

Berney-Bond Glass Co.

Russ Hoenig, Bill Lockhart, Pete Schulz, Carol Serr, Les Jordan, Bill Lindsey
Bob Brown, and Phil Perry

[Much of this section was originally published as Hoenig 2008]

The history of the Berney-Bond Glass Co. is very complex, colorful, and (in places) confused. The story cannot be fully told without including the plants and companies that led to the formation of both the Berney Glass Co. and the Bond Glass Co. Thus, we have included historical snapshots of a few of the earlier plants. The Berney-Bond story also includes four Pennsylvania towns: Bradford, Hazelhurst, Smethport, and Clarion – and eventually Columbus, Ohio. Although we have separated the histories to conform to our usual template, this story is really more of a web or a weaving.

Histories – Berney-Bond Glass Company and Its Predecessors

Berney Glass Co., Bradford, Pennsylvania (1900-1904)

The roots of the Berney Glass Co. began ca. 1894, with the erection of the Seamless Bottle Co. plant in Bradford.¹ By 1895, the plant was operated by the McKean Glass Co., and it was taken over by the Bradford City Glass Bottle Co. the following year (Hoenig 2008a – Figure 1).

The Berney Glass Co. apparently gained control of the Bradford City Glass Bottle Co. when the company incorporated on November 28, 1900, although the firm claimed 1895 (the date for McKean) as its beginning

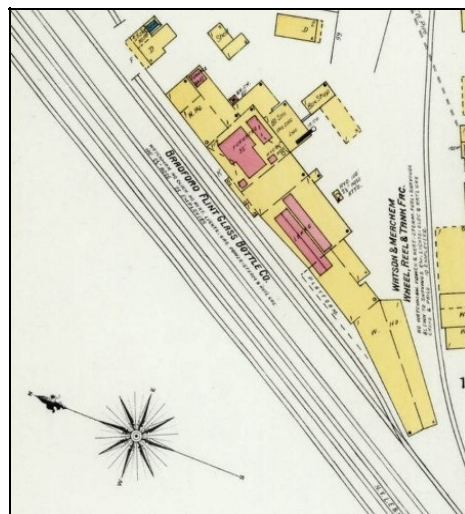


Figure 1 – Bradford plant (Sanborn Fire Insurance map, 1890)

¹ The term “seamless” is very likely a reference to the turn-mold process – which erased the seams created by the glass molds.

(Hoenig 2008a; 2008b).² The plant made its products at 16 pots in 1901 and 1902 (*National Glass Budget* 1901:11; 1902:11). The 1904 glass factory list noted that the Berney Glass Co. in Bradford used one continuous tank with eight rings to make beer bottles (*American Glass Review* 1934:165). The merger that created Berney-Bond took place on September 29, 1904 (Hoenig 2008c).

Berney Glass Co., Hazelhurst, Pennsylvania

Although we have heard rumors of a Berney Glass Co. plant at Hazelhurst, these actually referred to an office for the company. The Hazelhurst Window Glass Co., incorporated on January 5, 1899, was owned by F.P. Hazelton, one of the principals in the later Berney-Bond enterprise. The office for both Berney Glass and the Window Glass Co. were listed at 80 or 82 Mechanic Street in Bradford.

Bond Glass Co., Hazelhurst, Pennsylvania (1902-1904)

On October 31, 1901, M.N. Allen, a local contractor, announced his intention to build a bottle house in Hazelhurst. Allen almost certainly was referring to the plant of the “Bond Bottle Co.” that was erected on December 5. The stockholders, A.J. Bond, J.H. Leslie, C.E. Hazelton, A.M. Mayer, John Ley, and H.L. Stoner, planned to file for incorporation on December 26 (Hoenig 2008c; 2008a). Porter (2002) stated that “in 1902 the Bond Glass Company was formed in Hazel Hurst to make bottles etc.” This date almost certainly referred to either the opening of the plant or the beginning of production.

The plant made “prescription, liquor and proprietary ware” at a single continuous tank in 1904. A.J. Bond was president of the corporation, with C.E. Hazelton as vice president (*American Glass Review* 1934:165). The Bond Glass Co. merged with the Berney Glass Co. to

² Porter (2002) noted that “in 1900 the Berney Glass Company had been formed in Bradford to make glass and glassware in the Bradford Flint Glass Bottle Co. plant which they had acquired. They made a green glass at that plant with which they made bottles, flasks, etc.” The Bradford Flint Glass Bottle Co., however, was a separate company that operated from at least 1896 to at least 1907. The plant used 12 pots to make its products in 1901 and 1902 (*National Glass Budget* 1901:11; 1902:11).

form Berney-Bond on September 24, 1904 (Hoenig 2007a). Toulouse (1971:70-71) noted that the Bond Glass Co. began in Hazelhurst ca. 1897, but he seems to have been confused with the Berney Glass Co. in Bradford (see above).

Berney-Bond Glass Co. (1904-1930)

The Berney Glass Co. merged with the Bond Glass Co. on September 24, 1904 (Hoenig 2007a), and the Hazelton family continued to be an important part of the corporation. By 1908, the company was “probably the largest producers of exclusively flint bottles” (Mayer 1908:12). In 1913, the three plants used four continuous tanks with 32 rings to manufacture a “general line” of bottles (*Journal of Industrial and Engineering Chemistry* 1913:953).

By 1917, semiautomatic machines were installed in “all three plants” at some point “during the past two years,” making flint, amber and green bottles, “their sale being chiefly in the eastern markets” (*Glassworker* 1917:7). The same year, management became nervous about the impending Volstead Act (Prohibition) and sought another venue for glass production. They chose milk bottles and began experimentation for modifying their existing Lynch machines. This culminated in the Lynch-Budd machines, which were not too successful. Berney-Bond cooperated with outside companies to eventually create the highly successful Miller-Budd (MB) machine at the Clarion plant. The MB was often colloquially called the Milk Bottle machine (Hoenig 2008d).

Urban Bowes became the director of manufacturing in 1924 and instituted many progressive ideas into the business (Hoenig 2008d). Although Berney-Bond was best known for making milk bottles, the company advertised “soda, beer, ammonia or miscellaneous bottle[s]” made by automatic machines in 1925 (*Milk Dealer* 1925). On February 15, 1926, Berney-Bond signed an eight-year agreement with the Hartford-Empire Co. to use up to 25 of the Hartford feeders, including 12 Howards in Clarion and four in Hazelhurst (Hoenig 2008d).

By 1927, Berney-Bond purchased the Winslow Glass Co., Columbus, Ohio. The company was listed as making “flint proprietary, carbonated beverages, liquors, milk jars,” all by machine at three continuous tanks with 12 rings. The following year (1928), the company added another tank, bringing the total to four continuous tanks with 17 rings (*American Glass*

Review 1927:127; 1928:128). Although not listed until 1928, the fourth tank was the one at the former Winslow plant at Columbus.

According to Paquette (1994:80), Owens-Illinois bought the Berney-Bond Glass Co. and the Atlantic Bottle Co. in 1930, when it decided to seriously enter milk bottle production. Owens-Illinois actually purchased “the entire assets of Berney-Bond Glass Company, except certain natural gas properties” on January 1, 1930 (Owens-Illinois 1930:9; *New York Times* 6/26/1930). The Columbus plant (No. 18) closed in 1948; the Clarion plant (No. 17) shut down permanently after 105 years in operation in 2010 (*Pittsburgh Post-Dispatch* 6/13/2010).

The story of the sale is worth repeating. Early in 1930, Owens-Illinois representatives arrived at Clarion to discuss the purchase. However, they left with a misunderstanding that the deal was complete. Meanwhile, Berney-Bond continued production as usual. In May, Owens-Illinois representatives followed up and were surprised to find Berney-Bond still operating as usual. An actual agreement was reached by August 26, and Berney-Bond turned the books over to Owens-Illinois on August 30.

Each plant, however, had its own story.

Bradford, Pennsylvania – 1904-1910

The former Berney Glass Co. factory became the Bradford plant for Berney-Bond, when the company formed on September 29, 1904, but the Bradford and Hazelhurst units seemed to have a symbiotic relationship during the first few years. When a tank burst at the Hazelhurst plant in 1905, the workers apparently came to Bradford. The Bradford plant burned to the ground on October 10, 1906, and the workers went back to Hazelhurst. The plant apparently remained non-existent for a few years, but Berney-Bond acquired the old Tuna Glass Co. plant³ and began production on September 29, 1909 (Hoenig 2008a; 2008b).

³ The Tuna Glass Co. was in business prior to 1898, when the factory burned down. The plant was rebuilt the following year. Tuna produced glass sporadically until February 1907, when operations were moved to Clarksburg, West Virginia. The Bradford plant was then operated by the Bradford Flint Glass Bottle Co.

The new Bradford plant used employees imported from Smethport, while that plant was rebuilt. Berney-Bond announced plans to use up to 250 people in the Bradford plant. When the first Smethport tank was fired on October 14, 1909, management told the Smethport workers at Bradford that they would go home when the second tank was up, around Christmas of that year. This corresponds well with the closing of the factory (below) (Hoenig 2007b).

The plant had only a single continuous tank with 14 rings, making flint bottles (Hoenig 2007a). Toulouse (1971:72-73) and Giarde (1980:15) both claimed that the Bradford plant closed permanently in 1909, and this is supported by local newspaper coverage, noting that the plant was shut down January 1, 1910, due to a local gas shortage. Because of the oil boom in Bradford, the area became “dirty, muddy, oily, and full of society’s worst” by 1910. As a result, many of the glass workers, especially the married ones, moved to Clarion. The Hazeltons and Budds led the exodus – except mother Hazelton, who keep the family mansion in Bradford. Clarion was a nice, clean town in comparison (Hoenig 2007c; 2007a). The *Commoner and Glassworker* (1910b:1) confirmed the closing stating, “Owing to a shortage of gas the Berney-Bond Glass Co.’s Bradford, Pa., plant shut down and an additional force will be employed at their Hazelhurst plant.”⁴

Smethport – 1907-1918

The Haines Flint Bottle Co. closed on January 31, 1907, and the plant became the Berney-Bond Glass Co. on March, 21, 1907. By 1908, the factory had two tanks and operated eight shops on each one. One of the products was quart grape juice bottles. The plant also ran a slightly smaller night crew by October 1909. On April 23, 1910, the factory made beer, soda, and prescription bottles. Although three machines were reportedly used in 1909, the plant only operated hand shops in 1910. By October, the factory ran eight shops on the day shift and six at night (*Commoner and Glassworker* 1910a:7; Hoenig 2007a). We can find no indication that this plant ever produced milk bottles.

⁴ The Thomas Registers (1907:202; 1921:782), however, listed the plant until at least 1921. The Registers were notoriously lax about checking up on closings. To further confuse the issue, Owens-Illinois historical records mention the Bradford plant in 1917 (Hoenig 2007a). This could reflect a continued ownership of the plant, even though it was not in production.

By mid-1917, the factory operated two one-man Gump-Johnson machines and was waiting for two more to be installed. The plant also ran ten “blow” shops (hand production). The factory burned on May 2, 1918, destroying the three Gump-Johnson machines and two Jersey Devils that had been installed by then. The plant was never rebuilt, and the remains were demolished in August 1928 (Bristow 1917:9; Hoenig 2007a; Porter 2002).

Hazelhurst – 1904-1928

The former Bond plant at Hazelhurst became the Berney-Bond factory on September 24, 1904. On January 19, 1905, a tank burst (apparently the only one operating at that time, and the plant was shut down. The workers evidently went to Bradford. When the Bradford factory burned in 1906, the workers returned to Hazelhurst (Hoenig 2008b).

The plant apparently operated a single continuous tank and made grape juice, catsup, and some half-gallon grape juice bottles by 1908. Three machines were installed in 1909 but were removed the following year, when the plant operated two shifts, making 4- to 32-ounce items (Hoenig 2007a). The *National Glass Budget* (1909) noted that four Johnny Bull (United) machines at Hazelhurst were making “grape juice, catsups, beers and quart brandies.” These were almost certainly the machines that were later removed. By September 24, 1910, the entire plant had shifted to grape juice bottle production (Hoenig 2007a).

The plant burned on February 15, 1917, but was rebuilt and operating again by April 23. At that point, the factory had four two-man Jersey machines, producing green (aqua) beer and ammonia bottles. By February 2, 1922, the plant was idle and had been for some time. Possibly, the onset of Prohibition in 1920 had removed the need for the factory’s beer bottle manufacture. By mid-1923, however, production had resumed (Bristow 1917:8; Hoenig 2007a).

By 1925, ads listed both the Hazelhurst and Clarion plants as still making beer bottles as well as soda, ammonia, and milk bottles. The plant made milk bottles until 1928 (but may have ceased milk bottle production when Berney-Bond acquired the Winslow plants that year). The factory probably did not operate too often. By at least September 9, 1928, the plant used Lynch machines with automatic feeders, employing 12-14 people (Hoenig 2007b; 2008c).

The plant closed on December 28, 1928, apparently the last date it operated for Berney-Bond, although it continued to be listed in company ads during 1929. The Pierce Glass Co. of Port Allegany leased the plant on May 30, 1929. Pierce used Lynch machines to make its bottles, probably the ones owned by Berney-Bond. When the lease expired in the fall of 1929, Berney-Bond closed the plant. In 1930, the Owens-Illinois Glass Co. had obtained all the Berney-Bond plants, but, on March 5, 1931, Owens-Illinois removed all the machinery from Hazelhurst and razed the buildings (Hoenig 2007a; Porter 2002).

Clarion – 1912-1930

In 1912, Berney-Bond acquired the old Pearl Glass Co. in Clarion, Pennsylvania, a plant that made a variety of bottle types (see the Pearl Glass section for more information). Toulouse (1971:70) claimed the name of the older plant was “Cleveland” – but that was the name of the first plant manager (Hoenig 2007c). From its inception, the Clarion plant maintained the three continuous tanks it inherited from Pearl, although one was occasionally idle. In 1913, Clarion began installing semiautomatic machines (Hoenig 2007c).

A significant amount of production revolved around bottles connected with alcohol. Because of the threat of Prohibition, the management began to be concerned and looked into milk bottle production as an alternative, with Clarion as the main production center for the new product. By 1917, George Howard (of the Howard Machine Co) and the Hazeltons developed suspended gob feeders. At the same time, Clinton Budd had developed and put into production what became the Lynch-Budd machine to manufacture milk bottles. These later developed into the Miller-Budd machines (Hoenig 2007c).

Clarion had eight machines by 1918 as well as a few hand shops. One tank used “one No-Boy Lynch machine; three Twenty Century machines and . . . eight blow shops” (“Keystone” 1918:12). By 1920, all production was conducted by 12-13 milk bottle machines. However, a serious fire on December 16, 1920, halted production for six weeks. The plant continued to use three tanks when production resumed (Hoenig 2007c; 2008d).

The plant burned to the ground on September 28, 1922 (Hoenig 2008d). As a result, a “new milk bottle factory” was being opened by the company at Clarion later that year (*Creamery*

and *Milk Plant Monthly* 1922:64). By 1923, the plant was fully operational with 12 Howard feeders and one experimental feeder running at two continuous tanks. Thirteen milk bottle machines made between five and fifteen bottles per minute. The plant had its own large mold and machine shop (Hoenig 2008d). The *Milk Route* illustrated the Clarion plant in 1924 (Figure 2).

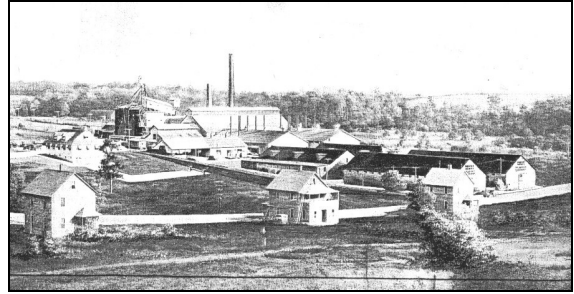


Figure 2 – Clarion plant in 1924 (*Milk Dealer* 1924b:169)

The factory remained in use and was part of the sale to Owens-Illinois in 1930.

During the Great Depression (under Owens-Illinois), the Clarion plant operated on a cash basis – no credit – the machines idled until a paying order was received. Until the mid-1930s, production was sporadic. Because of the rise in popularity of waxed paper milk cartons, the Clarion plant began a transition from milk bottle production to food and liquor bottles in 1944, transferring molds to the Midwest factories that still made milk bottles. By ca. 1956, the transfer was complete; Clarion’s heyday as a milk bottle production facility was over (Hoenig 2007a).

Table 1 – Chronology of Berney-Bond Plants and Their Former Names

Factory	Dates	Former Name
Smethport, Pennsylvania	1907-1918	Haines Flint Bottle Co.
Bradford, Pennsylvania	1904-1910	Berney Glass Co.
Hazelhurst, Pennsylvania	1904-1928	Bond Glass Co.
Clarion, Pennsylvania	1912-present	Pearl Glass Co.
Columbus, Ohio	1927-1948	Winslow Glass Co.

Columbus, Ohio – 1927-1930

When Berney-Bond acquired the Winslow Glass Co. on May 1, 1927, the factory became the company’s Columbus plant, continuing to produce milk bottles. The plant used four Tucker, Reeves & Beatty feeders (Hoenig 2008d). In 1930, the factory, along with the rest of Berney-Bond, was sold to Owens-Illinois (*Glass Industry* 1927:151; Toulouse 1971:70-73).

Containers and Marks

Despite its relatively long tenure, the Berney-Bond Glass Co. only used a few logos, apparently only when one of its customers or some sort of law required it.

BB or B.B. (1904-1911)

This logo was one of the most perplexing in our study of Curtice Brothers ketchup⁵ bottles. From 1901 to 1911, the Curtice Brothers required all of its bottle producers to emboss its initials or a logo on all of its containers. One set of those initials was embossed “BB” or “B.B.” The Curtice bottles had a distinctive design,



Figure 3 – Curtice Bros. bottle

patented by Simon G. Curtice in 1887 – a series of narrow ribs surrounding the body except for a rectangular label area (Figure 3). The firm apparently had quality control issues with some glass houses, leading to its embossing requirements, causing it to try out at least 12 different suppliers. During the mouth-blown period when the initials were required (1901-1911), bottles embossed “BB.” “B.B.,” and “B.B.G.Co.” were the most common. This experimentation stopped when the Curtice Brothers contracted with the Owens Bottle Machine Co. to produce high-quality, machine-made bottles in 1911. See the section on the Curtice Brothers for more information.

In our initial publications, prior to our study of the Curtice Brothers operation and bottles as a separate subject, we had considered the Bell Bottle Co. and the Bellaire Bottle Co. as the users of the “BB” marks, but our additional data completely eliminated Bell Bottle (open too late) and made Berney-Bond a much more likely candidate. With Bell Bottle out of the picture, the “BBCo” and Diamond-BBCo logos on Curtice bottles almost certainly fell to Bellaire Bottle. With only one plant, Bellaire was unlikely to have used *both* BBCo marks *and* the “BB” ones. With multiple factories, Berney-Bond became much more logical. Also see the sections on Bell Bottle and Bellaire Bottle.

⁵ Although the Curtice Brothers called their product “ketchup,” the glass industry used “catsup” as their term for the bottles for the condiment. Even though we mostly follow the industry standard, both spellings may be included interchangeably.

John Lord suggested that we check into the Ball Brothers as a possibility, but they proved an unlikely choice, almost exclusively producing fruit jars during the time of the Curtice requirement. In addition to the other evidence, Berney-Bond later used both “BB” and “BBGCo” in conjunction with their number, 48, on milk bottles – this time because of state requirements. It is logical that a glass house using “BB” and “BBGCo” logos in the late teens (and later) would have been the same on that embossed those marks earlier – especially when both sets of logos were used in situations where the initials were required.

The logo with two Bs was used with or without punctuation. The unpunctuated mark was likely used first, found with a one- to three-digit number above it. The logo with two periods had a four-digit number *below* the initials (Figure 4). Although our sample was small, the number appeared to be sequential rather than representing a model identification.



Figure 4 – BB logos

The numbering configuration was almost identical with the one used in conjunction with the “BBGCo” logo (see next entry and the Discussion and Conclusions section).

BBGCo or B.B.G.Co. (1904-ca. 1915)

Although the “BBGCo” logo was used on at least several different types of bottles, such bottles are unusual in typical collector venues or archaeological reports, suggesting that, like the “BB” mark discussed above, they were only placed on bottle bases at the request of the customers or local/state laws – almost certainly the case with Curtice Brothers ketchup bottles.

Jones (1966:15) suggested the Bryce Bros. Glass Co. as the user of this mark, but Bryce Brothers only made tableware (see Bryce, Walker & Co. for more on the Bryce Bros. – Other B Section). This mark was almost certainly used by the Berney-Bond Glass Co. Strangely, Toulouse (1971:70) did not include this in his list of Berney-Bond marks. Unlike the “BB” logos discussed above, the firm left this mark on several types of containers.

Flasks and Prescription Bottles



Figure 7 – BBGCo prescription (eBay)

We have seen the “BBGCo” logo embossed on two pumpkinseed flasks and one prescription bottle, all three sold on eBay. Unfortunately, both flasks were identical, embossed on the front with a five-pointed star that was drawn with a single line, forming a pentagon in the center. The base was embossed “BBGCo” (no punctuation) horizontally above 256 (Figures 5 & 6). The only information we recorded on one of the prescription bottles was that “BBGCo” was in an arch, but the base of the other was embossed “BBGCo / 271” (Figure 7). The bottle was generic with rounded shoulders and a one-part prescription finish.

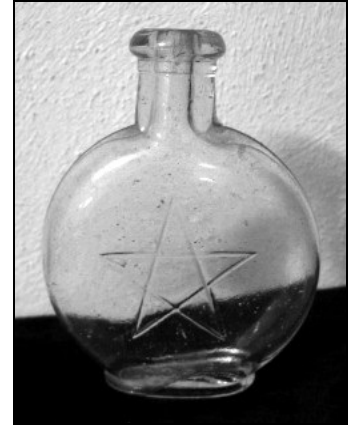


Figure 5 – Flask with BBGCo logo (eBay)



Figure 6 – BBGCo basemark on flask (eBay)

Soda and Beer Bottles

Pollard (1993:51, 56-57, 92, 135) noted a blob-top soda bottle embossed “BBGCo / 551” on the base. The bottling company was open from 1900-1915, easily within the dates when Berney-Bond was making bottles. Von Mechow (2022) included 13 beer bottles and two Hutchinson soda bottles, all embossed “BBGCo” on the bases. Both Hutchinsons and 11 of the beer bottles had the initials placed horizontally, the final two in an arch. One bottle was made for a brewer in New York, two in New Jersey, and the remaining dozen in Pennsylvania.



Figure 8 – Hutchinson BBGCo (Hutchbook)

Both Hutchinson bottles were numbered 145. One arched mark had 354 below it, the other with no number. Hutchbook (Fowler 2022), however, listed thee Hutchinson bottles,

including photos of both the bottles and logos (Figure 8). All but one of the horizontal beer bottles had numbers – 44, 48, 54, 113, 117, and 277. Four of the beer bottles carried the number 44, almost certainly a model number. Two beer bottle examples, one solarized to a brilliant lavender, on eBay had 128 and 551 as numerical code (Figure 9). Along with 145 on two of the bases, the third was embossed 74.

Curtice Brothers Catsup Bottles

As noted in the “BB” section above, Berney-Bond also used the “B.B.G.Co.” logo on the distinctive ribbed Curtice Brothers catsup bottles. These were embossed in two configurations, both above three-digit numbers: arched and horizontal. Numbers in our sample on the arched variation ranged from 200 to 404 – 320-616 on the horizontal marks (Figure 10). These



Figure 10 – B.B.G.Co. (eBay)

numbers suggest that the arched logo was used first, but the overlap is puzzling. The volume of numbers on Curtice bottles makes it unlikely that the numbers were model or catalog codes. As noted above, “B.B.G.Co.” and the “BB” variations were the most common mouth-blown Curtice Brothers ketchup bottles in our sample.

The Hazelhurst plant made catsup bottles by at least 1908, and produced them by machine a year later. The machines were removed by 1910, but we have found no other references to catsup bottles. It is likely that the Hazelhurst factory made catsup bottles earlier, possibly as soon as the plant was operating under the Berney-Bond name in 1904. Information on the Bradford plant has been more difficult to find, but Gray (1920) listed the Bradford plant as a maker of catsup bottles. It is almost certain that the Smethport factory did not produce catsups.



Figure 9 – B.B.G.Co basemark on beer bottle (eBay)

Other Condiment Bottles

Early on, we recorded a generic catsup bottle offered on eBay but failed to capture a photo or describe the bottle. The “B.B.G.Co” logo was accompanied by the number 244. However, another colorless, generic bottle was in the collection at the University of Texas at El Paso museum. This one was round in cross-section with an applied two-part finish – a tall collar with a rounded ring below it (Figure 11). The base was embossed “B.B.G.Co. / 315” (Figure 12). This bottle could have been used for grape juice, catsup, or any other “still” (i.e., non-carbonated) liquid.



Figure 12 – Grape Juice base (UTEP Museum)



Figure 11 – Grape Juice bottle (UTEP Museum)

BBGCO48 (ca. 1917-1930; with Owens-Illinois basemarks – 1930-ca. 1946)

In 1910, New York became the first state to require that milk bottle producers apply a number to their bottles. Each glass house wishing to sell bottles within the state was assigned a specific one- or two-digit number in the order in which they applied. Wisconsin adopted the system in 1912, followed by other states, and soon the numbers became universal. Most milk bottle manufacturers used their logos or initials in conjunction with the number (e.g., BBGCO48, 5W, L52, E4, etc.), although some embossed their marks on one part of the bottle and the numerical code on another (e.g., the Thatcher MTC mark on the base or one part of the heel and the number “11” on another part of the heel or the F.E. Reed Glass Co., with REED on the heel and 34 on the base). Berney-Bond was assigned number 48.

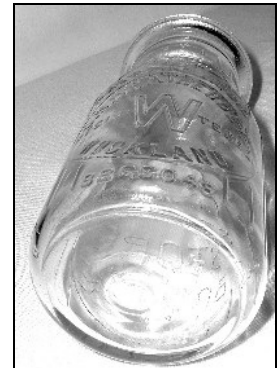


Figure 13 – BBGCO48 heelmark (eBay)

Giarde (1980:14-16) noted the BBGCO48 mark as being used by Berney-Bond between 1920 and 1930 along with two-digit date codes on at least some milk bottles (Figure 13). It is important to note that Giarde *only* associated the BBGCO48 and BB48 marks with milk bottles, an observation confirmed by our empirical observation. Giarde also noted that BBGCO48 also

appeared on “round milk bottles together with the Owens-Illinois mark.” At this point, we have recorded Owens-Illinois basemarks with BBGCO48 heelmarks only from plant No. 17, the former Berney-Bond factory at Clarion, Pennsylvania (Figure 14). Single-digit date codes in our sample ranged from “0” to “9” (probably indicating 1930 to 1939, although the “0” may indicate 1940) and were never accompanied by the Owens-Illinois “Duraglas” mark.



Figure 14 – BBGCO48 heelmark with Owens-Illinois plant 17 basemark

As with the BB48 logo (see below), Giarde (1980:16) observed that the BBGCO48 mark was also used in conjunction with the Winslow “W” mark. Virtually all manufacturers continued to fill existing orders of a company they had acquired and to use old molds until they wore out. If a former firm’s mark appeared on a heel, it was generally ignored. Thus, bottles with two makers’ marks, under these circumstances, are not uncommon.

Milk bottles embossed BBGCO48 on the heels were occasionally marked on the bases with date codes, although our sample of these was very small. We have recorded two-digit codes of 25-31 as well as one base with “W 28” and two with “38B.” This pattern fits the date codes used with the BB48 mark (see below). In addition, we have observed some bases marked with single-digit numbers, including: “3,” “6,” and “9,” as well as a single base embossed “J18” or “J1B.” Although these may possibly have been date codes, their meaning is currently unverified. One bottle from the Hood Dairy had the BBGCo48 heelmark, “31B” and the “1931” date code (required by Hood), both embossed on the base.

We have discovered several early milk bottles with BBGCO48 embossed on the heel that also had a small “H” embossed elsewhere on the heel. This “H” likely indicated the Hazelhurst plant. These were probably made between ca. 1913 and 1928 (see Discussion and Conclusions section below). We have observed milk bottles with the “H” on the heel and date codes of “26” and “28” on the base (Figure 15).



Figure 15 – H mark on heel

BB

The heelmark “BB” with no accompanying “48” is apparently only found on some cottage cheese jars. These were advertised (showing the mark) in at least one Berney-Bond catalog, and they are found on actual cottage cheese jars (Figure 16). Unlike the earlier “BB” and “B.B.” marks used on catsup bottles, these were used during the milk bottle period – ca. 1917-1930.

BB48 (ca. 1920-1930)

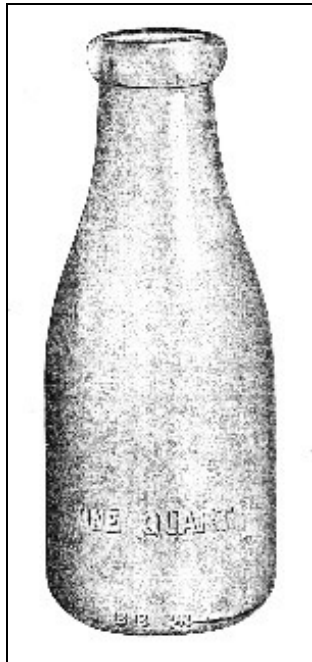


Figure 17 – BB48 heelmark
(*Milk Dealer* 1923)

Both Toulouse (1971:70) and Giarde (1980:14-15) dated the BB48 mark as being used from 1920 to 1930 (Figure 17). Giarde (1980:15) also stated, “While the company used several different marks, it is doubtful that milk bottles will be found without a numeral “48” being included with the mark.”

Berney-Bond advertised the BB48 mark by at least July 1922 (*Milk Dealer* 1922). However, a 1924 ad (*Milk Dealer* 1924a) may provide a better clue to when the BB48 mark was first used. The ad noted: “Four years ago BB 48 Milk Bottles of Quality were only a thought; to-day they are recognized as leaders of quality.” This statement confirms the Toulouse and Giarde dates that the BB48 logo was first used in 1920.

Giarde (1980:16) also described a milk bottle with BB48 (presumably on the heel) and the Winslow “W” embossed on the base. As noted above (see BBGCO48 mark), marks from acquired companies were often continued for one or more years after the sale (Figure 18).

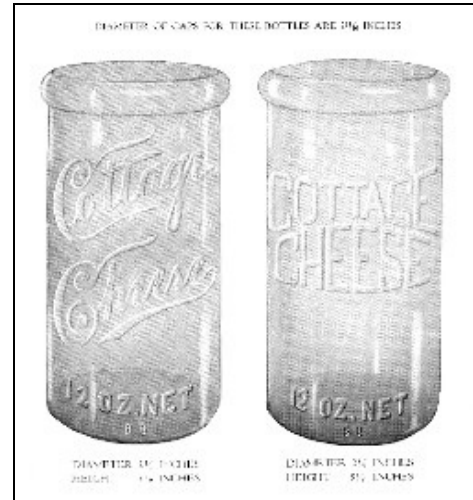


Figure 16 – BB logo on cottage cheese jar
(Berney-Bond Glass Co. catalog)



Figure 18 – BB48 heelmark
with 4W logo (*Milk Dealer*
1929)

This could have been a baseplate sent to Clarion from the Columbus plant. See Discussion and Conclusions section.



Figure 19 – SEALED BB48

BB48 marks appeared exclusively on the heels of milk bottles. They were sometimes accompanied by numbers – although these were not date codes (see Other Berney-Bond Codes below) – letters, or words (Figure 19). Most BB48 milk bottles were unaccompanied by date codes, but some have two-digit, basal date codes ranging from 25 to 30, with individual codes of “28 W,” “SP 29,” “31B” and “31W.” Any doubt that these are date codes was assuaged by a Hood Dairy bottle from Massachusetts. Hood required manufacturers of its bottles to include a four-digit date code in large embossed letters on the base of each bottle. A few Berney-Bond bases were embossed with single-digit codes of “1” and “8.” While these may have been date codes, this has not been fully demonstrated.

The accompanying letters were perplexing. Giarde (1980:140) noted that the “W” could indicate the former Winslow Glass plant. Although we considered the possibility that the “SP” could mean Smethport and the “B” could equal Bradford, the date codes on the bases do not fit the timeframe when the plants were open. In addition, there is no evidence that either plant made milk bottles. The “W” could indicate Winslow, but that does not account for the meanings of the other letters. Giarde (1980:141) noted that it is possible for bottles made at Winslow during the 1930-1931 period to be embossed with three marks, the Winslow 5W, Berney-Bond BB48 (or BBGCO48), and the Owens-Illinois OI-Diamond mark.

Berney-Bond took advantage of the Winslow reputation. *Milk Dealer* ads in 1929 referred to “Berney-Bond-Winslow toughness” or “Berney-Bond-Winslow bottles.” In addition, the ads illustrated a bottle embossed on the heel with BB48 followed by a dash then the Winslow 5W logo – with the “5” nestled between the “legs” of the “W” (see Figure 18). Owens-Illinois also took advantage of both logos (now its property), when it acquired Berney-Bond in 1930. An August 1930 ad identified the company as the Berney-Bond Milk Bottle Division of the Owens-Illinois Glass Co. The ad (*Milk Dealer* 1930) illustrated the

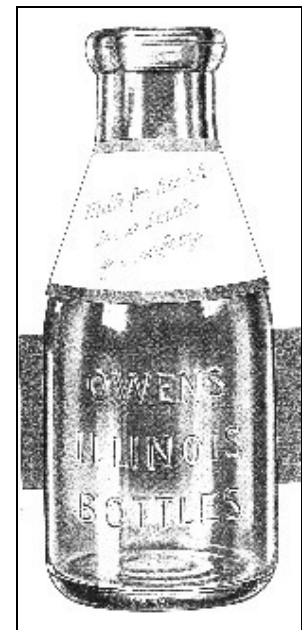


Figure 20 – BB48 and Owens logo (*Milk Dealer* 1932)

same bottle marked with both the BB48 and 5W logos. It was not until 1932 that Owens-Illinois ads dropped the 5W logo. A January ad (*Milk Dealer* 1932) showed BB48 on the heel roll and the Owens-Illinois logo on the base (Figure 20). Even after the sale, Owens-Illinois factory codes of “17” and “18” indicate the former Berney-Bond plants at Clarion and Columbus (Figure 21), respectively.

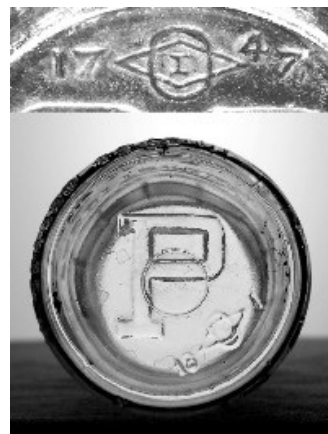


Figure 21 – Clarion (17) & Columbus (18)

Other Berney-Bond Codes

Additional codes appeared on the heels of Berney-Bond bottles (marked with both BBGCO48 and BB48). Hoenig (2007c) provided code interpretations as of 1922.⁶ The initial letter in a heelmark indicated the “family” to which the bottle belonged, based on height, diameter, shoulder springline (i.e., contour), decoration, and lettering. The following are dimensions for quart bottles:

“A” = 9 1/2" x 3 27/32"

“B” = 9" x 3 7/8"

“C” = 9 1/4" x 3 15/16"

“D” = 9 1/2" x 3 27/32"

“H” = 9 1/2" x 3 13/16"

“X” = 9 1/4" x 3 7/8"

“Z” = 9 1/2" x 3 7/8"

Actual codes we have recorded, however, include:

- A half-pints, pints, quarts
- AX half-pints, pints, quarts
- B half-pints, pints, quarts
- BX pints, quarts
- C quarts
- D pints, quarts

⁶ These were revived from Owens-Illinois records.

F quarts
T quarts
XX quarts
Z quarts

The initial letter or double letter (see above) was often followed by another letter or a three-digit number that noted style of the neck area. These included:

“F” = shallow flutes in the neck
“110” = long, narrow vertical neck and shoulder ribs
“115” = vertical ribs in neck
“120” = wide fluted or petaled neck
“130” = wide vertical shallow ribs
“135” = 4 rows of dimples
“140” = wide diagonal “X” pattern around neck
“145” = 1 horizontal rib around neck
“150” = 3 rows of dimples
“155” = 1 narrow scallop line around neck with 6 points
“160” = 14, 1" long vertical ribs in neck
“180” = narrow, fine line, swirled ribs in neck

Another set of codes we have observed on Berney-Bond milk bottle heels began with the letter “M.” These were embossed near the mold seam. The “M” appeared alone or followed by two-digit (occasionally three-digit) numbers (e.g., “M10,” “M16,” “M21,” “M25,” “M26,” “M28,” “M30,” “M58,” or “M188”). In examining identical pairs of bottles, Hoenig (2007c) observed that bottles embossed on the heels with the “M” also had capacity information in an arch at the shoulder (e.g. ONE QUART), while the identical bottle with no “M” lacked the capacity designation. The meaning of the accompanying numbers is currently unknown.

BB48 and the Owens-Illinois Diamond OI mark (1930-at least 1962)

According to Giarde (1980:15), the BB48 mark continued in use in “the following decades” after Owens-Illinois bought Berney-Bond. The mark appeared not only on milk bottles

made by the former Berney-Bond plants but on those made by other Owens-Illinois factories as well. Owens-Illinois records from 1953 and 1954 show that the company wanted to discontinue the BB48 mark when Owens-Illinois adopted the new I-in-an-O mark in 1954. Letters from the period discussed legal concerns, since the BB48 mark was tied into various regulations enacted by different states. In the end, the use of the logo was extended for an unspecified length of time (Owens-Illinois records 1953-1954).

We have recorded a sample of over 80 milk bottles (from collections and eBay) with BB48 marks on the heels and Owens-Illinois marks (including date codes on the bases). Our sample disclosed only four Owens-Illinois plants using the BB48 mark. Two are intuitively obvious. One was factory No. 17, the former Berney-Bond plant at Clarion, Pennsylvania. The second was plant No. 18, the former Berney-Bond plant at Columbus, Ohio. Date codes from plant No. 17 ranged between 0 and 9; 42 through 51; 61 and 62 on handi-square bottles. Plant No. 18 codes extended between 0 and 8; 46 through 48. This requires an explanation of Owens-Illinois date codes (see the Owens-Illinois section for a more complete discussion of that firm's marks and date codes).

Single-digit codes equaled the last number of the dates from about 1930 to the mid-1940s ("8" = 1938; "0" = 1930 *or* 1940; "1" = 1931 *or* 1941, etc.). We have recorded single-digit codes ranging from 0-9 without an accompanying "Duraglas" logo and 0-5 with "Duraglas" – as well as single examples of "6" and "8" with the logo. Two-digit codes indicated the last two digits of the year the bottle was made ("46" = 1946, etc.). Two-digit date codes first appeared in conjunction with the BB48 marks in 1946 and continued until at least 1962, although the ones made after 1949 were not made at Clarion.

Owens-Illinois acquired the Berney-Bond plants in 1930 and almost certainly continued to fill existing orders and/or to wear out existing molds with the older Berney-Bond marks until at least 1931. This suggests that the BB48 mark with no date codes was used during the first one or two years after the transfer. Possibly as early as 1931, the company used BB48 along with the Owens-Illinois mark and date codes.

The presence of "Duraglas" on a base indicates that a bottle could not have been made prior to September 1940, when the process was initiated. However, the Duraglas process was

not used on all milk bottles. Combining single-digit date codes with Duraglas markings suggests that both plant No. 17 and plant No. 18 used the combined BB48 and Owens-Illinois marks with date codes from at least 1936 to ca. 1951. However, the plants seem to have dropped the Duraglas mark from milk bottles in 1952.

The other factories that used the BB48 mark were the former Illinois Glass Co. plant at Alton, Illinois (No.7), and the former American Bottle Co. factory at Streator, Illinois (No.9). Date codes we have recorded for Plant No.7 were “8,” “9,” “47,” and “48”; those from Plant No.9 included “8,” “47,” “48,” and “49.” These data suggest that some of the Berney-Bond molds were shipped to the Alton and Streator plants after the Columbus plant closed in 1948, and the Clarion plant was converted to other glassware in 1947 (Hoenig 2007c; Toulouse 1971:73). The marks continued in use until the body molds wore out. On occasional specimens, BB48 shows up on bottles as late as 1958 for Alton (No.7) and 1961 for Streator (No.9).

We discovered two anomalies in the California State Park milk bottle collection in Sacramento. One bottle was embossed with BB48 on the heel and 17 I-in-an-Oval 57 on the base.⁷ The use of the more recent mark, coupled with the 1957 date code places this bottle well outside the typical usage of the BB48 mark. Apparently, someone at one of the Midwest plants (Streator or Alton) found an old mold and failed to change the plant code when the date code on the baseplate was altered.

The second anomaly was a milk bottle embossed 2 I-in-an-Oval-superimposed-over-an-elongated-diamond 6. This was a gallon bottle, and it probably indicates that manufacture of the larger containers was transferred to the Huntington, West Virginia, plant by 1936 (although 1946 is a possibility). That would probably have included moving all existing larger molds from the former Berney-Bond plants.

Owens-Illinois embossed “M” codes on milk bottle heels to designate container styles. These were followed by a 3- to 4-digit mold code (M-xxxx). These should not be confused with the other “M” codes described above. Hoenig (2007c) provided the following list:

⁷ Owens-Illinois officially adopted the I-in-an-oval mark to replace its more complex I-in-an-oval-superimposed-on-an-elongated-diamond logo in 1954, although, of course, older molds were used until they wore out.

“M” = Gallon milks

“MH”= light weight milks

“ML” = standard weight milks

“MX or MLX” = standard weight milks with headspace 1/4" below cap seat

“MY or MHX” = light weight milks with headspace 1/4" below cap seat

“MZ”= non-returnable milks.

State Seals with “BB” and no Owens-Illinois logo (ca. 1919-1929)

State Seals with “BB” plus Owens-Illinois logo (ca. 1930-1947)

Beginning in 1900, the Commonwealth of Massachusetts required that all milk bottles used by dairies in the state bear a “seal” to guarantee that the container held the correct volume. Originally, these were etched on the sides of the bottles by local “sealers” in locations throughout the state. From late 1909 to 1947, however, glass factories selling bottles to dairies within the state were required to emboss their containers with a Massachusetts seal.

The most typical format placed the seal on the shoulder of each bottle, usually in a circular shape embossed “MASS (arch) / {factory designator initials} / SEAL (inverted arch).” These often appeared in a small round plate. The mark used by Berney-Bond was “BB” (Blodget 2006:8; Schadlich [ca. 1990]; Schadlich & Schadlich 1984). The company used the “BB” in the Massachusetts seal from as early as 1919 to 1930, when Owens-Illinois acquired the plants (Figure 22). Berney-Bond was not mentioned in the 1918 Massachusetts Department of Standards Bulletin No.11 but did appear in the 1928 bulletin No.25. A bottle offered at an eBay auction had the Massachusetts BB seal and a 1926 date code on the base (required by Hood Dairy), showing that the seal was in use at least that early.



Figure 22 – BB
Massachusetts seal (eBay)

Owens-Illinois continued to use the “BB” in the Massachusetts seal after its acquisition of Berney-Bond in 1930, probably until the repeal of the law in 1947. This may have induced Owens-Illinois to continue applying the “BBGCo48” mark to milk bottle heels from the former Berney-Bond plants, when it entered into milk bottle production in 1930. It is probably no

coincidence that the use of the former Berney-Bond marks dropped off sharply after 1947. Codes used after 1947 probably reflect a continued use of the old molds rather than an intentional use of the seal after the cessation of the law.

Although our sample was small (ca. 20 bottles in the study by Russ Hoenig and an unknown number in the collection of Al Morin), all bottles embossed with the Massachusetts BB seal but no Owens-Illinois manufacturer's mark on the base, were heelmarked with BBGCO48. At this point, we have not found a single bottle with both the Massachusetts BB seal and the BB48 heelcode.

At least three other states (Maine, Rhode Island, and Pennsylvania) also had seal laws. The Maine seal laws took effect in



Figure 24 – 48 Maine seal (eBay)

1913 and ended (like Massachusetts) in 1947. The study of seal laws in the other two states remains in its infancy, although most states became interested in checking milk bottles for proper capacity and using some system to regulate the dairies or the manufacturers about the same time – the teen years of the 20th century. All three states eventually required the seal on the shoulder of the bottle. The Berney-Bond/Owens-Illinois seal for Rhode Island was configured “R.I. (arch) / BB (horizontal) / SEAL (inverted arch)” (Figure 23) Maine was similar: “MAINE (arch) / 48 (horizontal) / SEAL (inverted arch)” (Figure 24).

We have not found a Berney-Bond example of the Pennsylvania shoulder seal yet, but the general configuration was “SEALED (arch) / {number} (horizontal) / PA. (inverted arch).”

In addition, in 1912, several other states, including West Virginia, Michigan, and Wisconsin, initiated systems that required the word SEALED and a number that was assigned to each milk bottle manufacturer (*Milk Dealer* 1916:58-59). The number used by Berney-Bond and later Owens-Illinois was “48.” In many states, the code BB48 (or BBGCO48) with the word



Figure 23 – BB Rhode Island seal (eBay)



Figure 25 – 48 Minnesota triangle on heel

“SEALED” was sufficient. Minnesota established a unique system in 1913 (mostly not followed until ca. 1916), where “48” above a line with “MINN” below was surrounded by a triangle (Figure 25). Initially, the mark appeared on the shoulder of Minnesota milk bottles (Figure 26), but, by 1941, the mark migrated to the heel. From at least 1940, the “MINN” triangle was commonly found on milk bottles, regardless of the state. Although our sample was painfully small, the triangles seem to have initially used “BB48” but simplified the code to “48” in the mid-1950s.



Figure 26 – 48 Minnesota triangle on shoulder (eBay)

Discussion and Conclusions

BB, B.B., and B.B.G.Co. (1904-1930)

As noted in the text above the Berney-Bond Glass Co. is by far the most likely candidate for the use of each of these marks. The initials match exactly; the time period fits both the bottles and the business dates; the Hazelhurst plant was known to have made catsup bottles; and there are no other likely choices. Examples we have found were all mouth blown. Apparently, the most important firm using these marked bottles was the Curtice Brothers Co., at that time the second-largest packer of ketchup (following Heinz). These were produced between 1904 and 1911, when the Curtice Brothers shifted their loyalty to the Owens plant at Fairmont, West Virginia. Other mouth-blown bottles and flasks with the BBGCo logo were likely made during period from 1904 to as late as 1915.

BBGCO48 (ca. 1913-1931) and **BB48** (ca. 1913-1949)

These marks were certainly used by the Berney-Bond Glass Co. The BBGCO48 mark was used by Berney-Bond between ca. 1920 and 1930, although some of the later marks (1925-1931) have date codes embossed on the bases, and the mark was still used by Owens-Illinois in 1931 and later. The BB48 mark was used by Berney-Bond from ca. 1920 until the sale to Owens-Illinois in 1930, again accompanied by date codes on the base as early as 1925. BB48 is much more common than the BBGCO48 logo.

Although we may never know the full story, the use of two different marks may reflect a division by plant. There is no indication that the plants at Bradford or Smethport ever made milk bottles. However, the Hazelhurst plant seems to have made milk containers. Since this appears likely (although not currently fully supported by historical data), the use of two marks would make sense to identify different plants, with Hazelhurst, the smaller factory, using the BBGCO48 mark (since BBGCO48 bottles are much less common). When the Hazelhurst plant ceased milk bottle production ca. 1926, the mark may have transferred to the Columbus plant (formerly the Winslow Glass Co.), where it would have been used until the sale to Owens-Illinois in 1930. This hypothesis fits current testing, but it should not be taken as absolute.

Owens-Illinois continued to use the BB48 mark at the former Berney-Bond plants (No.17 & No.18) until at least 1951 (along with using the molds at plants No.7, Clarion, Pennsylvania, and No.9, Columbus, Ohio). BB48 is accompanied by the Owens-Illinois mark and date codes from at least 1938 to 1956, although its use after ca. 1947 was sporadic.

The BBGCO48 mark is distinctly associated with the Massachusetts BB seal, beginning at some point after 1918 (probably ca. 1920), although we have found no examples of the BB48 mark associated with the seal. “BB,” “BB48,” and “48” were used with seals from other states. When Owens-Illinois entered milk bottle production, it used both the manufacturer’s mark and seals acquired from Berney-Bond, then the property of Owens-Illinois. Thus, the company was spared the extra trouble of establishing both a number and specific contracts with the individual states. In addition, most (possibly all) Owens-Illinois bottles were marked “SEALED BB48” – allowing the company to use the Berney-Bond logo to comply with the seal laws of other states.

Acknowledgments

We send our gratitude to Owens-Illinois, Inc. for allowing us access to their data and allowing us to publish non-proprietary information. Our thanks to Al Morin, of Dracut, Massachusetts, for his help in our study of Massachusetts seals on milk bottles. Al has searched his collection several times in response to our questions, including the one about BB seals and marks. Thanks also to Brad Blodgett, another Massachusetts resident, who has also been searching his collection for us. A final thanks to Laura Brown of Vassalboro, Maine, for her help with Maine-seal milk bottles and Maine historical records.

Sources

American Glass Review

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

1928 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

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.

Blodget, Bradford G.

2006 "Milk Bottles from the Heart of the Commonwealth: A Collector's Guide to the Milk Bottles from the City of Worcester, Massachusetts, 1890-2006." Unpublished manuscript.

Bristow, A.E.

1917 "Factories Report Good Runs." *Glassworker* 35(36):1, 8-9.

Commoner and Glassworker

1910a "At Berney-Bond Co's Smethport Plant." *Commoner and Glassworker* 28(3):7.

1910b "Pith of the Week's News: All the New of the Glass Trade Compiled in Condensed Form for Quick Reading." *Commoner and Glassworker* 28(13):1.

Creamery and Milk Plant Monthly

1922 "New Milk Bottle Factory." *Creamery and Milk Plant Monthly* 11(9):64-65.

Fowler, Ron

2022 "Hutchinson Bottle Directory." Seattle History Co., Hutchbook.com.
<http://www.hutchbook.com/Bottle%20Directory/>

Giarde, Jeffery L.

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

Glassworker

1917 "Berney-Bond Glass Co." *Glassworker* 35(48):7.

Glass Industry

1927 "Milk Bottle Companies Merge." *Glass Industry* 8(6):151.

Gray, Grace Viall

1920 *Every Step in Canning: The Cold Pack Method*. Forbes & Co., Chicago.

Hoenig, Russell

2007a Untitled, unpublished manuscript, with historical details of the Smethport, Hazlehurst, and Bradford plants of the Berney-Bond Glass Co. and their predecessors. Information obtained from McKean County newspapers. On file with authors.

2007b Untitled, unpublished manuscript, with historical details on Hazelhurst, engraving of codes, and Berney-Bond bottles. Information from historical sources, Owens-Illinois Glass Co. records, and empirical evidence derived from the observation of 315 Berney-Bond milk bottles.

2007c Untitled, unpublished manuscript, with historical details of the Clarion plant of the Berney-Bond Glass Co., and empirical observations of Berney-Bond bottles. On file with authors.

2008a Untitled, unpublished manuscript, with historical details of the Bond Glass Co. and various operations at Bradford and Hazelhurst, Pennsylvania.

2008b Untitled, unpublished manuscript, with historical details about the Berney-Bond Glass Co. factories at Bradford and Hazelhurst, Pennsylvania.

2008c Untitled, unpublished manuscript, with historical details of the Smethport, Hazlehurst, and Bradford plants of the Berney-Bond Glass Co. and their predecessors. Information obtained from McKean County newspapers. On file with authors.

2008d Untitled, unpublished manuscript, with historical details of the Clarion plant of the Berney-Bond Glass Co. Information obtained from Owens-Illinois Glass Co. records. On file with authors.

Hoenig, Russ, Bill Lockhart, Pete Schulz, Carol Serr, Les Jordan, Bill Lindsey, and Phil Perry
2008 “The Dating Game: Berney-Bond Glass Company.” *Bottles and Extras* 19(3):33-42. [This issue is misnumbered; the cover states that it is No. 3; inside, however, it is listed as No (no period) 4. The actual issue is No. 5.]

Jones, May

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

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):951954.

“Keystone”

1918 “Repairs at Berney-Bond.” *Glassworker* 26(47):12.

Mayer, Charles C.

1908 “From the Mountain District.” *Commoner & Glass Worker* 26(29):12.

Milk Dealer

1916 Advertisement: “At Last We Have It.” *Milk Dealer* 6(1):58-59.

1922 Advertisement: “Automatically Processed Milk Bottles of Quality.” *Milk Dealer* 11(10):37.

1924a Advertisement: “Automatically Processed Milk Bottles of Quality.” *Milk Dealer* 13(10):2.

1924b Advertisement: “Milk Bottles of Quality – The Bottles for You.” *Milk Dealer* 13(12):169.

1925 “Automatically Processed Milk Bottles of Quality.” *Milk Dealer* 14(6):41.

1929 Advertisement: “You Can’t ‘Recondition’ a Milk Bottle.” *Milk Dealer* 19(3):19.

1930 Advertisement: “Bottles That come Back are the Only Bottles That Pay Profits.” *Milk Dealer* 19(11):29.

1932 Advertisement: “Nationwide Service.” *Milk Dealer* 21(4):35.

National Glass Budget

1901 “Complete List of Glass Factories in the United States and Canada.” *National Glass Budget* 17(1):11.

1902 “Complete List of Glass Factories in the United States and Canada.” *National Glass Budget* 17(52):11.

1909 “Hayes on Bottle Machines.” *National Glass Budget* 25(11):1.

New York Times

1930 “Listings Approved by Stock Exchange: Owens-Illinois Glass Reveals Purchase of Berney-Bond for 47,274 Shares.” *New York Times*, June 30.

Owens-Illinois Glass Co.

1930 “Twenty-Third Annual Report of Owens-Illinois Glass Company for the Year Ended December 31, 1930.” Owens-Illinois Glass Co., Toledo, Ohio.

1953-1954 Various letters and documents summarized by Russell Hoenig.

Paquette, Jack K.

1994 *The Glassmakers: A History of Owens-Illinois, Incorporated*. Trumpeting Angel Press, Toledo, Ohio.

Pollard, Gordon

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

Porter, Ross

2002 "1900's: Berney-Bond Glass Co." A webpage of *Planet Smethport*.
<http://www.smethporthistory.org/hazelhurst/hazelhurst.b.b.htm>

Schadlich, Louis

[ca. 1990] "Milk Bottles Marked by Manufacturers and Jobbers." Unpublished manuscript.

Schadlich, Louis and Nancy Schadlich

1984 "The 'MASS. SEAL' on Milk Bottles and Jars." Unpublished manuscript, Sturbridge, Massachusetts.

Thomas Publishing Co.

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

Von Mechow, Tod

2022 “Soda & Beer Bottles of North America: Bottle Attributes - Beer & Soda Bottle Manufacturers.” <http://www.sodasandbeers.com/SABBottleClosures.htm>

First published 2013; last updated 10/25/2022

