

Fairmount Glass Works

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John Rau and his associates opened the Fairmount Glass Works, at Fairmount, Indiana, in 1889. Although Toulouse (1971:201) referred to the initial firm as the Fairmount Glass Co., all other sources reported the company as the Fairmount Glass Works until 1906, when a fire destroyed the factory. Rau gradually absorbed the entire business. By 1904, Rau had already begun a new plant at Indianapolis, and part of the production units had already been moved when the Fairmount factory burned. The Indianapolis plant was fully operational by 1908, although it could have begun partial production earlier. Although there were numerous small changes, the firm remained essentially in the Rau family until the Inland Container Corp. purchased the operation in 1961. The plant retained its Fairmount identity until 1968, when it merged with the Glass Container Corp.

Histories

Fairmount Glass Works, Fairmount, Indiana (1889-1906)

William C. Winslow, John Rau, Frank Taylor and Charles Tigner opened the Fairmount Glass Works, Fairmount, Indiana, in 1889. Although some sources placed the opening date at 1888, the *Fairmount News*, on August 8, 1889, stated that “the arrangement [for the Tigner, Rau, and Taylor glass plant] is satisfactory, and that they will be here shortly to go ahead with the work of putting in furnace and buildings.” On September 9, 1889, William C. Winslow sold or deeded four lots at Fairmount to the project, almost certainly heralding his entry into the business. These were almost certainly at Jefferson and Factory Ave. – the location of the Fairmount Glass Works plant (Roller n.d.). Although the original group may have met in 1888, it is obvious that work on the plant did not begin until September 1889 at the earliest.

Rau and Winslow bought the Taylor and Tignor shares in 1890. We have not traced Taylor, but Charles Tignor operated the Tigner Glass Co. from 1890 to 1897. He joined Palmer Winslow at the Winslow Glass Co. in 1900 but moved to the Essex Glass Co. ca. 1906. Essex closed in 1920. For more information, see the appropriate sections (Tigner in Other T section).

The plant caught fire in April 1891, but fast action by the owners and workers stopped the fire without major damage and shut the factory down for repairs. An 1892 ad noted that the plant made oil cans (actually glass jars), Mason and Standard (grooved-ring) fruit jars, and druggists' packers, all in green glass (Creswick 1987a:265; Roller n.d.; 1994:24; Toulouse 1971:201).

On June 4, 1897, the *Grant County News* reported that "John Rau of this city has secured a patent on a fruit jar... By the new process a blower can make double the former output. The groove is put on in the same manner as a bottle is finished."¹ William C. Winslow had died in 1894, and his son, Palmer Winslow, replaced him. On August 12, 1898, the *Fairmount News* announced that William Winslow's share had been placed at auction by Winslow's estate. Rau outbid Palmer Winslow – thus obtaining William Winslow's portion of the business – and Winslow went on to found his own Winslow Glass Co. – see the section on Winslow Glass for more information.² In late August 1900, Rau incorporated the firm, with himself, Fred Rau, Charles V. Rau, Carl P. Rau, and P. Daniel Rau as directors (Roller n.d.; von Mechow 2015).

The Fairmount Glass Works had "one 8-ring continuous tank . . . making bottles, oil cans, lamp fonts and standard fruit jars" in 1897. Another 1897 factory list noted that the firm used 24 pots, and that number continued until 1900. The following year, however, the number of pots increased notably to 42, then swelled to 56 in 1902 (*National Glass Budget* 1897a:7; 1897b:5; 1898:7; 1900:11; 1901; 11; 1902:11). By 1904, the factory used five continuous tanks with 31 rings to make to a general line of flint glassware, including beer and liquor bottles (*American Glass Review* 1932:151).

¹ Roller (n.d.) also cited the *Daily Chronicle* (June 1, 1897) as stating that Rau had received a patent for a fruit jar. The papers described the patent as a new method to form the finish on grooved-ring, wax-sealer fruit jars. Although Rau patented a stopper the following year, the description does not mention any form of manufacturing technique. Rau most likely obtained someone else's patent for a new method.

² There is undoubtedly an interesting story about the reasons Palmer did not directly inherit his father's share of the business and why he and Rau were apparently at odds in the auction. Unfortunately, none of this seems to have been recorded.

In 1904, Rau began a gradual relocation process to a new plant at Indianapolis. When the Fairmount plant burned in 1906, Rau sped up the relocation process, although the move was not completed until 1908. It is probable that the new plant did not begin production until late 1907 or early 1908 (*American Glass Review* 1934:151; Roller 1994:24; 47; Toulouse 1971:201).

Fairmount Glass Works, Indianapolis, Indiana (1904-1960)

Fairmount Glass purchased land at Prospect St. and Keystone Av. in Indianapolis in February 1903 and began moving equipment from Fairmount (ca. 50 miles northeast of Indianapolis) by at least September 1904. By that time, John Rau was president, with C.P. Rau as secretary and treasurer, Fred Rau as vice president, and John Rau as manager. The new plant had five continuous tanks with 31 rings that made a general line of flint bottles, including beers & liquors. The main office did not move until August 1906, after a fire destroyed the Fairmount plant – although the move was not completed until July 1908 (Roller n.d.).

Soon after the Indianapolis plant opened, the firm began switching to machine operation, eventually phasing out hand blowing. According to Hayes (1909:1), a factory in Indianapolis (almost certainly Fairmount) had operated a “Johnny Bull” semiautomatic machine for “a short time” and, in 1908, used two other semiautomatic machines to make wide-mouth ware “part of time.”³ This was confirmed by a 1909 ad seeking a “double shop to work on Johnny Bull machine making beers and minerals” at the Indianapolis plant (*Commoner and Glass Worker* 1909:16).

The Thomas Registers erroneously listed the firm as the Fairmount Glass Co. in 1907, making “prescription; druggists’; bar; soda; wine’ packers’; [and] preservers” bottles. The listing was abbreviated in 1912 to “Druggists’, Wine, Preservers’, etc.,” and the factory produced bottles by both mouth-blown and semiautomatic machine methods the following year. In 1914, the Registers realized that the correct title ended in “Works.”⁴ From 1915 to 1918, the

³ For more information, see our article on the Ashley (Johnny Bull) machines – “The Ashley Semiautomatic Bottle Machine” – at Bill Lindey’s Historical Bottle Webpage (2015).

⁴ Entries like these probably explain why Toulouse erroneously labeled the early plant the Fairmount Glass Co.

plant made “beer, soda, preservers’, etc.,” along with druggists show jars (*Journal of Industrial and Engineering Chemistry* 1913:952; Thomas Publishing Co. 1907:158; 1912:478; 1914:530; 1915:579, 3387; 1918:4429).

The 1917 operation was described in more detail. In factory No. 1:

One two-man Fairmount machine on large ware and one stopper press are being worked one shift and two hand blow shops and one two-man Fairmount machine are also being worked on No. 1 tank. In No. 2 factory five two-man Fairmount machines and ten blow shops are being worked on two shifts.”

The plant also employed “six journeyman moldmakers” in 1917 (Bristow 1917:1). On December 19, 1918, the factory was destroyed by fire at an estimated cost of \$30,000, almost all of which was covered by insurance. By at least 1919, John’s brother, Fred Rau, was also

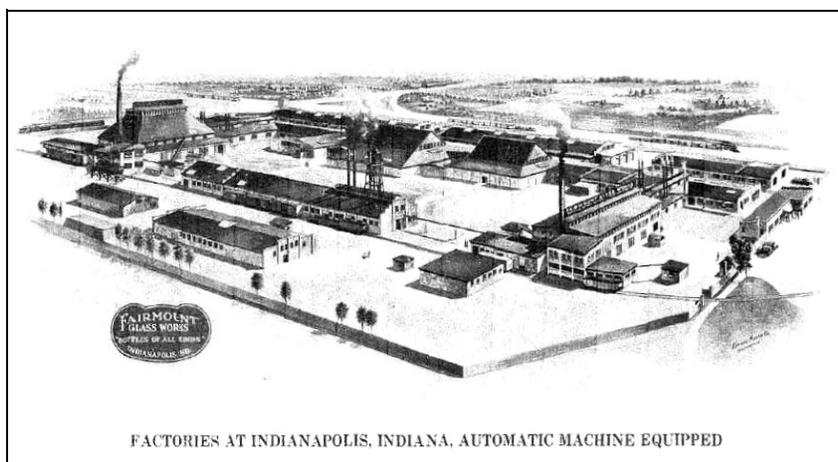


Figure 1 – Indianapolis factory (Fairmount Glass Works ca. mid-1920s)

involved in the business (Figure 1). Although Fairmount was an early machine user, the plant still made some bottles by hand at least as late as 1924 (von Mechow 2015). John Rau retired from the presidential position in 1925, although he remained as Chairman of the Board until he died in 1928. His son, John H. Rau followed in his footsteps as president (Toulouse 1971:202).

By 1927, the plant made “prescriptions, vials, patent, proprietary, liquors, flasks, packers and preservers, flint and amber, [as well as] private mold work” at two continuous tanks with 14 rings along with one day tank with two rings. In 1930, the day tank had disappeared, and the two continuous tanks supported 13 machines. The plant was down to 11 machines in 1933, but the company made major changes the following year. In 1934, the factory boasted three continuous tanks with 15 machines and again had one day tank. The company added another

machine in 1935.⁵ Although the number of machines varied slightly, the status remained essentially the same until at least 1944 (*American Glass Review* 1927:132-133; 1930:88; 1933:62; 1934:91; 1935:83-84; 1944:160). The firm incorporated as the Fairmount Glass Works, Inc., in 1945 (von Mechow 2015). Charles D. Rau, another son of founder John Rau, assumed the presidential slot in 1947 but was succeeded by J.R. Harkness in 1957, when Rau became Chairman of the Board (Toulouse 1971:202).

Fairmount Glass Corp., Indianapolis – 1961-1964

In 1961, the Inland Container Corp. of Indianapolis, Indiana, purchased the Fairmount Glass Works and renamed the firm as the Fairmount Glass Corp., a wholly owned subsidiary of Indiana Container (Simson 1962:64). Tracing its ancestry back to the Anderson Box Co. (Anderson, Indiana) in 1918, Inland specialized in cardboard containers. The firm moved to Indianapolis and became the Inland Box Co. in 1925 and reorganized as the Inland Container Corp. in 1930. The acquisition of the Fairmount Glass Works was a short-lived venture into the glass business that was not repeated (Funding Universe 1994).

Fairmount Glass Co., Indianapolis – 1964-1968

According to Toulouse (1971:200), the company changed again to the Fairmount Glass Co. in 1964. J.R. Harkness, who had assumed the presidency in 1957, retained that position until at least 1963, and remained a vice president until at least 1965. By then, the plant operated four continuous tanks with 21 rings, making flint & amber glass, prescription, liquor, pharmaceutical, druggists, food containers, jars, beers & beverage bottles. J.R. Harkness was the president, with C.C. Rau as vice president. The company merged with the Glass Container Corp. in March 1968 and lost its identity in the process. Diamond-Bathurst, Inc. purchased the firm on April 1, 1985, and closed the Indianapolis plant in October (Roller n.d.; 1997).

⁵ Although it is reasonable to assume that these were the Fairmount machines developed by Rau, the plant may also have used other machine types.

John Rau Patents

In addition to his management skills, John Rau was a prolific inventor, with no less than 17 patents to his credit between 1895 and 1925. His earliest patents were for apparently ineffective closures for cans and bottles. In 1911, however, he began applying for patents for machines that made large bottles. He received five patents for machines in 1913, culminating in his final design. He applied for this patent on February 23, 1912, and received Patent No. 1,061,405 for a “Process of Making Hollow Glassware” on May 13, 1913 (Figure 2). This was almost certainly the “Fairmount machine” described in 1917 (see above).

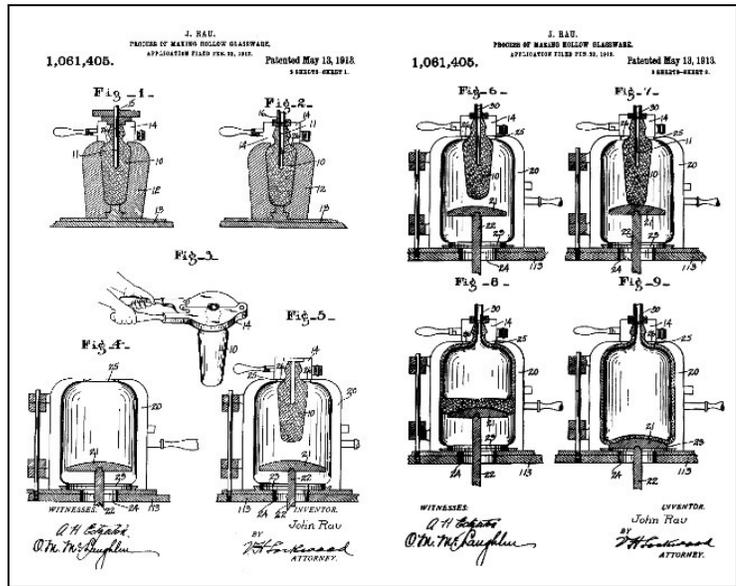


Figure 2 – Rau 1913 patent

This was a semiautomatic press-and-blow machine that, typically, used two molds (parison and blow molds) to make the demijohns and other large ware. A plunger in the parison mold pressed the glass into a rough shape, then an operator moved the parison to the blow mold by hand. The parison then elongated (by gravity) to meet the convex, post-bottom baseplate that had risen on a valve almost halfway up the blow mold. A puff of air then blew the bottle into a half-sized shape. In the final process, another puff of air blew the bottle into its full shape as the baseplate descended into its position at the bottom of the mold.

These machines would leave a somewhat unusual set of mold seams. The bases had a perfectly circular post-mold seam that was concave inside the seam. The side seams extended down to the post-mold seam – characteristics typically associated with



Figure 3 – Water bottle base (eBay)

Because of the positioning of the parison, there would be no machine scar on the base. See Appendix A for a list of patents.

Containers and Marks

Aside from the Rau fruit jar, the Fairmount Glass Works appears to have used four variations of glass marks. Although past researchers have lumped two of these together, we have assessed them separately. Toulouse dated the early logos as being used by the original factory, but we have found no evidence that the firm used a mark (aside from Rau's name on the fruit jar) while it was still located at Fairmount. The use of initials apparently began after the move to Indianapolis in 1906.

RAU'S or RAU'S IMPROVED (1898-1908?)

According to Toulouse (1971:436), this mark was used by John Rau when he purchased the company and renamed it the Fairmount Glass Works in 1898. Toulouse (1971:436) dated the RAU'S mark at "circa 1898 to 1908" but dated the RAU'S IMPROVED mark at "circa 1900" (Toulouse 1971:200).⁶ In his earlier book, Toulouse (1969:139) noted RAU'S IMPROVED on a grooved-ring wax-sealer fruit jar that he dated 1888 to date (i.e., 1969, the year the book was published – although this is preposterous). Obviously, Toulouse's information changed between 1969 and 1971. Roller (1983:303) added that:

these jars have all the characteristics of groove-ring wax seal jars, and no issued patent has been found that would apply to these jars. John Rau was issued a patent for a Stopper for Bottles or jars on December 6, 1898. The jar figured in the patent drawing had a flared mouth, and used a glass stopper held in place by a wire clamp.

⁶ No other source mentioned the "RAU'S" without "IMPROVED." Toulouse may have been following the intuitively likely progression, or someone may have sent him an erroneous report. As we have noted before, many collectors wrote to Toulouse in hand-written cursive, and he had no way to check the accuracy of these reports.

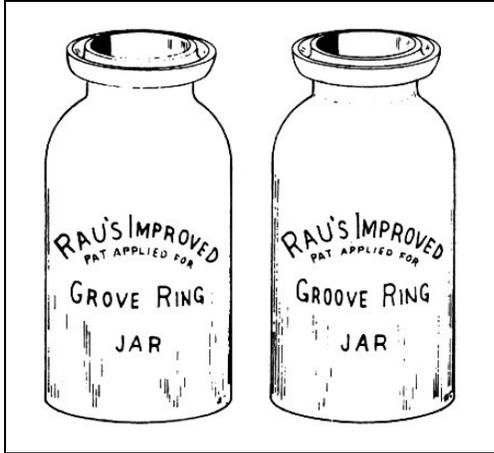


Figure 10 – Rau’s Grove Ring (Creswick 1987a:182)

Creswick (1987a:182) illustrated two variations of the RAU’S IMPROVED fruit jars. One had an engraver’s error stating it was a “GROVE RING / JAR” instead of a “GROOVE RING / JAR,” and she dated the jars ca. 1889 (Figure

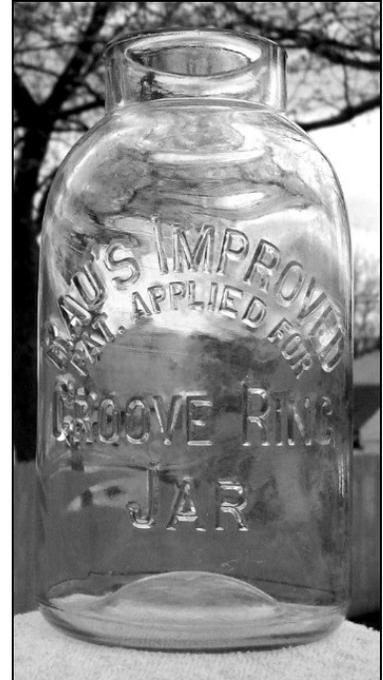


Figure 11 – Rau’s Improved (eBay)



Figure 12 – Unusual finish (eBay)

10). Although Rau was involved with the company from an early date, the 1898 attribution when he gained control of the company is probably correct. Leybourne (2001:325-326) noted a third minor variation.

An interesting example of the “GROOVED” variation auctioned on eBay had a simple finish that had been ground down and fire polished. The seller provided no explanation for the different finish (Figures 11 & 12). We do not know whether the original grooved-ring finish was cut off at a later time or if the jar was made this way at the factory. The base was embossed with a large “4” (Figure 13). North American Glass included a photo of a “Rau’s style” jar – with no side embossing (Figure 14).

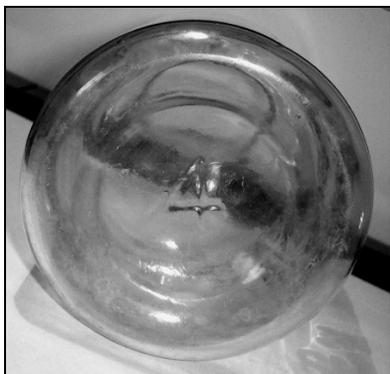


Figure 13 – Rau base (eBay)



Figure 14 – Rau-like jar (North American Glass)

FGCo and F.G.CO.

Toulouse (1971:200) assigned this mark to “the ‘company’” (i.e. the initial Fairmount Glass Co., Fairmount, Indiana) and dated it 1889 to 1898. At this point, we have found very few examples of this mark, one on a mouth-blown, amber beer bottle, one on a machine-made amber flask, and a few on milk bottles. See the section on FGCo for more information. It is fairly certain that none of these bottles were made by Fairmount Glass Works.

FGW (1908-early 1920s)

According to Toulouse (1971:201), both the FGW and FGW marks were used by “the ‘works’” (i.e. Fairmount Glass Works) from 1898 to 1930. Giarde (1980:40) followed Toulouse’s dates, although he had not been able to confirm the mark’s use on milk bottles (his book’s specialty area), although several amber “bowling pin” milk bottles have been reported on



Figure 15 – Flask base (eBay)



Figure 16 – Machine scar (Tucson Urban Renewal collection)

eBay with FGW embossed on the heel (however, we have seen no photos of the marks). Toulouse supplied our only date range for this mark, and that deserves a bit of discussion. John Rau gained complete control of the business in 1898, but the 1930 cutoff is not intuitively obvious.

A look at the bottles in our small sample should help establish a time frame. The logo appears on the bases of machine-made (and, possibly, mouth-blown) bottles and flasks (both colorless and amber – Figure 15 & 16) and on the heels or bases of larger ware (Figures 17, especially five-



Figure 17 – Heelmark (eBay)

gallon water bottles (see the Patents section above for more information about the larger sizes).

Only one example had any numbers associated with the logo – “FGW - 1610 / 155 / 1936” – on a five-gallon water bottle (Figure 18). These numbers were unlike any other Fairmount numbers we have found and may have been requested by the bottler. The “1610” or “155” may have been model numbers, and “1936” was very likely the year of manufacture. This would place the mark – in this example only – as an outlier that was used much later than the others.



Figure 18 – Complex basemark (eBay)

Machine manufacture began ca. 1908, providing a probable beginning date for this logo. The lack of numbers in association with the logo indicates that this was likely the earliest mark. Numbers become *much* more common with the succeeding logos. The use of the mark extended into at least the late teens, possibly into the 1920s.

FGW (ca. 1910-late 1920s)



Figure 19 – FGW – W inserted

As noted above, Toulouse (1971:201) dated both FGW logos from 1898 to 1930. Colcleaser (1966:17) showed a Lash’s Bittlers bottle embossed with FGW / 3. Lash’s was first sold by T.M. Lash & Co. in 1884 (Torbenson et al. 2000:58), and the company remained in business until 1943 (Fike 1987:37). Marks with the



Figure 20 – FGW – W outside (David Whitten)

large “G” often have half of the “W” inserted into the opening of the “G” (Figure 19), although some have most or all of the “W” outside (Figure 20). Examples of the mark with the large “G” that we have seen have generally had the mark inside a machine scar on the base of the bottle, and an occasional large bottle, such as a gallon jug made for Buffalo Mineral Springs Water, had the logo surrounded by an embossed circle (Figures 21 & 22).



Figure 21 – Buffalo Water base (eBay)

During this period, the firm developed a numbering system that continued throughout the succeeding marks, although a very few FGW logos had no numbers in association (see Figure 21). Initially, the plant added a single-digit number that was almost certainly a mold

number (see Figure 20), but it added a second number at some point that could have as many as three digits. We have only recorded a single FGW example with the second number (see Figure 19).



Figure 22 – Buffalo Water bottle (eBay)

The use of this logo probably began ca. 1910 – although that date is somewhat arbitrary. Since all of the bottles in our sample were machine made, the use of the large-G mark probably began slightly later than the FGW logo with same-sized letters, although there was certainly a large period of overlap. The firm probably phased out the logo in favor of the F mark during the late 1920s.

F (late teens-1964)

Toulouse (1971:201) attributed this mark to the 1930-1945 period when Fairmount Glass Works was operating. Giarde (1980:40) followed the Toulouse dates, although he had not been able to confirm the mark's use on milk bottles (his book's specialty area). The dating of this mark may be in question. Ayres et al. (1980:17) claimed that "if Toulouse is correct in stating that the F was used only by the Fairmount Glass Works and that it was used before the F in the hexagon, then the F must have been used no later than 1933." As will be discussed below, the F logo was certainly used by at least one other glass house, and it is virtually certain that there was a fairly long period of overlap between all Fairmount marks.

Scholes (1941:129) showed both the “F” alone and F-in-a-hexagon marks as being used in 1941. Berge (1980:83) illustrated the “F” mark alone in a 1964 chart from Owens-Illinois. Whitten (2015) dated the mark 1920-1933. The Bottle Research Group is in possession of a Fairmount Glass Works catalog (courtesy of the West Virginia Museum of American Glass) that shows a box with the block letter “F” printed prominently on the front. Although the catalog bears no printed date, our examination of the bottles therein caused us to suggest that it was published during the mid-1920s. This indicates that the “F” mark was very likely used by the 1920s. See the Discussion and Conclusion section for more on dating the catalog.



Figure 23 – Wide Mouth French Square (Fairmount catalog)



Figure 24 – F logo (Benjamin Pykles)

Colcleaser (1966:44) showed two of these bottles marked respectively with “1030 / 8 / F” and “1012 / 8 / F” on their bases. The bottles were both of the same style but were different sizes. At least one “fish” bottle was marked “233 / 4 / F.” The three- or four-digit numbers may be catalog or special order numbers, and the single-digit numeral in the center is probably a mold or pair code. An amber eBay bottle is similarly marked with “1 / 502 / F.”

Page 19 of the ca. mid-1920s catalog identified the bottle number as a one-ounce Wide Mouth Homeo French Square (Figure 23). None of the other numbers in our sample match codes in that catalog; however, the numbers in the catalog went up to 1021, so the possibility certainly exists that these are all catalog or model numbers used either before (and went out of style) or after the catalog was published.

Benjamin Pykles provided a photo and information on a bottle that may prove definitive. The bottle was small, amber in color, with a single-ring finish. Although there was no embossing on the sides, the base was embossed “F / 1585 / 1 ½” (Figures 24 & 25). The bottle



Figure 25 – F bottle (Benjamin Pykles)

appears similar to both the Wide-Mouth French Round and the Round Polish bottles in the 1920s catalog, although the “mould numbers” in the catalog are both different from the one on the bottle. Two things about the bottle are of interest. First, it was mouth blown. Second, it was found in a context at Iosepa, Utah, a town founded for Polynesian converts to the Latter Day Saints. The first colonists moved to the new community on August 28, 1889. By January 1917, the town was virtually abandoned, and the property was sold to a livestock company (Schirer 2014).

Pykles’ bottle creates a conundrum. Although not absolute, the context suggests that the “F” mark was used prior to 1917. Even though the Fairmount Glass Works very likely used machines by at least 1908, hand production continued until at least 1924. However, the model numbers in the ca. mid-1920s catalog only extended to 1021, but number on the base of this bottle was “1585.” The larger number suggests a manufacture in the 1930s. It is possible that the bottle was deposited after the Iosepa was abandoned. An initial use in the mid-1920s would create a more intuitive beginning date,

Colcleaser (1965:36) showed an unusual variation of the fish bottle mark. The oval base was embossed “1” with the bottom of the numeral facing the outside edge with 99 (or 66) also facing the edge and finally “F” facing the outside edge. The numbers are not positioned relative to each other.

Ring (1980:470) listed the letter “F” on the base of a “Ver=umth [Vermouth] Stomach Bitters Tonic and Appetizer” bottle, although she offered no additional information about either the container or the product. From 1916 to 1918, the National Association of Retail Druggists Journal (N.A.R.D.) listed Vermouth Stomach Bitters, Lobin Distilling Co., St. Louis, Missouri, as a medicine officially classified as liquor (e.g. N.A.R. D. 1918:584). This probably means that Vermouth Stomach Bitters were no longer available by Prohibition in 1920. Fike (1987:43) noted the mark on the same bottle as F in a circle, although he, too, added no other information. Until we actually see one of the bottles, however, we cannot further analyze the mark. This may have been the Owens “F” logo. See just below and the Discussion and Conclusions section for an analysis of this conflicting information.

The Owens F (ca. 1908-1919)

The Owens Bottle Co. used a small “F” (virtually identical to that used by Fairmount) on grape juice bottles (found on Royal Purple and Welch’s brands as well as generic bottles) and on catsup bottles to identify its Fairmont, West Virginia, plant. Each of these had the distinctive, feathered Owens scar around the small “F” on the base, and they were frequently a light amethyst in color (otherwise colorless). Owens retained the license for making catsup bottles beginning in 1906 (Scoville 1948:109) and for “vinegar, grape juice, and narrow-mouth food jars” in 1908 (Miller & McNichol 2002:7).



Figure 26 – Owens F

Thus, there is some confusion in identifying which company used the mark on which bottles, although the inclusion of numbers (see above) seems to identify Fairmount Glass Works, and the Owens scar defines the Owens bottles. Owens apparently stopped using the “F” mark in 1919, when the firm adopted the well-known Box-O logo (Figure 26).

The F mark was also used by the Owens-Illinois Glass Co. to note their Fairmont, West Virginia, plant on later hobble-skirt Coca-Cola bottles (Porter 1995:4). The mark appeared above the regular “Owens-Illinois I-in-an-oval-superimposed-on-an-elongated-diamond” logo or later “I-in-an-oval” mark on Coke bottles. Thus far, we have only found these on the IN U.S. PATENT OFFICE version of the hobble-skirt bottles beginning in 1951. Again, there is no conflict in identification; Fairmount Glass Works was never listed as a manufacturer of Coke bottles.

Size Does Matter

The comparative size of “F” marks needs to be addressed. The letters on bottle bases range from small to medium and larger sizes. Unfortunately, Toulouse did not address this aspect of the marks. The smallest sizes were certainly used by the Owens Bottle Co. Fairmont, West Virginia, plant (later the Owens-Illinois Fairmont factory) and the Fairmount Glass Works

(see discussion above). Ayres et al. (1980) showed the small “F” in the center of a bottle base⁷ both by itself and surrounded by a circle of 12 dots with the numeral 8 above them (Figure 27). All of the “Fs” were in the center of the bases. The authors (Ayres et al. 1980:16-17) attributed all the marks to the Fairmount Glass Works (Indiana, although that identification was incorrect. Jones (1965:[22]) also showed the mark but added no dates. She later (Jones 1966:16) suggested Fairmount Glass Works and stated, “Bet ‘F’ used until 1920’s the [F in hexagon].” We have never seen a solitary “F” on any part of a bottle except the base. Like the Ayres marks, the Jones examples were almost certainly the Owens-F logos described above.

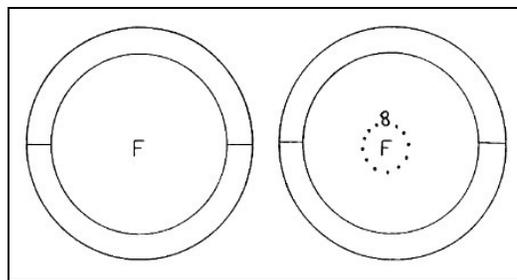


Figure 27 – Owens F (Ayres 1980)

Ayres and his associates (1980) also illustrated a medium-sized “F” offset to the lower right of an export-style, beer-bottle base (Figure 28). They attributed the mark to W. Frank & Sons and dated it to the ca. 1873-ca. 1875 period. Toulouse (1971:193) also suggested that this mark was used by Frank, although he did not present specific evidence in favor of the selection. We examined the Tucson Urban Renewal collection (the basis for the Ayers et al. study) for five days during March 2006. The offset “F” mark appeared on a single, amber, 26-ounce “quart,” export beer bottle with an applied, two-part finish. The lower part of the finish was wedge-shaped in profile view with a sharp edge, a style consistent with early export beer bottles. This tends to support the Ayres group’s contention, although a single “F” could indicate any manufacturer with a name beginning with that letter who made beer bottles between 1873 and ca. 1883. Also see section of William Frank and Son.

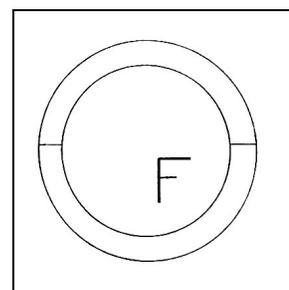


Figure 28 – Medium F (Ayres 1980)

We have observed a medium-sized “F” on a strap-sided flask and a colorless flask (tooled finish) marked 28 F (Figure 29). Suzanne Carter added a horse-medicine bottle marked on the

⁷ The Ayers researchers mis-identified the base as belonging to a colorless beer bottle, based on the shape and crown finish. When we observed and recorded the Tucson Urban Renewal collection at the Arizona State Museum in Tucson in early 2006, we discovered that the bottles marked with the small “F” were actually 16-ounce grape juice bottles with Owens scars.

base with 18 F, very similar to the flask. All these would fit into an 1890-1910 period. Whitten suggested that the medium-sized “F” mark may also belong to the Fairmount Glass Works, although the mark may have been used by any company that began with a letter “F.”



Figure 29 – 28 F (eBay)

The largest “F” is probably not a manufacturer’s mark. Many of the 26-ounce, export-style beer bottles have a variety of large letters embossed on the center of their bases. These are too numerous and too consistent in size to have been manufacturer’s marks. Based on published sources and our observation, the letters were embossed on the bases of 26-ounce export beer bottles with applied finishes. All of the complete bottles we have examined had two-part finishes with sharp lower rings, a style generally discontinued in favor of rounded lower rings by ca. 1883. These were probably made by the Mississippi Glass Co. See Lockhart et al (2012:43-45) or the section on the Mississippi Glass Co. for more information.

F in a hexagon (1933-ca. 1971)

According to Toulouse (1971:201), this mark appeared in two styles: one with points of the hexagon up and down and the other with pointed sections left and right. Toulouse (1971:201) dated both marks from 1945 to 1960. Creswick (1987b:155) noted the trademark (#311,765) as being registered on April 3, 1934, but first used on November 6, 1933. The year was confirmed by Ayres et al (1980:17) and Peterson (1968:49). Scholes (1941:129) noted the hexagon mark with points up and down as being used in 1941, and Berge (1980:83) showed the same variation in a 1964 chart, although these were probably in error. After looking at literally dozens of Hexagon-F marks, we have never seen one with the points up and down.

In a letter (probably written in 1963), a Mr. Chupp of Fairmount Glass Corp. stated, “Our company insignia is the letter F enclosed in a hexagon, such as shown at the top of this page” (Jones 1964:[19-20]). The variation shown was that with the flat sections up and down (points left and right). This indicates that the hexagon mark was still in use at least as late as 1963. Jones continued to show both the hexagon and F-alone variations in her later publications (Jones 1965:[22]).

The hexagonal mark is clearly visible on a photo of the heel of a non-returnable “Opener Bottle” made in 1964 (Rau 1964:62). It is probable that the mark was used until 1968 when the Glass Container Corp. purchased Fairmount. The hexagon mark was also still listed in 1971 (Hanlon 1971:6-17), either suggesting that Glass Container continued the logo for a few years or that Hanlon was slightly out of date. The mark was generally embossed on the bases of containers (Figure 30).



Figure 30 – Hexagon F logo (University of Wyoming collection)

Fruit Jars

Toulouse (1969:261) discussed a machine-made jar embossed “Reliable (cursive with “R” underlining “elia”) / HOME CANNING / MASON” on the side. The base was embossed with the Hexagon-F logo. He identified the Fairmount Glass Co. as making the jars ca. 1940-1950. Roller (1983:305) called the firm Fairmount Glass Works and dated it ca. early 1940s. Creswick (1987b:112) followed the Toulouse dates (Figure 31).

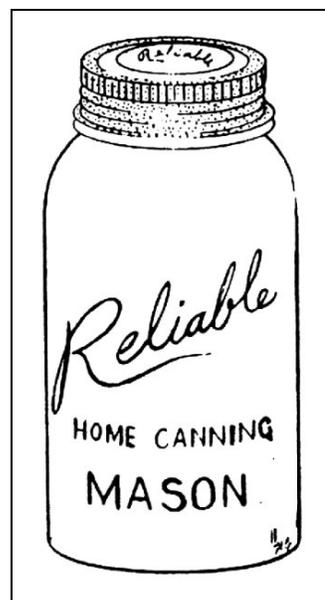


Figure 31 – Home Canning Mason (Creswick 1987b:112)

Caniff (2005:6-7) illustrated and discussed the Reliable HOME CANNING MASON jar. The glass lid was embossed Reliable (downwardly slanted script) / Hexagon F / MASON (inverted arch). The base was also marked with the Hexagon F logo. The quart- and pint-sized jars were advertised by the Fairmount Glass Works from 1943 to 1945. The Roller update (2011:447) added the Caniff dates.

Bitters Bottles and Liquor Flasks

Ring (1980:277) also listed a more complex mark (R-311 68F4) on a bottle with the FEDERAL LAW FORBIDS SALE OF RE-USE OF THIS BOTTLE warning. The “68,” however, was the glass factory number assigned to the Fairmount Glass Works under the 1934

law, with R-311 as the number for the rectifier.⁸ The bottle was made in 1934. The big question is whether this bottle actually had the Hexagon-F mark. Such details have often escaped notice. We have documented two similarly marked flasks. One, embossed “R-134 / 68 {Hexagon-F} 5” on the base, was filled by Hiram Walker & Sons. The “5” was a date code for 1935 (Figure 32).



Figure 32 – Hexagon F liquor base

The other, from the collection of bottles and flasks found on the surface at Fort Stanton, was embossed “D-23 / 68 {Hexagon-F} 6” on the base (1936). These suggest that the bottle listed by Ring actually contained the Hexagon-F mark.

FCG (1960-1968)

Toulouse (1971:201) dated this mark from “possibly 1960 to 1968” and attributed it to “the ‘corporation.’” At this point, we have never seen an example of this mark.

CAPITAL

Although we have yet to find an actual example, this mark was shown on the base of a graduated pharmaceutical bottle in the General Catalogue of Fairmount Glass Works, Inc. – ca. mid-1920s (Figure 33). The bottle was obviously the flagship design for Fairmount’s prescription ware. Fairmount may have acquired the brand name from the Swindell Bros. (see the Swindell file for more information).

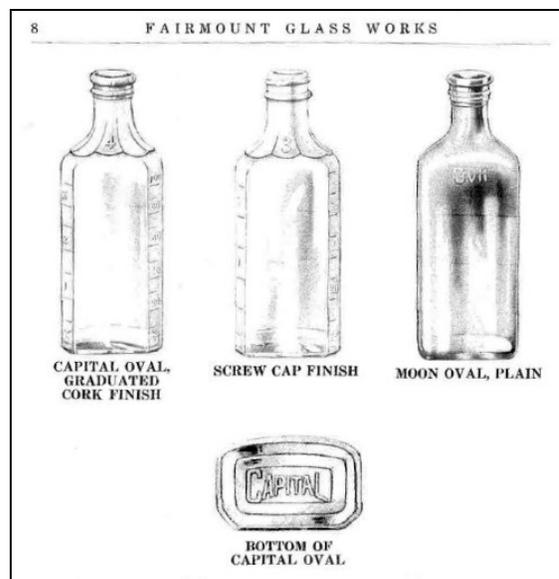


Figure 33 – Capital brand (Fairmount catalog)

⁸ The 1934 federal law established three codes for the liquor industry: D – distiller; R – rectifier; and I – importer. A rectifier was one who purchased whiskey in bulk, altered it in some way, re-bottled the drink, and sold it as his own brand.

Discussion and Conclusions

Several items need to be addressed in this section.

FGCo

The Toulouse ascription of the earliest Fairmount Glass Co. logo (FGCo – 1889-1898) is likely incorrect. Long-term searches for “G Co” marks on eBay and the internet have produced very few marked bottles (and one fruit jar with an FGCo monogram), only one of which could possibly have been made during the suggested period of time. And that one, a beer bottle with a crown finish would not likely have been made prior to 1898, although it is possible. For a major bottle producer to have so few marked products is unlikely. Thus, the FGCo mark was probably used by another company. See FGCo section for more discussion.

FGW

The FGW mark also requires discussion. Past researchers (notably Toulouse 1971) have combined the two FGW styles (one with a large “G”), and we have divided them, suggesting slightly different date ranges (1908-early 1920s for the mark with same-sized letters; ca. 1910-late 1920s for the large-G logo). There seems to be a significant overlap between the ranges of all of the marks used by the Fairmount Glass Works. Unfortunately, most of the dates we have set were arbitrary, based on best-guess reasoning. With the exception of some codes required by law on liquor containers beginning in 1934, Fairmount seems not to have used date codes.

The Conundrum of the F Mark

The “F” logo is most perplexing of the series, with contradictions at both ends of the range. Toulouse (1971:201) proposed an inception date of 1930 for the “F” mark – providing no support for his assertion. Benjamin Pykles provided a mouth-blown bottle with the “F” and two numbers from a context that suggests the bottle was deposited by 1917 – although the “1585” catalog number suggests a manufacture in the 1930s or later. The early Pykles date is somewhat supported by a bitters bottle described by Ring (1980:470). Our research of the bottle suggests that it was made during the ca. 1918-1920 period. An undated catalog illustrated a box with a

large “F” on the front, although no logos of any kind grace the rest of the catalog. We have suggested mid-1920s date for the catalog.

Sorting out this quagmire is nearly impossible. The Toulouse date could be based on solid information from the industry – or it could be his best guess. He used both methods at various points in his book but failed to explain *anything*. The catalog provides circumstantial evidence – at best. Ring’s data on marks is always suspicious. She seldom included format (arched, position on the bottle or base, etc.), occasionally left out circles or other surrounding features, and never included manufacturing characteristics. If her bottle had an Owens scar on the base, it was made by the Owens Bottle Co. in 1917 or 1918 – not by Fairmount at all.

The Pykles bottle is the most confounding of all. The bottle was mouth-blown, and Fairmount Glass continued that technique until at least 1924. Most of the glass industry completely eliminated hand manufacture about that time – with the exception of a few specialty areas like perfume, where machinery was less effective. It seems unlikely that the bottle was made later than the mid-1920s. Although the context at Pykles’ site suggested a deposition no later than 1917, it is *possible* that someone discarded the bottle slightly later, placing a potential deposition in the early 1920s. This leaves us with a value judgement based on a late teens to early 1920s range for an early date.

The late date is almost equally challenging. Although Ayres et al. (1980:17) claimed that “if Toulouse is correct in stating that the F was used only by the Fairmount Glass Works and that it was used before the F in the hexagon, then the F must have been used no later than 1933,” that reasoning is faulty. There was certainly *some* overlap; the question we need to answer is – how much? Industry sources placed the “F” logo in use by 1941 (Scholes 1941:129) and in simultaneous use with the Hexagon-F mark in 1964 (Owens-Illinois Glass Co. in Berge 1980:83) – although Toulouse (1971:201) dated the end at 1945. Even though Owens-Illinois still listed the logo in 1964 – three years after the Inland Container Corp. had purchased the firm – that seems a bit late. However, Inland apparently continued to operate the plant under the Fairmount name.

It is possible (maybe even probable) that Fairmount waited until after the Owens Bottle Co. discontinued the “F” mark in 1919 – to avoid any risk of antagonizing the newer but very

powerful firm. That ties in perfectly with our final date range for the “F” logo – early 1920s-ca. 1964. As with the earlier marks, there are distinctive overlaps on both ends – especially between the “F” logo and the Hexagon-F discussed next. Because of the distinctive Owens scar on *all* bottles with the Owens “F” mark, there is no risk of confusing the two logos.

Hexagon F

This is the most clearly dated of any logo used by the Fairmount Glass Works. The plant first used the mark on November 6, 1933, and continued until at least the 1960s. It was still noted on a logo list in 1971.

The Final Logic

We placed a significant emphasis on the presence or absence of numbers on the bottles – as well as manufacturing techniques – when creating our date ranges (shown in parentheses):

FGW – no numbers⁹; machine made – possibly mouth blown (1908-early 1920s)

FGW – no numbers or a single-digit below the logo; one example was embossed “23 / FGW / 5” – probably the introduction of catalog/model codes; all machine made (ca. 1910-late 1920s)

F – always with two sets of numbers, although the positions can vary (e.g., 1030 / 8 / F); numbers in our sample extend from 216 to 1585; mouth blown and machine made (early 1920s-ca. 1964)

Hexagon-F – always with two sets of numbers (e.g., 722 / Hexagon-F / 2); all machine made (1933-ca. 1971)

⁹ The only exception was a five-gallon water bottle embossed “FGW - 1610 / 155 / 1936” on the base. This pattern was different from any numbering sequence we have seen on a Fairmount bottle. It was likely an outlier made in 1936.

Dating the Catalog

Unfortunately, the General Catalogue of Fairmount Glass Works, Inc. was not dated; however, the Foreword contains a categorizing sentence: “Our ware is made by the most modern automatic method – automatic glass feeding devices in conjunction with the automatic machines.” Semiautomatic machines had been in use for small-mouth bottles since the late 1890s and had become fairly common by about 1912. However, “gob” feeders, fully automatic feeding machinery were not invented until 1913 and were not in actual use until ca. 1917. Such a statement would only have been important soon after the period of change – i.e., the late teens or early- to mid-1920s. By about 1925, the process would have been considered normal. The second defining technique was continuous-thread finishes on small-mouth bottles. Although threaded finishes on wide-mouth jars preceded the 1850s, and some mouth-blown liquor flasks and catsup bottles used them in the 1880s and 1890s, *very* few narrow-mouth bottles had continuous threads until the mid-1920s, and the process was not common until the late 1920s.

Sprinkler tops provide yet another defining attribute. Lindsey (2015) noted:

This distinctive variation of the small-mouth screw thread finish(#16) apparently originated in the early 1920s as indicated by the 1926 Illinois Glass Company (IGCo) catalog noting that this was a “...finish that has gained great favor among manufacturers of hair tonics and toilet waters during the **few years since its introduction**” (emphasis added). Sprinkler tops were not listed in the previous IGCo. catalog (1920) as they were apparently not available at that date, confirming an origin during the first half of the 1920s This finish style was also referred to as an “all glass sprinkler top” or simply as a “sprinkler.”

The combination of all these qualities suggests a mid-1920s publication date for the catalog.

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Appendix A

List of Rau Patents

1895

Nov 22, 1893 “Closure for Cans” Patent No. 532,990 January 22, 1895

1898

Applied Apr 14, 1898 “Stopper for Bottles or Jars” Patent No. 615,305 December 6, 1898

1913

Applied Jun 15, 1911 “Glass Blowing Machine” Patent No. 1,061,404 May 13, 1913

On January 26, 1913, Rau reapplied for another patent that he had originally filed on October 6, 1911, for a “Glass Blowing Machine” and received Patent No. 1,080,168 for this one on December 2, 1913.

Applied Oct 13, 1911 “Glass Blowing Machine” Patent No. 1,070,530 August 19, 1913

Applied October 23, 1911 “Machine for Making Hollow Glassware” Patent No. 1,066,654 July 8, 1913

Applied Feb 23, 1912 “Process of Making Hollow Glassware” Patent No. 1,061,405 May 13, 1913

1914

Applied Oct 6, 1911 “Dash Pot for Glass Blowing Machines” Patent No. 1,107,446 August 18, 1914

1915

Applied Feb 15, 1913 “Glass Tank Discharge Means” Patent No. 1,151,393 August 24, 1915
[feeder]

Applied Jan 30, 1914 “Glass Blank Pressing Mechanism” Patent No. 1,159,992 November 9, 1915

1916

Applied April 16, 1914 “Process of Charging Molds with Glass” Patent No. 1,205,018
November 14, 1916

1919

Applied September 28, 1916 “Process and Machine for Making Hollow Glassware” Patent No. 1,292,051 January 21, 1919

Applied Jan 12, 1917 “Valve Mechanism” Patent No. 1,325,331 December 16, 1919

1920

Applied Sep 10, 1918 “Glass Discharging Mechanism” Patent No. 1,329,851 February 3, 1920

1924

Applied May 8, 1922 “Glass Feeding Mechanism” Patent No. 1,491,067 April 22, 1924

1925

Applied Jun 7, 1924 “Electrically Heated Glass Flow Device” Patent No. 1,539,598 May 26, 1925

Applied Apr 24, 1925 “Process of Molding Bottles” Patent No. 1,554,464 September 22, 1925