Lindell Glass Co.

Bill Lockhart, Pete Schulz, Beau Schriever, Bill Lindsey, and Carol Serr with contributions by David Whitten

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Along with the Mississippi Glass Co., the Lindell Glass Co. was one of the most important early beer bottle manufacturers to hit the national market. National beer sales were impossible until Anheuser-Busch began using Pasteurization on beer in 1872, allowing longdistance shipment, but the giant brewer had trouble finding sufficient bottles to fulfill the demand. The invention of the export beer bottle in 1873 allowed that container to dominate the national sales.

Opening in 1873, the Lindell Glass Co. entered into beer bottle manufacturing, along with other bottle types and grooved-ring, wax-sealer fruit jars. The firm was a heavy producer of beer bottles for both Anheuser-Busch and Carl Conrad & Co. The latter bottled and distributed the original Budweiser beer. When Conrad declared bankruptcy in 1883, he owed a great deal of money to Lindell, and the plant never recovered, becoming idled ca. 1887. After a brief phoenix-like eruption back into production in 1891, the plant closed permanently the following January.

History

When Anheuser-Busch adapted the pasteurization process to beer in 1872, the firm opened an entirely new chapter for the bottling industry (Hernon & Ganey 1991:30-31; Plavchan 1969:70; Wilson 1981:1). Prior to that time, breweries only bottled brews like ales, porters, and non-carbonated beer for long-range shipment – although some breweries shipped beer in kegs to be bottled for local consumption. Lager beer, the preferred beer in the U.S. by the 1870s, however, would rapidly spoil when bottled. Pasteurization reversed the situation, and lager beer began to be enjoyed at a distance from the brewery.

In 1873, Valentine Blatz of Milwaukee, Wisconsin, devised a distinctive bottle especially to hold pastuerized lager beer. The first containers were blown at one of the William McCully &

Co. plants, probably the Phoenix Glass Works at Pittsburgh (Lockhart 2007:53; *National Glass Budget* 1909:4). The bottle style was apparently never patented, and the containers were soon called "export" beer bottles because they were "exported" to the western territories and other countries (see Lockhart 2007:53), and they rapidly dominated the generic beer bottle market, especially in the western territories (Figure 1).

Anheuser-Busch, already a brewing giant, quickly dominated bottled beer sales. Not surprisingly, local glass houses soon appeared to fill



Figure 1 – Export beer bottle

the insatiable need for export beer bottles. One of the most important St. Louis glass houses to supply the trade was the Lindell Glass Co.

Lindell Glass Co., St. Louis, Missouri (1874-1892)

According to a 1909 article (*National Glass Budget* 1909:4), the Lindell Glass Works was initiated to make export beer bottles in 1874. A trade note from February 1875, however, reported that the factory had made "9,000 gross of different kinds of bottles" since August 1874 (*Crockery & Glass Journal* 1875), so the plant had an expanded output virtually from the beginning. The company was first listed in the St. Louis, Missouri, city directory in 1875 and last listed in 1890. The 1875 Bird's



Figure 2 – Lindell 1875 (Lossos 2000)

Eye View Map of St. Louis showed the Lindell Glass Co. on what appeared to be 67th St. and named W.M. Gray as president (Lossos 2000 – Figures 2 & 3).

By 1880 Lindell was noted as a "well backed" company "doing a good business" (*Crockery and Glass Journal* 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-Dispatch* continued 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. This confirms that the Lindell Glass Co. was a *major* producer of beer bottles. However, the firm only advertised in the *Western Brewer* for a relatively short period of time (late 1884 to

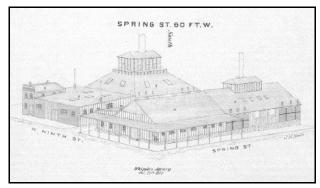


Figure 3 – Lindell 1878 (Sanborn map)

mid-1885 – less than a year). Wilson and Capperton (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."

Plavchan (1969:75) found the following in Anheuser Busch records:

Prior to 1886 the main source of beer bottles for the Anheuser-Busch Brewing Association were 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.

Despite these attainments, Lindell had an unfortunate history of bad debts from its customers. About 1880, when the Excelsior Bottling Co. failed, Lindell lost \$3,000. Soon after, Lindell lost an additional \$8,000, with the failure of the Urig Brewing Co. However, the firm was able to withstand both losses and remain solvent, probably due, at least in part, to orders from Anheuser-Busch (*Crockery and Glass Journal* 1883b:24).

Ultimately more serious for Lindell, it was one of the manufacturers of beer bottles for Carl Conrad & Co. and was possibly the main bottle maker for the company. Conrad was the original marketer of Budweiser beer (actually made for him by Anheuser Busch), and the brand reached a national audience. When Conrad declared bankruptcy in January 1883, Lindell was one of the largest creditors, being owed between \$32,000 and \$33,000 by Conrad. Although the loss hit Lindell hard, a local source stated that Lindell's "continuance in the bottling business is almost an assured fact" (*Crockery & Glass Journal* 1883a:30).

A slightly later report, however, disclosed that the actual amount was \$38,000 and that the German-American Bank held the "paper of the Lindell Co." (actually two deeds of trust) and had "taken charge of the business." J.W. Sheppard, president of the corporation, and Christian Heitz, the secretary/treasurer, were "acting as managers of the business." Heitz felt that "a great injury was done him" because Conrad failed to inform him about the situation before declaring bankruptcy. He noted that Lindell had \$19,000 worth of bottles stored in the basement, and claimed that stock could have reduced the Lindell indebtedness by half (*Crockery & Glass Journal* 1883b:24).

By late 1885, Lindell was "running five furnaces on green bottles" (*American Glass Worker* (1885:2). A snippet from 1886 noted that "Heitz's and Lindell bottle works, St. Louis, are said to be carrying very large stocks, and the business outlook is not very promising in this line" (*American Glass Worker* 1886:2). This may have been the beginning of the end for Lindell (Figure 4). By 1885, several other factories had hopped on the beer bottle wagon. Both the Streator Bottle & Glass Co. (affiliated with Anheuser-Busch) and the Adolphus Busch Glass Mfg. Co. (owned by Busch), for example, were pumping beer bottles into the market at a high volume. See both of those sections from more information.



Figure 4 – Lindell 1886 (Sanborn map)

Aside from the sources cited above, we have found virtually no information about the company until near the end. The March 18, 1891, edition of *China, Glass & Lamps* noted that

Lindell "which had been idle for a long time, have resumed operations." How long the plant was idle is currently unknown, but the plant may never have recovered from the Conrad failure and takeover by the German-American Bank. It is therefore likely that production ceased ca. 1887. The 1891 start up was short lived. The bank offered the plant and land for sale on April 2, 1892, and demolished the buildings by February 1 of the following year (Roller 1997).

Containers and Marks

LGCo (ca. 1878-ca. 1887, 1891)

The LGCo mark has been found on several different kinds of bottles, covering time periods from the 1870s to at least the 1920s. Virtually everyone is in agreement that more than one company used the mark. At a minimum, these included the Lindell Glass Co., Lamb Glass Co., Lockport Glass Co., and Lyndeborough Glass Co. (see all of those sections form more on their logos). The marks are found on (at least) export beer bottles, flasks, bitters bottles, packers' bottles, pharmacy bottles, soda bottles, milk bottles, and fruit jars. Of these, export beer bottles, soda bottles, bitters bottles, liquor bottles (but not flasks), pickle bottles, and some fruit jars were produced by the Lindell Glass Co. We discuss each type below.

Export Beer Bottles

Toulouse (1971:323) claimed that the LGCo mark on beer bottles was used by the Louisville Glass Works (Co.), Louisville, Kentucky (1855-1873), and the Louisville Kentucky Glass Works (1873-1886 or later). Even if the first firm used the word "Company" in the title, it would be too early for the type of bottles that carried the mark. Jones (1965:[16]) initially stated, "<u>Might</u> be an old mark of Latchford Glass Co., Los Angeles. Not sure, don't know dates." She added (Jones 1965:[20]) that the mark was found on "Boca 'Bob' Beer and plain labeled, 1875[.] Both used wire closures."

Later, however, Jones (1966:8) identified "Lyndeboro Glass Co. 1866-'86, Lancaster Glass Co., and Lockport Glass Co. 1840-1900?" as possible users of the LGCo mark. Later in the same volume (1966:17), she included Libbey Glass Co. "1890? Huh?" By her 1968 volume (p. 18), she added Leathe [possibly Lythgoe?] and Louisville to the list. In all cases, she was

discussing the mark on beer bottles. Wilson and Caperton (1994:74) were the first to identify the Lindell Glass Co. as the user of the mark, although Whitten (2005:48) later reached the same conclusion independently.

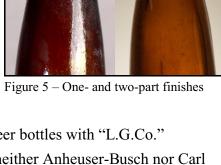
A number of researchers have discovered beer bottles embossed "L.G.Co." on the bases. Wilson (1981:118-121) reported 44 beer bottle bases with the logo that were excavated from Fort Union (1863-1891). Herskovitz (1978:8) excavated 75 LGCo beer bottles from Fort Bowie (1862-1894). Jones (1966:8; 1968:18) showed only the second variation Ayres et al. (1980:unnumbered page) noted five variations of the LGCo mark. Lockhart & Olszewski (1994:38-39) found nine bases with the mark, including both variations. Von Mechow (2017) listed 12 beer bottles embossed with the "L.G.Co." logo – ten exports and two champagne beers.

Most of these researchers did not include detailed descriptions of the finishes. Export beer bottles were primarily made in two finish styles (although there were a few other types): one-part and two-part finishes (Figure 5). Two-part finishes had a thicker upper ring or collar, with a thinner lower ring below it. These were the older of the two and were intended for use with wired-down corks. One-part finishes were intended for use with Lightning stoppers. It should be noted that either type of stopper could be used with either type of finish, each was mostly

used as described. All finishes that we have seen on export beer bottles with "L.G.Co." basemarks had two-part finishes. This is unsurprising, since neither Anheuser-Busch nor Carl Conrad & Co. – Lindell's largest customers – ever adopted the Lightning finishes.

Historical and empirical data explored by Lindsey (2017) and Lockhart (2007) suggested that lower rings of the finishes with sharp edges (whether in wedge or flared forms) were

generally used on earlier bottles (Figure 6). Empirical evidence, from Fort Stanton, New Mexico, and the Tucson Urban Renewal (TUR) project suggests that sharp-edged lower rings were being actively phased out by ca. 1880, although some were still made (e.g., Carl Conrad bottles) as late as 1882.





Although there is no firm date for the initial use of two-part finishes with rounded lower rings, they were probably not used until ca. 1878 and continued to in use until much later (at least ca. 1914). All two-part finishes with sharp-edged lower rings were applied to the end of the neck. Applied finishes were the industry standard for export beer bottles until at least 1896. Tooled finishes began to be used on some embossed beer bottles by ca. 1890 but were uncommon until after ca. 1896 (except by the Adolphus Busch Glass Mfg. Co., adopting tooled finishes in 1893 – see that section for more details. They completely dominated the industry by ca. 1900.

An examination of lower rings on LGCo two-part finishes provides interesting data. Bottles that have marks with the "unusual" fonts for the "G" were made with sharp lower rings on the two-part finishes, and, with a single exception, all bottles marked with LGC^o had sharp lower rings, including an example illustrated by Wilson and Caperton (1994:65) with an intact Anheuser-Busch St. Louis Lager Beer label. A single example of the LGCo ("o" not superscript or underlined) had a two-part finish with a sharp lower ring; the others in our sample had twopart finishes with rounded lower rings. The only example with the small post seam had rounded lower rings (Figure 7). Thus, an ordering based on lower rings, variations in "G," and variations in the "o" in Co" would suggest the following:

- 1. LGC^{\circ} "G" with a tail extending outward, i.e., to the *right*
- 2. LGC $^{\circ}$ "G" with a tail extending downward (like a "C" with a reverse comma added)
- 3. LGC^o; standard "G" with a number below
- 4. LGCo; standard "G" with a number below and round lower rings
- 5. LG.Co with the letters crowded due to the limited space in a small post mold



Figure 7 – LGCo beer bottle basemarks

The bottles were almost certainly made during the ca. 1878-1887 period plus 1891. Regardless of finish types, the bottles were made in two colors – amber and aqua (with some in a light blue hue). All of the logos had full punctuation.

As mentioned above, the LGCo logos may be divided into two types, and they may be dated relatively (the LGC^o mark occurring before the LGCo logo) and, to a certain extent, chronologically. The LGC^o variation was used from ca.



Figure $8 - LGC^{\circ}$ variations

1878 (poss. a year earlier) to ca. 1882; and the LGCo logo was used from ca. 1880 to ca. 1892. Although many of the logos (both types) were embossed by themselves, accompanying numbers, letters, and symbols also varied according to logo type:

 LGC° – numbers from 1-28; letters from A-D; dots (above the logo, below, and both) or a bar, slash, or line above the logo (Figure 8)

LGCo – numbers to at least 38; 1G; Maltese Cross above the logo (sometimes with a number below); letter D; a bar above the logo (Figure 9).

A very unusual and exceptional bottle was made during the 1875-1879 period, when what would become Anheuser-Busch was known as the E. Anheuser Company's Brewing Assn. The bottle was embossed "E. ANHEUSER CO'S



Figure 9 - LGCo variations

(arch) / BREWING ASSOCIATION / S^T LOUIS (both horizontal)" on the shoulder and upper body, with "LGC^o" on the base (with a right serif on the "G"). The style and finish of the bottle is distinctive – an amber champagne bottle, both in shape and finish type (Figures 10 & 11). Although a few early brewers used champagne or soda bottles (before specific beer styles were produced), it is unusual to find one that was embossed.

Bitters

Ring (1980:320) illustrated a Malarion Bitters bottle with "L.G.CO." embossed on its base. The bitters was made by Snyder Gue & Condell, St. Louis, Missouri. The product was advertised in at least 1878 and 1879. Griffenhagen and Bogard (1999:126) placed the bottles



Figure 10 – E Aneheuser base (eBay)

in the 1880s, but we have not found the firm listed in other sources. Even though Ring listed the basemark as having a capital "O," actual photos of the bottle on a WorthPoint auction show that the "o" was lower case. Ring (1980:392) also described a bottle embossed "D^R RATTWIGGER'S HERB & ROOT BITTERS, S^T LOUIS, Mo." with "L.G.Co." embossed on the base.¹ We

have been unable to discover any further information about this bottle or the company that commissioned it. From the style of the initials, these bottles were likely made by the Lindell Glass Co. rather than one of the other L.G.Co. firms.



Figure 11 – E Anheuser bottle (eBay)

Griffenhagen and Bogard (1999:125) recorded the "LGC" mark as being used on medicinal bottles by McConnon & Co., Winona, Minnesota, in the 1880s. Their information almost certainly came from Ring (1980:323), who listed McConnon's Stomach Bitters, made by McConnon & Co., Winona, Minnesota, with the "LGC" mark on its base. It is possible that the bottle was marked "LGCo" with a very indistinct "o" that was unseen by the authors. Henry J. McConnon opened a retail drug store at Winona, Minnesota in 1889, and the firm incorporated as the McConnon & Co. in 1904 (Bottle Pickers n.d.). This bottle could not have been made by Lindell; the glass house was long closed when McConnon & Co. incorporated.

¹ Unfortunately, the only photo of a bitters bottle with "L.G.Co." on the base was one from eBay that was *very* out of focus – not publishable quality.

Liquor Bottles



Figure 12 – Liquor base (eBay)

We have discovered two photos of liquor bottles embossed "L.G.Co." on the bases – both from eBay (Figures 12 & 13). The logo on each example was in an inverted arch format, and both bottles appear to have been

made from the same mold – although one was amber and the other was aqua in color. These appear to have been made in four-piece molds and topped with either one- or two-part finishes.

The "G" and "C" in the logo were both very rounded – in fact circular in form – less common on Lindell bottles than the more oval or squared shapes, and the "Co" in the logo was made in the 1880s style. This is the only example we have found of the "L.G.Co." mark in an inverted arch. It is possible that the liquor bottles were made by the Lyndeborough Glass Co. (see that section), although the circular format of Lyndeborough's "L.G.CO." flasks used serif letters and a capital "O" in "CO."



Figure 13 – Liquor bottle (eBay)

Fruit Jars

Several types of jars have been found with "LGCo" logos or LGCo monograms embossed on bases or bodies. Some packer jars are too recent (and machine made) to have been produced by Lindell. Mason jars with LGCo Monograms were made by the Lamont Glass Co. in Nova Scotia and probably by the Lyndeborough Glass Co.

Toulouse (1969:183) stated (incorrectly) that the LGCo mark on a grooved-ring wax sealer fruit jar was used by the Louisville Glass Works or Co. Roller (1983:193-194) noted variations of the jars and dated them ca. 1870. He added that "it is possible that the L.G.Co. wax seal jars . . . may have been made by Lindell, since both jars are found in aqua and amber"

(Figure 14). Creswick (1987:100-101) illustrated four slight variations of the jars, with "CF," "F," or "P" below the LGCo mark or no accompanying letter (Figure 15). Creswick (1987:103) also illustrated a single wax sealer embossed with LINDELL GLASS CO. around the edge of the base.

Although Roller suggested Lindell as the user of the LGCo marks on these jars, Creswick (1987:100) cited Brantley's *Guide to Ball Jars* as claiming the maker to be the Loogootee Fruit Jar Co. The company's name was actually the Loogootee Glass Co., and it made jars from its inception in 1901 to 1904, when the Ball Brothers



Figure 14 – Wax sealer (North American Glass)

bought the plant and closed it. In support of Creswick, the "L" on all of the LGCo fruit jar bases

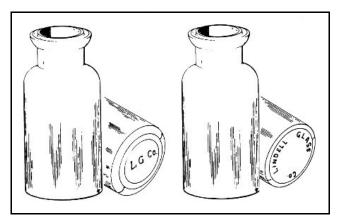


Figure 15 – Lindell jars (Creswick 1987a:100, 103)

was different from the "L" used on the jar embossed "LINDELL" or any of the beer bottle bases or on soda or pickle bottles. The fruit jar "L" had serifs, frequently including a pointed serif on the lower bar and a "heel" serif at the lower left. These were probably intended on all the jars, but some of the embossing was too weak to show them. The "L" on the beer and other bottle marks lacked serifs. If the jars were made by Lindell, they were probably

manufactured during the 1880s because the logos do not have the superscript "o."

The Roller update (2011:294-295) discussed both the jar embossed "LINDELL GLASS CO." and the one embossed "L.G.Co." – including information from Jerry McCann that strongly suggests Lindell as the manufacturer of both jars. McCann noted that shape of the finish and jar, as well as the color of the glass suggested Lindell, and many of the jars have been found at St. Louis. It is interesting that the jars with "P" or "CF" on the bases each had a serif "L" with a pointed tip at the right termination. Bases with no accompanying letter used more traditional sans serif fonts. The "CF" appears to have been altered from the "P" base, with the "P" altered

into an "F" and the "C"added. It is possible that Lindell only used a total of three molds for these jars – the "P"; "CF"; unmarked "L.G.Co." base; and "LINDELL" base (Figure 16).



Figure 16 – Lindell jars (North American Glass & eBay)

Packer Bottles

Although later packer and fruit jars embossed with LGCo were machine made, at least one Gothic² pickle bottle (offered on eBay) was almost certainly made by Lindell (Figure 17).

Soda Bottles





Figure 18 - Heelmark (eBay)

The L.G.CO. mark was also reported on the back heels of "blob-top"

soda bottles, including one used by Christ. Gross of Darmstadt, Illinois, from the 1870s to early 1880s (Miller 1980:18; eBay). Von Mechow listed 21 pony soda bottles

(blob tops) with the "L.G.Co." logo. Hutchbook (Fowler 2017) only listed two Hutchinson soda bottles with "L.G.Co." logos, both embossed on heels (Figures 18 & 19).

² Collectors often call these Cathedral pickle bottles, and the glass company catalogs usually called the large ones hexagon pickle jars.

Discussion and Conclusions

Based on the data displayed and discussed above, it is very likely that the earliest bottles carried no manufacturer's marks of an kind. The trend toward embossing initials or logos on the bases of export and champagne beer bottles seems to have begun with bottles made for the Carl Conrad Co. ca 1876 and became general ca. 1878. Since Lindell was a major producer of Conrad bottles, the plant would almost certainly have been one of the early adopters of basal initials. Although the exact date does not seem to have been recorded, Lindell apparently ceased production ca. 1887 and remained idle until 1891. Since the bank offered the factory for sale in April of 1892, it probably closed again prior to that date. Thus, likely dates for "L.G.Co." initials used by Lindell were ca. 1878-ca. 1887, followed by 1892. It is likely that the final bottles were made using the old molds, so they would all have probably carried the initials.



Figure 19 – Hutchinson bottle (eBay)

Beer Bottles

There is virtually no question that Lindell made all the export beer bottles with the "LGC^{\circ}" and "LGCo" basemarks. Beer bottles were the firm's specialty, and all of the marks were recognizably similar. It is probable that Lindell made beer bottles exclusively until the 1880s. Only beer bottles were marked with the underlined, superscript "o" in "C^{\circ}."

Bitters Bottles

Although the two bitters bottles described by Ring could have been made by the Lyndeborough Glass Co., the style of the markings (in a horizontal line) fits same type of marks used on beer bottles by Lindell. The style does not match the circular or stacked format used by Lyndeborough.

Fruit Jars

Although the wax-sealer fruit jars embossed "LINDELL GLASS Co." on the base were undoubtedly made by Lindell, the serif "L" makes it tempting to agree with Creswick that the jars were made by Loogootee. However, the "L" logo on one of the TUR beer bottles is very similar to the serif "L" on the fruit jars.

Three other glass houses with LGCo names made fruit jars during the late 19th century. The LaBelle Glass Co., Bridgeport, Ohio (1872-1888), made the Eclipse Jar and was the possible maker of a wax sealer embossed "THE ECLIPSE" (Creswick 1987a:51). As usual, Creswick did not give her reasons for this attribution. Other sources (McKearin & McKearin 1941:612; Welker and Welker 1985:68-69) only ascribe tableware to the plant. The Lyndeborough Glass Co., Lyndeborough, New Hampshire (1866-1886), probably made the AMERICAN IMPROVED PRESERVE CAN (actually a glass jar – despite the name) (Creswick 1987a:6), but we find no other record of fruit jars See the Lyndeborough section for more on that firm. We have found no evidence that either of these companies made beer bottles.

The Lythgoe Glass Co., Bowling Green, Ohio (1887-1893), made both fruit jars and beer bottles, although the plant closed just about the time that tooled finishes were first being used for beer bottles with side embossing (i.e., the name of the brewery, etc.). We have been unable to determine what type of fruit jar was made by Lythgoe, and we have found no source that suggests that Lythgoe used any form of logo on its products.

Wax sealers with the LGCo mark are fairly common.³ It seems highly unlikely that a company in business for about three years (Loogootee Glass Co.) would have made the required number for that survival rate. Lindell remains the most likely user of the mark. The company was in business for many years, was a known producer of wax sealers, made glass of the same color as the LGCo jars, and used the same horizontal style for its logos.

³ Leybourne (2001:194), for example, priced the more common variations in \$20-25 price range.

Packer and Soda Bottles

As with the other examples above, the Gothic pickle bottles and "blob-top" soda bottles with the LGCo logos used the same horizontal format and were very likely made by Lindell.

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