

The Dating Game: The Distinctive Marks of the Charles Boldt Glass Co.

By Bill Lockhart, Pete Schulz, Carol Serr and Bill Lindsay

History

In the 1890s, Charles Boldt was president of the Muncie Glass Co. in Muncie, Indiana. In 1900, he built a new factory at Cincinnati and then reorganized as the Charles Boldt Glass Co., operating both plants. Production included a “general line” of bottles, but the emphasis seems to have been on packers’ ware and liquor bottles. One of the first items of business at the new Cincinnati plant was a large order of catsup bottles—reputedly “enough to make a thousand carloads of finished goods.” At least initially, the Muncie plant was used for flint glass, with Cincinnati for flint and amber. In 1904 (and for several years thereafter), the former plant had two continuous tanks with a total of 13 rings; the latter had three continuous tanks with 22 rings (*American Glass Review* 1934:149, 161; *Lima Times Democrat* 1900; Roller 1994:74). The Cincinnati factory made “liquor ware, flasks and packers’ ware” in 1904, while the Muncie plant made “a general line of bottles and packers’ ware in flint” (*American Glass Review* 1934:149; 161).

It is unclear when machine production began in these factories, but it was certainly present by 1905. Hand production existed alongside semiautomatic machines for several years in both plants. In 1905, Boldt reportedly decided to convert Muncie to an all-machine green-glass operation, and to devote it entirely to producing fruit jars, “press liners” and jar lids.¹ At the same time, fruit jar production was to be discontinued at Cincinnati. It is unclear how thoroughly the plans were carried out, but Boldt did use it as a rationale for switching the jurisdiction of the Muncie factory from the Bottle Blowers Association to the Flint Workers’ Union. Two machines were in place, making 4 oz. and 24 oz. “cherry bottles.” Also in 1905, machines (perhaps newly installed) were in use at Cincinnati.

In 1907, turn molds were being used for metal from the amber tank at Cincinnati, presumably on cylindrical liquor bottles. The following year, the plant was running full, employing 16 blownware shops on one

tank, and 20 machine shops on the other two tanks, “packers, flasks, etc.” being the product. At the same time, Muncie started the year with three machines, had four at mid-year (one producing milk bottles, two for whisky flasks and one – a new “Johnny Bull” – for “brandy-fives”), and finished the year with five. At the beginning of the year, 30 glassblowers were also employed. We have found no further record of fruit jar production – on machines or otherwise (*Commoner and Glassworker* 1907e; 1908j; 1908k; Mayer 1908b; 1908c; *National Glass Budget* 1905n; 1905o; 1905p; 1906; 1912c).

The Muncie plant was worked through the end of 1908 and then turned over to the newly-established Muncie Glass Co. Prior to transfer, the by-then five machines at Muncie were moved to Cincinnati, along with the men who ran them. This should have left the Muncie factory as a hand shop, but reference to a “machine tank” makes this uncertain. The plant specialized in prescription ware. Though it reportedly had been “sold” to the new company, union sources asserted that Muncie Glass was merely a holding company for Boldt. When the factory was destroyed by fire in January, 1910, Charles Boldt was listed as the owner. Five hundred people were employed in the short-lived operation. The plant was rebuilt, and that fall it was making “milk bottles, flasks, packers and a general line of machine ware” on five machines.² Nonetheless, the company was dissolved in December (Boldt 1909; *Commoner and Glassworker* 1908l; 1909n; *Fort Wayne Sentinel* 1910; Mayer 1909; 1910b; Muhleman and Allen 1909; Roller 1994:75).

“Disposal” of the Muncie plant left the Cincinnati operation with 16 hand shops, as well as 32 machine shops on 16 machines. Other than the Johnny Bull(s), we do not know what kinds of machines were in use. That soon changed, however. In the fall of 1909, Boldt acquired the right to manufacture liquor bottles on the Owens automatic machine. By the following February, two Owens machines were in place, a 10-arm machine that was turning out half-pints, and a six-arm

machine making pints.³ By October, four machines were in place, with expectation of three more by year’s end, and all the hand blowers had been eliminated (Boldt 1909; *National Glass Budget* 1909f; 1910b; Mayer 1910a).

The success of this conversion led to a period of expansion. In 1911, the Cincinnati plant was enlarged to accommodate more Owens machines. The new facility was intended to double the output capacity – being modeled after the Owens Co. plant at Fairmont, West Virginia. By 1913, a total of 14 machines were in place, making “liquor ware of all kinds.” In the latter year, the company built a second factory, in Huntington, West Virginia, but what it produced and how, are not presently clear (Hayes 1913; *National Glass Budget* 1911a; 1911b; Six 1993:29; Toulouse 1971:91).⁴

This expansion, however, fell afoul of the growing Prohibition movement. Boldt’s license to use the Owens automatics applied only to liquor ware, and this market soon went into decline as increasing numbers of states and local governments banned alcohol consumption. By 1915, the company was still credited with 14 machines, but ten of them were idle. With the advent of national Prohibition in 1919, the investment in these machines – with the restrictive license – became almost worthless, and the Cincinnati plant reportedly closed. At this point, the Owens Bottle Co. purchased the majority of the Boldt stock, thus acquiring control of the company.⁵ This led to installation of new equipment at both plants, and a shift from liquor ware to a varied line of narrow and semi-wide mouth bottles (*Glassworker* 1925; Hammer 1925; Hayes 1915; Toulouse 1971:91).⁶

In January, 1926, Owens Bottle took over the Boldt plants entirely, consolidating them with the Owens operation. While both plants had been in operation until the takeover, only Huntington was listed thereafter as an Owens plant, suggesting that Cincinnati was simply closed (*Charleston Gazette* 1925; Moody’s Industrials 1928:1388).

Bottles and Marks

B with two extended serifs (1910-1919 – on Owens automatic ware)

This mark is found extensively on pint whiskey flasks. Most are colorless and have Owens scars on the base; none have the shoulder-embossed “FEDERAL LAW FORBIDS SALE OR RE-USE OF THIS BOTTLE” warning that was required from 1935 to 1964 (Busch 1991). The mark may be found on the heels or bases of the bottles or on both [Figure 1] (Lockhart 2000b:58-60, 69).⁷ The mark is also frequently found on cylinder whiskey bottles, especially in the quart size [Figure 2]. Although the mark may be found on other containers (see below), liquor bottles were Boldt’s only production item on Owens machines, and Boldt was the only B-initialed company licensed to make such bottles on Owens machines prior to Prohibition. Machine-made containers with the B mark may be dated from 1910 (the beginning of Owens machine production at Boldt) to 1919 when the Cincinnati factory closed, and whiskey bottle production generally ceased because of Prohibition.⁸ We have found no evidence that the mark continued to be used on other containers after 1919. It is possible that control of the company by Owens in that year led to dropping the B mark. Nonetheless, if the mark is found on Owens-machine-made non-liquor wares, it can only indicate the period of Owens control when the restriction of the original license was lifted (1919-1926). Although Jones (1966:15) attributed the serif-B mark to the Buck Glass Co., she was in error.

B with two extended serifs (1900-1910 – on mouth-blown or semi-automatic ware)

Although uncommon, hand-made flasks are also embossed with the two-serif B mark. Christopher D. Adams, archaeologist for the U.S. Forest Service, reported an amber pint flask that was mouth-blown with a two-serif “B” embossed on the center of its base. Berge (1980:91, 146) illustrated two examples of the mark found in Utah. The first is a half-pint bottle with an early style of continuous-thread finish with a two-serif “B” embossed on the base beside an upside-down 16. Although Berge was careful with his illustrations and showed other Owens scars, none is visible on this bottle. Berge also illustrated another, round, colorless relish bottle base embossed B/504D. We found another example, an



Figure 1: Serif B Mark with Owens Scar on both Heel and Base [TUR]



Figure 2: Serif B Mark with Owens Scar [Suzy McCoy]



Figure 3: Serif B Mark on Catsup Bottle – No Owens Scar [TUR]

apparent catsup bottle, in the Tucson Urban Renewal collection at the Arizona State Museum. Along with the “B” mark, the base was embossed “DESIGN PATENTED / NOV. 30TH, 1897” [Figure 3].

BOLDT (ca. 1905-1908 – Fruit Jars) (1910-1919 – Liquor Jugs)

According to Toulouse (1971:91-92), this mark may be found on at least two types of fruit jars (both machine made) manufactured between 1900 and 1927. He gave no explanation why he chose 1927 as a closing date. In his earlier book, Toulouse (1969:48-49) noted that the “BOLDT MASON” was made between 1900 and 1915, and the “BOLDT MASON JAR” was made between 1912 and 1927 [Figure 4]. As usual, he gave no explanation for his choice of dates. Both jars had the name embossed on the shoulder.

Creswick (1987:30) also showed two BOLDT MASON jars. One was embossed “MASON,” but the other read “MASOM,” an engraver’s error. She dated the jars “circa 1905 or later” and listed three companies (Muncie Glass Co., Charles Boldt Glass Co. and Charles Boldt Glass Manufacturing Co.) as possible makers.



Figure 4: Boldt Mason Jar [eBay]

Roller (1983:70) also dated the jar at ca. 1905 but added the following information: A 1905 letter by the Charles Boldt Glass Glass (*sic*) Co. headed "Muncie, Indiana," announced that they would begin making MASON FRUIT JARS on April 1st. Whether these jars were made in other years, and at Boldt's Cincinnati, Ohio, plant is not known.

Two factors are relevant to establishing a date for this fruit jar mark. First, food bottles – and presumably fruit jars – were made by Boldt beginning in 1900. In 1905 fruit jar production was shifted entirely to the Muncie plant which operated under Boldt only through 1908; there is no evidence that Cincinnati made anything but liquor ware between 1905 and 1919. They may have made food containers again from 1919 until 1926, but those would have been made on Owens machines. Consequently, "Boldt" fruit jars made by hand or on semiautomatics should date between 1900 and 1908. If they were made on Owens machines, they should date from 1919 to 1926. All jars embossed "BOLDT / MASON JAR" that we have seen (sample of six) were made by press-and-blow machines, so they, at least, should be dated 1905-1908.

The word "BOLDT" was also embossed on the bases of liquor jugs [Figure 5]. All such marks that we have seen were found on bases of colorless jugs made on Owens machines. Therefore, these jugs should be dated 1910-1919.

CHAS.BOLDT CO.CIN.O (ca. 1905-1910)

This mark is embossed very low on the heel of a large, wide-mouth bottle in the David Whitten collection [Figure 6]. The bottle has a round ejection mark on the base indicating a manufacture by a semi-automatic or (non-Owens) automatic bottle machine. It is uncertain how early machine production began at Cincinnati. Possibly, it was used for part of the output from the beginning, but certainly machines were in use at the Cincinnati plant by 1905.

The evidence at hand indicates that the plant converted entirely to narrow-mouth liquor ware, and entirely to Owens machine production, during 1910.

TIP TOP (ca. 1904)

The TIP TOP trademark (43,383) was registered on September 20, 1904, the company specifying that it had been in use

since August 1 of that year. Although it was reportedly embossed on bottles, the class of ware was not noted, and we have seen no examples.

C.B.CO. (ca. 1905-1919)

Feldhaus (1987:33-34) listed a colorless, one-gallon liquor jug (without handle "eyes"), with a C.B.CO. logo. The jug was made for A.M. Smith, a Minneapolis, Minnesota, liquor dealer and was embossed with his name and address. Smith was in business from 1888 to 1910. A similar amethyst jug from the "DANVILLE DIST. CO. INC.," Danville, Virginia, is embossed "C.B.CO.PAT." on the heel and has a serif B, along with an Owens scar, on the base [Figure 7]. This combination of the C.B.CO. mark, the serif B, and the Owens scar distinctly ties "C.B.CO." to the Charles Boldt Glass Co. A final piece of evidence is a jug marked "CHAS.BOLDT CO.CIN.O." (see above), a testimony that Boldt used a name that corresponded to the "C.B.Co." initials. There were certainly other CBCo marks, but those must remain for another Dating Game column.

Discussion and Conclusion

In both its earliest and latest stages, Boldt produced a variety of bottles. In the early years of the company, the plants also made jars, although these were probably discontinued by 1908. From the time Boldt received Owens machines (1910), he mostly made whiskey flasks and bottles. His primary mark on liquor products was a "B" with two serifs extending to the left. He used variations of his company name (BOLDT, CHAS.BOLDT.CO., etc.) on larger containers (e.g., half-gallon and gallon jugs) and fruit jars. The C.B.CO. mark was also used on large containers but should not be confused with other C.B.Co. marks. Boldt's C.B.CO. has been only found on colorless jugs.

Acknowledgments

We would like to thank Alan Ferg and the staff of the Arizona State Museum for allowing us to photograph bottles from the Tucson Urban Renewal collection (TUR), one of which was used in this publication. Kudoss also to Suzy McCoy, volunteer at the Rhyolite Bottle House for sending us photos from that building (one of which is



Figure 5: BOLDT Mark on Whiskey Jug [eBay]



Figure 7: C.B.Co. Mark used by Boldt [eBay]



Figure 6: CHAS.BOLDT CO.CIN.O on a Wide-Mouth Bottle [David Whitten]

included in this article). Our deep gratitude to David Whitten, former member of the Bottle Research Group, still a friend and contributor. And always our gratitude goes to the legions of eBay sellers who post photos and information on the jars and bottles they sell. This is a gold mine for glass bottle researchers!

References

- American Glass Review
1934 *Glass Factory Yearbook and Directory*. American Glass Review, Pittsburgh, Pennsylvania. Includes reprint of the *Glass Trade Directory for 1904*. Commoner Publishing Co., Pittsburgh, Pennsylvania.
- Berge, Dale L.
1980 *Simpson Springs Station: Historical Archaeology in Western Utah*. Cultural Resource Series No. 6. Bureau of Land Management, Utah.
- Boldt, Charles
1909 Statement from Charles Boldt. *Commoner and Glassworker* 27(32):12. [5-15-1909]
- Busch, Jane
1991 "Second Time Around: A Look at Bottle Reuse." In *Approaches to Material Culture Research for historical Archaeologists*, pp. 113-126. Society for Historic Archaeology, Ann Arbor, Michigan.
- Charleston Gazette*
1925 "Boldt Plant is Taken by Owens." *Charleston Gazette*, Dec. 12, 1925:3. [Charleston, WV]
- Commoner and Glassworker*
1907e "Queen City Glass News." *Commoner and Glassworker* 26(5):1, 4. [11-16-07]
- 1908i "Will Not Operate This Season." *Commoner and Glassworker* 26(48):5. (Sept. 5, 1908)
- 1908j "Live Notes from Muncie." *Commoner and Glassworker* 26(42):5.
- 1908k "From the Queen City." *Commoner and Glassworker* 27(6):12.
- 1909n "Muncie Plant is Now in Blast." *Commoner & Glassworker* 27(16):5.
- Creswick, Alice
1987 *The Fruit Jar Works, Volume II, Listing Jars Made Circa 1900 to Modern*. Privately printed, Grand Rapids, Michigan.
- Feldhaus, Ron
1987 *The Bottles, Breweriana and Advertising Jugs of Minnesota 1850-1920: Volume II: Whiskey, Druggist, Medicine*. Privately published, Edina, Minnesota.
- Fort Wayne Sentinel*
1910 Big Fire at Muncie. *Fort Wayne Sentinel*, January 12, 1910:11. [Fort Wayne, IN]
- Glassworker*
1925 "Modern New Producer Installed." *Glassworker* 44(25):13-14.
- Hammer, J. M.
1925 "A Startling New Bottle Conveying Machine." *Glassworker* 44(24):13-14, 21-22..
- Hayes, Denis A.
1913 "Bottle Making by Machinery." *National Glass Budget* 29(16):1-3. [8-23-1913]
- 1915 "The Glass Bottle Situation." *National Glass Budget* 31(14):1-2. [8-14-1915]
- Illinois Glass Company
1920 *Illustrated Catalogue and Price List Illinois Glass Company: Manufacturers of Bottles and Glass Containers of Every Kind*. Illinois Glass Company, St. Louis.
- Jones, May
1966 *The Bottle Trail, Volume 6*. Nara Vista, New Mexico.
- Journal of Industrial and Engineering Chemistry*
1913 "The Present Status of the Glass Bottle and Hollow Ware Industries in the United States." *Journal of Industrial and Engineering Chemistry* 5(11):951954.
- Lima Times Democrat*
1900 "Big Order Given to a New Industry in the Queen City." *Lima Times Democrat*, Feb. 23, 1900: 1. [Lima, Ohio.]
- Lockhart, Bill
2000b "Cache or Trash? Glass Artifacts from the Senate Office Building Privy" in *The State Office Building Archaeological Project: Testing Report*. Anthropology Research Center, University of Texas at El Paso, El Paso.
- Mayer, Charles C.
1908b "News Concerning Many Plants in the Indiana District." *Commoner and Glassworker* 26(16):1, 12. [2-1-1908]
- 1908c "Flint, Window and Bottle News from the Western District." *Commoner and Glassworker* 26(37):1, 12. [6-27-1908]
- 1909 "Latest News of the Trade from Many Glass Centers." *Commoner & Glass Worker* 28(3):1, 5. [10-23-1909]
- 1910a "Latest News of the Trade from the West Virginia District; Bottle Machines at Boldt Plant." *Commoner and Glassworker* 23(18):1. [2-5-1910]
- 1910b "Live Glass Trade Items from the Western District." *Commoner & Glass Worker* 28(51):1, 12. [9-24-1910]
- Miller, George L. and Tony McNichol
2002 "Dates for Suction Scarred Bottoms: Chronological Changes in Owens Machine-Made Bottles." Paper presented at the 2002 SHA meetings, Mobile, Alabama.
- Moody's Industrials
1928 *Moody's Manual of Investments, American and Foreign: Industrial Securities*. Moody's Investors Service, New York.
- Muhleman, Arthur and John Allen
1909 "Bottle Blowers' Statement." *Commoner and Glassworker* 27(33):13. [5-23-1909]
- National Glass Budget*
1905n "A Change at the Boldt Factories." *National Glass Budget* 20(47):5.
- 1905o "Boldt Dumps Dennis." *National Glass Budget* 20(48):1.
- 1905p "Boldt Trying Machines." *National Glass Budget* 20(47):8

1906 "Labor Leaders Exchange Courtesies." *National Glass Budget* 22(8):1.

1909f "The Automatic Reaches Out." *National Glass Budget* 25(17):1.

1910a "Bottle Machine Statistics." *National Glass Budget* 25(50):1.

1910c "Ware for the Liquor Trade." *National Glass Budget* 26(21):10.

1911a "Boldt Bottle Factory Enlargement." *National Glass Budget* 26(47):3.

1911b "Passing of Bottle Blowers." *National Glass Budget* 26(49):1.

1912c "Changes Wrought in 7 Years." *National Glass Budget* 28(30):1.

Roller, Dick

1983 *Standard Fruit Jar Reference*. Privately published.

1994 *Indiana Glass Factories Notes*. Acorn Press, Paris, Illinois.

Scoville, Warren C.

1948 *Revolution in Glassmaking: Entrepreneurship and Technological Change in the American Industry, 1880-1920*. Harvard University Press, Cambridge, Massachusetts.

Six, Dean

1993 *The Index to Dean Six's Encyclopedia of West Virginia Glass*. West Virginia Museum of American Glass, Ltd., Weston, West Virginia.

Toulouse, Julian Harrison

1969 *Fruit Jars*. Thomas Nelson & Sons, Camden, New Jersey.

1971 *Bottle Makers and Their Marks*. Thomas Nelson, New York.

Walbridge, William S.

1920 *American Bottles Old & New: A Story of the Industry in the United States*. Owens Bottle Company, Toledo, Ohio.

Wilson, Bill and Betty Wilson

1969 *Western Bitters*. Old Time Bottle Publishing Co., Salem, Oregon.

Endnotes:

¹ Press liners were probably the flat glass (often milk glass) disks that were held in place by a zinc (or later steel) threaded band to form the lid on some jars. However, we were unable to find a definition for the term in any of our sources.

² Since by this time the Cincinnati plant was busily converting to Owens machines, it is possible that these were the same five semiautomatics that had been moved from Muncie to Cincinnati at the end of 1908.

³ Scoville (1948:106) and Miller and McNichol (2002:7) report that the contract with the Owens Bottle Machine Co., giving Boldt one of only two licenses for manufacture of whiskey containers on the Owens machine, was signed on June 10, 1910, and actual production began the following year. Contemporary sources, however, indicate that by the reported license date Boldt had already been in production for at least five months. There was actually a third license retained by Owens for its own manufacture of whiskey bottles.

⁴ References to Boldt's 14 Owens machines all refer to the "Charles Boldt Co., Cincinnati," leaving the impression that they were all located at that plant, but as the Huntington plant is never listed in these tallies, this is not certain.

⁵ Walbridge (1920:111) noted that as part of this deal, Boldt joined the Owens

board of directors. The addition of Boldt to the Owens management was seen as helping to establish the company "in the foremost rank of the world's bottle manufacturers." This was evidently one of the developments that inspired the change in corporate name from "Owens Bottle-Machine Co." to "Owens Bottle Co."

⁶ Scoville (1948:112) reports that after the 1919 stock purchase, the Charles Boldt Glass Co. was renamed the Charles Boldt Glass Manufacturing Co. We have not seen this revised name used in any contemporary sources.

⁷ Lockhart erroneously attributed the "B" mark to the Brockway Machine Bottle Co. following Toulouse (1971:57-61).

⁸ Although some legal whiskey production continued for medicinal purposes, the vast majority of legal liquor production ceased. A 1920 Illinois Glass Co. catalog still illustrated and offered a variety of liquor bottles. A copy in the possession of one of the authors was sent to a potential customer in Durango, Mexico – indicating a possible external market where alcohol was still legal.

There was also some violation of the law by both bottle makers and bootleggers. The Latchford-Marble Glass Co., for example, was caught making beer bottles for use by an American ring (*Los Angeles Times* 11/11/1926; 12/17/1926).