# The Mississippi Glass Co.

Bill Lockhart, Pete Schulz, Beau Schriever, Carol Serr, and Bill Lindsey with contributions by Terry Schaub

[Parts of this study were originally published in Lockhart et al. 2009.]

The Mississippi Glass Co. began in 1873 at St. Louis, soon becoming a major producer of beer bottles for the Anheuser-Busch Brewing Co. – as well as making numerous other bottle styles along with grooved-ring wax-sealer fruit jars. Incorporating in 1876, the firm was very successful, but it shifted its product line in 1884 to plate glass (especially wire glass), eliminating all container manufacture. The firm remained in business to at least the early 1970s.

#### Histories

# Mississippi Glass Works, St. Louis, Missouri (1866)

The Mississippi Glass Works was listed in the 1866 city directory at Allen Ave., southeast corner of Fulton. Albert Hamilton was the president of the corporation, with George C. Paul as secretary, and R.W. Richards as cashier (treasurer). This may have been an ancestral firm, leading to the Mississippi Glass Co., or it may have failed soon after it began. This was not the location of the later company. We have found no other information on this firm.

# Mississippi Glass Co., St. Louis, Missouri (1873-1971 or later)

George D. Humphreys moved from Connecticut to Saint Louis and established the Mississippi Glass Co. in 1873, building the factory at the corner of Main (or Second) and Angelica Streets as a manufacturing center for beer bottles, possibly beginning production the following year. William F. Modes, both earlier and later connected with numerous glass factories, was the first superintendent. Although we have found very few references for the

<sup>&</sup>lt;sup>1</sup> Morrison & Irwin (1885:64) claimed that the Mississippi Glass Co. incorporated in 1873, but that was not corroborated by any other source.

plant's early years, the company incorporated in 1876. An 1878 letterhead in the Terry Schaub collection showed that John Walsh was president at that time, with William Young, Jr., as secretary and treasurer (Ayres et al. 1980:27; *Crockery and Glass Journal* 1880:12; *National Glass Budget* 1909:4; Pittsburgh Plate Glass Co. 1946; von Mechow 2017 – Figure 1). In 1880, the *St. Louis Globe-Democrat* (1/17/1880) bragged that:

the Mississippi and Lindell glass companies of this city have constantly added new furnaces to their already extensive works, and the glass trade of the west and south is now supplied by St. Louis. In consequence of the largest beer-bottling establishments in American being located here, the manufacture of beer bottles is one of the main features of the glassworks (quoted in Wilson & Caperton 1994:68).

The Globe-Democrat continued to note that Anheuser-Busch alone used six million bottles in 1880 and had contracted with Mississippi and Lindell glass houses for ten million for the following year. These two sources confirmed that the Mississippi Glass Co. was a major producer of beer bottles.

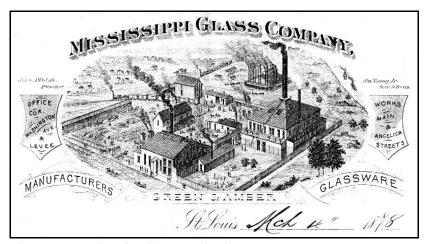


Figure 1 – 1878 letterhead (Terry Schaub)

However, the firm only advertised in the *Western Brewer* for a relatively short period of time (January 1883 to January 1885 – just two years). Wilson and Caperton (1994:71, 75), in their study of the *Western Brewer* in relation to the beer bottles found at Fort Selden, New Mexico, speculated that "if . . . the entire output of bottles was used by [Anheuser-Busch], then there was no need for the glass works to advertise" – but the actual reason was because of its shift in production in 1884 (see below).

The *Year Book* (1882:106) provided a cameo view of the company in 1882. The president of the corporation was Edward Walsh (probably from the beginning, certainly by at least 1877). The plant produced "green ware, beer bottles, fruit jars, and druggist's packing

bottles." The factory had one furnace with eight pots and a second one with six pots. The *Year Book* noted that "their trade is west of St. Louis and as far east as Indianapolis." Since many bottles with the MGCo mark were found in the West, this reference may be significant.

The *St. Louis Post-Dispatch* reported on November 22, 1882, that the Mississippi Glass Co. was experimenting with the use of hydrogen gas to heat its furnaces. This was probably a reference to natural gas (propane), although we have found no other information about this usage.

Playchan (1969:75) confirmed the beer bottle connection from Anheuser Busch records:

Prior to 1886 the main source of beer bottles for the Anheuser-Busch Brewing Association were [sic] four glass works: the Mississippi Glass Co. and the Lindell Glass Co. of St. Louis; the Pittsburgh City Glass Co. of Pittsburgh, Pennsylvania; and the DeSteiger Glass Co. of LaSalle, Illinois.

Because of carefully researched marketing considerations (see the Discussion and Conclusions section), the Mississippi Glass Co. underwent a major product change in 1884, when the plant was reconstructed for "the manufacture of rough, ribbed and cathedral glass" (Ayres et al. 1980:27). Wilson and Caperton (1994:69) cited St. Louis newspapers, noting that the company was manufacturing skylight and cathedral plate glass in June 1885 and that it exclusively made plate glass by 1887, although the plant suffered a major fire in that year. Morrison & Irwin (1885:64) explained that Mississippi Glass was in transition in 1884, with one furnace continuing to produce bottles, the other one devoted to plate glass. This change of product effectively places the end of container production at 1884.

The Mississippi Glass Co. was listed in St. Louis in 1897 and 1898 under the heading of "Cathedral and Rough Plate Factories," making glass in 120 pots (*National Glass Budget* 1897:7; 1898:7). On April 19, 1901, the *New York Times* reported that the "Mississippi (Wire) Glass Co." had been recently incorporated at Trenton, New Jersey, with a capital of \$1,500,000. The new firm engulfed the Besto Glass Co., the Wire Glass Co., the American Wire Glass Mfg. Co., and the Appert Glass Co., planning to make wire glass at both St. Louis and the former Appert plant at Port Alleghany, Pennsylvania, and other glass products at Latrobe, Pennsylvania. The factory was constructed in 1898, in operation by 1899, and was expanded in 1903 (Bernas 2013; Catlin 1991). See Table 1 for a list of factory locations.

**Table 1 – Mississippi Glass Co. Factories** 

Location	Dates*
St. Louis, Missouri	1873-1971 or later
Port Allegany, Pennsylvania	1901-1934
Morgantown, West Virginia	1904-closed by 1943
Floreffe, Pennsylvania	1906-at least 1944
Washington, Pennsylvania	1930-closed by 1943
Streator, Illinois	by 1933-ca. 1935
Fullerton, California	by 1933-at least 1944

<sup>\*</sup> End dates were mostly derived from the Glass Factory editions of the *American Glass Review*. However, there is a gap in our information between 1936 and 1942. Toulouse (1971:358) noted that the St. Louis plant was still in business in 1971.

The emphasis on wire glass directly resulted from a change in standards required by the National Board of Underwriters (insurance) in 1892. In order for a building to receive insurance, the Board demanded that any plate-glass skylights be reinforced by netting immediately below them *unless* such skylights were manufactured with internal wire netting. Since wire netting below the glass would be unsightly, wire glass became popular almost immediately, and the Mississippi Glass Co. was the first to pass the Underwriters' standards in 1899 (Kefallinos 2013:23). A 1920 catalog showed that the glass house produced a large variety of designs for the glass surface. Although pleasing in themselves, the designs also concealed the wire in colorless or light-colored glass.

The *St. Louis Post-Dispatch* reported on July 1, 1901, that Edward J. Walsh had "died from heat" on June 30 on a train going to Hot Springs, Virginia, where he planned to recuperate from a bout of Grip. On April 2 of that year, the firm formed the Mississippi Wire Glass Co. for the purpose of acquiring relevant patents. The firm did not produce glass of any kind (Bernas 2013).

The company underwent a major reorganization on April 21, 1904, incorporating in New York with a capital of \$3 million (*New York Times* 1905). As part of the reorganization, Mississippi Glass built a plant at Morgantown, West Virginia, during 1904. The new firm added the Rolled Glass Co., now operating at four locations: St. Louis, Port Allegany, Latrobe, and Morgantown, West Virginia. Two years later, the firm purchased the former Marsh Plate Glass Co. at Floreffe (near Elizabeth), Pennsylvania. Along with its plate glass, the firm was also listed in Pittsburgh directories (where it had an outlet but no factory) as making tableware (Bernas 2013; Hawkins 2009:373).

This Mississippi Glass Co. continued to advertise "rough and ribbed rolled glass," wire glass, and various specialty items in 1909, with the New York City address (*Commoner and Glassworker* 1909:3) reflecting the home office. We have found no evidence of an actual plant in New York. The company operated a factory at Latrobe, Pennsylvania (probably the old Besto Glass Co.), by 1912. Apparently, the firm closed the Latrobe factory ca. 1920. The Highland Glass Co., Washington, Pennsylvania, became Factory 5-A of the Mississippi combine in the early part of 1930 (Bernas 2013; Hawkins 2009:373).

By 1927, the plant listed a large variety of wire glass, made at six continuous tanks, and noted factories at St. Louis, Missouri, Port Allegany, Pennsylvania, Morgantown, West Virginia, and Floreffe, Pennsylvania (American Glass Review 1927:59, 74; 1944:178). In 1933, Mississippi Glass had plants in St. Louis, Morgantown, Floreffe, Port Allegeny, Washington, Streator, Illinois, and Fullerton, California, although the firm dismantled the Port Allegeny plant the following year (*American Glass Review* 1933:22; McKean County Democrat 3/29/1934; Roller 1997). The Washington, Pennsylvania, plant was no longer listed in the 1943 glass factory directory. Although the other plants had closed during the 1930s and 1940s, Toulouse (1971:358) noted that the St. Louis plant remained in business as he went to press (1971).

## **Containers and Marks**

During its period as a container manufacturer, the Mississippi Glass Co. only used a single distinguishing mark on its goods – MGCo – although the firm used several variations that may be dated – at least relatively. There is, however, some evidence that the plant applied various large letters, numbers, and/or symbols to the bases of its early beer bottles.

## Single-Letter or Single-Number Basemarks (ca. 1874-1878)

[Much of the information in this section came from Lockhart et al. 2012]

A formerly unexplained phenomenon on quart beer bottles was the embossing of single letters or numbers (or occasional Roman numerals) on the bases of export beer bottles – with no other manufacturer's marks. The letters ranged from A to Z or numbers only into the double digits. Occasionally, these bottles had either Roman numerals or symbols (Figure 2). Thus far, the Bottle Research Group has *only* recorded such marks on export beer bottles with two-part finishes and sharp lower rings. In other words, these were made prior to 1882. For years, we hypothesized that bottles – with only single letter or number basemarks – were made between ca. 1874 and ca. 1878.

One of the biggest issues in determining how to place these bottles in a chronology has been the lack of a controlled provenience – until July 11-12, 2012, when the bottle Research Group examined a large collection of bottles excavated from the hospital privy at Fort Riley, Kansas. The subsequent analysis revealed a total of 25 bottles with eight single letters (A, B, E, F, G, O, Y, and Z), one with a Roman numeral (IX or XI), and four with numbers (5, 6 or 9, 8, and 15) from an 1872-1880 context. This supports the 1874-1878 hypothesis. See Lockhart et al. 2012:43-45)



Figure 2 – Letters & numbers

Since we know from historical sources that only four glass houses were manufacturing export beer bottles during the 1874-1878 period, these bottles must have been made by one of them.<sup>2</sup> Both the Chambers brothers and Cunningham & Ihmsen are unlikely choices as the maker, because both firms had been using their same logos for a half-dozen years or more prior

<sup>&</sup>lt;sup>2</sup> While it is possible that an unknown glass house was manufacturing export beer bottles during this early period, it is highly unlikely that a firm large enough to produce the sample found a Fort Riley has escaped our notice in the huge assortment of historic sources we have examined.

to the beginning of the period. Equally unlikely was the Lindell Glass Co. We find numerous LGCo bottles with two-part finishes and sharp lower rings (as well as other early characteristics – such as the letter "G" with a serif extending to the right and an underlined, superscript "o" in "Co").

The MGCo logo of the Mississippi Glass Co., however, is found predominantly on export beer bottles with rounded lower rings on the two-part finishes, the "o" in "Co" in a normal position, and standard types of the letter "G." The very few exceptions (sharp lower rings; superscript "o" in "Co"; right-extended-serif "G") we have found are scarce to say the least. Lockhart et al. (2009) dated the MGCo mark ca. 1878-1884, based on export beer bottle data, noting that sharp lower rings on the finishes were phased out in favor of rounded lower rings between 1878 and 1883 – although most plants had made the transition to rounded lower rings by 1880. The Mississippi Glass Co. is therefore the most likely candidate as the user of these single-letter, single-number, and symbol marks on export beer bottles.

There is, however, one small caution with this identification. We cannot entirely eliminate the William McCully factories as candidates for these early marks. An old glass blower told the story of the invention of the export beer bottle in an interview with the *National Glass Budget* (1909:4). According to the anonymous worker, the first bottles were blown at one of the McCully plants by John Nolan and Sebastian "Bostie" Urban in 1873. Although this report was given 36 years after the fact, the timing is correct, and it is the best identification we have.

It is possible, of course, that the unnamed blower mis-remembered the plant – which could have been Cunningham & Ihmsen. It is equally possible that the blower was correct, and McCully – who was doing quite well with other types of bottles – may simply have chosen not to follow up on the beer bottle trade. A more important reason to discount the McCully identification is that McCully used a series of marks as early as 1858 – all based on the full name of the firm or the "McC" initials. It seems unlikely that he would have used letters on beer bottles rather than one of his logos. Although McCully may not be entirely eliminated as a possibility, he was never recorded as a beer-bottle manufacturer, so we consider the Mississippi Glass Co. to be a much more likely candidate.

## **MGCo** (ca. 1878-1884)

The MGCo mark has been reported on beer, bitters, blob-top soda, pepper sauce, and whiskey bottles as well as wax-sealer fruit jars, barrel mustard jars and ribbed flasks. Beer bottles, bitters bottles, and wax-sealer fruit jars need to be addressed separately from all other types (see below). Toulouse (1971:360-361) clearly wanted Modes Glass Co. to be identified with the MGCo mark on beer bottles. He gave the following justification:

Modes made beer bottles and beverage bottles at most of the companies with which he was associated, starting at La Salle with De Steiger ("DSGCo"), but those under his own name were confined to the nine-year period of the Modes Glass Co. Many of his beer bottles are known in bottle collector's groups. There is a strong possibility that his Cicero factory started before 1895, and possibly in the mid-1880s. Beer bottles with "MGCo," made in circa-1880 techniques of crude finishing, have been found in a camp in Arizona known to have been occupied *only* in the 1880s, and along with beer bottles marked for companies that were in business only in that decade. 1895 is the date of reference in the *National Bottlers Gazette*, the earliest date for Modes that I have been able to find.

This is a tautological explanation. Toulouse was expressing an explanation to fit his preconceived belief. In other words, he was trying to force his identification of the mark to fit the known facts. In reality, he missed the mark (pun intended).

#### **Beer Bottles**

Jones (1966:8) was the first to attempt to identify beer bottle manufacturer's marks in print. Her initial suggestion was "I believe this could be a midwestern plant – How about Mentua or Moscow?" Two years later, Jones (1968:18-20) settled on the Missouri Glass Co., although she mentioned the Mississippi Glass Co. as a possibility. Toulouse (1971:359-361) attributed the MGCo mark to both the Millgrove Glass Co. and the Modes Glass Co. Although he did not directly address the issue of different marks or makers according to bottle type, he strongly associated Modes with beer bottles and Millgrove with "medicine bottles and packers."

Herskovitz (1978:9) suggested either Missouri Glass Co. or Modes Glass Co. as the users in his beer bottle section, following a combination of Jones and Toulouse. Ayres et al. (1980:27-28, 212-213, 270, 347) discussed four glass companies as possible users of the mark on beer bottles: Milwaukee Glass Co., Mississippi Glass Co., Missouri Glass Co., and Muncie Glass Co. Wilson (1981:121-123) identified the maker as the Mississippi Glass Co., again referring to beer bottles. Wilson and Caperton (1994:74-75) also noted the Mississippi Glass Co. as the probable beer bottle manufacturer using the mark and called the Massillon Glass Co. a "less likely candidate."

Clint (1976:116), Herskovitz (1978:9), Ayres et al. (1980), Wilson (1981:121-123), Elliott and Gould (1988:187), Lockhart & Olszewski (1994:39), and Lockhart (2009) all illustrated and/or discussed the MGCo mark on beer bottles, and some photos appeared on eBay. The marks fell into six main configurations (presented in probable chronological order):

- 1. MGC<sup>o</sup> (sharp lower ring on finish), no other letters or numbers; "G" with serif extending to right.
- 2. MGC<sup>o</sup> (round lower ring on finish), Maltese cross above logo and number (1-13) below; "G" with serif extending to left.
- 3. MGCO (arch) (finish unknown), "1" below logo; "G" with downward serif [this example is only known from a single eBay base photo].
- 4. MGCo (round lower ring on finish), numbers (1-14) below logo; "G" with serif extending to left.
- 5. MGCo (round lower ring on finish), "A" above logo with number (1-12) below logo; "G" with serif extending to left (Figure 3).



Figure 3 – MGCo (Forts Riley & Laramie & UTEP)

6. MGCo (on heel) (one-part finish), no numbers or letters; "G" almost looks like a "C" [not an export bottle – champagne or pony style] (Figures 4 & 5).

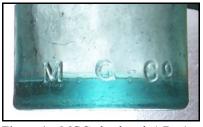


Figure 4 – MGCo heelmark (eBay)

It is possible that the crosses and letter "A" associated with the marks may be types of mold makers' "signatures" (see section on the Frederick Hampson Glass Works for a discussion of the Maltese cross embossings or Lockhart & Whitten

2005, 2006). Of interest, the "7" on the Maltese cross variation (#2 style) has a serif; the one accompanying the higher-positioned mark (#5 style) does not. To make an even stronger case for the Maltese cross as an engraver's signature, the two IGCo marks in the San Elizario assemblage<sup>3</sup> with Maltese crosses not only have crosses that are almost identical to those on the M.G.Co. molds, the fonts are equally identical.

The Tucson Urban Renewal (TUR) collection presented a bit of additional evidence. When the Bottle Research Group examined the collection in 2006, we found a total of seven complete export beer bottles (all amber in color) embossed with the "A" configuration (type



Figure 5 – Lager bottle (eBay)

#3 above) and one with a Maltese cross (type #4 above). The two-part finishes on all eight bottles were identical: an upper part with vertical sides and a lower rounded ring encircling the neck. All finishes were applied.

#### **Bitters Bottles**

Griffenhagen and Bogard (1999:126) noted that the MGCo mark was used on pharmaceutical bottles by Mette & Kanne, St. Louis, from 1898 to 1911. They attributed the mark to the Millgrove Glass Co. Apparently, Griffenhagen and Bogard obtained their

<sup>&</sup>lt;sup>3</sup> Excavated by Bill Lockhart and Wanda Olszewski, see Lockhart & Olszewski (1994) for details.

information from Fike (1987:41), who actually recorded the mark on the bottom of a  $S^{T}$  Gotthard Herb Bitters bottle as MGC  $C^{\circ}$  (the first "C" is obviously a typographical error). Fike attributed the mark to Millgrove but dated the use by Mette & Kanne from ca. 1895 to 1904. Fike cited Ring (1980:415) who recorded the mark as M.G.CO. and noted that the brand was advertised in 1895. She included a copy of the ad which identified Mette & Kanne as wholesale liquor dealers (not a pharmaceutical company).

Pre-Pro.com (2008) presented the actual history of the firm extrapolated from St. Louis city directories. The company was originally Mette & Flacke (1868-1869), but a reorganization in 1870 created Mette & Kanne. The new firm operated until late 1892 or early 1893, when the name was changed to Mette & Kanne Distilling Co. The company ceased operations in 1918.

As shown in eBay auctions, the actual variation of the mark on the bottle was MGC<sup>o</sup>. According to our research, this mark was used at a fairly early period and is not consistent with the dates provided by Ring and Fike, although it fits quite well with the actual dates the company was in operation. The mark was embossed parallel to the sides of the base rather than across from corner to corner as was typical of manufacturer's marks on many bitters bottles (Figure 6).



Figure 6 – Bitters mark (eBay)

An eBay auction offered a bottle embossed "DR. HARTER'S /  $S^{T}$ . L.  $M^{O}$ . / WILD CHERRY" with MGCo ("G" with serif extending to the left) embossed on the base in a post bottom. The bottle was aqua in color and was an oval flask with a long neck. Ring (1980:230-232) devoted three pages to the product and its bottles, but all of her illustrations were of a rectangular bottle with an indented area for the embossing. The eBay bottle had no indented area. Although Ring presented 11 variations of the bottle, none were embossed with the MGCo logo.

Fike (1987:35) noted that Milton G. Harter began business in 1855, introduced his famous bitters in 1885, and received his trade mark authorization in 1887. The St. Louis operation was closed and moved to Dayton, Ohio, upon Harter's death in 1890. The eBay bottle is interesting for two reasons. First, it does not contain the word "BITTERS" in its embossing. Second, it is highly unlikely that the Mississippi Glass Co. made a bottle after 1884, although

there is a slight chance that a few bottles were made until 1887. It is our contention that this bottle was made ca. 1884, at the end bottle production by the Mississippi Glass Co. The product may have been test marketed in 1884, and Harter decided to add the word "BITTERS" to his concoction the following year.

#### **Wax-Sealer Fruit Jars**



Figure 7 – Wax-sealer bases (North American Glass; eBay)

In his earlier book, Toulouse (1969:214) noted an MCCo mark on the base of a fruit jar. He listed the mark as "maker unknown."
On page 216, he also gave the exact same

description for a jar with the MGCo mark on the base. Creswick (1987:157) showed both MGCo and MCC° on the bases of grooved-ring wax-sealer fruit jars. The jars were both aqua and amber in color and were occasionally accompanied by a letter from A to D (we have also seen numbers 1-4). Creswick attributed the mark to the Missouri Glass Co., St. Louis, Missouri, 1859-1866, although the company was



Figure 8 – Two-piece mold (eBay)

open until 1911. She did not specify why she chose 1866 as a date for discontinuance. Roller (1983:250) only included one variation and did not set a date or guess at a manufacturer.

Examples we have seen on fruit jars have the MGCo configuration, but the letter "G" can appear in three formats. The most common is a "G" with the serif extending to the left, and these jars are probably the most recent (Figure 7). The "G" with the serif extending downward was probably the earliest. The final mark has a "G" that looks like a "C" – although all other aspects of the mark, including a single-digit number below the logo (and one with no number), look like the MGCo



Figure 9 – Four-piece mold (North American Glass)

mark (see Figure 7). This was probably an engraver's error, and it might fit anywhere in the sequence. Some of these jars were made in two-piece molds (Figure 8), others in four-piece molds (Figure 9). Many examples we have seen have a "rough" texture as though the cast iron molds were pitted.

## **Other Bottle Types**

Peters (1996:9, 28, 47, 76, 180, 186) and Miller (1982:3) listed blob-top soda bottles with MGCo marks, but neither supplied photographs. The only mark we have actually seen had the MGC<sup>o</sup> variation on the heel of a soda bottle embossed "CULLINANE / ST. LOUIS" on one side. John Cullinane & Co. operated a soda bottling plant in St. Louis. He died on April 1, 1887.



Figure 11 – Whiskey base (eBay)

We have also seen the MGC<sup>o</sup> mark on a barrel mustard jar and cylinder whiskey bottles (Figures 10 & 11). The MGCo variation with the downward serif on the "G" appears on cylinder whiskey and peppersauce bottles. MGCo with the serif on the "G" extending to the left is found on a cathedral (gothic) pickle bottle and a ribbed flask. Many of these



Figure 10 – Whiskey bottle (eBay)

identifications are from eBay photos.

## M/G

In this case, the slash is part of the mark. Although he had no idea of the background of the company, Toulouse (1971:358-359) noted two marks used by the Mississippi Glass Co. on plate and possibly window glass. He noted that the "M/G" was used "possibly before 1950." The same mark but with circles around each of the letters was used after 1950, when the trademark was first advertised (Figure 12).

## **Discussion and Conclusions**

As noted above, Toulouse really wanted to identify the Modes Glass Co. as the user of the MGCo mark. However, Modes sold a single railroad carload of pint and Jo-Jo flasks to the South Carolina Dispensary in 1897. None of these bottles was embossed with a manufacturer's mark (Teal 2005:100). In his earliest glass firm, Modes used no maker's mark, although such marks were common in many firms where he had



Figure 12 – Plate glass marks (Toulouse 1971:358-359)

connections. While not definitive, this strongly suggests that Modes did not use a logo on these bottles, and we have found no evidence that the company marked any of its wares.

#### **MGCo**

The above research, however, points to the Mississippi Glass Co. as the exclusive user of MGCo mark in all of its variations. The arched variation with a capital "O" in "CO" is the only possible exception, and that may be explained as the whim of a single mold maker – a circumstance not unusual during the late 19<sup>th</sup> century.

A closing date of 1884 for the mark (when Mississippi Glass converted to the manufacture of flat glass) is solidly established, but an opening date is less obvious. The firm began business in 1873, but there is no evidence that *any* glass house was applying marks on *beer* bottles by that date.<sup>4</sup>

In order to establish the date when the Mississippi Glass Co. began marking its products, we need to determine when manufacturer's marks began appearing on export beer bottles. Some of the earliest export beer bottles were made in dip or turn-molds and did not have logos. The earliest base mark that we can determine was used by Carl Conrad & Co. Although not a manufacturer, Conrad had his CC&Co monogram embossed on each beer bottle base, beginning

<sup>&</sup>lt;sup>4</sup> This is not meant to imply that there were not manufacturer's marks on bottles by that time. Manufacturer's marks date to at least 1811, if not earlier. However, marks on beer bottles do not seem to have appeared until a few years after the establishment of Mississippi Glass.

as early as 1876. Manufacturers of beer bottles, including the Mississippi Glass Co., almost certainly caught on during the next two years – possibly as a result of a requirement from Anheuser-Busch. While we have no documentary evidence for such a demand, all of the known suppliers for Anheuser-Busch used the manufacturer's initials on bottles – and Conrad was a good friend of Adolphus Busch. Thus, a beginning date for the use of basemarks on export beer bottles probably began ca. 1878. Basemarks on other bottle types probably followed by no later than ca. 1880.

This date range of ca. 1878 to 1884 applies to the MGCo mark in general. It is almost certain that the MGCº variation was used earlier than the MGCo variation. Use of the MGCº variation probably ceased by no later than 1882, although the MGCo variation may have been used as early as 1880. During its brief 11-year stint at bottle making, the Mississippi Glass Co. made an incredible amount of containers.

Please note that this ca. 1878 beginning date does not include manufacturer's names and occasional initials on the sides of whiskey flasks (at least by 1811), names on Rickett's-type molds around the outside edge of the base on cylinder whiskey bottles (ca. 1830s), initials above the heels on blob-top soda bottles (ca. 1840s), and other basemarks on cylinder whiskeys (ca. 1860s), or fruit jar bases (ca. 1860s). However, ca. 1878 *does* seem to be the period when the systematic use of manufacturer's initials began consistent use on returnable bottles – first beer bottles, then soda bottles, and later milk bottles. By 1880, the vast majority of American beer bottle producers embossed their initials – rather than full names or symbols – on the bases of beer containers.

# Individual Letters, Numbers, and Symbols

As noted above, currently available evidence suggests that these large letters, digits, and symbols were used by the Mississippi Glass Co. from ca. 1874 to ca. 1878. Following our above hypothesis, this was probably an initial trial either requested by Bush or pioneered by Mississippi Glass – possibly a collaboration between the two. Regardless of which firm initiated the process, it seems to have been so effective that it evolved into the initial/manufacturer's mark system that soon predominated the returnable bottle segment of the glass industry. Future research should attempt to locate more of these letter, number, and symbol bottles in dated contexts.

## Why Wire Glass?

It also behooves us to explore *why* the Mississippi Glass Co. chose to discontinue a profitable product line and retool its entire factory to move in a different direction – the manufacture of various forms of plate and cathedral glass (i.e., textured plate glass), especially focusing on wire glass (i.e., plate glass with embedded wire, generally some form of screen, as a strengthener). Bolstered by a series of tariffs between 1860 and 1890, U.S. production of such glass (and glassware in general) began increasing. By the mid-1880s, American plate glass increased significantly, while the import of foreign plate glass fell. In 1860, no U.S. glass house manufactured plate glass, but American production had increased to the point where it capture 97% of the home market by 1890 (Commonwealth of Pennsylvania 1903:12-14; Skrabec 2008:196).

Mississippi Glass had apparently done its homework and became one of the early adopters of the products. In 1887, only two wire glass houses existed in the entire U.S. – and the only American competitor of Mississippi Glass was in Massachusetts – leaving the firm with a virtual monopoly in the vast heartland of the country (Morrison & Irwin 1885:64). By discontinuing its production of beer bottles and shifting to plate glass (notably wire glass), Mississippi Glass had made a wise choice.

# Acknowledgments

Our gratitude to Greg Spurgeon for allowing us to reproduce the photos from North American Glass and to Wanda Wakkinen for proofreading.

#### Sources

American Glass Review

1927 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

1933 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

1944 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

## Ayres, James E., William Liesenbien, Lee Fratt, and Linda Eure

1980 "Beer Bottles from the Tucson Urban Renewal Project, Tucson, AZ." Unpublished manuscript, Arizona State Museum Archives, RG5, Sg3, Series 2, Subseries 1, Folder 220.

## Bernas, Barry

2015 A Glass Factory in Latrobe, Pennsylvania. Monograph No. 143. West Virginia Museum of American Glass, Ltd, Weston, West Virginia.

## Catlin, Charles H.

1991 Glass in Port Allegany.

http://www.smethporthistory.org/port.allegany/glass.factories/mississippiglass/mississippiglass.htm

## Clint, David K

1976 Colorado Historical Bottles & Etc., 1859-1915. Antique Bottle Collectors of Colorado, Inc., Boulder.

#### Commoner and Glassworker

1909 Ad for Mississippi Glass Co. Commoner and Glassworker 27(37):3.

#### Commonwealth of Pennsylvania

1903 Official Documents, Comprising the Department and Other Reports Made to the Governor, Senate and House of Representatives of Pennsylvania. Vol. VI. William Stanley Ray, State Printer.

### Creswick, Alice

1987 *The Fruit Jar Works, Vol. I, Listing Jars Made Circa 1820 to 1920's*. Douglas M. Leybourne, N. Muskegon, Michigan.

## Crockery and Glass Journal

1880 "St. Louis Trade Reports." Crockery and Glass Journal 11(21):12.

## Elliott, Rex. R. and Stephen C. Gould

1988 Hawaiian Bottles of Long Ago. Hawaiian Service, Inc., Honolulu, Hawaii.

#### Fike, Richard E.

1987 The Bottle Book: A Comprehensive Guide to Historic, Embossed Medicine Bottles. Peregrine Smith Books, Salt Lake City.

## Griffinhagen, George and Mary Bogard

1999 *History of Drug Containers and Their Labels*. American Institute of the History of Pharmacy, Madison, Wisconsin.

## Hawkins, Jay W.

2009 Glasshouses & Glass Manufacturers of the Pittsburgh Region, 1795-1910. iUniverse, Inc., New York.

## Haynes, D. O. & Co.

1900 The Era Blue Book: A Universal Price List and Directory of Manufacturers for Drug Trade Buyers. D. O. Haynes & Co., New York.

## Herskovitz, Robert M.

1978 Fort Bowie Material Culture. University of Arizona Press, Tucson.

## Jones, May

1966 The Bottle Trail, Volume 6. Nara Vista, New Mexico.

1968 The Bottle Trail, Volume 9. Nara Vista, New Mexico.

## Kefallinos, Konstandena

2013 "Wire Glass: History of Technology and Development." Masters Thesis, Columbia University, New York.

## Lockhart, Bill

2009 "Ten Wagon Loads of Beer Bottles: A Study of Fort Stanton Trash Deposition." Paper presented at the Society for Historical Archaeology 2008 Conference on Historical and Underwater Archaeology, Albuquerque, New Mexico, January 9-13, 2008.

## Lockhart, Bill, Bill Lindsey, Beau Schreiver, and Carol Serr

2012 New Insights from the Bottles Excavated at the Fort Riley Hospital Privy. Privately printed, Alamogordo, New Mexico.

#### Lockhart, Bill and Wanda Olszewski

1994 "Excavation and Analysis of a Nineteenth Century Bottle Pit in San Elizario, Texas." *The Artifact* 32(1):29-49.

## Lockhart, Bill, Pete Schulz, Carol Serr, and Bill Lindsey

2009 "The Dating Game: Marks used by the Mississippi and Lindell Glass Companies." *Bottles and Extras* 20(1):34-43, 56-58.

## Lockhart, Bill and David Whitten

2005 "The F H G W Mark." SHA Newsletter Summer:40-43.

2006 "The Dating Game: The F H G W Mark (and Update on Illinois Glass)." *Bottles and Extras* 17(1):36-43, 64.

## Miller, Thomas

1982 "A Supplemental Guide to A Survey of Early Soda/Mineral Water Manufacturing in St. Clair, Co. A Glimpse of Illinois History through Glass (1840-1910)." Unpublished manuscript for the Metro-East Antique Bottle and Jar Club.

#### Morrison, Andrew, and J.H.C. Irwin

1885 Industries of Saint Louis: Her Advantages, Resources, Facilities and Commercial Relations as a Center of Trade and Manufacture; Together with a Delineation of Representative Industrial and Commercial Establishments. J.M. Elstner & Co., St. Louis.

## National Glass Budget

1897 "Glass Directory." National Glass Budget 12(42):7.

1898 "Flint, Green and Cathedral Glass Factories of the United States and Canada in Operation." *National Glass Budget* 13(38):7.

1904 "The Marietta Glass Co." Advertisment. National Glass Budget 20(8):10.

1909 "The Export Beer Bottle." National Glass Budget 25(7):4.

#### New York Times

1905 "New Incorporations Effected (*sic*) During 1904 and their Capital Stock–Record of Dividends Paid." *New York Times*, January 8, 1905:18

## Peters, Roger

1996 Wisconsin Soda Water Bottles, 1845-1910. Wild Goose Press, Madison, Wisconsin.

## Pittsburgh Plate Glass Co

1946 Glass Manual. Pittsburgh Plate Glass Company.

#### Playchan, Ronald J.

1969 "A History of Anheuser-Busch, 1852-1933." Doctoral dissertation, St. Louis University.

#### Pre-Pro.com

2008 "Pre-Pro.com: A Web Site Devoted to the Appreciation of Pre-Prohibition Shot Glasses." http://www.pre-pro.com/midacore/view\_vendor.php?vid=STL3861

## Ring, Carlyn

1980 For Bitters Only. Nimrod Press, Boston.

## Roller, Dick

1983 Standard Fruit Jar Reference. Acorn Press, Paris, Illinois.

1997 "St. Louis, MO History Notes." Unpublished manuscript. [October 26, 1997]

## Skrabec, Quentin R.

2008 William McKinley: Apostle of Protectionism. Algora Publishing, New York.

## Teal, Harvey S.

2005 "Embossed S.C. Whiskey Bottles & Dispensary Jugs, 1865-1815." In *The South Carolina Dispensary & Embossed S.C. Whiskey Bottles & Jugs, 1865-1915* by Harvey S. Teal & Riga Foster Wallace, pp. 67-176. Privately Published, Columbia, South Carolina.

## Toulouse, Julian Harrison

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

## Von Mechow, Tod

2017 "Soda & Beer Bottles of North America: Bottle Attributes - Beer & Soda Bottle Manufacturers." http://www.sodasandbeers.com/SABBottleClosures.htm

## Wilson, John P. and Thomas J. Caperton

1994 "Fort Selden, New Mexico: Archaeological Investigations of the Latrines and Magazine, 1974-1976." *The Artifact* 32(2-4):i-ix,1-145).

#### Wilson, Rex

1981 Bottles on the Western Frontier. University of Arizona Press, Tucson.

# Year Book of the Commercial, Banking, and Manufacturing Interests of St. Louis 1882 Year Book of the Commercial, Banking, and Manufacturing Interests of St. Louis, with a General Review of its Transportation Facilities and Business Progress. S. Ferd. Howe & Co., St. Louis.

Last updated 12/20/2017