

Lyndeborough Glass Co.

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The Lyndeborough Glass Co. opened in 1867 at Lyndeborough, New Hampshire – although the operating firm had formed a year earlier. The plant remained in business for almost two decades, closing in 1886 – although it apparently reopened as the Crystal Glass Co. for two more years. As with most glass houses during that period, the factory rarely marked its goods, although it embossed and “L.G.CO.” logo on the bases of flasks and made patented glass jars.

History

Lyndeborough Glass Co., Lyndeborough, New Hampshire (1866-1886)

The Lyndeborough Glass Co.¹ incorporated on June 27, 1866, in South Lyndeborough, New Hampshire, with a capital of \$200,000. The president was Luther Roby, with Timothy T. Putnam as treasurer, George H. Sanborn as agent, and Charles W. Foster as superintendent – with George H. Sanborn, Luther Roby, John Hartshorn, Joel H. Tarbell, and Charles F. Eaton as directors.² The first annual meeting in June 1867 listed John F. Holt, George F. Spaulding, Henry M. Hooke, and Ambrose Lawrence as directors. Along with Timothy T. Putnam and Charles F. Eaton, Roby was also one of the incorporators of the New Hampshire Silex Co., a firm that manufactured silex (quartz) into sand for the glass house and other businesses (Dean 2007; Flowers 1991:120-121; *New Hampshire Statesman* 8/2/1867).

¹ There is some dispute about the spelling of the name of both the company and the town. Various sources spell the name Lyndeborough, and others spell it Lyndeboro. In some cases, the same source spelled the name both ways in different places. According to the incorporation records of the firm, the name is spelled “LYNDEBOROUGH” as is the town of South Lyndeborough (Lyndeborough Glass Co. 1866). The Lyndeborough spelling is also found on the town’s website. We have used this spelling throughout – except in quotes.

² Charles Wesley Foster, the superintendent, was the brother of George W. Foster, Wallace Foster, and Joseph E. Foster, Jr., founders of the New Granite Glass Works at Mill Village, Stoddard, New Hampshire, in 1865. See the Foster-Forbes section and the one on the Granite Glass Companies for more on that family.

The plant began production on May 1, 1867, and the factory operated sporadically until the morning of June 15, 1868, when the main building was destroyed by fire – although the chimney and furnace remained operable. Before the end of the month, the directors had a temporary building constructed to continue production as the more stable structure was built around it. Dr. Levi Keeze from Lowell, Massachusetts purchased the plant at auction for \$18,000 on April 15, 1869. The company made carboys as well as a general line of bottles. The firm also produced wine, ginger ale, and Lydia Pinkham bottles (Dean 2007; Donovan & Woodward 1906:461; Flowers 1991:126-128; Green 1875:126).

At some point, probably the early 1870s, Jacob D. Putnam, Samuel Mullen, John Nash, George Johnson, Morris Edwards, and John Kennedy (partners in the Lyndeborough Glass Blowers Cooperative by at least 1875) apparently took control of the venture. Putnam was the superintendent and agent. The partnership survived the Panic (Depression) of 1873, but major problems continued. The cost of wood was high, so the firm installed a new fan system that allowed the furnace to use a mixture of coal and wood. However, the business remained in trouble, until Tripp & Conant (John Tripp and ? Conant),³ foreclosed on the mortgage on April 1, 1875, taking over the operation of the plant but keeping Putnam in charge.⁴ Putnam was under a lawsuit at that time, but he continued as the superintendent. In 1881, the firm managed to again convert the furnace to a mixture of coal and oil, completely eliminating wood feeding four 2,000-pound pots (Dean 2007; Flowers 1991:129-132; Ladd 1885:195).

Charles W. Foster returned as superintendent in June of 1885 – apparently working for Tripp & Conant – and the plant began manufacture of insulators for the American Insulator Co. These were apparently marked with a “V” on the top and may have been the final products of the firm. The firm went through a major reorganization in early 1886, signaling the end of the Lyndeborough Glass Co. (Flowers 1991:136).

³ The 1875 and 1878 Lowell city directories listed a number of Conants, any one of whom could have been a candidate for our mystery Conant.

⁴ The actual identity of Conant remains obscured by the cobwebs of time and history.

Crystal Glass Co., Lyndeborough, New Hampshire (1886-1888)

In January 1886, a new corporation – the Crystal Glass Co. – took over the operation, although it may have only leased the factory. Charles W. Foster was president with Jacob D. Putnam as secretary and George Ross as the factory foreman. The plant was in operation by April. At this point, the plant exclusively produced the Puritan jars (see below). When Putnam died in February 1888, the firm folded, and Tripp gradually sold off the equipment and buildings over the next three years (Dean 2007; Donovan & Woodward 1906:461-462; Flowers 1991:136-137).⁵

Containers and Marks

Lyndeborough made the first Moxie bottles, blown into two-piece molds and embossed “MOXIE NERVE FOOD LOWELL, MASS” (Proper 1990:52). Bottles in our sample with that marking and “blob-top” finishes had either an “S,” a star, three dots, or a single-digit number embossed in the center of the base. Any (or even all) of those could have been Lyndeborough marks (although the reason for the “S” is not intuitively obvious). The Proper (1990:51) also noted that “Lyndeborough glass has a distinction all its own. It is not crystal-clear, but displays a blue-green hue which gives it a jewel-like lustre, the result of silex from the quartz deposit used.” According to Flowers (1991:132):

Occasionally, bottles were produced from colorless glass, but nearly three-fourths of all the glass made at Lyndeborough ranged in various tints of green and blue aqua. The rest of the glassware ranged in color from olive green, citrine green, green, emerald green, amber, reddish amber, yellow amber, and cobalt blue.

LGCO (1866-1886)

Proper (1990:53) stated that the Lyndeborough Glass Co.

⁵ Flowers (1991:137) cited four issues (January 26, February 2, 12, and 27) of the *Milford Enterprise* as his sources for the Crystal Glass Co.

made a number of simple, plain flasks marked on the base, "L.G.CO," the letters in various arrangements on different flasks. These were made in colors of light olive-green, light aquamarine, reddish amber, green and medium yellow-green in quart, pint and half-pint sizes and represent the very end of production of figured flasks.

Although the LGCo marks were used in a number of other venues (e.g., see sections on Lamb Glass Co., Lindell Glass Co., and Lockport Glass Co), the Lyndeborough Glass Co. used the marks in two unique formats, both on the bases of flasks. One configuration was LGCO in a circular format around the inside of a post-bottom plate in the center of the flask base (Figure 1).



Figure 2 – LGCO (eBay)

The second was "LG" above the post-bottom scar and "CO" (upside down relative to the "LG") below it (Figure 2). Currently, we have no way of dating which configuration was used first – if, indeed, the marks were temporal. We

have dated these marks to the entire length of the company. These appear to be the only LGCO marks with a capital "O," although we have not discovered why Lyndeborough only used the logo on flasks. Flasks marked with both logo configurations had applied double-ring finishes (Figure 3). See the Discussion and Conclusions section for a debate about the veracity of this attribution.



Figure 1 – LGCO (eBay)



Figure 3 – Flasks (eBay)

Fruit Jars

The Lyndeborough Glass Co. probably made a small variety of fruit and product jars. The identifications for most of these was based on similarities between a National Butter Can, discovered at the site of the Lyndeborough Glass Co., and jars made to Timothy Earle's patents. Along with the jars discussed below, Lyndeborough made the Hero jars and advertised them in the *Boston Post* in 1869 and 1870.

NATIONAL BUTTER CAN (ca. 1864-1865)

Roller (1983:261) discussed a jar embossed "NATIONAL (arch) / {shield} / BUTTER CAN (inverted arch)" on one side with a large anchor on the other. He described the jar as having

no shoulders, and has only one side seam. Just how the jar was blown is uncertain. . . . glass lid straddles a rough, unground lip, and it appears that no clamping device was used. The single jar known was dug at the Lyndeboro Glass Co. site, and has marking similar to Earle's Patent jars.

Creswick (1987:163) illustrated the jar and noted that it was made to the February 2, 1864, patent (No. 41,425) issued to Timothy Earle of Valley Falls, Rhode Island (Figures 4 & 5). Although she did not explain her reasoning, she also ascribed the jar to Lyndeborough. The Roller update (2011:388) added that some jars had two seams. We have seen other jars and bottles where one or both seams were either slightly sunken or not visible – despite the fact that the containers were made in typical two-piece molds. This jar almost certainly falls into that category. The Roller revision also noted that "the base of

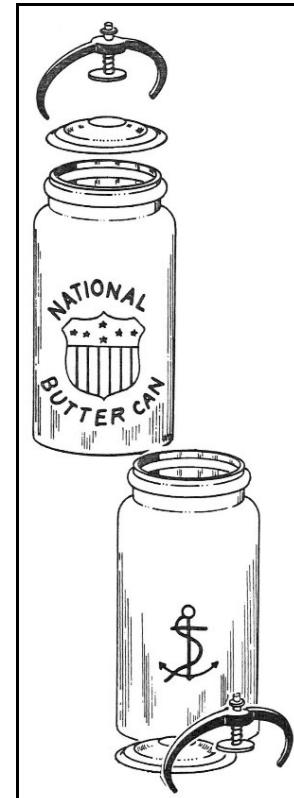


Figure 4 – National Butter Can (Creswick 1987:163)

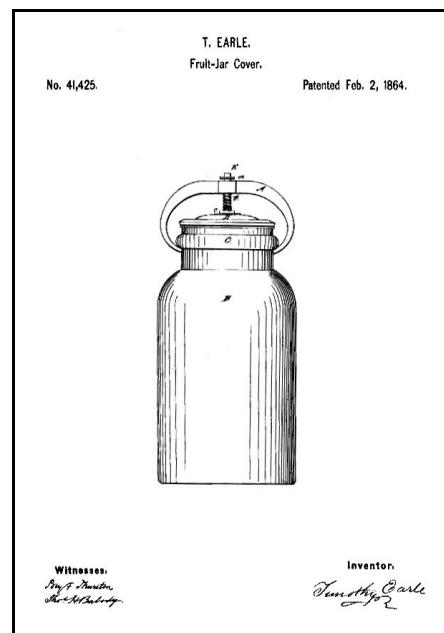


Figure 5 – Earle 1864 patent

[one] example appears to have had a glass tipped solid bare iron pontil scar which was fire polished away."

NATIONAL PRESERVE CAN (ca. 1864-1865)

Roller (1983:261; 2011:389) suggested a jar similar to the National Butter Can as being produced at Lyndeborough, this one embossed "NATIONAL (arch) / {shield} / PRESERVE CAN (inverted arch)" on one side and "EARLE'S

PATENT (arch) / {anchor} / FEB
2ND 1864 (inverted

arch)" on the other (Figures 6). He suggested Lyndeborough as the producer of the jars. Toulouse (1969:224) had discussed the jar earlier, noting Timothy Earle as having obtained "patents for venting devices on Nov. 10 and Dec. 22, 1863." However, Toulouse could not guess the maker. Creswick (1987:163) illustrated the jar and lid (Figure 7). Based on the similarity of the terminology, the virtually identical shield, and the relation of the finish shapes, we agree that Lyndeborough is the most likely manufacturer.

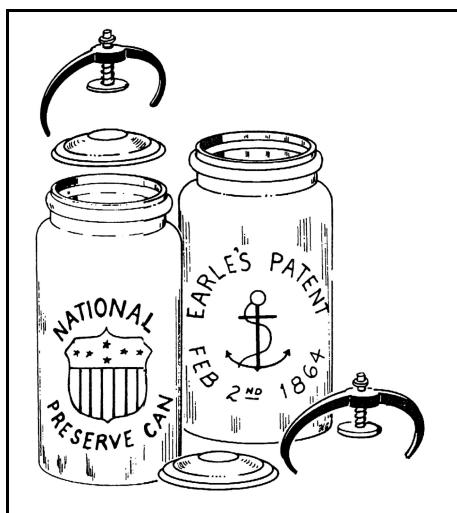


Figure 7 – National Preserve Can (Creswick 1987:163)



Figure 6 – National Preserve Can (North American Glass)

AMERICAN IMPROVED PRESERVE CAN (ca. 1864-1865)

Roller (1983:11; 2011:25) suggested that a mouth-blown jar embossed "AMERICAN (arch) / IMPROVED (horizontal) / PRESERVE CAN (inverted arch)" on one side and "EARLE'S PATENT (arch) / {ring of 13 stars around a single larger star} / FEB. 2^D 1864 (inverted arch)" on the other may have been made by Lyndeborough. Creswick (1987:6) illustrated the jar, adding that the lid was unmarked and made of glass, held in place by an "iron yoke with tension spring" (Figure 8). As above, the patent, terminology, and shape of the finish make Lyndeborough the logical choice.

IMPROVED MERCANTILE FRUIT JAR (ca. 1865-1866)

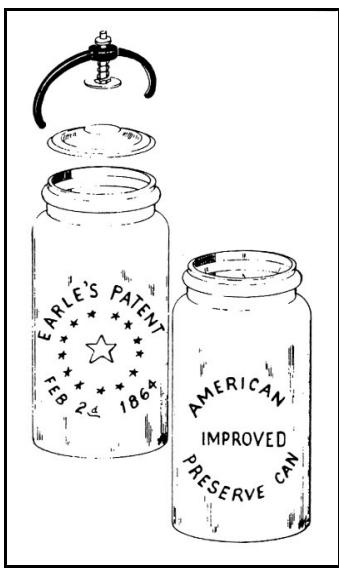


Figure 8 – American Improved Preserve Can (Creswick 1987:6)

Another similar jar was embossed “IMPROVED (arch) / MERCANTILE (horizontal) / FRUIT JAR (inverted arch)” on one side and “EARLE’S PATENT (arch) / {ring of 13 stars around an anchor} / DEC 22. 1863 (inverted arch)” with two curved lines through the patent date on the other. Again, Roller (1983:167; 2011:255) suggested Lyndeborough as the manufacturer. Creswick (1987:89) illustrated the jar and

lid, showing that the glass closure was embossed “EARL’S PATENT FEB 2^D 1964 & MAR 21ST 1865.” in a circle (Figure 9). She noted that “the lid variation on this scarce jar is particularly rare. It will not fit on other jars in this series, such as the National Preserve Can, etc.” Creswick mentioned three Earle patents:

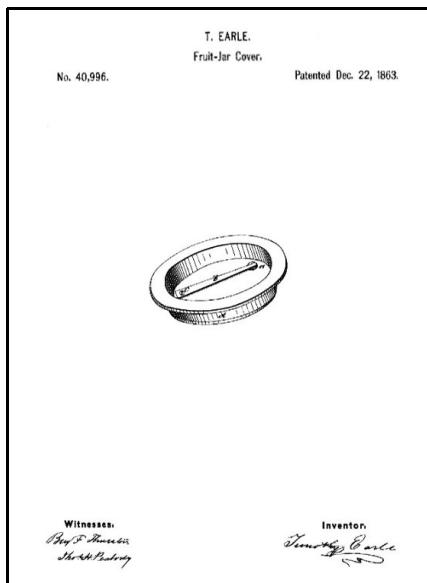


Figure 10 – Earle 1863 patent

December 22, 1863 (No. 40,996) “Improvement in Covers for Fruit-Cans” (Figure 10)

February 2, 1864 (No. 41,425) “Improvement in Closing Preserve-Cans”

March 21, 1865 (No. 46,887) “Improvement in Preserve-Jars” (Figure 11)

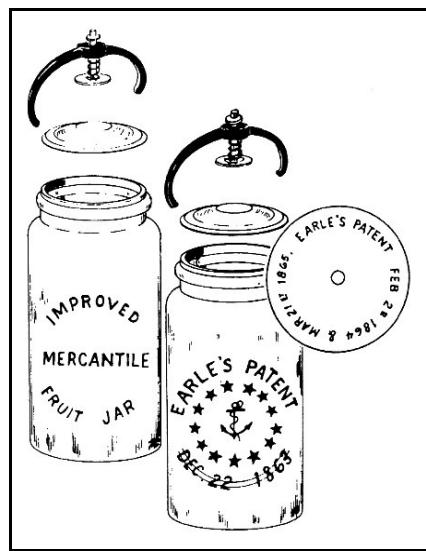


Figure 9 – Improved Mercantile (Creswick 1987:89)

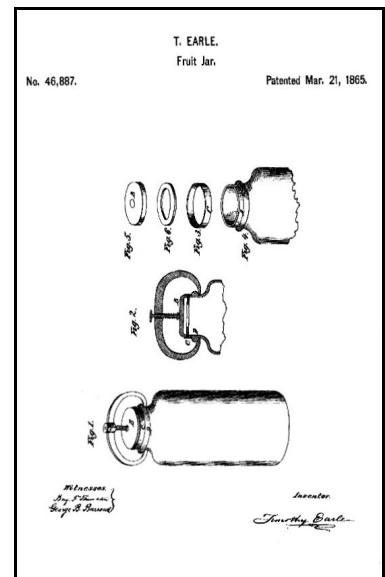


Figure 11 – Earle 1865 patent

Earle never assigned any of his patents to a company, suggesting that he was an independent inventor. All three of the patents adapted to the jars made by Lyndeborough used essentially the same configuration with some refinements in the latter two. Roller (2011:255) described the lid as “top seal (on ground lip), glass lid held down by cast iron yoke clamp having spring activated plunger.”

Timothy Earle, however, had obtained several other patents. On November 10, 1863, he had received Patent No. 40,556 for an “Improvement in Preserve-Cans, Jars.” This was the design that he eventually refined into the 1864 patent. He also patented an “Improvement in a Fruit-Jar” (No. 45,594) later that year, on December 27. This closure design, however, was apparently never used. The March 1865 patent (see above) was again a refinement of the 1863 and 1864 designs. On June 28, 1870, the patent office granted Earle Patent No. 104,839 for an “Improvement in Fruit-Jars” – a barrel-shaped design that was also probably never used.

Earle also obtained several other patents for non-glass items, including an oil can with a basal button to squirt the oil (Patent No. 230,760 on August 3, 1880) and three patents for egg beaters. The final egg beater patent (No. 105,057), issued on July 5, 1870, looked surprisingly like the common egg beaters used in the 1940s, when one of the authors was growing up (Figure 12).

Earle and Perry 1877 Patent

Along with Francis H. Perry, Earle applied for his final patent on February 13, 1877, and received Patent No. 189,713 for an “Improvement in Self Sealing Fruit-Jars” on April 17, 1877 (Figure 13). Roller (1983:272; 2011:407) described an unembossed jar with a lid embossed “PAT

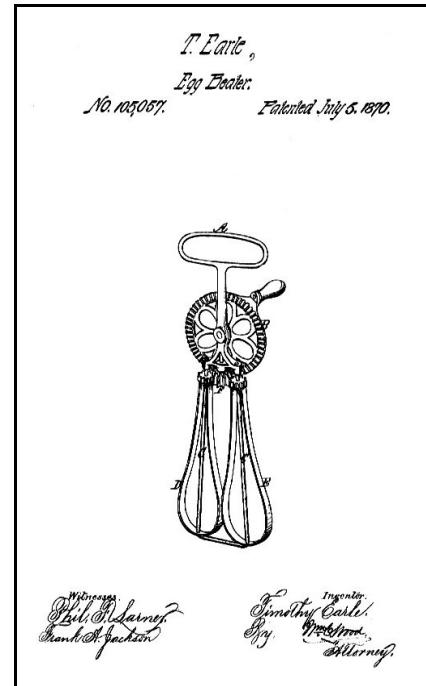


Figure 12 – Earle 1870 patent

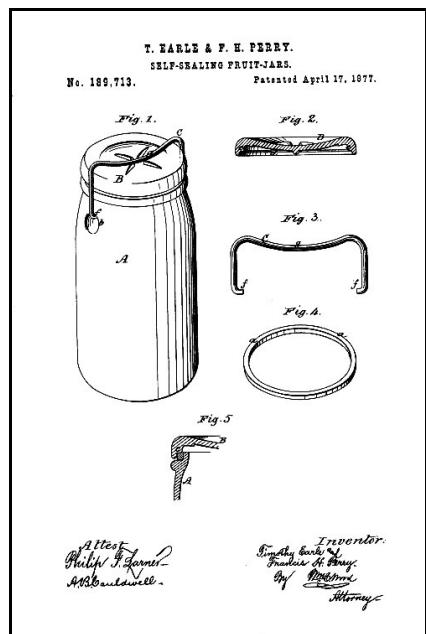


Figure 13 – Earle & Perry 1877 patent

APRIL (arch) / 27TH 1877 (inverted arch)." Creswick (1987:170) illustrated the jar (Figure 14) and noted that Perry began his business at of Providence, Rhode Island:

began business in connection with the grocery trade, later becoming a manufacturer of jellies, fruits & vegetables. His business is listed in the city directories from 1858 to 1895. He was awarded a medal at the Centennial Exhibition in 1876, and at Paris in 1878. Along with the jars listed here, he also used other well known jars for his preserves, such as the W.W. Lyman jars, which he purchased through the H.S. Almy & Co., jar jobbers.

Based solely on the Earle involvement in the patent, these may have also been made by Lyndeborough, although that identification is very tenuous.

PURITAN / LSCo monogram (1886-1888)

Toulouse (1969:250) described a jar embossed "PURITAN" on the front with an LSCo monogram on the reverse (Figure 15). The jar was mouth blown with a ground rim, but he did not know either the manufacturer or type of lid used to seal the jar. Roller (1983:297; 2011:435), however, claimed the jar was made by the Lyndeborough Glass Co. for the Lowell Stopper Co., Lowell, Mass. He explained that "Numerous fragments of these jars have been dug at the Lyndeboro factory site. . . . it is likely that the jar bodies and lids were made at Lyndeboro, and the complete jars assembled at Lowell." The jar had a unique lid (Figure 16).

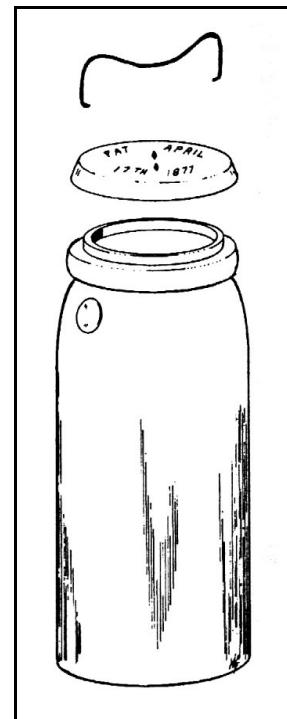


Figure 14 – Earle & Perry jar (Creswick 1987:170)

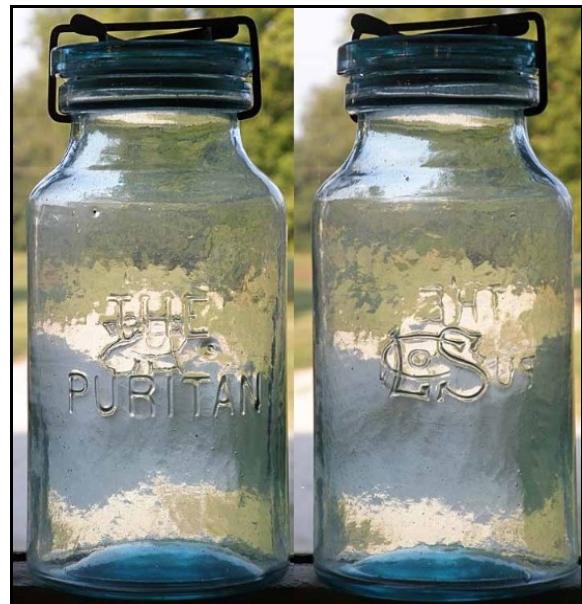


Figure 15 – Puritan (North American Glass)



Figure 16 – Puritan lid (North American Glass)

Creswick (1987:180) discussed and illustrated two variations of the jar. One was simply embossed “THE / PURITAN” in two lines on one side with an LSCo monogram on the other (Figure 17). The lid was embossed either

“PATENTED” or “PAT APL^D FOR.” She noted that George D. Corey received Patent No. 349,630 on September 21, 1886, for the jar (Figure 18). She agreed that the jar was made for the Lowell Stopper Co.; however, she did not ascribe the simpler jar to Lyndeborough.

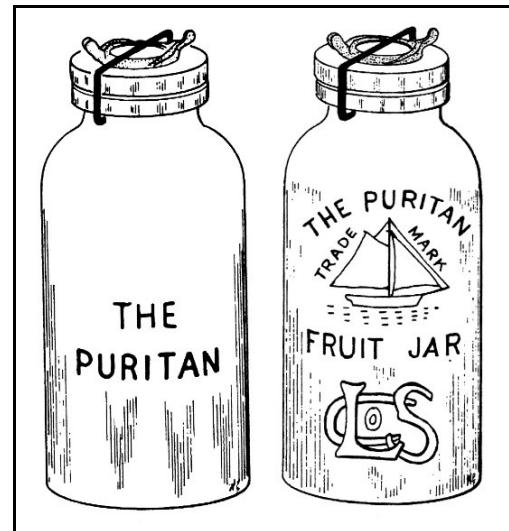


Figure 17 – Puritan (Creswick 1987:180)

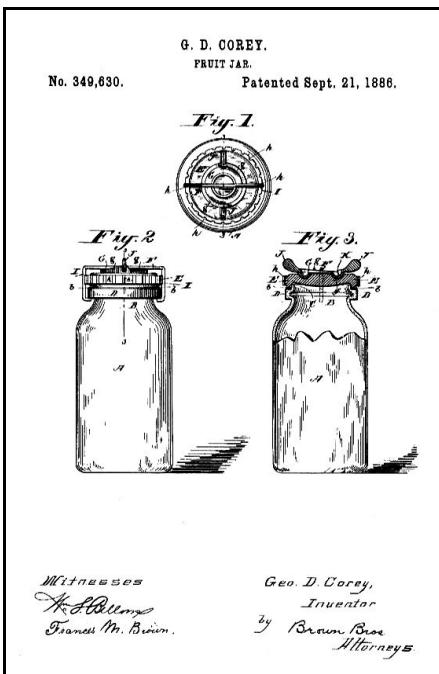


Figure 18 – Corey 1886 patent

Both Creswick (1987:180) and Roller (2011:435) discussed a variation that was embossed “THE PURITAN” in an arch above a line drawing of a sailing ship with “TRADE” at a slant beside the left sail and “MARK” at the opposing slant by the right one. “FRUIT JAR” was embossed directly below the ship, with the LSCo monogram below it (Figures 19). Both ascribed this variation to Lyndeborough.

Flowers (1991:136) suggested that the Crystal Glass Co.,

Lyndeborough’s successor, made the Puritan jars, a period encompassing 1886-1888 – a more likely time for a jar patented in 1886.



Figure 19 – Puritan (North American Glass)

Lightning Jars

Some sources (e.g., Flowers 1991:136-137; Toulouse 1971:330-331) have suggested that the Lyndeborough Glass Co. could have produced some of the Lightning Jars (see also the section on Karl Hutter and Henry W. Putnam). In a personal communication (6/3/2017), Barry Bernas addressed several reasons for questioning the assertion:

1. While few Hillsborough County newspapers have survived, an online newspaper search revealed that the existing fruit jar ads featured Mason style jars from 1880-1884. In 1885, the first extant ad in the area for a Lightning jar called the jar the new lightning top jar.
2. None of the Lightning jar ads (1885, 1887, 1888) stated the jars were from the Lyndeborough Glass Co., located just a few miles to the east.
3. Early ads (1870 and 1871) stated that Lyndeborough made fruit jars, confirmed by directory listings from 1867-1875, but, between 1876 and 1888, the listings only included bottles and demijohns as products. Although some collectors have postulated that fruit jars were not listed due to space limitations, the plant continued to make them. Another interpretation would be that the factory no longer produced fruit jars.
4. A 1917 newspaper article about the Lyndeborough Glass Co. claimed that the first Mason and Lightning jars were made in the firm's plant (an argument *not* supported by current research [see the sections on Karl Hutter and Henry W. Putnam] and that J.D. Putnam (rather than Henry W. Putnam or Karl Hutter) patented the Lightning fruit jar (quite possibly the start of a canard that has continued to be espoused on some websites).
5. Bernas was unable to find any connection between Jacob D. Putnam of New Hampshire and Henry W. Putnam of Vermont, but the Putnam name in the Northeast at that time was a common name (although a 1917 newspaper article gave some credence to the familial connection).
6. Collectors have dug shards of Lightning jars at the former Lyndeborough factory site but, the ones promoted as being made at Lyndeborough had the color or a front embossing consistent with a manufacture in the 1890-1900 decades.

7. Collectors have dug the Lyndeborough factory site for decades, and it was likely used as an early dump, so contamination is too widespread to be reliable.

8. Mark Newman recently dug deeper than anyone in the past and found no Lightning shards.

Although these data are circumstantial, taken as a whole, they certainly suggest that Lightning jars were not made at the Lyndeborough plant.

Discussion and Conclusions

It is clear from its history that the Lyndeborough Glass Co. was a relatively small operation for its entire tenure. It never fielded more than six pots at one furnace in its existence, so it was never a major national glass producer. Further, the firm was in financial trouble for a large part of its existence. Although only one source that mentioned the firm, we have included the Crystal Glass Co., because Flowers (1991:136-137) cited local newspapers as the source of his information. Future research should center around discovering further evidence.

Flasks

As with many glass houses of the period, it is clear that the Lyndeborough Glass Co. did *not* mark most of its products. A major issue with the attribution of the “L.G.CO.” initials to Lyndeborough is lack of corroboration and documentation. David Proper (1990:53) is currently our only independent source for logo’s use by Lyndeborough. Proper was apparently a member of the Yankee Bottle Club, based at Keene, New Hampshire, the publisher of papers on New Hampshire glass house histories in 1990.

As with most collector publications, Proper did not explain his reasons for attributing the “L.G.CO.” mark on flasks to Lyndeborough. As noted by Bernas above, the Lyndeborough site was possibly used as a trash dump and had been sifted and stirred by collectors for decades. To our knowledge, it was never excavated by archaeologists or in any systematic way that could have defined periods according to depth of deposits. Therefore, assuming that Proper or some other member of the Yankee Bottle Club actually found flasks with the initials at the site, the evidence that Lyndeborough was the producer remained uncertain.

Although we question the attribution, the Lyndeborough Glass Co. remains the best suggestion as of this writing. In our search through glass houses with the L.G.Co. initials, almost all of them were too recent to be good candidates for the manufacture of these flasks. The Lindell Glass Co. of St. Louis was certainly open during the correct period, but we can find no evidence that the factory ever made flasks, although it did produce cylinder whiskey bottles. While Lindel certainly used the “L.G.Co.” logo on the majority of its products, the “o” in “Co” was always lower case, and none of the Lindel marks were ever in either of the configurations found on flasks. In the final evaluation, Lyndeborough remains the best candidate for the use of the “L.G.CO.” logo on flasks – although the attribution is far from absolute.

Fruit Jars

The discovery of a single National Butter Can (jar) at the Lyndeborough factory site is scant evidence for the jar’s manufacture at that plant. As noted above, it is quite possible that the jar was deposited at the site after the demise of the Lyndeborough plant, or it could have been a stray jar brought into the factory or yard or even intended as culet. However, it is the *only* evidence we have seen for the placement of the Earle-patented jars at any glass house. Unless future research discloses new venues to search, the Lyndeborough Glass Co. remains the best choice for all of the jars made to Earle’s patents.

The connection between the National Butter Can and other jars made to the Timothy Earle patents, however, is very strong. The wording, jar styles, and embossing configuration is remarkably similar. These jars were probably only produced for a short period of time, likely only a year or two after Earle received the patents. Prices in both popular guides indicate that each of the jars is extremely rare. Leybourne (2014:12, 208, 356) priced the American Improved Preserve Can at \$5,000 and up, with the others at \$4,000 and up. Although McCann (2017:103, 211, 269) set lower prices, he noted that all of the jars were “unavailable.” The entire group was probably only made between 1864 and 1866 – if that long.

The connection between the Puritan jars and Lyndeborough is even stronger – with “numerous fragments” of the jars found at the glass house site. However, George Corey did not receive his patent for the jars until September 21, 1886. Since Lyndeborough closed in 1886, this seems to have been a short period for production. It is possible, of course, that the manufacture

of Puritan jars began long before the patent arrived. Corey applied for his patent on September 30, 1885, almost a full year before he received it – giving Lyndeborough plenty of time to have produced a large number before the collapse.

Flowers (1991:136) offered an alternative explanation – that the Puritan jars were made by the Crystal Glass Co. – the successor to the Lyndeborough Glass Co. Although Flowers (followed by Dean 2007) was the only source we have found that posited the Crystal Glass Co., the 1886-1888 period fits the evidence *much* better.

Acknowledgments

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Sources

Ayres, James E., William Liesenbien, Lee Fratt, and Linda Eure

1980 “Beer Bottles from the Tucson Urban Renewal Project, Tucson, AZ.” Unpublished manuscript, Arizona State Museum Archives.

Creswick, Alice

1987 *The Fruit Jar Works, Vol. I, Listing Jars Made Circa 1820 to 1920's*. Privately printed, Grand Rapids, Michigan.

Dean, Howard

2007 “The Lyndeborough Glass Company.” Mohawk Valley Bottle Club.
http://www.mohawkvalleybottleclub.com/ArchiveArticles/PDF_Articles/LynderboroughGlassCompany.pdf

Donovan, D., and Jacob A. Woodward

1906 *History of the Town of Lyndeborough, New Hampshire 1735-1905*. Tufts College Press, Medford, Massachusetts.

Flowers, Carl Jr.

1991 "Boom and bust in New Hampshire: the Lyndeborough Glass Company, 1866-88." *Historical New Hampshire*, 44(89):120-137.

Greene, M.V.B.

1875 *Docket Supreme Court, Hillsborough County September Term 1876*. M.V.B.
Greene, Nashua, New Hampshire.

Knittle, Rhea Mansfield

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

Ladd, William S.

1885 *New Hampshire Reports*. Vol. 40. Josiah B. Sandborn, Concord, New Hampshire.

Leybourne, Douglas M.

2014 *The Collector's Guide to Old Fruit Jars: Red Book 11*. Privately published, North Muskegon, Michigan.

McCann, Jerry

2017 *The Guide to Collecting Fruit Jars: Fruit Jar Annual, Volume 21 – 2017*. Privately Published, Chicago.

McKearin, Helen and George McKearin

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

Proper, David R.

1990 "The Lyndeborough glass Company 1866-1886." *In Yankee Glass: A History of Glassmaking in New Hampshire 1790-1886*. Edited by John F. Bemis, Genevieve Clark, Alene Hall, Arthur W. Nelson, Elizabeth T. Nelson, David R. Proper, and Alan F. Rumrill, pp. 49-55. The Yankee Bottle Club, Keene, New Hampshire.

Roller, Dick

1983 *Standard Fruit Jar Reference*. Privately published.

2011 *Standard Fruit Jar Reference: 2010 Update*. Edited by Jerome McCann and Barry Bernas. Fruit Jar Annual/Phoenix Press, Chicago.

Toulouse, Julian Harrison

1969 *Fruit Jars*. Thomas Nelson & Sons, Camden, New Jersey.

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

Van Rensselaer, Stephen

1969 *Early American Bottles and Flasks*. Rev. Ed. J. Edmund Edwards, Stratford, Connecticut. [Revision of the 1926 edition]

Wilson, Rex

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

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