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 huge 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 batch house at the plant. Damage was estimated at \$15,000, with several thousand molds and sample bottles

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.

ruined. In 1897, the factory had expanded so much that it had two furnaces with ten pots and four continuous tanks with 22 rings (Figure 1). 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).

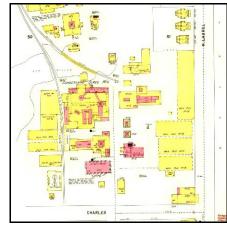


Figure 1 – Cumberland Glass (Sanborn map, 1896)

According to Toulouse (1971:162), the factory 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, testing a Haley-Bridgewater machine in 1898 and ordering one based on the results – 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



Figure 2 – 1903 Cumberland letterhead (eBay)

machine; seven bottle machines making olives, shoe polish, inks and mucilage bottles" in 1905 (Figure 2). 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,



Figure 3 – Cumberland postcard, 1908 (eBay)

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 (Figures 3 & 4). 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 below for details). Cumberland also made half-pint and pint warranted flasks for the Carroll Reid Distilling Co.,



Figure 4 – Cumberland Glass, November 1909 (Lewis W. Hine collection, National Archives)

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." On August 26, 1912, the *Camden Courier-Post* advertised the only reference we have found for Mason jars by Cumberland, promising that they would "guarantee every jar to be absolutely airtight, or we will refund your money." By 1913, Cumberland was

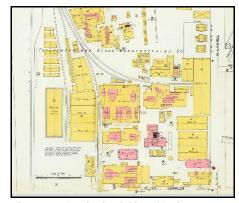


Figure 5 – Cumberland Glass (Sanborn map, 1915)

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 – Figure 5). 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).

Machine Patents

As discussed above, Scoville (1948:324) noted that Cumberland used the Haley-Bridgwater machine in 1901, although the factory used the first one in 1898 (*Bridgeton Pioneer* 6/23/1898).

Jonathan Haley and Harry H. Bridgwater collaborated to patent machines to make wide- and narrow-mouth bottles in 1900 and 1902 (Figure 6). 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.



Figure 6 – Machine at Cumberland (Lewis W. Hine collection, National Archives)

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 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 7), 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 the widest part of the finish. This description fits two different types of Bromo-Seltzer bottles (See Bromo-Seltzer section below).

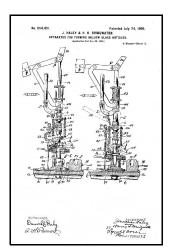


Figure 7 – Haley & Bridgwater 1900 patent

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, and the shoulder ring should make any beer bottle or soda bottle made on this machine stand out as unusual (Figure 8). There is no indication that the pair assigned either patent to the Cumberland Glass Mfg. Co.

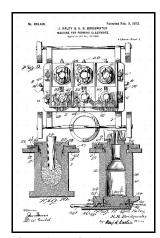


Figure 8 – Haley & Bridgwater 1902 patent

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:

C followed by a three- or four-digit code²

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:



Figure 9 – C.491 base (Bill Porter)

C.491 – Norfolk, Virginia (Figure 9)

C.492 - Elizabeth City, North Carolina

C.1113 – Monroe, Louisiana [third number is not fully legible]

C.1163 – Lexington, North Carolina (Figure 10)

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 10 – 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 9). 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.

² 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 11). 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 of the jar.

COLUMBIA

Figure 11 – Columbia jar (North American Glass)

Creswick (1987:33-34) illustrated or described a total of five variations of the COLUMBIA (Figure 12). Three of these jars were made in completely different styles, making it clear that the patent was for the lid (Figure 13). 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 12 - Columbia jar (Creswick 1987a:34)



Figure 13 – Columbia jar lid (North American Glass)

Roller (1983:92) also listed the jars and included Whitney and



Figure 14 – Safety jar (North American Glass)

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 cursive 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.

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.

CUMBERLAND GLASS WORKS BRIDGETON, N.J.

One variation of the Safety Jar was embossed "CUMBERLAND GLASS WORKS BRIDGETON, N.J." on the base. The mouth-blown jars were embossed "SAFETY" in a slight arch on the front (Figures 14 & 15). Since the factory of the Cumberland Glass Mfg. Co. was called the Cumberland Glass Works, this firm was certainly the maker of the jar. However, the jars may have been made only during the ca. 1883-1885 period when the Jos. A. Clark & Co. operated the Cumberland Glass Works – before the reorganization that created the Cumberland Glass Mfg. Co.

Other jars used the word Safety, including jars made by the Nelson Glass Co. (see the Other S file) and Safety Mason jars produced by the Salem Glass Works (addressed in the Salem file). Cumberland made the jars from ca. 1883 to the 1890s. Nelson's jars ranged from 1891 to 1896, and Salem's Masons were produced between ca. 1909 and as late as 1937.

D&O

Toulouse (1971:161-162) attributed a "D&O" 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



Figure 15 – Safety jar base & finish (North American Glass)

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 belonged to Dodge & Olcott of New York City (Figure 16).

Although the firm began by Robert Bach in 1798, it went through a number of management/ownership changes, settling in 1861 to Dodge & Olcott. The firm made essential oils until World War II, when it changed its focus to pesticides. It is unclear whether the company continued with essential oils after that point. Fritzsche Brothers, Inc., bought Dodge & Olcott in 1952 and the two firms merged in 1969 to form Fritzsche, Dodge & Olcott (Sinki & Giaudan-Roure 1992).

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 was the initial bottle manufacturer for the firm ca. 1891 to 1907 – although a few others made some bottle & base (eBay)



Figure 16 – D&O

Bromo bottles during the last few years of that 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

All of the information on Bromo bottles comes from a major study of Bromo Seltzer by the Bottle Research Group (Lockhart et al. 2014). Bromo bottles made by the Cumberland Glass Mfg. Co. fall into two categories. The earliest bottles had no embossing on the sides, identified only by paper labels (1891-ca. 1897). Unfortunately, the early bottles made by the Maryland Glass Corp. were also mouth blown, and there may be no way to separate the two. The second type was embossed "BROMO-SELTZER / EMERSON / DRUG CO. / BALTIMORE, MD." on the front – in aqua color, with squared-ring finishes (Figure 17).



Figure 17 – Mouth-blown Bromo bottles (eBay)

Machine-Made Bromo Bottles

Like the section just above, this part also comes from Lockhart et al. (2014). 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 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 shoulder (Figure 18).

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 19). Their most interesting feature, however, is a very rough horizontal seam just above the

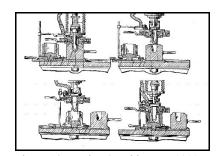


Figure 18 – Haley & Bridgwater 1900 patent



Figure 19 – Early machine-made Bromo (eBay)

neck/shoulder joint, illustrated well by

Eastin (1965:17) in one of her drawings (Figure 20). This rough seam may have been caused by a fault in the early 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 21). This type of bottle was probably made from ca. 1901 until the molds wore out, possibly 1903 or 1904.

The only flaw in this identification is that the lower seam is just *above* the shoulder rather than *on* it. However, the mold could easily have been modified slightly without violating the patent, and such minor

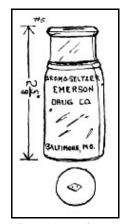


Figure 20 – Early machine-made Bromo (Eastin 1965:17)

adjustments were common. The mold design may have even worked better (Eastin 1965:17) 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. 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, but this machine made small-mouth bottles. Again, the patent drawings showed a machine that would leave horizontal seams at the same locations (Figure 22). Originally, we suggested that Cumberland used this



Figure 21 – Odd-colored bottles (eBay)

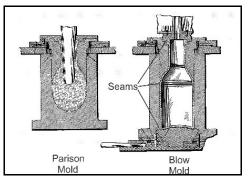


Figure 22 - Haley & Bridgwater 1902 patent

second machine to make the next style of Bromo bottles, but they were still wide-mouth, so that is unlikely.

On this second batch of Bromo bottles, the glass house apparently concealed the seam just above the neck/shoulder joint by forming a "ball-neck" – an embossed ring



Figure 23 – Second machine-made Bromo (eBay)

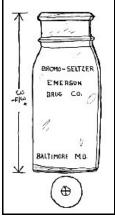


Figure 24 – Second machine-made Bromo (Eastin 1965:17)

there is a horizontal seam around the neck ring (ball-neck) and another around the single-ring finish (Figure 24) as again shown by Eastin (1965:19). All of these were cobalt blue in color. Production of these bottles likely

around the lower neck area (Figure 23). On these bottles,

began ca. 1903 or later and continued until Cumberland lost the Emerson contract in 1907. A 1908 ad illustrated the ball-neck



Figure 25 – 1908 ad (Prescription Drug Ads)

variation (Figure 25). 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.

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 26). 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 26 – Johnson & Johnson bottle (Creswick 1987a:92)

Crystal MASON Jars?

Probably the most difficult to pin down of the five Crystal jars was the one embossed "Crystal (upwardly slanted with some serifs – but no cursive) / MASON (horizontal)" (Figure 27).

Originally, we had thought the jar was made by the Crystal Glass Co. of British Columbia, but subsequent assessment showed that to be highly unlikely. The jars appear to have been made on the Haley-Bridgewater machines described and discussed above. We have discovered only three



Figure 27 – Crystal Mason jars (Creswick 1987b:40; eBay)

glass houses that used the machine, and all three made Mason jars. Since the L.E. Smith Glass Co. produced its own like of Anchor Mason jars, it is highly unlikely that the plant also would have made Crystal Masons.

Since the Crystal Mason jars are scarce, and Cumberland was huge, the plant was unlikely to have been the manufacturer. In addition, Cumberland bought and used the machines for Bromo bottles – even unable to keep up with the demand at full capacity. Cumberland made a shoulder-seal Mason at least as late as 1911, but we have found no evidence that the plant ever made bead-seal Masons. The Akron Glass & Machinery Co., makers of the machines, turned out Mason jars as test containers, but the plant may have never marketed them as a sales item. Even if the firm did sell them, there is no indication that they were popular. Although Cumberland cannot be fully eliminated, it seems more likely that the Akron Glass & Machinery Co. produced the Crystal Mason jars. See the section on the Crystal jars for a much more detailed discussion.

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. However, it is unlikely that Cumberland produced the Crystal Mason jars, although the possibility cannot be completely discounted.

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.

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First published 10/16/2014; Last updated 2/23/2025