Whitney Glass Works

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Although the glass plant had a much older history, Thomas and Samuel Whitney began to operate the Harmony Glass Works as the Whitney Brothers in 1839. In 1885, the firm became the Whitney Glass Works, but the Owens Bottle Mfg. Co. purchased the factories (two by then) in 1918, closing one and absorbing the other into the Owens family of plants. The Whitneys produced a large variety of fruit jars and bottles of many types. Aside from the wide range of fruit jar names, the Whitneys apparently did not mark most of their products – although the firm managed to use a large variety of logos on the ones they did mark.

Histories

Although Thomas H. Whitney eventually gained control of both glass houses at what became Glassboro, New Jersey, both the Olive Glass Works and the Harmony Glass Works had rich histories prior to his acquisitions.

Olive Glass Works, Glassboro, New Jersey (1781-1825)

Although Solomon Stanger acquired the land in 1779 and built a glass factory, it did not begin production until 1781. In financial trouble almost immediately due to the U.S. currency reevaluation, Stanger brought Thomas Heston into the business as a partner by 1784, but Thomas Carpenter purchased Stanger's share two years later. Although Thomas Heston died in 1802, the plant was still known as Heston-Carpenter until 1808 (Old South Glass & Antiques 2020).

In 1808, the plant became known as the Olive Glass Works with Edward Carpenter (son of Thomas) and Peter Wickoff. When Carpenter died in 1813, David Wolf acquired the entire company, becoming sole owner, soon bringing in Isaac Thorne and Danial Focer as partners. By 1821, Thorne had bought out the other partners, but he sold the firm to Jeremiah Foster in 1824. In turn, Foster merged with the Harmony Glass Works the following year (Old South Glass & Antiques 2020).

Harmony Glass Works, Glassboro, New Jersey (1813-1839)

Lewis Stanger (certainly related to Solomon, possibly a son) and a group of other glassmen from the Olive Glass Works – including Daniel Rink, Levi Cambell and Daniel Focer – opened the Harmony Glass Works in 1813, known as Rink, Stanger & Co. When Rink died in 1823, Daniel K. Miller acquired his share, and Thomas H. Whitney purchased the Stanger interest in 1834 or 1835. Whitney then bought the remaining shares two years later in 1836. When Samuel A. Whitney joined his elder brother in 1839, the business became the Whitney Brothers (Barber 1900:44; Knittle 1927:153; Old South Glass & Antiques 2020; Pepper 1971:36; Toulouse 1971:522).¹

Thomas Whitney became involved in the glass business in a unique way. After a shipwreck off the coast of Cape May, New Jersey, in 1806, he was transported to Philadelphia for treatment, but he stopped at the Heston Tavern at what would become Glassboro to receive more immediate treatment. There, he met Bathsheba Heston, daughter of Thomas Heston, the partner in the Olive Glass Works. Whitney married Bathsheba within a year of his arrival (Croncklenic 2017).

An 1875 Whitney Brothers ad noted that the company was "established 1775" (Pepper 1971:43). Although the Whitney family claimed the 1775 date as their beginning, 1775 was actually the founding date for the New Jersey Glass Manufactory (Olive Glass Works), opened by the Solomon Stanger and his brothers (Figure 1). The merger of the Olive and Harmony Works in 1825 created a tenuous connection



Figure 1 – 1875 Whitney ad (Pepper 1971:43)

¹ McKearin and Wilson (1978:91) claimed that Eben and Samuel Whitney, sons of Thomas H. Whitney, joined their father, and the business became Whitney and Brothers in 1837. Normally, the research of McKearin and Wilson is much more thorough than that of earlier authors. However, this time, they were wrong. Records from the St. Thomas Episcopal Church at Glassboro show that Thomas H. Whitney was born on January 4, 1813, and Samuel A. Whitney was born on July 7, 1819, just six years later (Sandy H. 2002). There is no question that Samuel was the *brother* of Thomas *not* his son. Eben was not involved in *this* glass factory at all.

with the older factory as a founding date. The Whitney family was not actually involved until ca. 1835 (McKearin & Wilson 1978:42-46, 90; Toulouse 1971:519-521).

Temperanceville Glass Works (1834-1880s)

When Lewis Stanger left the Harmony Glass Works in 1834, he set up a new factory – the Temperanceville Glass Works – making window glass just 500 yards south of the Harmony plant. The operating firm was styled Lewis Stanger & Son – and included Lewis's son, George C. Stanger, and his brother, Jacob Stanger. The plant acquired the Temperanceville name because none of the Stanger family drank alcohol. The factory made window glass and hollow ware (Old South Glass & Antiques 2020; Pepper 1971:35).

Stanger sold the plant to Thomas Whitney in 1841. Whitney put his brother, Eben, and brother-in-law, Woodward Warwick (as Whitney & Warwick), in charge of the factory, now producing bottles – all sold through the Whitney Brothers. Warrick sold his share to Eben in 1849, and Eben sold the firm to Thomas W Stanger, who turned it back into a window-glass plant. When Stanger died in 1883, his three sons took over, but they soon abandoned the works (Pepper 1971:35).

Whitney, Smith & Co., Malaga, New Jersey (1839-1857)

In 1839, the Whitney Brothers joined with John G. Rosenbaum, operating the Franklin Glass Works at Malaga, New Jersey. At some point, S.D. Smith also joined the company, and it became Whitney, Smith & Co. The firm disbanded in favor of the Whitney Brothers in 1857 (McKearin & Wilson 1978:91).

Whitney Brothers, Glassboro, New Jersey (1839-ca. 1885)

Thomas and Samuel Whitney began to operate the Harmony Glass Works as the Whitney Brothers in 1839. This double naming was typical of the early to mid-19th century, when the operating company and factory typically bore different names (Figure 2). In 1856, the plant fired its furnaces with anthracite coal, changing to bituminous coal (much more common in the East) a few years later. The factory made a large variety of wares that included mustard, catsup,

pepper sauce, olives, various oils, and other bottles, preserve jars, snuff jars, porter, ale, and mineral water bottles, wine and liquor bottles, and larger containers (Knittle 1927:155, 158; Pepper 1971:37; Toulouse 1971;522).

An ad in the 1872 Glassboro city directory used the term "Whitney Glass Works," showing that the brothers had dropped the "Harmony" name at least that early (Figure 3). The Whitneys used the "Kelly & Samuel's Keystone Grinding Machine for Grinding Fruit Jars, Flasks, etc.," by at least 1876. The machine was patented on December 28, 1869. The area around the factory, generally called "glass town," officially became Glassboro on March 11,



Figure 2 - Whitney Glass Works 1847 (Barber 1900:46)



Figure 3 – Whitney Glass Works (Old South Jersey Glass)

1878. The firm built a new plant in 1880. In August of 1882, upon the death of Thomas and the retirement of Samuel, the next generation, John Perkins Whitney (son of Thomas) and Thomas Whitney Synnott (nephew of Thomas), dissolved the old firm and created a new company, still under the name of Whitney Brothers (Pepper; 1971:37; McKearin & Wilson 1978:91; Roller 1997a; Toulouse 1971:522).

Wilson and Caperton (1994:70) recorded all beer bottle advertising in *The Western Brewer* between 1883 and 1890 as well as samples from issues between 1878 and 1882. The company advertised in the journal as Whitney Bros. in 1881; as the Whitney Glass Works from January 1883 through November 1884; and again in 1889. The reasons for the inconsistent advertising are currently unknown.

In 1883, the Whitney Brothers had "the largest green glass furnace in the world, the daily production of glass exceeding that of any other two furnaces in the United States and is equal to the average of three ordinary sized furnaces." The furnace supported 12 large pots. Three other

furnaces, "in addition to the 'big house," kept a total of 72 glass blowers busy (*Crockery & Glass Journal* 1883:20).

In early 1884, the Whitney Brothers leased a plant at Port Elizabeth, New Jersey, to manufacture fruit jars. Shortly after, however, they relinquished their lease and instead built a new tank at Glassboro. The name remained Whitney Brothers at that time but had changed to the Whitney Glass Works the following year (Roller 1997b).

Whitney Glass Works, Glassboro, New Jersey (1885-1918)

As noted above, the family changed the firm name to the Whitney Glass Works in 1885. Whitney received its largest single order, for 7.5 million Warner's Safe Cure bottles, in 1885. In 1888, the Whitneys expanded, purchasing the Crystal Glass Mfg. Co. plant at Camden, New Jersey. Crystal had begun operations in 1886. Unfortunately, on March 29, 1889, the Camden plant burned. The Whitneys apparently also leased a plant at Salem in 1888, for the manufacture of fruit jars.² This may have been either the Craven Brothers or the Gayner Glass Works. The lease was apparently short lived, probably ending by at least 1892 (Pepper 1971:37; Roller 1997a).

The firm incorporated under the Whitney Glass Works name on August 30, 1887, with a capital of \$500,000. The Glassboro factory operated four furnaces in 1889. According to the November 9, 1892, issue of *China, Glass and Lamps*, John P. Whitney bought the shares of Thomas W. Synnott in 1892 and was president of the corporation with J.F. Jeffries as vice president, C.J. Yost as secretary, Thomas Ammadown as treasurer (Roller 1997b; Secretary of State 1892:284). The Whitneys acquired the former Warwick Glass Co. at Warwick, New Jersey, in 1893, closing the plant permanently after only two months of production. In 1894, the Whitneys purchased the former West Penn Glass Co. plant at Blairsville, Pennsylvania, the latter used primarily for the production of milk jars (*Crockery & Glass Journal* 1893:21; Lohmann 1972; McKearin & Wilson 1978:91).

² Both the Camden and Salem plants were still mentioned in 1892 but not in subsequent lists. This may mean that the Whitneys rebuilt the Camden factory, or the plant may have been inadvertently continued in the listing.

China, Glass and Lamps reported a "big power fight" at the Whitney Glass Works on October 15, 1895, between J.F. Jeffries (president for the past two years) on one side and T.W. Synnott and John P. Whitney on the other – "the latter desiring to regain control." According to the journal, "by a legal technicality, the Synnotts won, and seated a new board."³ The Glassboro operation suffered a disastrous fire on October 26, 1895, but was soon rebuilt (Roller 1997a). The timing of the fire – just 11 days after the big fight – seems somewhat suspicious.

In 1897, Whitney operated "three continuous tank furnaces, 45 rings, one on green, one on amber and one on flint." By 1900, Whitney used 45 pots for flint glass and 40 pots for "green" glass. The firm sold its Blairsville plant in 1901 (*National Glass Budget* 1897:5; 1898:7; 1900:11; 1901:11; 1902:11; Roller 1997b). By 1904, the plant had six continuous tanks with 96 rings, making a general line of bottles. Whitney was president with C.J. Yost as secretary and treasurer (*American Glass Review* 1934:159).

Toulouse (1971:523) noted that Owens-Illinois history records showed four continuous tanks, making green, amber, and flint bottles using hand operation and two pot furnaces for blue and opal glass. Toulouse further noted that Watkins H. Lohmann had found no opal or blue glass associated with the factory. We have thus followed the directory.

According to Toulouse (1971:523) and Lohmann (1972:3-5),⁴ Whitney tried to use two different kinds of semiautomatic machines (one for beer bottles, the other for Mason jars) in 1904, but both were unsuccessful. The 1904 Whitney catalog (Lohmann 1972) offered "machine-made bottles" and stated, "The machine production is adapted to an increasing variety of wide-mouth ware." In addition to Vaseline and candy jars, the catalogs noted that "this method of manufacture is particularly adapted to Pickle Jars[,] Horse Radish[,] Mustards[,] Preserve Jars[,] Jams[,] Jellies of any shape or size." Fruit jars were apparently still mouth

³ There is an odd discrepancy here. *China, Glass & Lamps* reported on November 9, 1892, that John Whitney purchased the shares of T.W. Synnott, but the *same* journal claimed on October 15, 1895, that Synnott and Whitney had joined together in a power struggle against J.F. Jeffries, at that time the president of the firm, apparently unseating him. Either Synnott remained on the Board of Directors after selling his shares; or Synnott bought back in; or the 1892 report was in error.

⁴ These two authors cited each other, apparently a collaborative effort.

blown, including Mason Jars and the Columbia. Thus, the "bottle" machines were in place by 1904, but fruit jar machines were probably installed the following year.

The company installed "three automatic glass blowing machines . . . to fill a large order for Mason fruit jars" in 1908 (*Commoner and Glassworker* 1908:1). The *National Glass Budget* (1912:1) noted that there were five machines operating in Glassboro, in 1912: "three fruit jar machines, two bottle machines making 2 to 8 oz. Wide mouth ware." By 1913, Whitney's entire line was made by machines at four continuous tanks (*Journal of Industrial and Engineering Chemistry* 1913:953; Louman 1972:8). The next year, the Whitney plant was noted as having seven Owens machines, all producing "medicine bottles" (*Journal of Industrial and Engineering Chemistry* 1914:864).

Whitney received an Owens license in December 1909, and the first Owens machine was shipped to the plant on February 12, 1910, and installed. Seven machines were in operation by the end of 1911. A second factory was built in 1916 by the Owens Bottle Machine Co., by that time the major stockholder. Mouth production ceased in 1913; from that point on, all bottles were made by Owens machines. Whitney secured exclusive rights to make oval-shaped ammonia bottles but had only a general (i.e., non-exclusive) license to make other prescription bottles (McKearin & Wilson 1978:92; Scoville 1948:106). By November 1916, Whitney had six 6-arm machines and a single 10-arm machine to make "miscellaneous prescription bottles" (Palmer 1917:212).

Lohmann (1972:5) also explained why the Whitneys sold out to Owens:

Primarily it was because the Whitney family associated with the enterprise was dying out. . . . The administrators of Dudley Whitney's estate asked Owens Bottle Machine Company to take up Whitney's personal notes in order to prevent the immediate and ill-advised sale of 1,954 shares of Whitney stock. The company complied and three years later Owens Bottle bought the remaining shares and dissolved the Whitney Glass Works on July 1, 1918.

The Owens Bottle Co. built a new plant at Glassboro in 1918 and dismantled the old one the next year. For more information, see the Owens Bottle Co. section.

Patents

Samuel Whitney

1861 – Glass Stopper

S.A. Whitney received Patent No. 31,046 for an "Improved Glass Stopper for Bottles" on January 1, 1861. The patent did not include a filing date. The threaded stopper fit into a set of internal threads inside the finish (Figure 4). The stopper was to be made of glass with a cork washer providing a seal at the top of the finish. Two protrusions at the top of the stopper allowed any type of metal rod (we would think of a screw driver today) to be inserted to create pressure to remove (or tighten) the closure. McKearin and Wilson (1978:91, 220) noted that the patent was for "a bottle and flask with screw-in stopper."



Figure 4 - Whitney 1861 patent

1867 – Bottle Design

Samuel A. Whitney received Design Patent No. 2,652 on May 14, 1867, for a "Design for a Bottle." Although McKearin and Wilson (1978:91) called the design a "pickle or preserve bottle," the actual patent did not specify the type. The bottle tapered from finish to heel.

John Focer

1866 – Fruit Jar Closure

On June 12, 1866, John Focer received Patent No. 55,581 for an "Improved Fruit Jar." The finish and lid of this jar are quite unique. Both the glass lid and the finish of the jar have external screw threads. A "ring of thin metal" (i.e., a metal band) with matching threads screwed into the jar finish, and the lid screwed into the top of the metal band. A cork washer completed the seal (Figure 5). Focer assigned the patent to T.H. and S.A. Whitney.

1869 – Reissue of the 1866 Patent

On December 28, 1869, Focer's 1866 patent was reissued (No. 3,781) to Thomas H. and S.A. Whitney. This was the exact same patent issued to Focer, but the reissue was in the name of the Whitney brothers.

William Hauck

1876 – Improvement in Pontees for Holding Bottles While Being Finished



Figure 5 – Focer 1866 patent

On December 27, 1974, William Hauk applied for a patent and received Patent No. 172,734 for an Improvement in Pontees for Holding Bottles While Being Finished on January 25, 1876. The patent was spring loaded and had clips that reached all the way to the shoulder, holding the bottle more firmly than the typical ones that grabbed the lower body (Figure 6).

Containers and Marks

The most famous bottle (at least among collectors) made by the Whitney plant was the E.G. Booze square whiskey bottle blown in the shape of a two-story house with a chimney – the neck and finish (Figure 7).⁵ Because one side of the "roof" was embossed "1840," many people have assumed that was the date of manufacture. However, Booze was in business from 1860 to 1870, so the bottles were almost certainly made during that period (Pepper 1971:41-42). According to Barber (1900:45), the Booze bottles were made "during the presidential campaign of 1840," although the bottles continued to be produced for many years afterward.



Figure 6 - Hauk 1876 patent

⁵ The Clevenger Brothers of Clayton, New Jersey, created "an excellent reproduction" of the Booze "Old Cabin" bottle in 1927 (Pepper 1971:42).

The largest order from the Whitneys – in 1885 – was for 7.5 million bottles of Warner's Safe Cure for the H.H. Warner Co. In addition, the Whitney Glass Works made 21 carloads of bottles ($\frac{1}{2}$ pint and pint flasks and round quart sizes) for the South Carolina Dispensary in 1893 and 1894. All Dispensary bottles were "green" (aqua) in color, but none were embossed with any of the Whitney marks (Pepper 1971:37; Teal 2005:95).

After 1900, Whitney used cast iron molds for most containers but used cherry wood molds to make turn-mold bottles. Cast iron molds included both hand-operated and foot-operated variations. (Lohmann 1972:7-8). Lohmann (1972:25) stated that one of his informants, Andy Harvey, told him that the Glassboro plant did not make any fruit jars, whiskey, beer, or soda bottles from 1914



Figure 7 – Booze – replica (eBay)

until after the sale to the Owens Bottle Co. This corresponds with the full automation of the factory in 1913. Listings in the Thomas Registers (Thomas Publishing Co. 1912:479,2727; 1914:530, 3010) placed Whitney under both bottles (druggists' preservers' etc.) and fruit jars in 1912. While the bottle listing remained in 1914 (the next issue), there was no fruit jar listing from 1914 on.

Lohmann (1972:20) told the story of a Whitney salesman known only as the "Colonel": He would show a prospective customer two bottles—one hand blown and one machine blown. The Colonel would fill each with water[,] put a cork in the top[,] then smack each cork with his hand. The machine made bottle would always break, proving the durability of the handmade container.

The 1904 catalog (Lohmann 1972) showed a variety of liquor bottles in addition to the extensive line of medicinal wares. A single page illustrated four styles under "Soda Water and Beer Bottles." Whitney noted, "We illustrate a few of the large number of styles and shapes we manufacture." Bottles were offered for "Crown Seal" as well as four stopper varieties: "Porcelain–plain or lettered[,] Lightning[,] Ætna[,] Century." The Lightning stopper and the Hutter (porcelain) were standards for the brewing industry, but we have found no information on the Ætna Century closures. Whitney also offered Hutchinson sodas. It seems obvious that

Whitney did a limited business in soda and beer bottles. The limited space allotted (compared to the eight pages in the 1903 Illinois Glass Co. catalog) could not have attracted numerous customers.

Fruit Jars

Among their large inventory of goods, Whitney made fruit jars and advertised itself as a manufacturer of Mason Porcelain Lined jars. The company manufactured at least two jars embossed MASON / FRUIT / JAR. The catalog for 1885 included descriptions and illustrations of MASON'S IMPROVED, MASON'S CFJ CO PATENT NOV. 30th 1858, and WB TRADEMARK LEADER jars (Roller 1997b). The sheer volume of the explanations below may be confusing; see Table 1 at the end of this section for all 15 variations of Whitney fruit jars in chronological order.

BANNER

The majority of the Banner jars were clearly made for Fisher, Bruce & Co. by the Ball Bros. – as demonstrated by their Ball-blue color (Toulouse 1969:42). The remainder were almost certainly also made for Fisher, Bruce & Co., but the manufacturer(s) were less certain. The aqua-colored jar may well have been made by the Whitney Glass Co., and it may have been the first one for Fisher, Bruce (Creswick 1987a:14; Roller 1983:354-355; 2011:96, 210-512). Whitney began using machines before 1904, so this approximate date may be appropriate for this variation. Also see the Gayner Glass Works section.

GLASSBORO (ca. 1880-ca. 1890)

Toulouse (1969:133-134) listed two variations of fruit jars embossed "GLASSBORO" on the side. The first was embossed "GLASSBORO (slight arch) / TRADE (arch) / MARK (inverted arch)." The second was identical except for the word "IMPROVED" embossed horizontally below "MARK" (Figure 8). He dated both jars 1887-1918. It is notable that only Toulouse claimed the existence of a jar with the "IMPROVED," although it would make sense that there had to be one. Roller (1983:139, 422; 2011:214) added that "the term 'Glassboro Improved' [No. L3,879] was registered by Thomas Whitney Synnott, a partner in the second Whitney Brothers firm, on February 5, 1884, with the application dated January 9, 1884." He dated the use between 1884 and 1900s. Roller called the closure a "straddle-lip top seal, glass lid and metal screw band." He noted variations with "TRADE MARK" in a plate and with numbers (1, 2, or 3) between "TRADE" and "MARK."

Creswick (1987a:71) showed five variations of this mark embossed on the fronts of continuous-thread, ground lip (i.e., mouth blown) fruit jars (Figure 9). She attributed the jars to Whitney and dated them ca. 1880-1890. She added the number "5" – which suggests that a number "4" may eventually turn up. The glass inserts



Figure 8 – Glassboro (North American Glass)

were embossed "TRADEMARK GLASSBORO IMPROVED REGIS'TD JANY 9 1884" in a





circle around the edge. Since neither Creswick nor Roller included a first use date, it was probably not listed on the Trade Mark application. Toulouse (1971:226) only noted the word "GLASSBORO" and dated the mark ca. 1880 to 1900.

Dating these jars is not as simple as it may appear. Trade marks must be in use in order to be registered, and most applications contain a "first use" date, although none was reported by any source we have found. Thus, Creswick's ca. 1880 initial date is reasonable. The jars are quite common (Leybourne 2001:148), so they were made in quantity, probably over a fairly long period.

Mold numbers 1-5 suggests the simultaneous use of the molds; there would be no need for numbers if a new mold were only made when the old one wore out. We suggest that the jars were made until ca. 1890.

JERSEY (ca. 1890)

According to Creswick (1987a:91), this jar had the word "JERSEY" embossed in outlined letters on the front (Figure 10). The jar had a unique, continuous-thread finish (see Focer in the Patent section



above). The lid was embossed "PATENTED (arch) / JUNE 13^{TH} 1866 (inverted arch). John Focer received Patent No. 55,581 for the jar on June 12, 1866, and that the patent was reissued on December, 28, 1869 (RI No. 3781). He assigned the patent to Thomas A. and S.A. Whitney (see Figure 5). These jars were apparently not popular;



Figure 10 – Jersey jar (Creswick 1987a:91)

only one type appears in the literature. Roller (1983:170) listed the jar but had no idea of the maker. Because of the lack of popularity, only one set of molds for these jars was probably made, likely in 1869. The

Figure 11 – Jersey (North American Glass)

(Leybourne 2001:174). If the jars were as unpopular as they seem, there would have been no reason to reissue the patent in 1869, if the jars had been made in 1866. They

jars are currently scarce, if not rare

were probably only made until the molds wore out - if that long.



Figure 12 – Jersey lid (North American Glass)



Figure 13 – Ghosted Lafayette (Roller 2011:261)

The Roller editors (Roller 2011:260-261) disputed Creswick's claim for the 1866 Focer-patent lid

being used on these jars. Jerry McCann discovered several JERSEY jars with nickle-plated steel caps and located a jar embossed "JERSEY" on the front with a ghosted "Lafayette" (in cursive) on the reverse (Figures 11-13).

The jar ghosted "Lafayette" makes little sense. The series of Lafayette jars used two different closures, neither requiring a threaded finish. The only logical explanation is that someone acquired the old Lafayette molds when the Hartford Fruit Jar Co. (the second producer of the Lafayette jars) went out of business ca. 1889, and added a continuous-thread finish to the mouth-blown jars. Since the closure was Creswick's only thing that connected the Lafayette jars to the Whitneys, this leads us to the conclusion that the jar was made by some currently unknown manufacturer ca. 1890. See the Other L section for a more complete discussion of the Lafayette jars and the Hartford Fruit Jar Co.

THE TELEPHONE JAR (1905-ca. 1914)



variations of the Telephone Jars. The first was embossed "THE (horizontal) / TELEPHONE

Toulouse (1969:364-365) noted two

(slight arch) / JAR / TRADE MARK / REG (all horizontal) / WHITNEY GLASS WORKS (inverted arch)" on the side (Figure 14). The jars were mouth blown with Lightning closures. He dated the jars ca. 1905-1910. The second variation was embossed "THE (horizontal) / WIDEMOUTH (slight arch) / TELEPHONE / JAR / TRADE MARK / REG (all horizontal)" on the side (Figure 15). These used the same closures but were made by both hand and machine production. He dated the second variation ca. 1905-1918.

Figure 15 – Wide Mouth Telephone Jar (North American Glass)

Roller (1983:351, 384; 2011:503) discussed both the

regular and Widemouth variations, as well as a 1908 ad for the widemouth (Figure 16). Creswick (1987a:208) illustrated the narrow-mouth variation and dated it ca. 1905-1910 (Figure 17). She also noted that the Whitney Glass Works received Trade Mark No. 44,226 for the Telephone on February 21, 1905, with a first use in January 17, 1905. Whitney



Figure 14 – Telephone Jar

(North American Glass)

Figure 16 – Telephone Jar ad (Roller 1983:351)

advertised "a new line of fruit jars called the "Telephone Jar" that same year (Roller 1997).

In her second volume, Creswick (1987b:128) illustrated and described four variations of the jar. Along with the two variations of the Telephone jar (embossed on the front and plate), she noted two variations of the Wide-Mouth Telephone jar (see Figure 17). One of these was the one described above. The other was identical except for an error (likely a letter clogged with lubicant) that left out the "P" – making the word "TELE HONE." She agreed with Toulouse that the non-plate variation was only mouth blown, and the plate Telephone Jar (not Widemouth) was made by both hand production and machine manufacture.



Figure 17 – Telephone Jars (Creswick 1987b:128)

Manufacture of these jars almost certainly began in

1905 and may have continued until the plant ceased making fruit jars in 1914.

WB monogram and LEADER (1884-ca. 1886)

Creswick (1987a:99) and Roller (1983:358; 2011:516) both showed a fruit jar with {WB monogram} / TRADE MARK / LEADER



Figure 19 – Leader ad (Roller 1983:358)

embossed on the front (Figure 18). The monogram *and* LEADER were registered as trademarks on February 24, 1885, by Thomas W. Synnott and Charles D. MacQueen. Roller dated the jar ca. 1885-1886 and illustrated a drawing of the jar from a March 26, 1885, ad (Figure 19). Roller (1983:375) also listed the mark on a second jar without LEADER. Creswick (1987a:258) illustrated the Trade Marks and noted that Synnott claimed first use on December 9, 1884 (Figure 20). We suspect that molds for this jar were only made once,



Figure 18 – Leader (Creswick 1987a:99)

and the jars were manufactured until the molds wore out. The jars are scarce to rare today (Leybourne 2001:192).

Creswick (1987a:99) also showed an interesting turn. Two other jars were embossed "THE LEADER" and "THE / LEADER" on the front. Creswick noted that the lids on both of these jars bore the embossing "PATENTED JUNE 28 1892." Robert I. Patterson received Patent No. 477, 955 for this lid on June 28, 1892. She suggested that both the Patterson Glass Co. and the Skillen-Gooden Glass Co. were makers of the jars ca. 1892-1893 – so these were not related to the Whitneys.

THE WHITNEY MASON PORCELAIN LINED (early 1880s)

An unusual jar was embossed "THE (horizontal) / WHITNEY (arch) / MASON / PORCELAINE LINED (both horizontal) / PAT'D 1858 (inverted arch)" on the front. Of course, 1858 referred to the Mason patent for the continuous-thread finish and screw-cap cap. Note the "E" on the end of the word "PORCELAIN" – the correct spelling of the word in French. These jars were mouth blown. Creswick also stated that the Whitney Glass Works advertised Porcelain Lined jars in the 1870s, but this style of labeling did not occur until later. The jars are at least uncommon if not scarce (Leybourne 2001:382). Roller (2011:552) added this jar as a variation to the one listed below and dated them both ca. 1900s.

THE WHITNEY MASON (mid-1880s-ca. 1908)

Creswick (1987a:221; 1987b138) illustrated a jar embossed "THE (horizontal) / WHITNEY (arch) / MASON (horizontal) / PAT'D 1858 (inverted arch)" and dated it ca. 1887-1918. She noted that only about 12 of these jars were known at the time she published. These jars (with "THE" above "WHITNEY") spanned the transition between mouth-blown and machine-made jars (Figures 21 & 22). Roller (2011:552) also discussed the jar, along with a 1908 ad that illustrated an example of the jar, dating it ca. 1900s (Figure 23).



Figure 20 – Leader trademark (Creswick 1987a:258)



Figure 21 – The Whitney Mason (North American Glass)

WHITNEY MASON (ca. 1906-1914)

Toulouse (1969:329) included jars embossed "WHITNEY (arch) / MASON (horizontal / PAT'D 1858 (inverted arch) on the side. He dated the mouth-blown jars 1887-1918 and machine-made jars 1910-1918. Toulouse also noted a mouth-blown variation without the word "MASON" in the center. All were continuous-thread, shoulder-seal jars. Roller (1983:383) dated the jars ca. 1900s and noted that some of the jars had "various numbers of small glass dots below **WHITNEY** or in combinations above, below and alongside **MASON**, probably used as mold identifiers." The Roller update (2011:552) suggested ca. 1910s as the production date.



Figure 22 – The Whitney Mason (Creswick 1987a:221)



Figure 23 – Whitney ad (Roller 2011:552)

Creswick (1987b:138-141)

carried Roller's "various numbers of small glass dots" a step further by illustrating 28 slight variations of the Whitney Mason jar, with descriptions of a total of 40 variations (Figure 24). The main types of variations included numbers between 1 and 13 embossed between "MASON" and the

patent date (including one with the "9" reversed); numbers between 1 and 6 embossed on the front heel; differences in the intensity of the embossing; and

embossed dots below "WHITNEY" in an arch, above "MASON," below "MASON," or both above and below the word. All of these (ones lacking the word "THE") were machine made and used a shoulder seal. Creswick (1987b:141) suggested that the embossed dots were likely vent holes.



Figure 24 – Whitney Mason (Creswick 1987b:139)

While these may be vent holes, they may have merely been decoration. Since the highest number of these dots was 12, they might also equal the month that the jar was made (i.e., one dot = January; two dots = February, etc.). The problem with this hypothesis, of course, is the lack of date codes to determine the year of manufacture.

Creswick (1987a:117-118; 1987b:90) added some interesting ghosted variations. Ghost embossing consists of raised letters (actually imprinted into the mold to show as embossing on the glass) that had been peened to fill in the

depressions so that the mold could be reused. The results were usually lightly visible. One originally looked like the Toulouse description above, but the entire old embossing was peened out and "MASON / FRUIT / JAR / 4" was horizontally embossed in its place (a slight variation lacked the "4"). Aside from where "FRUIT" was embossed over the peened out "MASON," the other former embossing was quite clear. The jar was machine made with a shoulder seal lid. Another was embossed "MASON (slight arch) / FRUIT / JAR (all horizontal)" with a slightly arched, ghosted "WHITNEY" just below "MASON." This one was also machine made with a bead seal. Creswick claimed that both were made ca. 1920 (Figure 25).

ATLAS WHITNEY MASON (1914 or later)

Yet another variation (Creswick 1987a:9) had "ATLAS / WHITNEY (both slight arch) / PAT'D 1858 (slight inverted arch)" all peened out and "MASON / FRUIT / JAR (all horizontal)" embossed in the spaces between the former labels (Figure 26). A variation had a dash on either side of "ATLAS" ("-ATLAS-"). These jars had smooth lips (machine made), and Creswick dated them ca. 1896-1900. This dating is problematic. Although the Atlas Glass Co. made jars by machine from its opening in 1896, other jars with the "WHITNEY" ghosted and designation "MASON / FRUIT / JAR," were probably made after Whitney ceased jar production in 1914. We have therefore classified this variation with the post-1914 jars.



Figure 25 – Ghosted Whitney Masons (Creswick 1987a:117-118)



Figure 26 – Atlas Whitney (Creswick 1987a:9)

Ghosted Whitney Mason (1914 or later)

The examples above were ones that used older molds to make the Whitney Mason jars. Creswick (1987b:141) also showed some examples where the Whitney Mason molds were used for jars without the word "WHITNEY" (Figure 27) In two of the examples she illustrated (of different jar body styles), the word "WHITNEY" was ghosted and "MASON / PAT'D 1858" was left (with dots under "MASON"). In another example, "MASON" and "PAT'D 1858" were ghosted, leaving only "MASON." Creswick discussed and/or illustrated eight other jars that lacked the word "WHITNEY" but had dots in association with the word "MASON" that were characteristic



Figure 27 – Ghosted Whitney (Creswick 1987b:141)

of many of the Whitney jars. Although Creswick dated all of these ca. 1900-1918, they were likely made later than the Whitney Masons. All but four of these (one ghosted, three lacking "WHITNEY") used Mason shoulder seals; the remaining four used the later Mason bead seals.

Creswick (1987b:141) stated that the Whitney Glass Works jobbed out some work; in other words, other companies made some of their products. These included the Atlas Glass Co., Ball Brothers, Brockway Machine Bottle Co., and Illinois Glass Co.⁶ Although Creswick did not explain her selection, at least one was supported by evidence. At least one Whitney jar had a ghosted "ATLAS" – a pretty clear indication that an Atlas mold had originally been used.

WHITNEY GLASS WORKS

The Whitney Glass Works name was embossed on several types of jars.

The Mason Jar of 1872 (1873-1874)

Toulouse (1969:263-264) noted two variations of the Mason Jar of 1872. The first had "THE / MASON / JAR / OF 1872," all horizontally embossed on the side of the jar and

⁶ Creswick (1987b:141) erred in claiming that the jars were made by the Illinois Glass Co. San Francisco plant. She may have meant Illinois-Pacific Glass Co., a firm affiliated with Illinois Glass.

"WHITNEY GLASS WORKS, GLASSBORO, N.J." in a circle on the base. He dated the jar ca. 1890-1900. The second variation was embossed "THE MASON JAR (slight arch) / OF 1872 (horizontal)" on the side with no basal embossing. Both jars had continuous-thread top seals. For more information on Mason's 1872 patents, see the section on the Keystone Mason Jars.

Roller (1983:215-216) included a photo of the Mason Jar of 1872 that showed "MASON" in outlined letters. He noted that the aqua lid was embossed "PATENTED SEPTEMBER 24TH 1872." Roller illustrated two variations, one with "OF 1872" near the heel, the other with the rest of the embossing inside an embossed square in a plate on the front of the jar. Roller also noted that the Standard Union Mfg. Co., Camden, New Jersey (John L. Mason, president), authorized the Whitney Glass Works to make and sell these jars in 1873. Shortly thereafter, Mason conveyed the rights to the Consolidated Fruit Jar Co. Consolidated successfully sued Whitney, who ceased production of the jars. Roller dated the jars 1873-1874. Like Toulouse, Roller also noted the variation with no basal embossing. Roller (1983:220) indicated that Whitney was not the only maker of these other "1872" jars. The Roller update (2011:327) added a variation with "unidentified ghosting arched over MASON and curved under JAR OF 1872, green-aqua, quart."

Creswick (1987a:125-126) illustrated several variations of the Mason Jar of 1872, four of which she attributed to the Whitney Glass Works (Figure 28). Only one was basally embossed "WHITNEY GLASS WORKS GLASSBORO N.J." in a long arch with "33" in the center. This jar had "OF 1872" near the heel. The second variation was identical, except that "OF 1872" was just under "JAR" and there was no basal embossing. A third variation was embossed "THE / MASON / JAR / OF 1872" in a box with "TRADE MARK" in a slight arch below the box – all in a large plate on the front of the jar. It, too, lacked the Whitney embossing on the base. The final



Figure 28 – Mason Jar of 1872 (Creswick 1987a:125)

variation was identical but was embossed "PAT^D BY JNO. L. MASON NOV. 30 1858" in a circle around the base. The common denominator that tied the jars to Whitney was the outlined letters on the word "MASON." This was one of the first jars made on Mason's second round of patents. See the section on Keystone Mason Jars, Part I, for more information.

MASON'S IMPROVED with CFJCo monogram (1872-1882)

Roller (1983:220, 244) discussed a jar embossed "MASON'S IMPROVED" on the front along with the CFJCo monogram of the Consolidated Fruit Jar Co. The reverse side was embossed "MANUFACTURED AT THE WHITNEY GLASS WORKS GLASSBORO N.J." with "PATENTED MAY 10TH 1870" on the base. This four-gallon jar was apparently made for display or advertising purposes during the 1870s-1880s period. Creswick (1978a:122) illustrated the same jar but noted that it



Figure 30 – Error base (North American Glass)

came in both three- and four-gallon sizes (Figure 29). The closure was embossed "MASON'S IMPROVED

(arch) / PATENTED MAY 10 1870 (inverted arch)." These mouthblown jars are quite rare. Since Consolidated was only in business from 1872 to 1882, the jars must have been made during that period. See the section of Consolidated Fruit Jar Co. for more information. An interesting error was a jar with a base embossed with 1870 upside down (Figure 30).

MASON'S IMPROVED on Ghosted GLASSBORO

(ca. 1890-ca.1901)

Three variations of the "MASON'S IMPROVED" jar were based on molds that were made for the older "GLASSBORO" jars described above (Figure 31). Each of these was embossed "MASON'S / {cross} / IMPROVED." On one, the words "GLASSBORO / TRADE / MARK" had been peened out and were ghosted. A second had a ghosted "GEASSBORO / TRADE / MARK" (note the "E" instead of "L" in "GEASSBORO"). The final one was the same as the first but with no trace of the words "TRADE" OR "MARK." As drawn by Creswick (1987a:124), the cross was similar to the Hero Cross but not identical (Figure 32).



Figure 31 – Ghosted Mason's Improved (North American Glass)



Figure 29 – 3-gallon Mason (Creswick 1978a:122)



Creswick (1987a:124) noted that these jars may have been made for Hero by the Whitneys. The style of the cross, however, is not quite the same as the one used by the Hero Glass Works. Hero began using the cross ca. 1880 and added letters (H, F, J, and Co) in each segment of the cross ca. 1884. Because of the ghosting, however, these jars

Figure 32 – Ghosted Mason's Improved (Creswick (1987a:124)

must have been made after the Glassboro jars were discontinued. We have assigned the date range of ca. 1890-ca. 1901, based on the approximate dates when the GLASSBORO jars were made and the duration of the Hero Fruit Jar Co.

WHITNEY (1870-ca. 1872)

Roller (1983:382; 2011:551) listed a jar embossed "WHITNEY"



Figure 34 – Whitney jars (Creswick 1987a:221)

on the side and "WHITNEY GLASS WORKS GLASSBORO N.J." on the base. The lid was embossed "PATENTED JUNE 12TH 1866" (Figures 33) The lid/finish was patented by John Focer (see Patent section above). The jar had an



Figure 33 – Whitney jar (North American Glass)

unusual continuous-thread finish and cap. Roller illustrated a Whitney Brothers ad from an 1872 directory that featured the jar. This ad, combined with the embossing on the base of the jars, demonstrates that the plant was called the Whitney Glass Works by at least 1872. Roller dated the jars ca. 1870. Creswick (1987a:221) illustrated the same jar and noted that it had a ground lip – i.e, mouth blown (Figure 34).

Ghosted WHITNEY (1914 or later)

One Mason jar illustrated by Creswick (1987a:117-118) had a ghosted WHITNEY / PAT'D 1858" embossed on the side, and another was ghosted "WHITNEY" (see Figure 25). Both were machine made, and she dated each in the 1918-1920 period. According to Lohmann (1972:25), however, production of fruit jars, whiskey, beer, and soda bottles ceased with the conversion to full machine operation in 1914, and none of those items were made during the Owens period (to 1929 when the merger created Owens-Illinois).

Front Embossing	Base Embossing	Closure	Mfg.*	Finish	Dates
MASON'S IMPROVED with CFJCo monogram**	PATENTED MAY 10 ^{<u>TH</u>} 1870	MASON'S IMPROVED PATENTED MAY 10 1870	Н	Mason shoulder seal	1872-1882
THE MASON JAR OF 1872	WHITNEY GLASS WORKS, GLASSBORO, N.J.	metal screw lid	Н	Mason shoulder seal	1873-1874
GLASSBORO TRADE MARK IMPROVED	none	glass with metal screw band	Н	straddle-lip top seal	ca. 1880-ca. 1890
THE WHITNEY MASON PORCELAINE LINED PAT'D 1858	none	metal screw lid	Н	Mason shoulder seal	early 1880s
{WB monogram} TRADE MARK LEADER	none	glass with wire bale	Н	non-screw	1884-ca. 1886
MASON'S IMPROVED (ghosted GLASSBORO)	none	metal screw lid	Н	Mason shoulder seal	ca. 1890- ca.1901
THE WHITNEY	none	metal screw	Н	Mason	mid-1880s-

Table 1 – Whitney Jar Chronology

Front Embossing	Base Embossing	Closure	Mfg.*	Finish	Dates
MASON PAT'D 1858		lid		shoulder seal	1906
THE TELEPHONE JAR TRADE MARK REG WHITNEY GLASS WORKS	none	glass lid with wire bale	Н	Lightning finish	1905-ca. 1907
THE TELEPHONE JAR TRADE MARK REG WHITNEY GLASS WORKS	none	glass lid with wire bale	М	Lightning finish	ca. 1905-1914
THE WIDE MOUTH TELEPHONE JAR TRADE MARK REG	none	glass lid with wire bale	М	Lightning finish	ca. 1908-1914
THE WHITNEY MASON PAT'D 1858	none	metal screw lid	М	Mason shoulder seal	ca. 1906-ca. 1908
WHITNEY MASON PAT'D 1858†	none	metal screw lid	М	Mason shoulder seal	ca. 1908-1914
MASON, FRUIT, and JAR between ghosted ATLAS, WHITNEY, and PAT'D 1858	none	metal screw lid	М	Mason shoulder seal	post-1914
MASON FRUIT JAR 4 over ghosted WHITNEY MASON PAT'D 1858	none	metal screw lid	М	Mason shoulder seal	post-1914
MASON FRUIT JAR 6 over ghosted WHITNEY	none	metal screw lid	М	Mason bead seal	post-1914
WHITNEY (ghosted) MASON PAT'D 1858	none	metal screw lid	М	Mason shoulder seal	post-1914

Front Embossing	Base Embossing	Closure	Mfg.*	Finish	Dates
WHITNEY (ghosted) MASON PAT'D 1858	none	metal screw lid	М	Mason bead seal	post-1914
MASON PAT'D 1858 with dots	none	metal screw lid	М	Mason shoulder seal	post-1914
MASON PAT'D 1858 with dots	none	metal screw lid	М	Mason bead seal	post-1914

* Mfg. = manufacturing style – H = mouth blown or hand production; M = machine made ** Reverse side was embossed ""MANUFACTURED AT THE WHITNEY GLASS WORKS GLASSBORO N.J."

[†] These were made in numerous variations, with different numbers and dot combinations. Leybourne (2001:383) listed 40 variations.

Milk Bottles

Giarde (1980:138) included the Diamond W mark as being used by Whitney. It is currently unknown whether he intended to imply that the logo was embossed on milk bottles. We have not found any milk bottles bearing the mark.

The 1904 catalog (Lohmann 1972) illustrated two styles of milk bottles, both mouth blown. One was "finished with Groove for Paper Caps or Complete with Lightning Milk Jar Trimmings, as desired." This style included round-shouldered or sloping (tapered) shoulder forms. Each bottle was embossed on the back with "Not to be sold, this bottle not to be bought or sold, or this bottle to be washed and returned." The front of the "jar" was embossed THIS BOTTLE / OWNED BY above a diamond-shaped plate to be filled with the dairy's information. Various model numbers for this style included 625, 626, 627, 629, 630, 631, 763, 779, and 30 inside a diamond. Giarde (1980:138) noted that this style was offered by Whitney by 1888.

The second milk jar was the "common sense" bottle, called by Whitney "Large Mouth Milk Jars." Model numbers for this bottle were 532, 533, and 534. Whitney noted that "all Milk Jar moulds are fitted to take lettered plates" and "We can also make them in Amber Glass for other purposes, if desired." Currently, it is unknown if the model numbers were actually embossed on milk bottles. Whitney apparently never produced machine-made milk bottles.

Flasks and Liquor Bottles

WHITNEY GLASS WORKS (ca. 1860s-1880s)

Jones (1966:28) showed a drawing of an oval base (probably a flask) embossed with WHITNEY along the top edge of the base and GLASS WORKS along the bottom edge, but McKearin and Wilson (1978:677) showed a better illustration of the same base (Figure 35). McKearin and Wilson 1978:92) noted that these marked whiskey flasks were made for the screw-in glass stoppers patented by Samuel Whitney in 1861, although some may have been produced for corks (Figure 36).



Figure 36 – Screw-in Stopper (North American Glass)

Wilson (1981:17) described a whiskey bottle embossed "WHITNEY GLASS WORKS GLASSBORO NJ" "molded around the perimeter of the base" from Fort Laramie (1865-1890). We have observed whiskey bottle bases embossed "WHITNEY GLASS WORKS" in a circle around a Rickett's type mold (Figure

37). Some of these were finished for the internal-thread stopper, and some had two-part finishes for corks. The bottles in photos appear to have been blown into dip molds, although three-piece molds are possible. Flasks, too, were made for internal stoppers and with two-part finishes for corks. These may have been made during the ca. 1861-1870s period or slightly later.

Other Containers



Figure 35 – Whitney flask (McKearin and Wilson 1978:677)



Figure 37 – Whitney liquor bottles (Glass Works Auctions)

W (ca. 1880s-ca. 1900)

Pollard (1993:265-266) showed drug store bottles marked with either an "M" or a "W" but offered no explanation for a manufacturer nor any date range. The drug store, however, was open between

1903 and 1924. Bethman (1991:488, 863) illustrated two Washington drug store bottles with the letter "W" (or "M") embossed on their bases. He dated the bottles 1910 and 1891, respectively.

Griffenhagen and Bogard (1999:129) noted a W mark on bottles used by A.C. Meyer & Co., Baltimore. They dated the mark in the 1880s. Aside from a "2W" mark "found on a Colgate two-ounce, handmade perfume, of oblong cross-section," Toulouse (1971:531) failed to list any other simple "W" mark. He dated the "2W" mark as "pre-1900." We found a round bottle, solarized amethyst, with "W / 62" embossed on the base at an antique store in Leadville, Colorado (Figure 38).



Figure 38 – W

A possibly early "W" on a ball-neck, fluted sauce bottle was reported by Schulz (2006:20, 58). The "W" is quite crude and is offset to the right. Wilson (1981:67) illustrated an ornate toiletry bottle found at Fort Union (1863-1890) embossed with a "W" on the base. He did not illustrate the mark.

In the Whitney catalog/history, Lohmann (1972:26) presented a page from the Whitney ledger. The next to the last entry had a notation of "217 lettered W on bottom." There are two interesting implications for this entry and the column. First, the ledger may tell us which Whitney bottles for the period are marked with which logos (although the entry noted above may indicate a "W" or may actually mean the W-in-a-diamond mark). Second, the numbers in the final column may refer to "catalog" numbers embossed on the bottles. However, we have not seen any bottles with both the Diamond-W mark and any embossed numbers on the bases.

WB-ligature (ca. 1880s)

Jones (1968:28) showed a "W" with the right line forming the left line of a leaning "B." She said, "Could be – Whitney Brothers. . . apparently from 1835 to 1887." An eBay auction featured a bottle with "WB" (ligature) over "32" on the base. The bottle looked like a soda bottle with a large blob top. The front of the bottle was embossed "A.D. BUSCHMAN & Co. / CONEY ISLAND, N.Y." in a plate with an ADB monogram in the center. The firm was listed in a New York newspaper in 1896, but we have found no other references to it. It is entirely possible, of course, that Buschman was in business early enough for a WB (Whitney Brothers) monogram to have been used. Paul Demmers provided a photo of a solarized amethyst base with the ligature, and we discovered another one at Fort Laramie embossed with the ligature above "71½" (Figures 39).



Figure 39 – WB ligature (Paul Demers & Fort Laramie)

[zigzag] W

Jones (1968:28) showed a zigzag mark with a "W" to the right that may have belonged to the Whitneys. Toulouse (1971:519), however, listed the symbol as "meaning unknown" and noted Jones as the source. Unfortunately, neither discussed the type of bottle. Also see the Other W section for a different possible interpretation.

[zigzag] WG

Jones (1968:28) showed a zigzag mark with a "WG" to the right that may have belonged to the Whitneys. Toulouse (1971:519), however, listed the symbol as "meaning unknown" and noted Jones as the source. We photographed an example of the mark on a crude, machine-made food jar from the Tucson Urban Renewal collection (Figure 40). We suggest that these two zigzag logos are related, but we need an example of the simpler mark to compare. Also see the Other W section for a different possible interpretation.



Figure 40 – Zigzag W (TUR)

W.G. / U.D.Co.

W.G. / U.D.Co. was embossed on the bases of "Rexall" prescription bottles. The United Drug Co. used the U.D.Co. logo (Griffenhagen & Bogard 1999:129). Toulouse (1971:538) recorded the W.G. mark but had no idea of the maker. It is unknown whether he referred to the one with the zigzag (above) or this one.

Our example had an Owens scar on the base. Only the Owens Bottle Machine Co., Illinois Glass Co., and Whitney Glass Works had Owens machine licenses to make medicinal bottles. Whitney received its license in 1909 and had to virtually rebuild its plant to use the machines. Owens shipped the first AE machine to Whitney on February 12, 1910, and the plant had seven Owens AE machines in place by the end of 1911 (Miller & McNichol 2002:7; Scoville 1948:110; Toulouse 1971:523). It is thus virtually certain that the Whitney Glass Works was the user of the W.G. mark.

The Owens firm gained control of Whitney in 1915, and the factory became Plant No. 7 of the Owens Bottle Machine Co. in 1918. The bottles could only have been made between 1909 and 1918. United Drug Co. came into being in 1902 and merged with other firms to form Drug, Inc. in 1948. In 1933, the merged companies reverted to the individual names, to United Drug was again the name. The business was renamed Rexall Drug Co. in 1948 (Sternad 2020)s.

W in a diamond (ca. 1890-ca. 1914)

Bethman (1991:79) noted that "several styles with the "W in a diamond" have been found that date from 1906-1910." He illustrated numerous examples with date ranges that stretched from 1890 to 1911. Preble (2002:424, 714, 726) illustrated six examples of the mark with a combined date range of 1895 to 1915 with a single outlier of ca. 1892. The ranges mostly clustered in the 1901-1910 area. Because Bethman showed several that he dated in the early 1890s and



Figure 41 - Diamond-W (TUR)

because of Miller's data (see below), we suspect 1890 is a better beginning date than 1906. Toulouse (1971:519) agreed, dating the mark as "probably since 1890 or 1900."

Miller (1999:83, 122; 2008:211) showed several Diamond-W marks, always with no accompanying numbers. The logo appeared on bottles that he dated 1894-1895, but he suggested that the mark was used from ca. 1890 to "the early 1910's." Colcleaser (1965:79) also showed the mark on a pharmaceutical bottle but included no dates. The Whitney diamond apparently was slightly elongated vertically or horizontally (Figures 41).



Figure 42 – Token (Barber 1900:45)

Tokens

Barber (1900:45) discussed tokens made for the Whitney works:

For several years after the Civil War, tokens or small metal coins were issued by these works as advertisements, redeemable in goods. One of these bears on its face the figure of a wicker-covered carboy or glass demijohn and on the back the inscription "Due Bearer in Mdze. at our Store One Cent. Whitney Bros. 1869. (Figure 42)

Discussion and Conclusions

Remarks from Creswick and Roller, in their discussions about fruit jars, make it clear that the plant was called the Whitney Glass Works earlier than the histories of the plant suggest (ca. 1883-1885). The factory may have been called Whitney Glass Works as early as the 1860s, certainly by the 1870s.

It is unlikely that the Whitney Brothers used a manufacturer's mark prior to the late 1860-early 1870 period. Except for jar markings, it is also likely that the company *never* consistently used logos of any kind. It is also highly unlikely that Whitney used a mark on machine-made bottles. The adoption of the Owens machine almost certainly led to a generic bottle era at Whitney. When hand production ceased in 1913-1914, so did the use of marks.

The various dates for the marks are generally self evident in the descriptions above and Table 1. However, the timing for the introduction of machine-made jars requires a bit of clarification. Toulouse noted that the firm introduced machines in 1904, but they were unsuccessful. Yet, many Whitney jars were machine made between 1904 and 1914. The Telephone Jars give us a clue. The Telephone Jars were trademarked in 1905, and the first style was entirely mouth blown. The second style of Telephone Jar was made by both hand and machine, so machine manufacture of jars began fairly soon after 1905, likely 1906 or 1907. We have selected "ca. 1906" as a logical date for machine production.

One final distinction may be unclear. Creswick included several jars in her section on Whitney Masons that we have also included here. These either had the name "WHITNEY" in ghosted (i.e., peened out) letters or lacked the word entirely but had dots in association with "MASON" in patterns identical to or similar to jars made with the Whitney name. These jars were almost certainly made by some other company – using the old Whitney molds – after Whitney had adopted the Owens machines and ceased fruit jar production.

A single example will demonstrate. Creswick (1987b:140) described jar No. 3990 (her numbering system) that was embossed "WHITNEY (arch) / MASON (horizontal) / PAT'D 1858 (inverted arch)" with one dot above "MASON" and five dots below it. On the next page (141), she illustrated an identical jar – without the word "WHITNEY." On jars with the Mason bead seal (apparently first adopted ca. 1910), it is likely that Whitney intended to manufacture the jars but instead changed direction to the production of Owens-machine-made bottles and ceased production of fruit jars.

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