Clock Cases in American Colonies

by Frank L. Hohmann III

In 1656 Christiaan Huygens, the Dutch mathematician, physicist, and astronomer, invented the first practical pendulum clock.[1] Within a generation, the basic form of the tall case clock, as we know it today, was for the most part established in England and northern Europe. The pendulum was first adapted to the existing lantern clock, but it soon became apparent that the long, swinging element needed to be encased. While month- and even year-going clocks were contemplated and constructed, the unwieldiness of the weights and the complicated gearing required made the next smaller calendar interval, the week, more desirable.[2] With a day added for extra tolerance in winding, the eight-day clock became the standard. One-day (actually thirty-hour) clocks were also produced in quantity but were usually relatively primitive clocks made outside competitive town centers. As this process was occurring in England, the earliest clockmakers who immigrated to America brought the result of this standardization with them.[3] Thus, the stereotypical American tall clock case, with form and dimensions to allow the swing of the pendulum and the drop of the weights, took on its familiar proportions.

Eight-day tall clock, Edward Duffield (1720–1801), Philadelphia, Pa. Mahogany. H. 122½, W. 24¼, D. 12 in. Dial engraved "Edw. Duffield / Philad.a."

Duffield, who was Benjamin Franklin's executor, produced numerous grand tall-case clocks but few with a case as intricately and thoroughly carved as this example. Of particular note is the blind fretwork on the dial door surround. Highly carved elements such as the cartouche, finials, and applied scroll-board carving, as well as the pleasing presentation of the moon dial provide an impressive presence.

Eight-day tall clock, Duncan Beard (d. 1797), Appoquinimink, Del. Mahogany. H. 101¼, W. 21½, D. 11¼ in. Engraved along the dial arch "Duncan Beard, Appoquinimink." Courtesy private collection.

This is the only known Duncan Beard movement with a rocking ship in the lunette. Beard worked in Appoquinimink (now Odessa) and frequently partnered with John Janvier the case maker. The idiosyncratic central finial is unique to Janvier and it is quite rare to know the case maker as well as the clock maker. The pierced fretwork, dentil molding, and other carving details elevate this case to among Janvier's finest.

A complete clock required a great deal of specialized labor. A furniture maker or joiner usually produced the case, while a clockmaker, someone skilled in metalworking, produced the movement. A separate specialist might engrave the dial. To examine just the expense of the case: in about 1740 a square dial case could cost £3, an arched dial case £4, and cases made from wood other than walnut, £5.[4] Later, in 1786, probably owing to wartime inflation, square dial clock cases in at least one account book were £6 in mahogany and £4 in walnut, whereas an arched dial or specialized moldings could each add a pound or two to the cost.[5] In all of these instances there was an extra charge for glazing (adding glass). Additionally, a typical eight-day movement by itself would have added another five to six pounds. The resulting cost of ten to twelve pounds for a complete, but basic, eight-day clock would have equaled roughly two month's pay for the typical worker. Because of the specialized labor required and the high cost of the brass needed for the movement, a clock was easily the most expensive item in a household, with the possible exception of a four-poster bed outfitted with imported fabric. Ownership of such an item, particularly an elaborate one, identified the household as sophisticated, worldly, and above all, wealthy.

The brass dial movement continued in use until roughly the end of the Revolutionary War. During this time composite brass dials, with applied spandrels and chapter rings, evolved to engraved sheet-brass dials and, finally, to painted dials, which first appeared in the 1780s and became fashionable by the early 1790s. The evolution of cases proceeded separately from that of the dials, however, so that early painted dial clock cases from a particular region have essentially the same characteristics as cases housing their late brass dial predecessors.

The retention of design elements can be traced to the English guild system, which discouraged innovation. Changes, if any, were glacial in their implementation, and design elements remained static for long periods of time. When the first clockmakers immigrated to the English colonies, primarily to Boston and Philadelphia, they brought with them not only the existing mechanics of clock movements and clock case architecture but also a habitual resistance to change. There were, of course, regional differences—even in clocks made as early as 1740 there are design distinctions sufficient to enable one to differentiate between a Newport-made case and one from Philadelphia—and the guild system per se did not exist in the colonies, but characteristics of the guild, such as apprenticeships, meant that design changes could be slow in coming.

A few design elements are essentially present for the entire period of the brass dial era and even into the painted dial period of the Federal era. One of these is the use of colonnettes: diminutive columns (usually four, occasionally two) consisting of a base, a shaft, and a capital. These small columns were envisioned as "support" members for the cornice and tympanum of the hood. The rear colonnettes were typically only quarter-round but still fulfilled the design function.

Another is the almost universal employment of three finials (or two finials and a central cartouche) to finish the architecture of the case top. The tripartite finial arrangement, with elevated center finial, was de rigueur. The earliest examples were typically of ball-and-spire form, made either of turned wood or, for

Eight-day tall clock, Walter Folger Jr. (1765–1849), Nantucket, Mass. Mahogany. H. 101⅛, W. 23³⁄₁₆; 11⅞ in. Dial engraved "Walter Folger/Nantucket." Nantucket Historical Association; gift of Annie Alden Folder.

An astronomical-feature clock such as this is quite rare, particularly having been made in such a small population center as Nantucket. The year aperture and declination of the sun indicator are rarely seen, and coupled with the other mechanical complications present, makes this a most unique clock. The dial is silvered sheet-brass.

Eight-day tall clock, Thomas Harland (1735–1807), Norwich, Conn., 1776. Cherry. H. 91¾, W. 20½, D. 10¾ in. Tune names engraved on the dial are "Lass of Patty's mill; Shady Bowere; Minuet by Handel; Lovely Nymph; Ms. Hales Minuet; Psalm Time." Engraved in the arch "Thoˢ Harland/Norwich/1776." Courtesy the Diplomatic Reception Rooms, U.S. Department of State.

In addition to being a six-tune musical clock, the silvered sheet-brass dial is intricately engraved with images of the four seasons. Thomas Harland was a master engraver and taught clockmaking to Daniel Burnap (1759–1838), among others. This clock is especially noteworthy for having an engraved date of manufacture (1776) as well as subsidiary levers to control the time strike and musical function, mechanical complications seldom seen.

expensive clocks, solid cast brass. With the Queen Anne period came gilding and flame-and-urn turnings, which continued into the late rococo period. Under the rococo design influences, center finials slowly gave way in more ornate clocks to figural or floral elements or highly elaborate, carved cartouches. Continuing into the Federal period, metal-workers developed techniques for producing hollow turned brass finials.

As the rococo period flourished in the mid- to late-eighteenth century, increasingly ornate treatments became the order of the day. To the plain scroll board or tympanum above the arched door were added applied carvings of acanthus and other foliate forms, shells, and various streamers. The scroll pediment, which served as a finishing component for the top of the hood, remained fashionable for a considerable period of time, superseding flat and sarcophagus tops and enclosed bonnet tops. Scroll pediments were common in colonies other than New England, where arch tops were preferred.

Noteworthy design changes in the treatment of the base section of clock cases also took place. Since the pendulum does not extend down into it, the base serves to support the case and to elevate the dial to eye level or higher. Regional differences are most notable in New England where the proportions of bases changed significantly over time. Early examples from New England tend to have a base profile that is shorter than it is wide. As the design evolved, the base grew taller; by the Federal period it was

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Eight-day tall clock, Aaron Lane (1753–1819), Elizabethtown, N.J. Mahogany. H. 95½, W. 19½, D. 10 in. Tune names engraved on the dial are: "Washington's Resign; Banks of the Dee; Deserdurand; Hob or by Nob; Belleisle March; and Worthington." Dial also engraved "Aaron Lane / Elizabeth Town." Courtesy Liberty Hall Foundation.

Due to the competition from nearby New York and Philadelphia, New Jersey clocks of this period are quite rare. This is among the very few known New Jersey musical clocks. In addition to the four subsidiary registers on the dial, the case features intricate shell, eagle, and line surround inlays prefiguring the Federal style.

Eight-day tall clock, Anthony Ward (1669–1746), New York. Walnut. H. 94¼, W. 21¼, D. 10¾ in. Engraved on the name boss "Ant^{o} Ward / New York." Courtesy Winterthur Museum.

The "beehive," multiple-step sarcophagus top is a rarely seen feature. These design elements, in combination with the arched dial, dates the production of the clock near the end of Ward's career. Deep cast and intricate spandrels combine to produce a very pleasing dial. The earliest forms of sarcophagus tops are similar in every way to English examples and are clearly derived from them.

Eight-day tall clock, David Evans (active 1770–1790/91), Baltimore, Md., 1774–1790/91. Mahogany. H. 103, W. 21⅝, D. 12 in. Dial engraved "David Evans / Baltimore." Courtesy private collection.

Although the dial is engraved "Baltimore," David Evans began his career in Philadelphia. The design of the case reflects this in the pierced flame finials and fluted quarter columns. The carved peony rosettes in the scrolled bonnet are probably unique, being carved internally. Of particular note is the solid-silver dial and name boss, many times more costly than silvered brass.

considerably taller than it was wide. This was accomplished largely by reducing the height of the waist, since the overall height of the clock remained much the same.

Early bases tended to be quite plain, but in time applied panels began to appear. In New England these applied panels were generally conforming squares or rectangles, but farther south, particularly in the Delaware Valley, they could be quite curvilinear. Indeed, these matchbook panels, often referred to as "turtles" are often distinctive in their form and serve as regional case markers.

Similarly, distinctive design changes took place over time in the treatment of waist doors, particularly in the crest. The earliest doors, on square dial cases, were typically finished simply, with a flat top. As arched hoods appeared, they were usually finished with conforming tombstone crests. Then, in response to the rococo influence, most doors acquired shaped or ogival crests. These design time lines are, of course, only generalizations. Many clock cases were custom-built so considerable variety in design was common.

There are also pronounced regional differences in the construction techniques used for waist doors. Rhode Island and southeastern Massachusetts clock doors are typically made from thinner stock and are fitted in back with a mitered frame for stiffness. Virtually all clocks from the Delaware Valley, however, are made

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Eight-day bracket clock, Robert Fulford (d. 1794), Alexandria, Va. Mahogany. H. 22, W. 11¾, D. 7⅜ in. Dial engraved "Rob^{t} Fulford / Alexandria." Courtesy private collection.

Virginia clocks are quite rare. This bracket clock example features a solid-silver dial and subsidiary ring, clearly an expensive and rare undertaking. Additionally, the cast brass dial surround molding is seldom seen for similar reasons. The lack of engraving on the back panel suggests that the movement was produced locally rather than being imported from England.

Eight-day tall clock, William Claggett (1696–1749), Newport, R.I. Japanned. H. 112, W. 21½, D. 13 in. Dial engraved in the arch "William Claggett Newport." Courtesy private collection.

This is a tour-de-force of both movement and case making. The musical movement, combined with the subsidiary registers, moon dial, and intermediary spandrel placement places this among the very finest known. In addition, the rare survival of a japanned case with pierced spandrels add to the unique nature of this clock.

from a single piece of fairly thick stock. Generally speaking, nonconforming design elements, such as rectangular waist doors or rectangular sidelights with an arched dial, are indicative of cases made outside urban centers.

Advancing technology and the cost of labor overtook the tall case clock, making its continued manufacture untenable. However, the fact that these venerable icons have permanently entered the vocabulary of interiors, can largely be attributed to the extraordinarily long run they had. AFA

This article is adapted from *Timeless: Masterpiece American Brass Dial Clocks* (Hohmann Holdings, LLC, 2009), by Frank L. Hohmann III. For more information call 617.926.0004 or visit AntiquesandFineArt.com.

Frank L. Hohmann III *is a collector of eighteenth-century furniture with a concentration on brass-dial clocks. He is a trustee of Winterthur Museum and a liveryman in the Worshipful Company of Clockmakers. He co-authored and published* Captured Motion: the Sculpture of Harriet Whitney Frishmuth *(2006).*

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1. "On the 25th of December 1656, seventy-four years after Galileo first noticed the pendulum's swing, Christiaan Huygens at last succeeded in inventing the first practical pendulum clock." Hans van den Ende et al., *Huygens' Legacy: The Golden Age of the Pendulum Clock* (Isle of Man, U.K.: Fromanteel, 2004), dedication page.

2. Thomas Tompion (1639–1713), arguably the greatest of English clockmakers, actually built a pair of year-going clocks in 1676. One is preserved at the British Museum, while the other is at Greenwich Observatory. An American month-going example was made by John Fisher. (1736–1808).

3. "In 1712 Benjamin Bagnall made and sold in Boston eight-day clocks in hard wood cases." See www.furniture-styles.net/american/antique/clocks/early.htm, p.2. A tall-case clock signed by Abel Cottey, who worked in Philadelphia from 1682 to 1711, is termed as "possibly the earliest extant American-made clock." See Brooks Palmer, *The Book of American Clocks* (New York, Macmillan, 1950), no. 3. "Peter Stretch (1670–1746) immigrated to Philadelphia in 1702 and established himself as an early clockmaker." James Biser Whisker, *Pennsylvania Clockmakers, Watchmakers, and Allied Crafts* (Cranbury, N.J., Adams Brown, 1990), 123.

4. John Edwards, *The Complete Checklist of American Clock and Watchmakers; 1640–1950* (Stratford, Conn., New England Publishing, 1977), 10, n.557.

5. Jay Robert Stiefel, "Philadelphia Cabinetmaking and Commerce, 1718–1753: The Account Book of John Hear, Joiner," *American Philosophical Society Library Bulletin,* n.s., vol. 1, no. 1 (Winter 2001).