

A PUBLICATION OF THE MASSACHUSETTS CHARITABLE MECHANIC ASSOCIATION

President's Message

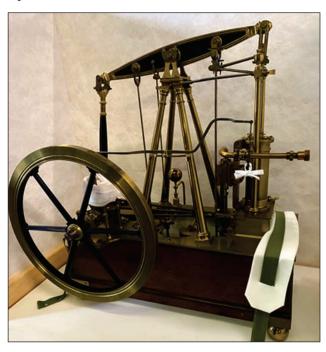
As the summer turns to fall, we find ourselves still waiting and hoping for an end to the Covid-19 pandemic. The work of MCMA has continued unabated, but of course we have not been meeting in person. The Board of Government has agreed that we will not have a traditional October Quarterly luncheon this year, but there remains a chance we will be able to gather for a Christmas Party. A decision on this will be made in October.

The Planning Committee's work is largely complete. The committee completed its work by phone and Zoom (remote video) meetings. A compete report of this year's support to worthy charities will be available at a later date. We expect to donate about \$150,000 this year.

The working steam engine model has been returned to MCMA by the Smithsonian Institution, where it had been on loan for several decades. Rick Ryan and the Historical Committee will be looking to find a new home for this device that was made in the early 1800s. And we recently received an unsolicited gift from a woman in South Boston. Years ago when she renovated her home, she found a poster advertising MCMA's 1874 Exposition. The poster had been stuffed in the wall with newspaper to serve as insulation, but she was able to straighten out the poster and have it framed. She recently decided to move to New Hampshire, and was surprised to learn we still existed and contacted us to see if we wanted it. Rick Ryan contacted her and picked it up. This gift will now grace the walls of our office. We thank Edwina Drummond Boose for this gift and Rick Ryan for arranging to get it to our office.

Now that the fall is arriving and the prospect of flying to Norfolk, Virginia to discuss our *Wounded Indian* sculpture with the Chrysler Museum is still off in the future, we are working with our attorneys to try to meet with the Chrysler Museum staff online. I hope this will happen in the next few weeks.

I know you share my strong desire to get back to having meetings together. Although we will not have an in person Quarterly luncheon this October, Function Chair Tom Crowdis is looking into having an online meeting with a speaker. Watch for details. In the meantime ... Be Just and Fear Not (and stay safe). – **Peter**





Helping Others

We're pleased to highlight in this issue a small non-profit that came to our attention for the first time last year. Located in Marlborough,

Massachusetts, **Employment Options, Inc.** began serving adults with mental illness in 1970. This organization works to improve the lives and



well-being of its members, all of whom have a psychiatric disability, through a number of programs, one of which is an Employment Opportunities & Workplace Development program (EO&WD), and it is this aspect of their operation that interested us. A 2018 study by the Department of Labor found that only 17.9% of people

with disabilities participated in the labor force compared to over 65% of people without disabilities, an indication that those with disabilities are less able to participate in socially meaningful activities. Another study showed that people who are unemployed, even those who don't have disabilities, have a higher prevalence of poor health than their employed counterparts. So programs that help those with disabilities develop skills, gain work experience and find meaningful employment always interest us.

The particular request we received from Employment Options related to the *Catering Options* segment of their EO&WD program. *Catering Options* trains unemployed and underemployed young individuals who face significant barriers due to their disability and skills gaps. Importantly, it provides those opportunities while also creating an income stream to help maintain and expand *Catering Options*' activities. Their chef and his staff were producing over 500 meals per day, but they received interest from other prospective clients in the MetroWest area that would allow them to expand their operation and engage additional trainees. To that end they requested, and received, our grant to purchase a commercial-grade stove.



This Covid year, though, has been a tough one for Employment Options, as it has been for all the organizations we support. Required to shut down completely in March, they have only recently been able to restart operations. Their *Catering Options* program is currently operating only a take-out service, though that at least is doing well, and they and we are hopeful that normal operations are not too far away.



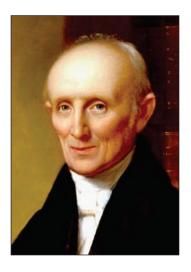




MCMA History

Once again, we have President Lemonias to thank for bringing to our attention an accomplished gentleman well known to and highly respected by our members of a century ago. Our own annals of 1900 say of **Nathaniel Bowditch**:

"This eminent man was the son of a Cooper; born in Salem in 1773 and died in 1838. He was first a sailor; but later devoted himself to the study of mathematics, in which he achieved a world-wide reputation. He was the author of works upon practical navigation of immense value to mankind. His "Coast Pilot" and "Practical Navigator" have been in the hands of shipmasters for many years, held by them as being indispensable. He was occasionally the guest of the Association at our Festivals, and made contributions to our funds. A bronze bust of Mr. Bowditch, by Ball Hughes, is among our treasures."



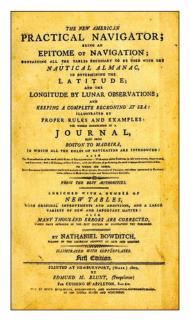
But this paragraph does not do justice to Bowditch's achievements. A self-educated man who has been called America's Isaac Newton, Bowditch made major contributions to ocean navigation, astronomy, and the insurance industry in America.

Born in Salem, he left school at age 10, following the death of his mother, to work in his father's cooperage. At age 12 he became indentured for nine years as a bookkeeping apprentice to a ship chandler. During this time he utilized available book resources (For example, the entire library of an Irish scientist had been captured at sea and brought back to Salem by a local privateer.) to make up for his lack of formal education. At age 14 he taught himself algebra, a subject that fascinated him, and two years later he did the same with calculus. He then taught himself Latin and French in order to study Isaac Newton and other scientists and mathematicians whose works were published in those languages. He also carefully examined the primary navigation guide used in western nations – John Hamilton Moore's *The Practical Navigator* – and found thousands of errors. Initially at least, he was content to point out the errors so they could be corrected in subsequent publications.

In 1895 Bowditch was able to join, as clerk, a voyage to the East Indies to trade for coffee. On this trip he worked constantly on navigation, and he was able to develop a more accurate method of using lunar observations to calculate longitudinal position. Encouraged to offer his own version of *The Practical Navigator*,

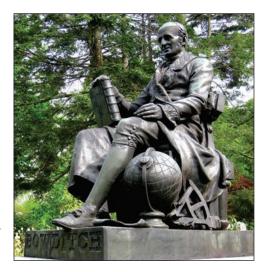
Bowditch made several additional voyages, all but one to the East Indies. In addition to preparing tables and compiling navigational materials, he improved and simplified his method until he was absolutely sure it was reliable. And to ensure it would be truly useful, he simplified the involved astronomical concepts, refining and clarifying his explanations until he was able to teach every man in the crew to work out their daily position. Bowditch published *The New American Practical Navigator* in 1802, writing in such a way that most any person could navigate by the stars by comparing sightings with prepared tables in the book, and it has been one of the great best sellers of all time. Bowditch, and after his death his family, carefully amended and republished it until 1868, when the work was taken over by the United States Navy. Until the period after World War I and the advent of newer methods, "the Bowditch" was the navigator's bible, and it is still going strong as the basic working and reference text on celestial navigation.

In other endeavors, Bowditch translated Pierre-Simon de Laplace's *Mecanique Celeste*, a lengthy work on mathematics and theoretical astronomy. This 4000-plus-page translation was critical to the development of astronomy in the United States. And Bowditch himself authored multiple works on comets, meteors, and solar eclipses. In a completely different venue, Bowditch's knowledge of



mathematics led him to become in 1804 America's first insurance actuary as president of the Essex Fire and Marine Insurance Company in Salem. Under his direction, the company prospered despite difficult political conditions and the War of 1812. In 1823 he left Salem to become actuary for the Massachusetts Hospital Life Insurance Company in Boston. Here he took funds earned in the maritime trade and invested them in manufacturing, to the benefit of towns such as Lowell, Massachusetts.

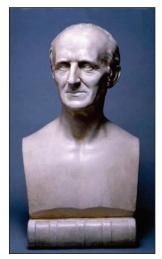
Honors were heaped upon him. He was made a Fellow of the Royal Society of London and Edinburgh, the Royal Irish Society, the Royal Astronomical Society of London, and many others. He was elected president of the American Academy of Arts and Sciences. In 1810 he was elected an overseer at Harvard and in 1826 was made a member of its governing corporation. When he died from stomach cancer in 1838, ships of all nations in ports around the world flew their flags at half-



mast as they learned the news. He is buried in Mount Auburn Cemetery in Cambridge, where a monument to him was erected through pubic collections. MCMA played an important role in raising funds for this project, and a life size bronze was cast from the mold of the plaster version of the sculpture by Robert Ball Hughes. This was the first life-size bronze cast in America, and it is considered a milestone in the history of American art. It was cast at the foundry of Goodin and Gavett in Boston, and both principals of that firm, **Thomas Goodin** and

Andrew Gavett, were members of MCMA. [The plaster model of the Bowditch sculpture is a prized possession of the Boston Athenaeum. The original bronze sculpture did have many defects, so the plaster model was sent to France in the late-1880s to be recast in bronze ... the one we see today at Mount Auburn is the French-cast bronze.]

MCMA had many connections with Nathaniel Bowditch, who was made an Honorary Member of this Association in 1828. As noted above, he attended many of our events and offered financial contributions to our work, while we played a significant role in raising funds for the Hughes sculpture that adorns his grave. In addition, we commissioned Hughes to also create a bust of Bowditch in bronze for MCMA. A painted plaster copy of the bust is displayed at the National Portrait Gallery in Washington, D.C. The bronze bust was entered into MCMA's Fourth Exhibition in 1844 where it received a Gold Medal. That same year, member **Henry N. Hooper**, who cast the bronze bust, presented it to MCMA. This bust was proudly kept by MCMA for many years, but appears to have been lost, possibly when Mechanics Hall was sold and demolished. (Our History Committee, though, does intend to look further into its disappearance.)



With Nathaniel Bowditch, we have a self-taught man who made major contributions to ocean navigation, the insurance industry, and astronomy ... and we are quite pleased that he was an Honorary Member of MCMA.

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