

Adams & Co. and the Other Adams Firms

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Although the histories of the three firms founded by John Adams are well attested, there are some interesting and currently unresolved issues with products made or possibly made by two of the firms. The Keystone jars and related containers are discussed in another venue (Lockhart et al. 2014), but the history of the Keystone jars, themselves, is summarized in this study.

The second issue concerns the relationship between the jars patented by Edwin Bennett in 1866 and the one patented by John Adams in the same year. We sought an explanation for the jar embossed “BENNETT’S / No. 1” over a ghosted “ADAMS & CO.”

Histories

John Adams and his descendants were involved in three glass houses, spanning a period of 40 years – from 1851 to 1891.

Adams, Roseman & Co., Pittsburgh (1851-ca. 1853)

At some time prior to 1846, John Adams became an apprentice glass blower, but we have found little else about his early life. With Adams at the helm, Adams, Roseman & Co. opened in 1851 at the corner of Ross and Water streets (Thurston 1876:133).¹ The firm’s February 22, 1852, ad in the *Pittsburgh Daily Post* noted that the warehouse was at the corner of Ross and Water streets; Lee placed the factory location at Ross and Second St. The ad claimed the company was “Manufacturers of flint glass, in all its variety. We have, also, on hand, Lightning Rod Insulators, of a superior pattern to anything yet produced” and called the factory the “Bohemia Glass Works” (Figure 1).

¹ Hawkins (2009:10) placed the date ca. 1852, citing the 1852 city directory. Thurston, however, may have had another source – such as Adams, himself. The Adams & Co. 1888 catalog placed the date at 1851.

The firm was replaced by Adams, Macklin & Co. ca. 1853. Although some sources placed Adams, Macklin & Co. in business as early as 1852, Hawkins (2009:10) noted that the first ads for the firm appeared in 1856, and the initial directory listing was in 1857. However, Adams, Roseman & Co. was only listed in the 1852 directory.

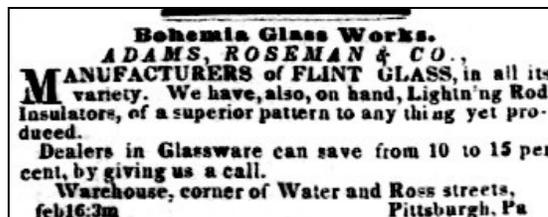


Figure 1 – 1852 ad for Adams, Roseman & Co. (Pittsburgh Daily Post 2/22/1852)

The answer was cleared up, oddly, in an 1854 Illinois and Missouri state directory (Montague’s 1854). The directory listed businesses in several other states, including “ADAMS, MACLIN & Co. [*sic*] Late Adams, Roseman & Co. . . . Warehouse, cor. Ross and Water Streets.” This entry suggests that Adams, Macklin & Co. came into existence in late 1853 or early 1854. Since the Ross and Water streets address is noted as a warehouse, the earlier firm may have been jobbers, despite being listed as “glass manufacturers” in the 1852 Pittsburgh directory (see Hawkins 2009:10).

Adams, Macklin & Co., Pittsburgh (ca. 1854-1861)

Although earlier sources (Knittle 1927:345-346; McKearin & McKearin 1941:607; McKearin & Wilson 1978:158; Toulouse 1971:21, 286, 516; Welker & Welker 1985:20-21) claimed that Adams, Macklin & Co. occupied the old Stourbridge Flint Glass Works at the corner of Ross and Water Streets (established in 1823), Hawkins (2009:9) noted that the firm more likely constructed its plant at that location (Figure 2). The reality may lie in a combination of the two.

According to Hawkins (2009:442), John Robinson built the Stourbridge Flint Glass Works at the corner of First St. and Ross St. in 1823. The 1859 Pittsburgh directory listed Adams, Macklin & Co. at First St. rather than Water. The plant must have been large enough to extend north-south from one corner of the block to the next; Ross extends north-south and is intersected by First St. with Water St. a block to the south.



Figure 2 – 1856 ad for Adams, Macklin & Co. (Pittsburgh City Directory 1856:52)

Again, according to Hawkins (2009:442-445), Robinson and or his family operated the plant from 1823 to 1837 – a total of 14 years. The factory then sat idle for 17 years, until Adams, Macklin & Co. opened ca. 1854. After 17 years without occupation, virtually everything in the plant would have been inoperable. At a minimum, Adams and his companions would have had to rebuild the internal workings. If Adams, Roseman & Co. was actually a wholesaler rather than a manufacturer (as suggested by the 1854 directory), then the firm had to build *something*.

The initial plant had two furnaces with 20 pots and mainly produced tableware. An 1857 ad (*Pittsburgh Daily Post* 7/23/1857) offered

Glass Preserving Jars, the only proper vessels to preserve fruit in — We manufacture and have constantly on hand, for sale, a large assortment of Glass Jars for preserving. Our jars are perfectly *air tight* [their emphasis], very simple, and easily sealed, fully equal to any patent jar, and much cheaper. Also, Jelly Tumblers, common Jars, &c.”

The plant moved to the corner of 10th and Williams streets, Birmingham (Pittsburgh), in 1860. The firm became Adams & Co. in 1861. The plant made flint tableware (Hawkins 2009:10). Roller (1998:9) noted that the plant also made KEYSTONE jars.²

Containers and Marks

KEYSTONE (ca. 1860-1861)

Roller (1997a; 1998:9) noted that Adams, Macklin & Co. advertised the Keystone jars in 1860. A *Pittsburgh Daily Post* ad, in the June 28, 1860, edition, called the Keystone Fruit Jar “the best on the market. Requires no cement, is perfectly air tight, and shows the condition of the fruit at a glance” (Figure 3). June 25, 2021 Since the firm was only in business for about

² Although Lee (2009) claimed the opening of Adams & Co. was in 1860, the Adams & Co. 1888 catalog placed the year at 1861. Assuming the Adams & Co. firm memory was correct after 27 years, 1861 would seem to be the correct year.

another year, the plant only made the jar for a short time. The Keystone jars are very rare, and there is no evidence that Adams & Co. continued to manufacture them.

Roller (1983:180) described and illustrated a jar embossed “KEYSTONE” in a slight arch on the front. The jar had a gutta-percha gasket and cast-iron cap that engaged two lugs to seal on the ground rim of the finish.

Roller noted that “advertisements and editorial notes in Pittsburgh newspapers of June 1860 fully described this jar, and mentioned its being made by Adams, Macklin & Co.”

Unfortunately, Roller did not include exactly *what* the ad described. The cap was designed by William Fridley and Frederick Cornman and patented (No. 25,894) on October 25, 1859.

Creswick (1987:94) illustrated the jar and agreed on the ascription (Figure 4).

William Fridley and Frederick Cornman received Patent No. 25,894 for an “Improvement in Preserve-Cans” on October 25, 1859. The cover in this design extended down over the finish of the jar or can and had two internal lugs that turned against a continuous thread that was embossed or built into the neck of the container. What made this finish noteworthy was the inclusion of a “gasket of india rubber, gutta-percha, or other flexible and impervious material between the said cover and the mouth of the vessel” to provide the actual seal. This gasket may be ancestral to the Klein, Adams, and Bennett patents that followed (see below).

Although Adams, Macklin & Co. ceased production of the jars, someone, possibly Adams & Co., continued to use the old molds. Molds were some of the highest cost items, so they were generally reused. Caniff (2008:9; 2010:9-10), Leybourne (2008:210), McCann (2011:155), and Roller (2011:278) all listed three variations of the jars where “KEYSTONE” had been peened out, leaving a “ghost” of the word.



Figure 3 – 1860 ad for Keystone Jars (*Pittsburgh Daily Post* 6/28/1860)

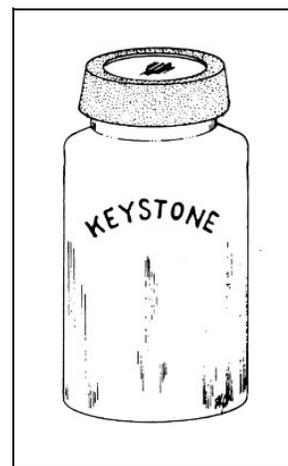


Figure 4 – Keystone jar (Creswick 1987a:94)

These variations were made for other closures including the wax sealer, cork, or Willoughby Stopple. Since the finishes were created last – and made by hand – they were easy to change. However, the shoulder of the ghosted jars may have been slightly altered as well – a more difficult but not impossible task. One variation even had an iron-pontil scar. These later jars were much more common and were probably made until the molds wore out.

The term “KEYSTONE” may have been dropped from the jars, when Adam R. Samuel opened the Keystone Glass Works at Philadelphia in early 1863. This is especially likely if Adams & Co. continued to use the molds generically. Samuel continued production of jars – now called “LADIES CHOICE” – with the patented Fridley & Cornman finish. The full relationship between Fridley, Samuel, and the Adams glass houses has yet to be determined.³

Toulouse (1969:171) also listed a jar embossed “TRADE MARK / KEYSTONE / REGISTERED,” but this cannot have been the “Keystone” jar listed by Adams & Co. The Jar noted by Toulouse was machine made and could only have been produced three or more decades later.

Adams & Co., Pittsburgh (ca. 1861-1891)

Located at First and Wood Streets, the firm was called Adams & Co. in 1861, and it consisted of John Adams, George F. Easton, John Malone, G. Miller, William Adams, A.A. Adams, and James Dalzell. The plant moved to the corner of McKee and Williams by 1863. The firm advertised “fruit jars of the most approved kind” by 1864 (Figure 5).

John Adams received Patent No. 51,785 for a fruit jar on January 2, 1866 (Adams & Co. 1888 catalog; Roller 1998:9; von Mechow 2013).

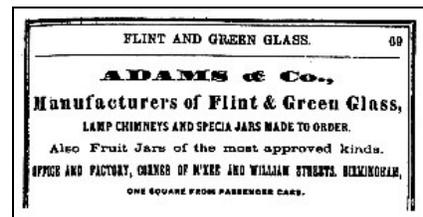


Figure 5 – 1864 ad for Adams & Co. (Roller 1998:9)

About 1870, the plant moved to 10th & Williams and made tableware at two furnaces with a total of 21 pots in 1876 (*Crockery and Glass Journal* 1876:15; von Mechow 2013). Adams & Co. made “tableware, jelly tumblers, lamps, &c.” at two furnaces with 23 pots during

³ For a thorough discussion of the jars made to the Fridley & Cornman patent, see Lockhart et al. 2014.

the 1880-1881 period. The firm sold \$260,000 worth of these flint glass products each year (Humphries 1882:57). Dalzell retired from the firm in late 1883 (Roller 1998:10).

Adams & Co. leased the old Challinor, Hogan & Co. plant in early 1884, but the factory burned on May 6 of that year. By October, however, the firm built a new, single-furnace plant for tableware at this Southside site. Although the senior Adams died in November 1886, the other partners (including Augustus A. Adams and William Adams) continued in business. However, the group sold the Southside plant to George A. MacBeth & Co. in 1886. The firm became part of the original group that formed the United States Glass Co. on March 9, 1891, and the plant became Factory A of the new combine (Hawkins 2009:5-6; Roller 1998:10).

Containers and Marks

Even though Adams & Co. specialized in tableware, Hawkins (2009:4) noted that “they also made flint jars from the beginning.” By 1866, the company was also listed as making “flint, green, and amber” glass. Ads and listings in Roller (1997a) indicated that all container manufacture (except jelly glasses) ceased in 1875.

A

Hawkins (2009:8) attributed a single “A” mark “on the bottom of patent medicines” to Adams & Co. (Figure 6), probably following Knittle (1927:441). Toulouse (1971:21) dated the mark “circa 1861 to 1891,” the entire life of Adams & Co., but he noted that Adams & Co. “made fine glassware, rather than bottles.”



Figure 6 – “A” on patent medicine base (Hawkins 2009:19)

A&Co (ca. 1865-1875)

Knittle (1927:441), along with others who almost certainly relied on her assertion, attributed the A&Co mark to Agnew & Co (see the section on the John Agnew companies for more information). Hawkins (2009:4) noted that both “historical and plain flasks embossed with A.&Co. or Adams & Co. were also produced by this concern during their first decade.”

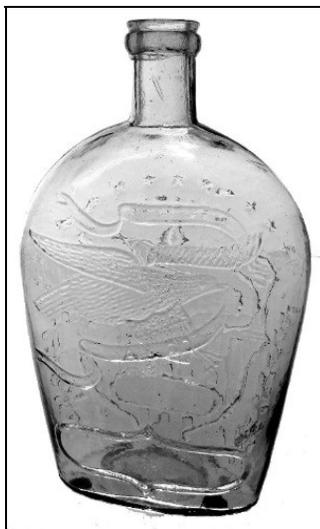


Figure 7 – A&Co on Clasp-Hands flask (American Glass Auctions)

Hawkins (2009:8, 20) added that “A&Co” was embossed on the banner in the eagle’s beak of three variants of Clasp Hands (Union) flasks” (Figure 7). He further noted that both “A and A&Co. [have] been listed by some authors as Agnew & Co. from 1876 to 1893. It is more likely that the latter two marks were used by Adams & Co.” This is especially true for the A&Co. mark.

McKearin and Wilson (1978:158) discussed all three flasks in quart and pint sizes and dated all three 1865-1875. Although there were slight differences, the flasks were

all very similar, and all were made in amber and aqua colors, as well as shades of green (Figure 8). Although McKearin and Wilson (1978:646-647, 650-651) discussed all three variations in the flasks section, they only illustrated the quart size. McKearin and Wilson (1978:480) cited Van Rensselear (1926:3 – Check List section) as noting the maker as Adams & Co. They also noted: “Van Rensselear’s conclusion that the marking stood for Adams & Company has been supported by the researches of John Ramsay of Pittsburgh.” Unfortunately, they did not explain Ramsay’s reasoning.

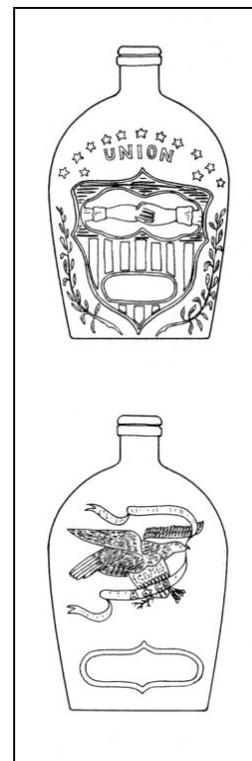


Figure 8 – A&Co flask (McKearin and Wilson 1978:159)

Bennett Pieters

Farnsworth and Walthall (2011:381-386) presented an excellent discussion about Bennett Pieters & Co. and its Red Jacket Bitters – including bottles embossed “A&Co.” on their bases. Bennett Pieters & Co. opened in 1860 and patented the Red Jacket Bitters in 1864. After three changes of location, the firm reorganized as Schwab, Pieters & Co. in 1869 and again to Schwab, McQuaid & Co. the following year.

Bottles for the bitters were made in at least four formats, all but one square in cross section with chamfered corners and upwardly tapered “collar” finishes that were applied. Each



Figure 9 – Bennett Pieters & Co. Red Jacket Bitters (Farnsworth & Walthall 2011:525)

of the square bottles was embossed “A&Co” on the base. The earliest square bottle was embossed “BENNETT PIETERS & Co / 21 RIVER STREET / CHICAGO” on three sides.



Figure 10 – Michigan Ave. address – Bennett Pieters & Co. (Farnsworth & Walthall 2011:525)



Figure 11 – Red Jacket Bitters Bases with A&Co logo (Farnsworth & Walthall 2011:525)

The firm was at the River St. address from 1864 to 1866 (Farnsworth and Walthall 2011:381, 383).

In 1866, the firm moved to 31-33 Michigan Ave. and used bottles that were embossed with that address but were otherwise

marked the same as the River St. variation (Figures 9 & 10). The bottles used at least two different A&Co. basemarks (Figure 11). The final bottle style was embossed “BENNETT PIETERS & Co” on one face and “RED JACKET / BITTERS” on another (Figure 12). The bases were embossed either “A&Co / No 4” or “A&Co / No 5” (Figure 13 – Farnsworth and Walthall 2011:381-384).



Figure 12 – Lighter Red Jacket Bitters Bottle (Farnsworth & Walthall 2011:526)

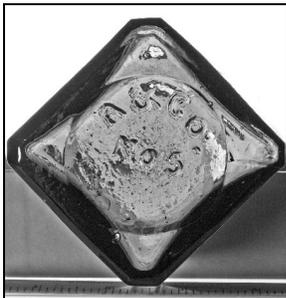


Figure 13 – Base of lighter bottle with AGCo. No. 5 (Farnsworth & Walthall 2011:526)

A&C

Toulouse (1969:13) noted a jar with this mark that he dated ca. 1880. He had no idea who made it. Roller (1983:2) agreed that “the correct closure and the meaning of the initials on this jar remain a mystery.” Creswick (1987a:1) illustrated the jar (Figure 14) and stated (incorrectly) that “two authors, Rhea Knittle in *Early American Glass*, & Dr. Julian Toulouse in *Bottle Makers and Their Marks*, have attributed this mark to Agnew & Company of Pittsburgh,

Pennsylvania.” The Actual logo in Toulouse (1971:33) and Knittle (1927:441) is “A&Co” – *not* “A&C.”

The editors of Roller (2011:12), however, made a much stronger claim for Adams & Co. as the manufacturer. They discovered a glass lid embossed “PATD MAY 20 1862” – the same patent as used in the Buckeye fruit jars – although the lids and clamps are *not* interchangeable between the two jars. Thus, the A&C likely indicates Adams & Co. See the Adams & Co. section for a company history.

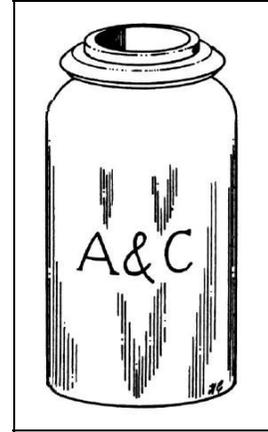


Figure 14 – A&C jar (Creswick 1987a:1)

ADAMS & CO. (ca. 1866-poss. 1875)



Figure 15 – ADAMS & Co. / No. 3 on flask base (Hawkins 2009:6)

The “ADAMS & CO.” embossing appeared on at least four glass objects. Hawkins (2009:8) listed two of these. One was an amber round-shouldered pint flask with “ADAMS & Co. (arch) / N° 3 (horizontal)” embossed on a key base (Figure 15). The other was “ADAMS (arch) / & / CO. / GLASS (all horizontal) / MFGRS. (inverted arch)” on the base of a



Figure 16 – ADAMS & Co. / GLASS / MFGRS. on glass mug base (Hawkins 2009:7)

glass mug (Figure 16).

Patented Fruit Jars

Roller (1983:3; 2011:14) and Creswick (1987:2) illustrated a fruit jar embossed “ADAMS & CO. / MANUFACTURERS / PITTSBURGH, PA.” on one side (Figure 17). The jar was also made in a variation with the Adams information ghosted and “BENNETT’S / No. 1” embossed over it. The jars have been found with three different types of lids.

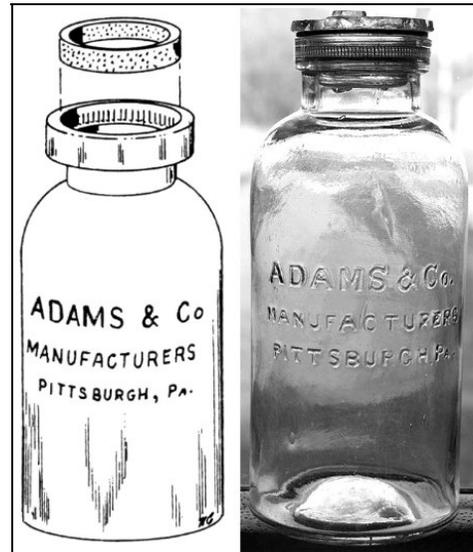


Figure 17 – Adams & Co. fruit jar – 1866 patent (Creswick 1987a:2; North American Glass)

John Adams received Patent No. 51,785 on January 2, 1866, for an “Improved Sealing-Ring for Preserve-Jars” (Figure 18). The mouth of the fruit jar was to be made in a “flaring form, the better to receive a slightly tapering or conical stopple . . . and a packing or sealing ring . . . which surrounds the lower part of the stopple.” The stopple was to be made of glass, with an “india-rubber” sealing ring. The ring was shaped in a way that allowed a tab to stick up. When the tab was pulled, the internal pressure was released from the jar. As frequently happens, the actual stopper, illustrated by Roller (1983:3), is slightly different from the patent drawing.

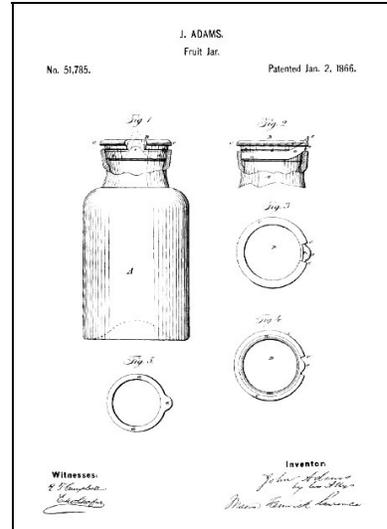


Figure 18 – John Adams’ 1866 sealing ring patent

Bennett’s Patent

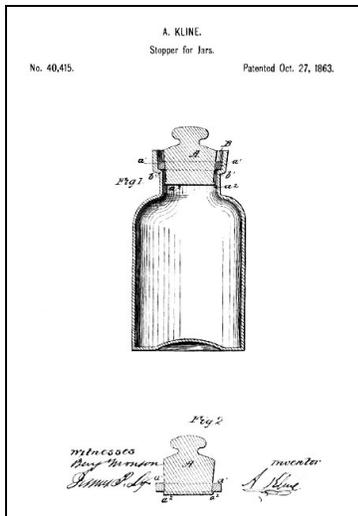


Figure 19 – Kline’s 1863 patent

The 1866 patent, jars, and lids each fit into a separate developmental sequence. The Adams 1866 patent was the second in a series of inventions that began with the 1863 patent issued to A. Kline of Philadelphia. Kline received Patent No. 40,415 for a “Stopper for Jars” on October 27, 1863 (Figure 19). His invention consisted of a glass “stopple” that tapered downward to seal against a “an elastic band or ring, of prepared coatchout (a natural rubber – also called Indian rubber) or its equivalent” that rested inside the mouth of the jar. The 1866 Adams

patent (described above) worked in a similar manner, but the sealing ring had a protruding tab that allowed the internal pressure to be released.

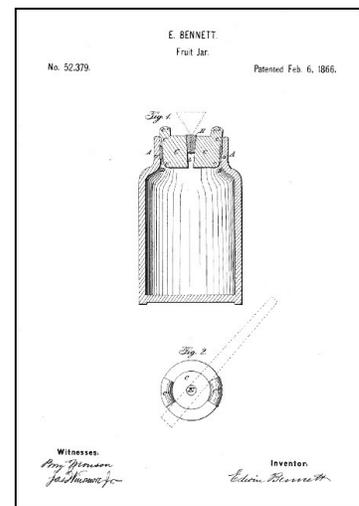


Figure 20 – Edwin Bennett’s 1866 patent

Edwin Bennett received his patent (No. 52,379) for an “Improved Fruit Jar” on February 6, 1866 – just 35 days after the issuance of the Adams patent (Figure 20). Although the two

were probably unrelated (Adams was in Pittsburgh, Bennett in Philadelphia), both used tapered stoppers and elastic bands to affect the seal. The Bennett patent offered two features that were improvements on that of Adams. First, a release for internal pressure was located at the center of the stopper, instead of being at one edge. Second, the stopper was made with V-shaped screw threads that would bite into the “band of coatchout, or vulcanized gum-elastic, or other similarly air proof elastic material” to form the seal. It is certain that the Bennett’s stopper was the most efficient of the three.

Kline Jar

The second sequence centers around the actual jars. The original jars made to the Kline’s patent were virtually identical to the Adams and Bennett’s jars, although neck was longer (Figure 21). Both the Kline stopper and the accompanying jar went through a complex developmental sequence that is irrelevant to this study, but the jar style is almost certainly ancestral to the Adams & Co. jar. These jars were apparently fairly common. Both Leybourne (2008:213) and McCann (2012:182) listed prices for some variations in the \$25 to \$50 range (compared to \$500+ for the Adams jars and over \$1,000 for some of the Bennett’s patent jars).

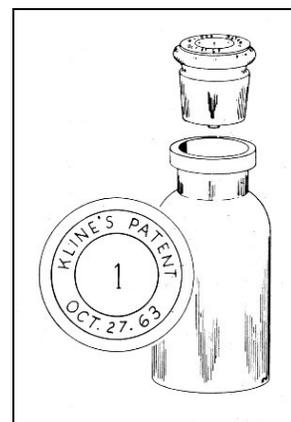


Figure 21 – Kline jar
(Creswick 1987a:95)

Creswick (1987:95), McKearin and Wilson (1978:173), and Roller (1983:129-130; 2011:282) all identified A.R. Samuel & Co. at the Keystone Glass Works, Philadelphia, as the probably maker of the jars. An 1867 ad identified Samuel as the “proprietor of” the Kline’s jars. The ad ran until at least 1870. Although Samuel began construction of the Keystone Glass Works in 1862; the plant actually began production on February 22, 1863. Even though we have no earlier reference, Samuel probably acquired the rights to the jar much earlier than 1867, possibly soon after the glass house opened (Roller 1983:443; 1998). See the section on A.R. Samuel for more information on that firm and the jars it produced.

Adams Jar

The Adams jar (embossed “ADAMS & CO. / MANUFACTURERS / PITTSBURGH, PA.” on the front – discussed above) may have been next in the sequence (see Figure 17). Patented on January 2, 1866, it could have been produced by Adams & Co. at Pittsburgh a bit earlier. The lack of a patent date *could* indicate that the jar was manufactured prior to the receipt of the patent. At \$500+ (Leybourne 2008:3; McCann 2012:69) on the 21st century market, these jars were probably not made for more than two or three years. Unlike both the Kline and initial Bennett jars – made in Philadelphia – the Adams containers were manufactured and probably sold at Pittsburgh.

E. Bennett’s Patent Jar

Roller (1983:66) and Creswick (1987:17) described and illustrated jars embossed “E. BENNETT’S / PATENT / FEB 6TH 1866” on the front (Figure 22). These were likely made just about the same time as the Adams jar. Although the full story of the manufacturers of the Bennett’s jars has not yet been told, this variation is rare (\$1500 & up according to Leybourne [2008:81]; – slightly lower according to McCann [2012:69]) and was probably only made for a very short time.

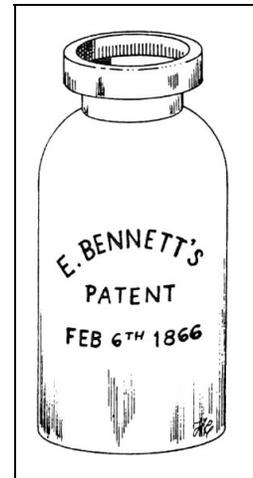


Figure 22 – E. BENNETT’S / PATENT jar (Creswick 1987a:17)

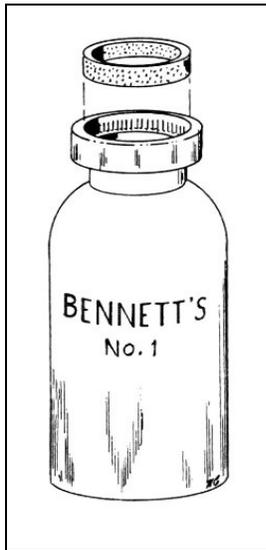


Figure 23 – BENNETT’S / No. 1 over a ghosted ADAMS & CO. (Creswick 1987a:2; North American Glass)

Bennett’s No. 1

The Bennett family may have purchased the Adams patent rights to eliminate competition as early as 1867. This would explain what is probably the next jar in the series – embossed “BENNETT’S / No. 1” over a ghosted “ADAMS & CO. / MANUFACTURERS / PITTSBURGH, PA.” (Figure 23) Toulouse (1969:45) listed the “BENNETT’S No. 1 jar and noted that a variation was embossed above a ghosted area, but he could not tell what the ghosting represented. Roller (1983:65) suggested that both the Adams jar and the ghosted Bennett’s jar were made by Adams & Co. Creswick (1987:2) also

illustrated the ghosted variation and ascribed it to Adams & Co. during the 1860s. We disagree; see discussion below.

The Bennett family went on to market the jar embossed “BENNETT’S / No. 1” – made in a mold with no ghosting (Figure 24). Toulouse (1971:81-82), maintained that Edwin Bennett joined William T. Gillinder as a partner to form Gillinder & Bennett in 1861 at Gillinder’s Franklin Flint Glass Co. plant in Philadelphia. Toulouse suggested that Bennett withdrew from the partnership in 1867 to spend more time at his pottery in Baltimore and claimed that this 1863-1867 period was when Bennett sold his fruit jars (agreed upon by Roller [1983:65; 2011:101] and Creswick [1987:17]).



Figure 24 – BENNETT’S / No. 1 with no ghosting (Creswick 1987a:17)

Bennett’s No. 2

Another firm, Bennett & Fawcett, advertised fruit jars with “Bennett’s improvement” – undoubtedly the six “feet” on the Bennett’s No. 2 jar – at Pittsburgh in 1869 (Roller 1983:65; 2011:102). It is very unlikely that this company actually made any glass. In 1870, Daniel Bennett, William Bennett, and Daniel’s son, Mark opened the Crystal Glass Co. at Pittsburgh. The glass house was probably situated at the former location of the family pottery (1844-1869) – which seems to have ceased operations with the beginning of glass blowing. The plant manufactured the Crystal Fruit Jar along with tableware, lamps, and chimneys (Hawkins 2009:139-143; Roller 1983:65; 2011:102)



Figure 25 – BENNETT’S / No. 2 jar (Creswick 1987a:17)

One “BENNETT’S / No. 2” jar was embossed with a reversed “2.” As noted above, the No. 2 had six “feet” (conical projections) attached to the base to raise the jar above the bottom of the canning pan – a feature missing from the No. 1 jar (Figure 25). This supposedly reduced breakage (Toulouse 1969:46, Roller 1983:65; 2011:102; Creswick 1987:17). McCann (2012:100) placed the No. 1 in the \$500-750 range, but Leybourne (2008:81) priced both types at \$1,000+. All three variations (ghosted, No. 1, and No. 2) are thus in the rare category.

As shown in Figure 26, all of the Adams/Bennett jars are *very* similar (as is the illustrated Kline jar).⁴ Along with almost identical shapes (long neck in the Bennett's No. 2), both the Adams jar and all variations of the

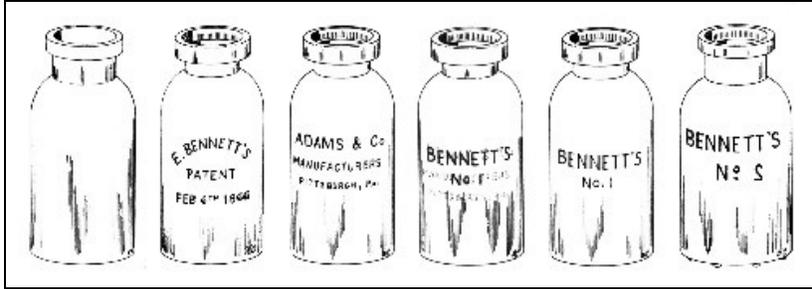


Figure 26 – Composite of Jars from Creswick (1987) – Kline to left, others as marked

Bennett containers each had “vertical serrations on lower inside of stopper well” to hold the grommet that affected the seal when the stopper was inserted (Creswick 1987:2). The stoppers for all the Adams and Bennett jars were interchangeable (see stopper discussion below).

Adams and Bennett’s Stoppers

The final series centers on the stoppers. Both Roller sources (1983:3, 14, 65; 2011:101-102) and Creswick (1987:2, 17) assigned three stoppers to some or all of the jars – reflecting stoppers that were found with actual examples. Since each stopper would have fit any of the jars, we have created a probable sequence for their adoption. Roller (1983:3) illustrated the Adams stopper, and Creswick (1987:2) presented drawings of both Bennett stoppers (Figure 27):

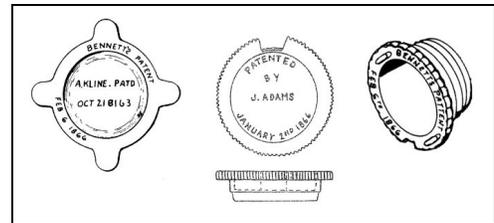


Figure 27 – Composite of stoppers (Creswick 1987a:2; Roller 1983:3)

1. PATENTED / BY / J. ADAMS / JANUARY 2ND 1866
2. BENNETT’S (backwards “S”) PATENT / FEB 6 1866 (outer circle); A KLINE . PATENT / OCT 21 8163 (note dyslexic “18”) (in sunken inner circle)⁵
3. BENNETT’S PATENT / FEB 6TH 1866 (outer circle)

⁴ There were variations of the Kline jars that showed considerable change.

⁵ Creswick (1987:2) did not include either of these errors in her description, but the drawing showed them both. Creswick (1987:17) did, however, include both in her description of the same lid on the Bennett’s jars. McCann (2012:69, 100) only noted the date as 1863.



Figure 28 – Stopper with Bennett’s and Kline patents (North American Glass)

The Adams stopper was certainly made for the Adams jar. The stopper with both the Kline and Bennett patent dates is almost certainly the first in the Bennett sequence and was likely made for the E. Bennett’s Patent Jar (Figure 28). The final stopper should be the most common and was probably intended for use on both Bennett’s No. 1 and No. 2 (Figures 29 & 30). The



Figure 29 – Stopper with only Bennett’s patent (North American Glass)

finishes of all of these jars were made with vertical grooves in the throat to help retain the elastic band (Figure 31).

The above data suggest a possible sequence for jar production (summarized in Table 2). Adams & Co. almost certainly first offered the jar (and stopper) embossed with its name in 1866. Similarly, Gillinder & Bennett probably offered the E. Bennett jar during the same year. Once Bennett withdrew from the Gillinder & Bennett, he or his son likely founded Bennett & Fawcett, a Pittsburgh jobber (distributor).

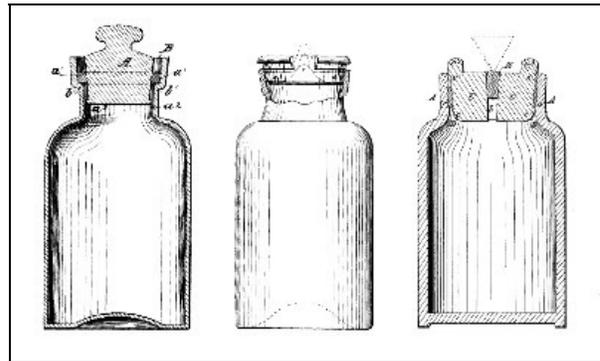


Figure 30 – Composite of patent drawings – Kline, left; Adams, center; Bennett, right

Since Bennett & Fawcett was located at Pittsburgh, the firm almost certainly had Adams & Co. manufacture the Bennett’s No. 1 jars. Because of the clear superiority of the Bennett stopper, Adams discontinued production of its own jars to concentrate on the Bennett containers. That would explain the BENNETT’S No. 1 ghosted over the Adams name.

As the Adams molds wore out by ca. 1868, Adams & Co. used new Bennett No. 1 molds to make jars for Bennett & Fawcett. Bennett & Fawcett advertised “Bennett’s improvement” – certainly the “footed” Bennett No. 2 jar in 1869; however, Bennett No. 2 must have been



Figure 31 – Inside finish of Bennett’s No. 1 (North American Glass)

planned in 1867 – otherwise there was no *reason* to use “No. 1” on the non-footed jar. See Tables 1 & 2 for a summary of events and probable dates for Kline, Adams & Co., and Bennett’s jars.

Table 1 – Significant Events Connected with Adams and Bennett’s Patents

Dates	Events
1861-1891	Adams & Co. Pittsburgh
1863	October 17 – A. Kline received Patent No. 40,415
1863-1867	Gillinder & Bennett (William T. Gillinder and Edwin Bennet)
1866	January 2 – John Adams received Patent No. 51,785
1866	February 6 – Edwin Bennett received patent No. 52,379
1866-1867	Adams & Co. made ADAMS & CO. fruit jars
1866-1867	Gillinder & Bennett made E. Bennett fruit jars
1867	After his break with Gillinder, Bennett probably had jars made by Adams
1867-ca. 1871	Bennett’s No. 1 & No. 2 distributed by Bennett & Fawcett
1870	Bennett family converted pottery in Philadelphia to a glass house

Table 2 – Chronology for Stoppered Jars

Jar	Manufacturer	Location	Dates
Kline’s Patent	A.R. Samuel & Co.	Philadelphia	1863-ca. 1870
Adams & Co.	Adams & Co.	Pittsburgh	1866-1867
E. Bennett	Gillinder & Bennett	Philadelphia	1866-1867
Bennett’s No. 1 over Adams & Co.	Adams & Co.	Pittsburgh	1867-1868
Bennett’s No. 1	Adams & Co.*	Pittsburgh	1868-1869
Bennett’s No. 2	Adams & Co.*	Pittsburgh	1869-1870**
Crystal Jar	Crystal Glass Co.	Pittsburgh	1870+

* Marketed by Bennett & Fawcett at Pittsburgh

** Possibly as early as 1867

BUCKEYE (ca. 1862-1867)



Figure 33 – Buckeye jar (Creswick 1987a:22; North American Glass)



Figure 35 – Buckeye jar lid and clamp (North American Glass)

Roller (1997a) noted that John Adams was issued Patent No. 35,286 for a Fruit Jar on May 20, 1862 (Figure 32). He suggested that the Buckeye jar was the jar described in the patent.

Roller (1983:77; 2011:116) noted that this jar had a “top seal (on ground lip), glass lid and cast-iron yoke clamp engaging two inclined ramps on lid top.” He noted lids

embossed “ADAMS PATD MAY 20, 1862” and “PATD MAY 20, 1862” and suggested that these were made ca. 1860s by Adams & Co. Creswick (1987:23) illustrated two variations and also attributed them to Adams & Co. (Figure 33-35). Leybourne (2001:80) noted three variations, all with the name embossed on the front:

1. BUCKEYE
2. BUCK EYE. (two distinct words, with a bold period)
3. BUCKEYE / 1 (or other numbers up to at least 3 [Roller 2011:116 added a 4])

QUEEN (1873-ca. 1885)

Roller (1998:9) noted that the “Queen” was made to the May 13, 1873, patent (No. 138,833) for lids for jelly glasses – issued to John Adams. The jelly glasses were advertised in 1875. Hawkins (2009:5) also discussed the patent as well as a patented “indexical glass

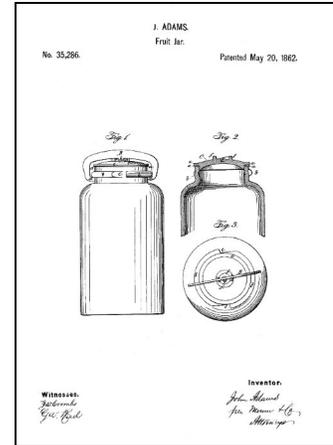


Figure 32 – John Adams’ 1862 patent



Figure 34 – Buckeye jar finish (North American Glass)

slipcover” advertised for the Queen jelly tumbler in 1877. Creswick (1987:180) illustrated and discussed these jelly jars and listed two variations of embossing on the lids:

1. QUEEN PATENTED MAY 13' 1873
2. QUEEN PATENTED MAY 13, 1873 REISSUED JUNE 16, 1874

On April 16, 1873, John Adams applied for a patent for an “Improvement for Lids for Jelly-Glasses.” He received Patent No. 138,833 on May 13 or that year. His invention consisted of “a ‘slip-top’ lid so constructed that a disk of paper may be interposed between the flange of the lid and cover the mouth of the jelly-glass, the said paper having printed on it a series of names for different jellies.” The glass lid was embossed with stippling, leaving only a small “window” through which only one of the jelly names would appear – thus marking the jar with the specific type of jelly it held. The actual lids looked very much like the patent drawing (Figures 36 & 37).

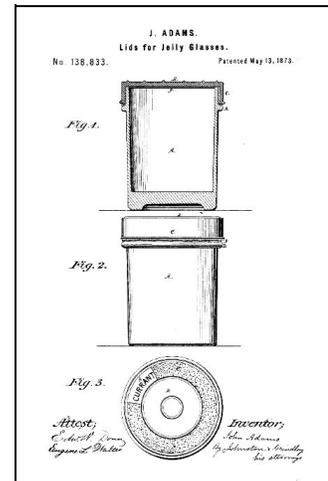


Figure 36 – John Adams’ 1873 patent



Figure 37 – Queen lid (Hawkins 2009:8)

Adams applied for a reissue of the same patent on April 28, 1874, and received Reissue No. 5,921 on May 13 of that year. The drawings were identical, and the basic idea remained the same. The only difference was in the wording – probably making the terminology more legally binding.

James Dalzell applied for a patent for an “Improvement in Jelly-Glass Tops” on April 24, 1876, and received Patent No. 179,163 on June 27 of that year (Figure 38). If Roller (1997a) was correct, Adams & Co. began using the Dalzell clamp a few months before Dalzell applied for the patent. This was not particularly unusual; patents were occasionally taken out almost as an afterthought – once a design was proved workable.

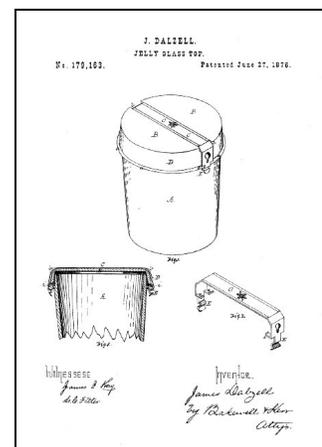


Figure 38 – Dalzell’s 1876 patent

A final chapter in the Queen saga may not have been actually used. Jacob Bonshire applied for a patent for a “Jelly-Glass” on June 5, 1882. He received Patent No. 261,131 for his invention on July 18, 1882, and assigned the patent to Adams & Co. (Figure 39). Bonshire took the Queen idea a step further by embossing or debossing the names of jelly flavors on either “the upper end of the jelly glass” or “on the flange.” The “tumbler cap” (called a “slip-top” lid by Adams in 1873) used designs to create an opaque surface except for a “clear panel” left open to view the specific flavor of the jelly contained in the vessel. The jar could be reused and eliminated the need for the paper insert required in the 1873 patent.

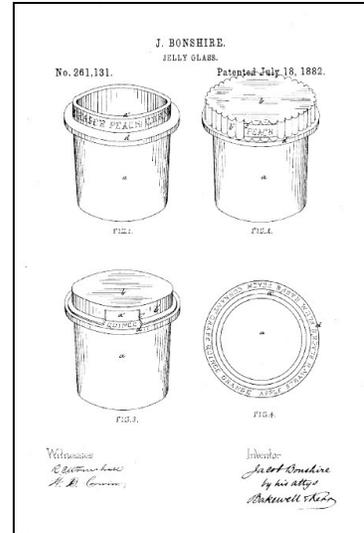


Figure 39 – Bonshire 1882 patent

KING (ca. 1878-ca. 1885)

Roller (1998:9) noted the KING as a style of jelly glass made by Adams & Co. Creswick (1987:95) listed this as a “jelly tumbler with glass lid” embossed “KING PATENTED MAY 13' 1873.” John Adams received Patent No. 138,883 for the King on May 13, 1873.

Discussion and Conclusions

Many of the marks discussed above clearly belonged to Adams & Co. (e.g., ADAMS & Co., QUEEN, and KING). Similarly, the Keystone jar is historically tied to the earlier Adams, Macklin & Co. Three logos or brand names are not as easy to reconcile, although there is evidence in all three cases worth discussing.

A

Although this mark is enigmatic, we have found no attribution for this single letter except to Adams & Co. (1861-1891) or one of the Agnew companies, probably John Agnew & Son (1872-1876). The mark has only been reported in the literature on grooved-ring, wax-sealer fruit jars and colorless medicinal bottles. Three items of evidence suggest that Agnew was the user of this mark: 1) Toulouse (1971:21-22) noted “a groove-ring wax sealer identical with one

marked in full ‘John Agnew & Son,’ with only the letter ‘A’ on the bottom”; 2) Hawkins (2009:17) illustrated a fruit jar base embossed “JOHN AGNEW & SON PITTSBURGH, PA.” around the circumference of the base with a single “A” in the center; and 3) the Agnew companies were known to have made druggists’ bottles, but we have found none advertised or listed for Adams & Co. This discussion, of course, may be primarily academic. Few containers have been reported with this mark.

A&Co

We have only discovered these initials on three variations of the same “clasp-hands” flasks and on bases of square, Red Jacket Bitters bottles, filled in Chicago. Both of these containers fit well into the date range of 1865-1875, given for the flasks by McKearin and Wilson. Hawkins (2009:8) reported a flask embossed “ADAMS & CO.” on the base – a certain indicator that the firm made at least one type of flask. However, none of the ads reported by Roller (1997a) included flasks in the product lists.

Although Hawkins (2009:20-21) reported that Agnews & Wilcox (1868-1872) made coffin-shaped flasks, we have found no flasks specifically noted for John Agnew & Co. (ca. 1852-1868) or Agnew & Co. (ca. 1866-1893), although the early firm certainly made colored glass (rather than only flint). The Agnew & Co. plant at Hulton, Pennsylvania, however, advertised flasks during the 1880-1884 period (Roller 1997b).

The “evidence” given for the identification of each of these companies as the “A&Co” user is all based on arguments of authority, e.g., Knittle claimed Agnew & Co.; Van Rensselaer chose Adams & Co. None of the early researchers, however, seems to have attempted to tie any evidence to the choices. Aside from the clear evidence from Hawkins that Adams & Co. produced flasks, we can find no compelling grounds to select one of these firms over the other as the user of the A&Co logo.

The Adams/Bennett Fruit Jar Dilemma

There is no question, of course, that Adams & Co. made the fruit jar with the firm’s name embossed on its side. Roller (1983:65) was the first to claim (at least in print) that Adams

& Co. made the Bennett's No. 1 jar. The thinking, we suspect, was that the ghosted lettering identified the manufacturer, who then changed the embossing on the mold.

As noted above, it is virtually certain that Adams & Co. made the jar with the Adams & Co. name. It is also likely that Gillinder & Bennett made the E. Bennett jar in 1866 and 1867, prior to the breakup of the partners. After the breakup, Bennett & Fawcett of Pittsburgh distributed the jars. Because the two had broken up, it is unlikely that Bennett's former partner continued to produce the jars. Since Bennett's new distribution firm was located in Pittsburgh, it seems probable, that the sequence traveled full circle, and Adams & Co. made the jars between 1867 and 1870. When the Bennett family began producing the Crystal Jar at its own Crystal Glass Co., however, Bennett seems to have given up on the first series of jars.

Unfortunately, advertisements from Adams & Co. are of little help. Roller (1997) described ads that he had found. The firm advertised "Fruit Jars of the Most Approved Kinds" as early as 1864 and continued that terminology until 1869. A second ad also appeared that year with only "Fruit Jars" as a description. The last ad for fruit jars was in 1874. An 1875 ad noted, "Only flint glass made, tableware, lamps, and jelly tumblers."

This lack of specification in the ads is unfortunate. If we could locate a good advertising trajectory, our job would be much simpler. However, the scarcity of the jars in today's market probably indicates that the jars did not receive an immense public reception in the 1860s. It seems probable that Bennett & Fawcett consumed the entire supply – completely eliminating any reason for Adams & Co. to have expended any advertising effort.

Acknowledgments

We extend our heartfelt thanks to Doug Leybourne for allow us to use the Creswick drawings in our publications. Often, it is difficult (or impossible) to find good photographs of many of the jar that were illustrated in Creswick (1987) and subsequent works by Leybourne. The Creswick drawings are a valuable resource. Our gratitude also to Greg Spurgeon for letting us use the high-quality photos from the North American Glass webpages. These are some of the best jar photos to be found. A final round of thanks to Jay Hawkins and Ken Farnsworth, both of whom provided high-quality photos that appeared in their books.

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