



# The Carriage Clocks of the Boston Clock Company

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The Boston Clock Company (hereafter BCC) came into being on May 29, 1884, as the successor to the Harvard Clock Company, which had previously been organized in October 1880. The BCC produced a wide variety of timekeepers as evidenced by its catalog, including mantel clocks in onyx and marble, crystal regulators, locomotive, and carriage clocks.<sup>1</sup> A total of about 15,000 clocks was its estimated production.

Joseph H. Eastman, a director in the original Harvard Clock Company, took over as manager of the BCC until early 1894. At that time its failing financial condition resulted in the sale of its tools, machinery, and patents to the Ansonia Clock Company of Brooklyn, NY. Eastman pursued many subsequent clockmaking enterprises but was never truly successful in business, as documented in an excellent 1986 NAWCC BULLETIN article by Harold Cherry.<sup>2</sup>

Some of Eastman's subsequent business ventures involved the Eastman Clock Company, Fairhaven Manufacturing Company, Vermont Clock Company, and the Derry Manufacturing Company. Among the clocks produced by these companies were designs similar to those of the BCC. As the result of various foreclosures and the actions of creditors, some of the assets of these companies found their way to the Chelsea Clock Company, though Chelsea was not a direct descendant of Eastman's BCC enterprise and there is no record that Eastman was ever involved with the Chelsea firm.<sup>3</sup>

Eastman's business problems were never attributed to poor quality products, but very much the opposite. The high quality of his clocks created greater expenses and the correspondingly higher prices were more than the market could support with a sufficient number of buyers. In fact, this high quality is one of the reasons why BCC clocks are interesting and attractive to collectors. These American-made clocks compared very well in craftsmanship with their overseas counterparts from France and England during this era.<sup>4</sup> Of further interest was the tandem wind movement for striking clocks, patented in 1886, whereby both time and strike barrels were wound by a single winding arbor turned first in one direction and then in the other.<sup>5</sup>

This article examines the five carriage clock models of BCC, which include four timepieces and one hour and half-hour "cathedral" striker that incorporates the

tandem wind. All five possess a straight-line lever escapement with a club tooth escape wheel that is described in the Boston catalog as "a fine watch escapement" and "noiseless." It sits vertically on a subframe behind a cut out of the backplate, thus eliminating the need for both a platform and a contrate wheel (as shown in Figures 6A to 9). In this position the escapement and balance are visible from the back of the clock but would not be seen through a top window if one existed in the clock case. This escapement and subframe configuration was patented on December 28, 1880, and that date is found on all BCC carriage clocks I have seen.

My focus in this article is on visual design and aesthetics, not on the mechanical aspects of these clocks and their movements.<sup>6</sup> These five models were made with a myriad of interesting decorative features and variations that are attractive to collectors. Some of these clocks also have puzzling features or curiosities that are intriguing to ponder, as we discuss later.

## The Five Models

Let's take a brief look at each model of this BCC carriage clock family. The pictures do this quite well, but I will try to put the pictures into words to highlight important features of each model. Then we will compare the models and describe some of the interesting variations and curiosities that keep collectors searching for those unusual examples that can highlight a collection.

### The Athens Model

Figure 1 shows the Athens model, sporting a multi-piece case with square columns in front and back and Arabic hour markings.<sup>7</sup> The cornices and skirts surrounding the case and the front columns contain bold furrows contrasted somewhat by the softer floral designs on the column tops and bottoms. The horizontal plates likewise have squared corners. Four corner finials surround a solid brass top, which incorporates a handle with slightly curved side arms supporting a straight ribbed brass rod. The matte gilt finish was probably applied later because the original gold plate became worn. To be discussed in more detail later are two unusual features of this example: the dial plate contains no mask surrounding the hour ring and the dial contains a signature.



Figure 1, left. Athens model, number C3532. Height 6½". Figure 2, center. Sparta model, number C3589. Height 6½". Figure 3, right. Queen Anne model, number C3767. Height 6½".

### The Sparta Model

A view of the Sparta model appears in Figure 2. Its design is identical to the Athens model its cornices, skirts, handle, finials, and solid top. It differs in the horizontal plates with rounded corners protruding from the front, side, and rear edges of the plates. Its round and slightly fluted columns contrast with the square and decorated columns of the Athens, giving the Sparta a slightly more elegant and relaxed feel. Roman numerals provide the hour markings. This example of the Sparta also contains the unusual features of a signature on the dial and absence of a dial mask.

### The Queen Anne Model

The Queen Anne model shown in Figure 3 is also similar to the Athens in a few respects: the square decorated columns, top and bottom horizontal plates, and the shape of the handle. But the Queen Anne skirt is sculpted and further embossed with more



Figure 4. Delos model, number C3383. Height 6½".

graceful designs. On top of the case is a gallery consisting of five urns capped by a rail and front and rear posts connected by side braces. The handle attaches between the braces. The posts follow the shape of the main columns and carry the finials, with taller rear posts to anchor the rail. A gilt mask surrounds the dial, which contains black Arabic numerals marking the hours and surrounding red numerals denoting every fifth minute. This configuration of fonts and colors is characteristic of many BCC carriage clock dials and typically includes the unique canted "2." The dial has no signature.

### The Delos Model

The Delos model shown in Figure 4 has a far simpler case, resembling the Obis style used in many French carriage clocks. Typical Obis cases have handle posts that sit aside the handle base and contain no handle stops, as in this Delos example. The Arabic dial, with numerals styled





**Figure 5, left.** Cyprus model, number D26. Height 7". **Figure 6A, center.** Sparta model backplate, cutout, and subframe. **Figure 6B, right.** Detail of the lever escapement in Figure 6A.

differently from those in Figure 3 but similar to those in Figure 1, has no signature and is surrounded by a dial mask. In this Delos model, the top of the clock case contains an oval glass window usually found in French carriage clocks to allow a view of the platform escapement. Of course, the Delos has no platform escapement to view through the top of the case. We discuss this curiosity later.

### The Cyprus Model

The final member of the BCC carriage clock family, the one with the tandem wind movement with cathedral striking on the hour and half-hour, is the Cyprus shown in Figure 5. Its Corniche-style case resembles the Obis style of the Delos, but it is larger and contains slightly more detailed top and bottom moldings. The Cyprus also has the more typical Corniche handle with stops to keep it from falling forward. This feature is found on many striking and repeating French carriage clocks where its practical reason is to prevent the handle from accidentally pressing the repeat button. This example of the Cyprus also contains an oval glass window in the case top for viewing a platform escapement. Since the Cyprus has no horizontal platform escapement to view or a button atop the case to trigger a repeat function, these are other curiosities to be discussed later. The dial's Arabic numerals are similar to those for the Delos (but small differences in the numbers 2, 4, 8, and 10 are seen). The outer minute rings

are also slightly different in style, and this example of the Cyprus has neither dial mask nor dial signature.

### Consistencies, Variations, and Curiosities among BCC Carriage Clocks

For a number of years I have been gathering information on BCC carriage clocks by monitoring eBay, other auction sites, websites, and other published material to learn about the features and design patterns in the BCC carriage clock family. Along the way I have added a few examples to my own collection, which are displayed in the pictures for this article. Each model has its own individuality and style, but I have found that there are many design variations between models and among different examples of each model. Before we explore those, let us note the consistencies supported by what I have found and observed.

#### Consistencies

**Movements and Travel Cases.** The movements on all BCC timepiece carriage clocks are alike in size and configuration. The plates are  $3\frac{3}{4}$  inches high and  $2\frac{1}{2}$  inches wide, and the components visible through the back door opening are always as shown in the Sparta in Figure 6A, taken with the escapement in motion. Figure 6B is a close-up showing more detail of the lever escapement when at rest. The striking Cyprus model has slightly larger plates (4 inches by  $2\frac{3}{4}$  inches) and carries a slightly different cutout of the backplate,



Figure 7. Cyprus model showing damascened backplate, escapement, coiled gong, and hammer.



Figure 8, above. Movement number C3383 on back and front plates of Delos model.

Figure 9, below. Movement number D26 on back, front, and dial plates of Cyprus model.



which is damascened and supports the coiled gong as in Figure 7. All Cyprus examples I have seen are designed alike. While this article is not about movements, I note the backplate configurations because of their aesthetic interest and uniqueness in the carriage clock world. These models had no alarm mechanism and, as noted in the BCC catalog, each clock was sold with a traveling case though few have survived to accompany their clocks today.

**Movement Numbers.** Each clock was numbered, with the usual location on the left side of the backplate as shown in Figure 8—the number C3383 on the back of a Delos model. That number also appears on the back of the front plate in about the same location. Figure 9 shows a Cyprus with the number D26 on all three plates—the backplate, the front plate, and the dial plate (sometimes called the false plate). The additional plate occurs in this model because of its striking mechanism. On rare occasion the number was placed on the right side of the backplate. The prefix C was used for the nonstriking models, whereas the prefix D occurred on the striking model. While all the Cyprus numbers I have seen were either two or three digits, no particular range of four-digit numbers seems associated with any of the four time-only models.

**Movement Signatures.** The BCC name together with its location of Boston and the patent date of December 28, 1880, form the signature appearing on all BCC carriage clock movements. On the nonstriking models this signature is concealed behind the dial

mask on the front of the movement front plate. Figure 10 shows the Delos of Figure 4 with its dial mask removed to show the signature below the dial.<sup>8</sup> Because of the hidden location of this signature, sellers of these carriage clocks sometimes do not recognize what they are and describe them as having an unknown maker or offer a misleading or clearly incorrect supposition (e.g., “probably of French origin”). But it is often possible to detect the signature on these models by sighting between the bottoms of the front plate and dial mask from one side of the clock while shining a light from the other.<sup>9</sup> On the Cyprus model, however, the signature appears directly on the backplate below the winding arbor and partly obscured by the gong. Figure 11 is a slightly enhanced photo of the signature on the Cyprus in Figure 7 with the gong removed.

**Hands and Glass.** All BCC carriage clocks I have seen directly or in pictures have spade hands in their dials. The Queen Anne shown in Figure 3 has slightly fatter spade hands, perhaps to complement the unique font used to designate the hours. It is surely conceiv-



able to find an example with different style hands, but such are likely replacements resulting from damage or breakage of the original hands. The glass panels on the front, sides, and back door are all beveled, as noted in the BCC catalog. Examples with a top window also contain beveled glass.

### Variations

**Dial Masks.** The typical pattern I have found is that the Cyprus model never used a dial mask, yet masks were customary for the four non-striking models. The BCC catalog pictures its carriage clocks in this manner. In the latter instances, the porcelain material carrying the hour and minute rings does not extend beyond the dial mask opening. Figure 10 shows a Delos with this arrangement; the dial mask can be removed while the dial remains attached to the front plate. Sometimes the dial is attached directly to the back of the mask by clips or tabs so that the connected mask and dial cannot be removed without first removing the hands. Occasionally, the dial of a non-striking model is painted on a solid porcelain dial plate with no surrounding mask, as in Figures 1 and 2. This presentation is more common for French carriage clocks, but it is definitely a rare variation for the time-only BCC carriage clocks.

**Dial Signatures.** The clocks in Figures 1 and 2 also have signatures displayed on their dials. Is it a coincidence that the examples of non-striking models with full porcelain dial plates and no masks also have BCC signatures while those examples with masks do not? In fact, this is what I have found in my scrutiny of websites and other sources displaying BCC carriage clocks.<sup>10</sup> The striking Cyprus model,



Figure 10, left. Delos model with dial mask removed to reveal BCC signature on front of front plate.

Figure 11, above. BCC signature on Cyprus model on backplate, with gong removed.

which never included a dial mask, also never contained a dial signature in my experience, perhaps because these clocks were already signed clearly in the backplate of the movement.

Figure 12 presents a close-up view of the dial and signature on the Athens (Figure 1), and Figure 13 does the same for the Sparta (Figure 2). Note that the signatures on these two dials are in two different locations—one below the dial ring and the other within the dial ring. Both signature locations have appeared on other examples as well. The dial ring and signature in Figure 13 seem a bit unrefined, a surprising contrast to the otherwise high quality of these movements and

Figure 12, left. Dial close-up of Athens model showing signature.

Figure 13, right. Dial close-up of Sparta model showing signature.



cases. Perhaps this dial is a replacement made after BCC components were no longer available. Its cursive lettering style is very similar to that in Figure 12 and, in fact, all BCC carriage clock dial signatures I have seen use the same lettering style regardless of both model and signature location.

**Dial Rings.** The dial ring includes two separate components: (1) the chapter or hour ring, which is encircled by a set of divisions comprising (2) the minute ring. The chapters are either Roman or Arabic, and the minute divisions are either freestanding or enclosed between two parallel circles. Thus we can categorize the five clocks pictured here as follows:

Athens (Figures 1 and 12)	Arabic and freestanding
Sparta (Figures 2 and 13)	Roman and enclosed
Queen Anne (Figure 3)	Arabic and enclosed
Delos (Figure 4)	Arabic and freestanding
Cyprus (Figure 5)	Arabic and enclosed

The Queen Anne dial also has the slightly stylized numerals with that distinctive canted 2, and it adds an outer ring of red numerals marking every fifth minute. This same dial configuration is found on other models, so it was not reserved for the Queen Anne. For instance, in the BCC catalog this dial pattern is seen on the Delos, and I have also seen it on a Sparta. In fact, most any combination of hour numerals and minute rings is likely to be found among examples of every model. For example, the BCC catalog pictures the Cyprus with Roman numerals surrounded by enclosed minute divisions and the Queen Anne with “regular” Arabic numerals and freestanding minute divisions. If there are any general tendencies, we might speculate that enclosed minute rings are likely to accompany Roman chapters while freestanding minute rings are more often seen with Arabic chapters. But there are many exceptions.

**Back Doors.** While not apparent from the pictures in this article, all five BCC carriage clocks shown here have beveled glass back doors through which the escapement and balance can be viewed. But some Queen Anne examples have come to light with solid brass back doors. I have not seen solid back doors on other models though they certainly may exist, but the BCC catalog describes all of its carriage clock models as having beveled glass on the front, sides, and back.

## Curiosities

The curious features of BCC carriage clocks relate to some case components found in the Delos and Cyprus models. These are indeed variations and could be included in the previous discussion, but I call them curiosities because when combined they lead to some speculative conclusions about where these cases came from.

**Top Windows.** Already noted in our comments about the Delos and Cyprus models are the top windows as

seen in Figures 4 and 5 but no platform escapements to view. The BCC catalog likewise shows these two models with top windows.<sup>11</sup> Other sources picture examples of these two models with closed tops and no windows.<sup>12</sup> Why were some cases supplied for these models with top windows while other cases had no top windows?

**Handles.** Three aspects of the handle vary: (1) its style, (2) the presence of handle stops, and (3) the position of the handle posts or mounts. The Delos in Figure 4 has a handle with three divisions, no handle stops, and side mounts. Such handles are very typical on the Obis case, as already noted. The Cyprus in Figure 5 also has a handle with three divisions, but it is connected to mounts that include handle stops directly below the handle arms, not to the side. This pattern is typical on the Corniche case style prevalent on numerous French carriage clocks that strike and repeat. Both clocks pictured here appear exactly as in the BCC catalog. Some Cyprus and Delos examples have been found to have ribbed handles, but the three divisions across the top are replaced by a set of ribs or furrows similar to those on the Athens, Sparta, and Queen Anne. I also have seen Cyprus handles with side mounts and no handle stops. So while there are variations in the handles of the Cyprus and Delos, I have not seen any variations in the handle designs of the other models, which is common to all three. So why were the Cyprus and Delos supplied with handles of varying design?

**Explanations?** The top windows and the handle styles that mimic those features in French carriage clocks should cause us to ponder whether some of the cases for the Delos and Cyprus models were made in France. The French were experienced producers making case components in large quantities for multiple buyers.<sup>13</sup> Perhaps the BCC believed that this source offered efficiency and reliability as long as the cases could be adapted to its movements. Then after its business became better established, the BCC could take over the making of its own cases and discard the unsuitable features, such as the top window and handle stops.<sup>14</sup> Let’s take a closer look at this supposition.

As already noted in the descriptions of Figures 4 and 5, the Delos case style resembles the French Obis, and the Cyprus case style is similar to that of the French Corniche. Because those were both popular case styles in France, it may be reasonable to assume that such items could be contracted and imported by the BCC without requiring the suppliers in France to initiate costly new production processes required for unique designs. To explore this assumption, it is interesting to compare the look of the BCC clock cases with their possible French counterparts. Figure 14 shows The Cyprus model of Figure 5 alongside a Corniche-cased repeating carriage clock by the French maker Richard. The similarities in size, case features, top win-

dow, and handle design with stops are apparent. The only major difference is that the Richard has a repeat button and the Cyprus does not.

Figure 15 presents the Delos of Figure 4 alongside an Obis-cased clock marked “Made in France” on the backplate but with no identified maker. All Obis cases were made in one size only—5½ inches tall.<sup>15</sup> So the Delos could not have used a standard-sized Obis case, though the handle and other case features of the two clocks shown are similar (except for the alarm dial on the Obis, of course).

It should be noted that Corniche cases were made in different sizes, and that shown in Figure 14 is the largest at 7 inches. Corniche cases were also made in 6- and 6½-inch heights, so the Delos size matches that of a middle-sized Corniche case. While the case features of the Obis resemble some of those of the Corniche, the handles are clearly different and the Obis top and bottom moldings are somewhat simpler. So what can we conclude about these curiosities? If we accept that early Cyprus and Delos cases were French-made, then we can see how the Cyprus and Corniche cases match up, but the Delos would have to have been a combination of the middle-size Corniche case with Obis characteristics, perhaps supplied by a casemaker who produced both case styles and could combine some of their features. If this is not what happened, a more definitive conclusion must remain for another day.<sup>16</sup>

### Conclusion

The carriage clocks of the Boston Clock Company provide great collecting opportunities. Not only are there five models of high quality but there are many variations that offer diversity in a collection. It is also interesting to note that there may be many other examples with even more unique characteristics, in light of what the BCC stated in its catalog of 1890: “The movements for time and cathedral striking, or for time only, can be supplied to anyone who



Figure 14. Comparison of Cyprus case (left) with Corniche-cased French clock by Richard (right).



Figure 15. Comparison of Delos case (left) with Obis-cased French clock by an unknown maker (right).



may prefer to import or obtain cases for their use....” I have seen a few unusual examples that may have been the result of this offer. One involved a Cyprus movement in an anglaise riche case with a scrolled and pierced mask that was sold in a Christies’ auction in 1999. Another was a Cyprus with handle posts shaped like lion heads. Still another was a Sparta with a black enamel dial, gold chapters, and a dial center mask pierced to show the numerals through circular openings. But even in its standard design, the Queen Anne model is a stunning and delightful work of art. The Athens and Delos models, with their interesting finials and columns, are distinctive in comparison with other carriage clocks from America and most from France. And the curiosities of the Delos and Cyprus models provide engaging speculation and discussion.

## Notes

1. Illustrated Catalogue, Boston Clock Company, 1890, reprinted by Adams Brown Company, 1973. The name Boston Clock Company appeared on the dial of a Crane Year Clock made ca. 1840, but this name or clock had no known connection with the Boston Clock Company established in 1884. See Sonya L. and Thomas J. Spittler and Chris H. Bailey, *American Clockmakers and Watchmakers* (Fairfax, VA: Arlington Book Company, Inc., 2000): p. 76 under the entry for Crane, Aaron Dodd.

2. Harold Cherry, “Joseph Eastman and the Boston Tandem Wind: The 100th Anniversary,” *NAWCC BULLETIN* (No. 242) (June 1986): pp. 216-238.

3. See the website [www.chelseaclockmuseum.com](http://www.chelseaclockmuseum.com) for more details on the life of Joseph Eastman and his business ventures. The production estimate of 15,000 clocks comes from this source.

4. In describing Boston carriage clocks, Allix used the terms “high-class productions” and stated that they “well stand comparison with good quality French carriage clocks.” See Charles Allix, *Carriage Clocks: Their History and Development* (Woodbridge, Suffolk: Antique Collectors Club, Ltd., 1974): p. 381.

5. Cherry (note 2) describes this mechanism in detail and compares it with other similar winding mechanisms.

6. Readers interested in the movements and mechanics of these clocks should read the article by Cherry (note 2). Further information on these movements is found in Charles Allix (note 4), pp. 376-384.

7. All height measures include the raised handle.

8. When a nonstriker has no dial mask, as in Figures 1 and 2, the signature is also found on the front of the front plate and is revealed when the entire dial plate is removed.

9. This suggestion comes from Ruthellen and Norman Gahm, “The Boston Clock Company Carriage Clocks,” *Journal of the Tandem Winders*, vol. II, no. 1 (Winter 1983). This publication was produced quarterly by the Tandem Winders, a special interest group of the NAWCC from 1981 to 1985.

10. For instance, Allix (note 4) pictures two Queen Anne examples on page 378, one without and one with a dial mask. Both dials had Roman chapters but the dial with no mask is

signed in the same location as shown in Figure 2 here. Another Queen Anne with no mask and Roman chapters was sold on eBay in April 2005 with a dial signature in the same location as shown in Figure 1 here, as did a Delos with no mask and Roman chapters that was sold on eBay in September 2005. A Queen Anne with Arabic chapters sold by Jones & Horan auction house in June 2008 had no mask and a signature below the dial ring. But one anomaly was found for a Delos sold on eBay in July 2005. This clock had a dial mask and also a dial signature, though it was a retailer signature (Caldwell) rather than that of the BCC.

11. Might this have been done deliberately to give the impression that these clocks were “French-like” in style and quality? This is a speculation only; I have found no supporting evidence.

12. Same source as note 9 as well as other sources in my review.

13. The article in note 9 says that there were production numbers on various parts of the BCC clock cases with these “French” characteristics and that production numbers were part of the French manufacturing tradition.

14. The two Cyprus examples I know about with handle stops and top windows have the low numbers of D26 and D39, suggesting early production. Yet the BCC catalog of 1890, which is six years after the company officially began, shows the Delos and Cyprus with top windows and the Cyprus with handle stops. So perhaps the BCC never completely stopped importing at least some of the cases they needed.

15. Allix (note 4), p. 163. Roberts agreed, stating about the Obis case that “The design of the handle and the size of the case were always the same.” See Derek Roberts, *Carriage and Other Travelling Clocks* (Atglen, PA: Schiffer Publishing Ltd., 1993): p. 89.

16. Perhaps the BCC appropriated these “French-like” case characteristics intentionally for the reason suggested in note 11. But this begs the question of why examples exist with solid tops and no windows.

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Tom Wotruba has a Ph.D. in business administration and is an emeritus professor of marketing at San Diego State University where he retired in 2000. During his teaching career of more than 30 years, Tom published textbooks and many articles in academic business journals. An avid collector of carriage clocks for more than 20 years, he has published five previous articles in the *NAWCC BULLETIN* beginning in August 1999 and another in the *Horological Journal* in 2003. He can be reached at [twotruba@mail.sdsu.edu](mailto:twotruba@mail.sdsu.edu).