes of men, but every individual in the community is sooner or later directly dependent upon him in matters which concerns his most valued interests, his health and his life, and of those of the friends most dear to him. It is not a matter in which he has a choice, as in most of the other concerns of life. Man is born to disease; and they that are sick have need of the physician . . . there is a sort of universality to the profession which belongs to no other." Dr. Oliver Wendell Holmes, recalling "a soul-subduing whiff of ipecacuanha" and a "shuddering consciousness of rhubarb," said that the New England practitioner had lived so much among his me dicines that the doctor himself became a drug, and Henry Ward Beecher confessed that as a boy in Litchfield, Connecticut, he always began to feel a lot better as soon as the doctor came into the house. Even Samuel Thomson, an unschooled, popular advocate of botanical medicines, who believed that regular physicians had killed his mother and very nearly caused his wife's death, had praise for the skills of Dr. Jesseniah Kittredge, an established surgeon at Walpole, New Hampshire. As a young man, Thomson had accidentally split his ankle while clearing new land in Vermont. Unable to treat the severe axe wound properly, Thomson's father carried him on an improvised sled to Walpole. Several doctors they met on their journey insisted that amputation was the only cure, but they went on to Dr. Kittredge's home where the surgeon treated Thomson's rotten wound, dressed his ankle with special salve, and saved his foot.

But many families called for the doctor's ministrations only as a last resort. Some, faced by devastating fatal epidemics or disabled by farm accidents, refused to accept any professional help. New Englanders, including many physicians, continued to believe that medicine depended on much besides scientific learning. Dr. Samuel Woodward, who practised for over thirty years in Torringford, Connecticut (and raised five sons who became doctors), said that he knew of almost no families in Litchfield County before 1790 who willing would use bark, opium, or mercury when prescribed by a physician. Woodward complained that one patient's wife kept prescribed medicines from her husband the moment he showed signs of improvement, while a mother chose to drink the wine prescribed for her son; "nothing was done as it ought to be." Theology, superstition, and folk custom — like the bandaging of the newborn in swaddling clothes — shaped popular ideas. When a sudden, terrifying epidemic took its toll or

when medicine failed to cure, men and women meditated and prayed. Many accepted illness with resignation. In 1804 the minister of the Third Society in Brookfield, Massachusetts, reminded his congregation that the lesson of suffering improved humility, fortitude, and devotion to God. Bryant sounded a similar note in 1813 at Cummington when he wrote of a patient's death: "I have been wholly unable to satisfy myself as to the cause of his death. It could not have been apoplexy . . . it could not be convulsion, for there was no distortion of limbs and countenances. But it was the divine will; & may God of his infinite mercy make it a profitable lesson to us, and dispose our hearts to acquiese in his holy dispensation." In Wolcott, Connecticut, there were strong superstitions inhibiting a physician's work; farm families there in 1820, according to Dr. William Alcott, believed that someone gravely ill was "struck with death." They were reluctant to call for help, feed the afflicted, or even give him water. No species of superstition was too bizarre; some villagers were still firmly convinced of the supernatural healing powers of the seventh son of a seventh son.

"The Head ache." English print signed E. W. Durnford, ca. 1820. Courtesy of Harry Shaw Newman, The Old Print Shop Inc.

Families looked for medical cures wherever they could find them and used those that through trial and error they had found most effective and best suited to their predilections. Popular empiricism, or self-dosing as it was called, was born of stern colonial experience. In the first half of the eighteenth century there had been few physicians except in larger towns.

Men and women learned to treat themselves with a mixture of domestic remedies, ardent spirits, Indian cures, and prayer. Later, as physicians settled in even the most remote villages, private citizens continued to practise their "self-dosing" habits, and though many developed confidence in established doctors, they still persisted in the conviction that they, not the medical practitioner, were the best judge of treatment. One gets the impression that the individual whose prejudices prevented him from accepting professional help or whose sensibilities were offended by many traditional treatmentsexercised a wide option and used the medicine he thought best for himself. All physicians — from the bombastic "cancer quack" who dispensed ill-assorted nostrums to the dedicated country practitioner — were viewed with a certain amount of public skepticism. Fisher Ames, the Federalist congressman and sometime hypochondriac, groaned from Dedham, Massachusetts: "I am told my case is nervous, bilious, a disease of the liver, atrophy, Etc., as different oracles are consulted. I am forbidden and enjoined to take almost everything. I prescribe, and take meat, some cider, a trotting horse, keep as warm as I can, abstain from excess of every kind, and I have still faith I may recruit."

Individuals dosed themselves and tinkered with their diets, buying rum, wines, and drugs from village stores and from apothecary shops in more important centers. "Nailer Tom" Hazard of Kingston, Rhode Island, employed country physicians for his family, but he also bought his own instruments and medicines. He was adept with a lancet and often bled himself, his friends, and his farm animals. John Adams when a young man studying law in Worcester renounced all meats and ardent spirits and put himself on a "milk diet." He later recounted that "My excellent Father at last by his tender advice at sometimes and a little good humored ridicule at others converted me again to the Use of a little meat and more comfortable Drink." Adams did not outgrow his habits of "self-dosing." On hot, muggy August days at Quincy when he was Vice-President he took rhubarb and salt of wormwood, and he wrote that "Bathing my Feet and drinking balm tea last night composed me."

"The Cholic." English print signed E. W. Durnford, ca. 1820. Courtesy of Harry Shaw Newman, The Old Print Shop Inc.

Many men and women believed they would live longer simply because New England was blessed with healthier conditions than was Europe. In point of fact, both the birth and death rates were as high in New England as they were in Britain and on the Continent. By modern standards life expectancy in New England was low. Deaths among children and young adults were particularly high. In Mason, New Hampshire, seventeen out of twenty-seven fatal cases of tuberculosis were found among villagers under the age of thirty; twelve deaths out of twenty caused by dysentery were among infants and children. Dr. Edward A. Holyoke of Salem, Massachusetts, who made the first extensive study of statistics available in recorded mortality bills, reported to the American Academy of Arts and Sciences in 1789 that life expectancy in 62 Massachusetts and New Hampshire towns was 34.5 years for men and 36.5 for women, compared with over seventy years today. But Holyoke's findings also in dicated that a person who survived illness as a youth in New England might well expect to live for fifty or sixty years. Holyoke himself died at the age of 100.

Farm housewives had the primary responsibility of caring for their families. Prior to 1800, roughly the date when there were established physicians in most New England small towns, many women were accepted as "doctresses," midwives, and even surgeons. An Indian "doctress," Molly Orcutt, administered to the sick in Bethel, Maine, and in Troy, Vermont, nearly ninety miles to the west through the White Mountains. She was retained in families for weeks at a time and was famed for treating

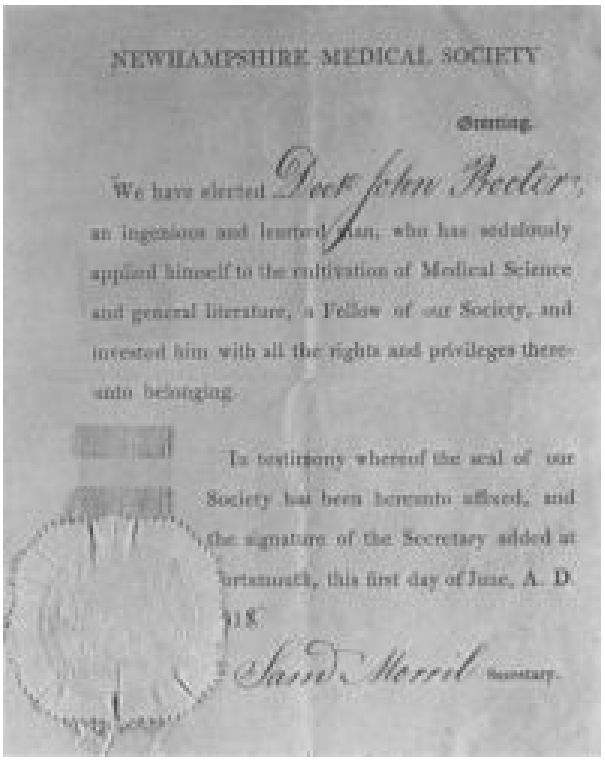
dysentery, particularly among infants and children.

Obstetrical short forceps, traveling surgical and dental kits — instruments of the daily practice of Dr. Samuel Shaw of Plainfield, Mass.

New Englanders also learned a wide variety of utilitarian remedies from the printed page, just as we do today. Perhaps the most celebrated contribution to popular medical enlightenment was Dr. William Buchan's Domestic Medicine. This book, first published at Edinburgh in 1771, went through at least nineteen editions in Great Britain and America. "It is always in the power of the patient, or those about him," wrote Buchan, "to do as much towards his recovery as can be effected by the physician." The most valuable portions of the work stressed the importance of proper clothing, cleanliness, and intelligent diet for good health. Buchan's common sense also impressed many village physicians who placed a dog-eared copy of Domestic Medicine in the hands of their apprentices as part of their medical education.

The simplest form of domestic medicine was practised by farmwives who laid away a store of medicinal herbs like camomile, sassafras, tansy, and wormwood. They were cheap remedies and natural alternatives to some dangerous prescriptions. Some families also consulted an herbal, In colonial New England, contagious diseases like scarlet fever and diphtheria were carried along traveled roads by new settlers and traders. People often contracted disease at public meetings, in town schools, and from their doctors and ministers. But the "art of physic" was beginning to show signs of taking its place in a wider scientific revolution whose methods altered older traditions of learning. Early in the eighteenth century Massachusetts

became the scene of the first organized efforts in both Britain and America to combat smallpox by immunization. Few of the grim, infectious diseases plaguing both Europe and the North American colonies were so widespread and fatal as smallpox, outbreaks of which were regarded with terror. Cotton Mather, who read in the Transactions of the Royal Society that inoculation for smallpox had long been successfully practised by the Turks, urged experimental inoculation to halt a smallpox epidemic in Boston in 1721. While Boston physicians at first refused to experiment with the new method, Mather and other leading clergymen continued to advocate inoculation. Only one medical practitioner, Dr. Zabdiel Boylston, was willing to give immunization a trial, but he proved that the risk of deliberate infection was worth taking. Of several hundred healthy persons who were inoculated in Boston at this time only a few died, and tradition-bound practitioners soon joined Mather and Boylston in the attack on smallpox.



NEWHAMPSHIRE MEDICAL SOCIETY

Greeting.

We have elected *Doct. John Beedee*, an ingenious and learned man, who has sedulously applied himself to the cultivation of Medical Science and general literature, a Fellow of our Society, and invested him with all the rights and privileges thereunto belonging.

In testimony whereof the seal of our Society has been hereunto affixed, and the signature of the Secretary added at Portsmouth, this first day of June, A. D. 1818.

Saml. Merril Secretary.

Certificate of Fellowship, New Hampshire Medical Society, 1818. Courtesy of the Francis A. Countway Library of Medicine, Harvard University.

A late eighteenth-century invalid's wheelchair, and a pulley crane to relieve gouty foot. Old Sturbridge Village Collections.

These early efforts did not forestall smallpox epidemics, but by the time of the Revolution widespread inoculation tended to lower the death rate when an epidemic struck. The success of the Boston experiments spread to other colonies as well as to smaller communities within the province. Dr. Israel Trask introduced smallpox inoculation in Brimfield, Massachusetts, in 1776 and in that same year John Adams wrote to Abigail Adams, "It makes me happy to hear that the Spirit of Inoculation prevails so generally." Adams himself underwent inoculation in 1764 at the hand of Dr. Nathaniel Perkins of Boston who, with his lancet, "divided the skin for about a quarter of an inch and just suffering the blood to appear, buried [an infected] thread about a quarter of an inch long in the channel — a little lint was then laid over the scratch and a piece of rag pressed on, and then a bandage bound over all." Smallpox pesthouses, where people were infected and confined, were constructed in many towns. They ranged in size from country farmhouses quarantined by order of the selectmen, where whole families were likely to be crowded into a single room for three weeks, to Dr. William Aspinwall's "grand inoculating hospital" in Brookline, Massachusetts. At this veritable pox resort 150 well-to-do patients were served excellent meals and had a "variety of games and amusements." While Dr. Aspinwall's pesthouse set the fashion, not all care was so

stylish, especially during a serious outbreak. At a Salem pesthouse it was observed that two or three hundred persons, subsisting on poor food, were kept in buildings intended for only half the number. There was also growing apprehension over careless variolation techniques. Many towns were forced to prohibit inoculation, but such controls were normally suspended during epidemics. This popular acceptance of smallpox inoculation in colonial New England opened the way for a quick reception of vaccination (inoculation with cowpox vaccine) when it was introduced in New England by Dr. Benjamin Waterhouse and others in the early nineteenth century.

The eighteenth century gave birth to medicine as a profession in New England. By the time of the Revolution the new class of physicians faced many problems of standards and organization. The War delayed statewide organization of medical societies, but within a few years after its end Massachusetts, Connecticut, and New Hampshire chartered medical organizations. These new societies were organized to set apart qualified physicians from "quacks" and to strengthen professional bonds by voluntary regulation of fees and frequent consultation in difficult cases. Many persons, naturally, including a number of doctors, were suspicious of the motives of medical society members, convinced that their primary purpose was exclusive and that they were simply set on monopolizing practice and getting higher fees. The Massachusetts Medical Society at first restricted its membership to fewer than seventy doctors who practised only in the vicinity of Boston, but in 1804, largely because of the efforts of more farsighted members and the persistent activities of nonmember physicians in Worcester County and other parts of the Commonwealth, the society widened its representation.

A young village doctor's letter of recommendation, 1805. Courtesy of Louis E. Roy, M.D.

By no means were all New England doctors members of medical societies. In Worcester County, Massachusetts, fewer than half the practising physicians joined the state or county society in the early nineteenth century. The contrast with Connecticut, where the state society encouraged the participation of all doctors with three years' study, was remarkable; in Litchfield County eight out of ten local physicians were state or county members. In Massachusetts both the state society and legislature sought to establish standards of qualification by regulating practice, but popular reaction against medical licensing helped bring the repeal of the legislation. Most New England doctors in the early nineteenth century did not join medical societies. The ideal of the majority, it seems, was a broadening social order where opportunity should remain equal for all regardless of fixed qualification.

New England medical societies did make some professional gains. Consultation between doctors was encouraged. Opinions in more difficult cases were exchanged through visits, letters, and conversation at society meetings. Medical societies began to publish case histories, and they regularly attacked such common practices as prescribing "secret nostrums." In advance of other medical societies and colleges in the United States, the Massachusetts Medical Society published the Massachusetts Pharmacopoeia in 1808, listing over 500 drugs and preparations. The organization of the Massachusetts College of Pharmacy in 1823 was also the result of the efforts of the Massachusetts Medical Society to improve and regulate the practice of druggists and apothecaries.

Some medical societies also took the lead in progressive, humanitarian

measures. In Connecticut the state society along with the Congregational clergy helped press the move for improved care of the mentally ill. The Litchfield County Medical Society in 1833 adopted a resolution condemning the practice of placing town paupers at the mercy of public vendue.

Doctor's office, Windham, Conn. Photo courtesy of John O. Curtis.

Physicians, even in surplus quantity, were available to the most remote New England towns, but the competition was keen and not always amiable. The most common problems of new practice were the dearth of patients and lack of rapport with established doctors. Dr. Amos Twitchell, who settled in Norwich, Vermont, in 1805, was decidedly depressed by his lack of pecuniary success. "My business, as yet, has paid two-thirds of my expenses." He complained that two of the town's four resident practitioners were "as malicious as the devil" and that he had little encouragement from the others. According to his practice charges. Twitchell should have received a minimum of $400 a year in money or in kind, but he did not. Certainly the fees doctors charged and what they were able to collect were two entirely different matters. As late as the 1830's most country physicians seldom received more than $500 a year in money and kind. Dr. Garry H. Minor's average annual charges — not his

receipts — were of ways. For inoculating Capt. Benjamin Hine's children in Waterbury, Connecticut, Dr. Abel Bronson was paid in homespun; in Litchfield, Dr. Abel Catlin was compensated by a little cash, labor on his land, and farm produce. Currency was so scarce in Connecticut in 1800 that Bronson gave a twenty per cent abatement for prompt cash payment. Like other villagers, physicians were extended credit and came to depend on it, thereby incurring numerous small debts. Some doctors, like their patients, either neglected or were unable to settle their accounts. A few ignored their books altogether and lived largely on barter and credit alone, leaving it to lawyers later to comb out their property tangles. Though a number of country physicians changed location because of the promise of better practice, perhaps as many as two-thirds settled in one town and never moved again. The majority made up income deficiencies by farming and supplying their own needs. Doctors who had to interrupt and supplement their practice in order to satisfy their wants obviously had their hands full, but many still had time for medical societies, politics, church and town offices, and their own families, and nearly all remitted part of their medical charges for the indigent sick.

Certificate of the Massachusetts College of Pharmacy. The 1823 lithograph shows the preparation equipment of a typical Boston drug shop.

In an age when settlement was widely spread, homesteads separated, and roads poor, New England doctors were called by ailing persons miles distant from their homes. They carried medicines and instruments in small kits, saddlebags, or portable medicine chests. Dr. Abraham T. Lowe of Ashburnham, Massachusetts, observed that he "knew the direction and condition of every road, bridle path and passable cross-cut way ... I rode on horseback, in a light-wheel carriage or sleigh ... but there were times when travelling in either of these modes was impracticable; then I took to my rackets." A decent horse and a two-wheel gig or sulky was the favorite form of fast transportation. Where only paths could be traveled, a doctor walked, used his own horse, or hired post horses. The typical physician practised medicine in the home, either his patient's or his own, and it was sensible for the doctor on call night and day in all seasons to keep his instruments and medicines in his house when not "riding out."

What did the village doctor's office look like? Unlike the lawyer who commonly occupied a small building near the courts or his own house, medical practitioners usually kept offices in their own homes. Samuel Shaw, for example, returned to Plainfield and established medical practice there after Bryant's death. In 1833 he built a large, two-story farmhouse, typical of many raised throughout Massachusetts in the late eighteenth and early nineteenth century. Shaw's office was located in a special corner "medicine room" which had a separate entrance. There were three bookcases, a desk, table, and large medical cabinet with drawers and shelves. The shelves contained glass jars, tincture bottles, and vials filled with medicines. Among Shaw's medical equipment were hand balances, a large bronze contusion mortar and pestle, a marble levigating stone and roller, obstetrical forceps, teeth extractors, pewter syringes, and surgical instruments.

Shaw and the majority of early nineteenth-century New England physicians, unlike their British colleagues who observed strict differences between physicians and surgeons, performed surgical duties themselves. Some were naturally better surgeons than others, and a few became specialists. Dr. John Pomeroy of Burlington, Vermont, rode his medical apprentices hard, teaching surgery on horseback. One of his pupils reported that he "attended the reduction of a fractured thigh bone, the subject was a boy about 12 years of age, who had fallen from a horse and fractured his thigh. It was very handsomely reduced according to Bell's principles. Five splints and the nine tailed bandage were used." A few weeks later Pomeroy led his students on an eighteen-mile journey through rocky country and amputated a patient's leg. The emergency operation took three minutes, dressing the wound another five. The daybooks of the

leading surgeon of Windham County, Connecticut, Dr. Albigence Waldo, whose reputation carried over into Massachusetts and Rhode Island, are preserved at the American Antiquarian Society. They show that more than half his practice involved surgery and bonesetting, and he was often called upon by other physicians for emergency operations. Waldo sent some of his better apprentices to Harvard to study with Dr. John Warren because without sufficient dissecting materials it was difficult to give proper anatomy lessons. One of Waldo's colleagues, Dr. Thomas Babbitt of Stur-bridge and Brookfield, was compelled to teach anatomy to his apprentices either at bedside or from an old skeleton kept in a case in his office.

Surgery at best still involved a human ordeal. So long as doctors lacked anesthetics, operations performed on conscious patients were dangerous and incredibly painful. Opium, water of nightshade, and even loud noise-making could not prevent acute suffering during and after surgery. Thus surgical speed and dexterity were most important. One young man in Mansfield, Connecticut, wrote in 1792, "Yesterday I attended upon the amputation of a thigh which opperation was performed by the famous Doct. Tudor and I will say sir between you and I had you been present I believe your bowels would have yearn'd through anxiety & pitty for the opperation was protracted to the unreasonable length of forty minutes or more ... ."

Obstetrics and dentistry were also part of the average country doctor's practice. By 1790 "male midwives" were already commonplace in New England. Forceps, first introduced about the year 1770, were widely used, birth by Caesarian section had been successfully performed, and obstetrics was taught in the new medical schools. Until some doctors began to make dental surgery a specialty, physicians also pulled teeth as part of their regular practice. Nathaniel Hawthorne, in his American Notebooks, described the following scene in Pittsfield, Massachusetts, in 1838

> A young country fellow, twenty or thereabouts, decently dressed, pained with the toothache. A country doctor — passing on horseback, with his black leather saddle-bags behind him, a thin, frosty-haired man. Being asked to operate, he looks at the tooth, lances the gum; and the fellow being content to be operated upon the spot, he seats himself in a chair on the stoop, with great heroism. The doctor produces a rusty pair of iron forceps; a man holds the patient's head; the doctor perceives, that it being a difficult tooth, wedged between the two largest in the head, he shall pull very moderate; and the forceps are introduced. A turn of the doctor's hand; the patient begins to utter a cry; but the tooth comes out first, all bloody, with four prongs. The patient gets up, half amazed, spits

out a mouthful of blood, pays the doctor ninepence, pockets the tooth; and the spectators are in glee and admiration.

A country doctor's "medicine room" was the scene of preceptorial teaching. When a young man or his parents decided that he would study medicine, they asked a nearby doctor whether he would accept the young man as his pupil. The doctor consenting, a medical career was thus launched. The normal term of apprenticeship was three years, usually broken by winter spells of teaching district school or attending medical lectures at one of the nine medical schools in New England before 1830; only a handful of New England doctors were trained in Edinburgh, London, or Paris. A pupil often boarded with his preceptor. In rural towns he usually helped with household and farm chores to defray some of the costs of board, firewood, and lights. Medical students read, prepared drugs, learned to keep casebooks, and assisted with minor surgery. Tuition for medical education averaged $100, but more advanced students sometimes earned part of their tuition by hearing the recitations of new pupils.

Some medical apprentices were their father's sons. Dr. Stephen W. Williams of Deerfield grew up in a house filled with medical students being educated by his father, Dr. William S. Williams. He recalled that "from being constantly in their company I early imbibed a love for the medical profession, and before I was thirteen years old I had selected that as the business of my future life." Attending Deerfield Academy where his father was secretary and treasurer, young Williams was kept in school until he was eighteen "except," he wrote, "that occasionally in the summer I was called out to assist in haying and other kinds of farm work." He studied surgery, midwifery, materia medica, and familiarized himself with his father's extensive medical library for three years as well as performing literally hundreds of routine tooth extractions and venesections. Williams also corresponded with Dr. Benjamin Rush in Philadelphia, sending him an account of two cases of suicide of twin brothers, and in 1812, when he was twenty-two years old, he attended a course of medical lectures at Columbia College before taking over a portion of his father's professional practice in Deerfield.

The medical education of Dr. Garry H. Minor was also a case of good fortune. Minor attended academies in New Haven and South Farms, Connecticut, and taught in a town school in Watertown before he began medical study with Dr. Samuel B. Woodward in Wethersfield. Minor wrote to a friend that "I now reside with Doct. S. B. Woodward a very pleasant man his family quite agreeable has two medical students besides myself ... I suspect my opportunities are as great here as could be elsewhere in the state." In medical circles Woodward was recognized as a moving force

for the improved care of the insane in Connecticut, and he encouraged Minor to go on to lectures at the Medical Institution of Yale College.

The opening of medical schools in New England did not replace preceptor education, but they tended to change the older system. Where medical instruction involved some clinical experience (at Harvard, Yale, and Dartmouth), medical education improved. The country physician, nevertheless, remained a part of formal medical education. His role was practical, and he made certain that his pupils learned of popular prejudice and community need even though some of his students, fresh from medical lectures, often disagreed with his mwhen one remembers that as a rule he was faced with the major responsibility for shaping his students' general education as well as their medical learning, since college training was not mandatory for doctors.edicine. The full significance of the New England medical preceptor may be seen even more clearly when one remembers that as a rule he was faced with the major responsibility for shaping his students' general education as well as their medical learning, since college training was not mandatory for doctors.

An exercise chair that belonged to Lucy Sheldon Beach, wife of the president of the Phoenix Bank in Litchfield, Conn. Photo courtesy of the Litchfield Historical Society.

Though the new medical schools were hardly more than assemblages of lecturers collecting their own fees, the number of graduates of New

England medical schools increased sharply after 1820. Harvard and Yale never graduated as many doctors as the Berkshire Medical Institution at Pittsfield or the Castleton Medical College in Vermont, perhaps because they were affiliated with older liberal arts colleges and insisted upon a satisfactory demonstration of knowledge before admission. The cost of medical education was higher in Boston than at the country medical schools, but as one student wrote in 1823 he had decided to study medicine at Harvard because "in Boston you will have the opportunity for seeing hospital practice which is in my opinion of the utmost importance." Clinical study for Harvard medical students in 1830 was as good as any in the United States, but the greater number of medical graduates came from schools lacking clinical facilities and less rigid about admission standards and course work.

The history of the Vermont medical schools, Castleton, the University of Vermont, and Woodstock, is a story of sharp rivalry. From the year 1818, when Castleton was founded, there was great competition among the three medical schools for faculty and students. The proprietary school at Castleton graduated over 500 students between 1820 and 1840. The University of Vermont College of Medicine graduated only one-fifth the number and was forced to close in 1836. From Burlington Dr. Benjamin Lincoln charged that Castleton had sent "secret agents" to bargain with his students and that the Castleton lecturers had passed students for a medical degree before they had completed the traditional three years' apprenticeship. The influence of the third medical school in Vermont, at Woodstock, was not as great as Castleton's, but the little school founded by Dr. Joseph A. Gallup in 1827 graduated nearly 200 doctors between 1830 and 1840. Gallup, who published a pioneer sketch of epidemic diseases in Vermont, understood the need for improved clinical teaching and tried unsuccessfully to build a teaching hospital at Woodstock.

Many medical school graduates had an opportunity to consider articulate criticisms of the state of medical science and to learn of new ideas. The resourceful Dr. Nathan Smith, for example, whose influence on medical teaching in New England was enormous, never lost the opportunity to inculcate careful, factual observation and was opposed to the extremes of "heroic" practice. Smith founded the Dartmouth medical school in 1798, the second oldest in New England, and remained at Hanover for twenty years. His courses on the theory of medicine emphasized the specific character of disease. His Practical Essay on Typhus Fever, published in 1824, rejected traditional theories of disease and described the fever as self-limiting and in its course unaffected by drugs. Another medical school teacher, Dr. Jacob Bigelow, Professor of Materia Medica at Harvard, also joined the New

England protest against "heroic" medicine and ill-chosen drugs. Bigelow had been one of Dr. Rush's students in Philadelphia, but his Discourse on Self-Limiting Diseases, published in 1835, thoroughly repudiated Rush by arguing that many illnesses disappeared if left to nature.

After 1820 outstanding New England medical teachers and writers like Smith and Bigelow were grasping for the implications of clinical study that enabled later doctors to research bacteriology and pathological surgery. Meanwhile, however, the majority of New England practitioners probably had less understanding of medical science than has the average high school senior today. Few doctors had ever seen an institution for bed care of the sick. Although Philadelphia and New York possessed hospitals, only a few New England physicians knew those institutions. The slow development of general hospitals in New England meant a long, unfortunate delay in providing better care for the seriously ill and in studying diseases. Even Massachusetts General Hospital, opened in 1821, had a small capacity. In rural towns lack of popular interest and resources prevented the establishment of hospitals. In Keene, New Hampshire, a town of some 2,000 persons in the 1830's, Dr. Amos Twitchell opened a surgical hospital in a 24-room brick house, but the institution did not outlast Twitchell's participation.

Portrait of Dr. Garry Hinman Minor who practiced in South Farms, Litchfield, Conn., after his graduation from the Medical Institution of Yale College in 1824. Watercolor on marble (perhaps the doctor's own mixing stone). Old Sturbridge Village Collections. Gift of Edgar William and Bernice Chrysler Garbisch.

Popular prejudice against autopsies also helped to delay clinical study and retard medical progress. Autopsies and dissections conducted either for practical teaching or in post-mortem examinations were necessary if diseases were to become better understood. As late as 1820 one New Hampshire village voted in public meeting that it would never support a medical practitioner who had ever assisted in the dissection of a human body. Many of the corpses used in medical teaching came from grave-robbing "resurrections" necessitated by the absence of a regular supply of dissection material. While anatomy teachers made constant efforts to reassure suspicious, often hostile, citizens, popular belief in the sanctity of the grave and its contents led to numerous clashes. Townspeople in West Haven and New Haven marched on Yale in 1824 after it was discovered that a fresh grave had been opened and the corpse removed. A similar incident took place at Woodstock, Vermont, in 1830, and in the same year 300 men marched from Hubbardston to Castleton, surrounded the medical school, and demanded the return of a stolen cadaver. The Woodstock medical faculty attempted to allay the fears of local citizens by pledging that "we will not use or suffer to be used ... any human body that be disinterred hereabouts; it may appear invidious to set limits but we are willing to say the State of Vermont." The pledge was transparent, of course. The New Hampshire boundary was only a dozen miles away, a matter of a single trip at night.

But there were serious efforts to teach the public the need for practical anatomy to improve medicine. Public anatomy lectures were given in larger towns, and even in Fryeburg, Maine, a village of some 800 inhabitants, Dr. Alexander Ramsay, a splendid itinerant, periodically lectured at the Academy. By the 1820's New England medical societies were leading efforts to obtain state legislation that would provide physicians with anatomy specimens. In 1824, as an immediate result of the "antiresurrection mob" in New Haven, the Connecticut legislature made law a proposal to give prison corpses to medical teachers "for the purpose of advancing medical science." In 1831 an anatomy law was enacted in Massachusetts. In both states bold and enlightened legislation served to educate the public and protect the medical profession from popular prejudice.

The State Lunatic Hospital at Worcester, Mass., opened in 1833. Courtesy of the American Antiquarian Society.

Though clinical medical study and general hospitals developed at a slow pace, institutional care for the mentally ill and physically handicapped showed dramatic signs of life in New England. This was particularly true after 1820 when an evangelical sense of social idealism and humanitarian concern found expression in reform movements.

By 1845 there were asylums for the care of the insane in each of the six New England States. Attitudes towards the mentally ill and medical treatment of insanity had undergone major changes between 1790 and 1840. Earlier, those afflicted with mental illness had been looked upon as less than human and repressive measures employed in their care. A new "moral treatment" that emerged from Britain and the Continent after 1790 advocated a minimum of mechanical restraint and emphasized occupational therapy. Reports of these accomplishments were published in the United States, and asylums were established in Pennsylvania, New York, and New England.

The Hartford Retreat, which opened in 1824, was consciously established along progressive lines, yet by 1830 even the Hartford asylum had a capacity of only sixty patients, this at a time when there were in Connecticut, according to a survey made by clergymen, at least 1,000 mentally ill persons in helpless condition requiring treatment. Hospital treatment of the mentally ill was available only to those who could afford the care, and the majority of the mentally sick in New England were

deprived of this care. Only a few were properly tended at home. Most were treated as paupers and auctioned to the lowest bidder by the town or supported in a public almshouse. Massachusetts took the lead in establishing a state-operated asylum in Worcester in 1833. It was constructed with a capacity for 120 patients, but by 1838 there were more than 200 patients at the asylum, and with overcrowded conditions care became inferior. An overoptimistic mood took hold of the reformers, who made exaggerated claims about recoveries. At Worcester one woman patient "recovered" and was dismissed seven times in one year. Lacking scientific understanding of many mental disorders, the reformers failed to exploit the medical potential for clinical study, yet expressed a limitless faith in their efforts. As might be expected, their "cult of curability" later resulted in chastened reaction when their statistics were questioned sharply. Many New Englanders concluded, "once insane, always insane," and mental illness again was thought incurable.

TABLE: The Doctors Practicing in Five New England Counties, 1790-1840.

	% members of medical societies	% holding A.B degrees	% holding medical degrees
Litchfield Co. Conn.	83%	6%	20%
Oxford Co. Maine	38%	5%	35%
Worcester Co. Mass.	43%	17%	27%
Cheshire Co. N.H.	22%	6%	26%
Orleans Co. Vermont	9%	0%	30%

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The early nineteenth century was an era of determined individualism, and it is evident that despite the growing number of doctors in New England and the opening of medical schools and development of medical societies, men and women guarded their freedom of therapy along with their freedom

of speech and religion. In the currents and countercurrents of popular prejudice and professional medicine, New England families went on exercising the broadest possible choice between dosing themselves and accepting professional advice. In a farsighted Massachusetts report of 1850 on public health, Lemuel Shattuck wrote that "Any one, male or female, learned or ignorant, an honest man or a knave, can assume the name of physician, and 'practice' upon any one, to cure or kill, as either may happen, without accountability. It's a free country." Many established physicians were thus thwarted in their quest for more effective medicine, constantly faced with temptations to alter their therapy simply to suit popular tastes. Dr. Albert Smith of Peterborough, New Hampshire, declared that the New England country doctor was compelled to act "to sustain his reputation whether he acted to that purpose or not, so he bled, purged, blistered, and festered, being careful to repeat the operation in such bad Latin as he could command or remember."

Similarly, the sick, particularly in their weakened physical and emotional condition, were left unmercifully exposed to every hawker of patent medicines and every harmful or useless nostrum. Many men and women were bitterly disappointed by professional treatment and the limitations of early nineteenth-century medical science. To these New Englanders, and to all young physicians just entering upon medical practice, Harvard's Dr. James Jackson had these realistic thoughts to express

> Let it be remembered — and we may address this particularly to the scoffer — that the true physician takes care of his patient without claiming to control the disease in all cases. He does not regard himself as making an exhibition before a company to show his skill; he makes no boast of what he can do. I wish I could say that this is never done by any of our profession. There are those who, directly or indirectly, trumpet forth their skill and their success, attributing the recovery of their patients to the remedies they have prescribed, and never to the spontaneous efforts of nature. These, whatever titles may be appended to their names, are true quacks. They quack! quack! that they may attract the attention of the passers-by; and, while they extol their remedies for the sick and the suffering, they are seeking only their own profit and their own glory. The true physician, on the other hand, cannot fail to be modest in his pretensions; for he is aware how his knowledge and power are limited, while he feels the magnitude of his task.

All illustrations not otherwise acknowledged are by James C. Ward, Village staff photographer.

SOME READINGS IN EARLY NEW ENGLAND MEDICAL HISTORY

Bell, Whitfield J., Jr. *Early American Science: Needs and Opportunities for*

Study. Williamsburg, 1955.
Blake, John B. *Public Health in the Town of Boston, 1630-1822.* Cambridge, 1959.
Duffy, John. *Epidemics in Colonial America.* Baton Rouge, 1953.
Eaton, Leonard K. *New England Hospitals, 1790-1833.* Ann Arbor, 1957.
Griffenhagen, George. *Tools of the Apothecary.* Washington, 1957.
Hindle, Brooke. *The Pursuit of Science in Revolutionary America, 1735-1789.* Chapel Hill, 1956.
Norwood, William F. *Medical Education in the United States before the Civil War.* Philadelphia, 1944.
Shryock, Richard H. *Medicine and Society in America, 1660-1860.* New York, 1960.
Thoms, Herbert. *The Heritage of Connecticut Medicine.* New Haven, 1942.
Viets, Henry R. *A Brief History of Medicine in Massachusetts.* Boston, 1930.
Waite, Frederick C. *The Story of a Country Medical College.* Montpelier, 1945.
Young, James H. *The Toadstool Millionaires: A Social History of Patent Medicines in America before Federal Regulation.* Princeton, 1961.