

# Prominent Hall Clock in the Holden House Museum

by Randy Jaye (FL)

*Having practiced law for a quarter of a century, I have dealt with a number of unusual items, but the most unique has to be the T.B. Starr hall clock, which was part of the Stone Estate located in Florida. My knowledge of hall clocks could be put on one page (with plenty of space left over). Even so, one look at the clock made it clear that despite having been neglected, it was something special. The estate heir, wishing to honor her father's love of learning and appreciation of fine craftsmanship, was looking for a better future for the clock than sitting forgotten, in some dark hallway. After a great deal of searching and lots of dead ends, I finally got a referral to some guy named Randy Jaye. Randy, as it turned out, was the best thing that could have happened.*

*I knew nothing about the clock, was 2,000 miles away, and had only a few, low-quality cell phone photographs of the clock. Randy was very helpful and informative, taking time to educate me about clocks.*

*He also knew of a museum that was looking for a hall clock, and he was instrumental in arranging the donation, as well as personally providing transportation of the clock (along with Pete Schreiner) to the museum. Randy and his team of experts were also responsible for the magnificent restoration and historical documentation of the clock. Thanks to this team, the Stone Estate clock has a new lease on life at the Holden House Museum and is a shining example of history and craftsmanship of a bygone era for all to see. As for me, not only have I gained a friend, I can now complete that page on clocks.—Daniel E. Rosenfield*

**I** received a call late in August 2016 from Daniel E. Rosenfield, attorney at the RLG Legal Group, PLLC in Scottsdale, AZ, who was settling the estate of Howard Stone<sup>1</sup> in Cocoa Beach, FL. The estate had an impressive and rare hall clock that the family wanted to donate to a worthy and caring organization. The clock was one of Howard Stone's

**Figure 1.** Southeast view of the Holden House Museum. PHOTO COURTESY OF RANDY JAYE.



prized possessions and his family owned the clock for more than 50 years. As president of NAWCC Chapter 154 Daytona Beach,<sup>2</sup> and a member of the Flagler County Historical Society<sup>3</sup> I was actively searching for a clock to donate to the Historical Society's Holden House Museum (Figure 1).<sup>4</sup>

I coordinated a Deed of Gift from the Historical Society, rented a cargo van and an appliance dolly, and acquired assistance from Chapter 154 member Pete Schreiner. We then drove to Cocoa Beach and disassembled and loaded the impressive Theodore B. Starr<sup>5</sup> Hall Clock (Figure 2) into the cargo van with the assistance of Daniel Rosenfield. Pete and I delivered and set up the clock in the Holden House Museum early in September 2016. The clock's



**Figure 2.** The restored Theodore B. Starr hall clock (circa 1898) now standing in its new home, the living room at the Holden House Museum. PHOTO BY RANDY JAYE.

movement had not run since the late 1970s and was in dire need of servicing. Pete transported the clock's movement to his shop in September 2016 and completed the restoration in April 2017.

The case also required attention. It needed an intense cleaning and slight restoration because cigarette smoke film and odor covered all surfaces. The dial required some repairs and cleaning, and all of its silvered pieces had to be restored because they had major tarnishing problems.

## Public Project to Restore the Clock

The Daytona Beach Chapter volunteered to supply skilled labor and finance the restoration of the clock as one of its public projects. The restoration project required more than 175 hours and cost more than \$2,500 to complete. The cost would have been significantly higher if the work would have been done at a retail clock repair shop, and the attention to detail would most likely not have been anywhere close to the care this clock received by members of the Chapter.

The clock's movement, tubular bells, weights, and one-jar mercury pendulum were re-installed in its case after the restoration work was completed in mid-April 2017 by Pete Schreiner and Roger Moses (another member of the Chapter).

The restored clock is now running, chiming, striking, and keeping excellent time while standing in the living room of its new home at the Holden House Museum (Figures 3–5).

## Prominent History of the Clock

This three-weight hall clock is a rare and top-of-the-line product that features an English-made J.J. Elliott<sup>6</sup> movement, dial, weights, hand-painted moon phase dial, and one-jar mercury pendulum with nine patented Harrington<sup>7</sup> tubular bells (marked WALTER H. DURFEE & CO., PROV. R.I., PAT. NOV. 8. '87. SEP. 18. '88, NOV. 1. '92). Walter H. Durfee,<sup>8</sup> from Providence, RI, held the U.S. patent for tubular bells from 1886 to 1902. He imported hall clock works with the tubular bells to be sold as kits to retailers or clock manufacturers, or sourced out for the building of a case and final assembly for his own retail sales.

This clock's moon phase dial has the WALTER H. DURFEE, PROVIDENCE, RI circular stamp on the back (Figure 6), but does not have a Durfee stamp on the edge of the movement plate. This indicates that the



**Figure 3.** Carved angel on the right side column of the hood. PHOTO COURTESY OF RANDY JAYE.



**Figure 4.** Front view of the hood and dial. PHOTO COURTESY OF RANDY JAYE.



**Figure 5.** One-jar mercury pendulum. PHOTO COURTESY OF RANDY JAYE.



**Figure 6.** Walter H. Durfee, Providence, RI is stamped on the back of the moon phase dial. PHOTO COURTESY OF PETE SCHREINER.

works were imported by Durfee and then sold as a kit. Durfee-retailed clocks had his name stamped on the edge of the movement plate (usually stamped "WALTER H. DURFEE" on the top edge of the rear plate).

This clock was made circa 1898 as evidenced by both published references and newspaper lining (from the *Cambridge Chronicle* dated January 8, 1898) that was found inside the brass weight shells (Figure 7). The lead for the weights was most likely cast in the United States and fitted into the English-made brass weight shells that were then lined with local newspapers.

The elaborately carved oak case is known as Pattern 11 (made in the timeframe from 1890 to 1900) and features two side columns on the hood with two full-length angels with extended wings over the dial door and sides. There are recessed intricate carvings within a rectangular panel above the waist door. The waist columns are fluted and have ornately carved capitals. The carving on the front of the base (bottom section) features a depiction of the North Wind (Figure 8). The case was made in the United States, to fit the imported items, and includes a white pine back (this species of wood was often used in the back sections of clock cases made in the United States during the late 1800s and early 1900s). This finished hall clock was retailed by Theodore B. Starr in New York City as his name and location are engraved on the front of the dial.

The combination of this clock's movement, one-jar mercury pendulum, and Pattern 11 case is one of the four known to exist (and the only one with an

oak case). This clock case was most likely built by the same casemaker/carver who made the others because they are practically identical. In addition, there is no indication that the case plans were ever available in publication or offered for sale.

A presentation plate (Figure 9) that is attached on the inside of the clock's case is also interesting. It reads, "Presented to Mr. Richard Rossmässler by his Associates in the Sauquoit Silk Manufacturing Company on the Twenty-fifth Anniversary of His Election as Treasurer."

Richard Rossmässler<sup>9</sup> was an early owner of this clock and possibly its first owner. Howard Stone's family does not know anyone in the Rossmässler family, so how the clock changed hands (when and where) from the Rossmässler family to Howard Stone is currently a mystery.

## Missing Case Parts

At a glance it is not apparent to most people, including some seasoned clock collectors and aficionados, that this clock has missing case parts because it is impressive in its current state. Originally, it had carved claw feet and a carved top section (with a depiction of the North Wind) that were most likely removed to stand the clock in a room with an eight-foot ceiling. The removal of these case parts sometimes occurred on clocks that were originally more than 8 feet in height. It is not unusual to discover that these parts have been discarded or lost over the years.

**Figure 7.** Newspaper lining from the *Cambridge Chronicle* dated January 8, 1898, which is in exceptionally good condition. PHOTO COURTESY OF PETE SCHREINER.





**Figure 8.** Detailed carvings on the base section with a depiction of the North Wind in the central panel. PHOTO COURTESY OF RANDY JAYE.

## Restoration and Servicing Process

The restoration (all but the re-silvering of the dial pieces and some of the case work) was done by Pete Schreiner. The amount of work and attention to detail that Pete put into this clock is beyond all retail clock repair shops and even many museum-quality restorations.

### Case Restoration

The oak case was hand-cleaned three times with Murphy's oil soap. The bottom section required a minor repair as the joints were re-glued and clamped back into their original alignment. Four commercial-grade leg levelers were installed. The entire case was hand-rubbed with matching stain. The two locks were removed, cleaned, and oiled. Two new skeleton keys were custom-filed and ground to fit and work with the original locks.

### Case Work Accomplished (Notes from Pete Schreiner's Servicing Records)

1. Glued and clamped base pieces, front and rear.
2. Cleaned case exterior including all carvings with Murphy's oil soap (three times).

3. Cleaned case interior bare wood with mineral spirits.
4. Touched up bare finished areas of case with Minwax Early American stain/sealer (first pass).
5. Hand rubbed Minwax Early American stain/sealer over entire case (final pass).
6. Coated case exterior with Johnson's furniture paste wax.
7. Added four heavy-duty arcade machine leveling feet.
8. Cleaned original grill cloth (faded but in strong condition).
9. Case back pieces were re-glued and clamped.
10. Locks (dial door and waist door) were cleaned and lubricated.
11. Two new skeleton keys were fitted.

### Dial Restoration

The silvered parts of the dial were heavily tarnished and could not be cleaned (Figure 10). They were removed and sent out for re-silvering. There were several other time-consuming issues that were addressed



**Figure 9.** A presentation plate for Mr. Richard Rossmässler is attached inside the Holden House clock. PHOTO COURTESY OF PETE SCHREINER.



**Figure 10.** Dial condition before restoration. PHOTO COURTESY OF PETE SCHREINER.

related to the dial (which has more than 140 parts including many screws). The difference in the before and after condition of the dial are like night and day (Figure 11). The moon dial's face was cleaned and is in excellent original condition (Figure 12).

### Dial Work Accomplished (Notes from Pete Schreiner's Servicing Records)

1. De-rusted, blued, and lacquered hands.
2. Repaired chime fly and solder filled base cracks. Made new washer and re-attached the vane post.
3. Made 1-64 threaded brass rod to use to replace broken or missing numeral studs.
4. Silver soldered (Stay-Brite 430F) threaded rod onto numerals, trimmed to mounting length (two blind holes next to face mounting posts).
5. Tumble cleaned and lacquered numerals.
6. De-rusted and cleaned steel screws for mounting silvered face pieces. Polished visible screw ends to match silver.
7. Sourced all dial silvered pieces to NAWCC member Kevin Scanlan for re-silvering.
8. Touched up stains on re-silvered face pieces.
9. Inked in letters on silvered selector rings as needed.
10. Lacquered silvered face pieces.
11. Cleaned and lacquered the brass face plate.
12. Cleaned and lacquered the brass face overlays.
13. Cleaned overlay brass screws and polished visible ends.
14. Cleaned moon dial painting with Vulpex detergent.
15. Cleaned moon dial advance and jumper parts.
16. Cleaned, blued, and lacquered selector hands.
17. Made new 3/4" 1-72 screw for hour hand.

## Movement Servicing As Received Condition Report (Notes from Pete Schreiner's Servicing Records)

1. Three weights (right: 37 lb., 12 oz.; center: 13 lb., 6 oz.; left: 17 lb., 12 oz.) needed to be cleaned, polished, and lacquered.
2. Tubular bells tarnished, scraped and dirty – needed to be cleaned, polished, and waxed.
3. Bell hammer rack had one string attachment damaged.
4. Mercury vial and holder needed to be cleaned.
5. Movement screws were rusted.
6. Movement steel parts were rusted.
7. Rear plate – one screw is not original and needed to be replaced with correct screw.
8. Plates were discolored. (Plates weigh 11 lb., 8 oz.)
9. Many brass tapered pins used.

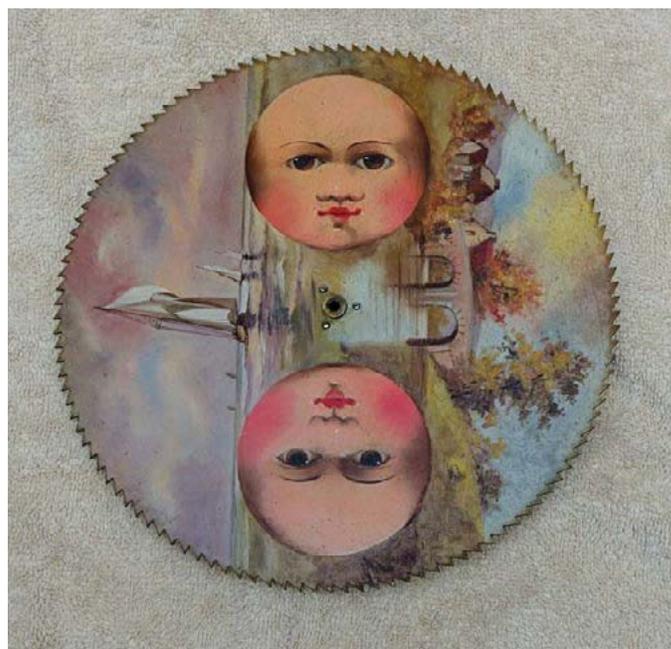


**Figure 11.** Dial condition after restoration. PHOTO COURTESY OF PETE SCHREINER.

10. Strange heavily pitted rust on many screw heads and the steel parts of levers.
11. One lever spring was broken off.
12. Two hammer lever cord clamps were broken.
13. Chime pulley screw was broken.
14. Chime fly fan spins freely.
15. Strike fly fan mounting broken/missing collar.
16. One hammer string ring was missing.

## Movement Work Accomplished (Notes from Pete Schreiner's Servicing Records)

1. Cleaned all parts and plates (Figure 13). Used both ultrasonic and shot-tumble cleaning process and ammoniated clean bath. Hand-rubbed many pieces with Flitz polish. Pegged out pivot holes and used thinner to remove old oil.
2. Treated flash rust.
3. De-rusted levers, pinions, and screws. (Fine grain rust pitting all over steel levers and many screw heads.)



**Figure 12.** Hand-painted moon phase dial after cleaning. PHOTO COURTESY OF PETE SCHREINER.

4. Filed and polished pitted screws on a lathe. Cleaned screw slots.
5. Polished pivots as needed (all winding arbor pivots had been wrongly wire brushed or something similar.)
6. Cleaned, refinished on lathe, polished, and lacquered weight shells (Figure 14). Note: Discovered a newspaper lining inside the weight shells.
7. Cleaned, polished, and waxed tubular bells.
8. Made brass washers for cable ends through seat board.
9. Cleaned chime and chime/silence selector mechanism parts.
10. Cleaned chime pin barrel.
11. Cleaned chime hammer levers and mounting bar.
12. Replaced lever mounting bar braided cotton cording. (Used as stop cushion.)
13. Made screw for retaining washer on hour wheel.
14. Repaired spring for chime rack (added new end).
15. Used new steel tapered pins for all front plate posts (rounded pin ends).
16. Lubricated movement and weight pulleys with synthetic oil and grease.
17. Installed new brass ring for one hammer pull string.
18. Modified new beat adjustment screw (useful BA8 threaded section was exposed).
19. Made proper screw to hold chime pin cylinder return spring.
20. Cleaned pendulum vial frame pieces and screws.
21. Cleaned mercury vial (noticed that the glass is chipped on top edge).
22. Cleaned mercury.



**Figure 13.** J.J. Elliott movement on test stand during restoration. PHOTO COURTESY OF PETE SCHREINER.

23. Added about 1/2 inch to mercury column (1.4 lb.). (Removed the small amount of mercury in base and on frame screws. Some amalgamated with brass inside the cap.)
24. De-rusted, cleaned, and polished pendulum screws. (Some of these screws were once blued).
25. Polished pendulum rod and vial holder frame pieces. (Some rust pitting remains).
26. Added spacer to raise pendulum center of gravity. (Still not enough mercury.)
27. Purchased, de-rusted, and lacquered period correct winding key.
28. Polished and lacquered chime weight shell cap.
29. Tape fly vanes extended to balance the fly (inline/parallel requirement met). This is necessary to prevent gathering pallet from stalling when going into warning. Fly release after warning is not as sensitive to imbalance of the fly. The fly vanes have to be parallel for the strike and chime trains not to stall on warning (no uneven balance.) The vanes being fully extended will load the train more during the time it is running; however, there seems to be plenty of power for the hammer to lift during run. The original posts of the fly vanes were peened so as to not allow the fly vanes to turn freely during spinning. The vanes as found

were no longer tight enough to allow the vanes to be set in a given position that would not be altered during rotation. Chime vanes left in slowest running position. Strike vanes adjusted to run faster than the slowest setting.

30. Balanced fly leaves: Paint was added to the end of the light leaf. Pivots on knife edges static balance.
31. Added pull string and brass pull knob to chime and strike manual release lever. (This is necessary for resynching the chime sequence once the sequence is out of order.)
32. Deepen new winding key square arbor hole for better engagement.
33. Set up chime cylinder so that the 8 bells and Westminster chimes do not end a sequence with a hammer in lift. Unfortunately, there are single hammers starting to lift for several

Westminster chime sequences at the end of warning. (If this is changed so that there is no slight lift after warning for the Westminster chime sequence, it results in a heavy lift at the end of run for the 8 bell sequences.) The cylinder and gears were left with the compromise that will only lightly load the chime train. The cylinder drive comes off the bevel gear on the second wheel. No hint of stalling or slowing down during chiming or striking.

34. Added felt pad "seal" inside mercury vial cap.
35. Evened the chipped lip of the mercury vial with epoxy.
36. Coated the face of the wood-faced strike hammer with cyanoacrylate to make a harder surface for a louder strike sound.
37. Restrung all tubular bells with heavy cotton braiding cord.



**Figure 14.** Brass weight shells on a lathe being polished during restoration. PHOTO COURTESY OF PETE SCHREINER.

38. Adjusted hammer strings on 4 hammers, including the hour hammer.
39. At the time of movement installation – the case was leveled. (Front right corner leveler at least ½ inch longer than the front left leveler i.e. the floor is very uneven.)
40. Adjusted beat and rate.
41. Set the moon phase dial.

## Clock Restoration Celebration

On May 13, 2017, Chapter 154 coordinated a clock restoration celebration at the Holden House Museum. More than 40 people attended. Randy Jaye gave a presentation on the history of the clock, Pete Schreiner discussed the restoration process of the clock, and Sisco Deen (Flagler County, FL, historian) talked about the history of the Holden House. The group also toured the upstairs of the historic house and the adjacent Holden House Research Annex building.

The people in attendance were impressed with the clock and the amount of attention to detail that was addressed during its restoration. They were also appreciative of the family of Howard Stone who donated the clock, which now stands as the centerpiece of the living room.

## End Notes

1. Howard H. Stone (1923–1976) was born in Brooklyn, NY, and lived the majority of his life in New York. He was an Eagle Scout, a veteran of the Korean War, and a graduate of the City College of New York and Brooklyn Law School. His hobbies included woodworking, vegetable gardening, and target shooting. He was also a Boy Scout Troop Leader. He loved animals and often would rescue stray dogs and find them homes. He was a lawyer and also the owner of a food distribution company. After moving to northern New Jersey, and living there for three years with his wife and young children, he unexpectedly died in 1976 at the age of 43.
2. Information regarding Chapter 154 can be accessed at: [www.nawcc154-daytonabeach.com](http://www.nawcc154-daytonabeach.com).
3. The Flagler County Historical Society was chartered as a Florida nonprofit corporation on October 25, 1983, and has a mission to promote historical and cultural research and education for the benefit of the surrounding communities. It is headquartered in the Holden House, 204 East Moody Boulevard, Bunnell, FL 32110.
4. The Holden House Museum is located at 204 East Moody Boulevard, Bunnell, FL 32110. The house was built in 1918 by Samuel Merwin Bortree for his daughter Ethel Lura Bortree and her husband Tom Edward Holden. Holden was actively involved in local business and political affairs and was the town's pharmacist. An interesting feature of the house is the use of inset pieces of apothecary bottles on the gable of the front porch and east facing gable. Unfortunately, Hurricane Matthew knocked the pieces of apothecary bottles off the gable of the front porch in October 2016.
5. Theodore Burr Starr (August 6, 1837–May 9, 1907) was in partnership with Herman Marcus as the exclusive retailers for Gorham silver from 1864 to 1877 with a shop at 22 John Street in New York City. From 1877 to 1900 he was a jeweler and merchant with his own business (Theodore B. Starr & Co.) and operated a shop at 206 Fifth Avenue, New York City.
6. James Jones (J.J.) Elliott (May 19, 1849–April 16, 1904) was a master English clockmaker who initially specialized in the production of pinions and balance shafts. He progressed to the production of tubular bells for tall case (hall) clocks and experimented with various chiming mechanisms that led to successful patents. He gained a worldwide reputation for fine quality that led to significant exportation of clock movements, especially to the United States.
7. John Harrington (1837–1918) grew up a farmer and became an engineer. He developed roller skates, games, and many bicycle improvements in addition to his horological patents. He also held several patents in the bicycle industry and manufactured "Arab," "Magnet," and "Black Bess" bicycles and tricycles. He patented the first tubular bells for clocks in 1884. His design won the gold medal at Paris in 1885 and at Liverpool in 1886. His tubular bells were used in

both tall case clocks and bell towers. His firm of Harris and Harrington supplied tubular bells to the Elliott Clock Company (J.J. Elliott) and also built tall case clocks with Elliott movements and Harrington tubular bells.

8. Walter H. Durfee (1857–1939) started selling antique furniture in 1877 in Providence, RI, where he specialized in tall case (hall) clocks. He formed a business partnership with antiques collector Charles Pendleton named Durfee & Enches in 1881. Durfee made contacts with clock manufacturers in England and began importing products into the United States. He popularized the enhancement of tubular bells in hall clocks in the United States, which increased the demand. He became known as the father of the modern grandfather clock.
9. Information regarding Richard Rossmässler was obtained from [genealogybank.com](http://genealogybank.com), [ancestry.com](http://ancestry.com) and [familysearch.org](http://familysearch.org) and summarized as follows: “[he] was born 9 February 1842 in Leipzig, Saxony, Germany. He arrived in the United States from Bremen in August 1862 [based on his testimony in 1897; another source says he arrived in 1867]. Richard Rossmässler worked with William Ryle in the silk industry, possibly in Patterson, New Jersey, before going to Philadelphia, Pennsylvania, circa 1876. He signed his Declaration of Intent to become a U. S. citizen on 16 August 1876 and took the Oath of Allegiance on 11 September 1879 in Philadelphia. He was first enumerated in the Philadelphia, Pennsylvania, City Directory in 1876, residing at 1525 Marshall and said to be a ‘treasurer.’ Based on extant records, Richard Rossmässler was the treasurer for the Sauquoit Silk Manufacturing Company, with an office in Scranton, Pennsylvania. He married Bertha Collins, daughter of Edward Leopold Nicolaus Collins and Bertha Wilhelmina Herbst, circa 1876/1877; they were the parents of eight children. Richard Rossmässler died on 26 April 1905 at Philadelphia.”

## Sources

- American Silversmiths. “Theodore Burr Starr.” <http://freepages.genealogy.rootsweb.ancestry.com/~silversmiths/makers/silversmiths/171079.htm> (accessed September 24, 2016).
- Burt, Owen H., and Jo Burt. “Walter H. Durfee and his grandfather clocks: part 1.” *NAWCC Watch & Clock Bulletin* (January/February 2013):14–28.
- Burt, Owen H., and Jo Burt. “Walter H. Durfee and his grandfather clocks: part 2.” *NAWCC Watch & Clock Bulletin* (March/April 2013):145–164.
- Burt, Owen H., and Jo Burt. “Walter H. Durfee and his grandfather clocks: part 3.” *NAWCC Watch & Clock Bulletin* (July/August 2013):372–388.
- Burt, Owen H., and Jo Burt. “Walter H. Durfee and his grandfather clocks: part 4.” *NAWCC Watch & Clock Bulletin* (September/October 2013):486–500.
- Miller, Tom. “Daytonian in Manhattan: The Theodore B. Starr Bldg. Extension – No. 1126 Broadway.” <http://daytoninmanhattan.blogspot.com/2013/06/the-theodore-b-starr-bldg-extension-no.html?m=1>
- Spittler, Thomas J. “JJ Elliott and the American Hall Clock Industry.” *NAWCC Watch & Clock Bulletin* (April 1996):147–172.

## About the Author

Randy Jaye has been the president of Chapter 154 in Daytona Beach, FL, for many years and was the General Chairman for the 2016 and 2017 Florida Mid-Winter Regionals. He is a watch and clock collector and occasional restorer. He has contributed several articles to the *Watch & Clock Bulletin* and is planning to complete several more in the near future with a focus on wristwatches and “modern” horology. He recently published a local history book titled *Flagler County, Florida: A Centennial History*.