

Horology in Photography

Timekeeping and Timekeepers in Photographs

By Bob Frishman, FNAWCC* (MA)

Horology has been closely associated with photography throughout the entire history of picture-taking. The history of this durable marriage first was presented to the Daguerreian Society in my online Zoom presentation on April 10, 2021, and a video recording of the lecture is available on the Society's website: <https://www.daguerreiansociety.org>. This article is reprinted, with minor changes, from the *Daguerreian Annual 2021*.

This subject is just one important facet of the much broader "Horology in Art" project that has been a major focus of mine for more than a decade. I long ago began to notice when these timekeepers appeared in fine art, and I explored such artworks in my 36 published articles in the *Bulletin*¹ and at the NAWCC's 2017 "Horology in Art" symposium,² the first ever held on this unique theme, that I organized at the Museum of Fine Arts, Boston.



Figure 1. Mathew Brady, *Portrait of Maggie Mitchell*, printed from glass plate collodion negative, ca. 1860–70. Stage actress Margaret "Maggie" Mitchell was just one of many celebrities visiting Brady's studio who shared the scene with a fancy figural clock. It was the "Reaper" model produced by Nicholas Muller in New York City. NATIONAL PORTRAIT GALLERY, SMITHSONIAN INSTITUTION, FREDERICK HILL MESERVE COLLECTION, NPG.81.M240.

FNAWCC* denotes a recipient of the Silver Star Fellow Award.



Figure 2. William Henry Fox Talbot/Nicolaas Henneman (attr.), *The Reading Establishment*, salted paper prints, 1846. This panoramic view, made from two joined calotypes, shows a square clockwork timer. Within this sunlit portrait and printing session, we twice see the instrument atop a camera. At the right, the hand of Talbot's associate Nicolaas Henneman was on the timer. Talbot was holding a lens cap in the left image. THE METROPOLITAN MUSEUM OF ART, NEW YORK, GILMAN COLLECTION, GIFT OF THE HOWARD GILMAN FOUNDATION, 2005.100.171.

My recent *Bulletin* article “Folk-Art Horology: Clocks and Watches in American Folk Paintings”³ further developed yet another facet. Included in this study were 19th-century painted portrait miniatures, often watercolor on ivory, which were the precursor, and then done in by, small images captured by daguerreotypes and subsequent photographic media. Daguerreotypes, invented in 1839, were the first practical photographs and were unique images captured on silvered copper sheets sensitized with mercury vapor.

As with all planned and posed portraits and vignettes created by artists, the objects and backgrounds in those paintings were never there by accident. Props and settings were carefully selected and placed. Artworks could be “read,” even by the illiterate, for the symbolic and metaphoric meanings of what could be seen, and clocks and watches spoke loudly about mortality, diligence, discipline, and the affluence and sophistication of their possessors. Timepieces in art were almost never about showing the time, but almost always about reminding viewers of time’s passage and how little of it we all have.

The same can be true in portrait photography, but not so much in documentary photographs showing clocks on furniture, room walls, building facades, and in steeples and towers. But even in those, much more than the exact time of the photograph can be gleaned, assuming that the clocks actually were running when the plate was exposed. For sure, the figural mantel clock in many Mathew Brady portraits (Figure 1) was not running or in running condition, nor would every one of those photos have been taken at 11:50 as shown by the clock’s hands.

But first a digression is warranted. Unlike artworks painstakingly created over periods of days, weeks, or even months, photographic processes were (and are) quite time sensitive. Governed by physics and chemistry, exposure and development times were critical and required clocks and watches or specialized clockwork timers. Photographers in the first decades of the technology could verbally count out the seconds and minutes, but this would be quite tedious and error-prone for typically long exposures. With pocket watches at the ready—and we see them in images of early photographers—these artists

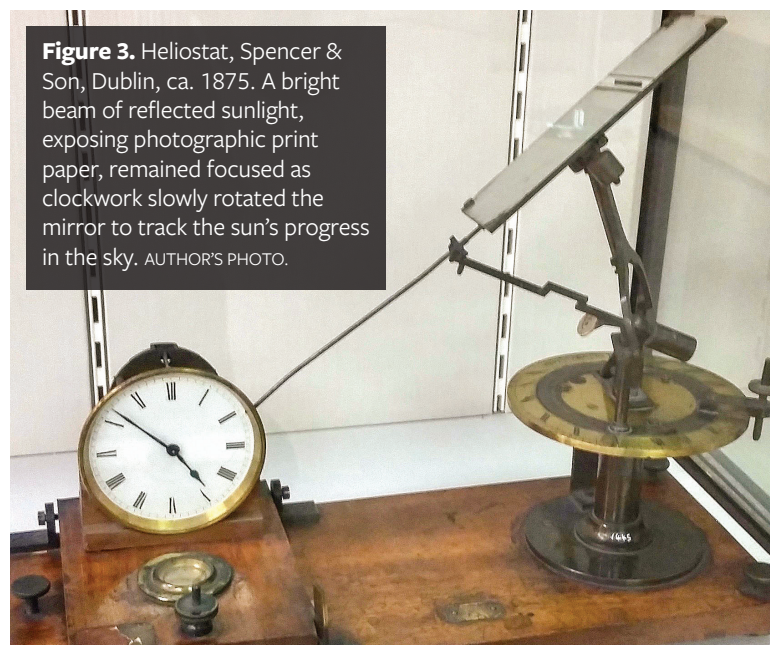


Figure 3. Heliostat, Spencer & Son, Dublin, ca. 1875. A bright beam of reflected sunlight, exposing photographic print paper, remained focused as clockwork slowly rotated the mirror to track the sun’s progress in the sky. AUTHOR’S PHOTO.

could verbally entertain their rigidly motionless sitters to help pass the time and not spoil the shot with exposures that were too long or too short.

Photography inventor Louis Daguerre (1787–1851) and his cohorts could not simply guess when to remove and then refit the lens cap. His exposure times ranged from five to thirty minutes; shorter on warm, sunny days and substantially longer on chilly, cloudy ones. Even when better lenses and chemicals reduced exposure times to 60 seconds and under, estimating or verbalizing the seconds often was not optimal. William Henry Fox Talbot's (1800–77) first exposures took around three minutes, and his use of a clockwork timer is proven in photos of him at work (Figure 2). Printing from his negatives in bright sun could require a half hour or longer.

Developing and processing the images was equally disciplined. Operators sometimes could visibly assess their darkroom progress as images appeared and strengthened, but timing often was key to ensure the best possible images and their long-term durability from proper washing and chemical fixing.

Prior to the mid-19th century, it was not common for pocket watches to have seconds hands. Such precision normally was not needed and that extra complication would have increased a watch's cost. However, even in the late 1700s it was possible to own a watch with seconds indications, and by 1850 these were easily obtained. In England's National Trust Fox Talbot Museum is a gold, top-quality Breguet pocket watch,⁴ with a subsidiary seconds dial, that belonged to Charles Henry Talbot, Henry's son, and perhaps to his father as well. On much larger standing clocks, astronomical regulator clocks, and portable marine chronometers, the display of advancing seconds, of course, was standard.

Some early watches not only showed seconds but had stopwatch or "hacking" functions to start and stop the seconds hand. These would have been useful to photographers, and horse-racing enthusiasts also were good customers. Such a watch,⁵ with Lord Nelson provenance, was made circa 1780 by famed English watchmaker Thomas Mudge (1715–94). A small pin on the side of the case could stop and start the watch's ticking, perhaps allowing the naval hero to better coordinate his fleet's maneuvers and broadsides.

Clockwork also was crucial to the invention of various styles of camera shutters, once those replaced the lens cap method. Obviously, caps could not be yanked on and off at fractions of seconds when exposure times became that brief, so mechanical shutters with adjustable durations were devised as specialized forms of timepieces.

Another clockwork device, hugely helpful for long, sunlit exposures of photographic enlargements, was the heliostat (Figure 3). Slowly turning a mirror at the same



Figure 4. Unknown photographer, *Portrait of a Young African American Woman*, sixth plate daguerreotype, ca. 1850–52. The large pocket watch, secured on a long ribbon, was displayed at her waist and likely demonstrated sophistication and financial security. GREG FRENCH COLLECTION.

angular velocity of the sun over many minutes, these spring-driven instruments kept the sun's rays steadily and properly aimed at the printing stand.

Returning to the issue of why clocks and watches have appeared in photographs, their older traditional representation as symbols and metaphors sometimes still applied. Watch chains and fobs on both men and women customers, and views of a partial or complete watch attached to them, testified to the affluence of the sitter (Figure 4). Thicker chains and bigger watches signaled more precious metals and more wealth. Watches held to the sitter's ear could be for fun, but could also be the age-old reminder that time was quickly passing. Watches held in plain sight by posing Civil War soldiers showed the folks back home that the young man owned a watch, often a Waltham, but also could be a grim reminder that their time could be, and often was, cut short.

A related question also is sometimes raised: might those shiny, round metal objects have been locketts and not watches? I believe that in most cases, probably not. Typically, locketts were smaller and thinner than the watches seen in these photos, and they rarely were worn at waist level or in a pocket. Locketts dangled from jewelry pins or shorter chains and ribbons. Being larger

and heavier than locket, watches hanging on shorter chains could easily swing out if the wearer leaned forward, crashing the watch into something else and damaging both.

Clocks boldly sharing the photo field with sitters were, as in oil paintings, nearly always part of the narrative. There would be little reason otherwise to have a clock sitting or standing there, distracting from the subject's face and figure, and again it certainly was not there to indicate the time of day of the exposure (Figure 5). In the case of Mathew Brady's studio clock, I viewed nearly 7,000 Brady portraits and found approximately 70 with the clock.⁶ Eminent sitters with the clock included George Custer, Robert E. Lee, and Clara Barton; all of whom must have agreed that the ornate clock somehow enhanced their portraits that were intended for popular viewing, not just by private families.

Occupational portrait photographs portraying clockmakers, watchmakers, and timepiece sellers all had an obvious reason to display the tools and products of their trade (Figure 6). We are fortunate to have early daguerreotypes and ambrotypes of these craftsmen and merchants who provide us with a glimpse of their tools and timepieces. Ambrotypes, less costly and simpler to produce, replaced daguerreotypes and used sensitized collodion on glass plates. Horologists welcome these looks back at our predecessors, as do collectors who see antique objects now cherished that then were new. We seek and enjoy even older depictions as well, such as 1600s Dutch "vanitas" paintings with finely detailed views of watches made during those years.

Stereographs and cabinet cards also offer rewarding looks at the craftsmen at work. Both formats were inexpensive prints on paper produced from negatives. Unlimited copies of the images could be made as 3D twin images or slightly larger mounted photos purchased as keepsakes or for publicity. Interior and exterior views of shops reveal clocks and watches we now see instead at auctions, antiques shows, and museum exhibits. These pictures sometimes provide the only documentary material available for who these men were, what they sold and repaired, and where they worked. My "Clocks in 3D" article⁷ expanded on this theme.



Figure 5. Unknown photographer, *Portrait of Adelina Patti (1843–1919)*, sold by Charles D. Fredricke & Co., 587 Broadway, NY, carte de visite. In this mass-produced image, the world-famous Italian opera star was paired with a tall-case clock. She was dressed for the principal role in Donizetti's *Lucia di Lammermoor*. A popular model of 19th-century mantel clock, the "Patti" made by the Welch, Spring & Company, was named after her. AUTHOR'S COLLECTION.

Sometimes these stereographs provide the only known images of historically significant clocks. For example, I purchased a stereograph of an old, large, iron-frame tower clock movement and then later discovered that it was a unique photograph of the movement made by eminent Philadelphia clockmaker Isaiah Lukens (1779–1846) in 1828 for the tower of Independence Hall. After this machine was replaced for the 1876 Centennial, it served more years in nearby Germantown, then was abandoned until rediscovered, restored, and returned to the Independence National Historical Park for display.⁸

Humorous stereograph scenes also featured clocks. Most collectors, for example, are perhaps too familiar with the many "bliss" series that depicted an amorous young couple scandalized late at night by nightgown-wearing parents pointing at the parlor's clock. With a variety of clocks as witnesses, other scenes portrayed illicit flirtations, cute pets (Figure 7), toddlers, schoolrooms, bedrooms, and domestic squabbles.

The clocks mostly are models and styles familiar to collectors and thus instructive to see in period surroundings.

Twentieth-century photographers placed clocks prominently in scenes as well. Many Wallace Nutting



Figure 6. Unknown Canadian photographer, detail of possible portrait of Bryon Derbyshire, quarter-plate cased ambrotype, ca. 1863. Associated papers suggest that this was a portrait of Byron Derbyshire (1838–1921), an Ontario peddler of clocks in Lennox, Frontenac County. COURTESY OF NEIL D. MACDONALD, TORONTO.

hand-colored photographs of home interiors, fabricated as views of Colonial America, included floor-standing long-case clocks, banjo clocks on the walls, or pillar-and-scroll shelf clocks on the mantels. Within my own digital photograph collection, now numbering nearly 500, are interiors and street scenes by well-known photographers such as Lewis Hine, Jacques Henri Lartigue, Eugene Atget, Man Ray, Berenice Abbott, Margaret Bourke-White, Walker Evans, and Henri Cartier-Bresson. Even today's photographers—amateur, artistic, and commercial—continue to use timepieces to enhance the stories that their pictures tell us.

Readers are encouraged to seek more examples of “Horology in Photography” and to share them with me.

Notes and References

1. Links to PDFs of all these articles are on the “Art” page of the author’s website, <http://bell-time.com/art.html>, as well as on www.nawcc.org/publications/watch-clock-bulletins/.
2. The “Horology in Art” symposium website may be viewed at <http://horologyinart.com/>.
3. Watch & Clock Bulletin 62, no. 447 (September/October 2020): 344–52.

4. Fox Talbot Museum, Wiltshire, England, object number NT996476.
5. Royal Museums Greenwich, object ID JEW0243.
6. NAWCC Bulletin 44, no. 340 (October 2002): 605–8.
7. NAWCC Bulletin 44, no. 337 (April 2002): 140–44.
8. NAWCC Bulletin 50, no. 377 (December 2008): 651–53.

About the Author

During the past 41 years, Bob Frishman has repaired and restored more than 7,000 antique clocks and watches, published more than 100 articles and reviews on the history, technology, and cultural importance of mechanical timekeeping, and has lectured on the subject to more than 100 audiences. As Chairman of the NAWCC Symposium Committee, he organized groundbreaking horological conferences at the Winterthur Museum, the Museum of Fine Arts Boston, the Henry Ford Museum, and the Museum of the American Revolution. Bob is an NAWCC Silver Star Fellow and a Freeman of The Worshipful Company of Clockmakers, a London guild founded in 1631. More information is available at www.bell-time.com.

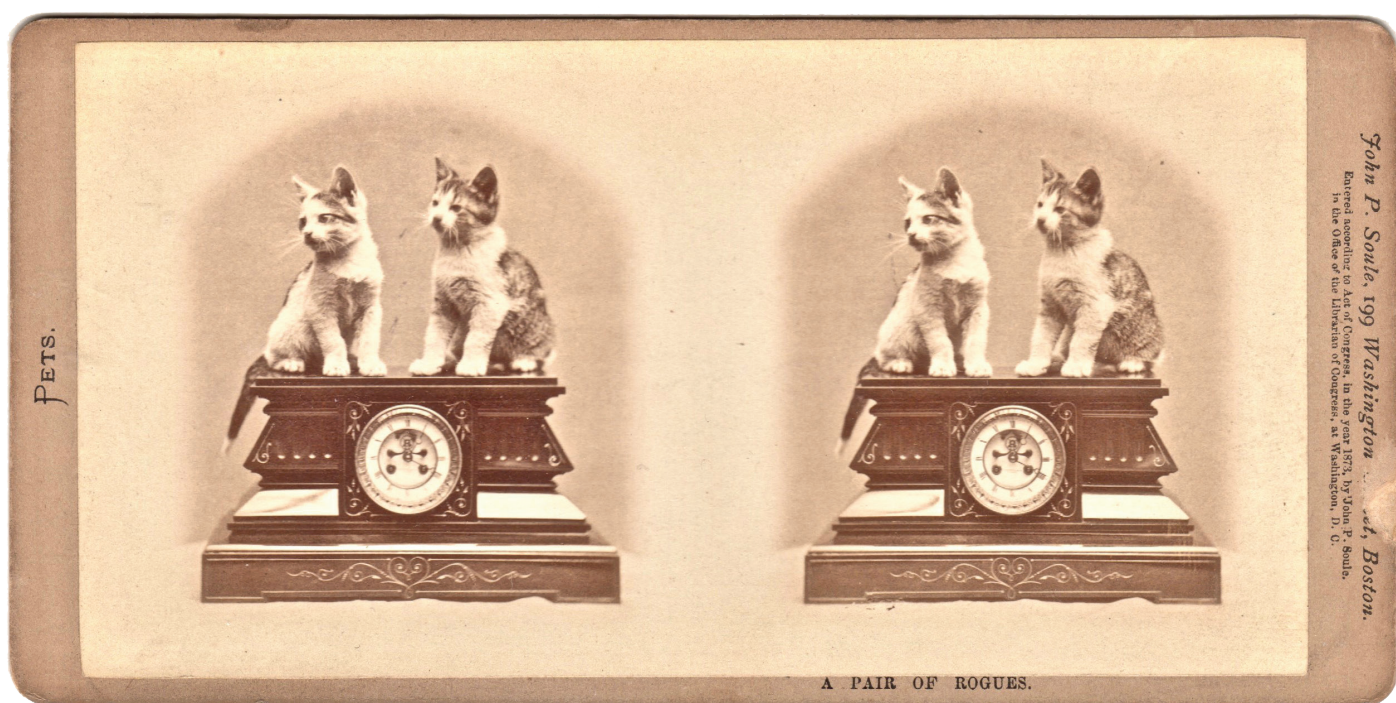


Figure 7. John P. Soule, 199 Washington Street, Boston, *A Pair of Rogues* atop a French marble mantel clock, stereograph, 1873. The kittens sit on a decorative stone case housing a movement with visible escapement on its two-level, white enamel dial. AUTHOR'S COLLECTION.