Giles-Clough Glass Co. and Related Companies

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

When John Giles opened the first Safe Glass Co. in 1889, he began a chain of firms that branched into two directions. Henry Clough joined Giles in 1893 to incorporate the Giles-Clough Glass Co. at Redkey, Indiana, then the two parted company in 1897. Clough remained with the original business, renaming it the Redkey Glass Co., but the plant burned in 1902. Meanwhile, Giles moved to Upland, Indiana, and made jars under his own name for two years. In 1898, however, he re-adopted the Safe Glass Co. name until 1905, when he left the glass business to concentrate on making jar closures. Joining with J.A. Landsberger, Giles formed the Hermetic Closure Co., later merging with Phoenix Cap Co., a firm still in business.

Company Histories

We present a number of histories below. Although this section spotlights the Giles-Clough Glass Co., the firm was preceded and followed by other glass houses in the same and different locations.

Safe Glass Co., Bowling Green, Ohio (1889-1892)

Unfortunately, we have virtually no information about John S. Giles prior to his emergence in the glass business. Apparently, his old business was faltering, so Giles began remodeling his old mill as a glass factory at Bowling Green, Ohio, in December 1888. The Safe Glass Co. began operations on March 19, 1889, and Giles was "amazed" at the quality of the glass. Initially, a single tank served the plant, but it was soon dismantled and replaced by two tanks, one for green glass and one for amber. By the fall of 1889, a third tank was also in operation. Along with fruit jars, the factory produced druggists' ware and beer bottles (Paquette 2002:154-156; Toulouse 1971:473).

On January 15, 1890, the firm incorporated with a capital of $25,000 and John S. Giles as president. By 1891, fruit jars were the main products. However, when natural gas played out at Bowling Green, Giles permanently closed the plant on October 5, 1892, and moved the

equipment to Redkey, Indiana (Paquette 2002:154-156; Roller 1997; Toulouse 1971:473). After the move, the business was reorganized to include Henry H. Clough (Roller 1994:89). Clough's company, the Bowling Green Glass Co. (formerly Lythgoe Glass Co.), had burned on March 13, 1890 (Paquette 2002:138). We have found no evidence of any sort of logo used by this first Safe Glass Co.

Giles-Clough Glass Co., Redkey, Indiana (1893-1897)

Henry H. Clough, John S. Giles, and Frank M. Robinson incorporated the Giles-Clough Glass Co. on January 7, 1893, with a capital of $30,000. The firm invested $24,000 in a new glass factory at Redkey, Indiana, and moved in the machinery from the Crystal City Glass Co. at Bowling Green, Ohio. Crystal City had opened in 1888, making flasks, Mason jars, and other glassware. Although quite successful, the plant was forced to shut down by the same natural glass crisis that closed the Safe Glass Co. Giles purchased the Crystal City Glass Co. factory because the equipment was newer (*Paint, Oil and Drug Review* 1893:12; Paquette 2002:139, 153, 157; Roller 1997; 1998a).

The new plant blew its first glass – making Mason jars – on January 16, 1893. The plant was located between Mooney and South Streets, bounded by Lake Erie and the Western Railroad tracks. By 1895, the plant had grown to four tanks. When Giles retired and sold his stock to William Buttler (then president of the Marietta Glass Co.) on November 13, 1897, the name was changed to the Redkey Glass Co. Giles moved to Upland, Indiana, to begin a new glass house – see below (Roller 1994:89-90; 1998a).

Containers and Marks

GCCo monogram

Toulouse (1969:212) called this monogram "CGCo" and attributed the jar to the Canton Glass Co., Canton, Ohio, 1883-1893; Marion, Indiana, 1893-1899 and 1904-1905.[1] In his later book (Toulouse 1971:127-128), he dated the Canton factory 1880-1894, and the Marion plant

[1] Because this was a monogram, the letters could be rearranged as CGCo or GCCo.

1894-1899. He noted the monogram as "period of use uncertain." He addressed the Giles-Clough identification:

> The monogram is also ascribed to the Giles-Clough Glass Co., of Redkey, Ind. No exact documentation is known either way. The weight of evidence is with the Canton Glass Co. Giles-Clough, which was the name used for an interval between the uses of the name "Safe Glass Co.," made the "Red Key" Mason jar. Mr. John Giles does not confirm that his family used the monogram during his family's six-year stay in Redkey.

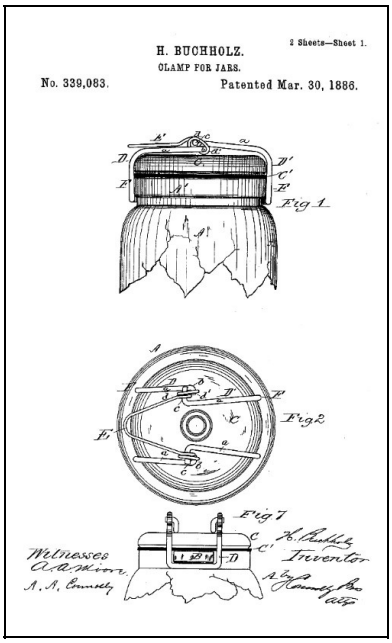
Figure 1 – Fruit-Keeper jar (North American Glass)


Figure 3 – Fruit-Keeper clamp (North American Glass)

Roller (1983:132; 2011:204) described jars embossed "FRUIT-KEEPER" above a GCCo monogram but noted the manufacturer as the Giles-Clough Glass Co. (1896-1897) "and its successor, the Redkey Glass Co., Redkey, Ind." (Figure 1). The jars were mouth blown and topped by a "straddle-lip top seal, glass lid and double cam sheet metal and wire clamp" (Figure 2).

The clamp was stamped "PAT. MAR 30 86" (Figure 3). Roller suggested that the patent was uncertain but could have been the one issued to Hermann Buchholz, a resident of Pittsburgh, although the drawing did not exactly fit the closure. Buchholz applied for a patent for a "Clamp for Jars" on December 19, 1885, and received Patent No. 339,083 on March 30, 1886 (Figure 4). He assigned half the


Figure 2 – Ground rim (North American Glass)


H. BUCHHOLZ.
CLAMP FOR JARS.
No. 339,083. Patented Mar. 30, 1886.
Fig 1
Fig 2
Fig 7
Witnesses
Inventor
Figure 4 – Buchholz 1886 patent

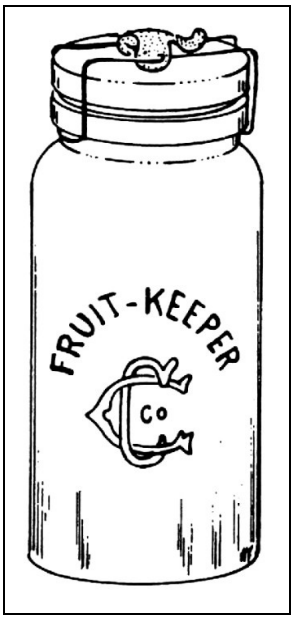


Figure 5 – Fruit-Keeper (Creswick 1987a:65)

patent rights to Henry Miller of the same city. Creswick (1987a:65) also illustrated the same monogram on the FRUIT-KEEPER jar – with the monogram below "FRUIT-KEEPER." (Figure 5). She dated the jar "circa. 1886 or later" but attributed it to Giles-Clough.

Roller (1983:233) also noted the monogram on a Mason jar embossed "MASON'S (slight arch) / GCCo monogram / PATENT / NOV. 20TH / 1858 (all horizontal)" but dated it ca. 1892-1897 by Giles-Clough and ca. 1898 by Redkey (Figure 6). Creswick (1987a:141) illustrated two slight variations of the monogram on Mason jars. A variation only had the letter "T" rather than "TH" in the patent date (Figure 7). She attributed the jars to the Giles-Clough Co. ca. 1896-1898. Photos from North American Glass and eBay showed a number embossed on the base (Figure 8). We concur with the Giles-Clough assessment (see the Discussion and Conclusions section for the explanation).

Figure 6 – GCCo Mason (eBay)

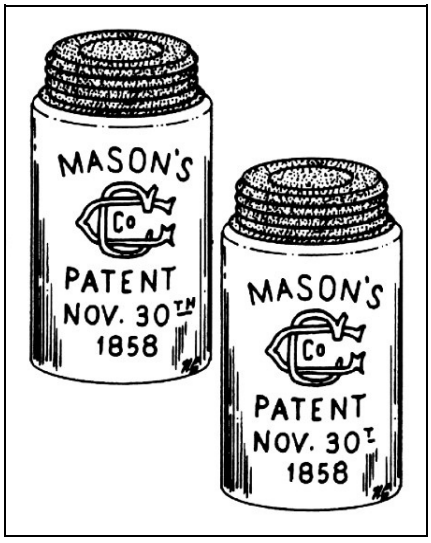


Figure 7 – GCCo Mason (Creswick 1987a:141)


Figure 8 – Mason base (North American Glass)

Redkey Glass Co., Redkey, Indiana (1897-1902)

In 1897, the firm reorganized as the Redkey Glass Co. with William Buttler as president, O.H. Clough as secretary, and H.H. Clough as treasurer. The plant now operated "one continuous tank of 14 rings on fruit jars, oil cans, battery jars and bottles" (*National Glass*

Budget (1897a:7). Letterheads and billheads of the Redkey Glass Co. noted that the company was the "successor to Giles-Clough Co., mfrs. of fruit jars, bottles & oil cans."[2] Letterheads on March 24 and 30, 1898, advertised "Fruit Keepers & Mason Fruit Jars & Redkey Oil Cans" (Roller 1998a).[3]

As a non-union plant, Redkey could produce fruit jars so much more cheaply than union shops that the Cunningham Glass Co. ordered a railroad carload of jars form Giles-Clough in 1898. Apparently, however, the union moved in and organized. On January 16, 1899, the *Altoona Tribune* reported that the Redkey factory feared bloodshed from its striking employees, when the management threatened to import workers from Pennsylvania. The glass house appealed to the sheriff's department for help but was refused. The dispute was apparently settled (Roller 1998a).

Corporation president William Buttler and Henry H. Clough applied for a patent for an "Apparatus for Forming Hollow Glass Articles" on April 28, 1899, and received Patent No. 630,284 on August 1. The Muncie Foundry and Machine Co. constructed a sample machine for Redkey Glass very early in 1900, and Redkey contracted for two more "Buttler" machines on May 16 (Roller 1998a; Scoville 1948:324). This was a semiautomatic press-and-blow machine – quite crude by later standards.

By March 10, 1900,[4] Redkey Glass was "listed among members of [a] fruit jar combine run by Ball Brothers Glass Mfg. Co." (Roller 1994:90). A major fire destroyed the factory on April 21, 1902, destroying not only the plant, itself, but thousands of jars that had been produced that season. The firm declined to rebuild (Roller 1994:89-90; 1998a). Brantley (1975:25)

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[2] Various sources spelled both the town and the company as "Redkey" and "Red Key." The City of Redkey, Indiana, website uses the single-word spelling, and Roller (1994), the most efficient researcher for Indiana glass companies, also used the single-word spelling for the company. We have elected to use the single-word spelling in all cases except quotes.

[3] "Oil cans" were glass bottles or jars used to contain motor oil.

[4] All entries in Roller's notes refer to the plant in generic terms (e.g., the Buttler-Clough fruit jar factory) rather than by name. It is likely that the Ball Brothers at least controlled the plant from 1900 and may have owned it outright at that time. The factory almost certainly belonged to the Balls by the time of the 1902 fire.

suggested that the Balls bought the plant in 1904, but a letter from Ball was very unclear about Ball's ownership (Roller 1998a). The Ball Bros. had a history of buying up the competition, so Brantley's assumption was understandable.

Containers and Marks

Letters from 1898 and 1899 featured "Redkey Oil Cans." Although Mason jars with "RED" superimposed over a skeleton key are fairly common, We have been unable to find a single oil can (actually glass jars with metal pour spouts) embossed with a similar marking or the word "Redkey." Either the "cans" lacked any form of recognizable mark, or we just have not found one.

FRUIT KEEPER (1897-ca. 1898)

Although Redkey letterheads from March 24 and 30, 1898, advertised "Fruit Keeper" jars, the only such jars known had the GCCo monogram of Giles-Clough. The "Fruit Keeper" designation was missing from the May 23 and subsequent letterheads. Redkey probably only made the jars until the old molds wore out, possibly until mid-1898. See the Giles-Clough section above for more on Fruit Keeper jars.

RED (superimposed on a key) MASON (1897-1902)

Toulouse (1969:260; 1971:430), Roller (1983:304), and Creswick (1987a:183; 1987b:111) all illustrated and/or described variations of these jars. The identifying marks in all cases consisted of the word "RED" superimposed over a skeleton key. These logos came in two styles. The earliest had solid letters superimposed over a thin key above "MASON'S (slight arch) / PATENT / NOV. 30TH / 1858 (all horizontal)" on the front of the jar (Figure 9). Some – possibly all – of these jars had bases embossed with Roman numerals, extending to at least XXVIII (Figure 10).

Figure 9 – Redkey single line (eBay)

Figure 10 – Redkey single line base (eBay)

Two variations of solid-letter marks had HGCo monograms ghosted on either the front or reverse of the jars. The HGCo monogram had been used by the Hemingray Glass Co. during ca. the 1870s and 1880s but had been discontinued (see Hemingray section for more details). Redkey apparently acquired two (or more) of the old Hemingray molds, peened out the old monograms, and used the molds until they wore out. These were likely the first molds used by Redkey.

Figure 11 – Redkey double line (eBay)

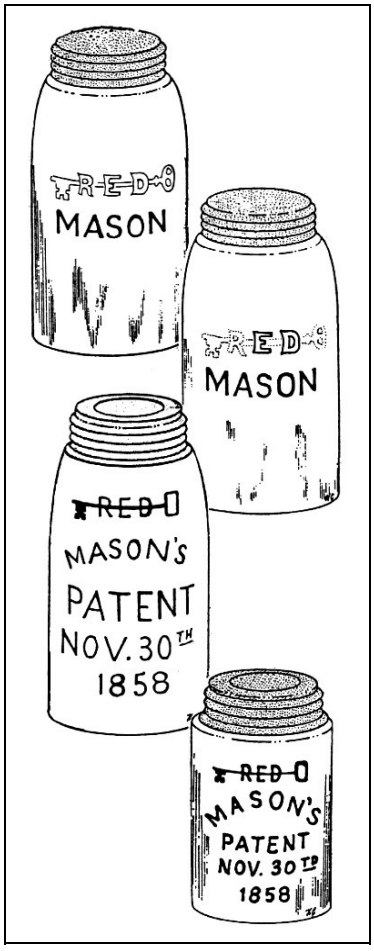


Figure 12 – Redkey Masons (Creswick's 1987a:183)

Although there were many minor variations, jars with solid-line logos were mouth-blown into a mold – except for one jar embossed with "BALL / MASON" on the reverse that was machine made by – or for – the Ball Brothers, likely in 1902. Roller (1998a) noted that a January 18, 1904, letter from the Ball Bros. claimed that Ball "sold some jars made at Redkey but invoiced under Ball's name" ca. 1902. Although oddly out of sequence, this was certainly the last in the Redkey series; apparently, Redkey used some of its old molds to make the Ball jars. Otherwise, jars with solid-line logos were almost certainly made prior to the double-line series.

In jars with double-line logos, however, the letters were outlined, the key was much thicker, the only word below the logo was "MASON" embossed horizontally, and the jars were machine made (Figure 11). One variation had the "R" in "RED" missing or ghosted and the key ghosted as well (Figure 12). As suggested by Roller (2011:445), jars with double-line logos were probably made after William Buttler, president of the corporation, invented his bottle machine and began using it to

Figure 13 – Redkey double line base (eBay)

make jars for the firm in 1900. These bottles were probably made until ca. 1902. There were at least three different molds used for double-line logos (Figure 13). Some (possibly all) bases had an Arabic numeral in the center (Figure 14). See Table 1 for a chronology of the styles and variations.

Figure 14 – Double line variations (eBay)

Table 1 – Red Key Mason Jar Chronology

Line	Mfg.	Description	Date Range
Solid	Mouth	MASON NOV 30TH; ghosted HGCo monogram*	1897-ca. 1898
Solid	Mouth	MASON NOV 30TH	ca. 1898-1900
Outline	Machine	MASON (only)	1900-1902
Solid	Machine	Ghosted solid-letter RED and key; MASON NOV 30TH; BALL MASON on rev.	1902

* HGCo monograms were used on fruit jars by Hemingray during the ca. 1870s and 1880s. These may have been the first jars made by Redkey.

J.S. Giles, Upland, Indiana (1897-1898)

Although Redkey was the successor to Giles-Clough, John Giles went in another direction. Roller (1983:132) noted that John S. Giles sold his interest in the Giles-Clough Co. and began erecting a new tank at the Old Swab Lockworks at Upland, Indiana – ca. 20 miles northwest of Redkey – by November 1897 and was listed as having one continuous tank with four rings before the end of the year.[5] Giles operated under his own name, J.S. Giles, for about a year (1897-1898) and originally made Mason jars and possibly other products (Roller 1998b). In 1898, J.P. Giles was listed in Redkey, making green hollowware, using 12 pots (*National Glass Budget* 1898:7). But change was again in the wind.

Containers and Marks

J.S. GILES or the JG monogram (1897-1898)

Roller (1994:109; 1998) noted that a "figure of MASON'S PATENT NOV. 30TH 1858 jar held by cartoon characters" was stamped on a wooden box that was also stamped "J.S. GILES MASON JARS UPLAND, IND." during the 1897-1898 period, although the name has not appeared on actual glass jars in the literature. However, Giles' initials – JG – would fit the JG monogram that has heretofore been ascribed to the Gilchrist Jar Co. This would be a better match for the monogram (Figure 15). Also see the section on the Gilchrist Jar Co. for more discussion.

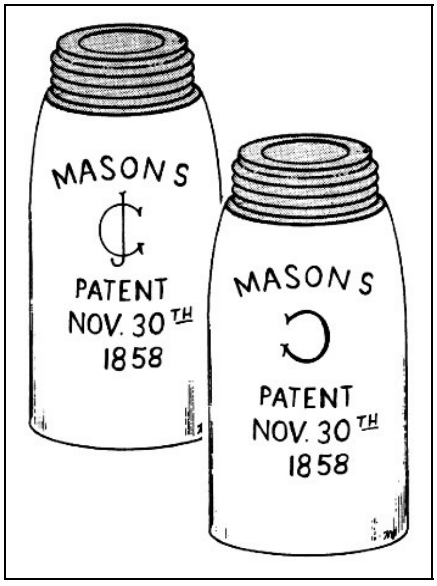


Figure 15 – Mason jar; JG logo (Creswick 1987a:141)

Safe Glass Co., Upland, Indiana (1898-1905)

On November 22, 1898, John S. Giles, Carl C. Giles, Charles Ardruser, and Ed O'Neil filed the Safe Glass Co. as an Indiana corporation with a

[5] Although we have not found any documentation, it seems likely that Giles and Clough had a falling out. It is obvious from his later direction that Giles was moving away from fruit jars.

capitalization of $24,000. On December 17, the *Marion Daily Chronicle* reported that the factory had "a patent press machine for making tumblers and jelly glasses that will revolutionize the trade." The machine, known as the Anderson-O'Neill press, purportedly made 20 tumblers per minute. In December 1898, *Commoner & Glassworker* noted that Giles had "entirely abandoned the manufacture of fruit jars, claiming there is nothing in them anymore." The following year, the plant operated a single continuous tank as well as one day tank with four rings. The day tank was gone in 1900, but the continuous tank had four rings. Giles apparently had a change of heart. On December 1, *Commoner & Glassworker* reported that the plant was "making vacuum jars and machine-made bottles" (Roller 1998b).

The plant had two tanks with eight rings by 1901, but the firm apparently had some serious labor problems by November second. *China, Glass & Lamps* reported that the management had "locked all the union men out of their fruit jar and packers' bottle factory, and will try to start with non-union men operating the machines." Safe Glass announced in March 1903 that the plant would begin making the "U-NO-ME" vacuum jar that did not require any rubber rings, patented on December 30, 1902 (Roller 1998b). In 1904, the plant used two continuous tanks with 10 rings to make "packers ware, fruit jars and tableware" (*American Glass Review* 1934:153).

In 1905, possibly because of an ongoing natural gas problem, the Safe Glass Co. dissolved its corporate status. Roller (1983:313) addressed the end of the company:

> According to Phoenix Closures, Inc. historical notes, the Safe Glass Go. was consolidated with the J.A. Landsberger Co., of San Francisco, California, to form the Hermetic Closure Co. in 1905. At that time, an agreement was reached with the Kerr Glass Mrg. Co. to withdraw the SAFE jar from the market. [See the section on the SAFE GLASS Co. below.]

Postscript – The Phoenix and Giles Closures

To tie up the ending of this firm, we need to follow two trails. The first was the connection between Landsberger on the West Coast, Giles in the Midwest, and Alexander H. Kerr. The second was the creation and development of the Giles Jar.

Julius A. Landsberger and the Phoenix Closures

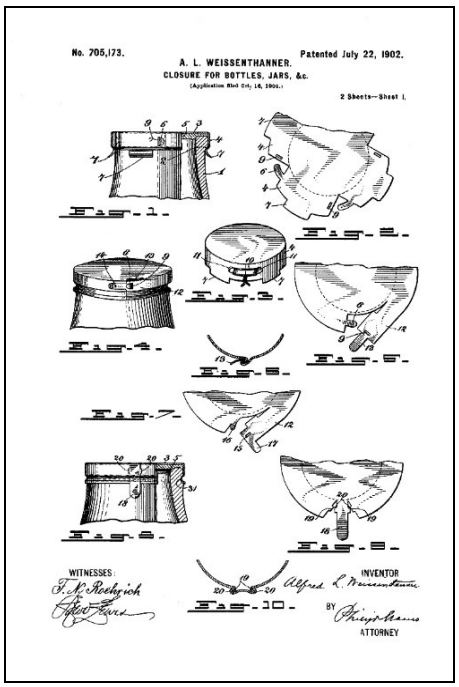


Figure 16 – Weissenthanner 1902 patent

Figure 17 – Phoenix closure (eBay)

As noted above, Giles merged with Julius A. Landsberger in 1905 to form the Hermetic Closure Co. The story, however, goes back to 1889, when Achille Weissenthanner invented a new vacuum seal in Paris. He demonstrated his new product at the Columbian Exposition at Chicago in 1893 (Berge 1980; Lindsey 2015). Weissenthanner Americanized his first name to Alfred E. and applied for a U.S. patent for a "Closure for Bottles, Jars" on October 16, 1901. He received Patent No.705,173 on July 22 of the following year (Figure 16). Lief (1965:21) described the closure as "a two-piece cap with a metal plate and rubber washer held on the jar top by a tongue-and-eye compressing neckband clamped under a ring on the finish." This became popular eventually as the Phoenix closure (Figures 17 & 18).

Just how Julius A. Landsberger entered the picture is unclear. By at least 1897, the firm of J.A. Landsberger & Bro. was listed in the city directories as "Brokerage & commission" and "Pacific Coast Agents [for] American Tin Plate Co., E.S. Burnham Co., Mullen-Blackledge Co., and N.C. Cummings & Bro." Similar listings continued until 1899, but, in 1900, the name had changed to J.A. Landsberger & Co., "Wholesale commission." By 1904, the telephone book enumerated J.A. Landsberger & Co. as "Hermetic closures" at 108 Market. Landsberger therefore

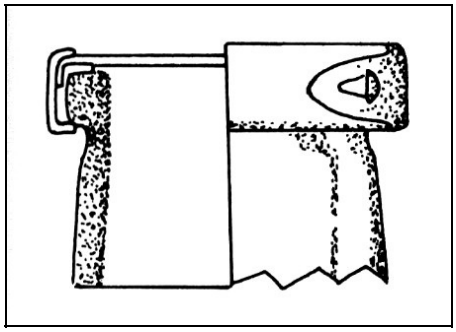


Figure 18 – Phoenix closure (Lindsey 2015)

became the U.S. outlet for the Phoenix closure sometime between 1902 – when Weissenthanner received his American patent – and 1904. Landsberger was the secretary of the Vacuum Jar & Fruit Packaging Co. at San Francisco in 1901 and was a sales agent for the firm from 1902 to 1904, so this may have been the avenue leading to the use of the Weissenthanner patent (also see the section on the Easy Vacuum Jar below). The closure remained popular until the 1930s and may have disappeared due to metal conservation efforts during World War II (Lindsey 2015).

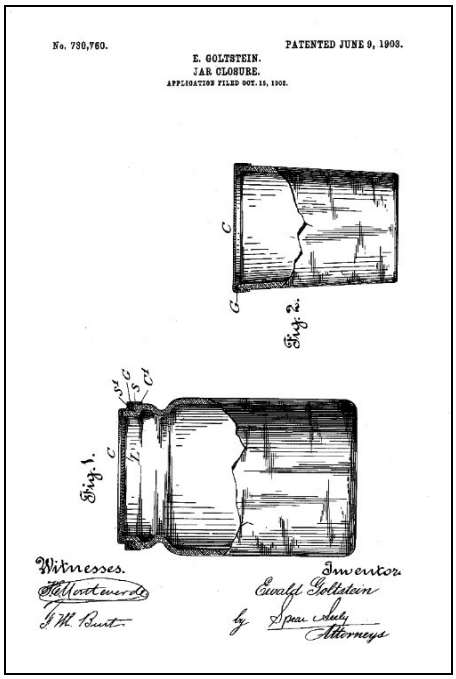


Figure 19 – Goltstein 1903 patent

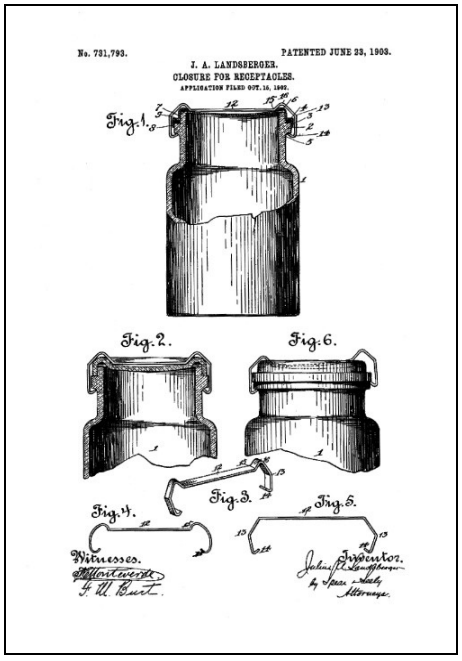


Figure 20 – Landsberger 1903 patent

Meanwhile, Ewald Goltstein applied for a patent for a "Composition for Elastic Washers" on July 31, 1900, and received Patent No. 664,998 on January 1, 1901. On October 15, 1902, Goltstein applied for a patent for a "Jar Closure" and received Patent No. 730,760 on June 9, 1903 (Figure 19). Golstein assigned the patent to Landsberger. Not to be outdone, Landsberger applied for his own patent on October 15, 1902, for a "Closure for Receptacles" and received Patent No. 731,793 on June 23, 1903 (Figure 20). These were both similar to each other and to the Giles patent (see below), except that the Golstein and Landsberger inventions had normal side seams. These became the basis for a jar embossed on the base "J.A. LANDSBERGER CO. SAN FRANCISCO U.S.A. around "PATENTED JAN 1 01 / JUNE 9 03 / JUNE 23 03" – referring

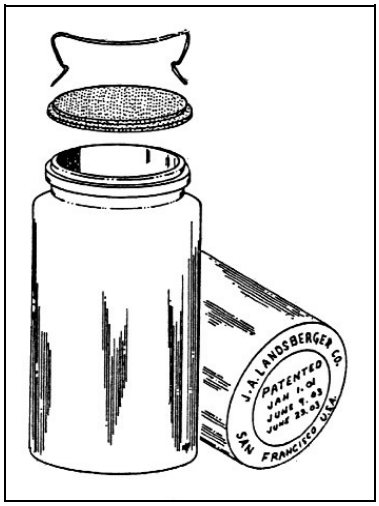


Figure 21 – Landsberger jar (Leybourne 2012:233)

to the two Goltstein patents and the one by Landsberger (Figure 21). Roller (2011:289) suggested that these were probably made by the Illinois-Pacific Glass Co. ca 1903. A member of the Kerr family claimed that Alexander H. Kerr obtained the rights for both closure patents from Landsberger in 1903, and the Hermetic Closure Co. made the lids

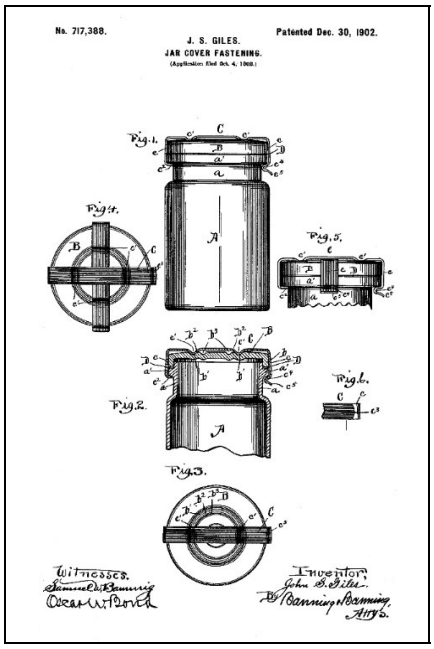


Figure 22 – Giles 1902 patent

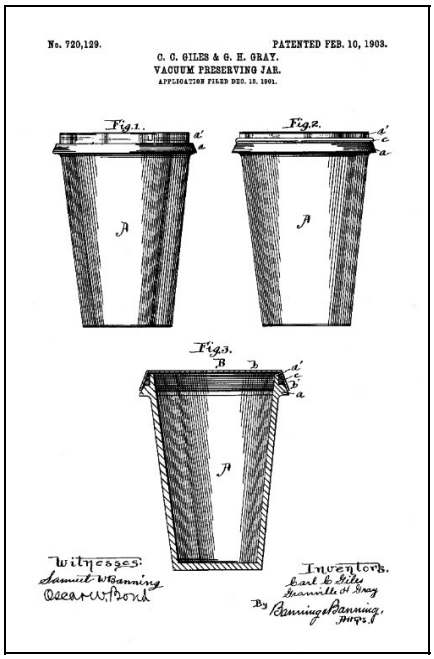
U-NO-ME and the Giles Jar


Figure 23 – U-NO-ME jar (*Glass Chatter* Feb. 2006)

About the same time, John S. Giles was working on his own design. On October 4, 1902, Gilles applied for a patent for a "Jar Cover Fastening" and received Patent No. 717,388 on December 30, 1902 (Figure 22). This became the "U-NO-ME" vacuum jar that the Safe Glass Co. announced in March 1903 (see above). Roller (1983:276; 2011:408) described and illustrated a jar, embossed "PAT DEC. 30, '02" in an arch on the base (Figure 23) and "U-NO-ME (arch) / "PAT DEC. 30, '02 (inverted arch)" on the lid (Figure 24). He attributed the jar to the Safe Glass Co. ca. 1903 and included an ad for the product (Figure 25).

Figure 25 – Ad for the U-NO-ME jar (Roller 1983:277)

Figure 24 – U-NO-ME lid (*Glass Chatter* Feb. 2006)


No. 720,129. PATENTED FEB. 10, 1903.

C. C. GILES & G. H. GRAY.

VACUUM PRESERVING JAR.

APPLICATION FILED DEC. 13, 1901.

Fig. 1.

Fig. 2.

Fig. 3.

Witnesses: Samuel W. Banning, Oscar W. Ford

Inventors: Carl C. Giles, Granville H. Gray

By Banning & Banning, Attys.

Figure 26 – Giles & Gray 1903 patent

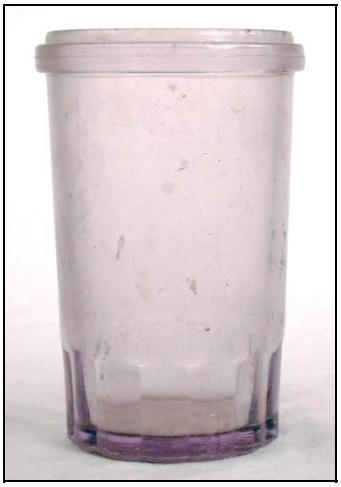


Figure 27 – Giles Jar (Lindsey 2015)

Carl C. Giles (probably a brother or son of John S. Giles) and Granville H. Gray applied for a patent for a "Vacuum Preserving-Jar" on December 13, 1901 and received Patent No. 720,129 on February 10, 1903 (Figure 26). They assigned the patent to John S. Giles. This became known as the "Giles Jar" – although John Giles made at least three improvements on the Giles & Gray patent, one in 1904 (Patent No. 760,980) and two in 1907 (Patents 872,118 and 873,366). As the various firms became intertwined, so did the products. At least one Giles Jar had the horizontal shoulder seam, but the base was embossed with the Goltstein and Landsberger patent dates (Figure 27).

Lief (1965:22) noted that the Giles Jar:

> set the style for a horizontal ledge just below the top, accommodating a rubber gasket compressed against a straight sidewall by the cap's flange. It was an innovation in glass molding, in that the top united to the body of the jar in a horizontal seam instead of a vertical one which usually left the surface somewhat rough.

This is a bit misleading as shown in the patent drawing (see Figure 26). Giles and Gray stated that the jar was "formed in a mold which opens transversely or horizontally at a point in line with the lower face of the flange or ledge, so that the opening will form a ridge horizontally or transversely of the body of the jar." Although they did not specify the method used to produce the jar, it could only have been formed by pressing. The patent drawing shows the body distinctly flaring from base to finish, so that it could be removed from the press mold with no vertical seams. The top part of the mold, similarly would lift straight up to remove the finished

product, leaving only a horizontal seam at the base or center of the finish. Bender (1986:8) claimed that "this cap and jar combination, in two versions, was produced in quantity from 1901 to the mid 1920s, managing to survive in the popular "G" size until 1935."

As noted above, Giles closed the Safe Glass Co. in 1905 and merged with Landsberger to form the Hermetic Closure Co., moving the firm to Chicago. In 1911, the company merged again with the Phoenix Cap Co. of New York to form the Phoenix-Hermetic Co. The firm developed a continuous-thread cap in 1922 and adopted a new name: the Phoenix Metal Cap Co. The company remains in business in 2015 (Phoenix Closures 2015).

Containers and Marks

EASY VACUUM JAR

Roller (1983:113) described a mouth-blown jar embossed "EASY / TRADE {VCJCo monogram} MARK / VACUUM / JAR" on the front and "PAT JULY 11 1893" around the same monogram on the base. The closure was a "side seal, tinned-iron push-down lid and flat metal spring clamp stamped "PAT JULY 11 93." He noted the manufacturer as the Safe Glass Co., Upland, Illinois, 1898-1902 and the Illinois-Pacific Glass Co., ca. 1890s-1900s. He included an ad for the jars.

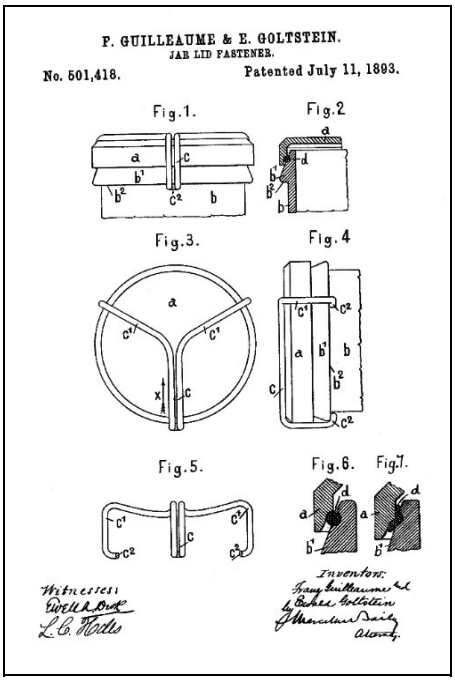


Figure 28 – Guilleaume & Goltstein 1893 patent

Franz Guilleaume and Ewald Goltstein applied for a patent for a "Jar-Lid Fastener" on May 21, 1892, and received Patent No. 501,418 on July 11, 1893. The patent was for a three-pronged wire clamp that looked somewhat like a peace sign from the top (Figure 28).

Creswick (1987a:51) discussed the same jar and added three variations that were only marked on the bases. One basemark was embossed ""PAT JULY 11 (arch) / CO. / {VJC monogram} / 1893"; another "PAT^{D} JULY 11TH (arch) / & / {VJC monogram} / Co / 1893"; and

the third "PAT^{D} JULY 11TH (arch) / 1893" (Figure 29). There were also three variations of lids for the last three base variations stamped:

1. PAT. JULY 11 1893
2. PAT. JULY 11 93 TO OPEN PUNCTURE COVER
3. WADHAMS & KERR BROS. / MONPOLE (both arched) / FOODS (horizontal) / THE BEST / PORTLAND, O. (both inverted arches)"

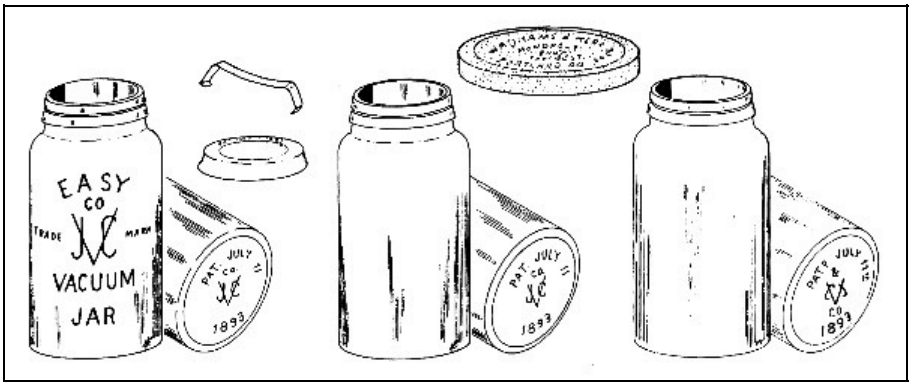


Figure 29 – Easy Vacuum Jars (Creswick 1987a:51)

Jars photographed for North American Glass showed that there were at least three variations in molds. One was embossed ""EASY (slight arch) / TRADE {VCJCo monogram} MARK / VACUUM / JAR (both slight inverted arches)" with "TRADE" sloped downward and "MARK" sloped upward. There was no period after "CO." The second was virtually identical, but "TRADE" and "MARK" were each in a slight inverted arch as well as sloped – again no period after "CO." The final variation had an arched "EASY" – but all the other words were horizontal, and "CO." ended in a period (Figure 30).

Figure 30 – Easy Vacuum Jar variations (North American Glass)

Creswick also suggested Safe Glass and the Illinois-Pacific Glass Co. as manufacturers of the jars. She further noted that Wadhams & Kerr Bros. was a wholesale

grocer at Portland, Oregon, made up of William Wadhams, Alexander H. Kerr, Samuel C. Kerr, and Francis R. Kerr. In 1903, Alexander Kerr left the firm to initiate the Hermetic Fruit Jar Co., the forerunner of the Alexander H. Kerr Glass Co. See the section on Kerr Glass for a history of the firm.

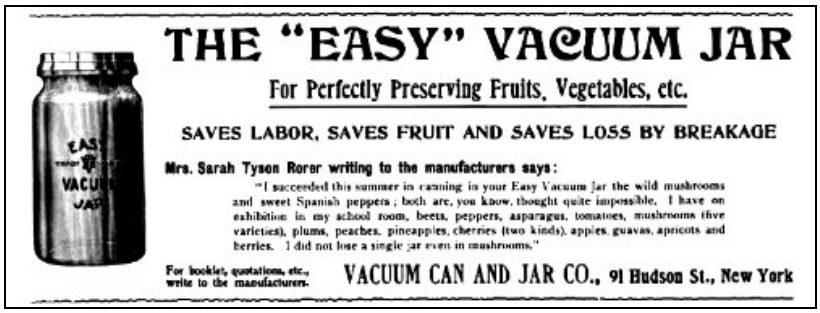


Figure 31 – Easy Vacuum Jar ad (*Home Furnishing Review* 1898:87)

The Roller update (2011:176-177) agreed on the descriptions of the jars and manufacturers. However, it added several bits of relevant information. The Vacuum Can and Jar Co. of New York City was listed in the city directories in 1897 and 1898 and was listed by other sources until at least July 4, 1901. W.H. Write was the president, with T.L. Tapscott as vice president, Alex Wiley as second vice president, and G.P. Johnson as secretary and treasurer. We found ads for the Easy Vacuum Jar at 91 Hudson St., New York, from 1897 and 1898 (Figure 31). The business apparently moved to New Jersey in 1902 and was listed on the New Jersey tax corporate rolls with a capital of $500,000 from 1902 to 1904 (e.g., State of New Jersey 1905:369). The *New York Times* for January 8, 1902, listed Grey v. Vacuum Can & Jar Co., although we have been unable to find the court transcript. The lawsuit may have been responsible for the corporate move to New Jersey.

The clamps on the jars were similar to those used on the Kerr Economy lids. Since both Goltstein and Landsberger were connected to Kerr, this is unsurprising. In fact, the later Goltstein and Landsberger patents – used for the Economy jars – may have been inspired by this earlier patent (Figure 32). As noted above, Landsberger was the secretary of the Vacuum Jar & Fruit Packaging Co. at San Francisco in 1901 and was a sales agent for the firm from 1902 to 1904. The company had been incorporated in 1895 (Roller 2011:176). Roller listed 22 examples of embossed jars being used as packers.

Figure 32 – Economy jar (Berge 1980:103)

Interestingly, none of these sources provided any reason for selecting the Safe Glass Co. or Illinois-Pacific as a manufacturer of these jars. Although Illinois-Pacific was close to the Vacuum Jar & Fruit Packing Co. at San Francisco, the Safe Glass Co. was nowhere near New York City. There also is no connection we can find between either inventor (Goltstein or Landsberger) and either glass house. In addition, the Illinois-Pacific Glass Co. did not open until 1902 and could not have made the jars during the 1897-1901 period. Similarly, the Safe Glass Co. opened in 1898 and could not have made the earliest jars, advertised in 1897. While each of these glass houses could have made the later jars, some other plant had to have produced the earliest jars. The most likely candidate on the West Coast was the San Francisco.& Pacific Glass Works – 1876-1902. Almost any glass house in the Midwest or East Coast could have made the jars for the New York office

SGCo Monogram

Toulouse (1969:283-284; 1971:473) discussed and illustrated a jar embossed "MASON'S / {SGCo monogram} / PATENT / NOV 30TH 1858" that he attributed to the Safe Glass Co. and placed its use between 1880 and 1900 on handmade yellow-green and aqua jars (Figure 33). In his 1969 book, he also noted that at least one embossing error was present. The error jar lacked the "'S" (i.e., the second "S" and the apostrophe) on the word "MASON'S."

Figure 33 – SGCo Mason Jar (North American Glass)

Creswick (1987a:144), Kath (1996:52), and Roller (1983:236) all illustrated and discussed the same monogram on pint, quart, and half gallon jars, and all three sources asserted that the jars were made by the Swayzee Glass Co. from ca. 1894 to the early 1900s. The identification was almost certainly based on wooden cases used by Swayzee with an intricate SGCo monogram that was very similar to the one on the jars but not an exact match (Figure 34). Roller, however,

Figure 34 – Swayzee case (eBay)

was less certain of the manufacturer's identification, and that continued in the Roller update (2011:356), which stated that the maker was uncertain but could be Swayzee. Creswick (1987a:144) also discussed a variation that lacked the second "T" in "PATENT" (Figure 35). Also, see the section on the Swayzee Glass Co.

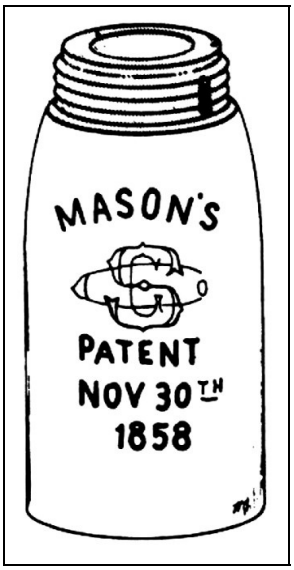


Figure 35 – SGCo Mason Jar (Creswick 1987a:144)

SGCo

Toulouse (1971:473) suggested that the SGCo initials were used by the Safe Glass Co. from ca. 1880 to 1900. However, this was probably a misreading of his earlier work (Toulouse 1969:283), where he used the initials and mentioned obscurely that they were in monogram form (see above).

Roller (1983:326) noted the S.G.Co. mark on the base of a grooved-ring wax-sealer fruit jar, although he did not name the manufacturer or attempt to date the jar. The jar was illustrated by Creswick (1987a:191). Whitten (2005:71) noted that the wax-sealer jars marked SGCo were made by the Southern Glass Co., Louisville, Kentucky from 1877 to 1879. SGCo initials were used by other companies as well (see the sections on the Other S, Southern Glass Works, and Southern Glass Co for more information).

SAFE or SAFE GLASS CO. (1903-1905)

Roller (1983:313) noted a jar with a press-down-cap embossed "SAFE" on the front and "MADE BY THE SAFE GLASS CO. (arch) / PAT / FEB 10 03 (both horizontal) / UPLAND (inverted arch) / IND (horizontal" on the base (Figure 36). This leaves no doubt about the manufacturer. He dated the jars from 1903 to 1905 and noted that, in 1905, the jar was withdrawn from the market in an agreement with Kerr Glass

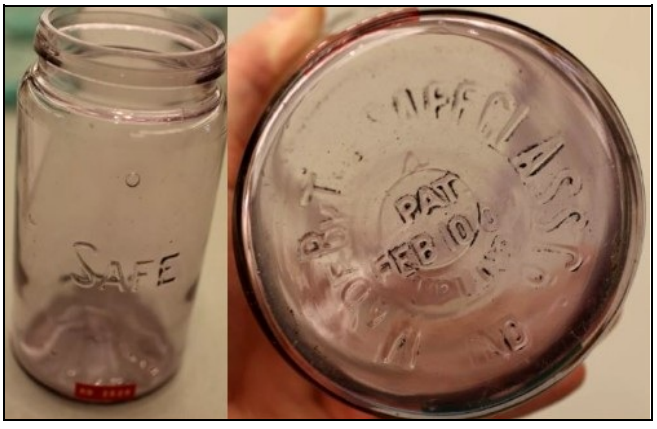


Figure 36 – Safe jar (*Glass Chatter* Feb. 2006)

Mfg. Co., concurrent with the merger between the Safe Glass Co. and the J.A. Landsberger Co. The word "SAFE" sometimes appears as a ghost mark on Kerr Economy jars (Roller 1983:114).

Figure 37 – Safe jar (Creswick 1987b:115)

Creswick (1987b:115) illustrated the SAFE jar and included the number "4" on the base (Figure 37). She, too, dated the jars ca. 1903-1905 and noted that the patent (No. 720,129) was issued to Carl C. Giles and Granville H. Gray (see discussion above). She also included a variation of the jar with the word "UPLAND" beneath the patent date rather than around the edge of the jar with the rest of the company/location information. The Roller update (2011:457) noted several variations and suggested that there may be many others.

Discussion and Conclusions

Because there were disagreements among the earlier researchers and because the lineage of companies, marks, and products are so complex, a summary of the logos is in order.

GCCo Monogram (1893-ca. 1898)

While Toulouse made a strong argument for the monogram actually being CGCo and used by the Canton Glass Co., the Redkey Glass Co. letterhead advertising "Fruit Keepers & Mason Fruit Jars" (Roller 1994:89) places the logo – embossed on Fruit-Keeper jars – solidly in the Giles-Clough/Redkey downline. The jars were certainly made by Giles-Clough during the 1893-1897 period and, possibly, the Redkey Glass Co. during 1878 and possibly 1879.

Red Key Mason Jars (1897-1902)

Mason jars, embossed with "RED" superimposed on a skeleton key, were made by the Redkey Glass Co., Redkey, Indiana, during the full length of the company, 1897-1902. These were made with two logo designs. The first had single-line letters in the word "RED" and a

simple key design; all were mouth blown except one made for the Ball Bros. The earliest was almost certainly the variation with ghosted "HGCo" logos (ca. 1897-1898), followed by a solid-line logo with no ghosting, probably from 1898 to 1900. The double-line logo jars – machine made – came next in 1900 and were likely made until the plant burned in 1902. The last year of production was also the year of the Ball Bros. variation.

Landsberger, Goltstein, and Giles Jars

The Landsberger jar was embossed "J.A. LANDSBERGER CO. SAN FRANCISCO U.S.A. around "PATENTED JAN 1 01 / JUNE 9 03 / JUNE 23 03" on the base and bears two Goltstein patent dates and the one from Landsberger. The jars were probably only made between 1903 and 1905, possibly by the Illinois-Pacific Glass Co.

The "U-NO-ME" vacuum jar, embossed "PAT DEC. 30, '02" in an arch on the base and "U-NO-ME (arch) / "PAT DEC. 30, '02 (inverted arch)" on the lid, was probably only made in 1903, although production could have extended until 1905 by the Safe Glass Co.

The Giles & Gray 1903 patent created the Giles jar, although the jars never seem to have been specifically marked with any embossing. The jars were originally made by the Safe Glass Co., although production continued until the 1930s. After the 1905 merger between Giles (Safe Glass) and Landsberger (Hermetic Seal Co.), some of the jars were embossed with the Goltstein and Landsberger patents. Since these patents seem to have been associated with the Kerr Glass Co., Kerr probably made these later jars.

Easy Vacuum Jar (1897-1904)

These jars were embossed "EASY / TRADE {VCJCo monogram} MARK / VACUUM / JAR" on the front and "PAT JULY 11 1893" around the same monogram on the base. Guillaume and Goltstein received the patent in 1893, but the earliest ads in the literature were placed in 1897. Although the jar sources suggested the Illinois-Pacific Glass Co. and the Safe Glass Co. as manufacturers, neither were in business in 1897. Safe Glass opened the following year, but Illinois-Pacific did not begin production until 1902. The San Francisco.& Pacific Glass Works (1876-1902) was the likely manufacturer on the west side of the country, although

production may have shifted to Illinois-Pacific or the Pacific Coast Glass Works in 1902. Safe Glass may have made the jars at some point, possibly as early as 1898, and J.S. Giles could have made them a year earlier. The last listing for the Vacuum Can & Jar Co. was in 1904, so production likely ceased at that point.

SGCo Monogram (ca. 1890s)

Only Toulouse claimed the Safe Glass Co. as the user of the SGCo monogram; all other sources attributed the mark to the Swayzee Glass Co. Roller advised caution in the Swayzee identification because the marking on the jar was not an exact match for the markings on the Swayzee case. The jars really could have been made by either company. Toulouse only attributed the jars to the *first* Safe Glass Co., but he did not state why, except that they were mouth-blown.

Stylistically, the three monograms have very little in common (Figure 38). The horizontally elongated letter in the CGCo monogram was a "G"; it was a "C" in the SGCo jar mark and a "G" on the box. The "G" on the SGCo jar logo was vertically elongated – completely unrelated to the other two. The only thing the "S" letters had in common was the basic recognizable shape; they were different in virtually every detail. The "o" in "Co" on the CGCo monogram followed the "C" and both were small and centered. On the SGCo jar logo, the "C" was large, horizontal, and extended beyond the other letters to the right and left, with the "o" between the points of the "C." On the box, the "o" was nestled inside the "C" and both were smaller than the "S" or "G." The similarities between the three monograms are thus so superficial that there is no reason to assign any relationship to *any* glass house based on resemblance.

Figure 38 – GCCo and SGCo monograms (eBay)

Safe and Swayzee *are* both good choices for the monogram because both made Mason jars, both had the correct initials, both produced mouth-blown jars during the 1890s, and both firms adopted machines ca. 1900. In addition, each glass house had a history that included the

use of a monogram. Although many other glass houses had SGCo initials, no other firm fits as well, but there seems to be no logical reason to select one over the other.

Figure 39 – SGCo base (North American Glass)

One thing that may help future researchers narrow down the field is that the producer was apparently very prolific. Assuming that the numbers on the bases were mold numbers, there were at least 207 molds (Figure 39). To require 207 molds, the manufacturer must have either made a tremendous number of jars in a short time or must have made the jars over a long period.

SGCo

Aside from the Toulouse assertion, unsupported by data or citations, there is no reason to attach the SGCo mark (in initial form – not monogram) to Safe Glass Co. We have found no evidence in the literature that Safe made grooved-ring wax-sealer fruit jars, the only "jar" venue for the mark. As noted above, the mark was likely used on such jars by the Southern Glass Co., Louisville, Kentucky. There is no question that other glass houses used the SGCo mark on other types of containers (see the Southern Glass Co. and other "S" sections).

SAFE GLASS CO. (1903-1905)

The jars embossed "SAFE" on the front and "MADE BY THE SAFE GLASS CO. (arch) / PAT / FEB 10 03 (both horizontal) / UPLAND (inverted arch) / IND (horizontal" on the base were obviously made by the Safe Glass Co. Since these jars were patented in 1903, and the Safe Glass Co. closed in 1905, there is also no doubt about the dating of the mark.

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