Liberty Glass Co. and Related Companies

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As often happens, the Liberty Glass Co. of Sapulpa, Oklahoma, grew from a split in an earlier firm (the Bartlett-Collins Glass Co.) and became one of the largest and most successful milk bottle and soda bottle producers west of the Mississippi River. Although George F. Collins operated a second plant at Poteau, Oklahoma, it apparently only manufactured door knobs and other functional glass. Liberty purchased a glass house at Santa Ana, Texas, but apparently closed the facility immediately. Although the Sapulpa plant only produced milk bottles initially, it introduced soda bottles in 1934 or 1935, and sodas eventually became the firm's flagship product. Liberty became part of the American National Can Co. in 1994 but retained its identity until it was absorbed by Ball-Foster in 1996.

Histories

The early development of what would become the Liberty Glass Co. began with the Bartlet-Collins Glass Co. – see that section for background. The initial plant was located at Sapulpa, Oklahoma, but the firm expanded to Poteau, Oklahoma, and Santa Ana, Texas.

Liberty Glass Co., Sapulpa, Oklahoma (1918-1994)

Although we have not discovered the reason, George F. Collins separated from the Bartlett-Collins Glass Co. in 1918 and formed the Liberty Glass Co. at the old Premium Glass Co. plant (see the Bartlett-Collins section for more on these early firms).¹ L.H. McClung was the initial president of Liberty (although we have not discovered his connection to Collins), and Collins was the first manager and secretary of the corporation, although he became president in 1923. By 1924, the plant had one continuous tank with four rings (Roller 1998a; Toulouse 1971:322).

¹ According to Toulouse (1971:322) the term "Liberty" was popular during World War I and was chosen by Collins for that reason.

Initially, Liberty made milk bottles exclusively and advertised itself as the largest milk bottle manufacturer west of the Mississippi River (Roller 1998a; Toulouse 1971:322). The plant continued to produce milk bottles until at least the mid 1940s. Although we have been unable to ascertain the exact date, Liberty ceased milk bottle production by at least 1994, probably a decade or more earlier.

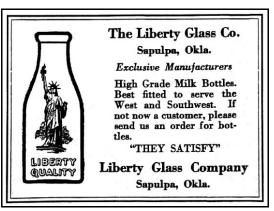


Figure 1 – 1922 ad (Glass Container 1/3/1922)

In 1922, Collins bought the Hutton-Bates Glass Co. at Poteau, Oklahoma (Figure 1). Toulouse (1971:322), indicated that the Poteau plant made soda bottles for Liberty Glass (see discussion and a history of the Poteau plant below). Toulouse further stated that the Poteau operation was idled in 1935, and beverage production moved to Sapulpa.

Although Toulouse (1971:322) claimed that the date was later, Liberty had installed a second tankat Sapulpa that it operated with 4 rings by at least 1927 and increased production to

six rings in 1935 (*American Glass Review* 1927:139; 1935:88). Roller (1998a) noted that Liberty received a trademark for "Lustro-Color" – Liberty's colorenameled labels – on October 23, 1934, claiming first use of the trademark on April 9, 1934 (Figure 2). We have been unable to find any soda bottle with a Liberty manufacturer's mark that did not have an enameled label. The adoption of this process may have been the reason Liberty began soda bottle production.



Figure 2 – Lustro-Color 1946 ad (*Glass Container* 1946)

The Brockway Glass Co. was the first to advertise enameled labels in 1933 – on prescription bottles. Other firms, notably the Owens-Illinois Glass Co. and the Thatcher Mfg. Co. introduced Applied Color Labels (ACL) and Pyroglazing respectively the following year (see the sections on these three firms for more information). Liberty was thus one of the earliest glass houses to offer this refinement.

The *American Glass Review* first listed beverage bottles at Liberty as well as an increase to seven rings in 1937, and the same listing remained until at least 1944 (*American Glass Review* 1937:88; 1944:103). We find it highly likely that Liberty began soda bottle production no earlier than 1935, probably sometime during 1936.

Also in 1936, Liberty bought the Knape-Coleman Glass Co. at Santa Anna, Texas (Bruce & Terry 2005), although available evidence seems to suggest that Liberty closed the plant almost

immediately (see discussion below). We have found no record of any other outside expansion. Collins died on September 23, 1939, at the age of 66, retiring about six months earlier because of poor health. He was succeeded as president by his son, George F. Collins, Jr. (Conways of Ireland n.d.).

Liberty introduced the Ecotainer – a square milk bottle – in the early 1940s, by at least 1945 (Figure 3). According to Toulouse (1971:322-323), the plant added a fourth tank by 1952. Liberty began making a general line of bottles ca. 1955, and younger Collins shifted to Chairman of the Board by 1970. By 1977, the plant used a total of 23 Individual Section machines to make one-way and returnable beverage bottles, juice bottles, and milk bottles (Roller 1998a).



Figure 3 – Ecotainer (*Milk Dealer* 1945)

On April 20, 1994, the American National Can Co. reached an agreement to purchase the Liberty Glass Co. American National Can intended to continue operating under the Liberty Glass Co. name, although the rest of its bottle division continued to be called the Foster-Forbes Glass Co. At that time, Liberty made soft-drink bottles (Maurer 1994). In late 1995, St. Gobain acquired Foster-Forbes (including Liberty Glass) and formed a joint venture with Ball to create Ball-Foster, then purchased the Ball interest in late 1996 (Owens-Illinois). It is pretty certain that Liberty Glass lost its individual identity in the 1996 sale.

History of Liberty's Poteau, Oklahoma, Plant

Collins expanded in his business horizons, buying an already established factory at Poteau, Oklahoma, about 130 miles southeast of Sapulpa. This plant, however, was not an

extension of the Liberty Glass Co. and apparently always made different products from the Sapulpa operation.

Lapel Bottle Co., Lapel, Indiana (1899-1916)

Arthur Woodward, Edward S. Hutton, Silas B. Lee, Dr. J.R. Moore, and William Woodward joined together to incorporate the Lapel Bottle Co. at Lapel, Indiana, in 1899 and apparently completed their factory during that year with a single five-ton tank. By 1901, the plant was listed as making flint flasks and prescription ware (Roller 1994:54; 1998b). Edward Hutton designed a "Glass-Blowing Machine" and applied for a patent on October 30, 1902. He received Patent No. 742,622, almost

exactly a year later, on October 27, 1903 (Figure 4). He assigned half of the patent to Arthur Woodward. Hutton described his device as an improvement in:

machines for blowing glass jars, bottles, or other hollow ware in which a number of molds are arranged to receive the molten glass and plungers are employed to press the molten glass into certain parts of the molds, which plungers are provided with openings with which compressed air or other fluid is introduced to the glass to blow the same to the form of the molds.

In other words, this was what became known as a press-and-blow machine.

On February 23, 1906, Hutton applied for a patent on another "Machine for Making Glassware" and received Patent No. 844,942 on February 19, 1907 – again almost a year later. Hutton also assigned half of the patent to Woodward. This, too, was a press-and-blow machine, described by Hutton as manufacturing "hollow and pressed glassware–such as fruit-jars, large-mouthed bottles, and the like-where plungers are employed" (Figure 5). These machines were almost certainly used at the Lapel Glass Co. plant. It seems odd that Hutton

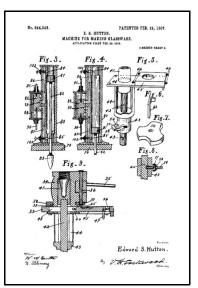


Figure 5 – Hutton 1907 patent

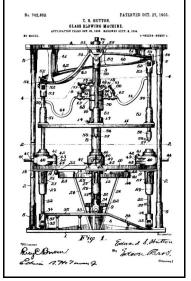


Figure 4 – Hutton 1903 patent

invented a machine that only made wide-mouth ware for a glass house that only (or mostly) produced small-mouth bottles.

By 1904, William Woodward was the president, with Arthur Woodward as treasurer. The plant used three continuous tanks with 18 rings to make beer and liquor bottles along with proprietary ware. By 1909, the listing had changed to flasks and prescription ware. J.W. Bates became one of the officers by at least 1911, and Hutton was the president. The plant, by this time, operated two continuous tanks with 12 rings – and continued to use the same equipment until the sale of the factory. Bates had become secretary by 1913. A history of the area noted that the Woodwards sold their interests to Hutton and Bates. The firm closed the Lapel plant and moved to Poteau, Oklahoma, in 1916 (Roller 1994:54; 1998b).

Lapel Bottle Co., Poteau, Oklahoma (1916-1918)

The new factory at Poteau continued to be listed as the Lapel Glass Co. from 1916 to 1921 (Thomas Publishing Co. 1916:660; 1921:782). However, other information (see below) suggests that the reorganization and name change to the Hudson-Bates Glass Co. took place ca. 1918.

Hutton-Bates Glass Co., Poteau, Oklahoma (1918-1922)

Even though the Hutton-Bates Glass Co. (Edward Hutton and J.W. Bates) was not listed in the Thomas Registers until 1921, the firm incorporated as an Indiana corporation on June 19, 1918 (Bizapedia 2017). Hudson-Bates signed a contract with the American Indian Oil & Gas Co., agreeing to buy natural gas from that firm for the next decade on April 30, 1919 (Justia n.d.). This *may* indicate a move from coal to natural gas as a fuel to drive the furnace and probably explains why the plant relocated. The plant now only used a single continuous tank with 10 rings (Roller 1994:54; 1998b). We have found little else about Hudson-Bates, until the firm sold its assets to George F. Collins & Co. in 1922.

HB Ligature

It is possible that the Hutton-Bates Glass Co. used an HB-ligature mark at some point during the 1918-1922 period. The logo is unusual, but we have an example of this ligature on a



Figure 6 - H-B ligature

mouth-blown soda bottle from El Paso, Texas, used by the Lone Star Bottling Co. – a soda bottler in business from 1918 to 1934. Embossed on the base of the bottle was "J.U." the initials of the owner (José Urrutia) and a smaller ligature that could be IB (with the "I" connected to the "H" by a horizontal bar) or HB (with the upright line of the

"B" forming the right upright of the "H") (Figures 6 & 7).

Although this identification should only be regarded as a hypothesis, the bottle was made during the correct period, and we have found no other identification for the mark. The Hutton-Bates Glass Co. was listed in the bottle section of the 1921 Thomas Register, although it was not listed under any of the more specific categories. However, the



Figure 7 – Lone Star bottle

earlier firm, Label Bottle Co., made soda bottles, so it is reasonable to assume that Hutton-Bates would also. Still, the identification remains tenuous.

George F. Collins & Co., Poteau, Oklahoma (1922-1936) George F. Collins & Co., Sapulpa, Oklahoma (1936-1946)

On September 27, 1922, the journal of *Chemical and Metallurgical Engineering* (1922:670) announced that George F. Collins had purchased the glass plant of the Hutton-Bates Glass Co. at Poteau, Oklahoma. Toulouse (1971:322) was not entirely clear, but he seems to indicate that the Poteau plant made soda bottles, while the Sapulpa factory continued to produce milk bottles. Currently, however, the only soda bottles we have found with marks attributed to the Liberty Glass Co. also had enameled labels – a process first used on soda bottles in late 1934 (note the Lustro-Color reference above). We have also never found any manufacturer's marks that would indicate the George F. Collins Co.

Dairy Antiques (2011) noted that "later Liberty Glass Company ads mentioned a second plant in Poteau.." Although it is impossible to tell what "later" means, Poteau was not mentioned in 1947 or 1954 ads (Liberty Glass 1947:302; 1954:263). However, a computer search failed to

find a single hit that connected "Poteau" with "Liberty Glass," and none of our glass factory directories list any location for Liberty Glass Co. other than Sapulpa. It is likely that no soda bottles were made under the Liberty name – or with a Liberty manufacturer's mark – prior to 1934. The only glass we have found that is attributable to the firm is a glass mailbox with "GEORGE F. COLLINS & CO." embossed on the upper front (Worthpoint). We find no evidence that George F. Collins & Co. acted in concert with the Liberty Glass Co.

On January 19, 1932, the American Indian Oil & Gas Co. sued George F. Collins & Co. over the contract entered into by the Hutton-Bates Glass Co. in 1919. Collins purchased the contract rights of the Hutton-Bates enterprise on September 20, 1924. Although the gas company claimed that Collins owed money, the judge found in favor of Collins. The gas company appealed, however, and Collins lost in a jury trial – having to pay \$2,112.20 to the gas firm (Justia n.d.).

In 1935 or 1936, George F. Collins & Co. idled the factory (possibly due to conflicts with the oil and gas company?) and relocated to Sapulpa, Oklahoma. The plant was listed in 1940 as using two day tanks to make door knobs as well as crystal, opal (milk glass), and colored specialties – and it seems likely that these were the types of products produced at the factory during its entire tenure. George F. Collins, Jr., remained as president and general manager with G.J. Overmyer as secretary and plant manager. The firm was last listed in 1946 (Roller 1998a; Toulouse 1971:322).

GEORGE F. COLLINS & CO.

We have only found a single item bearing the GEORGE F. COLLINS & CO. mark – a glass mailbox on auction at Worthpoint. It is highly likely that George F. Collins & Co. used nothing to mark most of the firm's products.

History of Liberty's Santa Ana, Texas, Plant

Collins purchased a second additional factory at Santa Ana, Texas, more than 350 miles southwest. Why he bought the plant is somewhat of a mystery, since he closed it immediately after the purchase.

Texas Glass Co., Santa Anna, Texas (1930-1932)

A group of local men formed the Texas Glass Co.^2 at Santa Anna, Texas, in 1930. The factory was in production by August of the following year, specializing in milk bottles – although it also manufactured vinegar and beer bottles. The firm ran into difficulties and secured a loan from venture capitalists in Austin and Fort Worth in 1932. The local men were unable to repay the loan, so the capitalists repossessed the plant the following year (Bruce & Terry 2004).

Knape-Coleman Glass Co., Santa Anna, Texas (1932-1936)

The group from Austin and Fort Worth incorporated as the Knape-Coleman Glass Co. on July 24, 1933 (Corporation Wiki 2011), with A.S. Coleman as the president. In 1934, the plant installed automatic feeders to improve production. However, the Hartford-Empire Co., the owners of the machine patents, sued Coleman for infringement. Although he won a temporary reprieve, Coleman had to cease production in six months and return the machinery to Hartford-Empire. After that time, the plant continued to produce milk bottles by hand (Bruce & Terry 2004).

The *American Glass Review* (1935:87) first listed the Knape-Coleman Glass Co. in 1935. At that time, the plant made "bottle specialties" at a single continuous tank. In 1937, listing added milk jars. George Haberlin was the president, with Mrs. E.P. Herrell as vice president, H.O. Knape as secretary and sales manager, C.L. Peterson as treasurer, and C.B. Hoopes as the "Factory Manager." The same listing continued until 1940, when the plant was listed as "not operating" (*American Glass Review* 1937:86; 1940:96). As explained often in these pages, listing frequently continued for a few years after glass houses ceased operation.

Liberty Glass Co., Santa Anna, Texas (ca. 1936)

According to Bruce & Terry (2004), Coleman "sold the plant in 1936, and Pete Peterson became manager. The business was then sold to the Liberty Glass Company for \$50,000.00." We have been unable to find more information about Peterson, and we have discovered no other

² Bruce & Terry (2004) cryptically added "and they purchased a plant from Oklahoma." This suggests that an earlier glass house was somehow involved.

mention of a connection between Liberty Glass and Santa Anna, Texas. Liberty may have purchased the factory just to eliminate a source of competition, then closed it almost immediately. As a hand-production plant, the Santa Anna factory would have been of little use to the fully automated Liberty Glass Co. The senior Collins may have known Coleman and bought the factory to bail him out of trouble – writing off the loss on taxes. We may never know the actual reason.

Containers and Marks

Liberty underwent at least two major changes in milk bottle production. The first was the new labeling – called Lustro Color by Liberty – adopted by the firm in mid-1934 (see Figure 2). Liberty described the process as "special designs permanently fused right into the glass. Last as long as the bottle. Won't fade, scratch or dim out." As discussed in the history section, the adoption of this process was probably partially responsible for Liberty's manufacture of soda bottles (Liberty Glass 1947:302).

The second was the Ecotainer, a square milk bottle that Liberty advertised by at least 1945. Most sources (e.g., Gallagher 1969:50; Gallagher & Munsey 1969:333; Rawlinson 1970:13), indicate that square milk bottles became popular during the late 1940s, although our empirical research shows that they were in use by at least 1944 (Liberty Glass 1954:263 – see Figure 3).

An additional offer, by at least 1954, was "Liberty's Flame-Polish Bottles." Although the process was not specifically described in the ad, the bottles were probably belted through flames to create a "polished" look (Liberty Glass 1954:263).

All empirical observation by one of the authors, discussed below, was from the collections of Lynn Loomis (milk and soda bottles), Warren A. Hackbarth (milk bottles), and Bill Lockhart (milk and soda bottles).

L.G.Co.

Giarde (1980:65) suggested that the "L.G.Co." mark found on early milk bottles is the missing mark from Liberty Glass and was used from 1918 until the beginning of the "LG." mark

in 1924. However, Warren A. Hackbarth (personal communication August 7, 2004) noted that on all of his bottles that bore the "L.G.Co." logo, the mark was followed by the number "52." In the early milk bottle numbering system, "52" was assigned to the Lamb Glass Co. See the section on the Lamb Glass Co. for more about the "L.G.Co.52" marks.

L.G. (1918-1931; ca. 1950-1967 or later)

According to Toulouse (1971:321), the "L.G." mark was used by Liberty from 1924 to 1946. Giarde (1980:65-68), however, dated the "L.G." mark from 1924 to 1934. We have only observed this mark on the heels of milk bottles, although some were



Figure 8 – L.G. (California State Parks collection)

low on the heel roll (Figure 8). The Liberty Glass Co. actually registered the "L.G." trademark (No. 193,540) on December 30, 1924, claiming a first use in September 1918 on Glass Milk bottles and Cottage Cheese Containers" (Figure 9). The firm renewed the logo on December 30, 1944.

Empirical observation of milk bottles from the collections only produced date codes of 1928 and 1931. Although the sample is small, most of the bottles lacked date codes. These undated bottles were almost certainly made during the period between 1918 and the mid- to late 1920s. As suggested by the trademark document, we have not seen this mark on soda bottles – only on milk bottles.



Figure 9 – L.G. trademark

Oddly, the "L.G." mark returned to use on some milk bottles – after the 1944 trademark renewal date. Bottles in the Hackbarth collection had "L.G." marks on heels with two-digit date codes of 50, 51, 56, 61, and 67 (1950-1967) on the bases. All of these bottles had Lustro-Color (pyroglazed) labels on them, a technique not used on milk bottles until 1934. These later "L.G." logos were used concurrently with both "L-G" and "LG" marks (see below).

Griffenhagen and Bogard (1999:125) recorded an "L.G." mark on the base of a pharmaceutical bottle used by E. Fougera & Co. They dated the mark "1920s" but gave no further information. This mark is similar, if not identical, to the one used by the Liberty Glass Co. from 1928 to 1934. Liberty only made soft drink and milk bottles; however, some pharmacies used soda bottles for some of their products. If this was, indeed, a pharmaceutical bottle made by Liberty, it is the only one we have found with the "L.G." mark. It should be noted, however, that some of the marks noted by Griffenhagen and Bogard were slightly different from the ones found on actual bottles.

L-G (1936-1967 or later)



Figure 10 – L-G trademark

Peterson (1968:49) who specified that his information came from trademark registrations, placed the "L-G" mark as beginning in 1936. Toulouse (1971:321) noted that the "L-G" logo was used from 1946 to 1954. Giarde (1980:65-68) dated the mark from 1934 to 1954. It is probable that the date given by Toulouse was a typo; he likely intended the date to be 1936. Liberty registered the "L-G" trademark (No. 442,135) on March 1, 1949, claiming a first use on January 15, 1936 (Figure 10).

Empirical testing of milk bottles in our sample confirms trademark document's date for the "L-G" mark. Milk bottles almost always had the "L-G" mark embossed on the heel and the two-digit date code was always on the base (although two bottles had both the "L-G" mark *and* the date code on the bases – 1942 and 1947 – Figure 11). Dates range from 1937 to 1958. A single exception was embossed with a strange date code – a "3I" with tiny serifs on both ends of the "I."



Figure 11 – L-G milk

A final bottle virtually negates the conventional wisdom. This is a half-pint milk bottle made by Liberty Glass Co. for the Rio Grande Dairy Assn. of El Paso, Texas. The bottle was embossed with a very distinct "29" date code on the base and "L-G" – again very distinct – on the heel. A quart version of the same bottle was embossed "L.G." on the heel but also had a "29" date code on the base. Price's Dairy purchased the firm the following year, so the bottle could not have been made at a later date.

By the 1930s, Liberty also made soda bottles. The earliest date code with the "L-G" mark we have seen on a soda bottle was "37" (1937), supporting the trademark first use date of 1936 (Figure 12). The mark continued to be used until at least 1967.



Figure 12 - L-G soda

placement of the mark. Mostly, the earliest bottles were marked with both "L-G" and the date code on the base (1937 to mid-1940s). Beginning in 1946, however, the logo (L-G) was

The company, however, was very inconsistent about the

mostly placed on the heel with the date code on the base. The logos returned to the base (along

with the date codes) in 1953 and remained in that position until 1967. During both transition years (1946 and 1952), the logo appeared on both the heel and base, although the date code remained on the base. There were occasional exceptions, however. Two soda bottles had "L-G" logos on both base and heel but were *not* transition years – 1939 and 1941 (Figure 13). In both 1956 and 1963, both the logo and the date code appeared on the heel. We have not found bottles with the usual pattern in either 1956 or 1963, although they may exist.



Figure 13 – L-G base & heel (Lynn Loomis collection)

Coca-Cola Bottles

Because the Coca-Cola company demanded that their bottles be marked in a specific way, Coke bottles are a special case. The well-known, hobble-skirt bottles are distinguished by different patent markings in the central labeling area of the bottles. According to Kendall (1978:7) and Pollard (1993:45), these may be broken down into roughly four types prior to the addition of Applied Color Labels (ACL) in 1963: 1) BOTTLE PAT'D NOV 16, 1915 (1917-1930); 2) BOTTLE PAT'D DEC. 25, 1923 (1926-1938); 3) BOTTLE PAT. D105529 (1938-1951; and 4) IN U.S. PATENT OFFICE (1951-1963).

According to Porter (1996:7 and Lockhart & Porter 2010), manufacturer's marks on Coke bottles were placed on the skirt until 1951 when they were moved to the base. Marks may be found in both locations in 1951. Liberty apparently entered Coke bottle production late. The

earliest hobble-skirt Coke bottle in Bill Porter's database is the PAT. D105529 variation. The bottle was made in 1950 and had the "L-G" logo. Another was made a year later. Also in 1951, Liberty made its first IN U.S. PATENT OFFICE bottle (Figure 14). Production of Coke bottles lasted until at least 1955 and included a variety of ACL bottles. In the Porter database, all Coke bottles made by Liberty had the "L-G" mark. Even though Liberty production was initially concentrated in the west, the Porter database recorded containers from both east and west.



Figure 14 – L-G Coke base (Lynn Loomis collection)

LG (1955-1994)

Peterson (1968:49) suggested 1953 as the beginning date for the "LG" mark. Giarde (1980:65-68) dated the "LG" mark as starting at 1954. Liberty received Trademark No. 608,319 on July 5, 1955, for the "LG" logo to be used on "commercial glass food jars, milk bottles, beverage bottles, medicine bottles, and cosmetic bottles" (Figure 15). The firm claimed first use of the mark on March 21, 1953. As with the earlier trademarks, this one used a simple sans serif font.

Much later, on January 14, 1992, Liberty registered Trademark No. 1,671,768 for a serif "LG" logo that it claimed was used since 1918 on "Glass containers for commercial use" (Figure 16). By this time, the American National Can Co. owned Liberty and was apparently covering its bases, even though Collins had surely transferred the original trademarks to American National Can. The claim of 1918 was used generically, apparently meaning all of the Liberty logos.

Empirical testing showed that the use of the "LG" mark, Liberty's final logo, on milk bottles began at least as early as 1955 and continued in use until at least 1971. Note that an overlap exists between 1955 and 1958 when both "L-G" and "LG" marks were used. By 1971, most dairies had phased out glass bottles in favor of plastic containers or waxed-paper cartons (or



Figure 15 - LG sans serif



Figure 16 - LG with serifs

both). Presumably, the mark continued to be used by those few companies preferring glass over the alternative containers. "LG" logos on milk bottles always appeared on the heels with date codes on the bases.

The "LG" logo, first appeared on soda bottles in our sample by at least 1961 (possibly earlier) with both the logo and date code on the base (Figure 17). Note that this means an overlap period between at least 1961 and 1967 when both "L-G" and "LG" were used. Sometime between 1972 and 1977,³



Figure 17 – LG base

the date code migrated to the heel of the bottle, while the logo remained on the base. The marks remained in that position throughout the 1970s, although we cannot confirm the placement after the latter part of that decade. The mark was still listed for Liberty in 1982 and 1996 (Emhart 1982:75; 1996:49). See Table 1 for chronology of Liberty marks.

Milk Bottle "Seals" and Numerical Codes

In 1910, the State of New York required that each milk bottle manufacturer selling to dairies in New York emboss a company logo and a unique number – supplied by the state – on each milk bottle. Use of the system spread quickly to the surrounding states, and many soon adopted the same numbering system and identical numbers for each glass house. Thus, many glass houses incorporated the number into their logos, such as E4 for the Essex Glass Co., 5 / W for the Winslow Glass Co., or L52 for the Lamb Glass Co. Possibly because the firm primarily sold to the western market, Liberty Glass does not seem to have used a number.

Similarly, the State of Massachusetts required a "seal" that was unique to the state. Any glass house wishing to sell in Massachusetts had to be bonded and – to show that each bottle met the state standards for volume – had to emboss a seal with its own unique letter code (e.g., T for the Thatcher Mfg. Co., E for the Essex Glass Co., or BB for the Berney-Bond Glass Co. As with the number system, a few surrounding states adopted the "seal" system, most notably Maine and Rhode Island. Once again, probably because of the predominant western sales, Liberty did not use any of the eastern seals.

³ Our sample of later bottles is very small, so these dates may not reflect actual use.

Mark	Mark Location	Date Location	Bottle Type	Date Range
None	None	None	Milk	1918-1924*
L.G.	Heel	None	Milk	1924-1927
L.G.	Heel	Base	Milk	1928-1934
L-G	Heel**	Base	Milk	1934-1958
L.G.†	Heel	Base	Milk	1951-1967
LG	Heel	Base	Milk	1955-1971
L-G	Base	Base	Soda	1935-1945
L-G	Base and Heel	Base	Soda	1946
L-G	Heel	Base	Soda	1947-1951
L-G	Base and Heel	Base	Soda	1952
L-G	Base	Base	Soda	1953-1967
LG	Base	Base	Soda	1961-1972 ††
LG	Base	Heel	Soda	1977 ††-1978

Table 1 - Liberty Glass Co. – Marks, Locations, and Dates

* Although Giarde (1980:67) suggested "LGCo" mark was used by Liberty Glass during this period, it is much more likely that no logo was used at this time. Hackbarth noted that this mark fits better with the patterns used by Lamb Glass Co.

** Some exceptions are known with "L-G" and the date code embossed on the base (at least 1942-1947).

[†] After being discontinued in 1934, this mark was used again concurrently with the "L-G" and "LG" marks.

†† There is a gap in our data from 1973 to 1976. The actual year when the date code migrated to the heel is currently unknown. At least one bottle still had the date code on the heel in 1977

7 MINN triangle

The State of Minnesota required a unique "seal" – a triangle with a one- or two-digit number in the upper half, a dividing line, then MINN at the bottom. By at least 1918, the triangle "seal" was embossed on the shoulders of milk bottles, often in small round plates. The mark had migrated to the heel by at least 1940.

Giarde (1980:147) identified the "7" in the Minnesota triangle as belonging to the Liberty Glass Co. Apparently, Minnesota was far enough west to be considered part of Liberty's territory. We have been unable to determine when Liberty first adopted the Minnesota triangle, but the only "7" triangles we have recorded were on milk bottle heels (Figure 18). Triangles migrated from the shoulders of bottles to the



Figure 18 – 7 MINN triangle

heels in 1940, so Liberty apparently did not post the Minnesota bond until at least that date.

SEALED 52

By at least 1935 (probably earlier), Liberty embossed the heels of at least some of its bottles with "SEALED 52" – usually followed by the "L-G" logo (Figure 19). The "SEALED 52" continued to be used until at least 1956. We have never discovered any



Figure 19 - Sealed 52 L-G

documentation about this phenomenon. The number "52"

was issued by several states to the Lamb Glass Co. as part of its "L52" logo. There seems to be no logical reason for the use of the "52" by the Liberty Glass Co. Lamb may have considered

this a logo infringement and demanded that Liberty stop using the number.

1937 Greenwood Patent

On December 31, 1935, James Greenwood applied for a patent and received Patent No. 2,076,124 for a "Milk Bottle" on April 6, 1937 (Figure 20). Apparently an employee, Greenwood assigned the patent to the Liberty Glass Co. Although the patent was for the entire bottle, the defining feature was the seven embossed steps, each encircling the base of the finish gradually diminishing to the neck of the bottle. These provided a secure grip when moving or pouring the bottle to insure that it did not slip out of the hand.

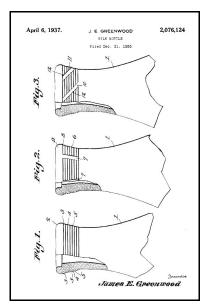


Figure 20 – Greenwood 1937 patent

The patent allowed the Liberty Glass Co. to control the use of that type of finish, and these appeared on some Liberty milk bottles. Liberty apparently began using the finish immediately after Greenwood applied for the patent – or maybe even prior to that. We have in our possession a milk bottle with the "L-G" logo, a date code of "35" (1935), and the Greenwood finish. Along with the date code, the base was embossed "PATENT APPLIED FOR." The bottle was therefore made in 1935, two years prior to the issuance of the patent.

Discussion and Conclusions

Although Toulouse claimed that the George F. Collins & Co. (Poteau, Oklahoma) made early soda bottles for the Liberty Glass Co., we find no evidence that the Liberty Glass Co. made *any* soda bottles prior to 1934. The Poteau plant remains a mystery. Despite the manufacture of soda bottles by the earlier Lapel Bottle Co. (the predecessor to the Poteau operation), it apparently only produced door knobs and glass novelties and was unrelated to Liberty – except for the connection with Collins as president of both firms. The unanswered question is: Why would Collins convert a factory that already made soda bottles into a different product line? The only apparent answer was that he was not yet producing soda bottles when he bought the Poteau operation and had no future plans to do so. Similarly, there is no evidence that Liberty used the Knape-Coleman Glass Co., Santa Anna, Texas, when it bought the plant ca. 1936. Apparently Liberty shut the factory down almost immediately.

Although Giarde suggested that the "L.G.Co." mark was a possible Liberty logo, the mark was actually used by the Lamb Glass Co., as shown by its association on bottles with other known Lamb logos, including Lamb's Massachusetts seal, its Minnesota triangle, and its number "52" (see Lamb Glass Co. section). The remaining Liberty logos are well documented.

The "L.G." mark was probably used on milk bottles by Liberty Glass from about 1924 until about 1935 when soft drink bottles were added to the factory's inventory. Based on existing literature, the company probably did not mark its earliest bottles (1918-1924), although we have no idea what criteria Toulouse used to determine the 1924 beginning date. Date codes began to appear on bottles with the "L.G." mark ca. 1928 and continued until about 1934. The mark was apparently used exclusively on milk bottles.

The "L-G" mark began use on milk bottles in 1934 and continued to be used until at least 1958, four years longer than the claim of any of the established references. The "L-G" mark on soft drink bottles was likely used between 1935 and 1967, although the positioning of the mark changed from the base to the heel and back again during that time (including its appearance on both heel and base during at least four years (1939, 1941, 1946 and 1952). The upper extremes of this range still need additional research, when we find a sample of sufficient size.

The use of double marks – one on the heel and one on the base – was probably caused by the use of older molds. In 1946, for example, the logo migrated from the base to the heel – but that year's bottle had the mark at both locations. It is likely that the logo was added to the heel at that time, but the plant continued to use the older baseplate (with the "L-G" mark) until it wore out. By the next year, the entire mold had worn out and was replaced by on with the logo only on the heel.

The final mark "LG" was used on milk bottles at least as early as 1955 and as late as 1971. On soda bottles, the "LG" logo appeared by at least 1961 and was used until at least the late 1970s. Both "L-G" and "LG" marks were used on soda bottles during the 1961-1967 period.

Although Liberty registered for a specific number in the state of Minnesota – and received a "7" – we find no record that the firm posted bond in the far eastern states that used the "seal" system: Massachusetts, Maine, and Rhode Island. This is in keeping with Liberty's predominant marketing area – west of the Mississippi.

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Sources

American Glass Review

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

1935 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

1937 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

1940 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

1942 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

Bizapedia

2017 "Hudson-Bates Glass Company." https://www.bizapedia.com/ok/hutton-bates-glass-company.html

Bruce, Leona and Ralph Terry

2005 "Santa Ana, Texas."

http://freepages.genealogy.rootsweb.ancestry.com/~jrterry/colemancounty/communities/s anta-anna/history-santa-anna.html [from "The History of Coleman County and Its People," 1985]

Chemical and Metallurgical Engineering

1922 "Industrial Financial, Construction and Manufactuers' News: Oklahoma." *Chemical and Metallurgical Engineering* 27(13):670-671.

Conway's Of Ireland

n.d. "Conway's Of Ireland." http://www.fritziinc.com/tree/pafn1499.htm

Corporation Wiki

2011 "Knape-Coleman Glass Company."

http://www.corporationwiki.com/Unknown/Unknown/knape-coleman-glass-company/29 597029.aspx

Dairy Antiques Site

2011 "Doug & Linda's Dairy Antique Site: Butter Churns, Milk Bottles & Cream Separators." <u>http://dairyantiques.com/</u>

Emhart Glass

1982 Emhart Punt Marks. Emhart, Zurich, Switzerland.

1996 The Emhart Book of Punt Marks. Emhart, Zurich, Switzerland.

Gallagher, T. F.

1969 "The Milk Bottle Through 85 Years." American Dairy Review Feb.: 50, 95.

Gallagher, Thomas F. and Cecil Munsey

1969 "Milk and Its Containers." Western Collector 7(7):330-336

Giarde, Jeffery L.

1980 *Glass Milk Bottles: Their Makers and Marks*. Time Travelers Press, Bryn Mawr, California.

Griffinhagen, George and Mary Bogard

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

Justia.com U.S. Law

2011 "American Indian Oil & Gas Co. V. Geo. F. Collins & Co.. Supreme Court, Oklahoma." http://law.justia.com/cases/oklahoma/supreme-court/1932/30276.html

Kendall, William N. W.

1978 "Collecting Coca-Cola Bottles, Phase II." Old Bottle Magazine 11(10):6-8.

Liberty Glass Company

1947 "Ad – Liberty Glass Company." *Dairy Industries Catalog of Equipment, Supplies and Services use by Dairy Products Manufacturers.* 12th ed. Olsen Publishing Co., Milwaukee.

1954 "Ad – Liberty Glass Company." *Dairy Industries Catalog of Equipment, Supplies and Services use by Dairy Products Manufacturers.* 27th ed. Olsen Publishing Co.

Lockhart, Bill and Bill Porter

2010 "The Dating Game: Tracking the Hobble-Skirt Coca-Cola Bottle." *Bottles and Extras* 21(5):46-61.

Maurer, Mitch

1994 "Oklahoma's Liberty Glass Sold to American National Can Co." *Knight Ridder/Tribune Business News*, April. Retrieved from BNET, a webpage operated by CNET, March 22, 2008. http://findarticles.com/p/articles/mi_hb5553/is_199404/ai_n22296375

Owens-Illinois Glass Co.

2001 "Consolidation of the United States Glass Container Industry." Spreadsheet.

Peterson, Arthur G.

1968 400 Trademarks on Glass. Washington College Press, Takoma, Md.

Pollard, Gordon

1993 Bottles and Business in Plattsburgh, New York: 100 Years of Embossed Bottles as Historical Artifacts. Clinton County Historical Association, Plattsburgh.

Porter, Bill

1996 Coke Bottle Checklist. Privately printed, n. p.

Rawlinson, Fred

1970 *Make Mine Milk, The Story of the Milk Bottle and the History of Dairying.* FAR Publications, Newport News, Virginia.

Roller, Dick

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

1998a "Sapulpa, OK History Notes." Dick Roller files.

1998b "Lapel, IN History Notes." Dick Roller files.

Thomas Publishing Co.

1916 *Thomas' Register of American Manufacturers and First Hands in All Lines*. Thomas Publishing, New York.

1921 *Thomas' Register of American Manufacturers and First Hands in All Lines.* Thomas Publishing Co., New York.

Toulouse, Julian Harrison

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