

# The Knox Glass Bottle Co.

By Bill Lockhart, Pete Schulz, Carol Serr and Bill Lindsay

One of the authors (Lockhart 2004) wrote his first study about glass marks of the Knox conglomerate, identifying the T-in-a-keystone mark as the logo used by the Knox plant in Palestine, Texas. Because it was based on preliminary research, the study was lacking many details. The following is a greatly improved version.

Lockhart was fortunate to interview Jack Underwood, nephew of the founder of Knox, in 2004. Underwood shared memories of his father, Chester, and of Knox after 1932. He also provided a copy of the *Knox News*, the newsletter of the corporation.

## History

### Knox Glass Bottle Co. (1917-1968) – Overview

Roy Underwood was the power behind the Knox Glass Bottle Company. Born on July 27, 1887, he began his career in glass as a boy at the Crescent Glass Bottle Company and soon learned glass blowing. He organized the Marienville Glass Company in 1914. Just three years later, in 1917, he moved to Knox, Pennsylvania, and organized the Knox Glass Bottle Company (*Glass Industry* 1951a:562; *Knox News* 1951a:1-2; Toulouse 1971:293). Early on, Knox had several “affiliates,” the earliest of which were the Wightman Bottle & Glass Mfg. Co., the Knox plant, Marienville, and the Eden Glass Co. Later, Knox purchased existing plants and built new ones.

Toulouse (1971:294) suggested that it was “generally assumed that in most of [the additional factories] local money was teamed with Roy R. Underwood’s management and promotion ability in exchange for stock.” Apparently, this exchange of stock eventually resulted in complete Knox takeovers. Having “Glass Bottle Co.” as part of the name almost became a Knox trade mark.

In 1929, Knox joined with Frank O’Neill of the O’Neill Machine Co., Toledo, Ohio, to make the Knox-O’Neill machine. The *Glass Industry* noted that “the new machine is said to incorporate all the advantages of suction feed and do away with many of the disadvantages of the gob feeder” (*Glass Industry* 1929a:18). By October, the Knox-O’Neill Glass Co. had

sold 95 of the machines to the Carr-Lowrey Glass Co., Whitall-Tatum Co., Owens-Illinois Glass Co., and used two itself at the Knox, Pennsylvania, factory (*American Glass Review* 1929b:15; *Glass Industry* 1929b:251). By at least 1935, the company was known as Knox Glass Associates, Inc.

Roy’s younger brother, Chester, joined the Knox management and eventually began a southern expansion of the company, beginning with the Knox Glass Bottle Company of Mississippi at Jackson in 1932. Chester opened a second southern plant at Palestine, Texas, in 1941. After Roy’s death on October 16, 1951, Chester took over the operation of Knox (*Glass Industry* 1951b:568; Toulouse 1971:271-272). However, he found himself in a difficult position. The company was in financial trouble and he began selling off some of the Knox plants to retain solvency. The other stockholders executed a proxy raid and ejected Chester from power. Along with his sons, Dick and Jack, Chester started the Underwood Glass Company in New Orleans, Louisiana, in 1956 (Toulouse 1971:294, 297; Underwood interview).

In 1956, Knox Bottle was renamed the Knox Glass Co., Inc. and divided into northern and southern sections (Toulouse 1971:297). Knox officially became a subsidiary of Hunt Foods & Industries, Inc., on October 15, 1965 (*Modern Brewery Age* 1965:3). The Glass Container Corporation acquired the ten remaining Knox-organization plants in 1968 (Toulouse 1971:297). See **Table 1** for the list of factories.

## Factories

### Marienville Glass Co., (1914-1968)

Roy Underwood established the Marienville Glass Co. in 1914 (*Knox News* 1951b:6). Although the plant burned in early 1922, it was completely rebuilt by February 1923 (*Glass Worker* 1923:9). Marienville was originally unrelated to Knox, even though Underwood was the president of both corporations. Underwood made the position of Knox toward Marienville clear in 1925:

The Knox Glass Bottle Company, Knox, Pa., is not connected in any way with the Marienville Glass Company which

has been widely reported as having been taken over by the former concern. R. R. Underwood of the Knox company states that while that company is not interested, he is personally interested and that it is quite possible that the Knox company will purchase a goodly portion of the Marienville company’s output (*Glass Industry* 1925:136).

By 1926, all four Knox affiliates used Lynch machines with Miller feeders and were gradually phasing out hand shops (*American Glass Review* 1926:15). In 1927, Marienville made “flint prescriptions, vials, patent, proprietary, liquors and flasks” at one continuous tank with three rings. The list was amended to include amber glass the following year, although the products remained constant (*American Glass Review* 1927:139; 1928:141). The Marienville Glass Co. became officially affiliated with Knox in 1929<sup>1</sup> (*Ceramic Age* 1933c:119).

A series of explosions, followed by a fire, destroyed the Marienville factory (for the fourth time) on June 2, 1930. Rebuilding began almost immediately (*McKean County Miner* 1930:6), with the new plant expanded to two continuous tanks with six rings. In 1932, the plant added fruit jars. With the repeal of Prohibition, the plant converted primarily to the production of beer bottles in April 1933. Marienville was intended to handle the bulk of beer bottle orders for Knox. The factory increased to eight rings in 1935 and made “flint and amber, proprietary, beers, liquors and specialties.” By 1942, the plant used ten rings and noted “8 feeders. Machine” in 1944 (*American Glass Review* 1930:92; 1932:75-76; 1935:88; 1942:103; 1944:103; *Ceramic Age* 1933c:119; *New Castle News* 1933:2; *McKean County Democrat* 1933). The operation cut back to a single furnace in 1947 and was producing wine bottles, glass jugs and wide-mouth containers in 1954 (Toulouse 1971:295; Oil City Derrick 1955).

### Knox Glass Bottle Co., Knox, Pennsylvania (1917-1968)

On March 10, 1917, the *Warren Mirror* announced the formation of a new corporation with a capital of \$35,000. With W. I. McDowell as president and Roy R. Underwood as secretary and general manager, the Knox Glass Bottle Co. in Knox, Pennsylvania, was expected to begin blowing glass on June 1. The plant began

**Table 1 - Knox Plants and Dates to the Knox Sale in 1968**

Company	Location	Dates
Marienville Glass Company	Marienville, Pennsylvania	1914-1968*
Knox Glass Bottle Co.	Knox, Pennsylvania	1917-1968
Wightman Bottle & Glass Mfg. Co.	Parker's Landing, Pennsylvania	1921**-1968
Eden Glass Co.	Knox, Pennsylvania	1925-1928
Pennsylvania Bottle Co.	Sheffield, Pennsylvania	1927-1952
Oil City Glass Bottle Co.	Oil City, Pennsylvania	1930-1952
Knox Glass Bottle Co. of Mississippi	Jackson, Mississippi	1932-1968
Metro Glass Bottle Co.	Jersey City, New Jersey	1935-1949
Knox Canada, Ltd.	Oshawa, Ontario	1939-1940
Knox Glass Bottle Co. of Mississippi	Palestine, Texas	1941-1985
Lincoln Glass Bottle Co.	Lincoln, Illinois	1942-1952
Seaboard Glass Bottle Co.	Pittsburgh, Pennsylvania	1943-1947
Denver Glass Bottle Co.	Denver, Colorado	1943-1951
Midwest Glass Co.	Gas City, Indiana	1951-1968
Knox Glass Co.	Danielson, Connecticut	1958-1968
Knox Glass Co.	Atlanta, Georgia	1961-1968
Knox Glass Co.	Baltimore, Maryland	1961-1968

\* Marienville was affiliated with Knox in 1926 (Toulouse 1971:298).

with a single four-ring tank that serviced “eight hand blow shops” making prescription ware (*Glass Industry* 1942:93; *Glass Worker* 1917:1). Underwood was to retain his position until 1935 and actually ran the company (Toulouse 1971:298).

According to the *Knox News* (1951b:6), the company built a second plant in the city of Knox in 1922, although this may actually refer to the Eden Glass Co. (see below). We have not found that date referenced by any other source. By 1926, all four Knox affiliates used Lynch machines with Miller feeders and were gradually phasing out hand shops (*American Glass Review* 1926:15).

In 1927, the Knox Glass Bottle Co. was only listed in Knox, Pennsylvania. The Knox plant made “prescriptions and vials” at that point on a single continuous tank. By the following year, the plant had added another tank and listed milk bottles. A 1928 ad noted that Knox specialized in prescription, proprietary, perfumery, and milk bottles in amber and flint glass. It also noted that Knox had grown from one to six factories since 1917, while “the national demand for bottles has not increased to such an extent. The demand for Knox Bottles

has developed our small beginning into a national institution. There must be a reason” (*American Glass Review* 1927:137; 1928:138-139).

In 1929, Knox No. 1 specialized in prescription bottles and Knox No. 2 (both in Knox, Pennsylvania) made miscellaneous bottles (*Oil City Derrick* 1929a:1). At the same time, the listing for Knox plants in general was enlarged to “prescription and proprietary ware; flint and amber beverages; packers and preservers; bottle specialties; milk jars” in 1929. The same listing continued until at least 1936. By 1942, milk bottles had been dropped from the list, but the plant had added carbonated beverages. Fruit jars became a new listing in 1943 (*American Glass Review* 1929b:100; 1936:93; 1943:102).

After a three-year shutdown, Underwood opened a new plant on a new site at Knox shortly before his death in 1951. Tank capacity was 130 tons, and production was estimated at seven carloads per day. Among the machines were two Knox W. D. machines. On the first full day of operation, “four-ounce peroxide bottles, pint wine flasks and quart black

bottles were augmented by pint juice bottles and tavern-style no-deposit beer bottles” (*Oil City Blizzard*, 1951). The operation closed again, the following year, but even as the company was eliminating other plants, expansion at Knox continued, with the erection of a large new warehouse and eleven new batch silos for storage of raw materials. After a nine-month shutdown, the new facilities opened in early 1953. In 1954, the Knox facility was still concentrating on amber ware, producing beer, liquor, bleach and pharmaceutical bottles (*Oil City Derrick* 1953a; 1953b; 1955). One of the Knox locations put in a new unit for making emerald green glass in 1958 (*Food Packer* 1958:37).

**Wightman Bottle & Glass Mfg. Co., Parker's Landing, Pennsylvania (1921-1952)<sup>2</sup>**

**Knox Glass Bottle Co. of Parker, Parker (formerly Parker's Landing), Pennsylvania (1952-1968)**

The Wightman Bottle & Glass Co. of Parker's Landing, Pennsylvania, became a Knox affiliate in 1921, although the plant retained its name and identity became a Knox affiliate in 1921, although the plant

retained its name and identity (Cole 2003; *Knox News* 1951b:6). By 1926, all four Knox affiliates (including Wightman) used Lynch machines with Miller feeders and were gradually phasing out hand shops (*American Glass Review* 1926:15). A 1927 ad (*American Glass Review* 1927:136) listed both the Wightman Bottle & Glass Mfg. Co. and the Marienville Glass Co. as "affiliated companies." The ad also claimed that Knox made "Just Good Bottles."

The Parker's Landing plant burned in June 1929 and the company became "financially strained." Underwood bought the remains and rebuilt the factory as a Knox unit, still retaining the Wightman name (Toulouse 1971:295). The new factory included a \$150,000 tank that doubled the output of the unit (*Titusville Herald* 1929:1). Under Knox, the plant made amber glass bottles and milk bottles (*Olean Herald* 1929:8). The Knox decision to sell the milk production to the Thatcher Mfg. Co. in 1932 required a change of product at the Wightman plant (*Oil City Derrick* 1932:11). Unfortunately, we have not discovered the changed products. After the 1952 reorganization, the plant was renamed the Knox Glass Bottle Co. of Parker. Knox built an addition to the factory in 1956 (Goldinger & Feters [1999]:58).

#### **Eden Glass Co., Knox, Pennsylvania (1925-1927)**

In 1925, the Eden Glass Co., a Knox affiliate, opened at Knox, Pennsylvania, adjacent to the original Knox plant. The plant originally operated "two Lynch machines each with a Wm. J. Miller feeder and five hand shops." This was the full productive capability for the continuous tank (*American Glass Review* 1926:15). The plant was built primarily for the manufacture of "laboratory and amber glass" (*Glass Worker* 1925:12). On December 22, 1926, the stockholders voted "to transfer all property and assets of the company to the Knox Glass Bottle company" effective January 1, 1927 (*Oil City Derrick* 1926:11). Thereafter, it was usually impossible to distinguish the original Eden and Knox plants in reports on the company's operations in the city.

#### **Pennsylvania Bottle Co., Sheffield, Pennsylvania (1926-1952)**

Underwood next opened the Pennsylvania Bottle Co. at Sheffield,

Pennsylvania, in 1926 replacing the former, bankrupt, Sheffield Glass Bottle Co. Fire had destroyed the older factory on January 29, but Knox began construction on the new one on February 17. The Simplex Engineering Co. completed the new installation in time to light the first fire on April 20, 1926, and the plant began operations on May 17. The renewed operation used a single tank to supply six O'Neill feeders and automatic machines (*Glass Industry* 1926:181).

The plant did not appear in the 1927 *Glass Factory Year Book*, but it was listed with R. R. Underwood as president in the 1928 edition, making "prescription ware, flint beverages, packers and preservers, milk jars, bottle specialties" by machine at one continuous tank with five rings. By 1931, the plant was up to six rings. The listing continued to be the same until at least 1936 (*American Glass Review* 1927; 1928:94; 1931:88). In 1932, however, milk bottle production ceased, when Knox sold that portion of the business to the Thatcher Mfg. Co. (*Oil City Derrick* 1932:11).

In 1933, the Sheffield plant pioneered "colored inscriptions" on prescription bottles (*Ceramic Age* 1933a:86). Although the process was never popular for prescriptions, the Owens-Illinois Glass Co. named the method Applied Color Lettering the following year and it became the standard for labeling soda and milk bottles. Knox closed the decorating plant in 1935, transferring the work to the Oil City unit. The plant was reopened in May 1937<sup>3</sup> (*McKean County Democrat* 1935a:3; *Williamsport Gazette and Bulletin* 1937:2).

By 1942, the plant had seven rings and was making "flint glass wide mouth and narrow mouth food packers and preservers ware, liquor ware, beer bottles, ammonia bottles, private mould work" (*American Glass Review* 1942:106). In 1951, in the face of "a sharp curtailment of orders due to unstable business conditions, "Knox laid off about 100 workers and shipped three of the plant's seven machines to the new acquisition in Gas City." The following year, the name was changed to the Knox Glass Bottle Co. of Sheffield, but the factory closed in 1953 (*Warren Times-Mirror* 1951; Toulouse 1971:295, 333-334, 532). This was probably another plant sold in the unpopular 1952 decision by Chester Underwood.

Sheffield Glass had consisted of three plants, at Sheffield and Wilcox, both in Pennsylvania, and Columbus, Ohio. Knox

immediately closed the Columbus plant after the purchase (*Warren Mirror* 1928:5).

#### **Pennsylvania Bottle Co., Wilcox, Pennsylvania (1927-ca. 1932)**

When Knox moved into the Wilcox plant in June 1927, the factory was already set up to make amber bottles and "a miscellaneous line of drugware" (*Oil City Derrick* 1927a:3). The plant used three O'Neill feeders and automatic machines (*Glass Industry* 1926:181). However, a disastrous fire destroyed the unit on July 25, 1927. The plant was almost new, having been rebuilt by the Sheffield Glass Bottle Co. after an earlier fire in 1925. Knox again rebuilt the factory in 1928 (*Oil City Derrick* 1927b:1; *Warren Mirror* 1927:12; *Warren Tribune* 1928:5). We have found no reference to the closing of the Wilcox plant, but the city was not listed in ads after 1932.

#### **Oil City Glass Bottle Co., Oil City, Pennsylvania (1930-1952)**

The Oil City Glass Bottle Co. at Oil City, Pennsylvania, was built in 1930, and this is an excellent example of Roy Underwood's use of local capital to enlarge production by building new factories. In December 1929, Underwood met with local businessmen at Oil City and created a new corporation with a capital stock of \$100,000. Underwood and his Knox associates would only own 20% of the stock, while the remaining 80% was controlled by local people. A single tank, operating two Knox-O'Neill suction machines was expected to begin production on May 1, 1930 (*Oil City Derrick* 1929a:1-3).

The Oil City and Jackson plants were known as the "Depression Factories" because of their construction in the early years of the Great Depression (*Glass Industry* 1942:93). W. K. Rolland, a local investor, described why Knox chose Oil City as a site. He noted that for Knox, this was "merely a step in an expansion program they have outlined for several years ahead." The location was chosen because "Oil City has a very satisfactory labor situation: excellent transportation facilities ... excellent power facilities ... low industrial rates on power ... a friendly cooperative spirit towards incoming industries" (*Oil City Derrick* 1929b:1).

The Oil City plant made "flint prescription and proprietary ware" at one continuous tank with three machines in 1931. The factory added another machine



in 1933 and two more by 1942 for a total of six (American Glass Review 1930:93; 1931:87; 1933:69; 1942:104-105). Knox closed the plant in 1948 but reopened it with a larger furnace supporting "three Knox W-D machines, one Lynch 10 machine and on five section Hartford-Empire I. S. Machine" (Warren Times-Mirror 1959:2). Oil City was one of the branches sold in Chester Underwood's unpopular 1952 decision. The now independent factory renamed itself the Oil City Glass Co. (Oil City Blizzard 1952; Toulouse 1971:298).

#### **Knox Glass Bottle Co. of Mississippi, Jackson, Mississippi (1932-1968)**

Chester Underwood searched the South for a good location for a new Knox plant. He fell in love with Jackson, Mississippi, and rebuilt the former Dixie Glass Mfg. Co. plant there in 1932. The factory added two new machines in 1933 (Ceramic Age 1933b:119; Glass Industry 1942:93; Toulouse 1971:296, 298). This was the first plant built "under the Underwood aegis alone." Chester moved to Jackson and operated the Southern plants until he became president of Knox upon his brother's death in 1951 (Toulouse 1971:296, 271-272).

In 1934, the Knox Glass Bottle Co. of Mississippi made "bottles and containers, milk jars" at one continuous tank. The list was amended to "packers and preservers ware, bottle specialties, private mold work" in 1935, and the list remained the same until at least 1936. By 1942, the list had changed to "prescription and proprietary ware, packers and preservers, flint beverages, fruit jars, bottle specialties; private mould work." In 1954 the factory was credited with liquor, wine and pharmaceutical bottles, as well as wide mouth and miscellaneous ware (American Glass Review 1934:95; 1935:87; 1942:102; Oil City Derrick 1955).

#### **Metro Glass Bottle Co., Jersey City, New Jersey (1935-1949)**

The Metro Bottle Co., a jobber, opened at Jersey City, New Jersey, in 1916 and began operating a small hand plant in 1931. Knox bought the company and built a new factory in 1935. Knox sent several Marienville employees to Jersey City in early October to help the new plant get off to a good start (McKean County Democrat 1935b:2).

This was a typical Underwood

organization. Roy Underwood worked with Emanuel M. Terner, the main backer of Metro, to form the Metro Glass Bottle Co., a Knox associate. Using local financing, the new corporation built a new plant with one continuous tank and four machines. In 1939, the plant was enlarged to two tanks. Local interests, backing Terner, purchased the plant back from Knox in 1949, added a third tank in 1950, and a fourth by 1957 (Glass Industry 1942:93; Toulouse 1971:296, 298, 342-343). By 1942, Metro made a "general line of wide mouth and narrow neck containers, including beers and liquors. Flint and Amber," still at two continuous tanks (American Glass Review 1942:104).

#### **Canadian Knox Glass Co., Ltd., Oshawa, Ontario (1939-1940)**

Underwood announced plans for the Canadian Knox Glass Co., Ltd. at Oshawa, Ontario, in April 1939 (Glass Packer 1939:237). Knox actually obtained a federal charter on February 1, 1939, and rented buildings to establish the Knox presence in Canada. The new plant made a number of wine, soda, vinegar, sauce and mayonnaise bottles, but the Dominion Glass Co. purchased the property on May 14, 1940, for \$618,270. Dominion continued to sell the existing stock of bottles until 1942 (King 1987:151, 156).

#### **Knox Glass Bottle Co. of Mississippi, Palestine, Texas (1941-1968)**

In 1942, a reporter for the *Glass Industry* noted: "On a plot of ground that at this time last year was a cotton field, now stands a modern Knox Glass Bottle Company plant." The Palestine, Texas, plant opened on July 5, 1941, after only 95 days of construction. The latest Knox addition sported a 90-ton furnace, fired by natural gas. The eighth in the sequence of Knox plants, Palestine's furnace supplied "four Lynch 10 machines, a Lynch J P machine, and a Lynch J P M machine through six forehearth and feeders." The unit produced containers for "soft drinks, beverages, foods, cosmetics, pharmaceuticals, chemicals, extracts, wines and liquors, fruit, and, in fact, glass containers of every description" in 1942 and reportedly was making liquor, wine and pharmaceutical bottles, as well as miscellaneous and wide-mouth containers, twelve years later (Glass Industry 1942:91-93; Oil City Derrick 1955). The Palestine plant broke ground in June 1957 to build a

special factory for making amber glass (Food Packer 1958:37). Eventually, the plant provided jobs for almost 500 local citizens and became the town's most important industry.

#### **Lincoln Glass Bottle Co., Lincoln, Illinois (1942-1952)**

Knox established the Lincoln Glass Bottle Co. at Lincoln, Illinois, on October 21, 1942.<sup>4</sup> The branch used a single continuous tank with five machines to make amber beer bottles for Anheuser Busch and was open from 1942 until 1952 when it was sold to the Obear-Nester Glass Co., East St. Louis, Illinois (American Glass Review 1943:174; Oil City Derrick 1942:10; Toulouse 1971:296, 298; Underwood interview).

#### **Seaboard Glass Bottle Co., Pittsburgh, Pennsylvania (1943-1947)**

Knox purchased the J.T. & A. Hamilton Co. On February 1, 1943 and renamed it the Seaboard Glass Bottle Co. Knox retained J.T. Hamilton as an officer. The plant had two continuous tanks with modern forming machines. The factory was already equipped to make perfume and cosmetic bottles, as well as milk containers. Although Seaboard was a separate corporation, the entire output of the plant was sold through Knox. The company operated the factory until 1947 and tore it down (American Glass Review 1943:104-105; 1944:169-170; Oil City Derrick 1943:2; Toulouse 1971:290-291, 296, 298; 455).

#### **Denver Glass Bottle Co., Denver, Colorado (1946-1951)**

The Denver plant opened at 35<sup>th</sup> and Wazee Streets on May 12, 1946. The factory made amber and colorless bottles and jars in sizes ranging from ½-ounce to 32-ounce containers. A second plant was being contemplated while the first was still being constructed (Glass Industry 1926:351; Rocky Mountain News March 12, 1948). Despite all the fanfare, the plant closed on December 10, 1951 (Toulouse 1971:296, 298).

#### **Midwest Glass Co., Gas City, Indiana (1951-1968)**

The Midwest Glass Company, Gas City, Indiana (formerly the Slick Glass Co.), became part of Knox in 1951 and remained until the sale to the Glass Container Corp. in 1968 (Toulouse 1971:296, 298).

### Dover Glass Bottle Co., Dover, Delaware (1951)

At the time of Roy Underwood's death in 1951, a plant in Dover, Delaware, was reported as being under construction (*Glass Industry* 1951a:562). We have found no other record of the factory, and work was probably discontinued during Chester Underwood's downsizing in 1952.

### Knox Glass Co., Danielson, Connecticut (1958-1968)

This was the first plant built during the second surge of Knox expansion. The company constructed the initial plant at Danielson, Connecticut in 1958 to produce a "broad line" of flint glass containers (*Food Packer* 1958:37). Using a unique three-handled shovel, Ray Rich, chairman and president of Knox, was joined by the governor of Connecticut and a labor leader to break ground for the new Danielson, Connecticut, plant in August 1964 (*American Brewer* 1964:40).

### Knox Glass Co., Atlanta, Georgia (1961-1968)

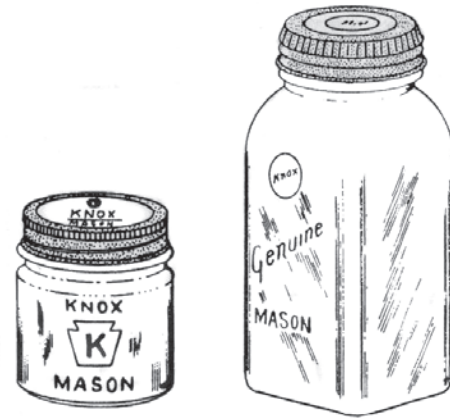
Knox opened a new plant in Atlanta, Georgia in 1961 (Simpson 1962:64; Toulouse 1971:298). Plans for the factory included two furnaces intended for flint and



**Figure 1:** Knox Mason (Creswick 1987:79)



**Figure 2:** Knox K-in-a-Keystone Mason and **Figure 3:** Knox-in-a-Circle Genuine Mason (Creswick 1987:79)



amber glass. Future projections, however, included an increase in capacity to produce Georgia green (for Coke bottles) and emerald green glass (*Glass Industry* 1960b:156).

### Knox Glass Co., Baltimore, Maryland (1959-1968)

Knox acquired the Buck Glass Co., Baltimore, Maryland, in 1959<sup>5</sup> and renamed the plant as its own (*Glass Industry* 1960a:68).

#### Containers and Marks

A list of marks is presented in **Table 2**.

#### Knox

The "Knox" logo appeared on fruit jars in at least three formats. A round jar was made, embossed with "Knox (upwardly slanted) / Mason" in script letters, during the 1930s (Creswick 1987b:79; Roller 1983:186) (**Figure 1**).

A "rounded square" jar was embossed "KNOX / {K in a keystone} / MASON", made in the 1930s to 1940s (Roller 1983:186). Creswick (1987b:79) noted four slight variations of the jar (**Figure 2**). According to Toulouse (1969:175), the range extended from 1924 to 1951.

"Knox" (with an initial capital, then

**Table 2 - Known Keystone Manufacturer's Marks and Dates Used**

Mark	Company	Location	Dates
D	Denver Glass Bottle Co.	Denver, CO	1946-1951
F	C.L. Flaccus Glass Co.***	Pittsburgh, PA	ca. 1914-ca. 1920
J	Knox Glass Bottle Co. of Mississippi	Jackson, MS	1932-1952
K	Knox Glass Bottle Co.	Knox, PA	1932-1968
L	Lincoln Glass Bottle Co.	Lincoln, IL	1942-1952
LP	Pennsylvania Bottle Co.	Wilcox, PA	1940-1952
M	Metro Glass Co.***	Jersey City, NJ	1935-1949
N	Newborn Glass Co.***	Royersford, PA	ca. 1920-ca. 1925
O	Oil City Glass Co.	Oil City, PA	1930-1952
P	Wightman Bottle & Glass Co.*	Parkers Landing, PA	1930-1952
P	Honesdale Cut Glass Co.**	Honesdale, PA	1864-1937
R	C.F. Rump & Sons** ***	Philadelphia, PA	1892-?
R	Helen & Phil Rosso, Wholesale Glass Dealers, Inc.***	Internet	1969-present
S	Seaboard Glass Bottle Co.	Pittsburgh, PA	1943-1947
T	Knox Glass Bottle Co. of Mississippi	Palestine, TX	1941-1952
U	Pennsylvania Bottle Co.	Sheffield, PA	1930-1952
W	Westmoreland Glass Co. ***	Grapeville, PA	1910-1986

\* The Wightman family had been in the glass business since at least 1841, but the plant did not become a Knox affiliate until 1921. The factory was wholly owned by Knox in 1929.

\*\* These are tableware marks.

\*\*\* Not Knox.

lower-case letters), surrounded by a circle, was embossed above “Genuine / MASON” on another “rounded square” variation (**Figure 3**) that was made during the 1940s or 1950s (Creswick 1987b:79; Roller 1983:186).

### Knoxall

Knoxall was trade marked (No. 188,175) by R. R. Underwood of the Knox Glass Bottle Co. on August 19, 1924. Knox renewed the trade mark on August 19, 1944 (U.S. Patent Office 1944). The trade mark was stenciled on cases rather than embossed on bottles.



**Figure 4:** D-in-a-Keystone mark.

### D in a Keystone (1946-1952)

Some soft drink bottles are embossed on the bases with D in a keystone (**Figure 4**). In our sample, both the “D” and the keystone were a bit cruder than those on most Knox bottles, and the “D” bottles lacked the typical three-part code used by Knox. According to Jack Underwood, the bottles were probably made by the Denver plant, which opened in 1946. According to Toulouse (1971:298), Knox closed the plant in 1951.

### F in a Keystone (ca. 1914-at least 1920)

F in a Keystone, used by the C. L. Flaccus Glass Company was unrelated to the Knox factories, and this is addressed in Lockhart et al (2007b:41).

### HOM-PAK (1943-1947)

The HOM-PAK was used by the Seaboard Glass Bottle Co., the Knox factory at Pittsburgh, on jars from 1943 to 1947. HOM-PAK was used in conjunction with the S-in-a-keystone mark (described below).

### J in a Keystone (1932-1952)

The Knox Glass Bottle Co., Jackson, Mississippi, used the J-in-a-keystone mark

(**Figure 5**) from its inception in 1932 (Toulouse 1971:271) until 1952, when Chester Underwood was ousted, and all plants switched to K in a keystone.



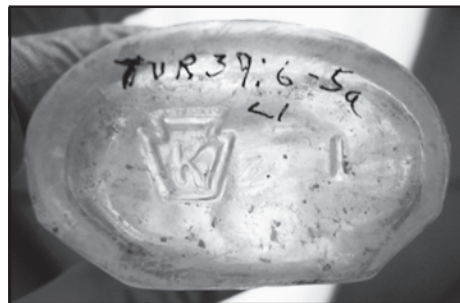
**Figure 5:** J-in-a-Keystone mark.

### J in a Circle (ca. 1932)

Robert Wagner, Hazelhurst, Mississippi, reported a bottle used by the Hazelhurst Bottling Works during the ca. 1936-1938 period. The base was embossed with the K-in-a-keystone mark typical of Knox but it also had a J-in-a-circle mark beside the keystone. Jack Underwood suggested that the initial molds used by the Jackson, Mississippi, plant were probably sent down from the main Knox plant with the K-in-a-keystone mark already on them. Engravers at the Jackson branch probably added the J-in-a-circle mark to distinguish their new plant. It is also likely that new baseplates with J in a keystone were substituted for those from the main plant as soon as possible, so the J-in-a-circle mark combined with the K-in-a-keystone mark was probably only used during the first year, 1932.

### K in a Keystone (Knox, Pennsylvania: 1932-1968; all surviving plants ca. 1952-1968)

Peterson (1968:49) claimed that the K-in-a-keystone mark was first used by Knox Glass in 1932 (**Figure 6**). Toulouse (1971:293) dated the mark 1924 to 1968 and added that it was later the “general



**Figure 6:** K-in-a-Keystone mark.

mark for all Knox plants.” Neither author cited the source for his information, but Peterson used trade mark data from the U.S. Patent Office. It is therefore likely that the use of the mark began in 1932.<sup>6</sup> The mark was certainly used until the sale to the Glass Container Corp.

Toulouse did not mention any manufacturer’s mark for the Marienville Glass Co.; however, a 1964 table of glass trademarks compiled by Owens-Illinois noted that Marienville used the K-in-a-keystone mark after it became part of Knox (Berge 1980:83). In her earliest table of manufacturer’s marks, Jones (1965:[22]) noted the K-in-a-keystone mark as being used by the Marienville plant. Unfortunately, she did not name her source, but it may have been the same table.

No specific marks are known for the plants at Danielson, Connecticut (built in 1959) and Atlanta, Georgia (built in 1961) or for the former Buck Glass Co, Baltimore, Maryland, that joined Knox in 1961. It is virtually certain that all of them only used the K-in-a-keystone mark that was apparently mandated to all Knox plants about 1952.

### L in a Keystone (1942-1952)

The L-in-a-keystone mark was used by the Lincoln Glass Bottle Company, a Knox plant established in Lincoln, Illinois, in 1942 (**Figure 7**). The company used the mark until the ousting of Chester Underwood in 1952 (Underwood interview).



**Figure 7:** L-in-a-Keystone mark.

### LP in a Keystone (1940-1952)

Toulouse noted that LP in a keystone was used by the Pennsylvania Bottle Co., Sheffield and Wilcox, Pennsylvania, from 1940 to 1952. The initials stand for both Lummis and Pennsylvania (see next entry). Pennsylvania Glass made the bottles, and



Lummis was the distributor. However, Pennsylvania Glass may have distributed some of its own bottles prior to the 1952 reorganization. Although the Pennsylvania Bottle Co. began in 1927, there was no reason for the “L” until Lummis was organized in 1940. Toulouse (1971:506) also stated that the Pennsylvania Bottle Co. used the U-in-a-keystone mark. We have not seen or heard of actual examples of the block LP-in-a-keystone mark. It seems likely that the plant used the “U” mark for bottles not distributed by Lummis (see next entry).

#### **LP in a Keystone (1940-1952)**

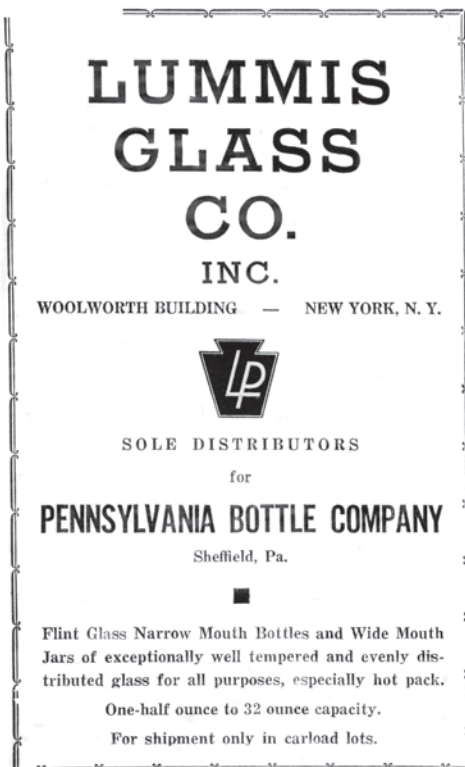
The Lummis Glass Company of New York, New York, used the LP-in-a-keystone mark from 1940 to 1952, although the letters were in italics (**Figure 8**). However, Lummis was a distributor for the Pennsylvania Bottle Company and not an actual manufacturer (**Figure 9**). The bottles, themselves, were actually made by the Pennsylvania Glass Co. Lummis remained in business for at least three years after the Pennsylvania Bottle Co. closed in 1952 (Toulouse 1971:335). Lummis advertised itself as “sole distributors for Pennsylvania Bottle Company,” suggesting that the manufacturer, itself, had no need of the block-letter mark (American Glass Review 1942:109).



**Figure 8:** LP-in-a-Keystone mark. [Whitten]

#### **LUSTRE in a Keystone (ca. 1890-ca. 1900)**

Another mark, not represented on the table because it had no connection to Knox, is an upwardly slanted, script “Lustre” in a keystone found on the shoulders of some fruit jars. This was probably used from about 1890 to about 1900 by R. E. Tongue & Bros. of Philadelphia, a wholesaler in glassware, lamp chimneys, and pottery. The company sold a jar embossed LUSTRE on the front with a lid marked Tongues Lustre Jar (Creswick 1987a:108).



**Figure 9:** Lummis ad.

(American Glass Review 1943:109)

#### **M in a Keystone (1935-1949)**

The Metro Glass Bottle Co. used the M-in-a-keystone mark from its inception in 1935, until Knox sold the plant in 1949 (**Figure 10**). After 1949, the plant used an “M” in a horizontally elongated hexagon (Toulouse 1971:342).



**Figure 10:** M-in-a-Keystone mark.

#### **N in a Keystone (ca. 1920-ca. 1925)**

Another mark unrelated to Knox, the N in a Keystone was used by the Newborn Glass Co.

#### **O in a Keystone (1930-1952)**

The Oil City Glass Bottle Co. used an O-in-a-keystone mark from its inception in 1930 until the company became independent of Knox in 1952 (Toulouse 1971:398-399).

#### **P in a Keystone (1930-1952)**

Toulouse (1971:293) noted that the P-in-a-keystone mark was used by the Wightman plant, Pittsburgh, from 1930 to 1952. Since Wightman became a Knox acquisition in 1929 and Knox rebuilt the plant, 1930 is a likely year for the mark to have begun use. It was used until the 1952 reorganization.

Pullin (1986:257) claimed the P-in-a-keystone mark was also used by the Honesdale Cut Glass Co., Honesdale, Pennsylvania, in business from 1864 to 1937. The mark was used on cut glass ca. 1916. The mark could have been used by both companies; the use by Wightman was much later.

#### **R in a Keystone (ca. 1892) (1969-present)**

Another unrelated mark is a glass rooster marked with an “R” in a keystone. That does not fit any of the possible Knox companies, nor were tableware or decorative glass a primary function of any Knox plant. According to Pullin (1986:275), the R-in-a-keystone mark was registered in 1892 for tableware by C. F. Rumpp & Sons, Philadelphia, Pennsylvania. A more recent user of the mark is Helen and Phil Russo, Wholesale Glass Dealers, Inc. The couple, located in Southern Pennsylvania, have been wholesaling hen-on-nest glass dishes since 1969. They contract with various glass companies to manufacture the pieces under the Russo keystone trademark (Russo & Russo 2004; 2005).

#### **S in a Keystone (1943-1947)**

The Seaboard Glass Bottle Co., Pittsburgh, Pennsylvania, used the S-in-a-keystone mark from the date Knox purchased it from J.T. & A. Hamilton (1943) to the factory's closure in 1947 (**Figure 11**).



**Figure 11:** S-in-a-Keystone mark.

### T in a Keystone (1941-1952)

Both Jimmy Odom and Jack Underwood confirmed that the Palestine, Texas, plant used the T-in-a-keystone manufacturer's mark on soda bottles and jars made at the factory. The "T" in the keystone probably stood for Texas, since the "P" was already in use by the Wightman Bottle & Glass Company, at Parker's Landing, Pennsylvania. The T-in-a-keystone mark was used by the Palestine plant from 1941 until 1952, when the entire Knox system adopted the K-in-a-keystone mark.

### U in a Keystone (1930-1952)

Toulouse (1971:293) noted that this was the mark of the Sheffield, Pennsylvania, plant, used from 1929 to 1953, although the plant was more likely sold in 1952. The early date is also probably a year early. If the K-in-a-keystone was not adopted until 1930, it is unlikely that any other keystone marks were used by Knox plants prior to that time.

This is a more likely initial mark for the plant than the block LP in a keystone (see LP in a Keystone above) and may have been used until 1952. Unfortunately, Toulouse failed to explain his reasons for assigning this mark to Sheffield. The obvious connection is to Underwood, but it seems he would have used the mark on one of his more prominent plants.

### W in a Keystone (ca. 1910-at least 1986)

Unrelated to Knox, this mark was described by Pullin (1986:33) as used by the Westmoreland Glass Co., Grapeville, Pennsylvania, "registered circa 1910."

### K9

The State of Massachusetts required bottle manufacturers selling milk containers to dairies within its jurisdiction to emboss a "seal" on each bottle from 1909 to 1947. This replaced the system used during the preceding decade whereby the state required each *dairy* to have embossed on its bottles a "seal." The specific "seal" used by Knox contained the "K9" designation.

Marks of K9, K-9, or K.9 are found on bottles, both with or without a Thatcher mark. These bottles lack date codes, although Giarde (1980:118-119) suggested a date range from the 1920s to the late 1930s. Giarde attempted to explain the marks but finally concluded, "In the final analysis it can only be said that K9 milk

bottles should be attributed to Thatcher. Beyond that, the K9 will remain a mystery until some researcher finds the answer."

The researchers have arrived.

A complicating piece of evidence is the listing of the mark as belonging to the Knox Glass Bottle Co. in the 1928 *Massachusetts Bulletin* (Schadlich and Schadlich 1989). Blodget (2006:8) also identified "K9" in the Massachusetts seal as the mark identifying Knox. The earliest listing we have found for milk bottle production by Knox was 1930 (*American Glass Review* 1930:91), although it had to have begun at least two years earlier.

The resolution of these apparently conflicting lines of evidence is fairly simple. In December, 1932, Thatcher "purchased bottle machines, molds and name-plates, certain Hartford Empire licenses relating to the manufacture and sale of milk bottles, and good-will, etc., of Knox Glass Bottle Co., of Knox, Pa." (*Oil City Derrick* 1932:11; Porter 1935:1518). Bottles exhibiting both the K9 designation and a Thatcher mark were clearly made by Thatcher after 1932. Bottles with an embossed K9 but lacking any Thatcher mark were presumably made by Knox before the Thatcher purchase.

The "K" in the mark obviously indicated Knox, but the number "9" is less obvious. Although this line of inquiry has yet to be fully researched, about 1910, a national numbering system for milk bottle manufacturers was set in place. This was probably not an official federal government notation, but it was used consistently by virtually all milk bottle manufacturers. The number "1," for example, was assigned to the Lockport Glass Co. and was consistently used by that company in conjunction with the LGCo mark. Fidelity Glass Co. marked its bottles FG2 until the Atlantic Bottle Co. purchased the company and began using a mark of ABC2. This system continued in sequential order to at least 52 (the L52 mark used by Lamb Glass Co.). The number "9" was assigned to Knox.

These marks are found in at least three locations and configurations on milk bottles. "K9" is found on Massachusetts shoulder seals only in the "MASS / K9 / SEAL" format, a configuration officially adopted in 1918, although it was used by at least 1914 (Figure 12). The mark is also embossed on the heels of milk bottles, with and without the Massachusetts seal. A more unusual configuration is "SEALED / K9" in a circular plate mold on the shoulder.

We have not discovered a specific reason for this usage. [Most of the foregoing discussion was originally published in Lockhart et al. 2007a:60-61.]

### Knox Codes

Jack Underwood explained the components of the Knox system of mold numbers on bottle bases. The numbers were embossed in three sections: a two-digit numeral followed by a dash; a single, capital letter followed by another dash; and a final one- or two-digit numeral (e.g. 54-B-10). The first two-digits identify the "number for the set of molds;" the letter represents the type of container (B = Beverages); and the final two numerals signify the capacity of the container (e.g. 10 = 10 ounces). Even if the first two digits seem to denote a year (as in the 54 example from an El Paso soft drink bottle), it is coincidental rather than a date code.

Other two-digit codes appear to be date codes – but are not. Some bottles with the J-in-a-keystone mark, for example, appear have a date code to the right of the manufacturer's marks during the 1950s or 1960s (such as A53, A57, or 67). Since the Jackson, Mississippi, plant, like the rest of Knox, adopted the K-in-a-keystone mark in 1952, these codes in conjunction with the "J" mark are obviously not date codes. We have not yet deciphered their meanings.

### Other Keystone Marks

Several companies used the keystone mark with no enclosed letter, especially on jars.

### Discussion and Conclusions

The history of Knox is very straight forward, showing the development of a conglomerate and its eventual decline and sale. Roy Underwood was undoubtedly a giant of the glass industry and a tremendous success. The company's marks are common on bottles throughout the United States, except the West Coast.



**Figure 12:**  
Massachusetts K9  
seal. (*Milk Dealer*  
1934)



The choice of letters to insert in the keystone is generally fairly obvious, although inconsistent. Most letters reflect the name of the plant (M for Metro, S for Seaboard) or the city of operation (J for Jackson, P for Parker's Landing), although sometimes both the city and plan names were identical (K for Knox, L for Lincoln). However, the T for the Palestine plant likely indicated Texas. The LP for both Lummis and the Pennsylvania Glass Co., while different, is also pretty obvious.

However the use of LP, *LP*, and U – all for the Sheffield, Pennsylvania, plant – requires a bit of discussion and speculation. Since the Lummis Glass Co., a jobber, distributed products for Sheffield, the italicized *LP* in a keystone makes sense. The block LP is more difficult to justify, and it may not exist. First, if Lummis distributed the Sheffield glass, why would the company need a second mark? If it *did* use another mark – presumably for products it distributed for itself, why include the “L” for Lummis. An entirely separate mark would seem more appropriate.

According to Toulouse – who did not explain the reason for his assertion – the letter “U” in the keystone was a third mark connected to the Sheffield factory. The connection to Roy Underwood is both obvious and uncharacteristic. If Underwood wished to display his ego in that fashion, why would he not have selected the original Marienville plant or the one at Knox, the flagship factory for the firm? The series of marks for Sheffield just does not make sense. At this point, we have been unable to find an actual example of either the block LP in a keystone or the U in a keystone. It is possible that the “U” mark was only used by Sheffield from its inception until the introduction of Lummis in 1940.

#### Acknowledgments

We want to thank David Andrews directing us to Jimmy Odom, a former worker at the Palestine, Texas, Knox plant. Jimmy, in turn, put us in touch with Jack Underwood, nephew of the Knox founder, Roy Underwood, a former Knox plant manager, and later owner of the Underwood Glass Co. Thanks also to Robert Wagner for sharing his information on the early Knox Mississippi bottles with us.

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**Footnotes:**

<sup>1</sup> Toulouse (1971:298) placed the date of connection with Knox at 1926.

<sup>2</sup> The position of the Wightman plant in the Knox scheme is somewhat mysterious. In 1840 or 1841, Thomas Wightman was a junior partner in William McCully & Co., the owners of several Pittsburgh glass plants. When the partnership dissolved in 1851, Wightman joined Frederick Lorenz as Lorenz & Wightman, and they apparently broke up in 1854. In 1863, the sons, Moses Lorenz and Thomas Wightman, Jr., teamed up with Alexander Nimick to form another Lorenz & Wightman. The younger Wightman struck out on his own as Thomas Wightman & Co. in 1874. The firm became a limited partnership from 1883 to 1893 and operated under the name of the Thomas Wightman Glass Co. from 1893 to 1916. The company became the Wightman Bottle & Glass Co. in 1916 and changed a final time to the Wightman Bottle & Glass Mfg. Co. about 1927.

<sup>3</sup> There is a bit of confusion here. The *Democrat* stated that the Sheffield plant would continue production "as long as the present glass furnace holds out," likely one or two weeks. The *Gazette and Bulletin*, however, noted that the factory had been idle since 1932. This probably means that the decorating plant was a separate unit from the factory.

<sup>4</sup> *Glass Industry* (1942:93) put the year (incorrectly) at 1941.

<sup>5</sup> Toulouse (1971:298) erroneously placed the date of acquisition at 1961.

<sup>6</sup> This makes it highly likely that none of the Knox keystone marks were used until 1932. However, this only affects marks used by the Oil City, Wightman, and Pennsylvania Bottle Co. plants, all currently dated beginning 1930. All others were already dated at 1932 or later. Pending further research, we have not changed dates on the three factories in this article.