

Source: <http://www.army.mil/cmh-pg/books/sw-sa/Pickering.htm>

## *Timothy Pickering*

TIMOTHY PICKERING was born in Salem, Massachusetts, on 17 July 1745; graduated from Harvard College, 1763; was commissioned a lieutenant in the Essex County militia, 1766; studied law and was admitted to the bar, 1768; served as judge of the Maritime Court for the Boston-Salem district; wrote *An Easy Plan of Discipline for a Militia* in 1775, one of several guides used by the Army before von Steuben's manual; became colonel of the Essex militia regiment and participated in military operations of the spring of 1775; married Rebecca White, 1776; participated in Revolutionary campaigns in New York and New Jersey; was adjutant general of the Army, 1777–1778, and concurrently a member of the Board of War; was quartermaster general of the Army, 1780–1785; returned to a mercantile business in Philadelphia, 1785; moved to Pennsylvania and organized the county of Luzerne, 1787; served as a delegate to the Constitutional Convention; was appointed by President Washington to treat with the Seneca Indians; was Postmaster General, 1791–1795; was called upon concurrently to negotiate with the Six Nations; served as Secretary of War, 2 January–10 December 1795; advocated establishment of a military academy at West Point and expedited naval ship construction; was Secretary of State ad interim, 20 August–9 December 1795, running the affairs of War and State concurrently; was Secretary of State, 10 December 1795–12 May 1800; returned to farming in Pennsylvania, then Massachusetts; was a Senator from Massachusetts 1803–1811; was a member of the State Executive Council, 1812–1813; was a Representative from Massachusetts, 1813–1817; died in Salem on 29 January 1829.

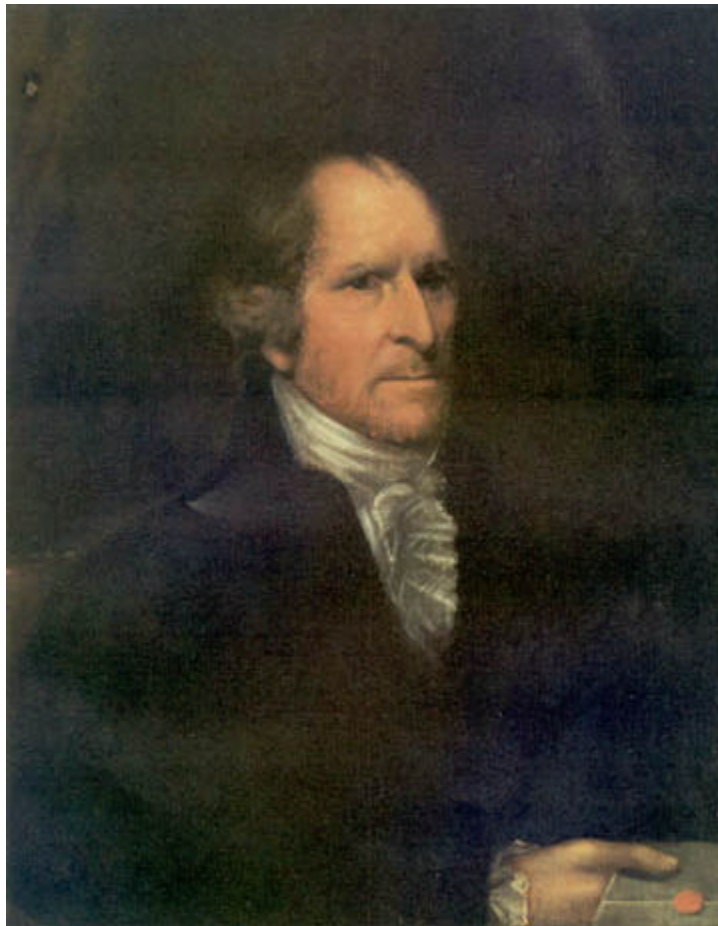
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### *The Artist*

In the early 1870's, when Secretary Belknap was assembling a War Department

gallery, the Army acquired two portraits of Secretary Pickering. One by Walter M. Brackett, painted in 1873, was donated to the United States Military Academy because of Pickering's instrumental role in its founding and remains in the West Point collection today. The other portrait, represented here and hanging in the secretarial gallery in the Pentagon, was painted by an unknown artist at an unknown date and place. A notation in Army records indicates that the Army purchased a Pickering portrait from George E. Daniels of Potter Brothers, New York, who acted on behalf of an unknown owner.

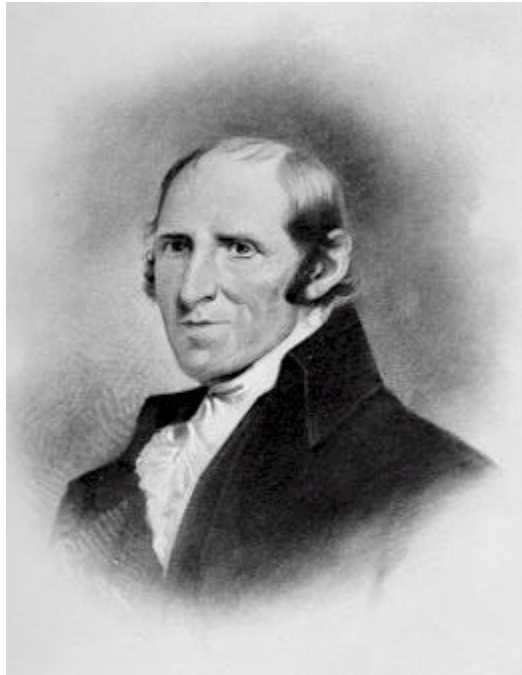
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Source: [http://www.qmfound.com/COL\\_Timothy\\_Pickering.htm](http://www.qmfound.com/COL_Timothy_Pickering.htm)

**Colonel**  
**Timothy Pickering**

**4th Quartermaster General**  
**August 1780-July 1785**



Timothy Pickering was born at Salem, Massachusetts, on July 17, 1745, of a family prominent since the early years of settlement. His father was sufficiently well-to-do to give him a good education, and he graduated from Harvard College in 1763. He later studied law and was admitted to the bar in 1768 but never attained distinction as a lawyer. Prior to the outbreak of the war he held a number of minor offices in Salem, among them selectman, town clerk, and representative in the General Court. He became a leading Whig in Salem and displayed talent as a pamphleteer in supporting the Revolutionary movement.

Commissioned a lieutenant in the Essex County militia in 1766. he studied military history and tactics and unsuccessfully sought to put the Massachusetts militia on an effective war footing. In 1775 he published *An Easy Plan of Discipline for a Militia*, which was widely used in the Continental Army until replaced by Baron Steuben's manual. Pickering served during the early campaigns of the Revolution, rising to a colonelcy in the Essex County militia. On May 24, 1777, he accepted the post of adjutant general of the army. In the fall of

that year he was elected to the newly organized Board of War of the Continental Congress, but also continued to serve as adjutant general until mid-January of 1778, since a successor was not immediately appointed.

While still a member of the Board of War he was appointed Quartermaster General in the summer of 1780, and authorized by Congress to continue on the Board, though his pay as a member and the exercise of his powers on the Board were suspended.

Pickering found the conduct of Quartermaster business handicapped by the lack of credit and the effects of a depreciated currency. Fully aware of these difficulties at the time of his appointment, he had proposed the use of "specie certificates," which stipulated payment in specie at a given date for all articles or services purchased on credit. If payment was delayed, such certificates were to bear an interest rate of 6 per cent a year until paid. Congress authorized their use, thereby enabling Pickering to obtain a few more supplies than would otherwise have been possible. Throughout the war, however, Pickering continued to be so plagued by the lack of funds that he wrote Congress: "If any other man can, without money, carry on the extensive business of this department, I wish most sincerely he would take my place. I confess myself incapable of doing it." Harassed by lack of funds and scarcity of supplies, Pickering nevertheless, in consultation with Washington and acting in the double capacity of consulting member of the Board of War and Quartermaster General of the Army, effected the successful transportation of the allied forces from the Hudson in New York to the James River in Virginia for the siege of Yorktown and the capture of Cornwallis. This victory, in October 1781, proved to be decisive

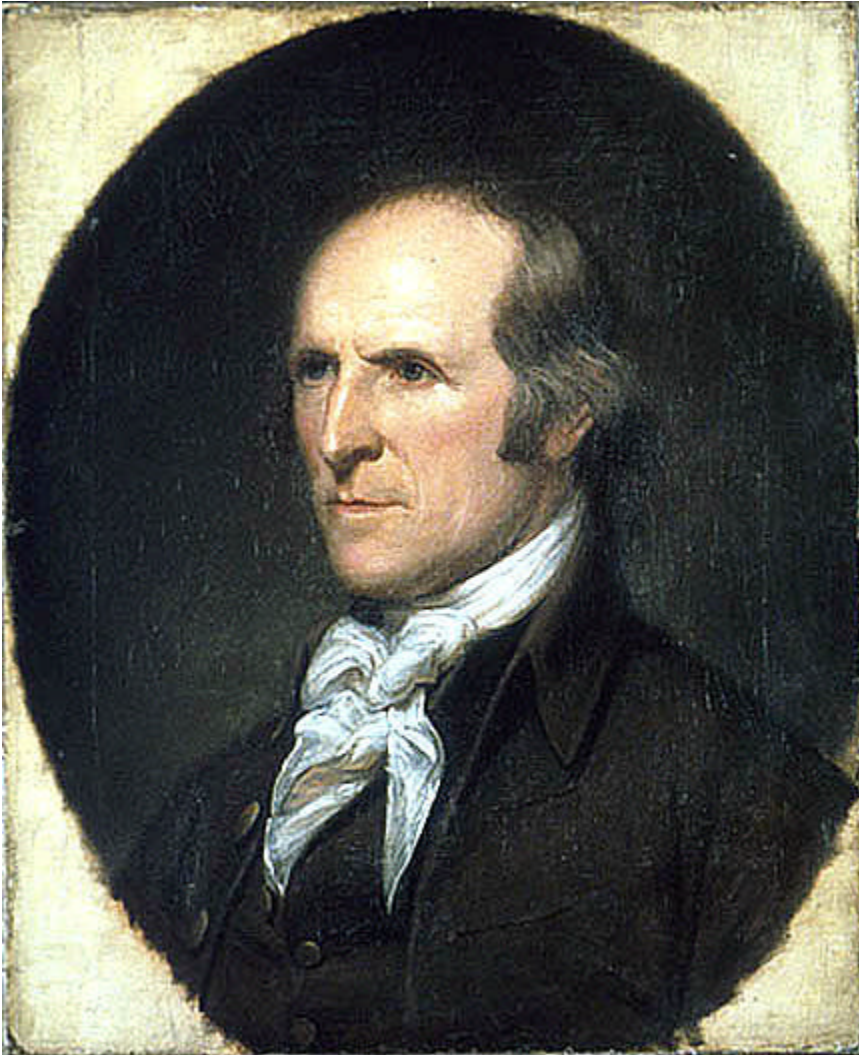
As the war drew to a close, Congress turned its attention to the future military needs of the nation, and in response to a request for an opinion on the proper postwar military establishment for the United States, Pickering proposed the creation of a military academy at West Point where students might be trained as

officers to command the defenses of the nation. For the most part, in these months, he was concerned with effecting various economies in the Quartermaster's Department and attempting to settle his accounts as quickly as possible. He wrote Robert Morris that "until I accepted this cursed office, though necessity compelled me to live frugally, yet I had the satisfaction of keeping nearly clear of private debts," but that he was now much indebted. He wanted nothing more than a quick settlement of accounts and an opportunity to return to private life, where he might set about repairing the fortunes of his family. This settlement dragged on for many months after the war had ended, and Pickering did not relinquish his post until the Quartermaster's Department was abolished, temporarily, on July 25, 1785.

Pickering lived to be eighty-four and remained active to the end. He had a distinguished public career after retirement as Quartermaster General. He held successively the offices of Postmaster General, Secretary of War, and Secretary of State under Washington. He continued as Secretary of State under President Adams until he was abruptly dismissed on May 10, 1800, because of his opposition to administration policies. Thereafter he served in the Senate and later in the House of Representatives. As an outstanding member of the Federalist Party, he bitterly fought Republican administration measures and was especially virulent in his opposition to the War of 1812. After retirement from public life in 1817, he centered his interest on agricultural improvement and deservedly earned an important place in the history of New England agriculture before he died in 1829, rounding out a career as soldier, administrator and politician.

Source:

[http://www.cr.nps.gov/museum/exhibits/revwar/image\\_gal/indeimg/pickering.html](http://www.cr.nps.gov/museum/exhibits/revwar/image_gal/indeimg/pickering.html)



**P**ickering was born in Salem, Massachusetts. He studied law after graduating from Harvard College. Pickering served as a Salem selectman and a representative to the colonial legislature. Before the Revolution, he sat on several local committees and wrote many pamphlets and newspaper articles that supported colonial resistance to British rule. In 1775, Pickering published a military drill manual that circulated widely in the Continental Army before the introduction of Baron von Steuben's method. He participated in the New York and New Jersey campaigns of the following winter. In 1780, he accepted an appointment as Quartermaster General and retained it until the end of the war.

**P**ickering later lived in Pennsylvania, moving to the Wyoming Valley frontier, where he founded Luzerne County and represented the new area at Pennsylvania's convention to ratify the federal Constitution and its state constitutional convention. In 1790, President Washington sent Pickering (who opposed the use of force against the Native Americans who populated the frontier) to formalize cordial relations with the Seneca Indian tribe. On return from this successful mission, he accepted an appointment as Postmaster General. In 1795, he became Secretary of War and then Secretary of State. A strident Federalist and a promoter of New England commerce, he denounced French interests and promoted those of Great Britain. Pickering was

removed from office in 1800, after he repeatedly defied President John Adams's policy of neutrality in foreign affairs. He then represented Massachusetts in Congress for 15 years, alternating for several terms in the House of Representatives and Senate.

**L**ater, Pickering wrote about the Revolutionary and Republican eras and planned a biography of Alexander Hamilton. During the 1828 presidential election he endorsed Democrat Andrew Jackson, rather than the conservative John Quincy Adams. He did this to express his longstanding contempt for the latter's father. Pickering died in Salem on January 29, 1829.

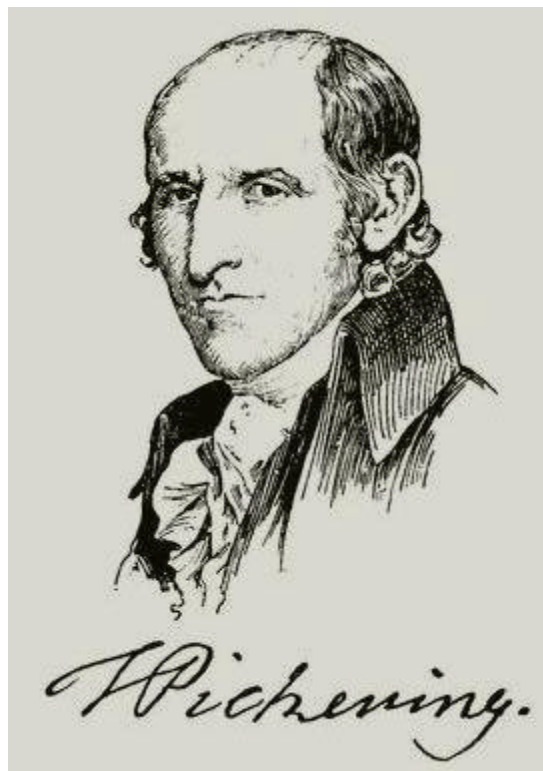
Source:

<http://www.virtualology.com/virtualwarmuseum.com/revolutionarywarhall/TIMOTHYPICKERING.COM/>

# Timothy Pickering

1745 - 1829

Revolutionary War Quartermaster General



*Click on an image to view full-sized*

***Timothy Pickering***

**PICKERING, Timothy**, statesman, born in Salem, Massachusetts, 17 July, 1745; died there, 29 January, 1829. He was great-great-grandson of John Pickering, who came from England and settled in Salem in 1642. Timothy was graduated at Harvard in 1763. He studied law, and was admitted to the bar in 1768, but practiced very little, and never attained distinction as a lawyer. He served for some time as register of deeds for Essex county, and at the same time showed considerable interest in military studies. In 1766 he was commissioned by Governor Bernard lieutenant of militia, and in 1775 was elected colonel, which office he held until after he had joined the Continental army. Twelve days after his election he witnessed and peacefully resisted Colonel Leslie's expedition to Salem. On 19 April he marched at the head of 300 men to cut off the retreat of the British from [Lexington](#), and at sunset had reached Winter Hill, in Somerville, a few minutes after the British had passed on their disorderly retreat to Charlestown. In later years political enemies unfairly twitted him for failing to effect the capture of the whole British force on this occasion. In the course of that year he published a small volume, illustrated with copper-plate engravings, entitled "*An Easy Plan of Discipline for a Militia.*" It was a useful book, and showed considerable knowledge of the military art. It was adopted by the state of Massachusetts, and was generally used in the Continental army until superseded by the excellent manual prepared by Baron Steuben.

In September, 1775, Colonel Pickering was commissioned justice of the peace, and two months later judge of the maritime court for the counties of Suffolk, Essex, and Middlesex. In May, 1776, he was elected representative to the general court. On 24 December of that year he set out from Salem, at the head of the Essex regiment of 700 men, to join the Continental army, and after stopping for some time, under [General Heath's](#) orders, at Tarrytown, reached Morristown, 20 February, where he made a very favorable impression upon [Washington](#). The office of adjutant-general falling vacant by the resignation of Colonel Reed, [Washington](#) at once offered it to Colonel Pickering, who at first

declined the appointment because he did not consider himself fit for it and because it would conflict with the discharge of his duty in the place that he already held. He afterward reconsidered the matter and resigned all his civil offices, and his appointment as adjutant-general was announced, 18 June, at the headquarters of the army at Middlebrook. He then expressed an opinion that the war would not and ought not to last longer than a year, and on several occasions was inclined to criticize impatiently the superb self-restraint and caution of [Washington](#), but for which the war would doubtless have ended that year in the overthrow of the American cause.

Colonel Pickering was present at the battles of the [Brandywine](#) and [Germantown](#), and was elected, 7 November, a member of the newly created board of war. On 5 August, 1780, he was appointed quartermaster-general of the army, in place of [General Greene](#), who had just resigned. He joined the army at Peekskill, 27 June, 1781, took part in the march to Virginia, and was present at the surrender of [Cornwallis](#), of which he gives an interesting account in his journal. The fact that there was no detention in the course of [Washington's](#) wonderful march from Hudson river to Chesapeake bay shows with what consummate skill the quartermaster's department was managed. At every point the different columns found the needed supplies and means of transportation in readiness. For such a triumph of logistics great credit is due to Colonel Pickering. He retained the office of quartermaster-general until it was abolished, 28 July, 1785.

He made himself conspicuous, along with [Alexander Hamilton](#) and [Patrick Henry](#), in opposing the harsh and short-sighted vindictive measures that drove so many Tories from the country, to settle in Nova Scotia and Upper Canada. On leaving the army in 1785, he went into business in Philadelphia as a commission merchant in partnership with Major Samuel Hodgdon, but he did not find this a congenial occupation. He was assured that if he were to return to Massachusetts he would be appointed associate justice of the supreme court of that state, but he refused to entertain the suggestion, because he distrusted his fitness for that

office. He preferred to remove with his family, to some new settlement on the frontier, and, with some such end in view, had already purchased extensive tracts of unoccupied land in western Pennsylvania and Virginia and in the valley of the Ohio.

In 1787 he settled in Wyoming, and there became involved in the disturbances attendant upon the arrest and imprisonment of John Franklin, leader of the insurgent Connecticut settlers. Colonel Pickering's house was attacked by rioters, and he would have been seized as a hostage for Franklin had he not escaped into the woods and thereupon made his way to Philadelphia, where he was chosen member of the convention for ratifying the [new constitution of the United States](#). After his return to Wyoming, toward the end of June, 1788, Colonel Pickering was taken from his bed at midnight by a gang of masked men and carried off into the forest, His captors kept him prisoner for three weeks, and tried to prevail upon him to write to the executive council of the state and have Franklin set at liberty. When they found their threats unavailing, and learned that militia were pursuing them, they lost heart, and were glad to compound with Colonel Pickering and set him free on condition that he would intercede for them. This affair, the incidents of which are full of romantic interest, marked the close of thirty years of turbulence in the vale of Wyoming. By the end of 1788 complete order was maintained, largely through the firmness and energy of Colonel Pickering.

In 1789 he was a member of the convention that framed the new constitution of Pennsylvania. This body did not finish its work till 2 September 1790, and the very next day President [Washington](#) sent Colonel Pickering on a mission to the Seneca Indians, who had been incensed by the murder of two of their tribe by white men at Pine Creek, Pennsylvania The mission ended in July, 1791, in the successful negotiation of a very important treaty between the United States and the Six Nations. Colonel Pickering was appointed postmaster-general, 14 August, 1791, and held that office till 1795.

In the mean time was waged the great war with the Indians of the [Northwestern territory](#), and Colonel Pickering was called upon several times to negotiate with the chiefs of the Six Nations and keep up the alliance with them. He knew how to make himself liked and respected by the native Americans, and in these delicate missions was eminently successful. On the resignation of [Knox](#) he was appointed secretary of war, 2 January, 1795. The department then included Indian affairs, since transferred to the department of the interior. It also included the administration of the navy. In these capacities Colonel Pickering was instrumental in founding the military school at West Point, as well as in superintending the building of the three noble frigates "*Constitution*," "*United States*," and "*Constellation*," that were by and by to win imperishable renown. On the resignation of [Randolph](#) in the autumn of 1795, Colonel Pickering for a while acted as secretary of state, and after three months was appointed to that office. He continued as secretary of state, under the administration of [John Adams](#), until the difficulties with France, growing out of the X. Y. Z. papers, had reached a crisis and led to a serious disagreement between Mr. [Adams](#) and his cabinet. Then Colonel Pickering was dismissed from office, 12 May, 1800. From the department of state to a log-cabin on the frontier was a great change indeed. Colonel Pickering spent the summer and autumn with his son Henry and a few hired men in clearing a farm in what is now Susquehanna county, near the northeastern corner of Pennsylvania. He had always been poor, and was now embarrassed with debt. To relieve him of this burden, several citizens of Boston subscribed \$25,000, and purchased from him some of his tracts of unoccupied land. After payment of his debts, the balance in cash was \$14,055.35, and being thus placed in comfortable circumstances he was prevailed upon to return to Massachusetts, where he settled upon a modest farm, which he hired, in Danvers.

In 1802 he was appointed chief justice of common pleas, and was a candidate for congress for the Essex south district, but Jacob Crowninshield was elected over him. The next year Colonel Pickering was elected to the United States

senate, to fill the vacancy left by Dwight Foster's resignation. In 1804 he was elected to the senate for six years, and became conspicuous among the leaders of the extreme Federalists. He disapproved of the [Louisiana purchase](#), and afterward made himself very unpopular in a large part of the country by his energetic opposition to the embargo. In 1809 he was hanged in effigy by a mob in Philadelphia, and in the following year an infamous attempt was made to charge him with embezzlement of public funds, but the charge was too absurd to gain credence. In 1811 he was censured by the senate for a technical violation of the rules in reading certain documents communicated by the president before the injunction of secrecy; but as this measure was too plainly prompted by vindictiveness, it failed to injure him.

[In 1812](#), having failed of a re-election to the senate, he retired to the farm he had purchased some time before in Wenham, Massachusetts; but he was to return to [Washington](#) sooner than he expected. In the November election he was chosen a member of congress by an overwhelming majority. To this office he was again elected in 1814, and would have been elected a third time had he not declined a re-nomination. During 1817 he was member of the executive council of Massachusetts, his last public office.

The last years of his life were spent in Salem, with frequent visits to the Wenham farm. On Sunday, 4 January, 1829, sitting in an ill-warmed church, he caught the cold of which he died. The section of the Federalist party to which Colonel Pickering belonged was led by a group of men known as the "*Essex Junto*," comprising Parsons, Cabot, Sedgwick, H. G. Otis, and the Lowells, of Massachusetts, with Griswold and Reeve, of Connecticut. In 1804, and again in 1809, the question of a dissolution of the Union and the formation of a separate Eastern confederacy was seriously discussed by these Federalist leaders, and in 1814 they were foremost in the proceedings that led to the Hartford convention. Attempts to call such a convention had been made in 1808 and 1812. The designs of the convention were not clearly understood, but the suspicion of disunion tendencies that clung to it sufficed to complete the ruin of the Federalist

party, which did not survive the election of 1816. In the work of the conventionists of 1814 Colonel Pickering took no direct part, and he was not present at Hartford.

Colonel Pickering married, 8 April, 1776, *Rebecca White* Pickering, who was born in Bristol, England, 18 July, 1754, and died in Salem, 14 August, 1828. Their wedded life was extremely happy. Colonel Pickering's biography, with copious extracts from his correspondence, was begun by his son, Octavius Pickering-- "*Life of Timothy Pickering*" (vol. i., Boston, 1867)--and after the death of the latter, was finished by Charles W. Upham (vols. ii.-iv., 1873). See also [Adams's](#) "*Documents relating to New England Federalism*" (Boston, 1877) and Schouler's "*History of the United States*" (vols. i, and ii., [Washington](#), 1882).-- Timothy's eldest son, *John Pickering*, philologist, born in Salem, Massachusetts, 7 February, 1777; died in Boston, Massachusetts, 5 May, 1846, was graduated at Harvard in 1796, and then studied law with Edward Tilghman in Philadelphia. In 1797 he became secretary to William Smith, on the appointment of the latter as United States minister to Portugal, and two years later he became private secretary to [Rufus King](#), then minister to Great Britain. He returned to Salem in 1801, resumed his legal studies, and, after being admitted to the bar, practiced in Salem until 1827. Mr. Pickering then removed to Boston, and was appointed city solicitor, which office he held until shortly before his death. Notwithstanding his large practice. he also devoted his attention to politics. He was three times in the lower house of the legislature, twice a state senator from Essex county and once from Suffolk county, and a member of the executive council. In 1833 he served on the commission for revising and arranging the statutes of Massachusetts, and the part that is entitled "*Of the Internal Administration of Government*" was prepared by him. Mr. Pickering became celebrated by his philological studies, which gained for him the reputation of being the chief founder of American comparative philology. These he began as a young man, when he accompanied his father on visits to the Six Nations of central New York, and as he grew older they increased by his

study abroad until, according to Charles Sumner, he was familiar with the English, French, Portuguese, Italian, Spanish, German, Romaic, Greek, and Latin languages ; less familiar, but acquainted, with Dutch, Swedish, Danish, and Hebrew, and had explored, with various degrees of care, Arabic, Turkish, Syriac, Persian, Coptic, Sanscrit, Chinese, Cochin-Chinese, Russian, Egyptian hieroglyphics, Malay in several dialects, and particularly the Indian languages of America and the Polynesian islands With this great knowledge at his command, he .early used it in the preparation of valuable articles m reviews, transactions of learned societies, and encyclopaedias. Among these are *"On the Adoption of a Uniform Orthography for the Indian Languages of North America"* (1820) ; *"Remarks on the Indian Languages of North America"* (1836); and *"Memoir on the Language and Inhabitants of Lord North's Island"* (1845); also, in book-form, *"A Vocabulary or Collection of Words and Phrases which have been Supposed to be Peculiar to the United States of America"* (Boston, 1816), and *" A Comprehensive Dictionary of the Greek Language"* (1826). The latter passed through numerous editions at home and was reprinted abroad.

In 1806 he was elected Hancock professor of Hebrew in Harvard, and later was invited to fill the chair of Greek literature in that university, both of which appointments he declined, as well as that of provost of the University of Pennsylvania. He was an active member of the board of overseers of Harvard from 1818 till 1824, and received the degree of LL. D. from Bowdoin in 1822, and from Harvard in 1835. Mr. Pickering was one of the founders of the American oriental society and its president until his death, also president of the American academy of arts and sciences, and a member of various learned societies both at home and abroad. Besides the works mentioned above, he was the author of various legal articles, among which are *"The Agrarian Laws," "Egyptian Jurisprudence," "Lecture on the Alleged Uncertainty of Law,"* and *"Review of the International McLeod Question"* (1825). See *"Life of John Pickering,"* by his daughter, Mary Orne Pickering (Boston, 1887).

Timothy's third son, *Henry Pickering*, poet, born in Newburg, New York, 8 October, 1781; died in New York city, 8 May, 1831, was born in the historic Hasbrouck house, better known as [Washington](#)'s headquarters, while his father was with [Washington](#) at the [siege of Yorktown](#). He accompanied the family to Boston in 1801, and engaged in business in Salem, acquiring in a few years a moderate fortune, from which he contributed largely to the support of his father's family and to the education of its younger members. In consequence of losses, he removed to New York in 1825, and endeavored to retrieve his fortune, but without success. He then resided at Rondout and other places along the Hudson, where he devoted his leisure to reading, and writing poetry. His writings appeared in the *"Evening Post,"* and include *"Ruins of Paesturn"* (Salem, 1822); *"Athens, and other Poems "* (1824); *"Poems"* (1830) ; and *"The Buckwheat Cake"* (1831).

Another son of Timothy, *Octavius Pickering*, lawyer, born in Wyoming, Pennsylvania, 2 September, 1791; died in Boston, Massachusetts, 29 October, 1868, was graduated at Harvard in 1810, and then studied law with his brother, John Pickering. In March, 1816, he was admitted to the bar of Suffolk county, and opened an office in Boston. He assisted in reporting the debates and proceedings of the Massachusetts constitutional convention of 1820. In 1822-'40 he was reporter of the supreme court of Massachusetts. During these years he prepared the *" Reports of Cases in the Supreme Judicial Court of Massachusetts "* (24 vols., Boston, 1822-'40).

On retiring from office he visited Europe and spent seven years in England and on the continent. He took an active interest in natural history, was a fellow of the American academy of arts and sciences, and one of the founders, in December, 1814, of the New England society for the promotion of natural history, which subsequently became the Linnaean society of New England, and out of which has grown the Boston society of natural history. His literary work included, besides various legal papers, *"A Report of the Trial by Impeachment of James Prescott"* with William H. Gardiner (Boston, 1821), and he prepared the first

volume of the "*Life of Timothy Pickering by his Son*" (4 vols., 1867-'73), of which the remaining volumes were issued by Charles W. Upham.

Timothy's grandson, *Charles Pickering*, physician, born in Susquehanna county, Pennsylvania, 10 November, 1805; died in Boston, Massachusetts, 17 March, 1878, was graduated at Harvard in 1823, and at its medical department in 1826, after which he settled in the practice of his profession in Philadelphia. Meanwhile he developed interest in natural history, and became a member of the Philadelphia academy of natural sciences, to whose transactions he contributed valuable papers. In 1838-'42 he was naturalist to the United States exploring expedition under Captain Charles Wilkes. On his return he was a year in [Washington](#), and then visited eastern Africa, traveling from Egypt to Zanzibar, and thence to India for the purpose of more thoroughly studying the people of those parts of the world that had not been visited by the expedition. Nearly two years were occupied in these researches, after which he devoted himself to the preparation of "*The Races of Man and their Geographical Distribution*" (Boston, 1848), which forms the ninth volume of the "*Reports of the United States Exploring Expedition*," and was republished in "*Bohn's Illustrated Library*" (London, 1850). This he followed with his "*Geographical Distribution of Animals and Man*" (1854) and "*Geographical Distribution of Plants*" (1861).

Dr. Pickering was a member of the American oriental society, the American academy of arts and sciences, the American philosophical society, and other learned bodies, to whose proceedings he contributed. At the time of his death he left in manuscript "*Chronological History of Plants: Man's Record of his own Existence illustrated through their Names, Uses, and Companionship*" (Boston, 1879).

Timothy's great-grandson, *Edward Charles Pickering*, astronomer, born in Boston, Massachusetts, 19 July, 1846, was graduated in the civil engineering course at the Lawrence scientific school of Harvard in 1865. During the following year he was called to the Massachusetts institute of technology as assistant, instructor of physics, of which branch he held the full professorship from 1868 till

1877. Professor Pickering devised plans for the physical laboratory of the institute, and introduced the experimental method of teaching physics at a time when that mode of instruction had not been adopted elsewhere. His scientific work during these years consisted largely of researches in physics, notably investigations on the polarization of light and the laws of its reflection and dispersion. He also described a new form of spectrum telescope, and invented in 1870 a telephone-receiver, which he publicly exhibited. He observed the total eclipse of the sun on 7 August, 1869, with the party that was sent out by the Nautical almanac office, at Mount Pleasant, Iowa, and was a member of the United States coast survey expedition to Xeres, Spain, to observe that of 22 December, 1870, having on that occasion charge of the polariscope.

In 1876 he was appointed professor of astronomy and geodesy, and director of the observatory at Harvard, and under his management this observatory has become one of the foremost in the United States. More than twenty assistants now take part in investigations under his direction, and the invested funds of the observatory have increased from \$176,000 to \$654,000 during his administration. His principal work since he accepted this appointment has been the determination of the relative brightness of the stars, which is accomplished by means of a meridian photometer, an instrument which has been specially devised for this purpose, and he has prepared a catalogue giving the brightness of over 4,000 stars. Since 1878 he has also made photometric measurements of Jupiter's satellites while they are undergoing eclipse, and of the satellites of Mars and other very faint objects.

On the death of Henry Draper (q. v.) his widow requested Professor Pickering to continue important researches on the application of photography to astronomy, as a Henry Draper memorial, and the study of the spectra of the stars by photography has thus been undertaken on a scale that was never before attempted. A fund of \$250,000, left by Uriah A. Boyden (q. v.) to the observatory, has been utilized for the special study of the advantages of very elevated observing stations. Professor Pickering has also devoted attention to such

subjects as mountain-surveying, the height and velocity of clouds, papers on which he has contributed to the Appalachian club, of which he was president in 1877, and again in 1882. He is an associate of the Royal astronomical society of London, from which in 1886 he received its gold medal for photometric researches, and, besides membership in other scientific societies in the United States and Europe, he was elected in 1873 to the National academy of sciences, by which body he was further honored in 1887 with the award of the Henry Draper medal for his work on astronomical physics. In 1876 he was elected a vice-president of the American association for the advancement of science, and presented his retiring address before the section of mathematics and physics at the Nashville meeting.

In addition to his many papers, which number about 100, he prepared annual "*Reports on the Department of Physics*" for the Massachusetts institute of technology, and the "*Annual Reports of the Director of the Astronomical Observatory*," likewise editing the "*Annals of the Astronomical Observatory of Harvard College*." He has also edited, with notes, "*The Theory of Color in its Relations to Art and Art Industry*," by Dr. William Von Bezold (Boston, 1876), and he is the author of "Elements of Physical Manipulation" (2 parts, Boston, 1873-'6).

--Edward Charles's brother. **William Henry Pickering**, astronomer, born in Boston, Massachusetts, 15 February, 1858, was graduated at the Massachusetts institute of technology in 1879, and in 1880-'7 was instructor of physics in that institution. In March, 1887, he was called to the charge of the Boyden department of the Harvard observatory, which place he still fills. He founded in 1882, in connection with the Institute of technology, the first regular laboratory where dry-plate photography was systematically taught to numerous pupils. Mr. Pickering observed the solar eclipse of 1878 from Colorado, and in 1886 conducted an expedition to the West Indies to observe the total eclipse of that year. In 1887 he led an expedition to Colorado to make astronomical observations for the purpose of selecting the most suitable site for an

astronomical observatory. In addition to various articles on photography in technical periodicals, and the transactions of the American academy, he has published "*Walking Guide to the Mount [Washington](#) Range*" (Boston, 1882).

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