# **The Schram Companies**

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

Considering the short duration of the companies (1904-1925), the jars manufactured by the Schram firms fall into some of the most complex patterns in fruit jar history. The first firm lasted less than a year and a half before failing, but the next – the Schram Automatic Sealer Co., Hillsboro, Illinois – was successful. When that reorganized as the Schram Glass Mfg. Co. in 1913, it was so successful that the Ball Brothers purchased the firm in 1925 to eliminate the competition. This study reviews the literature in an attempt to untangle the convoluted trail of the Acme, Drey, and Schram jars.

### Histories

The early history of Alexander L. Schram is spotty and confusing. According to Roller (n.d.), Schram displayed his fruit jars at Toronto in the Fall of 1904, and they were viewed by two wealthy Americans. Based on this viewing, principals of the Fourth National Bank, St. Louis, Missouri, invited Schram to a meeting and agreed to finance a corporation, with Schram as the president and superintendent.

## Schram Automatic Sealer Co., St. Louis, Missouri (1904-1905)

Alexander L. Schram, David Sommers, and F.W. Arnold incorporated the Schram Automatic Sealer Co. at St. Louis around December 11, 1904, with a capital of \$100,000, and set up a home office there. Schram and his wife left Canada to permanently relocate to the U.S. in January 1905. He may have started a factory in Ingalls, Indiana, upon his arrival, but the company was in receivership by December (Creswick 1987:118; Roller n.d.; *St. Louis Republic* 12/11/1904).

## Schram Automatic Sealer Co., Hillsboro, Illinois (1906-1913)

Excavation for Schram's new factory began on January 26 and was completed at Hillsboro in early September 1906, and five semiautomatic machines began production of the

Schram jars later that month. The plant used one small continuous tank with eight rings. Although Schram was the initial president, Leo A. Drey (pronounced "dry") became the president in 1907, and Schram planned to add two more machines. The following year, G.H. Eckhouse was secretary with A.L. Schram as vice president and manager. By 1910, the plant operated eight machines (Creswick 1987:118; Roller n.d.; Toulouse 1971:466).

The Ball Brothers brought suit against Scharm in 1910, citing infringements on Ball patents, and asking that the Schram machines be destroyed. Although Roller did not note the outcome of the case, Schram continued in business, so he must have won the suit. By at least 1913, the letterhead noted the sales office at St. Louis, the factory at Hillsboro, and the Schram Automatic Sealer Co. of Canada, Ltd., with a factory at Waterloo, Ontario. The company name was changed to the Schram Glass Mfg. Co. in 1913 (Roller n.d.).

## Schram Glass Mfg. Co., Hillsboro, Illinois (1913-1925)

The company reorganized in 1913, with Leo A. Drey remaining as president as well as treasurer with David Sommers as vice president, A. Sommers as secretary, and Schram still as plant manager. The factory produced "Schram & Mason fruit jars," along with packer jars and operated a brand new "white liner factory" (i.e., milk glass liners for lids) with a "new automatic white liner machine" at three continuous tanks with 16 rings. The firm also opened a factory at Sapulpa, Oklahoma, in 1913. One of the plants was now making tumblers (Roller n.d.).

The main office moved to St. Louis in 1915, and X.G. Beuhler occupied the secretary position by the following year. By 1917, the combined factories were making fruit jars, preservers' and packers' jars, jellies, and tumblers at three factories (Hillsboro, Sapulpa, and Wateroo). By March 10, however, 300 workers walked out on strike, although it was apparently quickly settled. The company still used both semiautomatic and fully automatic machines as late as 1918 and reorganized the officers with Leo A. Drey remaining as president, Schram moving to vice president as well as plant manager, and Eugene Drey as secretary. David and C.B. Sommers were additional directors – although David Sommers had regained the vice presidency the following year (*Daily Illinois State Register* 3/11/1917; Roller n.d.).

On January 25, 1918, the courts handed down a decision on the case where the Homer Brooke Glass Co. claimed that the Schram Glass Co. had infringed on Homer Brooke's March 31, 1903, patent No. 723,983, for cutting and distributing molten materials – the final decision in the Ball Brothers complaint mentioned above. The court found Schram guilty. The point was somewhat moot by that time. The patents expired a couple of years later, and Schram resumed the use of the feeders (Glass Bottle Blowers Assn. 1921:86; *National Glass Budget* 1918:1-2).

Leo A. Drey died on December 22, 1920 to be replaced as president by David Sommers (who continued as treasurer). C.B. Sommers became first vice president with Schram as second as well as plant manager. Beuhler remained as secretary. In a May 27, 1921, letter, the presence of a Huntington, West Virginia, factory appeared, but the Hillsboro plant suffered a serious fire in early December of 1921. The firm quickly rebuilt the damaged areas, and the firm added a fourth tank by 1922 – bringing the total number of rings to 20. The extra tank probably indicated the Huntington location. By this time, however, the Canadian factory had vanished from the listings. Schram built another tank the following year, adding six more rings. On November 7, 1925, the Ball Brothers purchased the Schram plants in the U.S. (*Daily Illinois State Journal* 12/11/1921; Roller n.d.).

## **Ball Brothers, Hillsboro, Illinois** (1925-1961)

As noted above, the Schram plants became part of the Ball operations on November 7, 1925. The Ball Brothers apparently let the Hillsboro plant become idle ca. 1939 but reopened it in May 1943 to resume fruit jar production. In December 1944, the factory was converted to the production of amber whiskey bottles, and the plant was transferred to Hiram Walker & Sons in late 1961. G&G Investments, Inc., bought the factory in April 1996 and ceased production the following year (Roller n.d.).

# Schram Glass Mfg. Co., Sapulpa, Oklahoma (1914-1925)

Schram opened a new jar factory and jar cap plant at Sapulpa in February 1914. The plant used a single continuous tank with six machines at four rings. The Sapulpa plant was included in the sale to the Balls in 1925, although they closed the factory in 1931 and sold the property in 1940 (*Bridgeton Evening News* 3/17/1914; Roller n.d.; 1998; Toulouse 1971:466).

## Schram Glass Mfg. Co., Ltd., Waterloo, Ontario, Canada (ca. 1907-1919)

Although when that plant was built is *very* unclear, ads for the Schram Automatic Sealer between 1907 and 1909 noted the location of the factory only at Wateroo, Canada (e.g., *Farmers Advocate* 1909:1302). The Waterloo plant was also featured on a 1913 letterhead on which the location "Hillsboro, II." was stamped over a crossed-out "St. Louis, Mo." – confirming that the Canadian operation was open earlier that 1913. Like the other plants, this one had a single continuous tank with four rings, but it is equally unclear what products were made in Canada. The embossing of "WATERLOO" on the earliest caps suggests that the plant probably made lids. A 1913 visit to the Hillsboro factory discussed the "new cap plant just completed, to be used to make Mason jar caps, while the old plant will make Schram caps." The "old plant" *may* refer to the Canadian factory. The Waterloo factory apparently only made tumblers, by the time it closed in 1919 (Roller n.d.; Toulouse 1971:466).

# West Virginia Glass Mfg. Co., Huntington, West Virginia (1920-1925)

Schram obtained a location for the West Virginia Glass Mfg. Co. at Huntington, West Virginia in early November of 1919 and opened the plant in 1920 with two machines but increased to eight jar and glass container machines the following year. In 1922, the plant added new machines to make Mason jars and caps. The factory had two continuous tanks with 12 rings in 1923. The Ball Brothers acquired the works with the rest of the Schram company on November 7, 1925, and used the plant to make jars and lids. The plant closed "before 1941" – although the last listing in Roller was for 1929 (*Richmond Times-Dispatch* 11/2/1919; Roller 1997; Six 1993:20; Toulouse 1971:466).

# **Schram and Drey Patents**

Alexander L. Schram, Leo A. Drey, and others were awarded various patents, many of which were incorporated into the Schram manufacturing processes. The various patents are listed below in alphabetical order by first patentee.

## **Scott Davidson**

June 12, 1923 – Method of and Apparatus for Feeding Molten Glass (No. 1,458,167)

# Henry L. Dixon and Alexander L. Schram

August 20, 1912 – Glass Gathering Furnace (No. 1,035,865)

August 20, 1912 – Glass Gathering Furnace (No. 1,035,866)

## Leo A. Drey and James L. Hiatt

September 7, 1920 – Fruit Jar Fastener (No. 1,352,119)

Drey and Hiatt filed for this patent on May 17, 1919, 16 months prior to receiving the formal patent number. The patent was for a "Fruit-Jar Fastener" that had "for its primary object a wire which [was] eccentrically secured to a glass fruit jar by means of an integral glass projection and trunnion formed thereon." The two projections used for connecting the wire bale to the jar neck form the defining feature of these jars (Figure 1). These became known as the "Drey boss." See Figure 2 for a view of the specific fastening devices. It is probable that jars without the patent number but with the boss were made prior to



Figure 2 – Drey boss (eBay)

September 7, 1920, possibly during most

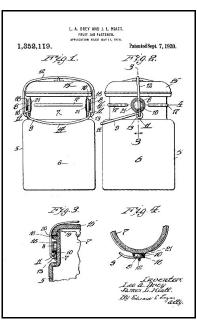


Figure 1 – Drey & Hyatt 1920 patent

of 1919. Upon receipt, the inventors immediately assigned their patent to the Schram Glass Mfg. Co.

May 3, 1921 – Fruit Jar (No. D57,772)

Drey and Hiatt filed for a design patent for the same jar on December 17, 1919, four months after filing for the fastener patent (Figure 3). They received the patent on May 3, 1921. They also immediately assigned this patent to Schram Glass Mfg. Co. It is clear from the drawings that these two patents are for the same jar, one for the closure, the other for the design.

## Harry B. Lawson

July 28, 1925 – Lid Take-Off for Glass Forming Machines (No. 1,547,503)

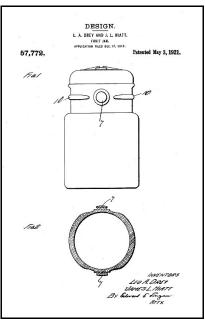


Figure 3 – Drey & Hyatt 1921 patent

### Alexander L. Schram

December 3, 1901 – Jar Cover [actual name unknown] (No. 73,980 Canadian Patent)

Although the Canadian patent website did not show full scans of patents this old, Schram's Canadian patent, filed on November 14, 1901, is important. This was the basis for the initial manufacture of Schram jars.

July 21, 1903 – Cover for Jars or Analogous Vessels (No. 734,140)

Schram filed for this United States patent on January 24, 1903, and received official registry on July 21 or the same year. His drawings clearly show why he called this jars automatic self sealers (Figure 4). It is highly likely that this patent reflected Schram's 1901 Canadian patent. Schram noted that the object of his invention was:

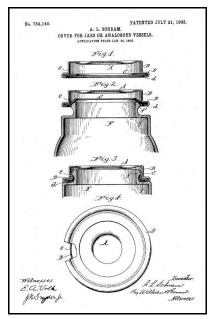


Figure 4 – Schram 1903 patent

to provide a cover, top, or cap of simple and inexpensive construction which is complete in itself and is adapted to hermetically close the jar . . . without the employment of any fastening devices, separate or detached packing-gaskets, or other means which are liable to be detached and lost or broken.

The patent included both the cap and the design of the finish of the jar.

September 7, 1909 – Closure for Jars and the Like (No. 933,122)

Filed, June 11, 1908, this patent was not finalized for another 15 months (September 7, 1909). Schram intended this as a series of improvements on his 1903 patent (Figure 5). This, too, included both the closure and the glass finish of the jar.

January 2, 1912 – Forming Hollow Glass Articles (No. 1,013,451) April 23, 1912 – Glass Gathering Machine (No. 1,024,228) December 17, 1918 – Glass Furnace (No. 1,288,227) October 7, 1919 – High Speed Delivery Apparatus (No. 1,317,827)

September 21, 1920 – Jar (No. 1,353,277)

September 21, 1920 – Fruit Jar (No. 1,353,278)

February 26, 1924 – Method and Apparatus for Feeding Molten Glass into Molds (No. 1,484,907)

July 18, 1933 – Fruit Jar Cap (No. 1,918,786)

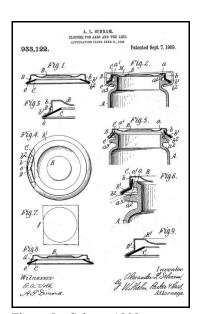


Figure 5 – Schram 1909 patent

### **Containers and Marks**

Schram's early history in the jar business (see first paragraphs in the history section), coupled with entries in Creswick (1987:118) suggest that the earliest Schram jars were made in Canada. Creswick noted that Schram received Canadian Patent No. 73,980 on December 3, 1901. Lids with the patent date were also embossed with "WATERLOO," "WOODSTOCK," or

<sup>&</sup>lt;sup>1</sup> The patent was filed on November 14, 1901, but scans of the early patents are unavailable from the Canadian Patent Office online database.

"TORONTO," all in Ontario. All but one lid also have the 1903 U.S. patent date. This suggests that the earliest jars were produced in Canada, possibly as early as 1902. The jars may have continued in production until the U.S. plant opened in 1905, but it is unlikely that they were made in Canada after that date. It is very unclear when Schram's Waterloo, Ontario, plant was in business – although it probably only produced lids.

Creswick (1987:118) stated that the jars were made by the Diamond Flint Glass Co., in business from 1903 to 1913, although she gave no reason for assigning the jars to that company. Roller (1983:322) illustrated an entry from the 1913 Dominion Glass Co. catalog (successor to Diamond Flint), showing that Dominion produced the Schram jars at least that late (Figure 6). King (1987:107-108), typically the best source on Canadian container factories, provided very little information about the early years of the Diamond Flint Glass Co. In 1903, the newly formed company took

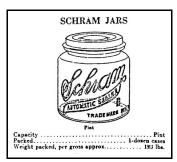


Figure 6 – 1913 Dominion catalog (Roller 1983:322)

over the plant of the former Diamond Glass Co., Ltd. (1890-1903), at Montreal, Quebec.

King (1987:84) stated that the Diamond Glass Co. "produced no glass in its own name" except for a type of monogrammed fruit jar. The firm apparently continued to manufacture the products of the plants that it acquired. Since at least one of these plants almost certainly made fruit jars until the sale, it is reasonable to assume that the Diamond Flint plant made Schram's jars from 1903 to 1904.

Curiously, in 1908, John Watt, a representative from the Diamond Flint Glass Co. was dispatched to "make the best possible deal to obtain a Canadian licence to make the Schram Automatic Sealer" (King 1987:112). King stated that he found no evidence that an agreement had been reached.

# **ACME** (1922-1925)

Toulouse (1969:14) noted a square, bead-seal jar embossed with a shield on the front. The shield had three embossed (and therefore three debossed) vertical bars at the bottom (reminiscent of the American Flag); an upwardly slanted bar across the center enclosing the word "ACME"; and five stars in the upper area (Figure 7). He also noted a variation with three stars at the top. Toulouse assigned the jar to the Acme Glass Co., almost certainly because of the Acme name on the front. He dated the jars ca. 1920-1930 because of the bead seals.

Roller (1983:3; 2011:13), however, dated the jar ca. 1922-1925 and gave Schram as the maker. He noted that this jar:

has been incorrectly listed in the past as having been made by the Acme Glass Co., Olean, N.Y. Early in 1922, the Schram Glass Mfg. Co. sent a salesman, Thomas F. O'Hara, to the Acme plant to determine whether they had ever made any jars marked "ACME." He reported that they had not, and on this basis, Schram's patent attorney approved the use of the name for their jar.

The Creswick (1987:1) drawings explain the two Toulouse variations: the smaller (pint) size had only three stars in the shield (almost certainly because of the size – Figure 8). Creswick noted two

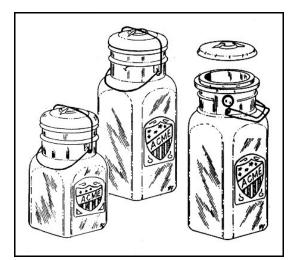


Figure 8 – Acme (Creswick 1987b:1)



Figure 7 – Acme (eBay)



Figure 10 – Acme trademark (Creswick 1987:153)

variations, with and without the Drey bosses

(see Drey section below – Figure 9). Schram was assigned Trademark No. 163,166, on January 2, 1923, for the ACME shield (with five stars – Figure

10). The company claimed first use of the mark on January 1, 1922 (Creswick 1987:153).



Figure 9 – Wire boss (eBay)

## **DREY** (poss. 1908-1925)

Toulouse (1971:98-100) listed and described several jars embossed with a cursive "Drey" on the front. These fell into two major categories: the Ever Seal with wire-bale, clamp-on lids; and Drey Mason jars, with screw lids. He listed the Drey Ever Seal

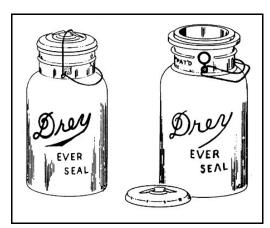


Figure 12 – Drey Ever Seal (Creswick 1987:45)

(1910-1920) and five variations of the Drey Improved Ever Seal (1920-1925). He also noted two variations of the Drey Mason; two variations of



Figure 11 – Drey Ever Seal (eBay)

the Drey Perfect Mason; and a single example of the Drey Square Mason. He dated shoulder-seal Drey Masons and Drey Perfect Masons 1910-1920 and bead seal jars of both types ca. 1920. He place the Drey Square Masons as being made between 1920 and 1925 (Figures 11-21).

Roller (1983:109-110; 2011:171-173) dated the jars differently. He placed the Drey Ever Seal ca. 1917-1920; the Drey Improved Ever Seal with no patent date ca. 1919-early 1920s; and failed to place a date on the same jar that was also marked "PAT'D 1920." He placed the



Figure 14 – Improved Ever Seal (Creswick 1987:46)

manufacture of the Drey
Mason as ca. 1915 and dated
the Drey Perfect Mason ca.
1918-1925. He noted that the
Drey Square Mason was made
ca. 1922-1925. Roller
(1983:109) noted in his
discussion of the Improved
Ever Seal without the patent
date:



Figure 13 – Improved Ever Seal (eBay)

Although these jars have **IMPROVED** added to the embossing, they are found with both tie-wire and "Drey" boss closures, and the reason for this is not fully understood. [The "Drey" variation] has half-round dimpled bosses, probably made to A.L. Schram's September 21, 1920 patents for circular glass dimpled bosses.

Discussing the same Improved Ever Seal with the patent date, Roller (1983:109) added:

The Drey and Hiatt patent was for a pair of round glass bosses on the jar neck to hold the bail locking lever. These bosses have been coined "Drey" (pronounced "dry") bosses. It is noteworthy that "Drey" bosses were not used on **ACME** jars . . . made by Schram during the same period.<sup>2</sup>

Roller (n.d.) noted that a May 2, 1919, letter from the Schram Glass Mfg. Co. was the "1st dated figure of Drey jar!" (his exclamation mark). The Drey jar did not appear on the 1913 letterhead. Creswick (1987:152) noted that the company was issued Trademark No. 149,612 for the word "DREY" on December 13, 1921. The company claimed first use on February 1, 1908.

Creswick (1987:45-46) added several variations to both the



Figure 16 - Drey Mason (Creswick 1987:46)

to both the
Drey Ever
Seal and the
Improved
Drey Everseal
jars (see



Figure 15 – Drey Mason (eBay)

Tables 1-4 for variations and chronology of the Drey jars). These included a variation of the Improved jars, embossed "Drey / IMPROVED / EVER SEAL" (note that "EVER SEAL" was on a single line and the initial letter in each

<sup>&</sup>lt;sup>2</sup> See the Acme section above. According to Creswick (1987:1), some of the ACME jars *did* have the Drey boss.

word was much larger than those that followed). Trademark No. 192,700 was for the word "SQUARE" (upward slant) above a carpenter's square. Schram received the trademark on December 9, 1924, giving a first use date of April 1, 1924 (Creswick 1987:153).



Figure 18 – Perfect Mason (Creswick 1987:46)

uare. Schram

9, 1924, giving a ick 1987:153).

Leybourne
(2001:114-115) changed the

Creswick

Figure 17 – Perfect Mason (eBay)

changed the

Creswick

numbering system

and added even more variations.

These centered around the second major style ("EVER SEAL" on one line). He noted the words

"BALL MADE" (his capitals) but did not explain whether those

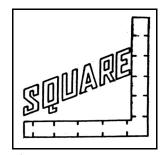


Figure 19 – Square trademark (Creswick 1987:153)

words were actually embossed on the jar, and, if so, where. Tom Caniff (personal communication 3/2/2009) informed us that the words do *not* actually appear on the jars.

Leybourne (2001:115) noted four variations



Figure 20 – Square Mason (eBay)

of "BALL MADE." He noted that these could be embossed "WIRE SIDE" on the neck, or the neck could be unembossed. A third variation had "B" stamped in the ejection scar. The final variation had an error; one "E" in "EVER" was missing.

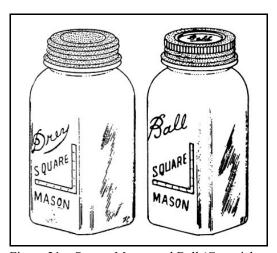


Figure 21 – Square Mason and Ball (Creswick 1987:26, 46)

Brantley (1975:28) stated that the Ball Brothers continued to operate the Schram plants after their acquisition in 1925 and continued to manufacture the Drey Perfect Mason jars. He noted that Ball Perfect Mason jars were very similar to the Drey Perfect Masons. Roller (1983:110) added that some of the jars were made with concentric circles on the bases and glass ribs on the sides. These may indicate that the jars were made by Ball after the Schram purchase. Leybourne (2001:116) noted that there were twelve ribs on the quart and half-gallon jars, but only nine on the pint.

Brantley (1975:28) further noted that Ball continued to make the Square Mason for several years, apparently in large quantities. The Ball jars were originally made from the Schram molds and continued to use the carpenter's square on the front. Brantley illustrated a Ball Perfect Mason beside a Drey Perfect Mason, and they are virtually identical except for the change in name.

#### Ball

Roller (1983:55) illustrated a jar embossed "Ball (cursive) / SQUARE / carpenter's square / MASON" on the front. Roller noted that the jars were "made from altered <u>Drey</u> SQUARE MASON jar molds . . . acquired when Ball bought Schram Glass Mfg. Co. in 1925." Like the Drey Square Masons, the pint jars lack the carpenter's square. Creswick (1987:26) also illustrated these jars and noted that some had the "word Ball superimposed over ghost word DREY" (see Figure 21). These were certainly made from the Schram molds.

## **Schram (cursive)** (1904-1925)

The Schram Glass Co manufactured a series of jars embossed with the company name. The Schram Automatic Sealer came in at least five variations, all with "Schram" in cursive lettering. There was also a Schram Fruit Jar. According to Toulouse (1969:226-228), there was also a variation with "Schram AUTO SEALER," and the jars were all machine made between ca. 1920 and 1925 (Figure 22).



Figure 22 – Schram box end (North American Glass)

In his later work, Toulouse (1971:465-466) changed his mind and set the date range at "1906 to 1915 or 1925." He explained:

There was a succession of "Automatic Sealers," a name that had already been used by the Pierce Glass Co. of Clayton, N.J. What I think is the earliest sealed directly on the shoulder, using a metal cap having a balloonlike rubber ring that made the actual seal. Other jars, lettered for "Automatic Sealer B," and presumably later than jars without the letter "B," also has a bead finish. Since the bead came in for Mason jars about 1915, this date may also be appropriated for the "B" series of Schram.

Roller (1983:322; 465-467) also noted similar variations. Creswick (1987:118-119) illustrated variations of the jars and noted that Schram obtained the Schram Automatic Sealer trademark (No. 75,418) on September 28, 1909 (Figures 23-27). According to Creswick (1987:151), the Schram Glass Mfg. Co. received Trademark No. 75,418 on September 28, 1909, for a logo consisting of the word "Schram" in upwardly slanting cursive with "AUTOMATIC SEALER" in a "flag" extending from the "m" in "Schram." She apparently could not discover a date for first use.

According to Creswick (1987:118), Schram Automatic Sealers (the three-line variation) used a large variety of lids. The earliest lids reflected Schram's December 3, 1901, Canadian patent (and all but one also had the 1903 U.S. patent). Creswick listed five variations in these lids. The lids are notable because they did *not* have the wire fastenings



Figure 24 – Schram lid (North American Glass)

used on later lids. All the lids were made in Canada and were labeled Waterloo, Toronto, or Woodstock, all in Ontario. A subsequent search failed to disclose any reference to a plant associated with Schram in Woodstock, Canada. Creswick stated that these jars were made by the Diamond Flint Glass Co., Montreal and Toronto, but she failed to give any reasons for her



Figure 23 – Schram cursive (North American Glass)

choice. Roller (1983:319), also noted the Canadian lids.

Creswick (1987:118) next illustrated an identical jar with two lid variations: 1) "Schram St. Louis Patd 1909"; and 2) "Schram Automatic Sealer Co. St. Louis, Mo. Patd. 1903." These, of course, reflected the Schram patents for those dates (see Patent section above). Creswick also noted that the Ball Brothers continued to make unmarked lids and wire clamps after their purchase of Schram in 1925. She had obviously seen the evidence: they were packed in boxes labeled "Manufactured by Ball Brothers Company, Muncie, Indiana." She did not mention whether these were used on marked or unmarked jars.



Figure 25 – Schram cursive (Creswick 1987:118)

Figure 26 – Schram flag (Creswick 1987:119)

Creswick (1987:119) confirmed all but one of the jars listed by Toulouse and Roller, along with adding a few variations

(see Table 5 for a chronology of Schram jars). She explained one variation from Toulouse that was not confirmed. Toulouse (see

above) had noted a variation of the jar embossed "Auto Sealer." Creswick (1987:118) noted lids (not *jars*) marked "Schram Auto. Sealer Co." from Waterloo, Ontario.

The Schram jars apparently went through three major chronological and stylistic changes. It is probable that the three-line logo preceded the "flag" variation. It is also likely that jars with no letter preceded jars with the letter "A," and ones with the letter "B" were made last. A possible chronology, following historical changes may have been: 1) no letters, 1906-1909 (prior to the second patent); 2) letter A, 1909-1913 (made until the name change); letter B, 1913-1925



Figure 27 – Schram flag (eBay)

(made until the Ball Brothers purchased the property). A final style illustrated by Creswick (1987:119) was embossed "SCHRAM S<sup>T</sup> LOUIS A" in a circle around the base but had no embossing on the side (Figure 28). This was almost certainly a product jar.

Roller (2011:465) added a couple of new twists to the discussion of the earliest Schram Automatic Sealers. The Roller editors noted that "the 1904 *Proceedings of the Glass Bottle Blowers Association of the United States and Canada* listed Schram Automatic Sealer Jars as made by 'Branch No. 66' (reportedly the Toronto Glass Company in Toronto, Ontario, Canada)." This apparently pins down the manufacturer of the earliest Schram



Figure 28 – Product jar (Creswick 1987:119)

Automatic Sealer jars. However, the Diamond Glass Co. purchased the Toronto Glass Co. on October 17, 1899, so the jars were almost certainly made by the Toronto plant of Diamond Glass. Roller (2011:465) also stated that "there were several glass houses in Ingalls and some early Schram jars may have been made by one or more of them."

#### **Advertisements**

The early advertisements for the Schram Automatic Sealers were some of the most clever and humourous in fruit jar history. The three below – all from 1905 – were particularly cute.

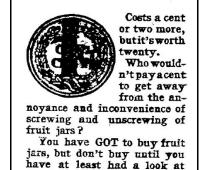


Figure 30 – Schram ad (*Evansville Courier and Press* 7/14/1905)

the Schram Automatic Sealer.

A June 15 ad in the *Evansville Journal* discussed the Automatic
Sealer and humorously quipped,
"Schram—a homely name but a
mighty good fruit jar" (Figure



Figure 29 – Schram ad (*Evansville Journal* 6/15/1905)

29). A month later, on July 14, the *Evansville Courier and Press* claimed the the jars "cost a penny or two more, but it's worth twenty. Who wouldn't pay a cent to get away from the annoyance and inconvenience of screwing and unscrewing of fruit jars?" (Figure 30). Finally, on August 10, the *Journal* added that "it can't run over. No sticky sides—no unpleasantness of

any kind if it's a Schram Automatic Sealer, the fruit jar of the present, and of the future" (Figure 31). Later ads were more sophisticated – but not nearly as cute.

### **Discussion and Conclusions**

Although we have found no direct reference to the use of machines by the Diamond Glass Co. prior to 1908, the firm was almost certainly the manufacturer of the earliest machine-made Schram Automatic Sealers – 1904-1905. However, as Roller noted (see above), a glass house at Ingalls, Indiana – the home of the first Schram firm and possible lid factory – also could have made some of the jars.

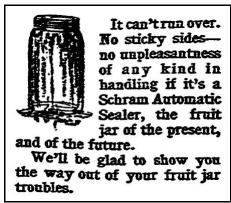


Figure 31 – Schram ad (*Evansville Journal* 8/10/1905)

Dating the various jars, manufacturer's marks, and Journal 8/10/1905) labels used by Schram is a complex issue – even more so than with most bottles and jars. The ACME jar is very straight forward. It was made for a short period of time and was apparently only manufactured in two very slight configurations, with the Drey boss appearing on the latter jar.

Both Drey and Schramm jars, however, were made for a lengthy period and came in several configurations. Dating considerations include physical changes in the neck area, such as the switch from shoulder to bead seal on Mason jars (ca. 1915), the addition of a bead on Drey jars (exact date unknown), and the Drey boss (ca. 1919). Label changes include the inclusion of patent dates, the positioning of patent date, positioning of specific words (e.g., "IMPROVED"), and changes in lettering (e.g., three forms of the letter "D" in "Drey" or the larger capital letters in some variations of "IMPROVED EVER SEAL").

Roller (1983:109) noted that "the Ever Seal' family of wire bail jars was introduced into the Schram line in 1917, and by c. 1919 they had added the word **IMPROVED** to the embossing." We have basically followed this chronology, although we have greatly expanded it based on the above-mentioned variables. The variations are too complex to deal with in a text format but are presented in Tables 1-5.

Table 1 – Drey Improved Ever Seal Variations and Chronology

| Embossing                                     | Variation   | Dates             |
|---|---|-------------------|
| Drey / {IMPROVED} EVER / SEAL                 | full wire bale [probably what Creswick called the Lightining beaded neck variation] | ca. 1918-ca.1919  |
| Drey / {IMPROVED} EVER<br>/ SEAL              | half wire bale & Drey bosses  | ca. 1919          |
| Drey / {IMPROVED} EVER / SEAL                 | Drey bosses; "dropped R in<br>IMPROVED" (poss by Ball) [Roller<br>1983:109]         | ca. 1919-ca. 1920 |
| Drey /{ PAT'D 1920 /<br>IMPROVED} EVER / SEAL | Drey bosses   | ca. 1920-ca. 1922 |
| Drey /{ PAT'D 1920 /<br>IMPROVED} EVER / SEAL | Drey bosses – ghosted PAT'D 1920  | ca. 1920-ca. 1922 |
| Drey / IMPROVED / EVER /<br>SEAL              | Drey bosses – "PAT. SEPT 7 1920" on reverse heel                                    | ca. 1922-ca. 1925 |
| Drey / IMPROVED / EVER<br>SEAL                | PAT'D 1920 on base  | ca. 1922-ca. 1925 |
| Drey / IMPROVED / EVER<br>SEAL                | PAT'D SEPT 7 1920 on base   | ca. 1922-ca. 1925 |
| Drey / IMPROVED / EVER<br>SEAL                | ghosted PAT'D 1920 – with or without dropped R                                      | ca. 1925-ca. 1930 |
| Drey / IMPROVED / EVER<br>SEAL                | WIRE SIDE on neck   | ca. 1925-ca. 1930 |
| Drey / IMPROVED / EVER<br>SEAL                | WIRE SIDE on neck – "B" in ejection scar  | ca. 1925-ca. 1930 |
| Drey / IMPROVED / VER<br>SEAL                 | MADE – WIRE SIDE on neck – error, missing "E"                                       | ca. 1925-ca. 1930 |

Table 2 – Drey Ever Seal Variations and Chronology

| Embossing                | Variation                                       | Dates             |
|--------------------------|---|-------------------|
| Drey / EVER / SEAL       | old-style Lightning closure                     | ca. 1917-ca. 1918 |
| Drey / EVER / SEAL       | Lightning beaded-neck closure                   | ca. 1918-ca. 1919 |
| Drey / EVER / SEAL       | Drey bosses; PAT'D on neck – no crossbar on "A" | ca. 1919-ca. 1922 |
| Drey / PAT'D EVER / SEAL | Drey bosses                                     | ca. 1919-ca. 1922 |

Table 3 – Drey Mason Variations and Chronology

| Embossing    | Variation  | Dates             |
|--------------|--|-------------------|
| Drey / MASON | shoulder seal                                    | ca. 1914*         |
| Drey / MASON | bead seal  | ca. 1915          |
| Drey / MASON | shoulder seal – fancier "D"                      | ca. 1915          |
| Drey / MASON | bead seal – "D" disconnected from rest of "Drey" | ca. 1916-ca. 1919 |
| Drey / MASON | bead seal – connected "D" but double underline   | ca. 1916-ca. 1919 |
| Drey / MASON | bead seal – reversed "N" in Mason                | ca. 1916-ca. 1919 |

<sup>\*</sup> These shoulder-seal jars may have been made earlier. Trade Mark information stated that the Drey mark was first used in 1908. That does *not*, however, necessarily mean that it was used on *jars*. It may have been applied to cardboard shipping boxes, for example.

Table 4 - Drey Perfect Mason and Square Mason Variations and Chronology

| Embossing  | Variation   | Dates             |
|--|---|-------------------|
| Drey / PERFECT / MASON                                 | PERFECT and MASON offset  | ca. 1919-ca. 1925 |
| Drey / PERFECT / MASON                                 | PERFECT / MASON – both centered   | ca. 1919-ca. 1925 |
| Drey / PERFECT / MASON                                 | PERFECT and MASON on one line   | ca. 1919-ca. 1925 |
| Drey / PERFECT / MASON                                 | PERFECT / MASON – both centered) – 8 vert. ribs on side; concentric circles on base | ca. 1925-ca. 1930 |
| Drey / PERFECT / MASON                                 | PERFECT / MASON – both centered) – 8 vert. ribs on side; concentric circles on base | ca. 1925-ca. 1930 |
| Drey / PERFECT / MASON                                 | PERFECT and MASON on one line – concentric circles on base                          | ca. 1925-ca. 1930 |
| Drey / SQUARE / {carpenter's square} / MASON           | carpenter's square on quart; absent on pint   | 1924-1925*        |
| Ball (cursive) / SQUARE / {carpenter's square} / MASON | carpenter's square on quart; absent on pint; "Ball" over ghosted "Drey"             | 1925-ca. 1927     |
| Ball (cursive) / SQUARE / {carpenter's square} / MASON | carpenter's square on quart; absent on pint; no ghosting                            | ca. 1926-ca. 1930 |

<sup>\*</sup>It is possible that Ball made some of these soon after it purchased Schram. However, the jars with the Ball name belie this interpretation.

**Table 5 – Chronology and Variation of Scharam Jars** 

| Variation  | Letter | Dates         |
|--|--------|---------------|
| Schram / Automatic / Sealer (cursive – Canadian lids)*                   | none   | ca. 1903-1905 |
| Schram / Automatic / Sealer (cursive)                                    | none   | 1906-1909     |
| Schram / Automatic / Sealer (cursive) [SCHRAM / ST. LOUIS on base]       | none   | 1906-1909     |
| Schram (cursive) / FRUIT JAR (in flag)                                   | none   | 1907-1913     |
| SCHRAM (arch) / ST. LOUIS (inverted arch) [on base]                      | A      | 1909-1913     |
| Schram / Automatic / Sealer (cursive)                                    | A      | 1909-1913     |
| Schram / Automatic / Sealer (cursive)                                    | В      | 1913-1925     |
| Schram (cursive) / AUTOMATIC SEALER (in flag)                            | В      | 1913-1925     |
| Schram (cursive) / AUTOMATIC SEALER (in flag)                            | В      | 1913-1925     |
| Schram (cursive) / AUTOMATIC SEALER (in flag) / TRADE<br>MARK REGISTERED | В      | 1913-1925     |
| Schram (cursive) / FRUIT JAR (in flag)                                   | В      | 1913-1925     |

<sup>\*</sup> These lids were embossed with the word "Canada" or with Canadian cities, like Toronto, or provinces, like Ontario.

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