

## Timekeeping and Timekeepers on New England Byways

*Bob Frishman*

The *Mayflower* had no clock. Nor did the first Plymouth colonists who brought along nearly everything else they needed for those first years in the wilderness. Not even a sundial is revealed in their inventories and wills.<sup>1</sup> Drums raised alarms and calls to worship; otherwise the rising and setting sun was adequate for regulating life. On shipboard and on land, sandglasses were used for scheduled duties and lengths of sermons, but these did not tell the time. Sundials soon appeared, however, as did related “noon marks,” used inside the colonists’ homes. Of course, the Pilgrims were familiar with public clocks and hour-ringing bells back in Europe, but those large, complicated machines required substantial funds, as did the costly handmade domestic clocks of that time. According to Alice Morse Earle, the first mention of a clock in New England occurred in 1628. In 1640 a clock was willed to the Hartford, Connecticut, church; and in 1657 “there was a town clock in Boston and a man appointed to take care of it.”<sup>2</sup> Chris Bailey, in *Two Hundred Years of American Clocks and Watches*, writes that in 1717 clock maker Benjamin Bagnall was commissioned by the city’s selectmen to construct a clock for the old meetinghouse and that Bagnall the next year installed it in what became known later as the Old Brick Church. Fifty years later another well-known Boston clock maker, Gawen Brown, repaired that clock. Bailey also reports that “Ebenezer Parmele (1690–1777), born in Guilford, Connecticut, is the earliest native American known to have engaged in clock making.”<sup>3</sup>

By the mid-seventeen hundreds in New England, travelers on the byways of even smaller towns could have spied tower clock dials or heard their distant bells. In 1767 Benjamin Barker presented a clock to the parish of North Andover for its meetinghouse, and this same clock was serviced in 1836 by the famous clockmaker Simon Willard when the clock was reinstalled in the new building, which still serves Unitarian worshippers today.<sup>4</sup> A later movement by E. Howard and Company of Boston now

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1. Stacy C. B. Wood, “Time Keeping in 1627 Plymouth,” [www.sail1620.org](http://www.sail1620.org).

2. Alice Morse Earle, *Customs and Fashions in Old New England* (New York: Charles Scriber’s Sons, 1893), 122.

3. Chris Bailey, *Two Hundred Years of American Clocks and Watches* (Englewood Cliffs, N.J., Prentice-Hall, 1975), 60.

4. Sarah Loring Bailey, *Historical Sketches of Andover, Massachusetts* (Boston: Houghton, 1880), 466.



Figure 1. Shop of William Bond and Sons, 97 Water Street, Boston, circa 1880. From stereoview card, author's collection.

sits inside the steeple, along with the large cast bell provided by Paul Revere in 1806.

These same travelers also would have seen longcase clocks in taverns, inns, public buildings, and finer homes in the eighteenth century. Many such clocks were imported from England, but growing numbers of local clock makers, who often were skilled English immigrants, also provided clock movements for New England customers. (The wood cases were built by other local artisans.) Massachusetts makers Samuel Mulliken and John Bailey, to name just two examples, offered clocks with age-of-moon dials. These gave guidance for upcoming planting and harvesting, and also for nighttime travel, since they indicated when a full moon would be shining overhead. The shop of Josiah Wood, another maker, can be spotted in an 1807 view of New Bedford.<sup>5</sup>

5. William Allen Wall, *New Bedford in 1807*, ca. 1855, oil on canvas; from Brock Jobe, Gary R. Sullivan, and Jack O'Brien, *Harbor and Home: Furniture of Southeastern Massachusetts, 1710–1850* (Lebanon, N.H.: University Press of New England, 2009), 16.

Affluent travelers sported English, Swiss, or French watches on fine chains. One example, made by Champion of Liverpool, is housed in a plain silver pair-case hallmarked in 1800, which contains the ornate fusee gilt movement typically hidden inside these watches. Also tucked inside is an early watch paper from Charles Babcock of New Ipswich, New Hampshire, where the watch was purchased, serviced, or both.<sup>6</sup> Trade signs alerted passersby to such shops.

Still, most New Englanders could not afford, and had no real need, to own timepieces during the first decades after the War of Independence. Only with the rise of industrial production, along with steam-powered boat and rail transportation, did we need to know not only the hours but also the minutes in order to time our labor and travel. We needed affordable, ubiquitous timekeepers, and thanks to the genius of the Connecticut clockmakers, we got them.

In 1809 when Eli Terry completed the “Porter contract,” manufacturing four thousand wooden clock movements within three years in the small Connecticut town of Plymouth, he initiated the “American system” of mass production of clocks with fully interchangeable parts. By doing so, he ushered in a century of startling output. Literally millions of Connecticut clocks proliferated throughout New England and the entire nation, putting a modern ticking “civilized” status symbol into nearly every home and business. Chauncey Jerome, an early employee of Eli Terry and another father of the American clock industry, published in 1860 his memoirs of that business.<sup>7</sup> He recounts how, at the start, clocks were peddled on New England byways, house to house, from wagons and horseback. Another memoir, published by Henry Terry in 1870, also describes delivery by horseback.<sup>8</sup>

Concurrent with the start of the Connecticut clock-making boom was production by Boston-area makers, many based in Roxbury, including brothers Simon and Aaron Willard. Simon’s 1802 patent of his “improved timepiece,” known more commonly now as the banjo clock, introduced a quality eight-day machine smaller and cheaper than a brass-works longcase clock, but not nearly so affordable as those one-day wind-ups mass produced by Terry and his followers. Nonetheless, several thousand Willard clocks were sold, many for use in public areas. Simon even built tower clock works; one was installed in Boston’s Commercial

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6. Author’s collection.

7. Chauncey Jerome, *History of the American Clock Business for the Past Sixty Years, and Life of Chauncey Jerome* (New Haven: F. C. Dayton Jr., 1860).

8. Henry Terry, *American Clock Making: Its Early History and Present Extent of the Business* (Waterbury, Conn.: Press of J. Giles, 1870).

Wharf in 1834 and is now on view at the Willard House Museum in Grafton, Massachusetts.<sup>9</sup>

These clocks all were pendulum regulated and weight powered, however, and would not run on moving wagons, barges, steamboats, or trains. Cheap *portable* timekeepers were needed. By 1850, with the development of inexpensive steel mainsprings and escapements unaffected by their orientation, so-called “marine” clocks answered that need. The Marine Clock Manufacturing Company of Hamden, Connecticut, founded in 1847, quickly inspired many other firms which likewise manufactured low-cost balance-wheel movements mounted in round and octagonal cases.<sup>10</sup> Advertisements, such as one in 1851 from Chauncey Jerome, touted “Marine Lever Timepieces for Ships, Steamboats, Locomotives...”<sup>11</sup> Major clock company catalogues from E. Ingraham, George Owen, Seth Thomas, Boston Clock Company, and others, all devoted pages to these styles. An 1865 photo shows the Seth Thomas “Marine Shop.”

Despite grand claims to accuracy—and although adequate for steamboats and stagecoaches—these inexpensive clocks were not sufficiently reliable when close scheduling was required, especially by increasingly busy railroads running on single-track lines. Trainmen prided themselves on punctual performance even as early as the 1840s, when Henry David Thoreau wrote that the Fitchburg Railroad cars passed by Walden Pond so regularly that “the farmers could set their clocks by them.”<sup>12</sup> The locomotives were icons of industrial progress, but a conductor’s faulty timepiece could reduce them to junk, as happened in Pawtucket, Rhode Island, when two trains of the Providence and Worcester Railroad met head-on in August 1853, killing fourteen people. The earliest known daguerreotype of a train wreck shows this event. Similar disasters were all too common during that period.<sup>13</sup> Another railroad company’s 1850 schedule shows how frequently their trains departed and illustrates less gruesomely why accuracy down to the minute was essential.

Highly precise timepieces did exist at that time—marine chronometers—whose development in the eighteenth century is thoroughly described in Dava Sobel’s popular book, *Longitude*. The extremely high

9. Robert W. Robinson, Herschel B. Burt, and Robert S. Edwards, *The Willard House and Clock Museum and the Willard Family Clockmakers* ([Columbia, Penn.]: National Association of Watch and Clock Collectors, 1996), 197.

10. A. Lee Smith, “‘Marine’ Clocks and Timepieces, 1848–1900,” *National Association of Watch and Clock Collectors Bulletin* (April 2009): 180.

11. Trade catalogue, *Chauncey Jerome, Manufacturer of Brass Clocks, 1853*, reproduced February 1971, 6. <<More pub. info. Needed>>

12. Henry David Thoreau, *Walden: or, Life in the Woods* (Cambridge, Mass.: Riverside Press, 1893), 130.

13. Carlene E. Stephens, *On Time: How America Has Learned to Live by the Clock* (Boston: Bulfinch Press Book, 2002), 99.



Figure 2. Newton Railroad Station, circa 1890. From stereoview card, author's collection.

cost of these complex instruments, however, ruled out their widespread use except on ocean-going vessels. Most makers were in England, but an exception was William Bond and Sons in Boston. An example made by them around 1850 has the name and street address engraved on the silvered dial.<sup>14</sup> A stereograph shows the storefront of Bond's shop (*Figure 1*).<sup>15</sup>

Accurate "regulator" clocks ticked steadily in railroad stations, whose rushing passengers, agents, and conductors consulted them constantly. Some hung outdoors, but most were stationary and could utilize weights and pendulums for precision (*Figure 2*). Seth Thomas manufactured classic styles including their Number 2 regulator found in train stations across the country and produced for several decades. Quality regulators by the E. Howard Company were installed in many depots and terminals and in the stops of Boston's mass-transit system. Visible in a stereoview of the company's display at a Boston Mechanics Fair is the range of their

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14. Author's collection.

15. *Ibid.*



Figure 3. R. Marston and Company Dining Rooms, Boston, circa 1885. Trade card, author's collection.

public clock offerings including banjo clocks, which came in five sizes.<sup>16</sup> There, too, is an astronomical regulator, Howard's top-of-the-line instrument, used in locations such as observatories and central railway depots that demanded accuracy within a few seconds per month.

Tower clocks continued to be built throughout the nineteenth century. Again, Seth Thomas and E. Howard competed for commissions to install them in prestigious public buildings. A label from Howard and Davis, the 1850s predecessor to E. Howard, promoted its line of clocks for churches and city halls.

Seth Thomas catalogues portray tower clock movements and a cutaway view of a tower with its machinery in place. Both companies, too, offered street clocks. Seth Thomas showed two-dial and four-dial models and a referral listing of installations.<sup>17</sup> Howard showed its "side-walk" clock.<sup>18</sup> A circa 1885 trade card portrays "the big clock" outside the R. Marston Dining Rooms on Brattle Street in Boston (*Figure 3*).<sup>19</sup>

A few cities also boasted time balls, familiar to us because of the Times Square ritual on New Year's Eve. But these had a more practical application, since the ball's daily drop at noon or 1 P.M. was vital to resetting timepieces that had to be correct. Boston's large copper ball on a twenty-foot high mast was erected in 1878 on the roof of the Equitable Life Assurance Company.<sup>20</sup>

Railroad companies pushed the development of high-accuracy "railroad-grade" watches, which through rigorous manufacture and inspection standards ensured that engineers and conductors would know the official time and avoid crashing their trains into each other. Unfortu-

16. *Ibid.*

17. Trade catalogue, *Tower Clocks Manufactured by Seth Thomas Clock Co.*, 1879, reproduction, 1966. <<Pub. Info. needed>>

18. Trade catalogue, *Clocks Manufactured by the Howard Watch and Clock Co.*, 1874, reproduction, 1972. <<Pub. Info. Needed>>

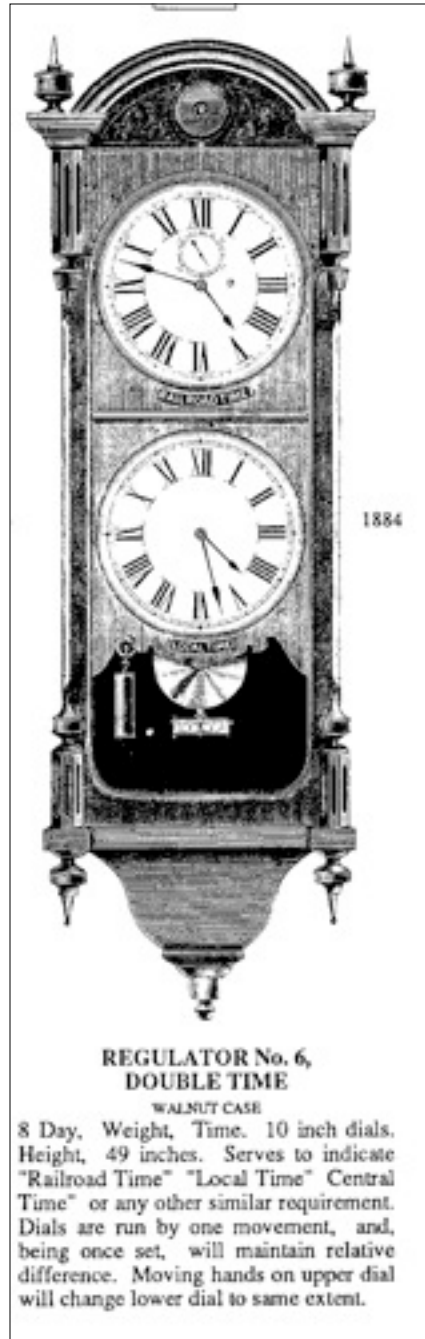
19. Author's collection.

20. One O'clock Gun Association, "Boston Time Ball," [1oclockgun.com](http://1oclockgun.com).

Figure 4. Seth Thomas Regulator No. 6, Double Time. Seth Thomas Clock Company catalogue, 1884.

nately, there were hundreds of “official” times, all based upon the exact second of local noons; and as long-distance train travel became commonplace, this lack of synchronicity led to confusing and complicated schedules. The 1857 *Dinsmore’s American Railroad Guide* published a listing of 102 different local times at the exact moment of noon in Washington, D.C.<sup>21</sup> There were double-dial clocks, such as an 1884 regulator by Seth Thomas, indicating two choices, such as “Railroad Time” and “Local Time,” which in one example were twenty minutes apart (Figure 4). Finally, on Sunday, 18 November 1883, the rail conglomerates mandated four national zones of “standard time,” which we take for granted today, but when proclaimed they were bitterly resented by people in many locales.

Male travelers could consult the time on hefty pocket watches sold by Waltham, Elgin, and other well-known companies. Women of means could bring along portable carriage clocks, which were of much higher quality than marine clocks. Mostly French made, these travel clocks also were produced in small numbers by the Boston Clock Company.<sup>22</sup> They usually were protected in an outer leather case, and some were “repeaters”



21. Ian R. Bartky, *Selling the True Time: Nineteenth-Century Timekeeping in America* (Stanford, Cal.: Stanford University Press, 200), 94.

22. Trade catalogue, *Boston Clock Co.*, 1890. <<Pub. Info. Needed>>

that would ring the previous hour when a top button was depressed—a useful feature in dark bedrooms before the advent of electric lighting.

Now our byways are highways. Ticking timepieces mostly have been displaced by digital clocks on cell phones and dashboards. But on our New England byways, we still encounter public clocks, like the one on Boston's 1713 Old State House and another on the steeple of Andover's 1861 South Church, one hundred sixty feet high. These are reminders of an earlier era when travelers first began looking at clocks, not at the sun and stars, to know the hour.