

The Cumberland Glass Mfg. Co.

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The Cumberland Glass Mfg. Co. began small and grew into one of the largest glass houses in New Jersey. The plant made a large variety of bottles and jars. Unfortunately, the factory rarely used any kind of embossing that would identify its products. Just a few marks were sufficiently significant to warrant inclusion in this volume.

History

Joseph A. Clark & Co., Bridgeton, New Jersey (1880-1885)

Pepper (1971:217) noted that the Cumberland Glass Mfg. Co. began operating on Water St. in 1880. Von Mechow (2014) quoted George W. McCowan's 1881 book, *City of Bridgeton, N.J. its Location, Attraction, Industries, &c.* on the early company:

The Cumberland Glass Works are situated on Water street, and are operated by Jos. A. Clark & Co. This firm began work in August, 1880. The size of the factory is 60x100 feet, with other buildings in proportion. They run a five pot furnace, with a capacity for turning out one hundred and seventy-five gross of half ounce to one gallon bottles, and pay out weekly, \$1,000 for labor; ninety to one hundred men and boys are employed, all of whom are paid in cash. The capacity of these works is to be enlarged one-third for the year beginning September 1st, 1881.

Members of the same firm established the Clark Window Glass Co. in December 1882 with a capital of \$25,000. The bottle firm reorganized in 1885 as Cumberland Glass Mfg. Co.

Cumberland Glass Mfg. Co., Bridgeton, New Jersey (1885-1920)

The bottle plant reorganized in 1885 as the Cumberland Glass Mfg. Co., and the 1887 city directory listed C.W. Shoemaker and S.M. Bassett as principals at Mt. Vernon, corner of

Witzel – although the move from Water St. to the larger plant at N. Laurel, corner of Charles, probably occurred ca. 1882.¹ The same directory noted R. Elmer (Robert E.) Shoemaker as president, Samuel M. Bassett as secretary, and Clement W. Shoemaker as treasurer – suggesting that the operating firm had incorporated (von Mechow 2014).

The plant had a single furnace in 1889. In 1891 the plant had an incident that would be virtually unheard of today – although antisemitic attitudes were common in the eastern U.S. during the entire 19th and early 20th centuries. Von Mechow (2014) quoted the *Roanoke Times* of September 22, 1891, that on September 21

Tending boys at the Cumberland Glass Works refused to work with the Jews and colored boys this morning, placing iron bars across the gates and threatening to stone to death any Jews who attempted to go to work. Six Jews were discharged by the company, and the boys will now go to work without further trouble.

As quoted by von Mechow (2014), the *Times* on December 9, 1892, reported another incredible story that had taken place the previous day:

While Walter Bond, Amos Sharp and Charles Newman, three brick masons, were at work on the top of the stack of the new flint house of the Cumberland Glass Works yesterday, they felt something giving away. Glancing around they saw the brick work parting and the stack opening. To save their lives they had to act quickly. A rope ran down the centre of the stack, which was used to draw up materials. This they grasped and slipped to the bottom, a distance of fifty feet. They had no sooner reached the ground than the huge stack toppled and fell with a tremendous crash. The whole furnace will have to be torn out, and this will delay the starting of the factory for several weeks.

On December 13, 1892, the workers at Cumberland Glass struck, and the strike continued until mid-January. On May 8, 1894, fire destroyed the hollowware tank furnace and

¹ A 1910 genealogy stated that the Water Street plant burned (von Mechow 2014). Von Mechow (2014) suggested 1885 as the date of the move. The new address was shown in the 1889 city directory.

batch house at the plant. Damage was estimated at \$15,000, with several thousand molds and sample bottles ruined. In 1897, the factory had expanded so much that it had two furnaces with ten pots and four continuous tanks with 22 rings. By this time, George B. Wilson was vice president, and John F. Perry was secretary. On July 2, 1898, the *Alexandria Gazette* noted that the Cumberland plant intended to “put in a large number of bottle-blowing machines during the coming summer.” However, a long strike between February and September of 1899 may have derailed the plans. Joseph A. Clark moved into the vice presidential position that year, and Cumberland finally gave in to worker demands and allowed the union into the plant (Roller 1998; von Mechow 2014).

According to Toulouse (1971:162), the plant made “pharmaceuticals, proprietaries, prescriptions, toilets, cosmetics, panels, and catsups in green, amber, and flint glass, blue Bromo-Seltzers, gallons, five-gallons, beers, liquors, and inks.” Cumberland entered the machine age early, using a Haley-Bridgewater machine by 1901— see Machine Patents section below). The plant was also listed in 1901 as using 40 pots to make its glass (*National Glass Budget* 1901:11). By 1904, the plant had eight continuous tanks with 71 rings (*American Glass Review* 1934:157).

A major fire on May 7, 1902 – with an estimated damage of \$40,000 – destroyed the main building and three furnaces (von Mechow 2014). The *National Glass Budget* (1912:1), listed a factory in “Bridgeton” with eight semiautomatic bottle machines, “one fruit jar machine; seven bottle machines making olives, shoe polish, inks and mucilage bottles” in 1905. This was probably the Cumberland plant. By at least 1907, the plant made prescription, beer, soda, wine, brandy, packers’, and preservers’ bottles, along with fruit, ointment, and opal jars (Thomas Register 1907:578).

Cumberland was also the primary producer of cobalt blue bottles (most notably for Bromo-Seltzer) until 1907, when the Maryland Glass Corp. – wholly owned by the Emerson Drug Co., makers of Bromo-Seltzer – began specializing in blue bottles. Cumberland discontinued its blue line in 1909 almost certainly because Emerson had been its largest customer for cobalt blue bottles (Toulouse 1971:267). Roller (1998) quoted a February 8, 1904 letterhead that listed “Flint, Blue, Amber, Emerald and Dark Green Bottles, Fruit Jars, Leclanche & Battery Jars, & Window Glass” – confirming the use of blue glass products.

In 1909, a Bridgeton factory (almost certainly Cumberland) operated eight semiautomatic machines, seven listed as “miscellaneous” and one making “narrow mouth ware” (Hayes 1909:1), although the plant still made bottles by hand (Figure 1). A letter from the Coca-Cola main office (Coca-Cola 1910) makes it clear that Cumberland also manufactured straight-sided Coca-Cola bottles beginning in 1910 (see the Containers and Marks section

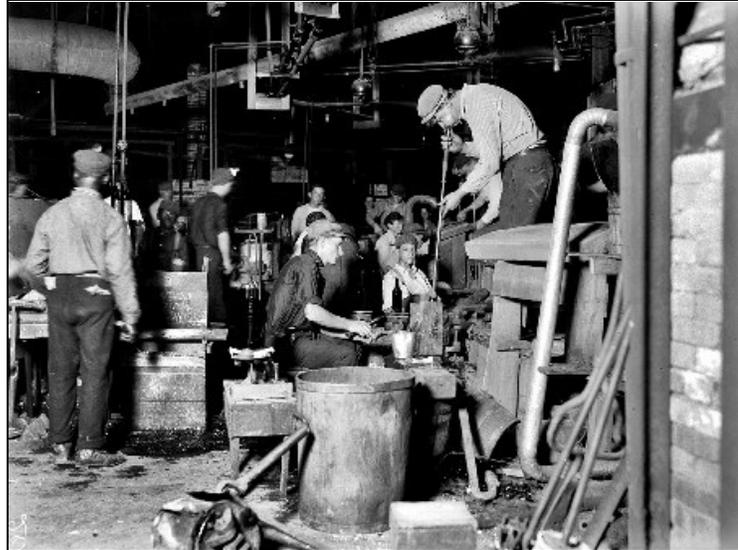


Figure 1 – Cumberland Glass, November 1909 (Lewis W. Hine collection, National Archives)

below for details). Cumberland also made half-pint and pint warranted flasks for the Carroll Reid Distilling Co., that were ultimately sold to the South Carolina Dispensary (Teal 2005:110-111), although we do not know if these containers had any distinguishing mark.

In 1910, plant manager N.J. James announced that the company had “succeeded in perfecting a machine that will satisfactorily produce narrow neck bottles, such as catsups, beer bottles, etc., at a big saving over the hand method.” The method used was unusual and may have been unique in bottle-making history:

The machine differs from all others, and in getting the neck upon the bottle, the vessel is made in two sections, the neck being put upon the bowl with a second operation. This is accomplished so that there is no perceptible mark upon the bottle showing the joint, and the bottle stands every possible test as to strength. The machine is operated much as all pressing machines are (*National Glass Budget* 1910:2).

Although not listed by other sources, Cumberland’s 1911 catalog illustrated several varieties of flasks and a large range of bottle types, including a pint “Mustard Milk” bottle that appeared to be the same shape as the “common sense” milk bottle but was offered with “tin

lightning tops and American metal cap finish.” By 1913, Cumberland was making bottles by both semiautomatic machine and mouth-blown methods at six continuous tanks with 69 rings. Products were listed as a “general line; also battery and ointment jars” (*Journal of Industrial and Engineering Chemistry* 1913:952).

By 1917, Cumberland was making “Prescription, Beer, Wine, Brandy, Soda, Packers” bottles (Thomas Register 1917). Their ad in the same issue noted “Bottles for All Purposes” and added “flint, green, and blue,” along with “Homeopathic Vials & Tubing.” The expanding Illinois Glass Co. bought Cumberland on April 13, 1920 (Toulouse 1971:267).²

Machine Patents

As noted above, Scoville (1948:324) noted that Cumberland used the Haley-Bridgwater machine in 1901. Jonathan Haley and Harry H. Bridgwater collaborated to patent machines to make wide- and narrow-mouth bottles in 1900 and 1902. Since the pair applied for the 1902 patent in 1899, either of these machines could have been the one cited by Scoville. Both men also invented various machines individually.

Haley-Bridgwater Machines – 1900 and 1902

Jonathan Haley and Harry H. Bridgwater applied for a patent for a “Machine for Forming Hollow Glass Articles” on December 28, 1898, and received Patent No. 654,451 on July 24, 1900. The inventors noted that the patent was for “improvements in apparatus' for forming hollow glass articles; such, for instance, as bottles and jars; and the invention relates more especially to the formation of hollow glass articles by first pressing or molding a quantity of glass into a hollow form and then expanding the blank by blowing into the latter.

The operation included a neck ring that extended from the center of the finish to the shoulder of the bottle and a top plate that served as a plunger guide. The plunger entered the neck and pressed the glass into a parison. The neck ring then lifted the parison from the parison

² The date was 1921 according to the *American Glass Review* (1934:157), but the Toulouse date is probably correct.

mold and moved it to the blow mold. A separate top plate then positioned the blowing apparatus as the neck ring descended into the blow mold. A puff of air then completed the bottle. As shown in the patent drawing (Figure 2), the base should have had a cup bottom, and the neck ring should have left a horizontal seam encircling the shoulder of the bottle. A second horizontal ring should have encircled either the bottom or the center of the finish. The shoulder ring should make any beer bottle or soda bottle made on this machine stand out as unusual, and this description fits two different types of Bromo-Seltzer bottles (See Bromo-Seltzer section below).

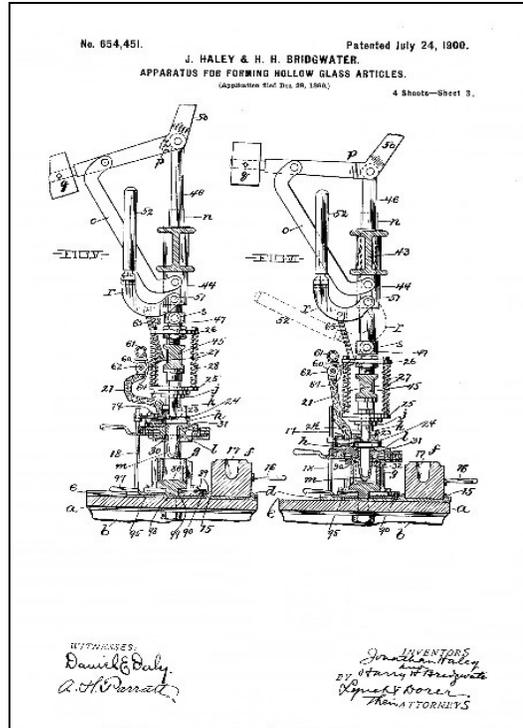


Figure 2 – Haley & Bridgwater 1900 patent

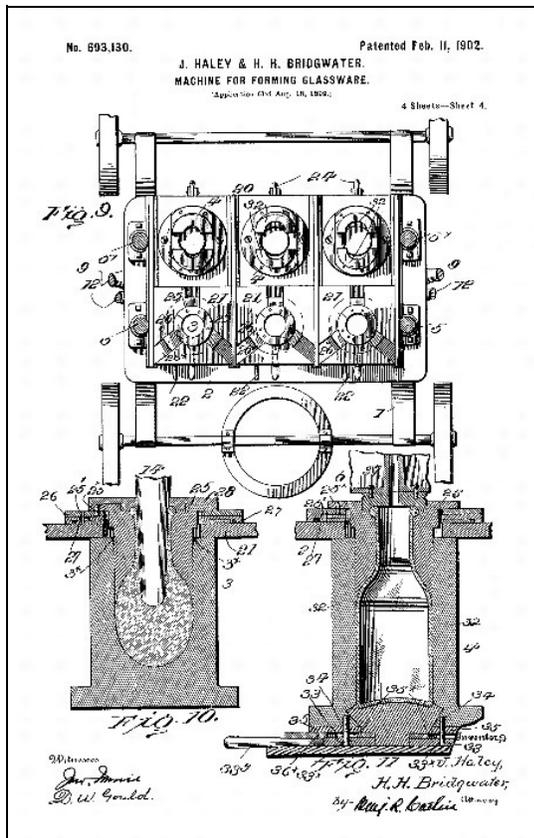


Figure 3 – Haley & Bridgwater 1902 patent

On August 18, 1899, Jonathan Haley and Harry H. Bridgwater applied for a patent for a “Machine for Forming Glassware.” They received Patent No. 693,130 on February 11, 1902. They assigned the patent to the Akron Glass Machinery Co., Akron, Ohio. Even though this was a press-and-blow machine, the inventors noted that “the invention relates to machines for forming glassware, and is especially suitable for forming narrow-mouth ware, such as beer bottles.” The seams on bottles made by this machine should be in the same three locations as on the early machine described above (Figure 3). There is no indication that the pair assigned either patent to the Cumberland Glass Mfg. Co.

Haley's first glass-related patent was for a glass press on October 1, 1867. He invented various glass apparatuses until he teamed up with Bridgwater by at least 1898. The pair continued to make inventions related to bottle and jar production until at least April 1904. These included machinery to transfer bottles from the machines to the lehrs and to feed the lehr.

Containers & Marks

Although Toulouse (1971:162) noted that "so far no specific mark has been found for Cumberland," he went on to claim two marks (COLUMBIA and D&O) as being specifically used by the firm. This lack of a mark is supported by two lines of inquiry. First, an examination of early cobalt blue Bromo-Seltzer bottles used by the Emerson Drug Co. reveals that these were unmarked, yet they were almost certainly made by Cumberland. Second, the history above clearly indicates that Cumberland made a huge number of bottles over its lifetime, yet all the "C" logos that have been found on bottles – notably soda bottles – are assigned to other bottlers. However, the plant may have used a simple "C" logo for a brief period on Coca-Cola bottles.

Mold or Model Codes

Von Mechow (2014) noted that "no bottles are known with a distinct Cumberland mark, [but] a number of bottles have been identified with known mold number markings. The markings are on the base of the bottle." Although we suspect that these numbers may be model or catalog codes, von Mechow's system will allow an identification for some bottles made by this firm. Unfortunately, he did not discuss how he came to identify these bottles with Cumberland, although it may have been because of the proximity of the bottlers to the Cumberland plant. Von Mechow included the following numbers on beer or soda bottles:

216
231
242
244
1533
1977
1992

C followed by a three- or four-digit code³

Bill Porter (personal communication 2/30/2010; 11/15/2010; 1/5/2014) reported a number of straight-sided Coca-Cola bottles with bases embossed with a sans serif letter “C” followed by a three- or four-digit number. Porter noted several examples:

- C.491 – Norfolk, Virginia (Figure 4)
- C.492 – Elizabeth City, North Carolina
- C.1113 – Monroe, Louisiana [third number is not fully legible]
- C.1163 – Lexington, North Carolina (Figure 5)
- C.1728 – Leesburg, Florida
- C.1761 – New Bern, North Carolina
- C.1820 – Rocky Mount, North Carolina
- C.1825 – Emporia, Virginia
- C.1825 – New Bern, North Carolina



Figure 4 – C.491 base (Bill Porter)

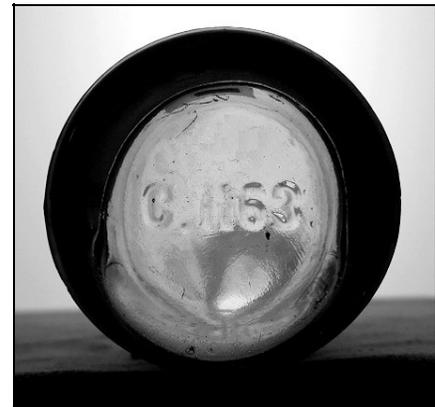


Figure 5 – C.1163 base (Bill Porter)

Many of these “C” marks are followed by a period, then the number. Many were also double stamped on the base (especially visible in Figure 4). This technique appeared on mouth-blown bottles as early as 1890 but was rare until 1895 or later. It was most common during the early 20th century until ca. 1914, although the process never became the norm. For possible explanations, see the section on the American Bottle Co.

Porter (2012:62) reported these marks as “still a mystery” and speculated that the unusual logo/number combination could have been a result of differences between the two major Coca-Cola franchise divisions at the time. Porter stated that all of these bottles would have been made “well before 1912” – a statement supported by the double stamped basemarks. We originally suggested the Carolina Glass Co. as a good candidate for user of the mark because the bottles were used in Southern States, although other evidence for that identification is lacking.

³ Much of this section was printed in the Carolina Glass Co. section.

Even though the early histories for requirements are currently unknown, Coca-Cola eventually demanded that its bottle suppliers emboss logos and specific codes on all bottles made for Coca-Cola franchises. Coca-Cola probably made a request for logos early – possibly by 1900 – although we have not found any documentation to support this idea. Much later – on May 13, 1918 – Coke required manufacturer’s marks to be embossed on the bases of its bottles by all glass houses (Lockhart & Porter 2010). These “C+4” marks may thus be in response to an early Coca-Cola request.

Despite our earlier Carolina Glass Co. identification for the mark, a letter from the Coca-Cola main office in Atlanta, Georgia, to its franchises makes it clear that the Cumberland Glass Mfg. Co. (mentioned by name) made bottles for Coca-Cola franchises during 1910. The two-page letter was sent to the Marion Coca-Cola Bottling Co. (North Carolina), but wording makes it clear that the special price offered by Cumberland was being suggested to all the franchises (Coca-Cola 1910). The date is also revealing. In 1910, the hobble-skirt Coca-Cola bottle had not yet been invented, so this letter is dealing with straight-sided Coke bottles.

A bit of Coca-Cola history is appropriate at this point. Coca-Cola originated in Georgia and remained primarily a Southern product for many years. By 1910, most of the franchises remained in the South, although the product was beginning its nationwide popularity. The Coshocton Glass Co., Coshocton, Ohio, also made many bottles for southern franchises but marked them with a C.G.Co. logo. However, these are marked so differently that Coshocton is an unlikely user of the C + number logo. In addition, we have no documentary sources for the Carolina Glass Co. as a producer of Coca-Cola bottles. The logical remaining choice is the Cumberland Glass Mfg. Co.

COLUMBIA

According to Toulouse (1969:71-72; 1971:140-141), the Cumberland Glass Mfg. Co. made fruit jars embossed with COLUMBIA from 1896 to 1911 (Figure 6). Joseph de Steiger patented the jar (No. 574,306) on December 29, 1896 – seven years after the De Steiger Glass Co. closed. It may be notable that Toulouse was the only researcher to name Cumberland as a manufacturer.



Figure 6 – Columbia jar (North American Glass)

Creswick (1987:33-34) illustrated or described a total of five variations of the COLUMBIA (Figure 7). Three of these jars were made in completely different styles, making it clear that the patent was for the lid (Figure 8). Only one style was embossed COLUMBIA on the body, and one had

the name in circular form on the base. A single variation of the lid was mislabeled “DEC 29TH 1898” (1896 is the correct date). Unlike Toulouse, Creswick attributed the jars to the Whitney Glass Works, Glassboro, New Jersey, and the Illinois Glass Co., Alton, Illinois.



Figure 7 – Columbia jar (Creswick 1987a:34)

Roller (1983:92) also listed the jars and also included Whitney and Illinois Glass as two of “several glasshouses” that made them. He included an illustration of an undated Illinois Glass Co. trade card that leaves no question that the Illinois Glass was one of the manufacturers. Roller also included a jar marked “Columbia” in upwardly slanted script above “MADE IN CANADA,” although he did not speculate on the maker. Both Roller and Creswick also showed a COLUMBIA jar made by the Melbourne Glass Bottle Works Co., Melbourne, Australia.



Figure 8 – Columbia jar lid (North American Glass)

The Columbia jar was not offered in the 1911 Cumberland catalog, but it was featured in Illinois Glass Co. catalogs from 1899 to 1911. Even though the identification was only recorded by Toulouse, Cumberland may have been the earliest manufacturer of the jars during the 1896-1900 period. For a complete discussion, see the De Steiger Glass Co. section in the D volume.

D&O

Toulouse (1971:161-162) attributed this mark to the Cumberland Glass Mfg. Co. although the initials make no intuitive sense in connection with Cumberland. The mark was found on a “three-ounce cobalt blue bottle, handmade for a cork stopper; therefore, Toulouse made his claim because Cumberland Glass was “the cobalt blue specialists of that period . . . until the Maryland Glass Co. was formed in 1907.” This is a very tenuous connection; other glass houses made cobalt blue jars and bottles. The initials almost certainly belonged to the user of the bottle.

Bromo-Seltzer

As noted above, Toulouse named the Cumberland Glass Mfg. Co. as the main supplier of Bromo-Seltzer bottles prior to the inception of the Maryland Glass Corp. in 1907. The Emerson Drug Co. (makers of Bromo-Seltzer) incorporated in 1891, and Cumberland may have been the initial bottle manufacturer for the firm. It is clear that Cumberland was not the only supplier during this period; the main reason that Bromo-Seltzer formed the Maryland Glass Corp. was because Emerson could not obtain a sufficient amount of bottles from Cumberland Glass. The Ohio Glass Co. received a contract from Emerson in 1905, although the bottles appear to have been made by the American Bottle Co. – successor to Ohio Glass – formed later that year. American Bottle may have only made one large order of the containers. See the section on the American Bottle Co. in the A volume for more information.

The vast majority of Bromo-Seltzer bottles were made between 1907 and the 1950s by the Maryland Glass Corp., and the new firm made its original bottles by hand. Most sources have assumed that these mouth-blown bottles were the original ones made by Cumberland Glass (see below), but the mouth-blown, cobalt blue bottles with rounded, single-ring finishes and numbers on their bases were almost certainly produced by the Maryland Glass Corp. See the section on the Maryland Glass Corp. in the “M” volume for more information on Bromo-Seltzer bottles.

Mouth-Blown Bromo Bottles

Although the study of Bromo-Seltzer bottles is in its infancy, we have discovered 16 variations of the bottles.⁴ Three of these were mouth blown. One was embossed on the back heel with “A.B.Co.” – the logo of the American Bottle Co. – and this may be eliminated from the possible Cumberland bottles.

The other two sets are ill defined; unfortunately, mouth-blown bottles from two different periods are identical as far as manufacturing characteristics are concerned. Cumberland Glass made Bromo bottles by hand probably from the incorporation of Emerson Drug in 1891 to the use of machines by the Cumberland ca. 1901. Maryland Glass also made the bottles by hand from 1907 to ca. 1911. Every example that we have personally examined or seen on eBay had a one- or two-digit number embossed on the base (except for two outliers with “1268 / 6” and “1261 / 23”). The embossed numbers range from 1 to 22 in the sample we have found, and the numbers are all roughly the same size. This suggests that the bottles in our sample were probably made by the same glass house.

This leads to some interesting speculations. We consider the chances of two different glass houses producing the same size cobalt blue bottles with identical embossing on both the front and the base to be *very* slim. Logically, there should have been differences. Possible explanations include:

1. Cumberland Glass sold the old hand molds to the Baltimore firm when the latter began making the Bromo-Seltzer bottles.
2. Despite the odds, both firms *did* make identical bottles.
3. The two types of basal embossing (a one- or two-digit number or a four-digit number above a two-digit number) indicates two different numbers)
4. Most of the early, Cumberland-made bottles were unembossed.

If either of the first two scenarios is correct, there will be no way to detect a difference between the two bottles. While the third scenario is certainly possible, there seem to be no other

⁴ We will eventually publish a study of the Bromo-Seltzer bottles.



Figure 9 – Mouth-blown Bromo bottles (eBay)

differences in the bottles (e.g., crudity) that would seem likely. The single number is most likely a mold code, although we do not know the meaning of the four-digit number.

One line of evidence, however, supports the fourth



Figure 10 – Bromo – squared ring aqua on left (eBay)

hypothesis. A single group of mouth-blown bottles stands out as different. With one exception, mouth-blown bottles all had a single-ring finish. In the vast majority, that ring was rounded (Figure 9). The exceptions were

scarce, and they had squared rings. Most of these were aqua in color, although at least one was made of cobalt blue glass.



Figure 11 – Bromo – squared ring blue (eBay)

It is likely that the original Bromo-Seltzer bottles were aqua in color and generic – with no embossing of any kind. Cumberland followed these, possibly by ca. 1900, with bottles embossed “BROMO-SELTZER / EMERSON / DRUG CO. / BALTIMORE, MD.” on the front – in aqua color, with squared-ring finishes (Figure 10). Soon, the glass house changed formula and made the same



Figure 12 – 1903 trade card (Old Glass Bottles & Items of Antiquity)

bottles in cobalt blue glass (Figure 11). Although these mouth-blown bottles were likely manufactured until the molds wore out, production soon shifted to machine-made bottles. A 1903 trade card featured a bottle with a squared ring (Figure 12). Thus, the squared-ring, mouth-blown bottles – both aqua and cobalt blue colored – were probably made by the Cumberland Glass Mfg. Co., and all of the cobalt-blue, rounded-ring, mouth-blown bottles with basal numbers were likely made by the Maryland Glass Corp.

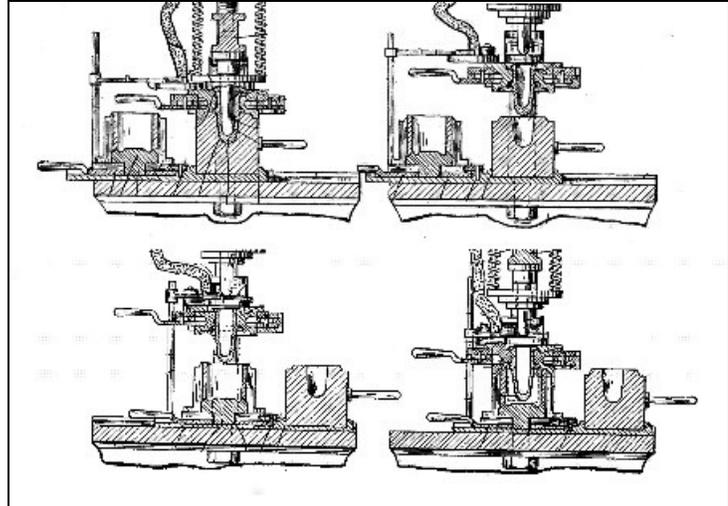


Figure 13 – Haley & Bridgwater 1900 patent

Machine-Made Bromo Bottles



Figure 14 – Early machine-made Bromo (eBay)

Like the section just above, this part is highly speculative, but it fits all the other pieces of the Bromo bottle puzzle. As noted above, Cumberland adopted the Haley-Bridgwater machine quite early, ca. 1901. Haley and Bridgwater applied for their first patent on December 28, 1898, and received Patent No. 654,451 on July 24, 1900. This is likely the 1901 machine referred to by Scoville (1948:324). Again, as noted in the patents section, this machine should have left horizontal seams in the center of the single-ring finish and on the body just below the shoulder (Figure 13).

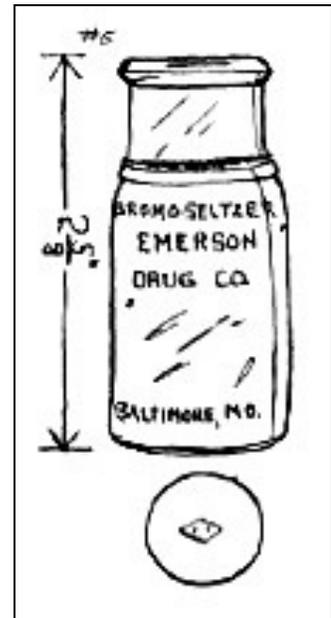


Figure 15 – Early machine-made Bromo (Eastin 1965:17)

One type of small (ca. 2 5/8") Bromo-Seltzer bottle fits these characteristics except for one detail. The bottles have the same frontal embossing as the earlier mouth-blown containers – “BROMO-SELTZER / EMERSON / DRUG CO. / BALTIMORE, MD.” – and have a horizontal seam in the center of the single-ring finish (Figure 14). Their most interesting feature, however, is a very rough horizontal seam just above the neck/shoulder joint, illustrated well by Eastin (1965:17) in one of her drawings (Figure 15). This rough seam may have been caused by a fault in the early machine and was possibly the reason for improvements in the second machine. Some of the bottles were teal blue, likely the result of some of the early experimentation with glass formulas to create the cobalt blue color (Figure 16). This type of bottle was probably made from ca. 1901 until the molds wore out, possibly 1903 or 1904.



Figure 16 – Odd-colored bottles (eBay)

The only flaw in this identification is that the lower seam is just *above* the shoulder rather than *below* it. However, the mold could easily have been modified slightly without violating the patent, and such minor adjustments were common. The mold design may have even worked better with the neck-ring joint above the shoulder than below for this style of bottle or for one of this size. While this placement slightly weakens the argument, the hypothesis is not rendered untenable.

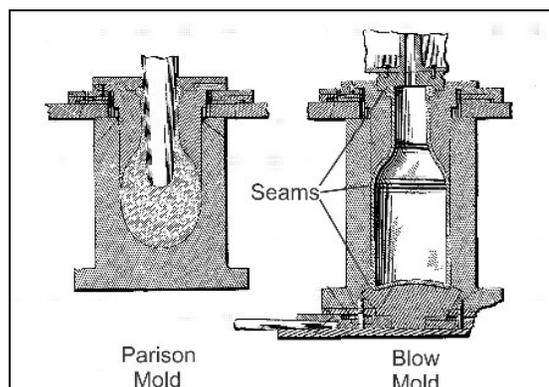


Figure 17 – Haley & Bridgwater 1902 patent

As noted above, placing this bottle and the one discussed immediately below in this position fits the overall chronology of Bromo-Seltzer bottles better than any other orientation.

On August 18, 1899, Haley and Bridgwater applied for their second machine patent. They received Patent No. 693,130 on February 11, 1902. Again, the patent drawings showed a machine that would leave horizontal seams at the same locations (Figure 17). This time, however, the glass house apparently concealed the seam just above the neck/shoulder joint by



Figure 18 – Second machine-made Bromo (eBay)

forming a “ball-neck” – an embossed ring around the lower neck area (Figure 18). On these bottles, there is a horizontal seam around the neck ring (ball-neck) and another around the single-ring finish (Figure 19) as again shown by Eastin (1965:19). All of these were cobalt blue in color.

Production on these machines likely began ca. 1903 and continued until Cumberland lost the Emerson contract in 1907. A 1908 ad illustrated the ball-neck variation (Figure 20). Again, the seam at the ball-neck is above the shoulder rather than below it, although the arguments rendered above fit this situation just as well.



Figure 19 – Second machine-made Bromo (Eastin 1965:17)

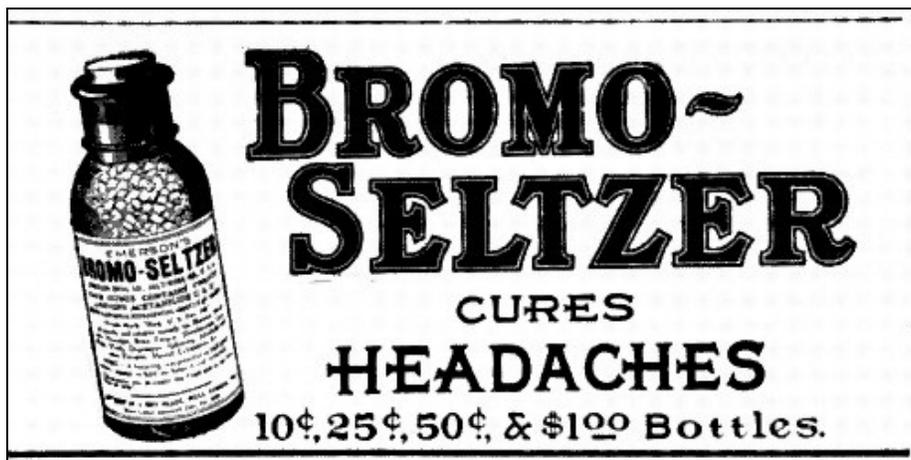


Figure 20 – 1908 ad (Prescription Drug Ads)

JOHNSON & JOHNSON

According to Toulouse (1971:284), Cumberland made jars for Johnson & Johnson from 1896 to 1899 and again from 1905 to 1913. The earlier jar had a “Safety Valve” seal, and the more recent one was secured with a “glass lid and metal screw band in amber.” The name JOHNSON & JOHNSON was embossed vertically down the side of both jars. Creswick (1987:92) illustrated a variation that had a lid embossed “Patented Columbia Dec. 29, 1896” and dated the jar ca. 1900 to 1913 (Figure 21). Although the Cumberland identification is possible, it is more likely that these jars were made by the Illinois Glass Co., clearly defined manufacturers of the Columbia jar.

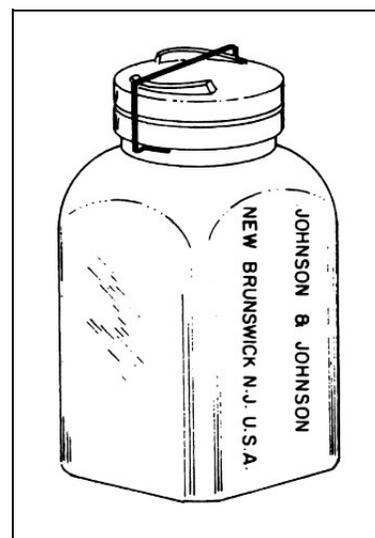


Figure 21 – Johnson & Johnson bottle (Creswick 1987a:92)

Acknowledgments

As frequently noted in the past, we are deeply grateful to Doug Leybourne for letting us use the Alice Creswick drawings and to Greg Spurgeon for granting permission to use the North American Glass photos.

Discussion and Conclusions

Although it is certain that the Cumberland Glass Mfg. Co. made a huge quantity of bottles and jars, the firm apparently never used a consistent mark. Von Mechow (2014) has identified several numbers on soda or beer bottles that were used by the firm, and the plant probably used the “C+4” logo on Coca-Cola Bottles during the 1910-ca. 1918 period. In addition, the company almost certainly made most or all of the mouth-blown Bromo-Seltzer bottles with square rings, machine-made Bromo-Seltzer bottles with horizontal seams just above the shoulder, and possibly the earliest “COLUMBIA” jars.

Sources

American Glass Review

1934 *Glass Factory Yearbook and Directory*. American Glass Review, Pittsburgh, Pennsylvania. Includes reprint of the *Glass Trade Directory for 1904*. Commoner Publishing Co., Pittsburgh, Pennsylvania.

Coca-Cola Bottling Co.

1910 Letter from the Coca-Cola Bottling Co., Atlanta, Georgia, to the Marion Coca-Cola Bottling Co., September 28, 1910.

Creswick, Alice

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

Cumberland Glass Mfg. Co.

1911 *Illustrated Catalog and Price List of Bottles Fruit and Battery Jars Manufactured by the Cumberland Glass Mfg. Co.* Bridgeton, New Jersey.

Eastin, June

1965 *Bottles West, Vol. I*. Press-tige, Ontario, California.

Journal of Industrial and Engineering Chemistry

1913 "The Present Status of the Glass Bottle and Hollow Ware Industries in the United States." *Journal of Industrial and Engineering Chemistry* 5(11):951-954.

Lockhart, Bill and Bill Porter

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

National Glass Budget

1900 "Complete List of Glass Factories in the United States and Canada." *National Glass Budget* 15(48):11.

1910 "Another New Bottle Machine." *National Glass Budget* 25(45):2.

1912 "Changes Wrought in 7 Years." *National Glass Budget* 30:1.

Pepper, Adeline

1971 *Glass Gaffers of New Jersey*. Scribner's Sons, New York.

Porter, Bill

2012 "Dating and Identifying Early Coca-Cola Bottles: Focusing (Mainly) on Georgia and Florida Bottles." *Bottles and Extras* July-August.

Roller, Dick

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

1998 "Bridgeton, NJ History Notes." Dick Roller files.

Scoville, Warren C.

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

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.

Thomas Register of American Manufacturers

1907-1908 *Thomas' Register of American Manufacturers and First Hands in all Lines: The Buyers Guide*. Thomas Publishing Co., New York.

1917 *Thomas Register of American Manufacturers and First Hands in All Lines*. 9th ed. Thomas Publishing Co., New York.

Toulouse, Julian Harrison

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

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

von Mechow, Tod

2014 “Soda & Beer Bottles of North America: Bottle Attributes - Beer & Soda Bottle Manufacturers.” <http://www.sodasandbeers.com/SABBottleManufBeerSoda.htm>

Last updated 10/16/2014