

William Franzen & Son

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William Franzen & Son grew out of the early Milwaukee glass houses that began with Chase Valley Glass Co. (1880-1881), followed by the Wisconsin Glass Co. (1881-1886), then a pause for two years when the plant remained idle. The Cream City Glass Co. was next (1888-1893), followed by the two incarnations of Northern Glass.

The final firm in the series was William Franzen & Son. Although Franzen became the president of the Northern Glass Works in 1896, he did not incorporate in his own name (with his son) until 1900. Like their predecessors, the Franzens specialized in beer bottles, leading to the firm's closure in 1921.

History

William Franzen & Son, Milwaukee, Wisconsin (1898-1921)

Jones (1968:26) cited Dale Berge of the Tucson Museum as noting William Franzen as a bottle dealer (not a glassmaker) as early as 1890 (Figure 1). Franzen became president of the Northern Glass Works, Milwaukee, Wisconsin, on June 12, 1896, but a fire later that year caused the firm to become bankrupt. Franzen continued to operate the factory for the bank that took operation and apparently purchased the firm at some point, probably in 1897 (see the section on the Northern Glass Works and Northern Glass Co. for more information). On September 3, 1898, the *Milwaukee Journal Sentinel* published a notice by Franzen: "I have this day admitted my son, William R. Franzen, as a partner in my business, and the firm will hereafter be known as William Franzen & Son; also owning and operating Northern Glass Works. . . . Sept. 1, 1898."



Figure 1 – Franzen's used bottle location 1892 (Milwaukee Public Library)

The *Journal Sentinel* reported on August 18, 1899, that Franzen had made \$60,000 worth of improvements and had voluntarily given his employees a 10% raise – bringing the blowers to \$35 per week. Obviously, things were going well. The *Journal Sentinel* added on November 20 that the plant had only “been in operation but a couple of months since rebuilding after a fire of less than a year ago.” Fortunately, the damage was fully covered by insurance, and Franzen kept his workers employed rebuilding. Despite the loss, Franzen claimed the factory would be back in production in three weeks.

However, the good news was premature. The *Washburn Leader* (11/25/1899) reported that, on November 21, “the works of the Northern Glass company at Chase and Burrell Streets were destroyed by fire. The works covered an acre of ground and were valued at \$100,000. Fifty men were employed. The loss by the fire was \$75,000; insured for \$30,000. On December 2, the *Milwaukee Journal* commented that ““The work of repairing the plant of the Northern Glass company is being pushed rapidly.



Figure 2 – Franzen bottle workers 1900 (Milwaukee Public Museum)

Permits were issued yesterday for four structures aggregating \$15,700.” The loss, however, was too much. On April 30, Franzen announced in the *Journal* that he had “decided to organize a stock company capitalized at \$300,000 and to erect a duplicate plant.” He expected the new plant – and new firm – to be operational within three months.

On June 22, 1900, the firm was replaced by a new corporation “William Franzen & Son, Incorporated” with a capitalization of \$300,000. The purpose of the company was “manufacturing, buying and selling bottles and glassware and buying, selling and mortgaging real estate for that purpose” (Figure 2). William Franzen was president with his son, William R. Franzen, as secretary and treasurer. J. Koehler was the final director, although E.J. Dahinden was also an incorporator (Incorporation Records) (Figure 3). Toulouse (1971:537) stated, “It appears that Franzen

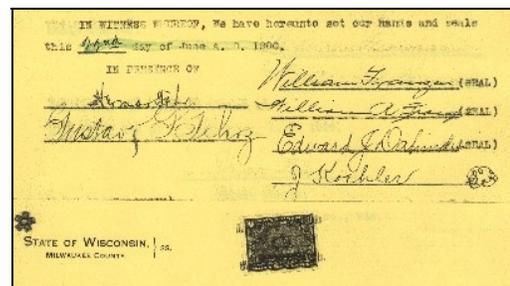


Figure 3 – Franzen signatures (Incorporation Records)

kept the name ‘Northern Glass Works’ as a factory name even after he stopped using it on bottles, according to ads in the *National Bottlers Gazette*.” A letter from Franzen, dated January 12, 1910 – with a Northern Glass Works logo in the center of the letterhead (Figure 4) – confirmed the Toulouse observation (United Bottle Machinery Co. 1910:8). At least as late as 1910, an ad for William Franzen and Son also contained the NORTHERN GLASS WORKS starburst logo (*Commoner and Glassworker* 1910:5).



Figure 4 – Northern Glass Works logo (1910 Letterhead)

By 1904, the plant made beer bottles exclusively at two continuous tanks with 16 rings. The factory was located at the corner of Chase and George Streets in Milwaukee (although the annual reports noted Lincoln Ave. in 1908 and 1909). Franzen made some notable improvements by 1907, adding a third tank for a total of 32 rings (Roller 1998). By 1909, Franzen used Johnny Bull semiautomatic machines (made in England) to make “beers, pickles, etc.”¹ A wide-mouth semiautomatic machine was also listed as making “Horlicks” in Milwaukee, almost certainly used by Franzen (Hayes 1909:1). Although most sources only noted Franzen as making beer (or beer and soda) bottles, this suggests that he may have made other types of bottles as well – at least prior to 1913.

The timing of the machine installation is interesting. On July 31, 1905, the *Milwaukee Sentinel* ran an article about the new Owens Automatic Bottle Machine and its potential negative effect on the careers of glass blowers. Although Franzen went East to investigate the possibilities, we know that the only license for beer and soda bottles was granted to the American Bottle Co. Although the *Sentinel* discussed labor unrest between 1905 and 1909, the paper made no comment about Franzen installing machines. As late as September 18, 1911, the *Bridgeton Evening News* commented that Franzen had started his “16-ring tank recently on hand-made beers and sodas.” It is likely, however, that Franzen obtained his first machines within a year.

At the 1911 annual meeting, the board elected E.J. Pearson as vice president. The senior Franzen either died or retired sometime between January 20, 1911, and the next meeting. By

¹ The British Ashley machine, the earliest semiautomatic bottle machine, was also called the United and the Johnny Bull.

February 2, 1912, O.E. Koehler was president, with E.J. Pearson as vice president, and W.R. Franzen remaining as secretary and treasurer. The Board of Directors held a special meeting on December 30, 1912, to elect J. Koehler as vice president. Since both Koehlers lived at the same address, “J.” was almost certainly the son or father of O.E. Someone apparently noticed a discrepancy in the bylaws. By 1913, Franzen was using United semiautomatic machines at three continuous tanks with 32 rings exclusively to make beer and mineral water bottles (*Journal of Industrial and Engineering Chemistry* 1913:954). On February 6, 1916, the *Sunday Telegram* reported that “Eight O’Neills and two United machines are being operated on three shifts at the plant of the Northern Glass Company.” At the October 3, 1916, meeting, the Board officially changed the bylaws to include the position of vice president (Incorporation Records).

The firm’s primary product was beer bottles. The *American Glass Review* (1934:173) cited Franzen as only making beer bottles in 1904. Toulouse (1971:537) reported that “the factory’s most important customers [were] the Milwaukee brewers” and that “Prohibition brought [Franzen’s] downfall.” Ayres et al. (1980:18) agreed that Milwaukee brewers were the company’s main customers, although the firm sold to other brewing companies as well.

The timing of the Franzen closure indicates that Toulouse was correct in his assessment of the reason for the end of the company. On December 24, 1921, the stockholders unanimously voted to dissolve the corporation (Kupferschmidt & Kupferschmidt 2003:28; Noyes 1962:7). On January 21, 1922, the Board of Directors resolved “that the company cease doing business and wind up and liquidate all its affairs, sell its assets and distribute the same among its stockholders as speedily as possible.” We have not discovered how long the liquidation process lasted, but the assets were probably sold off before the end of the year.

Toulouse (1971:537) related that the directories reported William Franzen & Son as “active under O.E. Koehler in 1923 and idle in 1926, never to reopen.” This was probably a late listing by the directories – a fairly frequent occurrence. In January of 1927, the Val Blatz Brewing Co. purchased the Franzen factory in hopes that Prohibition would end reasonably soon (Roller 1998).

Containers and Marks

Our sources for information on Franzen's "WF&S" logo are diverse – three collectors' studies, three archaeological reports, and Toulouse (1971), who always remains a category of his own. All of these sources include conflicting and sometimes improbable (even impossible) dates for the use of the mark and an incredible range of finish options for the period when Franzen was in business. The sources include:

Collectors:

Clint (1976:116) Colorado bottles

Jones (1968:26) – manufacturer's marks

Mobley (2004) Dictionary of Embossed Beers

Archaeological Reports:

Ayres and his associates (1980) [Tucson Urban Renewal (TUR) collection]

Lockhart (2009) Fort Stanton – 1860s-1896

Wilson (1981:124) Fort Union – 1863-1891 [but with settlers after the closing

Toulouse (1971:536) manufacturer's marks

Both forts (Fort Stanton – 1860s-1896; Fort Union – 1863-1891) closed too early for the "WF&S" bottles to have been made by Franzen. However, civilians used the premises for many years after the closings. Clint provided dates for the use of one of one Colorado bottle, and Mobley added approximate dates for the ones he illustrated.

Various aspects of the bottles and marks must be discussed separately and then pulled together in the Discussion and Conclusions section. These include manufacturing methods, finishes, and configurations.

Manufacturing Methods

This is the simplest of the three aspects, consisting only of hand methods (mouth blowing into a mold) and machine manufacture. Explaining these methods is beyond the scope of this

study, so we will confine ourselves to dates. During the early years of the Franzen operation, mouth blowing was the only methods available. The first report we have found for Franzen’s use of machines – the English Ashley machines – was 1909. Although those machines were available in England much earlier, they were rarely used in the U.S. prior to 1905. Therefore, hand methods were exclusive at the plant from 1898 to a period between 1905 and 1909. The 1913 report noted exclusive use of machines, so mouth blown bottles could have been made between 1898 and ca. 1912, with machine production from 1909 to 1921 – exclusive machine manufacture from ca. 1913 to the closing of the factory.

Finishes

Franzen apparently only offered four finishes on beer bottles: an abbreviated one-part finish, “blob” top, Baltimore loop, and crown. The abbreviated one-part finish was probably only used very early and infrequently (Figure 5). Blob tops were also probably used only on the early bottles. Baltimore loops may have continued into the early 1900s but were probably replaced by at least 1910. Crowns were becoming more popular by 1898 and had replaced almost all other contenders by 1914. Hutchinson bottles had their own finishes, but the style was being phased out by 1912 – although a few were made as late as 1929.



Figure 5 – Short finish (eBay)

The most common closures to fit these finishes were applied by hand. Although we have not made a study of beer filling and canning machinery, mechanized assembly lines were likely not in place until the teens. By 1900, very few breweries still used corks; most had adopted some form of swing stopper, either the Lightning stopper or the Hutter stopper. The Baltimore Loop required special tools both to insert the plug and to remove it, so these were never as popular as the swing stoppers. While the crown cap also required the use of a special capping device, it was a more reliable closure than the others, virtually leak free. The cap was easy to remove with such handy tools as a knife or a screw driver, and the various openers became handy platforms for advertising. Hutchinson stoppers also required special tools to install but were VERY difficult to clean. See Lindsey (2020) or von Mechow (2020) for more information on available closures.

To add even more confusion, Franzen’s beer bottles were made with three different techniques. Applied finishes comprised the oldest technique, and they were mostly phased out of the glass industry by the early 1890s – except in the production of beer bottles. Beer bottles alone continued to be made with applied finishes until the period between 1896 and 1900. We have found applied finishes for all of the types discussed above – abbreviated blobs, blob tops, Baltimore loops, and crowns. It is possible that Franzen allowed individual blowers to continue that process as late as 1910 or later. See the Discussion and Conclusions section for reasoning.

The next level was tooled finishes, and these were used for all four types of finishes also. Tooled finishes certainly continued until the exclusive use of machine production in 1913. Finally, all but the abbreviated blob finish were made by machine. Very few crown finishes were ever manufactured with applied finishes, so Franzen was one of the very few glass houses that produced applied, tooled, and machine crowns.

Configurations

Franzen only used one manufacturer’s mark – “WF&S” – although the logo had six different configurations discussed below:

1. WF&S (horizontal at center of base)
2. WF&S (arch) / {central design} / MIL (inverted arch) – base
3. WF&S (arch) / {letter or number} / MIL (inverted arch) – base
4. WF&S (arch) / {letter or number} / WIS (inverted arch) – base
5. WF&S MIL (horizontal at center of base) / {number} – base
6. WF&S {number} – heel

1. Horizontal on base – WF&S / {letter}

We have a photo of a single base embossed “WF&S” horizontally across the center of the base (Figure 6).

Unfortunately, we have lost the provenience for the photo, so we do not know the bottle type or finish. However, we know the bottle was round, and the glass appears to have been



Figure 6 – Variation 1

colorless – although it could possibly have been very light aqua. The base area had the same type of unusual post- and cup-bottom seams as Variation 2 below.

2. Arched on base – WF&S / MIL with central design (1898-1900)

Probably the earliest logo format had “WF&S” in an arch at the top of the base, a design in the center, and “MIL” in an inverted arch at the bottom. The central design consisted of a dot surrounded by four points or triangles set at the cardinal directions like a compass pattern – similar to the Northern Glass Works logo (Figure 7). In one example, the dot was reduced to an embossed circle. In our limited sample, we have only cataloged this logo on two bottle styles: a) Hutchinson bottles; and b) champagne-style bottles with a gently sloping shoulder that merged into the neck. The finishes on the champagne bottles ranged from an unusual, very short one-part finish with a flat top (see Figure 5) to a typical blob top to a crown finish – all tooled. This was probably the earliest variation, only used during the first couple of years, although the molds probably remained in use until they wore out. We have dated these 1898-ca. 1902, although in any individual case, a mold may have been used later.

All of these had very strange baseplates. Typically, mouth-blown bottles were made with either a post-bottom or cup-bottom mold (although there were exceptions). The post-bottom mold was the older of the two. In this format, the side seams extended down the sides of the bottle through the heel and onto the base where they connected with a circular seam – often with a sunken center – centered on the base. On the cup-bottom format, the side seams connected to a circular seam at the heel of the bottle (forming a cup). These Franzen bases with the “compass” design, however, had *both* the cup and post seams (see Figure 6).



Figure 7 – Variation 2 (eBay)

3. Arched on base – WF&S / MIL with number or letter (1898-ca. 1920)

Toulouse (1971:536) only reported the arched variation of the basemark, dating it 1900-1929 – although Toulouse mistakenly recorded the city designation as “WILW” – a variation we have not found in any other source or on any bottle (Figure 8). Based on the Clint drawings, the arched variation of the WF&S / MIL mark probably was concurrent with the “compass” designs – although it continued in use into the machine period. These marks could have either a single letter, a one- or two-digit number in the center, or no letter or number – in either mouth-blown or machine-made formats. Some of these had no accompanying letter or number. This configuration was by far the most common in our sample. Mouth-blown examples could have been made until ca. 1912, although machine manufacture began at least as early as 1909.



Figure 8 – Variation 3

This configuration also had the most oddities. Several of these, machine made and tooled finishes, had a central letter followed by a small sans serif 1, almost a subscript (Figure 9). Our sample contained K₁, O₁, P₁, and R₁. Unless these subscripts indicated a second run of the same letters, we have no explanation for this oddity.



Figure 9 – Subscript 1 (eBay)

A few had double stamps on the bases (Figure 10), although that was uncommon in our sample. These were formed when a blower tapped the gob of glass on the end of his blowpipe on the base of the mold to check for placement – catching part of the embossing – then lifted it again before blowing the actual bottle. We have dated this technique as early as 1886, although common usage did not begin until ca. 1895, and it was over by ca. 1914.



Figure 10 – Double stamp (eBay)

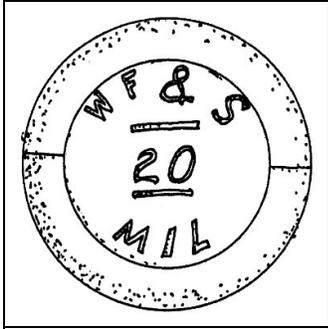


Figure 11– Bars (Miller & Wedell 1992:172)

A single example, illustrated by Ayres et al. (1980), showed an embossed bar above the central number “20” with a second bar below (Figure 11). This was almost certainly a mold maker’s “signature” or whim. A final oddity, on a mouth-blown bottle with a tooled finish, had a dot or mamelon in the center with the number “2” to its left



Figure 12 – Mamelon (eBay)

(Figure 12). The central post was much smaller than on most of the other bottles. Like Configuration No. 1 (above), this bottle had both a cup-bottom and a post-bottom mold.

4. Arched on base – WF&S / WIS with number or letter (1898-ca. 1912)

Since we have only seen a single example with “WIS” at the bottom (in the TUR collection, also illustrated in Ayres et al. 1980), the mark almost certainly was an engraver’s error. The container we examined was a “pint” export beer bottle with a tooled crown finish.

5. Horizontal on base – WF&S MIL with number (ca. 1913-1921)

Our sample contained only a few of these, all with crown finishes – although Mobley claimed that one example had a “molded” crown finish (Figure 13). The older date in our range (ca. 1913-1921) is there solely because of the Mobley example. Because these were otherwise only on machine-made bottles and were so few in number, we would otherwise have selected ca. 1915 (or even later) as a beginning date.



Figure 13 – Variation 5 (Fort Laramie)

6. Horizontal on heel – WF&S with number (ca. 1915-1921)

We have seen few of these – only on machine-made, crown-finished beer bottles (Figure 14). They may have only been made during the final few years of production, or the heelmark may only have been used for bottles with the brewer’s logo, name, or initials on the base.

Discussion and Conclusions

Peters (1996:9) noted the use of the WF&S mark during the Northern Glass Works (1896-1900) period based on bottles discussed in his book (1996:18, 41, 60, 72, 120, 170), but it is very clear from the primary sources that Franzen's sons were not involved until 1898, when they were included in the name. The discovery of the corporation records cleared up virtually all questions about history of the firm – except the actual date when Franzen adopted the British Ashley machines



Figure 14 – Variation 6

Dating the bottles and marks is confounded by an overabundance of variables. Production technique is the simplest factor. The plant made mouth-blown bottles exclusively from 1898 to ca. 1909, used both processes during the 1909-1912 period, and used machine manufacture from 1913 until the close of the business in 1921. Or, even simpler, the plant produced mouth-blown bottles from 1898 to ca. 1912 and machine-made ones from 1909-1921.

Finishes, however, tell us very little. Apparently, Franzen allowed his blowers to use any technique comfortable to the individual during the hand production period. These included the double stamp technique, tooled finishes, and the outmoded applied finishes. Any of those could have been used at any point between 1898 and ca. 1912.

A few of the six variations of manufacturer's marks help narrow the dating some, but even some of those have their problems, beginning with the first one.

1. This was the simplest logo – “WF&S” with the letter “T” below it. It lacked the “MIL” found on all but one other bottle. As noted in the William Frank & Sons section, Peters (1996:9, 184) attributed “WF&S” with no “MIL” to William Frank & Sons. Although the bottle that caused Peters to make this claim probably *was* made by William Frank & Sons, the photo we have included above was almost certainly produced by William Franzen & Son. It appears to be a beer bottle base, and the combination of post- and cup-bottom seams are identical with Variation No. 2 discussed below. Our only example of this logo was almost certainly made during the first couple of years of William Franzen & Son – 1898-1900.

2. Next came the most complex logo – “WF&S” in an arch with “MIL” in an inverted arch and a design resembling the cardinal directions of a compass in the center. Also probably made during the 1898-1900 period, the molds used for these bottles made little sense. Two side seams extended from the neck to a circular baseplate on the base, passing through another circular seam around the heel. Where most molds during that period used two side parts with one base piece, these had to have had two more parts, one for each heel half. We cannot figure out why two extra moving parts (opening and closing) would be advantageous – and, apparently, neither could Franzen, since he moved to the simpler two-piece mold and baseplate design, probably only using the five-part molds until they wore out.

An alternative explanation for the post/cup-bottom may be that the line around the heel may have been embossed rather than a mold seam. An examination of bottles from the 1880s in the Bill Lindsey collection showed that the line appeared to be embossed and that it was fairly common during that period. A transitional mark “WF&S / MIL” with a mamelon in the center and a “2” to the left was made in a mold with the same post/cup-bottom, probably about 1900.

3. Variation 3 was by far the most common configuration – “WF&S (arch) / {letter or number} / MIL (inverted arch).” These were mouth blown and machine made, probably during the full period when the plant was open, possibly only beginning ca. 1900.

4. This variation only differed from No. 3 with “WIS” replacing “MIL” – almost certainly a single engraver’s error sometime between 1900 and ca. 1912.

5. These were not common in our sample – “WF&S MIL” horizontally across the base with a number below. Although we have hedged our bets in the text above, these were likely only made during the last five years or so – ca. 1916-1921 – maybe even a shorter period.

6. “WF&S” heelmarks followed by a number were scarce in our sample, again probably only used during the last few years of operation – although they could have been made for bottles with the brewer’s name, initials, or logo on the bases.

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