

Armstrong Cork Co.

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History

It has been fairly common in glass industry history for one firm to specialize in closures, while another concentrated on producing containers. The Armstrong Cork Co. began as a closure manufacturer, added glass production, and eventually diversified into floors, ceilings, and other pursuits that were unrelated to its early production. The firm continues to operate in 2013. This study, however, is only concerned with the company's container-related periods.

Armstrong Cork Co., Pittsburgh (1860-present)

Cork is the bark of the Cork Oak, found only in southwestern Europe and northwestern Africa. Thus, all U.S. cork supplies have been (and are) imported. Thomas Armstrong and John P. Glass opened a shop at Pittsburgh in 1860. The pair carved cork stoppers by hand, mostly to fit glass containers and initially delivered their products in a wheelbarrow. As early as 1864, the partners branded each cork with their distinctive Circle-A logo (Wikipedia 2013).

By 1891, when the firm incorporated, Armstrong Cork was the largest cork supplier in the world. Armstrong began the manufacture of other closures in 1900 and opened a new linoleum factory at Lancaster, Pennsylvania, in 1916 to begin its diversification. The firm entered the molded-plastic cap field in 1925 (Toulouse 1971:24; Wikipedia 2013).

Armstrong Cork Co. (Glass Division), Millville, New Jersey (1938-1969)

The Armstrong Cork Co. entered the glass-making business when it acquired Whitall Tatum & Co. (Millville, New Jersey) on June 20, 1938 and the Hart Glass Mfg. Co. (Dunkirk, Indiana) on December 21 of the same year with the intent to produce complete packages, bottles and closures together (*Glass Industry* 1939:20; *Glass Packer* 1939:52). The Glass Factory Year Book for 1939 listed five continuous tanks for the Armstrong Cork Co., Whitall Tatum Division at Millville, New Jersey, making "prescriptions, patent, proprietary, vials, toilets, packers and preservers, beverages, liquors, specialties." The Hart Glass Mfg. Co. was listed separately and

had no noted connection with Armstrong. Hart made “packers and preservers ware, prescription, proprietary, soft drinks and beverages, liquor wares, condiment and fruit juices. Bottle specialties” at two continuous tanks with 14 machines (*American Glass Review* 1939:83, 87).

The 1940 listing included both the Whitall Tatum Division and the Hart Division with five continuous tanks at Millville and two at Dunkirk, with the same listing of products as the earlier Millville enumeration. The listing remained the same until at least 1944 (*American Glass Review* 1940:91; 1944:97-98).¹ Armstrong decided that the operation of two plants in Millville was inefficient. Consequently, in 1940-41 they expanded and modernized the lower plant and dismantled the upper (*Glass Industry* 1941).²

One of Armstrong’s 1940 beer bottle advertisements featured four bottle styles (Export, Stubbie, Steinie, and quart Steinie), made in “deep, rich amber (the famous amber formerly produced by Whitall Tatum).” In addition, the firm offered “the new light-weight, one-trip packie, in both amber and clear flint.” Of course, every bottle could be topped by Armstrong’s “complete line of high-quality crowns to give your beer or ale maximum flavor protection” (Armstrong Cork Co. 1940:7).

The Hart and Whitall Tatum Divisions consolidated in 1957, when the combined operation used seven continuous tanks with 41 machines. In 1961, Dunkirk added another tank and four additional machines. In 1967, the firm made its final acquisition – a single-tank factory at Waxahachie, Texas – specifically to make beer bottles – and built another tank at Dunkirk in 1968 (Toulouse 1971:25).

With the 1969 sale of the companies to Kerr Glass Co., Armstrong exited the business of glass manufacture (Griffenhagen and Bogard 1999:97; Toulouse 1971:24-25). In one of his noted discontinuities, Toulouse (1971:24-25, 544) stated that Armstrong Cork sold in both 1968 and 1969 on two facing pages and repeated the error date later. Bethman (1991:78) correctly identified the sale date as April 1969, a date confirmed by McDougald and McDougald (1990:142) and Woodward (1988:20).

¹ Unfortunately, we only have access to these directories from 1927 to 1944.

² For a long list of Armstrong glass division officers, see Toulouse (1971:25).

Containers and Marks

Although we do not have a large sample of Armstrong base photos, the firm seems to have continued where Whitall Tatum left off – primarily manufacturing prescription and liquor containers. Most of the bottles seem to have been generic, although the factory made some Lysol bottles. All Armstrong bottles were made on Individual Section (IS) machines (Foster-Forbes 1987).

Circle A (1939-1969)

Along with branding its corks with the Circle-A logo, Armstrong Cork Co. used the same mark from 1939 to 1969. Since Armstrong almost certainly honored the existing contracts at the Whitall Tatum plants, it is unlikely that the factories made any glass embossed with its logo in 1938. Any containers made during the first year or so probably still exhibited the Whitall Tatum and Hart logos.

Although the Circle-A logo is the better known, Armstrong also registered a Circle B mark on September 5, 1906. However, Circle-B was apparently not used on bottles (Toulouse 1971:24-25, 544). However, at least two Circle B marks *have* been used on glass containers – by the J.T. Baker Chemical Co. and the Brockway Glass Co. (Toulouse 1971:24, 59).

The Armstrong Cork Co. first registered the Circle A trademark in April 1889 as No. 16,251. The firm registered the same logo again (No. 55,475) on August 14, 1906, although no first-use date was specified in the application. The logo was again trademarked on April 16, 1940 (No. 377,025). According to Armstrong, it had been used since January 10, 1939 (Creswick 1987:155). Although not specifically mentioned, we suspect that the final trademark was registered for use on glass. Both Scholes (1941:129) and Berge (1980:83) showed the Circle-A mark and W/T in an inverted triangle as used together in 1941 and 1964. Jones (1966:15) similarly showed the Circle A mark as belonging to Armstrong Cork.

Giarde (1980:9) discussed the possible use of the Circle-A mark on dairy containers. He noted, “While the A in a circle mark remains unconfirmed on milk bottles, the wide variety of containers made by Armstrong suggests that dairy containers will be found bearing the mark.” When we examined the 120-box, California State Park collection of milk bottles, we did not find

a single bottle with the Circle-A mark – despite the presence of other eastern logos. Unfortunately, we have not had the opportunity to examine comparable eastern collections.

Toulouse (1971:23) also listed the mark as used by the American Glass Works, Richmond, Virginia, and Paden City, West Virginia. Although he dated the mark ca. 1908 to 1935, Toulouse added some qualifiers: “This mark has been claimed, but verification is lacking; if true, would apply to hand-made and to machine-made bottles[.] Lacked three years of conflict with Armstrong” (Figure 1). The Toulouse calculation is correct – the American Glass Works closed three years prior to Armstrong Cork’s entry into glass manufacture. Thus, there was no conflict with both companies using the same Circle-A logo. However, the American Glass Works stopped using the logo very early – probably by 1910 or 1911; therefore, there was even more of a gap between the use of the logos by the two glass houses.



Figure 1 – Circle-A logo used by the American Glass Works, Richmond (University of Wyoming collection)

Griffenhagen and Bogard (1999:121) also attributed the mark to both Armstrong and American, almost certainly parroting Toulouse. Grant (1989), however, in his study of Richmond, Virginia, bottles essentially agreed on the dates for American Glass (1908-1934), but never mentioned the mark. In our study of the American Glass Works (Richmond), we agreed with Toulouse, although the logo was probably only used during the first few years of the firm’s operation, probably not later than the ca. 1908-1913 period (Lockhart et al. 2013 – also see the American Glass Works section in this volume).

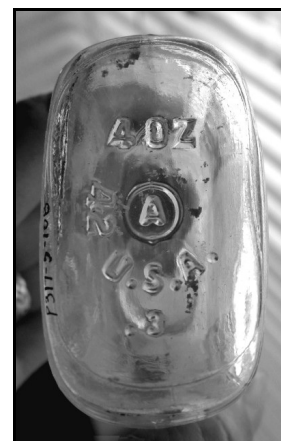


Figure 2 – Circle-A logo on Armstrong prescription base (California State Parks collection)

Armstrong apparently used a two-digit date code on each container base, probably from the beginning. We have recorded codes of 41-56 (1941-1956). The codes may be above, below, or to the right of the logo. The bases also contain a one- or two-digit mold code, usually preceded by a dot or period (Figure 2). As mentioned above, at least some Lysol bottles were made by Armstrong (Figures 3 & 4).



Figure 3 – Lysol bottle (eBay)



Figure 4 – Circle-A logo on Lysol base



Figure 5 – Armstrong on prescription base

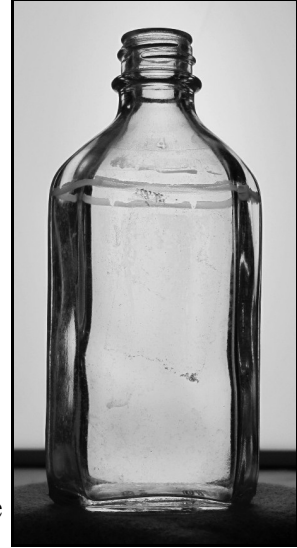


Figure 6 – Prescription bottle with Armstrong logo

Circle A [rmstrong]

At some point, Armstrong added its name to the Circle-A mark, superimposing the first “r” over the edge of the circle and adding the rest of the letters. Although we have recorded this logo on prescription bottles (Figures 5 & 6), it appears to be more common on the bases of liquor bottles, generally accompanied by “MADE IN U.S.A.” (Figure 7). It is possible that the addition of the full name and location of manufacture indicated bottles intended for export. Other firms (e.g., Illinois-Pacific Glass Co.) used the factory/company names and the “U.S.A.” designation on exported bottles and jars – but rarely on domestic products.

Liquor Code



Figure 7 – Liquor bottle base with Armstrong logo and federal liquor permit No. 12 (eBay)

As Prohibition ended, in 1934, the government issued numbers to glass houses that resumed the manufacture of liquor bottles. The Whitall Tatum Co. had captured No. 12, and Armstrong inherited that number (see Figure 7), when it bought Whitall Tatum and, apparently, No. 70 from Hart (Figure 8). The number was embossed on liquor bottles until 1968,



Figure 8 – Liquor flask base with Circle-A logo and federal liquor permit No. 70 (Tucson Urban Renewal collection)

when the law was rescinded. See the section on liquor codes in the Anchor Hocking Glass Co. section for a more thorough description.

W/T in an inverted triangle (ca. 1922-1969)

The Whitall Tatum Co. used this mark on medicinal and other bottles, mostly generic styles, from ca. 1922 until the firm sold to the Armstrong Cork Co. in 1938. Several sources – including McDougald & McDougald (1990:133, 138), Giarde (1980:136), and Griffenhagen and Bogard (1999:40) – dated the logo from 1924 to 1938, although Lockhart et al. (2006) presented evidence for a use two years earlier.

As noted above, however, it appears that the Armstrong Cork Co. continued to use the W/T logo. Scholes (1941:129) showed both the W/T inverted triangle mark and Circle-A as used by Armstrong Cork Co. in 1941. Berge (1980:83) illustrated a 1964 chart from Owens-Illinois showing both logos in use in 1964. The McDougalds also noted that “eight years [from the date of the sale to Armstrong Cork] passed before the venerable Whitall Tatum name began to be replaced by Armstrong embossings” on insulators (MdDougald & McDougald 1990:138). This body of evidence suggests that the W/T inverted-triangle mark was used in conjunction with the Circle A mark during most of the tenure of Armstrong Cork (1938-1969) which extends the use of the mark as late as 1969.³

This time frame is questioned, however, by a 1987 Foster-Forbes Glass Co. Pamphlet. The cover illustrated several logos that were used by the Millville plant – including the W/T-in-an-inverted-triangle logo (Figure 9). The date range for the W/T mark – 1838-1938 – is *very* incorrect as to the begging date, but the end date corresponds to the sale of the plant to Armstrong Cork. Despite the pamphlet, it seems highly likely that the Millville factory of the Armstrong Cork Co. continued to use the W/T logo throughout most of its time in the glass business. Unfortunately, there is virtually no way to distinguish between a bottle with the W/T logo as manufactured by Whitall Tatum from one made by Armstrong Cork.

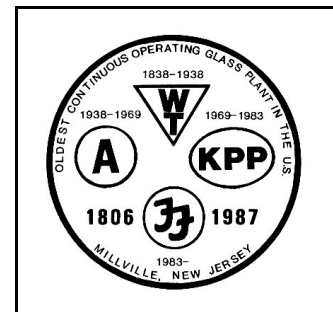


Figure 9 – Cover of the 1987 Foster-Forbes pamphlet

³ There is no evidence that Kerr Glass continued to use any of the earlier Armstrong or Whitall Tatum logos, although there was probably about a year overlap, when Kerr continued to fill existing Armstrong contracts.

Logos from the Hart Glass Mfg. Co.

Although Armstrong Cork continued to use the Whitall Tatum logo, there is no indication that the firm used either the “H” or “H-in-a-heart” marks that have been attributed to the Hart Glass Mfg. Co. The Toulouse assignation of the lone “H” to Hart Glass (Toulouse 1971:232) is shaky at best. Toulouse (1971:231) also assigned a lone “H” to the Holt Glass Works, West Berkely, California. The 1900 *Era Blue Book* (Haynes & Co. 1900) listed the W. H. Hamilton Co., 6th & Wood Streets, Pittsburgh, Pennsylvania, as making “prescription ware, etc.” with an “H” logo. Caniff (2001:6-7), stated that the “H” was used on jars by the Hazel Glass Co. (Washington, Pennsylvania). The single “H” was also used by other glass houses.

Hart’s other logo – H in a hart – is so uncommon that we have never found an example to photograph for the *Encyclopedia*. The logo was probably used, although it seems unlikely that its use was continued by the Armstrong Cork Co.

Discussion and Conclusions

During the short glass-manufacturing life of the Armstrong Cork Co., the firm only used two logos, both centered around the Circle-A motif. One logo consisted only of an “A” in a circle, but the other added “rmstrong” to create the company name – possibly for bottles intended for export. Armstrong Cork apparently used both marks – as well as the W/T in an inverted triangle – during its entire 20-year production life – 1939-1969.

It seems likely that the inverted-triangle-WT logo remained in use at the former Whitall Tatum plant, and the Circle-A mark as well as Circle-A rmstrong may have been used by the former Hart Glass factory. Even in our small sample, however, we have Circle-A logos in association with both the “70” liquor code of Hart Glass and the “12” code from Whitall Tatum. We only have one example of the Circled-A Armstrong mark on a liquor base, and that one is with the “70” code. Future research needs to concentrate on amassing a *much* larger sample than we have found.

Sources

American Glass Review

1939 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

1944 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

Armstrong Cork Co.

1940 Advertisement: "Reporting fro Action: Armstrong's Big 4." *Modern Brewery Age* March:7.

Berge, Dale L.

1980 *Simpson Springs Station: Historical Archaeology in Western Utah*. Cultural Resource Series No. 6. Bureau of Land Management, Utah.

Bethman, David

1991 *The Pioneer Drug Store: A History of Washington State Drug Stores and Their Bottles*. Privately printed, n. p.

Caniff, Tom

2001 "The Hazel-Atlas Story." In *Fruit Jar Annual: The Guide to Collecting Fruit Jars*, Vol. 6. Privately published by Jerome J. McCann.

Creswick, Alice

1987 *The Fruit Jar Works, Volume II, Listing Jars Made Circa 1900 to Modern*. Privately printed, Grand Rapids, Michigan.

Foster-Forbes Glass Co.

1987 *Welcome to Foster-Forbes Millville Plant*. Foster-Forbes Glass Co., n.p.

Giarde, Jeffery L.

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

Glass Industry

1939 "Armstrong Cork Purchases Hart Glass." *Glass Industry* 20(1):20.

1941 Millville's New Furnace Room. *Glass Industry* 22(4):151-153.

Glass Packer

1939 "Armstrong Cork Company Buys Hart Glass Mfg. Co." *Glass Packer* 18(1):52.

Grant, Vernon

1989 *Bottled in Richmond, 1819-1920*. Waterman Printing, Richmond.

Griffinhagen, George and Mary Bogard

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

Haynes & Co., D. O.

1900 *The Era Blue Book: A Universal Price List and Directory of Manufacturers for Drug Trade Buyers*. D. O. Haynes & Co., New York.

Jones, May

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

Lockhart, Bill, Carol Serr, Beau Schreiver, and Bill Lindsey

2013 "American Glass Works: Richmond and Paden City." *Bottles and Extras* 24(1):13-15, 58-62.

Lockhart, Bill, Carol Serr, David Whitten, Bill Lindsey, and Pete Schultz

2006 "The Dating Game: Whitall Tatum & Co." *Bottles and Extras* 17(3):57-69.

McDougald, John and Carol McDougald

1990 *A History and Guide to North American Glass Pintype Insulators*. Volume 1. The McDougalds, St. Charles, Illinois.

Scholes, Samuel R.

1941 *Handbook of the Glass Industry*. Ogden-Watney, New York.

Toulouse, Julian Harrison

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

Wikipedia

2013 “Armstrong World Industries.”

http://en.wikipedia.org/wiki/Armstrong_World_Industries

Woodward, N. R.

1988 *Glass Insulator in America: 1988 Report*. Privately Printed.

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