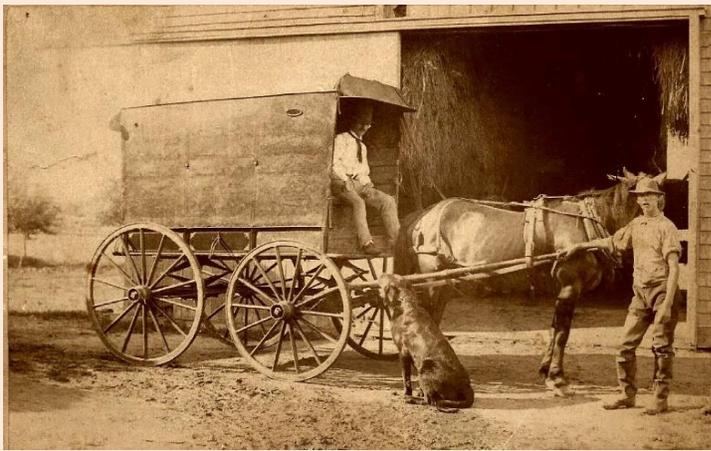


## Glass Milk Bottles

By Inga Milbauer



**HERBERT A. BRIGHAM DRIVING A MILK WAGON  
CIRCA 1910**

Agriculture has been part of Boylston's economic base since its incorporation in 1786. During the late 18<sup>th</sup> century and early 19<sup>th</sup> century the leading products sold were beef, pork, butter, cheese, fruit and grain. In the tax lists of the early 19<sup>th</sup> century over 100 farmers are mentioned.<sup>1</sup> During the period of 1830-1870, Straw Hollow developed as a major commercial dairy/orchard complex. Butter and cheese dominated the dairy production in early years, but declined as milk increased in importance as a market item. "In 1865 over 32,000 gallons of milk were sold,

which equaled the value of butter and cheese combined that year. By 1875 the amount of milk sold increased by a factor of almost five, while butter and cheese continued to decline."<sup>2</sup> During the period of 1870-1915 agriculture and dairying continued to grow due to the demands of the Worcester and Boston markets. In 1895, dairying provided 40% of \$160,000 agricultural income, followed by hay, straw, fodder (29%), vegetables (7%), and poultry (6%).<sup>3</sup>

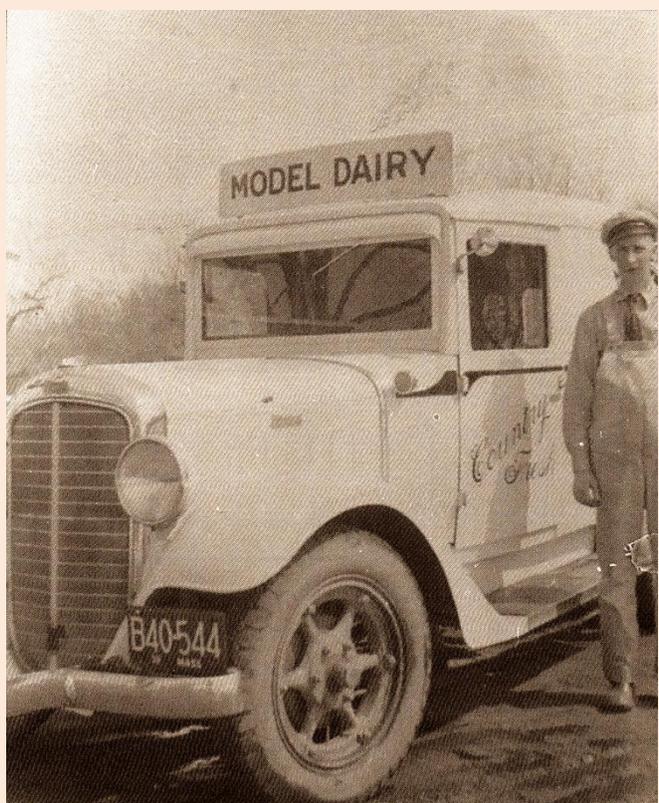
The Boylston Historical Society and Museum has a variety of vintage glass milk and cream bottles from several former local dairy farms in its collection, as seen in the photo below.



These types of bottles were made in the 1930s, and the bottles with the name of the dairy printed in color would have been made after 1933. From left to right the bottles displayed are: half pint cream bottle from Strawberry Hill Farm, half pint cream bottle from Model Dairy, pint sized milk bottle from Model Dairy, half pint cream bottle from H.J. Scott & Sons Dairy, quart sized milk bottle from Hakala Bros. Dairy, quart sized milk bottle from Forest Glen Dairy (owned by the Hakala Bros. Dairy), pint sized milk bottle from Crystal Spring Dairy. All these companies were located in Boylston, Massachusetts.

The first glass milk bottle was patented in 1879. Until that time the milk would be dispensed by local farmers from kegs or buckets to the customers who would bring their own jugs, pails or other containers. George Henry Lester of Brooklyn, New York, received the first U.S. patent for a glass jar intended to hold milk on January 29, 1878. In a letter to the patent office Lester explained how his improved design would solve the drawbacks of the cans in use at the time:

*"The cans are cleaned by the consumer instead of the milk-man. Consumers are apt to neglect this most important duty. The milk corrodes the tin, exposing the metal, the corrosion of which injures the milk, and soon renders the metal cans valueless. I overcome these difficulties by making my cans of glass, and by making them of a substantially plane surface inside and outside, without recesses in which unclean matter might collect. The can of this form is easily cleaned, and being without the usual neck, being of*



**MODEL DAIRY DELIVERY TRUCK  
ROBERT WENTZELL, FOUNDER OF MODEL DAIRY  
CIRCA 1938-39**

*less diameter than the main body, it affords a large surface for the cream, which is all easily accessible; also, it is more easily emptied of its contents, and is more useful as a vessel to contain the milk while in the hands of the consumer. It is to be understood that the can, its contents having been used by the consumer, is to be returned to the milk-dealer for further like use in transporting milk, and the milk is used and the can returned by the consumer, as before.”<sup>4</sup>*

The glass lid was held on the square jar by a metal clamp which was hooked into the recess under the sides of the can, with a rubber spring between the lid and the metal clamp to prevent the milk “churning from the agitations of its particles when carried from place to place over roads or pavements.”<sup>5</sup>

Many types of milk bottles were in use during the late 1800s until the milk bottle design by Louis P. Whiteman became widely used. He received the patent for this “Jar of Milk &c” on March 23, 1880 which featured a wire bale to hold the cap in place on the cylinder-shaped bottle.<sup>6</sup> It was manufactured by the Warren Glass Works Co., Cumberland, Maryland and became known as the “Warren Milk Bottle”. The first cap-seat milk bottle was developed by Hervey D. Thatcher of the Thatcher Manufacturing Company in Potsdam, New York. His associates Harvey P. Barnhart & Samuel L. Barnhart received the patent for “Common-Sense Milk Bottle” with a ligneous disk seal on September 17, 1889. The inventors suggested that their invention would solve the inherent cleaning problems of the metal and glass lids that were in use at the time. “The “ligneous disk” was to be made from “clean tasteless inodorous white soft wood” that was “then immersed in boiling paraffin to thoroughly impregnate the grain” (Patent 411,368)”.<sup>7</sup> The disks were later made of waxed cardboard. The cylinder-shaped glass bottles with a cap-seat design (a heavy rounded rim on the very top of the bottle) with a disk that fit tightly against the cap seat, became the standard milk bottle.

Until refrigerators became common place in households, milk was delivered daily to one’s home by local dairy farms. Some homes would have an insulated box near their doorstep, while other homes would have a milk box built into the side of the house. By the 1930s-1940s most households had a refrigerator, and together with the rise of supermarkets and automobiles home delivery of milk declined. Glass milk bottles were soon replaced by the more cost-effective wax paper cartons in the 1950s and plastic containers since the 1960s. In 2017 after over 85 years of home delivery services, Model Dairy was the last dairy to deliver milk to Boylston homes. It and local dairies who served us will always remain a significant part of our history.

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#### **Acknowledgments:**

Photography by Nancy Filgate

<sup>1</sup> <https://www.sec.state.ma.us/mhc/mhcpdf/townreports/Cent-Mass/boy.pdf>

<sup>2</sup> <https://www.sec.state.ma.us/mhc/mhcpdf/townreports/Cent-Mass/boy.pdf>, p.8

<sup>3</sup> <https://www.sec.state.ma.us/mhc/mhcpdf/townreports/Cent-Mass/boy.pdf>, p.9

<sup>4</sup> <https://sha.org/bottle/pdffiles/Lesterpatent1878.pdf>

<sup>5</sup> <https://sha.org/bottle/pdffiles/Lesterpatent1878.pdf>

<sup>6</sup> <https://sha.org/bottle/pdffiles/WarrenWhitemanGlass.pdf> p.11

<sup>7</sup> [http://bottleinfo.historicbottles.com/pdffiles/Thatcher\\_BLockhart.pdf](http://bottleinfo.historicbottles.com/pdffiles/Thatcher_BLockhart.pdf) p.2

<https://sha.org/bottle/pdffiles/oterochap3.pdf>

<https://www.drinkmilkinglassbottles.com/a-quick-history-home-milk-delivery>