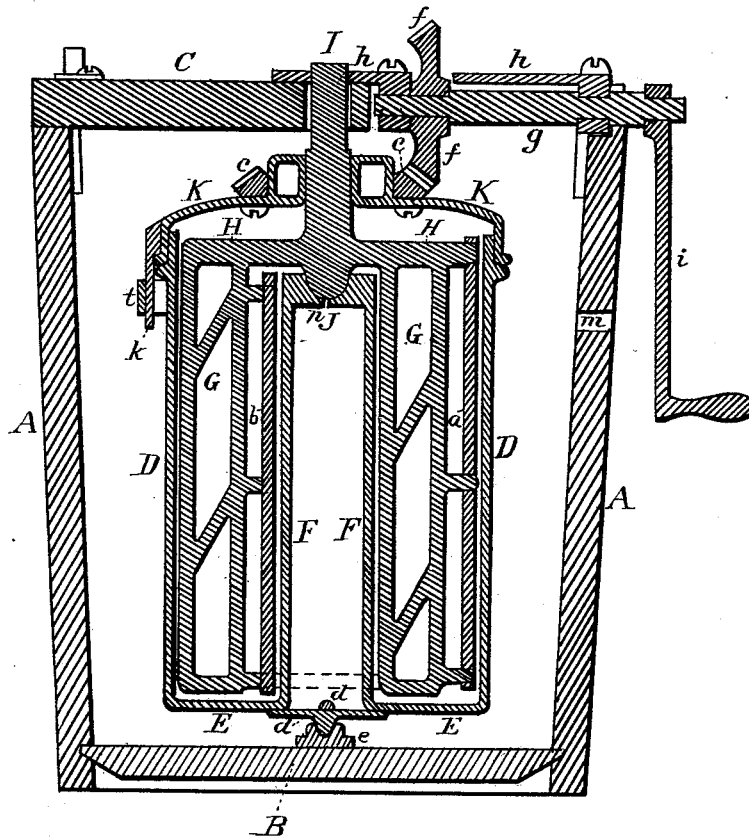


T. R. CLOUGH.
Ice-Cream Freezer.

No. 218,162.

Patented Aug. 5, 1879



Witnesses;

Inventor.

Herbert T. Whitman.
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UNITED STATES PATENT OFFICE.

THOMAS R. CLOUGH, OF MEDFORD, MASSACHUSETTS.

IMPROVEMENT IN ICE-CREAM FREEZERS.

Specification forming part of Letters Patent No. **218,162**, dated August 5, 1879; application filed January 21, 1879.

To all whom it may concern:

Be it known that I, THOMAS R. CLOUGH, of Medford, State of Massachusetts, have invented Improvements in Ice-Cream Freezers, of which the following is a specification.

This invention relates to that class of utensils known as "ice-cream freezers," which are employed to produce congelation of cream, known as "ice-cream;" and the invention consists in a vessel or receptacle for the cream formed with both an exterior and interior annular wall, the area inclosed by such inner wall being open at the bottom, but closed at the top by an indented or recessed cap secured thereto and provided with a small air-vent to allow the escape of the air as the liquid rises therein, and the space between such inner and outer walls being closed at the bottom, while a cover resting upon the top of the outer wall covers the area thereby inclosed, including such inner wall and its cover, a dash or breaker being arranged to act against both of the said walls, such dash being stepped or pivoted in the cap of the interior wall, and its stem, extending up through the cover secured to such outer wall, is stepped in the cover of the ice-receptacle, rotation being imparted to the cream-receptacle by means of a crank-shaft, carrying a gear, which meshes into a similar gear secured upon the cover of the cream-receptacle, an overflow-vent being provided in the wall of the ice-receptacle in a lower plane than the air-vent in the cap of the interior wall of the cream-receptacle, in order that, while the liquid may rise coincidently in such interior tube and the ice-vessel to the height of the vent in the latter, it may not overflow into the cream receptacle or chamber.

The accompanying drawing is a vertical longitudinal section taken through the axis of the cream and ice vessels, and also of the driving-shaft and its crank, and showing the ice-receptacle, the cream-receptacle, and the breaker or dash, all in their proper relative positions for use.

In said drawing, A A represent the walls of the ice-receptacle; B is the bottom thereof, and C the cover, which is the usual circular disk or covering. D D are the exterior walls of the cream-receptacle; E E is the bottom, and F F the interior walls, thereof. G G are

the wings of the dash or breaker. H H is the horizontal bar through which the wings are connected with the central stem I. The lower end of this stem terminates in a pivot, which is stepped in cap J of the interior walls F F. The lower ends of the wings of the dash are united, for mutual support, by a bar which curves round the wall F, as is shown by dotted lines.

e is a step secured to bottom B, and the cream-receptacle is pivoted therein by a pivot on the cross-bars d, which extend and are secured across the space within walls F, and allow a free circulation in said space of the freezing-liquid, which is interposed between the ice and cream vessels. K K is the cover of the cream-vessel, fitting closely thereon, and interlocked therewith by the lug k, secured to the cover, and inserted in loop l, secured to wall D, whereby the rotation of the cover insures that of the receptacle itself. c c show a concentric miter-gear secured to cover K. f is a similar gear meshing into gear c, and secured upon shaft g, by which it is, through the agency of crank i, rotated. The shaft g is journaled in lugs formed on plate h, which latter is secured to cover C, in which is cut a suitable space for gear f and shaft g.

The water-overflow vent m in wall A of the ice-vessel, being arranged in a lower horizontal plane than the air-vent n, will prevent the liquid from rising to a height that would allow it to flow through vent n into the cream-vessel. The stem I, which is square at its upper end, fits a corresponding hole in plate h, and is thereby held from rotating.

When the cream-receptacle is rotated by means of crank i, shaft g, and gears c f, as described, the breaker G G remaining stationary, its scrapers a b will constantly remove the congealed cream from the respective walls D F, thereby facilitating the freezing process.

When the freezer is in use, the liquefied contents in receptacle A may rise to the height of the drain-duct m, and will, of course, rise to the same height in the inner walls, F, thereby causing the congealing process to proceed both upon the inner and outer surfaces of the cream so exposed. Besides this, the interior tube or walls, F, prevent that neutral axis in the cream, which, in freezers with sin-

gle walls, is not disturbed or brought in contact with the freezing-surfaces of the vessel.

In the present state of the art it will be obvious to those of ordinary skill therein that by a suitable arrangement of driving devices either the cream-receptacle or the dash, or both, may be rotated, as may be deemed preferable.

I claim as my invention—

1. In a cream-freezer, the combination of the cream-vessel, the breaker G G, having its pivot in cap J of the cream-vessel and locked

in plate *h*, cover K, with its gear *c*, and interlocked with vessel D, and the crank-shaft *g*, with its gear *f*, all substantially as specified.

2. In a cream-freezer, the combination, with ice-vessel A, having vent *m*, of the double-wall cream-vessel D F, provided with the cap J, having vent *n*, substantially as specified.

THOMAS R. CLOUGH.

Witnesses:

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