

The Dating Game: The Kearns Glass Companies

By Bill Lockhart, Pete Schulz, Carol Serr and Bill Lindsay with contributions by David Whitten

Virtually all the typical secondary sources we use for glass factories that began in the mid-19th century are confused about the series of companies connected with George Washington Kearns. This is clearly an indication of the complicated history of the Zanesville factories. Zanesville glass was the focus of pioneering work by Knittle (1924; 1927; 1932), but her chronological assessments of the Kearns factories are incomplete and evidently led to further misinterpretations by McKearin and McKearin (1948) and Toulouse (1971). Many of these errors were corrected by subsequent detailed research in Zanesville newspapers and county records by Schneider and Greer (1956a-h). Schneider was a diligent and prolific local historian, while Greer was a retired executive at the local glass factory. Their work is an impressive compilation of historical information on Zanesville glass factories.

Nonetheless, their history, being segregated into numerous individual newspaper articles, it is often difficult to follow, and it suffers from some conflicting statements as well as from gaps in the historical record. These articles are the basis for the account of the Kearns factories in McKearin and Wilson (1978:165-168), who nonetheless manage to confuse some aspects of the history. Fortunately, Barrett (1997), another member of the local glass industry, after 20 years investigating its history, locating many previously unknown newspaper references and other archival sources, produced an impressively comprehensive book on Zanesville glass. It is the basis of most of our understanding of the Zanesville industry, supplemented with some additional research of our own.

Histories

In 1842 George Kearns arrived in Zanesville from Pittsburgh with five other experienced glass workers (Joseph Burns, W. F. Spence, Thomas Reynolds, George Wendt and Samuel Turner). Investing \$500 apiece, they purchased the operating rights to the old White Glass Works, which had been established in 1815. The factory does not seem to have begun operation until mid-1844, the firm being known as Burns, Reynolds & Co. In late 1844, two of the original partners sold out, followed by

another pair two years later. In 1848, the final two original partners, Burns and Kearns, sold out (Barrett 1997:36-38).

The company in the final years is occasionally referred to by investigators as Burns & Kearns, which is likely if they were the only two remaining partners, even though no contemporary source has been found for such a name.¹ However according to Knittle (1927:373; followed by McKearin and Wilson 1978:165), the departing partners each sold their shares to Arnold Lippitt, who owned another local glass factory. If this is correct, by 1846 the majority of shares was in the hands of Lippitt, and the two Pittsburgh men may never have given their joint names to the operation.

Burns, Kearns & Co., Zanesville, Ohio (1849-1852)

In 1849, George W. Kearns and Joseph Burns began construction of a bottle glass factory at Putnam, across the Muskingum River from Zanesville (Barrett 1997:36-39; McKearin & Wilson 1978:165).² The first indication that the plant was in operation is an advertisement in April 1851. At that time, Burns, Kearns (*sic*) & Co. announced, under the heading "Putnam Glass Works" that they had "just completed their extensive Glass Works, and are now manufacturing all sizes of Bottles, Jars, Vials, and other Ware..." with their showroom on Main Street in Zanesville (quoted in Barrett 1997:65-66; the same ad was published for more than one year: see *Zanesville Courier* 1852a). In the fall of 1852, the works were reported to be "in full operation" and their showroom on Main Street was advertised in the local paper until May, 1853. The works failed shortly thereafter, and were sold to A.A. Guthrie on June 10, 1853 (*Zanesville Courier* 1852b; 1853; Barrett 1997:67).

The plant was idle for several years, as it went through a series of owners, culminating in the purchase of the factory by Cornelius Woodruff on March 22, 1856. Jehu Carter,³ Woodruff's son-in-law, who may have worked for Burns, Kearns & Co. or been a silent partner as early as 1852, reopened the factory by 1860. This brief partnership was dissolved in 1861, and Carter ran the plant until it closed in 1877.⁴

The building was sold to the Muskingum Fire Brick Co. in 1882 (Barrett 1997:67-84; *Zanesville Courier* 1861).

G.W. Kearns & Co., Zanesville, Ohio (1860-1868; 1878-ca. 1913)

William C. Cassel and William Galigher began what would later be called the Zanesville City Glass Works in 1852, although the plant was not completed until the following year. Burns and Kearns very likely worked for Cassel & Galigher until Galigher died in early 1860. On April 27, 1860, they purchased the operating rights from Cassel and the Galigher heirs (Barrett 1997:89-93).

The new operating company was G.W. Kearns & Co. by April 27, 1860, with George's younger brother, Noah Kearns, and Joseph Burns as George's partners. The group operated the Zanesville Glass Works on the "West Side [of] First between Main and Market" (Zanesville *City Glass Works* by at least 1867). The Zanesville works was a green glass plant that made a variety of bottles and vials, as well as fruit jars with lids held in place by a wire fastening (Barrett 1997:93-94; Schneider 1966).

Burns died in 1864, and the remaining group built a window-glass factory at the corner of Main and First Streets the same year (Barrett 1997:95; 1998:5). The factory became Kearns, Herdman & Gorsuch and continued to make bottles and window glass until the United Glass Co. bought the window glass plant in 1891 (see below).

McKearin & Wilson (1978:166-167) noted that:

George Washington Kearns withdrew from the firm [i.e. Kearns, Herdman & Gorsuch – see below] in 1877 and built the "Dinky" plant on Luck Avenue. It was called Dinky because it was smaller than the parent plant on Market Street. Ink bottles, medicine bottles, and flasks are said to have been produced there in the amount of about 45,000 bottles per year. George Kearns died in 1906, and the Dinky plant closed two years later.⁵

This requires a bit of explanation. In 1868, G.W. Kearns & Co. *became* Kearns, Herdman & Gorsuch (see below). When

George Kearns withdrew in 1877, he resurrected the original name. This gives the company two operating dates: 1860-1868 and 1878-ca. 1913.

The plant, built by the new G.W. Kearns & Co., actually began production on December 5, 1878. It originally used a 10-pot furnace, and its main product was flint glass druggists' ware. Kearns' sons, William H. and Charles Edward, joined him at "The Dinky" (Barrett 1997:108-112). In 1897, G.W. Kearns & Co. made "flint prescription vials, brandies, flasks, etc." with one ten-pot furnace and continued that mode of production until at least 1898 (*National Glass Budget* 1897:4 ; 1897:7; 1898:7). In 1904, the plant still operated a single ten-pot furnace, making flint prescriptions, proprietary medicine bottles, and packers' ware (Toulouse 1971:230).

G.W. Kearns & Co. built a new, expanded factory in 1909 (*National Glass Budget* 1909). In 1913, the plant used two continuous tanks with 18 rings to make a "general line" of bottles. Unfortunately, the listing did not state whether production was by hand or machine (*Journal of Industrial and Engineering Chemistry* 1913:953).

G.W. Kearns & Co. reportedly made "Mineral Water; Extract; Flint; Liquor; Prescription; Green; Beer; Patent Medicine; Pickle" bottles and fruit jars from 1907 to 1917, although fruit jars were dropped during the last few years (Thomas Registers 1907:160, 799; 1909:201, 1101; 1917:730). The 1917 listing is misleading. The plant actually ceased operation ca. 1912 but still carried an inventory of unsold ware until 1913 (Barrett 1997:113-114). The Thomas Registers frequently failed to catch factory closings and retained listings for several years after companies had ceased operations.

Kearns, Herdman & Gorsuch, Zanesville, Ohio (1868-1885)

In late 1868, George and Noah Kearns reorganized their enterprise to form a new company with James Herdman⁶ and Joseph T. Gorsuch as partners, naming the new firm Kearns, Herdman & Gorsuch. Herdman was a financier, and Gorsuch was a local businessman, decorated Civil War veteran and sometime politician (Barrett 1997:101; Caniff 2006:9; Schneider and Greer 1956g).⁷ This name replaced the older, G.W. Kearns & Co.

The window glass plant was virtually destroyed in 1870 but was rebuilt. An 1870

billhead noted that the firm made "window glass, colored bottles, demijohns, fruit jars and druggists' glassware" (Caniff 2006:9). In 1875, the company became the first in that part of the country to produce lamp chimneys. The flint glass factory operated ten shops at that point (Barrett 1997:101-106).

William T. Grey joined the firm ca. 1875 and became the secretary. Although he was experienced in management, he was not knowledgeable about glass making. George Kearns was particularly miffed at Grey and withdrew from the company at some point during 1877. When George Kearns withdrew, however, his brother, Noah, remained with Kearns, Herdman & Gorsuch (Barrett 1997:106-107).

At the close of the decade, the company became involved in a widely publicized labor dispute. Although this involved its window glass – not bottle – production, it may provide some insight into the earlier departure of G.W. Kearns. A brief summary (from the management perspective) is given by Schneider and Greer (1956g):

In 1879 the Glass Blowers union had compelled the blowers to agree to regulations that were not acceptable to the owners. Having large orders to fill, the company did nothing at the time. But when work was slack the owners discharged their window glass blowers and gatherers and employed Charles D. Williams of Kent, Ohio to go to Belgium and employ 24 glass workers. They came from Charleroi and arrived in New York on Dec. 18, 1879, where they were met by W. T. Gray.

The Belgians stayed at the Sherman house on lower Main street and Hartmeyer's boarding house across the street. On Dec. 22, Judge Ball granted a temporary injunction against David S. Swearer, president of the union at Pittsburgh, and [twelve] discharged employe[e]s, restraining them from interfering in any way with the Belgians...

Emile Bouillet was foreman of the Belgians. Writing in the Times Signal on Aug. 8, 1926, Thomas W. Lewis described his recollections of the foreigners. He said, "When through their turns at the works, they would make a rush for their nearby boarding places, wearing but little clothing, their

faces red with the heat radiated from the great melting pot and dripping with sweat."

Not noted in this account is that a subsequent permanent injunction by Judge Ball not only prevented the union from communicating with the Belgians but was supplemented by the judge's statement that he looked upon "all trades unions as against the laws of ... Ohio and the constitution of the United States." Since this precedent threatened the labor relations of the entire industry, Kearns, Herdman & Gorsuch were publicly denounced by all the Pittsburgh window glass manufacturers for acting in bad faith. Since all the discharged workers were hired by another factory, the union did not appeal in court. Rather, it sent representatives to Belgium to convince glassblowers there not to contract with American companies without examining the situation on the ground. It may be noteworthy that a labor convention in Zanesville in 1898 passed a resolution endorsing the G.W. Kearns Glass Co. (but pointedly not the larger Kearns-Gorsuch operation) "for its treatment of labor" (*Crockery and Glass Journal* 1880a-c; Walls 1881; *Delphos Herald* 1898).

It seems reasonable to suspect that part of the rationale for the 1877 departure of George Kearns, who had spent much of his life as a glass blower, was a difference in attitude toward those who worked for him that was not shared by the new management of the company.

Kearns, Gorsuch & Co., Zanesville, Ohio (1885-1893)

In 1885, Kearns, Herdman & Gorsuch was reorganized as the Kearns, Gorsuch & Co., and on February 3, 1886, the reorganized partnership was incorporated under that name (Barrett 1997:119). Herdman was not listed as an officer of this corporation, although existing references fail to explain his absence. The company bought additional land in 1887 and expanded its plant the following year. It operated three plants until it sold the window-glass factory to the United Glass Co. in 1891 (Schneider and Greer 1956g; 1956h; Barrett 1997:124).⁸

Kearns-Gorsuch Bottle Co., Zanesville, Ohio (1893-1937)

The company reorganized again in 1893, with the newly named Kearns-Gorsuch Bottle Co. being a division of the

Kearns-Gorsuch Glass Co. (Barrett 1997:125).⁹ About 1894, the factory obtained continuous tanks, although hand production remained the standard.¹⁰ Pressing machines were probably in operation to produce fruit jar lids (Barrett 1997:126). Toulouse (1971:309) noted that the plant made turn-mold bottles in 1895. In 1897, Kearns-Gorsuch operated "one continuous tank, 14 rings, on green bottles." Their flint furnace was idle at the time of the listing. The plant was only listed in the "Green Bottle and Hollowware" category in 1898 using 42 pots¹¹ (*National Glass Budget* 1897:4; 1897:7; 1898:7).

The Muskingum River flooded in 1898, inundating all the buildings and causing severe damage. However, by the turn of the century, the company operated "one of the most up to date facilities in the entire country." A second disaster occurred on March 2, 1902, when a fire destroyed the flint glass works and a warehouse (Barrett 1997:126-127).

In 1904, the plant operated one day tank and one continuous tank with a total of 13 rings (*American Glass Review* 1934:163). The company made "Mineral Water; Extract; Flint; Liquor; Prescription; Green; Beer; Patent Medicine; Pickle" bottles and fruit jars in 1905 (Thomas Register 1905:104, 577) and was experimenting with semiautomatic machines. The plant had a single machine in 1905 "making wide-mouths and preserve ware" (*National Glass Budget* 1912:1). The plant replaced the day tank with a second continuous tank in 1907, bringing the total of working rings to 16 (Toulouse 1971:309).

The year 1908 saw the installation of O'Neill machines to make wide-mouth bottles (Barrett 1997:131). By 1909, the plant had blow shops, and "seven O'Neill machines working on jars and bottles and two or three lid presses making caps for double safety jars." (*Commoner & Glass Worker* 1909:1).¹² In 1912 the company purchased an additional factory at Barnesville (see below).

In 1913, the Kearns-Gorsuch Bottle Co. used mouth-blown and semiautomatic machine methods to produce a "miscellaneous line" of bottles that included "pickle, olive, condiment and liquor ware" in three continuous tanks with 27 rings (*Journal of Industrial and Engineering Chemistry* 1913:953). Disastrous floods inundated the plant in 1913, causing extensive damage. Gorsuch died in 1914, and his son, Ralph, succeeded

him as president of the corporation (Barrett 1997:131).

By 1917, the Kearns-Gorsuch Bottle Co. made "Mineral Water; Extract; Liquor; Pickle, etc." bottles, candy jars, and fruit jars. The listing continued until at least 1921. The 1920 listing for fruit jars stated that those made by Kearns-Gorsuch were "Lightning style glass top" (Thomas Register 1917:731; 1918:810, 4430; 1920:827, 4614, 4616; 1921:781, 4571-4572). The Kearns-Gorsuch Bottle Co., with factories in Zanesville and Barnesville, Ohio, installed Hartford-Fairmont automatic machines in late 1919. The September 27, 1919 ad in *Glassworker* did not mention the machine, but the January 17, 1920, ad gave the "Hartford Fairmont Automatic Process" prominence.

In January 1920, Kearns-Gorsuch merged with the Hazel-Atlas Glass Co. but retained its identity (Barrett 1998:5; Evans 1928:16). The company built a second factory in Zanesville that opened on January 8, 1923 (Barrett 1997:136-137; Evans 1928:16; Toulouse 1971:310). In 1927, the plant used Hartford-Empire machines exclusively to make "prescriptions and vials, flint and blue minerals, patent, proprietary, packers and preservers." Plant No. 1 (usually known as the "downtown facility") had two continuous tanks, with two more at Plant No. 2. By 1924, all the old O'Neill machines had been replaced by Lynch machines, and the downtown facility was converted to the production of all the Hazel-Atlas cobalt blue glass (e.g., Milk of Magnesia bottles and Vicks jars) in 1925 (Barrett 1997:138).

The Hazel-Atlas Glass Co. was listed as the "sales manager and purchasing agent" by 1927. The listing changed slightly in 1929 to "packers and preservers, fruit jars, bottle specialties and colored glassware." Plant No. 2 added a third continuous tank in 1932. The listing continued the same until at least 1936 (*American Glass Review* 1927:137; 1929:99; 1932:74; 1936:92). Miller machines began to replace the Lynch machines by 1935, especially in the larger, more modern, Plant No. 2.

In 1937, the Zanesville corporation merged completely with Hazel-Atlas, and the combined firm dropped the use of the Kearns-Gorsuch name. The Continental Can Corp. purchased Hazel-Atlas in 1956 and closed Plant No. 1 permanently on November 1, 1956. The courts ordered Continental Can to

divest itself of certain holdings in 1963, including the Zanesville plant. The Brockway Glass Co. picked up that part of the business in 1964 (Barrett 1997:140-141; Creswick 1987a:276; Toulouse 1971:310). Plant No. 2 was still open as Plant No. 12 of the Brockway Glass Co. in 1982 (*Glass Industry* 1982:18). The plant remained open when Owens-Illinois, Inc. purchased Brockway in 1988 (Owens-Illinois 2001).

Kearns-Gorsuch Bottle Co., Barnesville, Ohio (1912-1919)

The Barnesville factory was the former plant of the Barnesville Glass Co. (possibly the Barnesville Bottle Co.). Little is known of the earlier plant, although Kearns-Gorsuch bought the company in 1912 (Barrett 1997:131; McKearin & Wilson 1978:168). The plant was not operational, however, until December 1912 or January 1913 (*Wichita Times* 12/12/1912). In late 1919, Kearns-Gorsuch installed Hartford-Fairmont machines in the Barnesville factory as well as the Zanesville plant. The Barnesville plant was destroyed by fire soon after the installation. The company then built a second plant at Zanesville in 1923 to make narrow-neck bottles, jugs, tumblers, and other products (Evans 1928:16; *Sandusky Star Journal* 1921; Toulouse 1971:310).

Containers and Marks

McDougald and McDougald (1990:15) noted that G.W. Kearns & Co. made "window glass, druggist's ware, fruit jars, demijohns, insulators and colored glass ware." Kearns, Herdman & Gorsuch manufactured exactly the same products, except the heading on their checks is more specific, naming Kearns Improved Telegraph Insulators. Kearns insulators appear to have been unmarked.

G.W. Kearns & Co. (1860-1868; 1878-ca. 1913)

KEARNS & Co.

Toulouse (1971:308) dated the mark 1864 to 1876, although he did not discuss it in the text. We have not found an example of the mark and can only date the possibility of one to the full range of the companies, 1860-1868; 1878-ca. 1913.

GWK&Co. (mid-1860s-1868; 1878-ca. 1913)

Toulouse (1971:229) attributed the "GWK&CO" mark to George W. Kearns



Figure 1: G.W. Kearns mark (eBay)

& Co. and dated its use between ca. 1890 and 1900. Lehner (1978:97) followed Toulouse. On eBay photos, the mark appears on the lower body of strap-sided flasks with “GWK&Co” in an arch and “ZO” (Zanesville, Ohio) in an inverted arch (to form a circle) (**Figure 1**). Barrett (1997:99) noted the mark but did not assign dates. Strap-sided flasks were made as early as the mid-1860s, although they became popular during the 1870s (Lindsey 2008). Thus, these bottles may have been made any time when the company was in business.

GWK (1878-ca. 1913)

Speaking of products made at “The Dinky,” Barrett (1997:144) noted that some bottles “are very simply marked on the bottom of the container with **GWK** or **G.W.K.** These are the only pieces that can have a definitive attribution and all are in colorless glass.” We have not seen examples of these, but they would be dated 1878-ca. 1913.

ZANESVILLE (ca. 1852-1863 and ca 1867-ca. 1875)

McKearin and Wilson (1978:168, 583, 676-677) described two flasks that they attributed to G.W. Kearns & Co. The earlier container (ca. 1852-1863) was an eagle flask with “ZANESVILLE” embossed across the center of the body above “OHIO.” The later flask (ca 1867-ca. 1875), otherwise unembossed, was marked on the front with two ovals, one inside the other. In the space created between the ovals, the word “ZANESVILLE” was embossed at the top, “GLASS

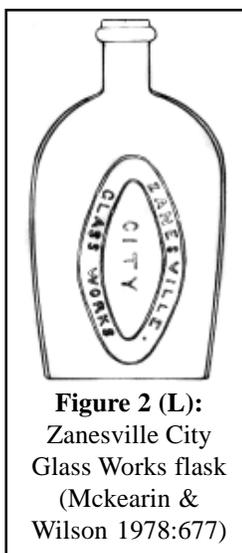


Figure 2 (L): Zanesville City Glass Works flask (McKearin & Wilson 1978:677)

WORKS” at the bottom, and “CITY” in the center of the inner circle (**Figure 2**). The names were read with the bottle turned on its side and the finish to the left.

More specifically, the flask marked with the Zanesville City Glass Works name should not be dated earlier than 1860. This name was never used by the Putnam glass factory, nor (so far as we know) by the Zanesville plant until after G. W. Kearns & Co. took over from Cassel and Galigher. Consequently, if McKearin and Wilson are correct about the attribution to Kearns, the earliest possible date should be 1860. We have found no evidence that Kearns, Herdman & Gorsuch ever used the term Zanesville Glass Works. They certainly noted “Zanesville Glass Factories” on their billheads, but that does not reflect the specific name. G. W. Kearns, however, used the name again after he separated from the others.

K (ca. 1860-1868)

Barrett (1978:119, 160) noted that “some of the black bottles of crude formation are marked with a simple K and may have been manufactured in early years [of Kearns, Herdman & Gorsuch], though this may have been a mark used by the G.W. Kearns works.” Later in the book, he leaned more toward the earlier company, suggesting a range of ca. 1860-1868.

It is possible that Barrett’s “black bottles of crude formation” are actually the blackglass “wine” bottles that were produced in Europe during the ca. 1880-late 1890s period. These are very common on Western military sites and other locations. Made from three-piece molds, these are often embossed on the side of the push-ups with single letters, multiple letters, and or numbers. One of the letters that shows up fairly often is “K.” We have

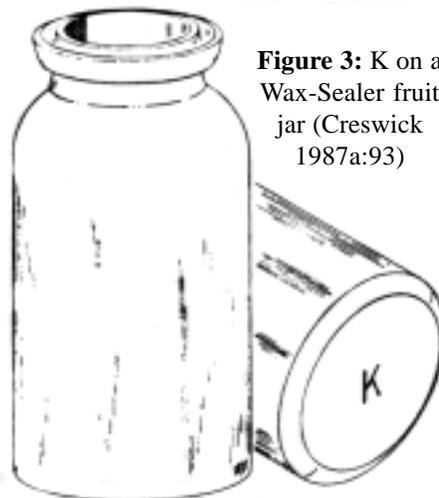


Figure 3: K on a Wax-Sealer fruit jar (Creswick 1987a:93)

speculated that K-marked bottles might have been made in England by the Kilner Brothers, but that is only a guess at this point.

Creswick (1987a:93) showed a single K embossed on the base of a grooved-ring wax-sealer fruit jar (**Figure 3**). She claimed that either Kearns & Co. or Kearns, Herdman & Gorsuch may have been the maker. A “K” also appeared on the base of a mouth-blown amber flask offered on eBay. It is impossible to tell if this was made by one of the Kearns companies, or, if so, by which one – although the possibility cannot be eliminated (**Figure 4**). These could have been made anywhere between 1860 and ca. 1910. If these older bottles were made by a Kearns factory, we believe that G.W. Kearns & Co. was the likely manufacturer.



Figure 4: K on a flask (eBay)

Kearns, Herdman & Gorsuch KH&GZO (1868-1886)

The mark “KH&GZO” in a circular format has been found on shoe-fly flasks and jar bases. The mark was obviously used by Kearns, Herdman & Gorsuch, Zanesville, Ohio. Toulouse (1969:172) noted the mark on the base of a grooved-ring, wax-sealer fruit jar, dated ca. 1876, but the mark is absent from his 1971 book. Roller (1983:180) also discussed the same jar. Creswick (1987a:94) also illustrated this mark and jar. She correctly identified the company but dated the jar ca. 1876-1884. Lehner (1978:97) correctly identified the mark with the Kearns combine but failed to include a date range. This mark cannot be more closely dated than the full range of the company, 1868-1886.

McKearin & Wilson (1978:576, 582) and Barrett (1997:159) noted flasks with the KH&GZO mark. An American Eagle flask had the mark at the base of the neck in a circular format with “No. 10” in the center. Another, similar flask had the “No. 10” but lacked the manufacturer’s mark.

Ring (1988) listed a K.H.&G.S.O mark in a downward arch on the base of a Dr. Bull’s Electric Bitters bottle. She may have mis-recorded an “S” where the mark should have had a “Z,” although, the possibility

exists that this was another engraver's error, one of at least two noted for Kearns, Heardman & Gorsuch. Various bottles show that the letters were sometimes embossed be read clockwise and other times to be read counterclockwise (Figures 5 - 6).

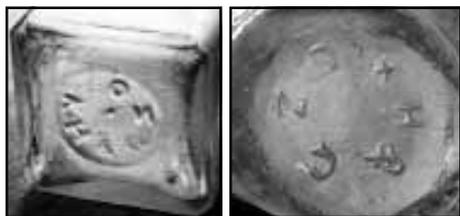


Figure 5: KH&GZO – Counterclockwise (Whitten)

Figure 6: KH&GZO – Clockwise (eBay)

O.K.H.T.G.Z. (1868-1886)

Wilson (1981:7, 123) illustrated a single bottle excavated at Fort Union (1863-1891) embossed O.K.H.T.G.Z. (with a reversed "Z") around the perimeter of the base (although he called the last letter an "S" on page 7). The bottle was "blue" in color and had a "tooled, plain, broad, sloping collar" (Figure 7).¹³ The same mark appeared in Jones (1966:8; 1968:24). None of the other available sources mentioned this logo. In examining Wilson's photograph, we disagree with Wilson's identification of the bottle as a beer container. It appears to be a cylindrical whiskey bottle made in a three- or four-piece mold.

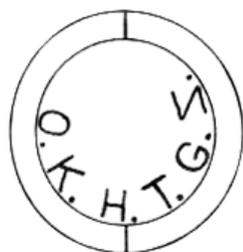


Figure 7:
O.K.H.T.G.Z.
(Wilson 1981:123)

The mark was almost certainly intended to be KH&GZO (discussed above). The engraver may have selected the wrong tool and stamped a "T" instead of an ampersand (&) and placed the "O" in an incorrect location. That would have made the initials for Kearns, Herdman & Gorsuch, Zanesville, Ohio.

An alternative explanation for the T/ampersand has to do with the methods of ordering molds in 19th century. Most glass houses did not make their own molds until

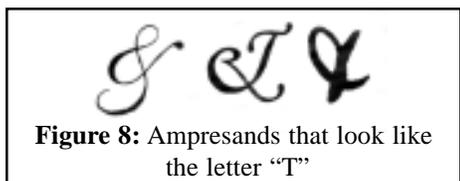


Figure 8: Ampersands that look like the letter "T"

the late 1890s. When they ordered a mold, they wrote to the makers in long-hand script. Several forms of handwritten ampersands could easily be mistaken for the letter "T" (Figure 8). This mark was almost certainly only engraved on one mold. It could have been used at any time during the 1868-1886 period.

ZKH&CO. (1868-1886)

Ring (1980:479) noted the ZKH & Co. mark on a bottle of Wallace's Tonic Stomach Bitters. The product was advertised from 1878 to 1888. The mark represents Kearns, Herdman & Co., with the "Z" out of place. This mark is almost certainly a corruption of the KH&GZO logo. It may have been misreported to (or mis-recorded by) Ring, or it may have been another engraving error similar to the one discussed immediately above.

K.H.&G. (1868-1886)

Lehner (1978:97) attributed the K.H.&G. mark (Figure 9) to Kearns, Herdman & Gorsuch based on Toulouse (1971:308). Toulouse dated the mark 1876 to 1881 in reference to his dating for that company. The mark was horizontally embossed on the base of at least one bottle type. Like the other marks above, this could have been used at any point between ca. 1868 and 1886. Barrett (1997:xxi) illustrated and described a blob-top soda bottle embossed with "K.H.&G." above the heel.



Figure 9: K.H.&G. Mark (eBay)

Kearns-Gorsuch Bottle Co.

Unfortunately, the Kearns-Gorsuch Bottle Co. catalog for 1916-1917 failed to note any manufacturer's marks. The catalog included "mould" numbers for each style of bottle, including different numbers for each size. In the Pickle Bottles section, the catalog illustrated two featured pickle bottles styles, including the base with a

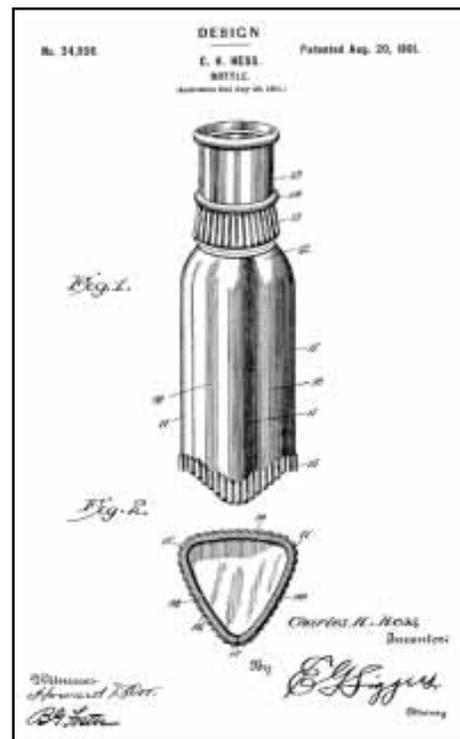


Figure 10: Hess Patent No. 34,956

patent number. The bases of Tall Fluted Ovals and Fluted Triangles were both embossed "PAT/AUG 20/1901." Charles H. Hess applied for his bottle design on July 26, 1901, and received Patent No. 34,956 on August 20, 1901 (Figure 10). Hess also both applied for and received a second bottle design patent on the same respective dates, this one for Patent No. 34,957 (Figure 11). He assigned both patents to

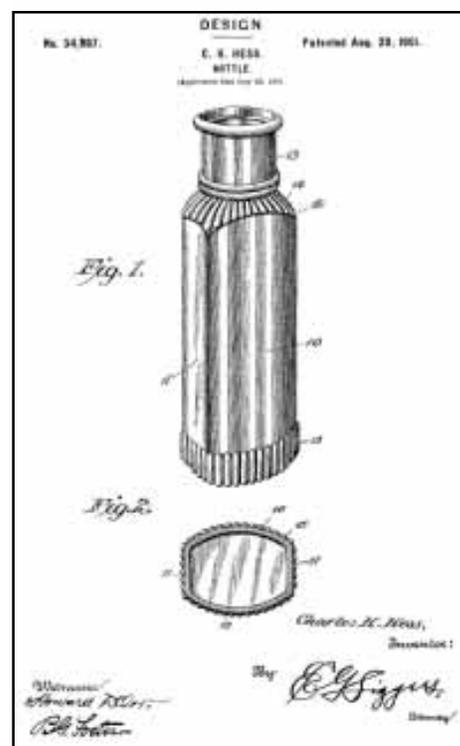


Figure 11: Hess Patent No. 34,957

the Kearns-Gorsuch Bottle Co. (U.S. Patent Office 1901a; 1901b). The patent drawings are perfect matches for the illustrations of the two bottles on pages 18 and 19 of the catalog.

The company made promotional items that included its full name. These included a commemorative bottle embossed on the side "KEARNS-GORSUCH/BOTTLE Co. / ZANESVILLE, O. / MAKERS / OF EVERYTHING IN FLINT / GLASS BOTTLES" and a paper clasp with the same information stamped or embossed on the metal (Barrett 1997:xxxiv).

K.G.B.Co. (ca. 1900-ca. 1920)

This mark is embossed horizontally across the bases of some pickle bottles as well as on the heels of Hutchinson soda bottles (Figure 12), such as the one illustrated and describe by Barrett (1997:xxxix). Lehner (1978:97) identified the mark as that of the Kearns-Gorsuch Bottle Co. Toulouse (1971:308) dated the mark ca. 1900. The only examples we have seen were mouth blown. The plant continued hand production until at least 1913 and may have discontinued it when the factory installed Hartford-Fairmont machines in late 1919. The mark was certainly discontinued by 1920, when Hazel-Atlas bought the company and began using the Oval K-G mark (see below).

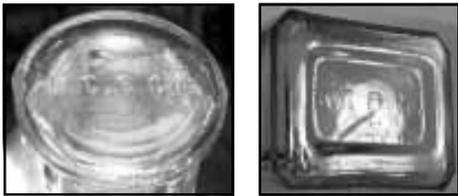


Figure 12: K.G.B.Co. (Left: eBay; Right: Lindsey)

KGBCo Monogram (1893-ca. 1920)

Creswick (1987a:143) showed two different Mason jars with KGBCo monograms embossed on the front (Figure 13). In both cases, she named the maker as Kearns-Gorsuch Bottle Co. and dated the company 1885-1937. Given the current understanding of the chronology of the company, we would reduce that range to the ca. 1893-ca. 1920 period. Roller (1983:234) explained:

These jars have been attributed previously to Kilner Brothers Glass Co., of England. I believe the enlargement of the "K" and "G" in the monogram, the fact that Kearns-Gorsuch Bottle Co. made fruit jars, and the frequent finding

of these jars in southern Ohio, makes Kearns-Gorsuch Bottle Co. the probable maker.



Figure 13: KGBCo Monogram (eBay)

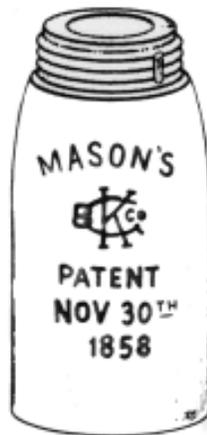


Figure 14: KGBCo Monogram (Creswick 1987:143)



Figure 15: KGBCo Monogram (Barrett 1997:162)

The "attributed previously" referred to Toulouse (1969:173-174). Toulouse described four variations of Mason jars with what he called a KBGCo monogram, used by the Kilner Brothers Glass Co., Conisbrough and Thornhill Lees, England. Two variations were reported by Toulouse as being embossed on the base with "KBL" in addition to the monogram – a basemark Toulouse identified as "Kilner Bros. Ltd." Neither Creswick nor Roller, however, mentioned the "KBL" basemarks.

Barrett (1997:133) resolved the issue for all time. He reproduced an "ink blotter advertising for Kearns-Gorsuch, 1906." In the center of the blotter is the unmistakable KGBCo monogram. Barrett (1997:132) noted that the monogram was first used during the reorganization of 1893.

However, Barrett (1997:162) illustrated

another monogram, made with a "G" superimposed over a "K" followed by "BCo." He noted that this monogram, too, was "used after 1893." We have not yet located an example of this mark, although this could be a mistaken rendering of the second monogram illustrated by Creswick (Figures 14 - 15).

KG (ca. 1920-1937)

Caniff (2007:8) noted the use of this mark on fruit jars by Kearns-Gorsuch, although he gave no specific examples. Toulouse (1971:308) dated the mark ca. 1910-1937, but we suggest that the mark was probably used after Hazel-Atlas acquired the firm but while it still had its identity (ca. 1920-1937). The mark is probably a variation of the "K-G" logo.

K-G in a horizontal oval (1920-1937)

The trademark, K-G in a horizontal oval, was registered on January 4, 1921 (No. 138,652), and the company claimed the mark was first used on May 1, 1920 (after the acquisition by Hazel-Atlas), "for glass bottles and jars." The trademark was "molded or impressed in the goods, and applied to the packages containing the same by means of labels, on which the trade-mark is shown" (also see Creswick 1987b:152). Lehner (1978:97) showed this mark both with the encircling oval and standing alone. Oddly, she ascribed the first to Kearns & Co. and the second to Kearns & Gorsuch.

Caniff (2007:7) discussed this mark on the bases of candy jars and the accompanying codes (see section on "K" below). Toulouse (1969:171-172; 1971:308) originally described the mark in an oval and dated it ca. 1915-1937. Later, he failed to mention the oval and dated the mark ca. 1910-1937. As demonstrated above, the mark was not used prior to 1920 and was undoubtedly continued until the final consolidation with Hazel Atlas in 1937.



Figure 16: KG in an oval (eBay)

Barrett (1997:160) described the mark as "K-G in an ovate square" (Figure 16).

K-plus numerical code (see text for dates)

Caniff (2007:7-9) noted that some fruit jars made by the Kearns-Gorsuch Bottle Co.

bore the K-G mark in an oval accompanied by "5-444." Other jars were embossed "1-K-444" or "1-K444" on the base without the K-G logo. Another size jar was embossed "16-K-643" on the base. Hazel-Atlas included the same jars in their 1930 catalog¹⁴ with the HA logo and the designations "K-444" and "K-643" on the bases. Thus, a "K" mark, accompanied by a three-digit number, almost certainly indicated the former Kearns-Gorsuch plant on Hazel-Atlas jars.

We have found a bottle embossed on the base with "14-7 / K" (**Figure 17**). This may well have been a mark used during the 1920-1937 period when Kearns-Gorsuch still retained its identity but was owned by Hazel-Atlas. Jars with both the "K" mark, followed by a dash, then a three-digit number as well as the Hazel-Atlas "H over A" mark should be dated after 1937.



Figure 17: K on a bottle made by Hazel-Atlas (Lockhart)

Discussion and Conclusion

We hope that this article has been able to iron out some of the wrinkles of confusion from past sources. Most of the marks, however, may only be dated to the full length of the specific company. At this point, we have found no date codes of any kind associated with bottles made by any of the Kearns enterprises.

Please send any comments to:

Bill Lockhart
1313 14th St., Apt. 21
Alamogordo, NM 88310
(575) 439-8158
bottlebill@tularosa.net

Acknowledgments

We wish to thank Douglas Leybourne for allowing us to use the drawings from the Alice Creswick books.

Sources Cited:

American Glass Review

1927 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

1929 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

1932 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

1934 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania. Includes reprint of the *Glass Trade Directory for 1904*. Commoner Publishing Co., Pittsburgh, Pennsylvania.

1936 "Glass Factory Yearbook and Directory." *American Glass Review*, Pittsburgh, Pennsylvania.

Barrett, J. William

1997 *Zanesville, Ohio and the Glass Industry: An Enduring Romance*. Privately printed, Zanesville, Ohio.

1998 "Zanesville, Ohio, and the Evolution of its Glass Industry." *Bottles and Extras* 9(7):3-5.

Caniff, Tom

2006 "Fruit Jar Rambles: Kearns, Herdman & Gorsuch's Honey Jar." *Antique Bottle and Glass Collector* 23(6):6-9.

2007 "Fruit Jar Rambles: Half-Pint Candy Jars." *Antique Bottle and Glass Collector* 23(9):6-9.

Commoner & Glass Worker

1909 "Along the Banks of the Muskingum." *Commoner & Glass Worker* 27(39):1.

Crockery and Glass Journal

1880a "Pittsburgh Trade Reports." *Crockery and Glass Journal* 11(1):10.

1880b "A Zanesville (Ohio) Despatch." *Crockery and Glass Journal* 11(1):16.

1880c "Pittsburgh Trade Reports." *Crockery and Glass Journal* 11(2):4.

Creswick, Alice

1987a *The Fruit Jar Works, Vol. I, Listing Jars Made Circa 1820 to 1920's*. Douglas M. Leybourne, N. Muskegon, Michigan.

1987b *The Fruit Jar Works, Volume II, Listing Jars Made Circa 1900 to Modern*. Privately printed, Grand Rapids, Michigan.

Delphos Herald

1898 "Ohio's Sons of Toil." *Delphos Herald*, Dec. 8, 1898:1. [Delphos, Ohio]

Evans, G. Wesley

1928 "Some Achievements of Hazel-Atlas." *Glass Industry* 9(1):16.

Glass Industry

1982 "Glass Manufacturers, Primary." *Glass Industry* 62(10):9-64.

Jones, May

1966 *The Bottle Trail, Volume 6*. Nara Vista, New Mexico.

1968 *The Bottle Trail, Volume 9*. Nara Vista, New Mexico.

Journal of Industrial and Engineering Chemistry

1913 "The Present Status of the Glass Bottle and Hollow Ware Industries in the United States." *Journal of Industrial and Engineering Chemistry* 5(11):951-954.

Kearns-Gorsuch Bottle Co.

1917-1917 "Packers' Ware: Machine Made and Hand Blown." Kearns-Gorsuch Bottle Co., Zanesville, Ohio.

Knittle, Rhea Mansfield

1927 *Early American Glass*. Appleton-Century, New York.

Lehner, Lois

1978 *Ohio Pottery and Glass Marks and Manufacturers*. Wallace-Homestead Books Co., Des Moines, Iowa.

Lindsey, Bill

2008 "Historic Glass Bottle Identification & Information Website." <http://www.sha.org/bottle/index.htm>

McDougald, John & Carol McDougald

1990 *A History and Guide to North American Glass Pintype Insulators*. Volumes 1 & 2. The McDougalds, St. Charles, Illinois.

McKearin, Helen and George McKearin

1941 *American Glass*. Crown Publishers, New York.

National Glass Budget

1897 "Flint and Green Glass Review." *National Glass Budget* 13(26):4-6.

1897 "Glass Directory." *National Glass Budget* 12(42):7.

1898 "Flint, Green and Cathedral Glass Factories of the United States and Canada in Operation." *National Glass Budget* 13(38):7.

1909 "Kearns to Build New Plant." *National Glass Budget* 25(11):1

1912 "Changes Wrought in 7 Years." *National Glass Budget* 28(30):1.

Owens-Illinois, Inc.

2001 "Consolidation of the Glass Container Industry." Spread sheet created for internal use by Owens-Illinois, Inc.

Ring, Carlyn

1980 *For Bitters Only*. Nimrod Press, Boston.
1988 *Up-Date For Bitters Only, Las Vegas*,
1988. Privately published.

Roller, Dick

1983 *Standard Fruit Jar Reference*. Privately
published.

Sandusky Star Journal

1921 "Fire Destroys Bottle Plant." March 3,
1921.

Schneider, Norris F.

1966 "Hazel Atlas Factory Torn Down: Glass
Plant Built in 1852 at Site off Lower Main
St." *Zanesville Times Recorder*, January. 30,
1966:B-5.

Schneider, Norris F. and Everett Greer

1956a "Seven Founded First Glass Firm."
Zanesville Times Signal, July 1, 1856:B2.

1956b "Early Zanesville-Made Glass Is Now
Valuable Collector's Item." *Zanesville Times
Signal*, July 8, 1956:B5.

1956c "Zanesville's Second Glass Plant
Located Near Muskingum in 1816."
Zanesville Times Signal, July 15, 1956:B6.

1956d "Speculators, Glass Blowers Join
Talents to Start Early Industry." *Zanesville
Times Signal*, July 22, 1956:B6.

1956e "Two Pioneer Families Supplied
Foundation for Glass Industry." *Zanesville
Times Signal*, August 19, 1956:B5

1956f "Glass Fruit Jars Made at Old Kearns
Glass Plant in Putnam." *Zanesville Times
Signal*, August 26, 1856:B5.

1956g "Capt. Gorsuch Joined Glass Industry
Soon After Return from Civil War." *Zanesville
Times Signal*, September 2,
1956:B6.

1956h "Automatic Machinery Puts Zanesville
Glass Production on Big-Time Basis." *Zanesville
Times Signal*, September 9,
1956:B6.

Thomas Register of American Manufacturers

1905 *The Buyers' Guide: Thomas' Register
of American Manufacturers and First Hands
in all Lines, 1905-1906*. Thomas Publishing
Co., New York.

1907 *Thomas' Register of American
Manufacturers and First Hands in all Lines:
The Buyers Guide, 1907-1908*. Thomas
Publishing Co., New York.

1909 *Thomas' Register of American
Manufacturers and First Hands in All Lines:
A Classified Reference Book for Buyer and*

Sellers. Thomas Publishing, New York.

1917 *Thomas Register of American
Manufacturers and First Hands in All Lines*.
9th ed. Thomas Publishing Co., New York.

1918 *Thomas Register of American
Manufacturers and First Hands in All Lines*.
10th ed. Thomas Publishing Co., New York.

1920 *Thomas Register of American
Manufacturers and First Hands in All Lines*.
Thomas Publishing Co., New York.

1921 *Thomas Register of American
Manufacturers and First Hands in All Lines*.
Thomas Publishing Co., New York.

Toulouse, Julian Harrison

1971 *Bottle Makers and Their Marks*.
Thomas Nelson, New York.

U.S. Patent Office

1901a "Bottle." Patent No. 34,956, August
20, 1901.

1901b "Bottle." Patent No. 34,957, August
20, 1901.

Walls, H. J.

1881 "Glass Works in Ohio." *Annual Report
of the Ohio Bureau of Labor Statistics* 4:181-
189.

Wichita Times

1912 "In the Window Glass World: From the
Pitsburg (*sic*) Glasswork (*sic*)—News and
Comments of the Trade." *Wichita Times*
December 12.

Wilson, Rex

1981 *Bottles on the Western Frontier*.
University of Arizona Press, Tucson.

Zanesville Courier

1852a Advertisement: "Putnam Glass Works."
Zanesville Courier, June 16, 1852:4.

1852b "Another Glass Works and Whig Pole."
Zanesville Courier, Oct. 4, 1852:2.

1853 "Address Cards." *Zanesville Courier*,
May 25, 1853:1.

1861 Advertisement: "Dissolution of
Partnership." *Zanesville Courier*, April 23,
1861:3.

1865 "Sale of Property." *Zanesville Courier*,
February 6, 1865:3.

Zanesville Times Recorder

1937 "Merging of Glass Company Names
Announced Friday." *Zanesville Times
Recorder*, January 9, 1937:2.

Footnotes:

¹ Knittle (1924:204) lists "Lippet" as a partner only from 1846. McKearin and McKearin (1948:594) list the operation of the Pittsburgh partners from 1842 to 1848 as "Kearns & Co." We have found no substantiation for this name, and none is provided by Schneider and Greer (1956e) or Barrett (1997).

² The town of Putnam became a part of Zanesville in 1872 (Barrett 1997:70).

³ There is some contention about Carter's first name. According to Barrett (1997:69), Jehu is the correct name. His father, John Carter, was also listed as an owner in the early days, and that seems to have caused some confusion.

⁴ In 1865, following the death of Woodward, there was an announcement that the Putnam Glass Works was sold at an administrator's sale, purchased by Carter & Gillespie (*Zanesville Courier* 2/6/1865). If this is correct, Gillespie did not last long.

⁵ Toulouse (1971:309) claimed the split occurred in 1868, almost a decade earlier than the actual breach. This may have been a typographical error, but his general account is so confused and at odds with the detailed research by Schneider and Greer and Barrett that it is difficult to credit any of his interpretations of the early history of the Kearns companies.

⁶ The Gorsuch obituary noted Herdman's name as F.H. Herdman (Caniff 1006:9). City directories, however, listed the first name as "Jas." and a billhead listed him as "James W." (Barrett 1995:104, 109).

⁷ Toulouse (1971:308-309) stated that the company became Kearns, Herdman & Gorsuch in 1876, but this is refuted by some pretty solid evidence in Barrett.

⁸ When United failed two years later, Kearns-Gorsuch reclaimed the factory but shut it down (Barrett 1997:125). McKearin & Wilson (1978:166, 168), however, stated that the plant operated intermittently after that until production of window glass ceased in 1895.

⁹ Barrett (1997:125) – the first researcher to recognize the 1893 reorganization and renaming – offered no rationale for the dual corporations. It may be that the return of the window glass factory from United Glass suggested the dual organization. Alternately, Kearns-Gorsuch Glass may have simply been a holding company.

¹⁰ Schneider and Greer (1956h) report that the 1888 expansion included a tank

furnace, but the source used may not be correct.

¹¹ This is certainly an inflated figure for a single tank, although both tanks could have been making green glass at the time, and the “42” could mean the combined total.

¹² Barrett (1997:131), however, stated that the firm installed the first narrow-mouth machines (also O’Neills) in 1911, although this may reflect the earliest record he found.

¹³ Wilson’s descriptions, while adequate for the 1980s, leave something to be desired. The “blue” for the bottle color is almost certainly aqua, and the one-part finish was certainly applied, not tooled.

¹⁴ This brings up an interesting conundrum. Even though Kearns-Gorsuch was listed under its own name until 1937, it appears that Hazel-Atlas advertised products made by the Kearns-Gorsuch factory in its catalogs at least as early as 1930. Alternatively, identical bottles may have been made by both the Zanesville factory and another Hazel-Atlas plant.