

**Object(s):** Ice Cream Freezer

**Object Number(s):** STMEA:A.5252

**Researcher details:** Bethan Huby, Volunteer

### Shepard's 'Lightning' Ice Cream Freezer

This hand-cranked freezer (Figure 1) was used to make ice cream in the late 19<sup>th</sup> century; ice was placed into the wooden bucket, and cream was poured into the metal canister inside the bucket, then the handle turned the gears to churn the mixture into ice cream. This ice cream freezer has an inscription of the makers name near the handle; "Shepard's, made in USA, Lightning, 201"<sup>1</sup>.

Charles Shepard and Peter Adams patented a freezer, patent no. 410,773, in Buffalo, New York, 1889<sup>2</sup>. It was an ice cream freezer with a hinged lid, which held the mechanism to rotate the metal can, and made it easier to remove the ice cream. Two paddles were attached to the lid, used to scrape the sides, and a triple-bladed paddle to stir the mixture. The whole machine was advertised as a quadruple-action freezer<sup>3</sup>. The freezer compartment is quite small, designed for a household, advertised as early as 1892 as "one of the best ice cream freezers", and the most common size sold was the "4 quart-size" which cost \$1.98<sup>4</sup>.



Figure 1: A Shepard's Lightning ice cream freezer, STMEA:A.5252.<sup>5</sup>

<sup>1</sup> Museum of East Anglian Life. Ice cream freezer [Internet]. Museum of East Anglian Life. 2020 [cited 15 November 2020] Available from: <http://eastanglianlife.org.uk/collections/search/ehive/56984/> (CC-BY-NC)

<sup>2</sup> Shepard, C. G. and Adams, P. Digital copy of: Ice-Cream Freezer [Internet] European Patent Office. 2020 [cited 15 November 2020] Available from:

<https://worldwide.espacenet.com/patent/search/family/002479707/publication/US410773A>

<sup>3</sup> Funderburg, A. C. Chocolate, Strawberry, and Vanilla: A History of American Ice Cream. Ohio: Bowling Green State University Press; 1995, 37.

<sup>4</sup> The Buffalo Commercial. Digital copy of: Advertisement for Shepard's "Lightning" freezer [Internet]. The Buffalo Commercial. Buffalo: New York; 1892, June 23 (Thursday), 5 [cited 23 November 2020] Available from: [www.newspapers.com/image/269732818/?terms=shepard%27s%20lightning%20freezer](http://www.newspapers.com/image/269732818/?terms=shepard%27s%20lightning%20freezer)

<sup>5</sup> Museum of East Anglian Life. Ice cream freezer [Internet]. Museum of East Anglian Life. 2020 [cited 15 November 2020] Available from: <http://eastanglianlife.org.uk/collections/search/ehive/56984/>

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## A History of Ice Cream

Ice cream is made nowadays in factories on a mass scale, using electricity to power the mixers, in a variety of flavours, and readily available to purchase in supermarkets worldwide. However, in the 18<sup>th</sup> and 19<sup>th</sup> centuries, ice cream was made by hand and was a treat reserved for the elite; Queen Anne had England's first dairy based ice cream in 1733<sup>6</sup>. George Washington and Thomas Jefferson were known to have regularly eaten ice cream in the late 18<sup>th</sup> century and ice cream was also served at James Madison's Presidential inaugural ball in 1813<sup>7</sup>.

Homemade ice cream was achieved by placing a bowl into a bucket of salt and ice and scraping the sides to remove the ice crystals. Natural ice was used and collected during winter, then stored in ice houses to be used in the warmer months<sup>8</sup>. The production of ice cream was quickened by the invention of ice cream makers that operated paddles with a hand-crank to scrape the sides and turn the cream; this is how the first ice cream maker, patented in the 1840's worked<sup>9</sup>.

The popularity of ice cream inspired many more inventions of ice cream makers in the 1850s. This included the Gem Ice Cream Freezer, a similar size and price of Shepard's 'Lightning' freezer, though with a dual action feature (the can and stirrer moved in opposite directions and the can could also revolve independently of the stirrer)<sup>10</sup>. Another variation was a freezer with two cylinders, so two flavours of ice cream could be made at the same time, the American Twin Freezer<sup>11</sup>.

The introduction of mechanical refrigeration in 1878 helped the wholesale industry to make and store ice cream; French Brothers' Dairy Company in 1896 made ice cream in the traditional method, using ice and salt, but they stored their milk and finished product in refrigerators<sup>12</sup>. The addition of refrigerators in the home in the 1920s saw a decline in small ice cream freezers in the home<sup>13</sup>.

## I Scream, You Scream, We All Scream for Ice Cream!

Ice cream became synonymous with summer events with large quantities sold by wholesalers in confectionary stores and ice cream saloons<sup>14</sup>. Celebrations on the 4<sup>th</sup> of July included ice cream, with makers advertised in newspapers alongside various meats and firecrackers<sup>15</sup>. This ice cream obsession was shared by the American public, but it was especially the children who were

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<sup>6</sup> Goff, H. Douglas and Hartel, Richard W. Ice Cream. New York: Springer; 2013 (seventh edition), 10

<sup>7</sup> Gantz, C. Refrigeration: a history. North Carolina: McFarland & Company; 2015, 18, 19

<sup>8</sup> Goff, H. Douglas and Hartel, Richard W. Ice Cream. New York: Springer; 2013 (seventh edition), 11.

<sup>9</sup> Clarke, C. The Science of Ice Cream. London: RSC Publishing; 2012 (second edition), 7.

<sup>10</sup> Funderburg, A. C. Chocolate, Strawberry, and Vanilla: A History of American Ice Cream. Ohio: Bowling Green State University Press; 1995, 37.

<sup>11</sup> Ibid.

<sup>12</sup> Goff, H. Douglas and Hartel, Richard W. Ice Cream. New York: Springer; 2013 (seventh edition), 11; Geist, E. 'When Ice Cream was Poisonous'. Bulletin of the History of Medicine. 2012, Volume 86 (no 3),333-360, 356.

<sup>13</sup> Gantz, C. Refrigeration: a history. North Carolina: McFarland & Company; 2015, 3.

<sup>14</sup> Funderburg, A. C. Chocolate, Strawberry, and Vanilla: A History of American Ice Cream. Ohio: Bowling Green State University Press; 1995, 51.

<sup>15</sup> The Topeka State Journal. Digital copy of: Advertisement for Fourth of July Goods [Internet]. The Topeka State Journal. Topeka: Kansas; 1899, July 01 (Friday), 8 [cited 24 November 2020] Available from: [www.loc.gov/resource/sn82016014/1898-07-01/ed-1/shepard+lightning+freezer](http://www.loc.gov/resource/sn82016014/1898-07-01/ed-1/shepard+lightning+freezer)

enchanted. Children could hand crank the ice cream mixture, and lick the stirrer once made, like licking the cake batter from a spoon; still a common childhood memory for many people.

The joy of ice cream was gifted to around 325 children who lived in New York in 1902, who enjoyed the summer in Rhode Island with “free merry-go-round rides and ice cream”<sup>16</sup>. The newspaper also reports they were gifted freezers by the local cream company, so they could make ice cream at home. It is not surprising children were mesmerised by the frozen treat, and yet their desire to consume it came at a terrible cost for one young boy in 1897<sup>17</sup>, reported by one newspaper:

*“A confectionary store owner was making ice cream one evening, and a group of boys gathered to watch. One boy asked, “will yer give us kids some ice cream?” He replied, “I’ll give a good big plate of ice cream to the boy who puts his hand in there [the interior of the tin freezer] and keeps it there longest”. Theodore (aged 13) won with 4 and ½ mins, but he did not want the ice cream, the boy was taken to hospital and the doctor said the arm would have to be amputated to save his life.” (p.9)*

Newspapers reported of illnesses from contaminated ice cream in the 1880s across America and Europe, blamed on arsenic in food dyes and toxic parasites in vanilla beans, though it was discovered that E. coli was the likely cause of ice cream poisonings<sup>18</sup>. Regardless of the dangers, the obsession with ice cream continued, but with additional health and safety measures: pasteurising the milk and using refrigeration for transporting and storing products<sup>19</sup>.

Ice cream became a symbol of the American way of life; transported over with early colonists, eaten by their Founding Fathers, and at their Independence Day celebrations<sup>20</sup>. In 1905, the annual production of ice cream was 4 million gallons, increased to 1.4 billion gallons by 2017<sup>21</sup>. This frozen treat was deemed so important that the US Military exported ice cream to overseas troops in World War Two, because it improved their morale and reminded them of home<sup>22</sup>.

<sup>16</sup> New-York Daily Tribune. Digital copy of: Free merry-go-round rides and ice cream galore for tribune children [Internet]. The New-York Daily Tribune. New York: New York; 1902, July 25 (Friday), 9 [cited 24 November 2020] Available from: [www.loc.gov/resource/sn83030214/1902-07-25/ed-1/shepard+ice+cream+freezer](http://www.loc.gov/resource/sn83030214/1902-07-25/ed-1/shepard+ice+cream+freezer)

<sup>17</sup> New York Journal and Advertiser. Digital copy of: Plate of Cream Cost an Arm [Internet]. New York Journal. New York: New York; 1897, August 03 (Tuesday), 9 [cited 24 November 2020] Available from: [www.loc.gov/resource/sn83030180/1897-08-03/ed-1/shepard+ice+cream+freezer](http://www.loc.gov/resource/sn83030180/1897-08-03/ed-1/shepard+ice+cream+freezer)

<sup>18</sup> Geist, E. ‘When Ice Cream was Poisonous’. Bulletin of the History of Medicine. 2012, Volume 86 (no 3), 333-360, 333, 344, 353.

<sup>19</sup> Ibid., 355.

<sup>20</sup> Goff, H. Douglas and Hartel, Richard W. Ice Cream. New York: Springer; 2013 (seventh edition), 10.

<sup>21</sup> Ibid., 11; International Dairy Foods Association. IDFA and the Dairy Industry Celebrate National Ice Cream Month with Release of New Ice Cream Data and Trends [Internet]. IDFA. 2019 [cited 24 November 2020] Available from: <https://www.idfa.org/news/idfa-and-the-dairy-industry-celebrate-national-ice-cream-month-with-release-of-new-ice-cream-data-and-trends-2>.

<sup>22</sup> Hegranes, E. We All Scream For Ice Cream: World War II and America’s Sweet Tooth [Internet] U.S. Naval History Blog. 2019 [cited 06 December 2020] Available from: [www.navalhistory.org/2019/07/25/we-all-scream-for-ice-cream-world-war-ii-and-americas-sweet-tooth](http://www.navalhistory.org/2019/07/25/we-all-scream-for-ice-cream-world-war-ii-and-americas-sweet-tooth).