

A PUBLICATION OF THE MASSACHUSETTS CHARITABLE MECHANIC ASSOCIATION

President's Message

As we bid 2021 farewell, I look to the end of my term as president of MCMA. I have greatly enjoyed the opportunity to serve as president over the past three years. I am pleased that despite the COVID epidemic, MCMA continues to be strong. If anyone doubts this, they should have attended our wonderful Triennial at Boston's Liberty Hotel. It was a special night. Rich Adams and his committee prepared a top tier event. Everything from the venue, the food, the music, and the rooms, were enjoyed by those who were there.

I am so proud of MCMA and the great members and leaders who make it work. It is no small achievement for an organization to still be thriving 226 years after its founding. A wonderful aspect of MCMA is the willingness of our members to contribute to the organization both with time and money. Every year our members contribute many hours and thousands of dollars to MCMA. At our planning committee meetings, it is not uncommon for a deserving project that was unfunded, to be personally and quietly funded by a member who did not want to see an important need go unmet. Members have also asked for donations to be made to MCMA in lieu of flowers at their own funerals or those of family members.

For any of you who have been active in other organizations, the big difference here I have found is that when you ask a member to help on a project or serve the organization in some way, the consistent answer is "I am honored to help in any way I can." What a tribute to our members.

Serving as president of MCMA has been a great honor. I know that over the past three years I have been but a steward, attempting to maintain and improve our organization so that it will continue on under the stewardship of others for years to come. Thank you to all who helped me and MCMA over the past three years. Thanks especially to our tireless secretary, Marty Joyce, who quietly ensures that MCMA works well and smoothly. Now it is time for a new MCMA President. Vice president Chuck Sulkala will be a great MCMA president. He has been a hard-working vice president and has provided trusted advice and recommendations to me and our Board of Government as we have faced various challenges over these past few years. Please join me in helping Chuck have a successful tenure as president. Be Just and Fear Not – **Peter**

At right, in a photo captured at the recent MCMA
Triennial at the Liberty Hotel in Boston, are members of the MCMA Board of Government.



Helping Others

In our grants process each year we are introduced to some organizations with which we have had no prior experience. Our Planning Committee reviews, investigates, and when warranted approves such requests, and this year **The Boston Home** (TBH) was one of those grant recipients. An innovative community for adults with multiple sclerosis and other advanced neurological disorders, TBH is dedicated to providing the highest level of clinical care for its residents and outpatients, while also supporting their independence and participation in life-enriching activities such as art, exercise, writing, and gardening. All of the 96 residents who live at this Dorchester campus use wheelchairs for mobility, as do outpatients with similar neurological disorders who live in the surrounding community.



But the wheelchair is more than mobility to these residents and outpatients, as it supports convenient access to communications, technology, hobbies, and personal supplies. Each individual, though, has different abilities and needs, so TBH operates a Wheelchair Enhancement Center to fabricate and install modifications to improve wheelchair functions and maximize mobility and independence for each resident and outpatient. Many benefit from customized controls created in the Center to operate their wheelchairs or communication devices using their head, eyes, voice, or hands, depending on ability. The Center also provides repairs and modifications, including customized mounts for electronic devices such as iPads which help residents stay connected with family and friends.

The Wheelchair Enhancement Center at TBH is run by Corinne Curran, a certified assistive technologist, and our grant was used to purchase a MillRight CNC machine to improve and expand her fabrication capabilities. Assistive technology is a specialty dedicated to promoting the health and well-being of people with disabilities through increasing access to technology solutions. Corinne is able to introduce summer interns to the field, and she also has occasion to work with student teams from MIT, who come to TBH to fulfill course requirements. They meet with a resident and determine a specific issue or need, then work together with TBH's rehabilitation team to design and build a solution for the issue. (One such effort enabled a resident who has tremors and had difficulty turning the pages in a book. The solution included a book stand and an electronic component to turn the page using an automatic "arm.") This is a field relatively unfamiliar to many of us, but we are grateful that talented people are working in it, and that MCMA is able to support them.



Above are MIT student interns at The Boston Home with a grateful client. At right is certified assistive technologist Corinne Curran working with a client at The Boston Home's Wheelchair Enhancement Center.



MCMA History ...

We sometimes, while researching one story, come across information that itself warrants a further look, and such was the case with Franklin's experimental Leyden jar in our previous newsletter. That Leyden jar was donated to MCMA in 1895 by Thomas P. Ritchie following the death of his father, Edward Samuel Ritchie, and it is Edward's history that caught our attention. Born in Dorchester in 1814, he showed an early interest in art and science, and as an only surviving child his parents gave him every advantage in their power. He had a laboratory to enable him to carry on experiments, and he learned the use of tools from a local cabinetmaker, though weak health prevented him from attending college. In 1850 Ritchie went into business making "philosophical instruments" as they were called at the time, developing image plates, air pumps, and other tools of scientific demonstration and experimentation.



Edward Samuel Ritchie (1814-1895)

Ritchie's own experiments with electricity led him to develop a significant improvement of the Ruhmkorff induction coil, and that work brought him into the public eye. But after Ritchie published his findings in two American journals in 1857, Heinrich Ruhmkorff presented those findings in Paris as his own, and was awarded a scientific prize by the French, much to Ritchie's irritation. Yet it is the nautical compass for which Ritchie is best known. In 1860 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." A model of Ritchie's first liquid filled compass is also displayed in the Science Museum in London, England. And in the 1870s Ritchie developed a marine version of the theodolite (using a pendulum device to counteract wave movement) that was used by the U.S. Navy to take the first precision surveys of American harbors on the Atlantic and Gulf coasts.

Ritchie, who joined MCMA in 1857 and was a life member, was also (along with fellow MCMA members Thomas Boyd, William Parrott, Jonathan Preston, and James Slade) 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.

[Ritchie's family continued to run the business until 1951, when Marine Compass Company purchased E.S. Ritchie & Sons and the two companies consolidated operations. They operate today as Ritchie Navigation and are located in Pembroke, Massachusetts.]

Sources

E.S. Ritchie. Wikipedia entry: https://en.wikipedia.org/wiki/Edward_Samuel_Ritchie. MIT History, "Signers of the 1861 Act of Association." MIT Libraries: https://libraries.mit. edu/mithistory/community/notable-persons/signers-of-the-1861-act-of-association/.



E. S. Ritchie "Patent Liquid Compass" (1863) (The Science Museum Group Collection, London, England)



1901 postcard view of MIT's Rogers Building (1866) on Boylston Street, Boston, Mass. (U.S. Library of Congress)

... and a little more History

We were treated last December to a Zoom presentation by Honorary Member Anthony Sammarco on Christmas Traditions in Boston (based on Anthony's excellent book of the same title). In a segment on Christmas cards Anthony noted the prominent role of **Louis Prang**, and since Prang was a member of MCMA (he joined in 1884 and was a life member) we'll go deeper into his story. Born in Prussia in 1824, he learned the arts of dyeing, engraving, and printing under the tutelage of his father, a printer of textiles, before immigrating to this country and settling in Boston in 1850. He found employment as a wood engraver, leather and papery worker, and printer before establishing himself as a lithographer in 1856. He enjoyed success during the Civil War with maps of the southern battles that he published as soon as possible for those interested in following the battles. At the same time, the company was publishing other



Louis Prang (1824-1909)

items, including colored "album cards," which were usually sold in packs of twelve. Many of these cards featured scenes by war illustrator and painter Winslow Homer, while others featured animals, landscapes, and flowers.

Following a trip to Europe to study European color lithographic methods, Prang realized he could make a lithograph print look like an oil painting, at a much lower cost, and produced his first chromolithographs in 1866. He began publishing a catalog of his "Chromos" beginning in 1867 to further market his oil-painting-like prints, and the success of these prints propelled Prang's business. He won numerous medals for his works, and orders came in from all over the world to buy these prints. Eventually, Prang opened offices in Chicago, New York, and San Francisco, with foreign agents in London, Berlin, and Melbourne. While exhibiting his work at the Vienna World's Fair in 1873, Prang was advised by the wife of his London agent to sell his floral-designed business cards as Christmas cards. (While the first Christmas cards originated in 1840s England, they were only then beginning to really catch on there.) Prang tested the cards in England in 1874, and introduced them to the American market in 1875. The cards were wildly successful and presented little-known artists and art students, many of them female, to the public. (Prang was an active supporter of female artists, and his



company employed more than 100 women.) Prang's earliest cards were simple flower designs with the words "Merry Christmas," while later cards often featured more traditional holiday motifs. Prang held several design competitions for new Christmas cards beginning in 1880, awarding artists up to \$1000 for their designs. Once an artist entered a design, it became the property of L. Prang & Co. to use as it wished. It was around this time that the Christmas cards Prang produced 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."

Prang's interest in art and printing methods also led him to be an advocate of public school art education, a concern that fueled his later career after he sold his art business in 1897. Beginning in the 1860s, Prang published drawing books and sets of drawing cards for beginners to copy from, and by the 1870s he was publishing art education texts for use in public and art schools. He developed both the Artists' Color Wheel and a full line of child-

safe art products, and he spent his retirement traveling and promoting his educational texts and art supplies. Prang died in 1909, at the age of 85, while on a trip to California, and is buried at Forest Hills Cemetery in Boston.

Sources

Annals of the Massachusetts Charitable Mechanic Association. Boston, Mass.: Massachusetts Charitable Mechanic Association, 1900.

"Louis Prang and Chromolithography," American Antiquarian Society, Worcester, Mass. https://www.americanantiquarian.org/louis-prang-and-chromolithography.

