

Original Articles.

A SHORT ABSTRACT OF THE EARLY HISTORY OF MEDICINE IN MASSACHUSETTS TO THE YEAR 1800.¹

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I AM indebted for my facts to the "History of Medicine in America," by James Thatcher, M.D.; the first volume of the Massachusetts Medical Society publication; "History of Early Medicine," by Josiah Bartlett, M.D.; and the second volume of the *Massachusetts Medical Society Transactions*.

The landing of the first emigrants at Plymouth, Mass., was December 22, 1620. More than a century and a half elapsed after the first settlement of the colonies before a single effort was made either by public authority or by the enterprise of individuals for the establishment of institutions for the education of physicians, or the regulation of the practice of medicine.² Our ancestors were strongly impressed with the importance of general education, and it was their constant solicitude to provide for institutions of learning as far as was practicable. But the welfare of the church and their political economy were made paramount to all other considerations. The peculiar motives which prompted their emigration to this country, the difficult circumstances they were called upon to encounter, and the depressed state of medical science in the countries whence they came, will furnish the most ample apology for their neglect of the means of improved medical education. Our colleges turned out graduates who repaired to Europe to complete their medical education in the public medical schools, and to qualify themselves to practise in the colonies.³

No medical libraries existed anywhere in the country, and it was seldom that students could have access even to the elementary works necessary to their instruction. No medical journal was published in America till near the close of the eighteenth century through which physicians could communicate the results of their experience or make known their improvements and discoveries; not even a newspaper was printed till the year 1704.⁴ Hence it is not strange that we are so little acquainted with the character and practice of our predecessors.

The first physician of whom we have any account among the colonists was Dr. Samuel Fuller. He formed one of the company who came over in the first ship, and was a deacon in Rev. John Robinson's church. Whether he had enjoyed a collegiate education is uncertain, but he is said to have been well qualified in his profession; he was zealous in the cause of religion, and eminently useful as a physician and surgeon. He extended his benevolent labors not only to the sick among his intimate friends at Plymouth and the aborigines in the vicinity, but in 1628 and 1629, by the request of Governor Endicott, he

twice visited the new settlement at Salem, where he manifested his skill and success in practice among the numerous sufferers from scurvy and other diseases introduced there by the ships on their arrival. He received the entire approbation of Governor Endicott, and his letters of thanks for his useful services. In a letter to Governor Bradford, June 28, 1630, Dr. Fuller says: "I have been to Matapan (now Dorchester) and let some 20 of these people blood." What disease prevailed among them to require the loss of blood in the warm season of June we are unable to determine. In the year 1632 the settlers at Plymouth were visited by a disease which they called an infectious fever, of which upwards of 20 men, women and children died, among them being their pious and excellent physician, Dr. Fuller. The same disease proved very fatal also among the native Indians.

In the year 1633 Dr. Giles Firmer was a deacon in the Boston church and was esteemed as an able physician and a man of learning. In 1637 Dr. John Fisk arrived and settled in Salem, where he sustained a respectable character as a clergyman and physician. William Gager accompanied Governor Winthrop to Boston in the position of surgeon, where he died greatly lamented. At the first commencement at Harvard College, in 1642, Samuel Bellingham and Henry Saltonstall were graduated, and were afterwards honored with the degree of M.D. at European universities, and both were reputed learned and skilful physicians. Leonard Hoar was graduated at Harvard College, and repaired to England, where he studied medicine and received the degree of M.D. He returned to New England, and was for about two years president of Harvard College. Other M.D.'s were John Glover, 1650, Harvard College, who got his degree from Aberdeen and returned; Isaac Chauncey, 1651, from Harvard College, who came back from Europe with his M.D.; John Rogers, M.D., president of Harvard College, 1682-1684: it is uncertain if he practised; Charles Chauncey, president of Harvard College, 1652,—medical education in England,—who had six sons, all educated at Harvard, who all studied medicine and became eminent in their profession; several removed to England and did not return. Matthew Fuller in 1640 practised in Plymouth, removed to Barnstable in 1652, and died in 1678. He was appointed surgeon-general of the Provincial forces raised in Plymouth County in 1673, and was captain in 1675. Thomas Oliver, an elder in the Boston church, is mentioned with high approbation in Winthrop's journal as an experienced and skilful surgeon about 1644.

In 1646 the virtuous people in Boston were much grieved by the discovery of a disease in Boston with which, till then, they were entirely unacquainted, and which the venerated Winthrop in his journal says, "raised a scandal upon the town and country, though without just cause." This proved to be lues venerea. It originated with the wife of a seafaring man, who after childbirth was affected with ulcerated breast. Many persons were employed to draw this woman's breast, by which means about 16 persons, men, women and children were affected with this new and odious disease. The nature of the complaint was at length ascertained; but no physician could be found in the country who was acquainted with the method of cure; but it fortunately happened that at that very season a young surgeon arrived from the West Indies

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² Bequest to Harvard College of Dr. Ezekiel Hersey, 1770.

³ Harvard College was founded at Cambridge in 1638; William and Mary College of Virginia in 1691; Yale College in Connecticut in 1700; Princeton College in New Jersey in 1746; Philadelphia College in 1754; King's, now Columbia, in New York in 1754.

⁴ The first newspaper printed in America was the Boston News-Letter, April 24, 1704, by B. Green; the first in Pennsylvania, December 22, 1719; the first in New York, October 16, 1725; the first in Charleston, S. C., 1730; in Rhode Island, October, 1732; in Connecticut, 1755; in New Hampshire, 1756.

who had been experienced in the disease, and he soon performed a cure. In the summer of 1647 an epidemic spread through the country among English, French, Dutch and Indians. It resembled a cold, attended with slight fever (probably influenza). Winthrop says, "Those who were bled or used cooling things died, those who took comfortable things for the most part recovered in a few days. Not a single family, and but a few persons escaped an attack of this epidemic; about 40 or 50 died in Massachusetts, and about the same number in Connecticut."

Thomas Thatcher came over to New England in 1635, educated for the ministry, also received a medical education, and was regarded as an eminent divine and learned physician. He gained great eminence in both professions, and was also prominent in the learned languages. He published a work entitled "A Brief Guide in the Smallpox and Measles," in 1677, which is the first medical publication found on record in New England, if not in America. As an illustration of the state of medicine in France in 1686, nearly seventy years after the settlement of Massachusetts, Felix, a surgeon, and Fagon, a consulting physician, were rewarded with \$40,000 for a successful operation for fistula in ano on Louis XIV of France, in consequence of which a national thanksgiving was religiously observed.

At this time also the royal touch was considered as the only cure in scrofula. In May, 1682, notice was given in a London gazette that as the weather was growing warm, His Majesty would not touch any more for the king's evil till after Michaelmas; and in 1687 an indigent citizen of New Hampshire, having tried every other means without effect, petitioned the legislature for aid to transport him to England for that efficacious remedy.

In 1721 inoculation for smallpox was first regularly adopted in England by Mr. Maitland in April, on the young daughter of Lady Mary Wortley Montague, who had lived in Constantinople, and had become acquainted with the method of inoculation practised by some Turkish women, and satisfied of its safety and salutary effects, had it done on her young son in the East in 1717. The above was the first time it was done in England. Dr. Cotton Mather, the learned divine of Boston, about the same time, having read in the *Philosophical Transactions*, printed in London, an account of inoculation for smallpox by Timoni and Pylarini in Turkey, communicated the information to several physicians of Boston, who treated the subject with contempt. He then recommended to his friend, Dr. Zabdiel Boylston, to adopt the practice. Accordingly with the little information which he could obtain from that publication, and in the face of the most violent opposition, on the 27th day of June, 1721, Dr. Boylston inoculated first his only son, about thirteen years of age, and 2 negro servants, in which he was entirely successful. This confirmed in his own mind the safety of the proceeding, and in 1721 and the first part of 1722, Dr. Boylston inoculated 247 persons, and 39 were inoculated by others in Boston and vicinity; of this number only 6 died, and several of these were supposed to have taken the infection before inoculation. In the same time 5,799 took the disease in the natural way, of whom 844 died, and many who recovered were left with broken constitutions and disfigured countenances. The degree of odium and persecution which Dr. Boylston brought

upon himself by this very laudable innovation is almost incredible. His house was attacked and he himself assaulted in the streets, loaded with all kinds of abuse and execrated as a murderer. A bill was brought before the legislature to prohibit the practice of inoculation under severe penalties, and it actually passed the House of Representatives; but some doubts existing in the council, its progress was arrested, and it never became a law. Dr. Boylston was repeatedly summoned before the selectmen of Boston and received their reprehension.

Not only did he suffer the greatest indignity from the populace but his professional brethren formed a powerful combination against him, though repeatedly invited to visit his patients and examine them to their satisfaction. The novelty of the subject and the strong prejudices existing caused much public agitation, and involved both clergymen and physicians in a spirited and intemperate controversy. The clergymen in general, however, acted an honorable part and many became zealous advocates of the new practice, while most of the medical fraternity were its active and violent opposers. The newspapers teemed with pieces on both sides of the controversy, and from the opponents of inoculation issued some of a virulent and scurrilous character. It is interesting to note that the *New England Courant*, printed by the Franklins (the young philosopher being one of the editors), was under the influence of the physicians, who abused the clergy for their interference in the controversy. He, however, persevered and finally enjoyed the results of his very useful labors. He finally was invited to London, and received all sorts of honors. While in London in 1726, on request of the Royal Society, he published an historical account of the smallpox inoculation as practised by him in Boston, dedicated to Princess Caroline. It was reprinted in Boston after his return, and a copy was deposited in the Harvard College Library by Ward Nicholas Boylston. The introduction of inoculation of smallpox may be regarded as an epoch in medicine, and to Dr. Zabdiel Boylston alone is due the credit of having firmly established it in this country.

In the year 1752 the country was again visited by an epidemic of smallpox, and by order of the magistrates an account was taken of all who were affected by the disease, either by the natural way or by inoculation in Boston, and rendered on oath. It appears that the number of inhabitants was 15,734. The whole number of smallpox patients the natural way was 5,544, of which 514 died. The number of inoculated was 2,113, of which 30 died. In 1764, according to Dr. Gale, 3,000 persons were inoculated and only 8 died, chiefly children under five years of age. Public hospitals for smallpox inoculation were opened in the vicinity of Boston in 1764, one at Point Shirley, by Dr. Wm. Barnet, and one at Castle William in Boston Harbor by Dr. Samuel Gelston, of Nantucket. In 1792 smallpox again visited Boston, and in three days the whole town was inoculated, so great was the fear of the disease. There were 9,152 inoculations, and 165 deaths occurred, chiefly in the families of the poor, many of whom were destitute of the comforts of life.

In 1735 and 1736 the disease called angina ulcusculosa (angina maligna) prevailed extensively throughout the country in its most malignant form, and in Massachusetts alone about 1,000 persons be-

came its victims. On this occasion calomel was for the first time administered as a remedy, and attended with the happiest results, arresting in a surprising way the fatal tendency of the disease. Dr. William Douglass published a valuable practical essay detailing the characteristics of the method of treatment of this alarming complaint.

Among the earliest publications on medical subjects in America was an essay on fevers published in Boston in 1732 by Dr. John Walton. Dr. John Cutler was long an eminent physician and surgeon in Boston. He was the preceptor of several of the early physicians; among them was Dr. Zabdiel Boylston. In 1781 old Continental paper money was used and physicians had great difficulty from the fluctuating value of it. The physicians of Boston instituted a club, the meetings of which were held in the Green Dragon Tavern. Physicians' fees were low, and when paid in depreciated paper money little or nothing could be realized from them. The fee for a visit was one shilling and sixpence, afterwards increased to two shillings. Midwifery and capital operations were at a guinea, with charges for after visits. The first fees established by the medical club were fifty cents for a visit; if in consultation, one dollar; rising and visit in the night, after 11 o'clock and before sunrise, double fee; obstetrical case, eight dollars; capital operation in surgery, five pounds; reducing a dislocation, or setting a fractured bone, one guinea; bleeding, opening an abscess, extracting a tooth, fifty cents, and the usual fee for visit was added. All accounts were to be calculated in hard money, and if paid in paper, according to such agreement as could be made with the parties. The profession was much benefited by these regulations.

The Massachusetts Medical Society was established in 1781, with power to elect officers, examine and license candidates for practice, hold real estate, and perpetuate its existence as a body corporate forever. This auspicious event was effected by an application to the legislature of thirty-one distinguished physicians from various parts of the State (their seal adopted in June, 1782, was a figure of Esculapius in his proper habit pointing to a wounded hart nipping the herb proper for his cure, motto, "*Natura duce*"), and is an interesting era in our history. The society was organized in June, 1782, and Edward A. Holyoke chosen president. The fellows were enjoined to communicate important cases, and the faculty at large invited to a familiar correspondence; circular letters were sent to similar societies in our own and in foreign countries, which were respectfully reciprocated. In 1785 corresponding and advising committees of the society were appointed for the different counties, in several of which associations were formed for meetings, reading dissertations, etc. In 1789 the society was authorized to point out and describe such a mode of medical instruction as might be deemed requisite for candidates, previous to examination. It was determined that every pupil should have a competent knowledge of Greek, Latin, the principles of geometry and experimental philosophy, and the period of instruction should be in no case less than three years, with attendance on the practice of a respectable physician. Publications were made triennially of authors to be studied, by which the most valuable modern productions were extensively circulated. The censors met for examination and licens-

ing candidates once in four months. The first licentiate was admitted in 1782.

In 1790 the first number of medical papers containing a selection of important communications was published, but for want of funds a second did not appear till 1806. A third was printed in 1808, completing the first volume of the Massachusetts Medical Society publications.

Dr. Ezekiel Hersey, of Hingham, who died in 1770, bequeathed £1,000, and his widow at her death a like sum, to be applied to the support of a professor of anatomy and surgery at the University at Cambridge. Dr. Abner Hersey, of Barnstable, who died in 1786, and Dr. John Cuming, of Concord, were also donors to the amount of £500 each for the same laudable purpose, and William Erving, Esq., of Boston, left £1,000 toward the support of an additional professor. In conformity with the views of the patrons and donors, professors of talents and character were in 1782 appointed, by whom lectures on the several branches were regularly delivered and students received the honors of the institution. In 1780 Dr. John Warren, while surgeon of a military hospital in Boston, commenced a course of anatomical lectures, and in the following year they were attended by the students of the university. Dr. Warren furnished a plan for a medical school, which was adopted by the corporation of Harvard College, and in 1783 he was appointed first professor of anatomy and surgery; Dr. Benj. Waterhouse, professor of the theory and practice of physic, and Dr. Aaron Dexter, professor of chemistry. This was the first essay made in New England for the establishment of an institution for medical education. George Holmes Hall and John Fleet were the first who were admitted in course to the degree of Doctor in Medicine at the university in the year 1788. In 1809 Drs. John Collins Warren and John Gorham were respectively inaugurated adjunct professors of anatomy and chemistry.

To go back a few years, the discovery of vaccination by Edward Jenner, a physician of Berkely, in Great Britain, was transmitted to this State in 1799. In July, 1800, Benj. Waterhouse, professor of the theory and practice of physic at the Medical School, procured vaccine matter from Bristol, England, and first vaccinated his son, the first person to be so treated in the United States.

One is at once impressed with two things in reading what precedes: (1) The prominent position which Massachusetts held in the advancement of medicine in the early days, and (2) the close relation between the physician and the clergyman, the two professions being often united in one individual, a most noted instance being Manassah Cutler, of Hamilton, Mass.

THE GREAT TOE (BABINSKI) PHENOMENON: A CONTRIBUTION TO THE STUDY OF THE NORMAL PLANTAR REFLEX BASED ON THE OBSERVATION OF ONE HUNDRED AND FIFTY-SIX HEALTHY INDIVIDUALS.

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FOR the general reader who has not followed late neurological literature I will say that the Babinski phenomenon is a modification of the normal plantar