

# The Dating Game - Berney-Bond Glass Company

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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 Glass Co.  
Bradford, Pennsylvania  
(ca. 1897-1904)

The roots of the Berney Glass Co., began about 1894 with the erection of the Seamless Bottle Co., plant in Bradford. 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).

The Berney Glass Co., apparently gained control of the Bradford City Glass Bottle Co., when the company incorporated on November 28, 1900, although the company claimed 1895 (the date for McKean) as its initial date (Hoenig 2008a; 2008b).<sup>1</sup> 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 in 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. Hazel-

ton, 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 “Bond Bottle Co.,” factory that was erected 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 (2002b) stated that “in 1902, the Bond Glass Company was formed in Hazelhurst to make bottles etc.” This 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 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 may 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 produce 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 in 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 (#18) closed in 1948; the Clarion plant (#17) remains in business today.

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. 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 Bradford and Hazelhurst units seemed to have a symbiotic relationship during the first few years. The plant apparently remained non-existent for a few years, but Berney-Bond acquired the old Tuna Glass Co. plant<sup>2</sup> and began production on September 29, 1909 (Hoenig 2008a; 2008b).

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, manage-

ment 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 plant (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, because of 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 kept the family mansion in Bradford. Clarion was a nice, clean town in comparison (Hoenig 2007c; 2007a). The *Commoner and Glassworker* (1910b:1) confirmed the shutdown 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.”<sup>3</sup>

Smethport  
(1907-1918)

The Haines Flint Bottle Co., closed on January 31, 1907, but the plant did not become the Berney-Bond Glass Co., until 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.

By mid-1917, the plant operated two one-man Gump-Johnson ma-

chines 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 2002b).

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 apparently 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 not in operation and had been idle for some time. At this point, we can only speculate that the onset of Prohibition in 1920 had removed the need for the factory’s beer bottle manufacturing. 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 plant probably did not operate too often. By at least September 9, 1928, the factory 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 Company 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 factories, but, on March 5, 1931, Owens-Illinois removed all the machinery from Hazelhurst and razed the buildings (Hoenig 2007a; Porter 2002b).

#### Clarion (1912-1930)

In 1912, Berney-Bond acquired the old Pearl Glass Co., in Clarion, Pennsylvania,<sup>4</sup> a plant that made a variety of bottle types. 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 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 were 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. The plant began transferring molds to the Midwest plants that still made milk bottles. By ca. 1956, the transfer was complete, and Clarion’s heyday as a milk bottle production facility was over (Hoenig 2007a).

#### 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 In-*

*dustry* 1927:151; Toulouse 1971:70-73).

### Chronology of Berney-Bond Plants and Their Former Names

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.]

### Containers and Marks

BBGCo  
(ca. 1905-1915)

Jones (1966:15) suggested Bryce Bros. Glass Co., as the user of this mark, but Bryce Brothers only made tableware. This mark was probably used by the Berney-Bond Glass Co. Strangely, Toulouse (1971:70) did not include this in his list of Berney-Bond marks. The “BBGCo” is usually slightly arched, although the curvature can vary (Figures 1 & 2). The mark is usually found on the bases of colorless catsup bottles that can solarize to an amethyst color. The marks are also found on flasks (horizontal) and prescription bottles (slight arch). Although our sample is small, we have not found the mark on any other bottle type.

Some marks are unaccompanied by numbers, while others have one- to three-digit numbers embossed on the base below the mark. The examples we have seen include “2,” “263,” and “315” – possibly catalog codes. Bottles in our current sample are all mouth-blown, suggesting a use between 1904 and at least the ca. 1920 period when Berney-Bond ceased hand production. This date is predicated on the transition to milk bottle production at Clarion. The Hazelhurst plant made catsup bottles by at least 1908, although we have found no other references to them. Of course, this does not rule out production of catsup bottles at other plants or later at Hazelhurst.



**Figure 1:** BBGCo mark (Lockhart)



**Figure 2:** BBGCo mark (slight arch)  
(Tucson Urban Renewal Collection)

A colorless soda or beer bottle with a lightning stopper and BBGCo embossed on its base was offered on eBay, but we cannot confirm the mark in association with this bottle type; the seller failed to include a photo. However, 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.

BBGCO48  
(ca. 1917-1930)

With Owens-Illinois basemarks  
(1930-ca. 1946)

At some point between ca. 1905 and ca. 1910, glass houses began marking their bottles with the combination of a manufacturer's mark (often a single letter) and a single- or double-digit numerical code that designated each company. Many companies used their marks in conjunction with the number (e.g., BBGCO48, LGC / 1, L52, E4, etc.), while others 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). Berney-Bond chose or was assigned number 48. At this point, we have no idea how or why this numbering system evolved or who devised it.

Giarde (1980:14-16) noted the BBGCO48 mark as being used by Berney-Bond (Figure 3) between 1920 and 1930 along with two-digit date codes on at least some milk bottles. It is important to note that Giarde *only* associated the BBGCO48 and BB48



**Figure 3:** BBGCO48 mark  
(California State Park Collection)

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 #17 (Figure 4), the former



**Figure 4:** BBGCO48 mark with  
Owens-Illinois logo (ebay)

Berney-Bond plant at Clarion, Pennsylvania. Single-digit date codes in our sample range from "0" to "9" (probably indicating 1930 to 1939, although the "0" may indicate 1940) and are never accompanied by the Owens-Illinois "Duraglas" mark.

As with the BB48 mark (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. We have observed several bottles with this combination of marks.

Milk bottles embossed BBGCO48 on the heels are occasionally marked on the bases with date codes, although our sample of these is 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.

We have discovered several early milk bottles with BBGCO48 embossed on the heel that also have a small "H" embossed elsewhere on the heel. This "H" likely indicates 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



**Figure 5:** Small "H" on heel  
(Hoening)

base (Figure 5).

BB

The heelmark "BB" with no accompanying "48" is apparently only found on cottage cheese jars (Figure 6). These were advertised (showing

the mark) in at least one Berney-Bond catalog, and they are found on actual



**Figure 6:** BB (cottage cheese jars) (Berney-Bond catalog—Hoening)

cottage cheese jars.

BB48  
(ca.1918-1930)

Both Toulouse (1971:70) and Giarde (1980:14-15) dated the BB48 mark (Figure 7) as being used from 1920 to 1930. 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



**Figure 7:** BB48 mark (Hoening)

mark.” Berney-Bond advertised the BB48 mark by at least July 1922 (*Milk Dealer* 1922). However, a 1924 ad (*Milk Dealer* 1924) 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; today they are recognized as leaders of quality.” This statement suggests that the BB48 logo was first used ca. 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.<sup>5</sup>

BB48 marks appear exclusively on the heels of milk bottles. They may be accompanied by numbers, although these are not date codes (see Other Berney-Bond Codes below). Most BB48 milk bottles are unaccompanied by date codes, but some have two-digit, basal date codes ranging from 25-30, with individual codes of “28 W,” “SP 29,” “31B” and “31W.” A few 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 are 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 time-frame 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. 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” (e.g., *Milk Dealer* 1929) (Figure 8). 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 illustrated

the same bottle marked with both the BB48 and 5W logos (*Milk Dealer* 1930). It was not until 1932 that Owens-Illinois ads dropped the 5W logo. A January ad showed BB48 on the heel roll and the Owens-Illinois logo on the base (*Milk Dealer* 1932).

Other Berney-Bond Codes

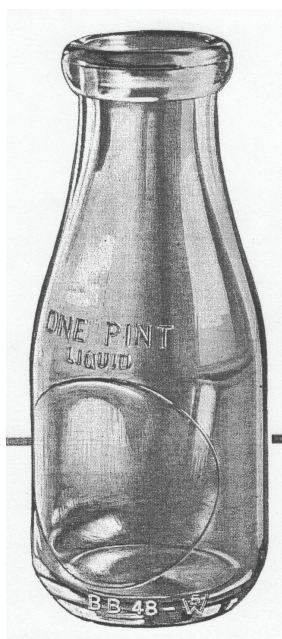
Additional codes appeared on the heels of Berney-Bond bottles (marked with both BBGCO48 and BB48). Hoening (2007c) provided code interpretations as of 1922.<sup>6</sup> The initial letter in a heelmark indicated the “family” to which the bottle belonged, based on height, diameter, shoulder springline (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
- F quarts
- T quarts
- XX quarts
- Z quarts

The initial letter or double letter (see above) was often followed by



**Figure 8:** BB48 mark with Winslow 5W logo (*Milk Dealer* 1929)

another letter or a three-digit number that noted styles 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 begins with the letter “M.” These were embossed near the mold seam. The “M” can appear alone or may be 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. 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).

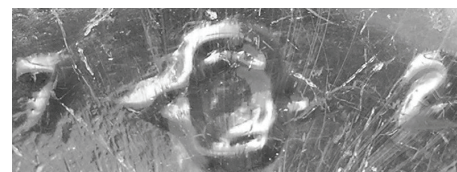
Our sample disclosed only four Owens-Illinois plants using the BB48 mark. Two are intuitively obvious. One was factory #17, the former Berney-Bond plant at Clarion, Pennsylvania. The second was plant #18,



**Figure 9:** Owens-Illinois mark from Clarion Plant (double digit) (Hoenig)

the former Berney-Bond plant at Columbus, Ohio. Date codes from plant #17 ranged between 0 and 9; 42 through 51 (Figure 9); 61 and 62 on handi-square bottles. Plant #18 codes extended between 0 and 8; 46 through 48. This requires an explanation of Owens-Illinois date codes (see Lockhart 2004 for a more complete discussion of Owens-Illinois marks and date codes).

Single digit codes can equal the last number of the dates from about 1930 to the mid-1940s (“8” = 1938; “0” = 1940; “1” = 1941, etc.). We have recorded single-digit codes ranging from 0-9 without an accompanying “Duraglas” logo (Figure 10) and 0-5 with “Duraglas” – as well as sin-



**Figure 10:** Owens-Illinois mark from Clarion Plant (single digit) (Hoenig)

gle examples of “6” and “8” with the logo. Two-digit codes indicate 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 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 1940, the year 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 #17 and plant #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 plants that used the BB48 mark were the former Illinois Glass Co. plant at Alton, Illinois (#7), and the former American Bottle Co. factory at Streator, Illinois (#9). Date codes we have recorded for Plant #7 were “8,” “9,” “47,” and “48”; those from Plant #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 (#7) and 1961 for Streator (#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.<sup>7</sup> 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:

“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 the volume of the container. 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 plate mold. The mark used by Berney-Bond was “BB” (Blodget 2006:8; Schadlich [ca. 199 0]; Schadlich & Schadlich 1984). The company used

the “BB” in the Massachusetts seal from as early as 1920 to 1930, when Owens-Illinois acquired the plants. Berney-Bond was not mentioned in the 1918 Massachusetts Department of Standards Bulletin #11 but did appear in the 1928 bulletin #25.

Owens-Illinois continued to use the “BB” in the Massachusetts seal after its acquisition of Berney-Bond in 1930 (Figure 11), probably until the repeal of the law in 1947. This may have induced Owens-Illinois to continue applying the “BB48” mark to



**Figure 11: Massachusetts BB Seal (ebay)**

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 “BB48” 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 is 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, are heel-marked 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 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 manufacturer s about the same time – the teen years of the 20<sup>th</sup> century. All three states eventually required the seal on the shoulder of the bottle. The Berney-Bond/Owens-Illinois seal for Rhode Island was con-



**Figure 12: Maine 48 seal (ebay)**

figured “R.I. (arch) / BB (horizontal) / SEAL (inverted arch).” Maine was similar: “MAINE (arch) / 48 (horizontal) / SEAL (inverted arch)” (Figure 12). We have not found a Berney-Bond example of the Pennsylvania shoulder seal yet, but the general configuration is “SEALED (arch) / {number} (horizontal) / PA. (inverted arch).”

In addition, several other states, including West Virginia, Michigan, and Wisconsin, initiated systems that required the word SEALED and a



**Figure 13: Minnesota 48 triangle (California State Park Collection)**

number that was assigned to each milk bottle manufacturer (*Milk Dealer* 1916:58-59). This study, too, is in its infancy, but the number used by Berney-Bond and later Owens-Illinois was "48." In many states, the code BB48 (or BBGCO48) with the word "SEALED" was sufficient. Minnesota established a unique system, where "48" above a line with "MINN" below was surrounded by a triangle (Figure 13). Initially, the mark appeared on the shoulder of Minnesota milk bottles, but, at a point we have not yet discovered, 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 is painfully small, the triangles seem to have initially used "BB48" but simplified the code to "48" in the mid-1950s.

## Discussions and Conclusions

### BBGCo

(1905-ca. 1915)

Although this mark could have been used by the Bartlesville Bottle & Glass Co., the lack of the ampersand makes it a less likely choice. Of the remaining companies with the proper initials, only the Berney-Bond Glass Co. is a likely choice. 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. Because all examples we have found were mouth blown, they were likely made between 1905 and ca. 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 bottles. 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 by no means be taken as absolute.

Owens-Illinois continued to use the BB48 mark at the former Berney-Bond plants (#17 & #18) until at least 1951 (along with using the molds at plants #7 and #9 from 1948). 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" are associated 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, now the property of Owens-Illinois. Thus, the company was spared the extra trouble to establish 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.

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#### Footnotes:

<sup>1</sup>Porter (2002b) 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 Brad-  
ford Flint Glass Bottle Co., however,  
was a separate company that operated  
from at least 1896 to at least 1907.

<sup>2</sup>The Tuna Glass Co. was in busi-  
ness 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 plant  
was then operated by the Bradford  
Flint Glass Bottle Co.

<sup>3</sup>The Thomas Registers  
(1907:202; 1912:481; 1914:532;  
1915:578; 1916:600; 1917:730;  
1918:810; 1918:827; 1920:782;  
1921:782), however, listed the plant  
until at least 1921. The Registers  
were notoriously lax about checking  
up on closings. The Carolina Glass  
Co., for example, was closed by 1912.  
Despite solid local records supporting  
the 1912 closing, the company contin-  
ued to be listed in the Thomas Regis-  
ters until at least 1921. To further  
confuse the issue, Owens-Illinois his-  
torical 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. This speculation could  
also apply to the continued listings in  
the Thomas Registers.

<sup>4</sup>Toulouse (1971:70) claimed the  
name of the older plant was  
"Cleveland" – but that was the name  
of the first plant manager (Hoenig  
2007c).

<sup>5</sup>This could have been a baseplate  
sent to Clarion from the Columbus  
plant. See Discussion and Conclu-  
sions section.

<sup>6</sup>These were revived from Owens-  
Illinois records.

<sup>7</sup>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.

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