MCMA CONNECTIONS

from the Charitably Speaking *archives*

A PUBLICATION OF THE MASSACHUSETTS CHARITABLE MECHANIC ASSOCIATION

For many years now in the pages of *Charitably Speaking* we have written about MCMA's involvement in local activities and the more widespread accomplishments of our past members. One of our take-aways from that accumulation of information is that MCMA and/or our members have had *connections*, in some way or other, to a remarkable number of events, developments, and advancements in our country's history. The following condensed excerpts from past issues of *Charitably Speaking* note just some of those connections. They are presented here in no particular order, with all member names in boldface. Most of these excerpts reference the month and year of the full article that includes applicable source attributions.

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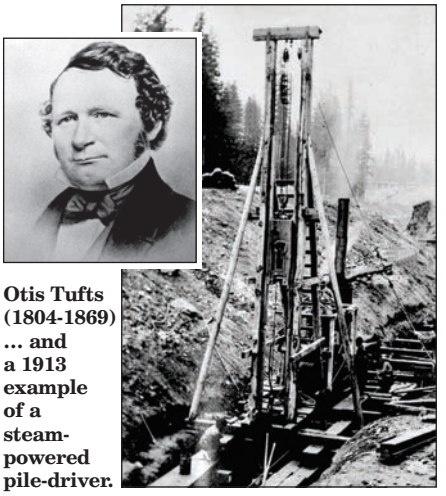
(alphabetical by surname)

In the mid-1840s **Otis Tufts** was walking past the construction site for the new Custom House in Boston, and he stopped to watch piles being driven by the use of pulleys, ropes, and other labor-intensive equipment. He commented to the foreman, whom he knew, on the time-consuming nature of the operation. As 3000 piles were to be driven, he was challenged by that foreman to come up with a better way if he could. Tufts, who was by that time very experienced with steam engines, worked on the problem and came back to the site *the very next day* with a sketch for a steam-driven machine. A prototype was built immediately, and it worked so well that the other equipment was discarded, and the job was completed using the Tufts drivers. The equipment was widely adopted by others, but Tufts never patented the invention, so he did not benefit from it, save to his reputation.

[See the December 2015 issue of C*haritably Speaking* for the full article and applicable source attributions.]



Otis Tufts (1804-1869) ... and a 1913 example of a steam-powered pile-driver.

New England is widely noted for its picturesque towns, though the towns and villages of Vermont and New Hampshire seem to get the most attention. In reality, it is quite difficult to choose between so many towns across the region for the very simple reason that they look so much alike! Aside from foliage it is the architecture of these towns that makes them difficult to distinguish from one another, and the man largely responsible for that architecture is **Asher Benjamin**, whose pattern books, the first written by an American architect, brought architectural history, style, and geometry to ordinary builders in the field. Early 19th-century New England had few trained architects, so he wrote his handbooks for the rural carpenter, providing measured drawings for homes, churches, and even a courthouse, along with details such as doorways, fireplace mantels, circular staircases, dormer windows, and even fences. Other architects freely assimilated his plans, as did numerous carpenters throughout New England and beyond. Benjamin is responsible for much of the charm of early New England towns, and even today the layout and details of many houses, churches, and town halls can be matched directly to the pages of one or another of his handbooks.

First Parish Church (1809), Ashby, Mass.

[See the December 2010 issue of C*haritably Speaking* for the full article and applicable source attributions.]

Ephraim Wales Bull was a well-regarded gold leaf artisan. More significantly, Bull was an amateur horticulturalist, and in 1836 he purchased a farm in Concord and set about trying to improve the so-called "wild" American grape, which was common in this area but quite bitter. By 1849 he had planted some 22,000 seedlings before arriving at what he considered the ideal grape (early opening to escape northern frosts, but with a rich, full-bodied flavor), and he named it the Concord grape. Bull began selling cuttings, but plant patent laws had not yet come into existence, and soon Concord grape cuttings were being sold by many others. Bull failed to benefit appreciably, and was eventually to die a poor man. *[Others, however, were to benefit handsomely from the Concord grape, including Vineland, N.J. physician and dentist Thomas Welch, who in 1869 processed the first bottles of unfermented wine, an achievement that marked the beginning of the processed fruit juice industry.]*

[See the March 2011 issue of C*haritably Speaking* for the full article and applicable source attributions.]

Hammatt Billings, in addition to his accomplishments as an architect, was a premier illustrator for many Boston publishers, and drew illustrations for well over 250 titles during his career. His work covered the literature of writers such as Harriet Beecher Stowe, Louisa May Alcott, Nathaniel Hawthorne, Walter Scott, and Charles Dickens, though children's books actually occupied the bulk of his time. Readers were moved by Stowe's description and Billings' depiction of the death of Little Eva in *Uncle Tom's Cabin*, or thrilled to his and Alcott's visualizations of the exploits of the March girls in *Little Women*.

[See the December 2008 issue of C*haritably Speaking* for the full article and applicable source attributions.]

Tom Mourning Little Eva
Hammatt Billings illustration (1853)

Boston's Tremont House, designed by **Isaiah Rogers** and opened in 1829, set the standard for luxury accommodation and became the model for hotels built in other cities. This four-story building was the first hotel in the nation to boast indoor plumbing for water closets, bathrooms (for bathing), and running water for the kitchen and laundry. Other "firsts" included a reception area, locked rooms for guests, bellhops, and free soap. The hotel was an immediate success (notable guests in the coming years included Davy Crockett and Charles Dickens), and that success catapulted Rogers to become perhaps the country's foremost hotel architect.

Tremont House Hotel (1829)
Boston, Mass.

[See the December 2011 issue of C*haritably Speaking* for the full article and applicable source attributions.]

The *USS Congress*, built in Portsmouth by naval architect **Samuel Moore Pook**, was the second Union ship destroyed (along with *USS Cumberland*) by the Confederate ironclad *CSS Virginia* in Hampton Roads on March 8, 1862, the day prior to *Virginia's* historic battle with the Union ironclad *USS Monitor*. Incredibly, Pook's *Congress* had in effect been destroyed by another Pook ship, because *CSS Virginia* was the rebuilt hulk of the *USS Merrimack*, which was built by Pook and launched at the Charlestown Navy Yard in 1855. *Merrimack* had been laid up for repairs in the Norfolk Navy Yard when Virginia seceded from the Union in 1861. Unable to evacuate her from the harbor, Union forces burned the ship to make her unusable to the Confederates, but she was salvaged, converted to an ironclad, and commissioned *CSS Virginia* in February 1862. She would meet the *Monitor* and take her place in history weeks later.

[See the June 2009 issue of C*haritably Speaking* for the full article and applicable source attributions.]

***CSS Virginia* vs. *USS Congress*, 1862**

In 1833, at age 20, **Arioch Wentworth** moved to Boston (from Rollinsford N.H.) to seek employment, initially in a granite yard, and later in a soapstone shop. His employer's business failed the next year, but Arioch leased the property, and made the business a success by inventing or improving many of the machines, tools, and processes. In 1850, with an eye on the materials demanded for upscale homes and buildings in Boston, he switched his focus to marble. Again he built a successful enterprise, employing over 300 workers, helped in part by his ingenuity in building machinery to produce ornate moldings. With his business success and savvy investments Arioch accumulated a large estate, and in his will he provided funds for "a school to furnish education in the mechanical arts." Wentworth Institute was founded in 1904.

INSTITUTE OF WENTWORTH TECHNOLOGY
HONESTY ENERGY ECONOMY SKILLS
FOUNDED 1904

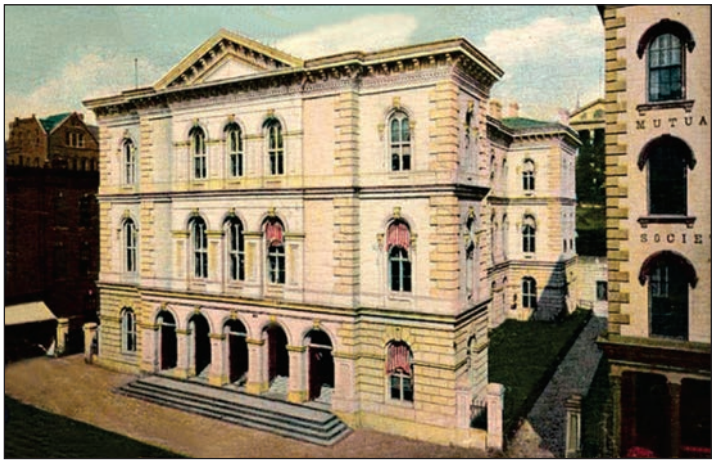
[See the September 2011 issue of C*haritably Speaking* for the full article and applicable source attributions.]

Few of us these days are familiar with Boston-born **Albert Augustus Pope**, but in the 1890s his name was known throughout the country, both as the father of the American bicycle industry, and as a pioneer in the early automobile industry. (He was known popularly as Colonel Pope from his service in the Civil War, during which he participated in major actions that included Antietam, Fredericksburg, and Gettysburg, and earned two battlefield promotions for gallantry.) Following the war Pope started a business providing supplies and tools to the shoe industry. The business was a great success, but Pope's interest was diverted in 1876 when he became fascinated with bicycles. He began building (in Hartford, Connecticut) a two-wheel model that was immediately successful, and within a decade production of Pope's "Columbia" bicycles was over 5,000 per year. Pope's knack for advertising contributed to his success, and controlling his supply chain helped lower costs and maintain quality. But he pushed innovation as well, like reduced wheel friction and the use of hollow steel tubing, making his bicycles lighter and easier to pedal, allowing him to market them to women and children. By the time the bicycle craze peaked in the mid-1890s, Pope's company was the largest employer in New England.

[See the March 2013 issue of C*haritably Speaking* for the full article and applicable source attributions.]

In 1866 Confederate President Jefferson Davis was indicted for treason in the courtroom of the Custom House and Courthouse in Richmond, Virginia. That structure was designed by **Ammi Burnham Young**, and because of its fireproof construction it was one of the few major structures to survive the conflagration that accompanied the city's evacuation by the Confederates in 1865.

[See the June 2013 issue of C*haritably Speaking* for the full article and applicable source attributions.]



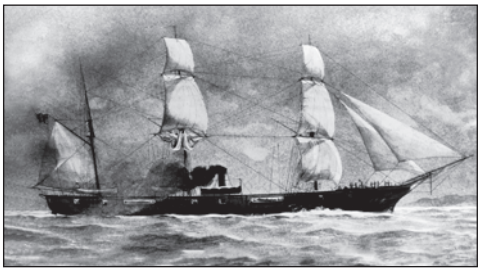
United States Custom House & Courthouse, Richmond, Va. (1856-1858 design by Ammi Burham Young; expanded 1889, 1912, & 1932).

Samuel Yendell was the ship's carpenter on the Boston-based *Columbia Rediviva*, the first ship to enter the sandbar-obstructed mouth of a river in the Pacific Northwest. During a nine-day venture up that river in May of 1792, the ship's captain planted an American flag, claimed the territory for the United States, and named the Columbia River after his ship. Though little was thought of the discovery at the time, that trading expedition was later used to bolster the claim of the United States (vs. Britain) to the Pacific Northwest Territories, a dispute not finally resolved until the Oregon Treaty of 1846 ceded to Britain the portion later renamed British Columbia, and to the U.S. the area containing the future states of Oregon, Washington, and Idaho.

[See the December 2014 issue of C*haritably Speaking* for the full article and applicable source attributions.]

The South Boston shop of **John Souther** had been busy building railroad locomotives and steam shovels, but during the Civil War it was given over to the needs of the government and produced the machinery for several Union warshis. One of those ships was the screw sloop-of-war *USS Housatonic*, which was built at the Charlestown Navy Yard. In 1864, while engaged in the blockade of Charleston, South Carolina, *Housatonic* earned the dubious distinction of being the first ship sunk by a submarine. (That Confederate submarine was the *H.L. Hunley*, which itself sank with the loss of all hands following the attack).

[See the September 2013 issue of C*haritably Speaking* for the full article and applicable source attributions.]



USS Housatonic

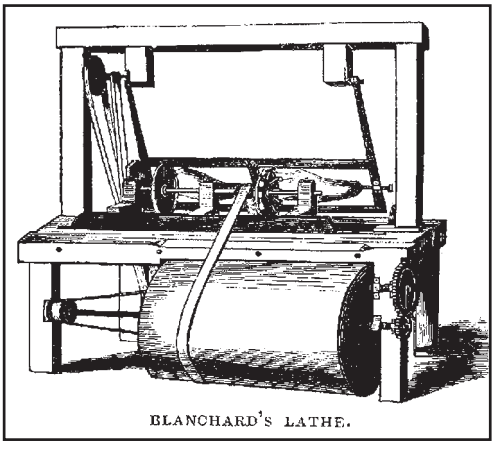
Major John André

When **Benjamin Russell** reached the age of eighteen in 1780 he joined the Continental Army. Stationed for a time at West Point, he was one of the guards who escorted British Major John André to his place of execution. (André, of course, was the spy who had collaborated with General Benedict Arnold to surrender the fort at West Point.) Russell would later become an original member of MCMA, and would serve as our third president.

[See the June 2012 issue of C*haritably Speaking* for the full article and applicable source attributions.]

The copying lathe was an 1822 invention of **Thomas Blanchard**, and it was initially used to make gunstocks. Convinced that there must be a way to produce these items mechanically, Blanchard hit upon the idea of a hinged carriage to hold a feeling wheel, and alongside it a twin cutting and copying wheel. He successfully built such a machine and patented his idea. The shoe industry was another beneficiary of Blanchard's invention, as he was particularly innovative with lathes adapted to the making of shoe lasts. Multiple cutters of increasing sizes would be arranged so lasts of five or more different shoe sizes could be cut at a time from a single pattern, and he was able to adapt his machines to easily cut lasts of the opposite foot from the same pattern. (Alas, his U.S. patent did not extend to Canada, so lasts made from Blanchard lathes taken into that country flooded the U.S. until tariffs eventually stopped that practice.)

[See the December 2014 issue of *Charitably Speaking* for the full article and applicable source attributions.]



BLANCHARD'S LATHE.

Though architect **Alexander Parris** is perhaps better known for his Quincy Marketplace or his work at the Charlestown Navy Yard, in the 1830s Parris began to design and construct lighthouses and beacons for the U.S. Treasury Department. His work for the government took him up and down the east coast, from Maine to Florida. Parris' lighthouses were typically built of stone, in a tapered style often referred to as "windswept," and in some quarters these structures are what he is most remembered for today.

[See the December 2009 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Lighthouse at Execution Rock, Long Island Sound, N.Y.

When the Burnet House, designed by architect **Isaiah Rogers**, opened in Cincinnati in 1850, the *London Illustrated News* called it "the finest hotel in the world." On March 20, 1864, Generals Ulysses S. Grant and William Tecumseh Sherman met in a parlor on the second floor, spread out maps, and made the plans for Sherman's march through Georgia that would help end the Civil War.

[See the December 2011 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Burnet House (1850)
Cincinnati, Ohio

The first aerial photograph in the United States was taken in 1860 (from a tethered hot air balloon above Boston Common) by **James Wallace Black**. No mean accomplishment, given the complexity of the photographic process of the time, this is also the oldest known aerial photograph still in existence anywhere.

[See the March 2014 issue of *Charitably Speaking* for the full article and applicable source attributions.]

The Bunker Hill Monument was designed by **Solomon Willard**, its cornerstone was laid by (MCMA Honorary Member) the **Marquis de Lafayette** in 1825, and most of the granite had been quarried by 1828. But construction was halted in 1829 when funds ran out. Dedicated effort by individuals and organizations to raise additional funds over the next 13 years was needed before the capstone was finally placed in 1842. Construction was halted multiple times over that period as funds were depleted, but MCMA (and others) worked tirelessly throughout that period to keep this project going. In 1833 the Bunker Hill Monument Association actually assigned responsibility for both fund-raising and further construction to MCMA. That organization showed its appreciation by naming MCMA's president to be first vice-president of their organization in perpetuity.

Bunker Hill Monument

[See the June 2019 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Providence Custom House
Providence, R.I.

Ammi Burnham Young became the first Supervising Architect of the U.S. Treasury Department in 1852, and as such was responsible for creating courthouses, customhouses, and post offices, many of them now on the National Register of Historic Places. During Young's tenure, the Treasury Department initiated a systematic re-design of the nation's customhouses. As most of the customhouses designed by Young were intended to serve also as post offices, with their postal function prominently displayed (generally on the first floor), within a few years the postal system had its first set of spaces specifically designed for the collection and distribution of mail. Importantly, the new post offices were designed to resemble one another as these 1850s projects employed standard building types – in some cases, identical blueprints were produced for different locations. The Young post offices appeared in cities large and small, from Gloucester to Galveston, and most were remarkably similar in appearance. For the postal service, the legacy of the Young period was profound and enduring.

[See the June 2013 issue of *Charitably Speaking* for the full article and applicable source attributions.]

The Calf Pasture Pumping Station Complex, at what is now Columbia Point in Dorchester, was designed by **George A. Clough**. This was the first sewage pumping station in Boston, pumping Boston's sewage through a tunnel under Dorchester Bay to Moon Island. Completed in 1883, this station was for 85 years the main headworks of Boston's sewerage system until replaced by the Deer Island facility in 1968.

[See the March 2014 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Calf Pasture Pumping Station Complex, Dorchester, Mass.

Boston piano maker **Jonas Chickering** in 1850 urged Worcester wire-manufacturer **Ichabod Washburn** to improve upon the quality and availability of piano wires then in use. (All musical wire at the time was imported from Europe.) Washburn experimented for years until in 1856 he was able to produce and patent his process to produce wire which he could profess to be the best in the world. Washburn had amazing success in business and accumulated a substantial estate, the bulk of which he gave away during his lifetime. With one of his endowments he co-founded in 1865 one of the first technical schools in the country, later to be re-named Worcester Polytechnic Institute. Another endowment saved Lincoln College from closing its doors, which led this Topeka, Kansas school to change its name to Washburn College. Even today, the name used by its men's athletic teams is "the Ichabods."

[See the March 2009 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Above: The Washburn Shops (1868) at WPI, Worcester, Mass. At left and below: Logos of Washburn U., Topeka, Kansas.

Joseph Wightman was elected Mayor of Boston in 1860, defeating **Frederic W. Lincoln, Jr.** Though Wightman's administration had some real accomplishments, it was defined by only one issue. In October 1861 Fort Warren in Boston Harbor began to house both Confederate and political prisoners. Initially told to prepare for a population of 100 prisoners in total, the first ship to arrive had on board 155 political prisoners plus over 600 military prisoners. Wightman toured the facility in November, determined that immediate steps were needed to prevent an absolute disaster, and arranged for delivery of stores that had been donated to assist Union servicemen. For this humanitarian act he was supported by some but vilified by most, and he was defeated for re-election in 1862 … by Frederic W. Lincoln, Jr.

Confederate prisoners at Fort Warren, Boston Harbor, 1861.

[See the March 2010 issue of *Charitably Speaking* for the full article and applicable source attributions.]

The medals awarded at **MCMA's Mechanical Exhibitions** were both prestigious and widely recognized, and were sought even by well-established manufacturers. When Samuel Colt was awarded a Silver Medal for revolvers submitted at the 1853 Exhibition, for example, his Connecticut firearms factory was already very successful. But the exhibitions and awards were also vehicles by which an inventor with a new idea could both showcase that invention and hopefully secure MCMA's endorsement of it. The Gold Medal awarded to Alexander Graham Bell at the 1878 Exhibition for his "Bell Telephone" was surely useful to Bell in his efforts to demonstrate and gain wider acceptance for his recently patented device. Another recipient of a Gold Medal at that same Exhibition was a young Thomas Alva Edison. And sculptor Henry H. Kitson managed to win a total of three Gold Medals at MCMA Exhibitions. His work can be found in many museums, including the Museum of Fine Arts in Boston, but other very visible local examples of Kitson's work include the statue of Admiral Farragut in South Boston (overlooking Pleasure Bay), the William Conant statue in Salem, the statue of Robert Burns in the Fenway, The Pilgrim Maiden statue in Plymouth, and of course, the Minuteman statue in Lexington.

[See the September 2008 issue of *Charitably Speaking* for the full article and applicable source attributions.]

William H. Grueby's personal origins were as modest as the building that held his pottery at K and First Streets in South Boston. But his art pottery won gold medals at international exhibitions in Paris, Buffalo, and St. Petersburg, and it was used for the bases of lamps made by Tiffany and others. His tile and faience installations were equally notable. Probably the most prominent are on display in the New York City subway system, since Grueby tiles were widely used in about a dozen stations on the original (Manhattan) line that opened in 1904. *[Legend has it that each station received distinctive color and design treatment to make them readily identifiable to the largely illiterate population of the day.]*

[See the September 2009 issue of *Charitably Speaking* for the full article and applicable source attributions.]

The Green Dragon was a local landmark in Colonial days, most importantly for its involvement in the events leading up to the Revolutionary War. During the protests against the Stamp Act of 1765 it was a regular meeting place for the Sons of Liberty. The Green Dragon was also the regular meeting place of The Mechanics, the first Patriot intelligence network on record (according to the Central Intelligence Agency). This secretive group of about 30 members, chiefly mechanics and artisans (including **Paul Revere**), apparently grew out of the Sons of Liberty. Their activities in the years leading up to the outbreak of war in 1775 included some of the earliest uses in America of coordinated surveillance and intelligence gathering. And the Green Dragon was where Revere and other mechanics had gathered in 1773 to paint their faces and dress as Indians before heading to Griffin's Wharf to assist other "Indians" in pouring the British tea into the harbor.

[See the March 2019 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Green Dragon Tavern ~ Boston, Mass.

Birthplace of the M.C.M.A. ~ March 15, 1795

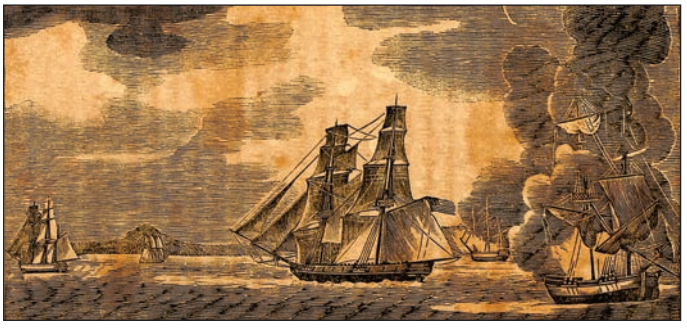
In the early 1860s President Abraham Lincoln, already struggling to preserve the Union, was determined to prevent division of the East and West. To support construction of a transcontinental railroad he threw the prestige of the presidency behind the Railroad Acts of 1862 and 1864, which guaranteed subsidies and land rights to private enterprise to build the railroad. In January of 1865 Lincoln, frustrated that the competing efforts of the Union Pacific and Central Pacific Railroad Companies were suffering from infighting, poor management, and an inability to raise the huge amount of capital required, called Congressman **Oakes Ames** to the White House. The president appealed to Ames to take control of the Union Pacific portion of the project, which had until then, after more than a year of construction, been able to complete a mere 12 miles of track. Oakes and his brother **Oliver Ames, Jr.** ran the very successful Ames Company, manufacturing shovels in North Easton, but like other Boston area entrepreneurs the Ameses also held interests in the railroads of New England and the Midwest. And the brothers seized the opportunity. In 1866 Oliver Jr. took over as president of the Union Pacific Railroad, while Oakes agreed to finance the company by pledging the income and holdings of the shovel company. On May 10, 1869, after years of hardships and frustrations, the 1086 track-miles of the Union Pacific and the 690 miles of the Central Pacific were connected with the driving of the "Golden Spike" at Promontory Summit, Utah.

[See the March 2008 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Jonas Chickering was America's first renowned piano maker and was an innovator in piano technology with numerous patents. He and his sons **Thomas**, **Frank** and **George** created instruments that were in demand far beyond the Boston area. A Chickering piano won highest honors at the 1851 World's Fair at London's Crystal Palace, ushering in several decades of American predominance in piano manufacture. In 1867 an iron-frame Chickering concert grand caused a sensation and was awarded the gold medal at the World Exposition in Paris. Some of the greatest pianists preferred Chickering pianos, including Franz Liszt, who owned two, one of which is on display at the Liszt Museum in Budapest.

Chickering piano in the Franz Lizst Museum, Budapest.

[See the March 2009 issue of *Charitably Speaking* for the full article and applicable source attributions.]



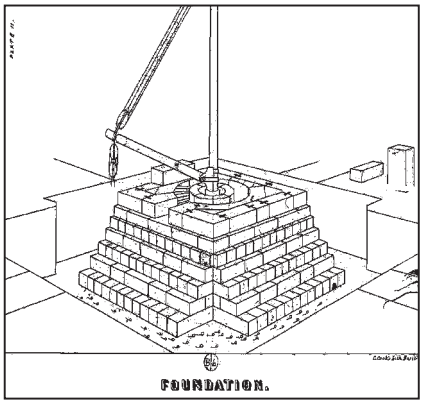
The brigantine *USS Argus*, serving off the Barbary Coast in 1805, bombarded and helped secure the capture of the port of Derna, a battle immortalized in the *Marine's Hymn* with the words "… to the shores of Tripoli." The *Argus* was built in 1803 by **Edmund Hartt**, in whose shipyard was also built, as we all know, the *USS Constitution*.

[See the September 2013 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Southern Cross in Boston Harbor
by Fitz Henry Lane (1851)

By the 1840s Boston was one of the major shipbuilding centers in New England. The industry was well established, and it was readily able to take advantage of the latest development of the time – the clipper ship. Designed to meet the needs of the China tea trade and the fast delivery of cargoes during the California and Australia gold rushes, clippers were built for speed – long, narrow, sharp-bowed, and heavily sparred so as to carry a great deal of canvas. The first "extreme clipper" was built in New York, but the type was brought to its ultimate perfection in Boston. Many shipbuilders and shipyards were involved, and keen minds continually learned from each other and constantly strove to make improvements in the quest for speed. **Samuel Hall** was one of the first to adopt the speedier design influences with the building of *Surprise* at his East Boston yard. *Surprise* was the first large clipper ship built outside of New York, and was one of the most profitable clippers ever built. Hall went on to build at least thirteen other clippers. The highly respected **Harrison O. Briggs** built *Southern Cross* and at least 20 more clippers with his brother in their South Boston and East Boston yards. Many more clippers were built in the shipyards of **James O. Curtis**, **Joshua T. Foster**, **G.T. Sampson**, **Jairus Pratt**, and **John Taylor**. Other MCMA members were the sailmakers, sparmakers, riggers, wood-carvers and the many other marine-trade subcontractors who served all the shipbuilders. The clipper ship frenzy peaked in 1855 as supply began overtaking demand and the California gold rush ended. In all, the Boston area produced about twice as many American clippers as New York, the other major builder of these world-renowned ships, and the majority of speed records belong to Boston ships.

[See the June 2008 issue of *Charitably Speaking* for the full article and applicable source attributions.]

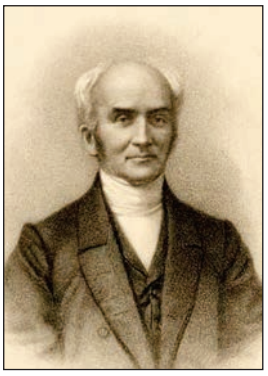


Bunker Hill Monument foundation plan from Solomon Willard's sketchbook (1843)

Solomon Willard was chosen in 1825 as architect and superintendent for construction of the Bunker Hill Monument, and he selected a site in West Quincy as the source of stone. The use of the large-size blocks Willard proposed for the monument was unheard of at the time, and no stone dealers were prepared to quarry them, nor manipulate and transport them. So Willard left his architectural practice in Boston and moved to Quincy to take charge of the quarrying operation. His genius in inventing solutions to the problems encountered in quarrying and handling the large blocks would revolutionize the granite industry. Solomon Willard would remain in the granite business until his retirement, and he is often cited as the "Father of the Granite Industry in America."

[See the March 2012 issue of *Charitably Speaking* for the full article and applicable source attributions.]

We readily associate architect **Arthur D. Gilman** with his design of the Arlington Street Church. Less well recognized is the fact that the Commonwealth Avenue Mall is a Gilman creation. In 1856 he submitted a proposed master plan to the City of Boston commissioners who were planning the future Back Bay. Several of Gilman's suggestions were adopted, and one of those was the 100-foot-wide, grassy, tree-lined pedestrian way that separates the eastbound and westbound traffic lanes of Commonwealth Avenue.



Timothy Gilbert
(1797-1865)

Many of the competitors of famed piano maker **Jonas Chickering** were also members of MCMA, and foremost among them was **Timothy Gilbert**. While Gilbert was recognized as an innovator in piano design and evolution, he was also well-known as an ardent abolitionist, and he maintained his home as a station on the Underground Railroad. Upon passage of the Fugitive Slave Act of 1850, which required government officials to assist slave-catchers in capturing fugitives, Gilbert defiantly advertised in the local newspaper that his door would remain open to runaway slaves.

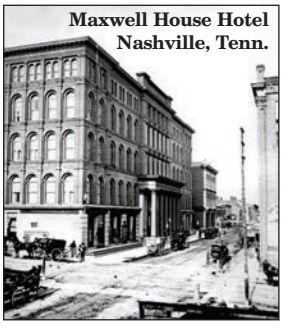
[See the June 2014 issue of *Charitably Speaking* for the full article and applicable source attributions.]

> ... Mr May went on to spread before the people the operation of the Fugitive Slave Bill, ... and read the noble letter of Timothy Gilbert of Boston, offering his house as a refuge to any poor, panting fugitive, pursued by the slave-catcher, and warning the pursuer, that if he entered behind him, he did so at his peril.

John Souther's Globe Locomotive Works, on A Street in South Boston, was a manufacturer of locomotives and other heavy machinery. A Globe locomotive, shipped around Cape Horn in 1849, was the first to operate on the West Coast. Another carried the Central Pacific Railroad's Leland Stanford on the first leg of his journey from California to Utah for the ceremonial driving of the "Golden Spike" to celebrate completion of the transcontinental railroad.

[See the September 2013 issue of *Charitably Speaking* for the full article and applicable source attributions.]

**Golden spike ceremony,
Promontory Summit, Utah Territory (1869)**



**Maxwell House Hotel
Nashville, Tenn.**

The Maxwell House Hotel in Nashville, designed by **Isaiah Rogers**, was arguably the city's finest hotel. Among its noted guests were seven presidents of the United States, "Buffalo Bill" Cody, Annie Oakley, Enrico Caruso, Thomas Edison, and Henry Ford. The coffee served at the hotel later took on the name of the hotel, and Maxwell House Coffee would become the best-selling coffee brand in the country for nearly 100 years. Teddy Roosevelt famously said of the coffee that it was "good to the last drop," which of course became its marketing slogan.

[See the December 2011 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Among our Original Members was the housewright **Amos Lincoln**. Though better known for his participation in the Boston Tea Party, Amos also took part in the Battle of Bunker Hill and rose in rank to command a company in the Massachusetts State Artillery. He married **Paul Revere**'s daughter Deborah, with whom he had nine children. After Deborah's death, he married Revere's daughter Elizabeth, with whom he had five children. Amos' brother **Jedediah Lincoln** married Mary Revere, Elizabeth's sister. Amos' grandson, **Frederic W. Lincoln, Jr.**, would become mayor of Boston – and the 17th president of MCMA. Amos was the great-great-grandson of Samuel Lincoln, who settled in Hingham in 1637, and from whom was also directly descended Abraham Lincoln, 16th president of the United States.

[See the March 2015 issue of *Charitably Speaking* for the full article and applicable source attributions.]

**"The Destruction of Tea at Boston Harbor"
(Currier & Ives, 1846)**

Trinity Church (completed in1877)
Copley Square, Boston, Mass.

After serving in the Union army from 1861 to 1864, **Orlando Whitney Norcross** , better known as O.W., went into business with his brother James in the firm of Norcross Brothers. Norcross actually pioneered the business of general contracting when it took on whole contracts, at a lump sum, for large building projects. The practice at the time was for the architect to coordinate the various trade contracts. Though their training was in carpentry, the brothers took on contracts for large masonry buildings, and stone construction soon became their specialty. Norcross hired tradesmen and worked with its own employees, rather than subcontracting; and to minimize delays, it supplied much of the materials used in its projects, operating quarries, brickyards, and workshops for ironwork, millwork and other specialties. The successful completion of a school in Worcester began the firm's long and rewarding association with architect H.H. Richardson. And in 1873 the brothers took on their largest project to date, Richardson's Trinity Church in Boston. Despite the risks (Norcross had a lump sum contract, yet the architect designed the building as it was being constructed) the project was a success and the result is a masterpiece. Many other Norcross projects remain with us today… Symphony Hall, South Station, Harvard Medical School, and the Custom House Tower are just a few of them.

[See the November 2007 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Following his arrival from Prussia in 1850, **Louis Prang** gradually built up a successful lithography business in Boston. After a trip to Europe to study color lithographic methods, Prang realized he could make an inexpensive lithograph print look like an oil painting, and produced his first chromolithographs in 1866. He began publishing a catalog to further market his "Chromos," and the success of these prints propelled Prang's business. While exhibiting his work at the Vienna World's Fair in 1873, Prang was encouraged to sell his floral-designed business cards as Christmas cards. (The idea originated in 1840s England but was only then really catching on there.) Prang introduced them to the American market in 1875 and the cards were wildly successful. Prang's earliest cards were simple flower designs with the words "Merry Christmas," while later cards often featured more traditional holiday motifs, and the Christmas cards grew from small pocket-sized cards to cards up to 6x8 inches in size. Prang also introduced cards for other holidays, and at its peak his company was producing over five million cards per year. Today he is rightly considered the "father of the American Christmas card."

Louis Prang's first Christmas card (1875)

[See the December 2021 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Ralph Huntington White was born into a farming family in Hinsdale, Massachusetts in 1841. By the age of 10 he trapped foxes and other fur-bearing animals, treated the pelts and sold them to merchants. He turned his earnings into merchandise that he then re-sold door-to-door in his neighborhood. He saved sufficient funds to enable him to move to Boston in 1863, and within two years he was sole owner of the firm he named R. H. White & Co. By 1876 the company had outgrown its location on Winter Street and moved into its new quarters, an ornate, six-story building on Washington Street in the downtown shopping district. Though the company was bought by Filene's in 1928, it retained the R.H. White name until its doors closed for good in 1957.

R.H. White Department Store, c. 1957

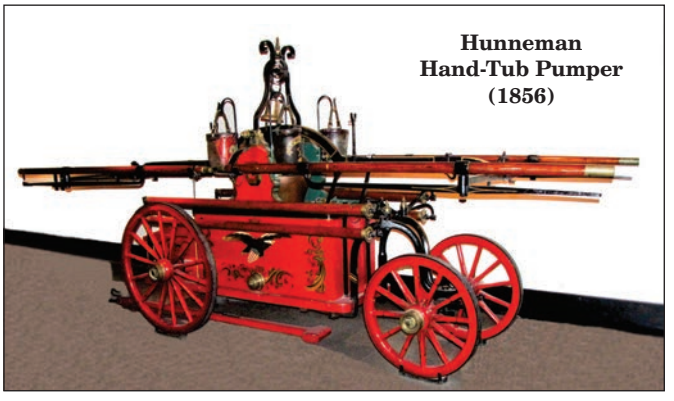
[See the September 2018 issue of *Charitably Speaking* for the full article and applicable source attributions.]

It is well known that the *USS Constitution* was built in the shipyard of member **Edmund Hartt**, but many other members were responsible for specific elements of her construction. **Jonathan Balch** made the ship's pumps and nearly all her blocks and pulleys. **Isaac Davis**, **James Phillips**, **Richard Caswell**, and **William Tyler** were responsible for her ropes (or lines, as they were called). Many of her sails were fabricated by **William Heath**, while her figurehead was carved by **Simeon Skillin**. **Ephraim Thayer** built her gun carriages and, of course, **Paul Revere** made the ship's bell, copper nails, and other copper hardware. It is likely that many other of our members were involved as well. The keel for *Constitution* was laid in 1794, and the ship was launched in 1797. As most of those named above were "Original Members" of MCMA, it is evident that those very mechanics who were instrumental in the construction of *Constitution* were at that same time involved in the 1795 founding of our association. Though the *Constitution* participated in several earlier actions during the war with the Barbary States, its reputation was earned during the War of 1812, in which she defeated five British warships, including the frigate *HMS Java*. And she still proudly displays the helm of the defeated *Java*, which her captain transferred to *Constitution* to replace her own that had been shot away early in that action.

U.S. Frigate *Constitution* defeats H.M. Frigate *Java*, Dec. 29, 1812. (Painting by Anton Otto Fischer, c. 1960.)

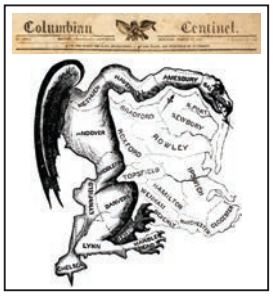
[See the December 2017 issue of *Charitably Speaking* for the full article and applicable source attributions.]

At the close of the 1700s "fire engines" were simple hand-towed tubs, and the tub was kept filled by a bucket brigade. The pump was hand-operated by men on both sides, delivering water under pressure into a hose that could be directed at the fire. Over the next decades significant improvements were made, and coppersmith **William Cooper Hunneman** was one of the men responsible. Hunneman founded a company that manufactured what were considered the finest hand-pumped fire engines of the time. Many other builders of fire engines purchased their pumps and accessories from Hunneman. An 1821 newspaper advertisement for his Patent Fire Engine lists 97 engines sold to that time, many located in cities as far afield as Cincinnati, Savannah, and New Orleans, and five in use aboard U.S. Navy warships. The business was carried on by his sons and grandsons, and overall the company manufactured about 750 fire engines, far more than any other maker, sending them throughout the United States and Canada, and even to the Far East. The company ceased operations in 1885, but Hunneman items are very highly prized today by collectors.



Hunneman Hand-Tub Pumper (1856)

[See the September 2015 issue of *Charitably Speaking* for the full article and applicable source attributions.]



In 1812, after Governor Elbridge Gerry turned a North Shore legislative district into something resembling a salamander, **Benjamin Russell** published in his newspaper a satirical editorial and cartoon, suggesting it should be called a "gerrymander." Since the practice of reshaping voting districts to favor a particular party was not limited to Massachusetts, the term was adopted elsewhere, and it is now a well-recognized word. Russell's paper, the *Columbian Centinel*, later merged with other Boston publications to form the *Boston Semi-Weekly Advertiser*, which eventually became the *Boston Herald*.

[See the June 2012 issue of *Charitably Speaking* for the full article and source attributions.]

In 1860 **Edward Samuel Ritchie** patented a greatly improved liquid-filled marine compass, a design in which the magnetized needle or card is damped by fluid to protect against excessive swing. (At the time, British Admiralty dry-mount nautical compasses were considered by all navies and merchant shipping companies as the technological standard of the day.) The outbreak of the Civil War brought immediate interest from the U.S. Navy, which bought 26 of his compasses, and by 1863 he had made (and patented) even further improvements. Ritchie's compass was adopted for general use by the U.S. Navy, was later purchased by the British Royal Navy as well, and tens of thousands were sold to merchant vessels in the following decades. The Smithsonian, which holds several Ritchie compasses, describes him as "the most innovative instrument maker in nineteenth century America, making important contributions to both science and navigation."

E. S. Ritchie
"Patent Liquid Compass"
(1863)

[See the December 2021 issue of *Charitably Speaking* for the full article and applicable source attributions.]

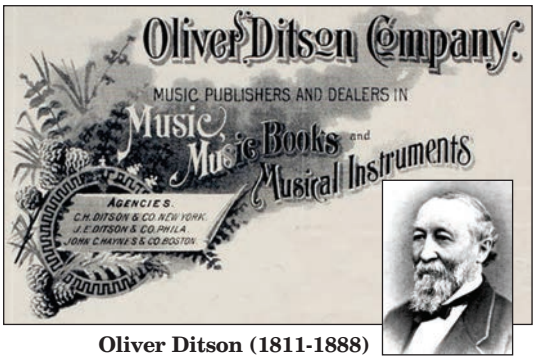
Cyrus Alger started his foundry on West Fourth Street in South Boston. In 1816 he purchased land north of West Fourth, and over the next several decades greatly expanded this property by filling in the mud flats between the Fort Point Channel and what is now Dorchester Avenue. [Most of the land eventually was turned into (and remains) railroad yards.] His business expanded as well, and by the 1850s the Cyrus Alger Iron Company was the largest foundry in the nation. The first bronze cannon cast in this country was made at his foundry, and in 1837 his company received the first War Department contract to cast the American version of the mountain howitzer, designated the M1835. During the Civil War the M1835 was used in every major engagement, and today many Cyrus Alger cannons are prized collector pieces in museums and at battlefield memorials. Alger himself was considered perhaps the best practical metallurgist of his time, and his numerous patents of improved processes show continued advancement in the art.

Alger cannons on the Shiloh battlefield.

[See the September 2010 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Many clipper ships built in Boston yards as well as those of other noted shipbuilders were designed by naval architect **Samuel Hartt Pook** (not to be confused with his father, **Samuel Moore Pook**), who was recognized as one of the most influential designers in the country, and whose *Red Jacket* ranks high among the clipper immortals. *Red Jacket*, built in Rockland, Maine and launched in 1853, was one of the largest and fastest clipper ships ever built. On her first voyage *Red Jacket* set the speed record for sailing ships crossing the Atlantic, and she was purchased by Liverpool investors soon thereafter for the transport of emigrants from England to Australia. She served several owners in varying capacities until finally ending her days in 1885, driven ashore in a heavy gale.

[See the June 2008 issue of *Charitably Speaking* for the full article and applicable source attributions.]



Oliver Ditson (1811-1888)

Oliver Ditson founded the first music publishing house in America. Ditson was born in 1811, apprenticed as a printer, and at age 24 opened his own printing shop on Washington Street. He combined his knowledge of printing with his skills as an organist at the Bulfinch Street Church, and in 1836 copyrighted his first musical printing. He soon moved to larger premises and took on partners to help with the fast-growing sheet music business. Eventually, he expanded to New York, Philadelphia, and Chicago, and was among the largest publishers of sheet music in the country.

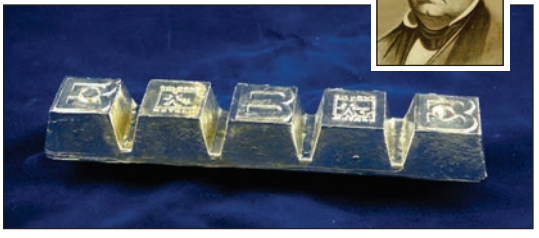
In the early days of the Civil War, **Samuel Moore Pook**, an experienced naval architect under contract to the Navy Department, was called upon to design river gunboats for the Army to defend the Ohio and those parts of the Mississippi not already under Confederate control. Pook designed a class of ironclad vessels which drew only six feet while carrying 13 guns, capable of eight knots, and quite broad in relation to their length. The casemates had sloping sides, somewhat suggestive of the general shape of the later *CSS Virginia*. They were officially designated City-class gunboats, but when they were finally in the water their awkward appearance quickly earned them the nickname "Pook's Turtles." The initial order of seven gunboats built to Pook's design were launched in the fall of 1861, fitted out, and commissioned into service in January 1862 as the first Union ironclads. From the time they first entered service, these gunboats formed the backbone of the Union brown-water navy and took part in almost every significant action on the upper Mississippi and its tributaries from their first offensive use at the Battle of Fort Henry until the end of the war. Three of the gunboats took part in the February 6, 1862 victory at Fort Henry. Four participated and were severely damaged by shore batteries in the victory at Fort Donelson eight days later, though their armor protection minimized casualties to their crews. The more celebrated battle between the ironclads *CSS Virginia* and *USS Monitor* at Hampton Roads took place a month later.

The Samuel Moore Pook river gunboat *USS Baron DeKalb* in 1862.

[See the June 2009 issue of *Charitably Speaking* for the full article and applicable source attributions.]

In 1822 **Isaac Babbitt**, a goldsmith by training, founded a company making britannia ware to compete with imported utensils. (Britannia ware was a type of pewter alloy with a silvery appearance.) The venture was not a success, and in 1824 it was sold to what would become the Reed & Barton Company. Babbitt later went to work as superintendent for the **Cyrus Alger** Iron Foundry in South Boston. In 1839 he invented the alloy still known as babbitt metal (a low-friction white metal containing tin, copper, and antimony), which is still widely used in engine bearings. For his invention he received a gold medal from MCMA and a $20,000 award from the U.S. Congress.

Isaac Babbitt (1799-1862)
... and an ingot of babbitt metal.



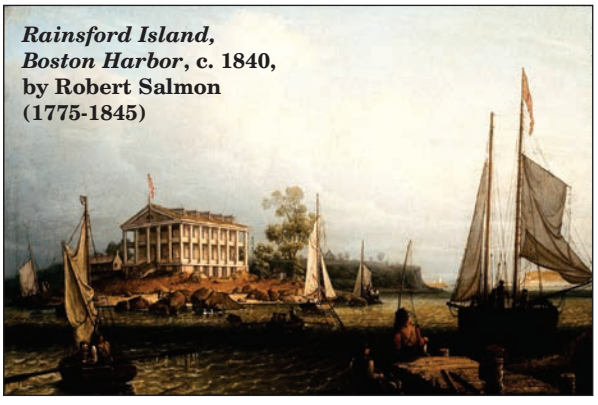
[See the September 2010 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Edward Samuel Ritchie, along with fellow MCMA members **Thomas Boyd**, **William Parrott**, **Jonathan Preston**, and **James Slade** were among the 37 signers of the 1861 "Acts of Association" that led to the establishment of the Massachusetts Institute of Technology later that year, and all five men would serve as members of the MIT Corporation. Ritchie also was a close friend of the Institute's first president, William B. Rogers. MIT was originally located in Boston's Back Bay, and its first building was designed by architect **William G. Preston**.

[See the December 2021 issue of *Charitably Speaking* for the full article and applicable source attributions.]

MIT Rogers Building (1866), Boylston St., Boston, Mass.

In 1799 Boston was facing a cholera outbreak and fearing a return of yellow fever, from which it had suffered in each of the previous two years. The town established the first board of health in America and named 64-year-old **Paul Revere** its chairman. Paul and his Boston Board of Health were given broad authority to take action to address the "filth and offal" that were causing illness in the town. They took actions to eliminate the dumping of human waste in the streets and to clean up the rotting food, animal waste, refuse from tanners, and even "putrid puddles" that were seen as harbingers of virus. These decisions were in fact helpful in slowing the spread of yellow fever, though at the time physicians did not understand exactly why. Revere and the Board also required that ships arriving from foreign ports would have crews and passengers inspected for any signs of illness. Any person with a suspected illness would then be quarantined on Rainsford Island in Boston Harbor. Later it was ordered that ships arriving from tropical ports be quarantined for three full days or until 25 days had passed since they left port, whichever was longer, to ensure that no one on board carried infectious diseases.



***Rainsford Island, Boston Harbor*, c. 1840, by Robert Salmon (1775-1845)**

[See the June 2020 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Until the mid-1800s, billiard tables had largely been imported from England or France, but that began to change. One of the earliest American manufacturers of billiard tables was **James E. Came**, who in 1855 with his brother John founded the very successful J. E. Came & Co. Two other Boston firms soon entered into competition with Came, one headed by **Oliver L. Briggs**, the other by **Amasa W. Bailey**. The "golden age" of billiards extended from the 1860s until the great depression in 1929. The Came, Briggs, and Bailey tables and accessories (like racks for cues and balls) made during that period were solidly and beautifully made, and as a consequence today many of them are both highly valued and (due to the work of restoration specialists like **Stephen Kelly**) still in use.

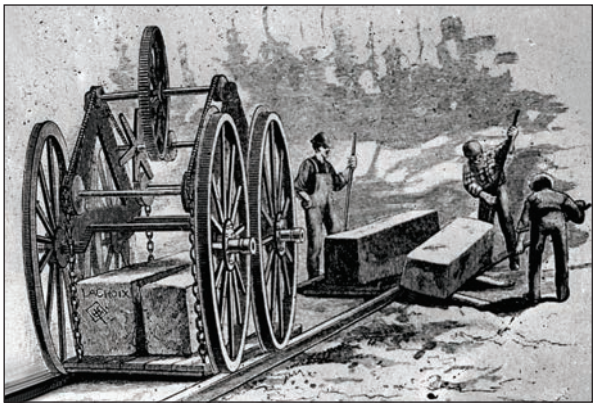
[See the September 2022 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Architect **William Gibbons Preston** left us with many impressive buildings and homes, some of them as far afield as Savannah, Georgia and St. John, New Brunswick. But the great majority of his work took place in this area, most notably in Back Bay, the development of which coincided with Preston's career. (His major contribution in that area, in our opinion of course, was our own Mechanics Hall on Huntington Avenue.) But Preston did not restrict himself to building design, as the much-photographed footbridge in the Boston Public Garden attests. Built in 1867, it was the world's shortest true suspension bridge until support girders were added in 1921.

Boston Public Garden Suspension Bridge

[See the June 2015 issue of *Charitably Speaking* for the full article and applicable source attributions.]

For the enormous quantity of stone that would be required, the Bunker Hill Monument Association acquired the rights to take stone from a site in West Quincy. The granite was of fine quality, but the site was remote, and a means was needed to transport it to the Neponset River four miles away. Master mason and engineer **Gridley Bryant** proposed a solution in the form of a rail system with horse-drawn cars, similar to systems in use in England to carry tram cars from coal mines. Despite initial opposition he was able to begin work on the railway in March of 1826, and begin commercial operations the following spring. Bryant's initial design problems dealt with the roadbed and rails, and here he had to contend with two conditions the English did not face: heavier, more concentrated loads, and a three-foot frost line. He solved the roadbed problem with a combination of dry-stone walls, granite sleepers, and crushed stone. But Bryant encountered other "railroad" problems as his project progressed, and as this was clearly new technology he simply went about solving them on his own. In doing so, he developed the railway switch and the turntable, railroad features still in use today. He also designed a number of different cars to suit various sizes of freight, and an inclined plane on which railcars were lowered from the quarry to the railroad 84-feet below by means of an endless chain. And his two-truck, eight-wheel car is still the standard in railroad practice today. Bryant never patented his inventions, believing that they should be for the benefit of all. His Granite Railway has been designated a National Historic Civil Engineering Landmark, and it surely served as the "proof of concept" project that inspired and enabled other railroad projects to develop. As a reporter wrote at the time, "It was built so substantially and attracted so much attention that it may be regarded as the germ from which the railroad in America has sprung."



A 19th-century granite railway car.

[See the June 2011 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Leland Stanford in 1885 founded a University near San Francisco in memory of his son, who died of typhoid fever the previous year. A massive (100-foot tall) memorial arch was erected at the main entry to the campus. Most of the arch was constructed in 1899, but it was not until three years later that its 12-foot-tall stone frieze was completed. Though the frieze was carved by local stonemasons, they worked from a one-quarter-size plaster model designed and constructed by Boston's **John Evans**. The arch was impressive but short-lived – it was so severely damaged by the 1906 Earthquake that it had to be demolished.

The Stanford Arch at Stanford University after the 1906 earthquake.

Wakefield, Mass.Town Hall (1871)

Though he was at the time partnered with his brother in a grocery business, a fortuitous purchase and resale of a small lot of rattan from a sailing ship returning from a voyage to Asia (bales of rattan were used to protect the actual cargoes) led a young **Cyrus Wakefield** to start a firm on the Boston waterfront specifically devoted to buying and reselling lots of rattan from visiting cargo ships. The firm prospered as demand for rattan increased. He next opened a factory on Canal Street, and entered into the manufacture of finished products, but he soon outgrew the location. In 1851 he relocated his factory to South Reading and expanded its operations. By the early 1870s the South Reading factory had grown from several dozen to over 1000 employees and it made tables, chairs, carpets, and many other products. Wakefield was a talented and energetic man who recognized his opportunities and made the most of them. But he also appreciated the support he received at every turn from the town of South Reading, and he in turn supported many of their projects. In 1867, in response to a town effort to construct a memorial to its Civil War dead, he pledged a parcel of land and $100,000 to construct a new building (it became the Town Hall) that would house the memorial. In gratitude, and much to Cyrus' delight, the townspeople voted to change the name of the town to Wakefield.

[See the June 2016 issue of *Charitably Speaking* for the full article and applicable source attributions.]

Both **Edward Howard** and **David P. Davis** served together as apprentices to Boston clockmaker **Aaron Willard, Jr.** During their apprenticeships, the youths worked on all elements of clocks, including cases and cabinetry as well as movements. And both were impressed early on that the work could be greatly simplified if machinery could be designed to produce some of the parts. Both Howard and Davis next went to work at a Boston establishment making precision scales and balances, before finally combining to go into business themselves in 1842. The company manufactured clocks of all kinds, but they were noted as well for their manufacture of scales and balances. In 1850 they formed a separate company with Mr. Aaron Dennison, a man with considerable knowledge of watchmaking and repair, who was intrigued with the idea of making watches with interchangeable parts. Though much experimentation was required, they were able to perfect both design and process, and were able to turn out watches using a unique combination of factory production methods and traditional craft labor. One of the earliest models, engraved "Howard, Davis and Dennison No. 1," became the personal property of Mr. Howard, and it now is owned by MCMA.

"Howard Davis, and Dennison No. 1"

[See the September 2014 issue of *Charitably Speaking* for the full article and applicable source attributions.]

To honor Benjamin Franklin with a statue, MCMA along with a committee of the citizens of Boston raised the necessary funds and carried the work to a successful completion. On the 17th of September, 1856 the statue was unveiled with huge ceremony, following a 5-to-7-mile procession through the streets of Boston by military and fire units; notable public and business leaders; bands; and members of various trades, professions, associations and societies. Honorary Member **Robert C. Winthrop** delivered the inaugural address, and MCMA president **Frederic Lincoln** delivered an address and presented the statue to Boston Mayor Alexander H. Rice on behalf of the citizens of Boston. The bronze statue is 8 feet 4 inches tall, and stands on a 9-foot pedestal that is 7.5 feet square. On each side of the pedestal is a panel with a bronze relief depicting a phase in Franklin's life – mechanic, philosopher, patriot, and statesman. MCMA selected the subject for the "mechanic" panel, and it chose Franklin working in his brother's print shop in Boston.

[See the June 2021 issue of *Charitably Speaking* for the full article and source attributions.]