The San Francisco Glass Companies

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Carlton Newman was the prime mover behind two glass houses located in San Francisco. The first of these was the San Francisco Glass Works opened by Newman and his partner, Patrick T. Brannon, in 1866. This factory continued to operate until 1875, when Newman, now sole owner, purchased the rival Pacific Glass Works (1863-1875). The business remained profitable until 1898, when the Abramson-Heunisch Glass Co. purchased 40% of the firm, buying the remaining shares the following year. A major chapter of California glass making had become history – but a new one was just opening.

Histories

San Francisco Glass Works (1865-1875)

Born in Wheeling, West Virginia, Carlton Newman learned the glass-blowing trade in the East and then moved to San Francisco in 1863. He soon began working for the Pacific Glass Works, becoming the superintendent the following year. The partnership of Newman & Brannan (Carlton Newman and Patrick T. Brannan) opened the San Francisco Glass Works and began blowing prescription bottles and lamp chimneys at a five-pot



Figure 1 - Abramson=Heunisch card (icollector)

furnace on May 22, 1865.¹ The firm planned to manufacture other druggists' and chemists' goods as well (Friederick [2011]:83-84). A trade card for the Adamson=Heunisch Glass Co. (equal sign is used on the card) noted that the firm was "Established 1863" – but that, in reality, was the year when Newman arrived at San Francisco (Figure 1).

¹ Although Hinson & Kerr (1995) claimed that Newman's partner's name was Brennan, the *San Francisco Mining and Scientific Press* (8/8/1865), as well as later newspapers, reported the name as Brannon. We have found no primary source that included the term "Flint" in the name of the plant.

Although the *San Francisco Mining and Scientific Press* noted the location of the plant at the corner of Third and Townsend Streets on July 8, 1865, the *San Francisco Daily Examiner* (July 22) and the *San Francisco Evening Bulletin* (July 25) both noted the address as the corner of Rich and Townsend Streets – the other end of the block. This was the first establishment on the West Coast to



Figure 2 – Ad from Hostetter, Smith & Dean (*Sacramento Daily Union* 3/3/1866)

attempt (successfully) to manufacture flint (colorless) glass (Friederick [2011]:84-86).

Hostetter, Smith & Dean actually owned the building, and that firm was the original sales agent during the first two years of operation (Figure 2). The exact relationship between Newman & Brannan and Hostetter, Smith & Dean is unclear, but the both firms were clearly active in the operation of the plant (Freiderich [2011]:96-97; *Pacific* 7/30/1868; *San Diego Union* 3/3/1866).

The *San Francisco Alta California* (Friederick [2011]:88) reported on March 19, 1866: "the proprietors" of the old factory had built a new one beside the old plant "on the Portrero Nuevo" on "the same street, between Third and Fourth streets." The new factory was still called the San Francisco Glass Works, and only Newman & Brannon were mentioned after the rebuilding (Figure 3).

Newman & Brannan's new plant, built in 1866, was called the San Francisco Glass Works because the partners added "green and black glass" to the "white"



Figure 3 – Ad from Newman & Brannan (*Sacramento Daily Union* 4/10/1867)

(flint or colorless) glass – at an eight-pot furnace. At least as late as September 19, 1867, the firm was still known as Newman & Brannan, but a July 1, 1868, ad only noted the proprietor as C. Newman – now making black and green glass along with flint. John Winter was taking orders at 208 Battery St. (Friederich [2011]:88-95). Neither Friederich nor any other source we have found addressed this managerial change.

Shortly after the name change, Carlton Newman received Patent No. 64,558 – on May 7, 1867 for an "Improvement for Melting Glass." Newman described the purpose for his invention (Figure 4):

The nature of my invention is to provide a pot for melting glass, which combines the qualities of a covered pot for making superior glass with those of an open pot for making the inferior qualities quickly. This pot is more especially intended to be used in a flint-glass furnace, where covered pots are employed. One or more covered pots, and one or more of my open pots, can be used at the same time in the furnace without interfering with each other; the object being to make the common qualities of glass, such as green, black, and German flint, much quicker than it can be done in the covered pots where the heat penetrates through the pot, and to make a fine quality of glass in the covered pot. For this purpose I construct a pot like the ordinary covered pot, with an opening in front. In the top of this pot, or at some point above the metal mark or surface of the glass, I make one or more openings to allow the flame and heat of the furnace to enter the pot. One or more lines are formed, of any desirable shape, but opening into the pot above the metal mark, and connecting with the stack to make a draught and carry off the products of the combustion. In order to furnish oxygen for a more perfect combustion and greater heat within the pot, I construct two flues extending from the front of the furnace to the opening which admits the heat to the pot. These flues conduct air from the outside, which becomes heated in passing through them, and enters the pot with the flame of the furnace.

When he withdrew from the firm, Brannan made a good decision. On the morning of July 23, 1868, the wooden building caught fire and burned to the ground. Although Newman had \$2,500 worth of insurance on the tools and stock, the building belonged to Hostetter, Smith & Dean, who also had insurance. The total loss, however, was estimated as almost twice as much as the combined insurance. The disaster was more than Newman could handle, and he voluntarily declared bankruptcy on August 3, 1868 – although the final discharge of all of his debt was not published until February 24, 1869 (Friederich [2011]:96-101).

The *Alta California* reported on November 25, 1869, that Newman was rebuilding the glass works "near the end of the second long bridge, in South San Francisco, corner of Sixth



Figure 4 – Newman 1867 patent

avenue and R street." With a new partner, Charles Duval, the firm of Newman & Duval opened the new factory on King St., near Fourth St., on September 23, 1870. The plant began at a five-pot furnace with 60 different molds, all manufactured at Pittsburgh. The company now made wine, whiskey, and soda bottles along with carboys and demijohns, prescription and druggists' ware, and jars for pickles and preserves. (Friederich [2011]:102-106; Toulouse 1971:468-471).

Newman's old partner, Patrick Brannan, sued the new firm in 1871 and was awarded \$115.69 on November 29. The plant began gearing up for fruit jar production in December 1871 and advertised them the following February. During its existence, the firm won various medals for its products – suggesting that the works turned out high quality ware. Although the *Sacramento Daily Union* still listed Duval as a partner on September 28, 1872, only Newman appeared in the December 8, 1872, issue of the *San Francisco Daily Alta California* (Friederich [2011]:111-112).

On July 3, 1875, the *Evening Bulletin* discussed the "Gem" and "Groove Ring" fruit jars made at the plant and noted that a demijohn was "packed with tule between the glass and outside covering, and so completely protected that it may be thrown over a house without danger of breaking." In 1875, Newman bought the Pacific Glass Works and renamed the combined business the San Francisco & Pacific Glass Works (Creswick 1987:289; Friederich [2011]:116-117, 120; Toulouse 1971:468-471).

Hinson & Kerr (1995) added that Newman had Patrick T. Brennan (possibly Brennen) as a partner in this firm. They noted that the plant "produced both Mason, Hero Improved, Porcelain Lines, and Gem jars as well as a reportedly large quantity of groove-ring wax sealers from Robert Arthur's patent." They wondered why we do not see more San Francisco wax sealers.

Another mystery revolves around Newman's displays at the State Fair in 1867. One display consisted of his bottles, the other of Newman's "patent self-sealing fruit jars."² Unfortunately, there was no explanation as to what specific type of fruit jars made up the display

² This was apparently intended in somewhat of a generic sense. Newman did not patent any fruit jars. The term "patent" probably indicated the Hero jars – patented by the Hero Glass Co.

(Hinson & Kerr 1995). Friederich ([2011]:94) did not mention this jar – and, indeed, did not discuss jars made by Newman until 1875.

Containers and Marks

According to Roller (1998), an undated photograph of the plant showed "Gem, Hero Improved, & Porcelain Lined jar posters. Also shows various kinds & sizes of fruit jars, butter jars, several styles of demijohns, target balls, bottles of many styles." It is quite clear that virtually none of the bottles – and few of the jars from the San Francisco Glass Works were ever marked with a name or logo.

SFFGW (1865-1866)

Toulouse (1971:468) noted that "the 'SFFGW' trademark has been claimed, but we have not found a documented verification." If the mark had been used, it would be dated 1865-1866, the tenure of the San Francisco Flint Glass Co. We, too, have found no evidence for such a logo, and the use of "Flint" in the name is not supported by any primary source.

SAN.FRANCISCO / GLASS WORKS (1866-1876)

Toulouse (1969:274) noted that "SAN FRANCISCO / GLASS WORKS" was embossed on the side of a grooved-ring wax-sealer fruit jar (Figures 5 & 6). Note, however, that there is a period between "SAN" and "FRANCISCO" on the actual jars. He also noted that the San Francisco & Pacific Glass Works continued to make the jars previously produced by the two earlier companies. Roller (1983:318) illustrated an 1879 ad for the jars that showed an arched label. He noted that "some of these jars have been





Figure 6 – San Francisco finish & lid (North American Glass)

reported with ghosted letters arched above SAN FRANCISCO." The Roller update (2011:463) cited

Figure 5 – San Francisco jar (North American Glass)

Jerry McCann as stating that "all known examples are made in reworked 'CUTTING AND CO.' molds." See the Baker & Cutting section for more on the various Cutting firms. Creswick (1987:189) illustrated the jar and noted a variation with the same words in a ghosted arch above the horizontal wording (Figure 7). According to Roller (1998), the factory turned out grooved-ring wax sealers in "immense quantities." It is interesting that an arched label appeared in an ad, but actual jars were apparently only made with horizontal lettering. These jars should be dated to the full duration of the company – 1866-1876.

SFGW



Figure 7 – San Francisco jar (Creswick 1987:189)

Toulouse (1971:470) attributed this mark to the San Francisco Glass Works (1869-1876) as well as the Streator Flint Glass Works

(1890-1893). He noted, however, that the marks were easy to distinguish because the Streator plant specialized in colorless glass; whereas, the San Francisco factory manufactured only amber bottles. We have been unable to find a single example of this mark.

San Francisco & Pacific Glass Works (1875-1902)

The San Francisco & Pacific Glass Works came into existence when Carlton Newman & Co. purchased the good will, stock, and fixtures of the Pacific Glass Works in August 1875 (Figure 8). Each plant operated a single furnace with six pots. We have been unable to determine who made up the "& Co." of C. Newman & Co., but Perry (2010) claimed that "Newman, Davis, Palmer" founded the San Francisco and Pacific Glass Co. in 1861 at the corner of 7th & Townsend. Although the date was incorrect by



Figure 8 – SF&PGW plant (Friederich [2011]:131)

more than a decade, Davis and Palmer may have been the other members of the company.

The *Evening Bulletin* noted on September 13, 1875, that Newman had "recently patented" an "elastic demijohn" that the newspaper crowed was "something new . . . an elastic exterior cushion is secured by placing the tule between the wicker work and the glass" (Freiderich

[2011]:120-121].³ Newman applied for this patent on June 17, 1874, and received Patent No. 159,038 on January 26, 1875, for an "Improvement in Demijohns" (Figure 9). Newman described his invention:

My improvement in demijohns consists in placing a layer of straw, rushes, cotton, paper, or other elastic yielding material around the bottle before weaving it around with wicker or basket work, so that a soft protecting cushion will be interposed between the basketwork or outside willow wrapping and the bottle, thus providing a permanent packing, which will protect the bottle from injury.

Newman followed up with a second idea, applying for a second patent on May 11, 1875, and receiving Patent No. 167,409 on September 7 of that year for an "Improvement in Process of Treating Rattan" (Figure 10). This one consisted of flattening the rattan strips, so that they would cover a greater area when woven around the outside of the demijohn, thereby using less material.



Figure 10 – Newman second 1875 patent

The firm was incorporated as the San Francisco & Pacific Glass Works on June 9, 1876, with John P. Jackson, Hermann Levison, Isaac E. Davis, Maruice Dore, and Carlton Newman as trustees. Newman was

the plant manager for his former factory, while Davis supervised the former Pacific plant. The factory made a large variety of bottles and fruit jars. Newman applied for his final patent on April 13, 1877, this time for an "Improvement in Demijohn Cases" and received Patent No. 192,182 on June 19, 1877 (Figure 11). The object of his invention was



Figure 9 - Newman 1875 patent

³ The *Evening Bulletin* had mentioned this product earlier – on July 3, 1875, but did not note the patent at that time.

to construct the cases or boxes of a uniform size from bottom to top, and to leave their tops perfectly flat and unobstructed, and at the same time provide means by which the contents of the bottle or demijohn can be poured out without removing the bottle or demijohn.

Although a warehouse burned on September 25, 1877, Newman advertised two days later that the firm was still able to meet all its commitments (*San Francisco Bulletin* 9/26/1877). By 1881, the firm's capital was \$100,000, and Newman – not surprisingly – was the president. On June 21, 1881, the King St. plant began production at its new furnace, at 14 tons, twice the size of its old one (Freiderich [2011]:121-123, 128; Roller 1998). According to Toulouse (1968:36-39; 1971:471471) the firm dismantled the older Pacific Glass Works factory soon after the merger and maintained production at the King St. plant. Indeed, no ads or articles featured in Freiderich ([2011]) again mentioned the older factory.



Figure 11 – Newman 1877 patent

Newman bought the California Glass Works in 1883⁴ to eliminate the competition and purchased land at the corner of 7th and Townsend streets in San Francisco to erect a factory for the production of flint glass that same year – including an eight-pot, gas-fired Siemens-Martin furnace that made "all kinds of flint glassware, lamps, lamp chimneys, tableware, prescription glass, chemical glasses, electric light globes, [and] crackle ware." Newman rebuilt the factory at Seventh and Townsend in 1884 (Freiderich [2011]:130-133; Hinson & Kerr 1995; Roller 1998).

The San Francisco & Pacific Glass Works had been producing and selling Mason jars, Hero Improved jars and Gem jars under a license from Salmon Rowley's Hero Glass Works (see the Hero section for more information). The San Francisco plant shut down for much of the year in 1885 and began making "other jars" when it resumed production in 1886 at the 7th &

⁴ On August 16, 1881, William D. Loos, Alonzo T. Ayers, B.C. Graffam, Frank W. Gough, and John L. Kelly formed a partnership called the California Cooperative Glass Works with a capital of \$7,000. The plant was operating by November 15 at the corner of Utah and Alameda Streets (San Francisco). The plant was only two years old, when Newman bought it.

Townsend plant while scrapping the older factories. Understandably, Rowley took offense. Hero shipped a large quantity of jars to San Francisco via the ocean and sold them at prices lower than Newman's production costs (Hinson & Kerr 1995).

An 1889 article noted that the flint glass factory, "which has not been on operation for years, is being torn down, and the green furnace, it is said, will be enlarged." The new green glass plant was made later in the year (Roller 1998).

When Newman died on March 7, 1889, his son, George, ran the operation (Freiderich [2011]:135-136; Roller 1998; Toulouse 1968:36-39; 1971:472). The younger Newman replaced the 6-pot furnace with an 8-pot furnace in 1891. Due to an easing of import restrictions – which resulted in greatly diminished sales – Newman closed the plant about the beginning of 1896, but he installed two continuous tanks in 1896 to make green and amber bottles as soon as he received word that McKinley would be elected. Indeed, the new administration reinstated the restrictions, and business returned to normal. In 1897, the plant used two continuous tanks with 14 rings and two day tanks with 12 rings to make its products (Freiderich [2011]:135; Roller 1998).

The Abramson-Heunisch Glass Co. purchased a 2/5 interest in the company in 1898 and acquired the remaining shares the following year. The plant was listed as having two continuous tanks with 14 rings, one day tank with 16 rings, and one furnace with 10 pots. The name was listed as the Abramson-Heunisch Glass Co. by 1900 (Freiderich [2011]:136; Roller 1998). The *San Francisco Call Bulletin* reported that James H. Davis was president of the firm by February 2, when he was so badly battered by worker he had chided that he was confined to his bed for recovery.

By 1900, the plant was listed as using 54 "pots" (almost certainly a mixture of pots and rings) and it remained at that number until at least 1902 (*National Glass Budget* 1900:11; 1901:11; 1902:11). The plant became the main factory of the Illinois-Pacific Glass Co. in 1902 (Toulouse 1971:472). For more information on this period, see the section on the Illinois-Pacific Glass Co. Although renamed in 1902, the company was still listed in the Thomas Register (Thomas Publishing Co. 1905:103) in 1905 as making prescription and druggists ware.

On Thanksgiving Day, November 29, 1900, a large number of men broke through the fence of the San Francisco and Pacific Glass Works, piled up debris, and climbed to the roof to

watch the football game between Stanford and the University of California next door. Only one furnace was running that day, when the roof collapsed, and 15 people died. Some died instantly, but others were roasted to death atop the furnace. A total of 83 more were injured. Clarence Jeter pulled eight people off of the retorts with the "long iron pokers used in testing the glass. Newspapers at the time claimed it was the deadliest accident to take place at a sporting event (Finch 2013:33-34).

Containers and Marks

Roller (1983:318) illustrated an ad showing that at least one variation of GEM fruit jars that were made by the San Francisco & Pacific Glass Works. Creswick (1987:66, 189), noted that the San Francisco Glass Works and the San Francisco & Pacific Glass Works were *two* of the companies that made the GEM fruit jars. Toulouse (1971:471) noted that the San Francisco & Pacific Glass Works had made Mason jars under the Hero license.

The GEM appeared in numerous variations (e.g., see Creswick 19878:66-68; Toulouse 1969:123-129), usually with patents and/or logos that identified the jars as being made by the Hero Glass Works (e.g., see Toulouse 1969:123-124). At some point, probably shortly after the company began manufacture, the San Francisco & Pacific Glass Works obtained a license from Hero to make the jars on the West Coast.

In late 1885 or early 1886. the San Francisco & Pacific Glass Works ceased manufacturing fruit jars under the Hero license, although the plant began (or continued) selling other types of fruit jars. Hero and the San Francisco & Pacific Glass Works engaged in a price war, with Hero as the ultimate victor (Brothers cited in Roller 1998).

The San Francisco Grocer (cited in Roller 1998) explained:

Heretofore the glass fruit jar trade of the coast has been in the hands of the San Francisco & Pacific Glass Works who, owing to the heavy freight and the loss in breakage, have had but little eastern competition. They have been making and supplying the jobbers here with Gem & Mason jars at prices that have given satisfaction to both the jobber and retail merchant, until this year [1886]. San Francisco & Pacific Glass Works did not call upon the Hero Fruit Jar Co. for the trimmings or necessary patents to get up their jars, but bought them elsewhere. Hero, which is one of the strongest in the east, decided to jump on the necks of the Californians. The Hero company shipped by sea into this port 8,000 cases of Mason & Gem jars at such low prices as to make fruit jars this year sell cheaper than ever. Last year these jars were selling at \$13.50, \$15 & \$18.50 a case. This year the same jars are selling at \$9, \$9.75 & \$13.25 net cash.

SAN.FRANCISCO / GLASS WORKS (late 1870s)

Freiderich ([2011]:125) reproduced an ad for the San Francisco and Pacific Glass Works that included demijohns, demijohn boxes, Porcelain Lined Mason jars, and grooved-ring wax sealers (Figure 12). The illustrated wax sealer was embossed "SAN FRANCISCO (slight arch) / GLASS WORKS (horizontal)" on the side. The Fresno Republican (5/31/2879) also used the same illustration. Although no jars have been found with the arched "SAN FRANCISCO," the ads apparently appeared in San Francisco directories from 1876 to 1879, and these suggest that the last firm continued to use the older molds (see the section on the San Francisco Glass Works above for more about the mark).

S.F.&P.G.W. (1876-1902)

Toulouse (1971:471) dated the S.F.&P.G.W. mark as being used for the entire duration of the company (1876-1902), including the Abrason-Heunish years (Figure 13). Although Colcleaser (1965:49) showed this mark as having a "C" instead of a "G," it is certainly the mark of the San Francisco & Pacific Glass Works. The mark was embossed across the center of the base of an amber soft drink bottle with a one-part "blob" finish. Kroll (1972:57) showed that a beer bottle with the mark was used as far away as Wisconsin! The Phillips Best Brewing Co. (1860-1889) used a bottle marked S.F. & P.G.W.



Figure 12 – 1870s ad (Friederich [2011]:125)



Figure 13 – S.F.&P.G.W.

Eight-pointed "star" (1876-1902)

Numerous Western bottle collectors attribute the eight-pointed "star" to the San Francisco & Pacific Glass Works, although the only citation is Lindsey (2018). This specific "star" (or asterisk) is seen on numerous Western embossed liquor bottles and flasks (Figure 14). Although we have not discovered identical markings on Eastern bottles, at least one bottle offered on eBay had a very similar six-point star embossed on its base.



Figure 14 - San Francisco "star"

Zumwalt (1980:454) illustrated two pickle bottles with the star embossed on the shoulder, which she attributed to the Pacific Glass Works. These jars were found in the West and had the blueish aqua color that Western collectors also attributed to the San Francisco & Pacific Glass Works and its predecessors. The color apparently derived from the particular impurities in the sand used by the plants (apparently shipped in from nearby Monterey). The "star" on the pickle bottles is slightly different from the "star" basemarks (although some pickle bottles have the basemarks instead).

The local color may be supported by an article in the September 11, 1884, *Pottery & Glassware Reporter* (paraphrased in Roller 1998):

The process of mfg. flint glass differs very materially from that employed in the mfr. of green glass, and CA has no sand of sufficient purity for mfg. flint glass. The sand, of which 4 tons will be used daily, is imported from Belgium. Monterey sand is only used for green glassware.

This makes it clear at the very least that local sand contained impurities.

The Curved R (1870-1885)

Lindsey (2018b) discussed a distinctive "R" embossed on a number of Western bottles made during the 1870-1885 period. The lower "leg" of the "R" was curved to the right and had a

blunt or squared end (Figure 15). The bottles from the 1876-1885 period were almost certainly manufactured by the San Francisco & Pacific Glass Works, but the earlier bottles and jars could have been made by either of the parent firms (San Francisco Glass Works or Pacific Glass Works).

Lindsey's hypothesis was that a single engraver – whom we will call "Gus" – working for the glass works was responsible for all the "R" bottles. The *San Francisco Evening Bulletin* provided a long description of the functions of the San Francisco Glass Works on August 24, 1870, noting that the factory had



Figure 15 - Curved R

sixty different moulds for bottles, and are importing from Pittsburg fifteen more. They are erecting a machine shop where, customers can have their own moulds made of any desirable shape. They can obtain from Pittsburg moulds for from \$10 to \$20 each, which would formerly have cost \$100 here (Freiderich [2011]:104-105).⁵

In a letter to Charles Yockel, one of the prime 19th century mold makers – written by George Palmer, secretary of the San Francisco & Pacific Glass Works on stationery from the Bingham House, a Philadelphia hotel, on March 12, 1896 – Palmer wanted to set up a meeting with Yockel "as we are contemplating purchasing quite a number of molds" (Winterthur Library). This suggests that the glass house purchased its molds from outside sources.

It seems obvious, however, from the 1870 article, that Newman at least intended to have an in-house engraver to have the name of a local customer embossed on an existing mold or one that needed to be altered. While none of the later newspaper articles mentioned a mold department, there were almost certainly local venues available. This supports the idea that Gus was a local San Francisco engraver.

⁵ Although Pittsburgh was officially spelled with the final "h" in its name during this peirod, the alternative spelling – Pittsburg – was common.

Lindsey (2018) provided an example that pretty well establishes the use of Gus by the earlier San Francisco Glass Works as well. As noted above, grooved-ring, wax-sealer fruit jars were embossed "SAN.FRANCISCO / GLASS WORKS" on one side. These were made from earlier molds – almost certainly made by the Pacific Glass Works – embossed "CUTTING & CO. (arch) / SAN.FRANCISCO (horizontal)." Note the period between "SAN" and



Figure 16 – Cutting jar series (Lindsey 2018; North American Glass)

"FRANCISCO" on *both* jars. On the later jar, "CUTTING & CO." had been obviously peened out, leaving a distinct scar (Figure 16).

There is a very telling difference between the older "R" in "FRANCISCO" (left from the Cutting & Co. jar) and the newer "R" in "WORKS" on the more recent incarnation. The older "R" had a very typical right "leg" – while the "leg" on the newer one was clearly the curved "R." This establishes that Gus was the engraver who altered the molds when the San Francisco Glass Works began making grooved-ring wax-sealers.

Lindsey (2018) also noted that the *same* set of molds was again altered, this time by peening out the entire older "SAN.FRANCISCO / GLASS WORKS" embossing on one side and engraving "M. SELLER & CO., / PORTLAND, O." on the other. Again, the "Rs" in both "SELLER" and "PORTLAND" had the curved legs. Gus was still on the job in the 1880s, when Lindsey suggests that these jars were made (although M. Seller was in business from 1860-1930). This evidence strongly suggests that the same engraver (Gus) was employed or used by both the San Francisco Glass Works (to make the first alteration of the jar) and its successor, the San Francisco & Pacific Glass Works between ca. 1870 and ca. 1885 – and that Gus employed the curved "R" in his work.

In a discussion on Antique Bottles.net (2002), Chris Rowell suggested that a similar or identical "R" was used on pontiled medicine and soda bottle. He noticed that the Baltimore bottles were made earlier than the West Coast ones, and speculated that a Baltimore mold maker

moved to San Francisco. Bill Lindsey conducted an extensive search for these eastern bottles (as well as numerous examples of western ones) but could find no bottles with a matching "R" – although an occasional eastern bottle exists with an embossed curved "R" that is similar, but none are quite like the "Gus" (San Francisco) version.



Figure 17 – White's (Utah Antique Bottle Cliche 2016)

However, there is one very likely exception – a medium sized, indented panel medicine bottle embossed "WHITE'S - PRAIRIE / FLOWER - TOLEDO, O." Some collectors have suggested (although not in publication) that the city name refers to Toledo, Oregon (on the Oregon Coast near Newport). While that town was founded sufficiently early (bottle is around 1880) it was highly unlikely that it would have been big enough for a patent medicine producer. It was quite small at that time.

A prominent Oregon collector noted that he possessed a trade card showing definitively that the product was produced by a Mr. White in San Francisco, suggesting that the bottles were almost certainly blown there also. The collector believed that the Toledo reference had to do with where he came from – Toledo, Ohio. However, that mystery may never be solved.

An example discussed in *Utah Antique Bottle Cliche* (2016) was dug in Utah (Figures 17 & 18). The photos clearly showed the curved "R." Lindsey added that *all* the embossing had the same letter width, depth of engraving (quite deep resulting in very prominent embossing), spacing, etc. as other curved "R" bottles with approximately the same embossing size that were certainly blown in San Francisco.



Figure 18 – White's (*Utah Antique Bottle Cliche* 2016)

Discussion and Conclusions

While we dispute the use of the SFFGW and SFGW marks, the S.F.&P.G.W. mark is relatively common and was certainly used by the San Francisco & Pacific Glass Works from its inception in 1876. Since we have found no marks for the Abramson-Heunich Glass Co., we accept the Toulouse idea that the SF&PGW mark continued to be used by that company until 1902, when the firm was reorganized as the Illinois-Pacific Glass Co. The only mark that can be reliably attributed to the San Francisco Glass Works (1868-1876) is the entire company name embossed on the sides of wax-sealer fruit jars, and those molds were almost certainly used by the San Francisco & Pacific Glass Works until the molds wore out.

Although it is clear that the San Francisco & Pacific Glass Works made the GEM and MASON fruit jar lines until 1886, they do not appear to have been marked in such a way that the they can be distinguished from those produced in the East. It is possible that the GEM jars without the HGW monogram or the Hero cross were made by the San Francisco company, although that has yet to be demonstrated by direct evidence. Because Hero shipped a large quantity of jars to San Francisco in 1886, we can expect jars with and without the Hero marks to appear on the West Coast. The only possible test is whether any of jars without Hero marks are found in the East.

The other marks – the Eight-Pointed Star and the Curved R – are well researched and dated. Those should be helpful at archaeological sites.

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