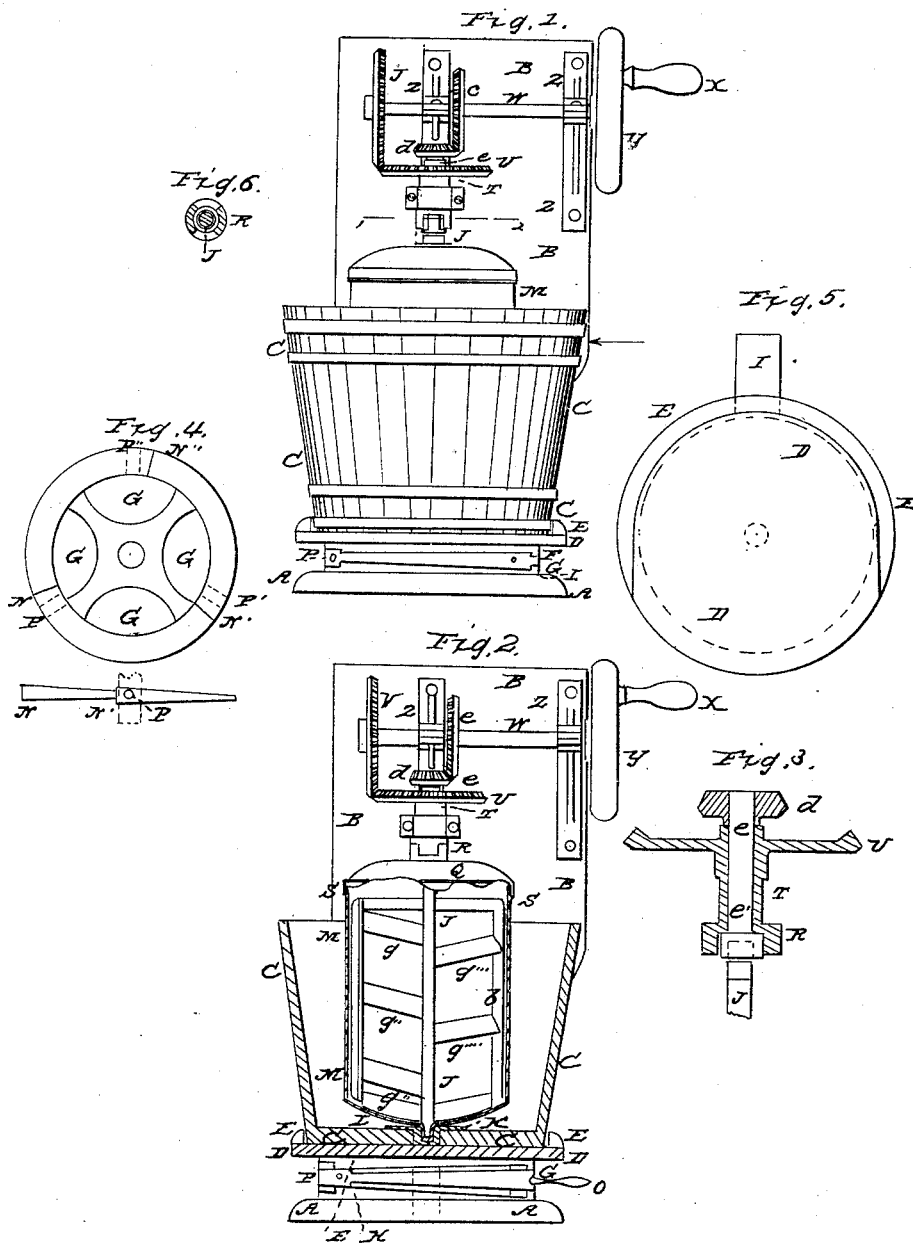


J. S. SHATTUCK.
Ice Cream Freezer.

No. 49,797.

Patented Sept. 5, 1865.



Witnesses:
John A. Baldinger
Franklin Hunt

Inventor:
John S. Shattuck

UNITED STATES PATENT OFFICE.

JOHN S. SHATTUCK, OF MEDFORD, MASSACHUSETTS.

ICE-CREAM FREEZER.

Specification forming part of Letters Patent No. 49,797, dated September 5, 1865.

To all whom it may concern:

Be it known that I, JOHN S. SHATTUCK, of Medford, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Ice-Cream Freezers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

The letters of reference indicate the same parts in all of the drawings.

Figure I is an elevation of the freezer. Fig. II is an elevation and vertical section. Fig. III is a vertical section of the driving gears and shafts; Fig. IV, plan and edge view of the lifter. Fig. V is a plan of the stand that supports the tube C; Fig. VI, section on line 1 2, Fig. I.

My improvement in ice-cream freezers relates to the manner of raising and lowering the tub and the cream-can.

The several parts of the portable freezer are supported by the base A and the vertical back-board B. When used as a fixed or permanent apparatus the hangers that support the gears may be attached to the wall of the building.

The tub or outer vessel, C, that contains the freezing mixture rests upon the circular stand D, which is provided at the back with a raised rim, E. When the tub is in contact with the raised rim its center is directly below the vertical center shaft, J. In the bottom of the tub there is a step, K, which receives the nipple L that is soldered to the bottom of the cream-can M.

The method of raising and lowering the stand and connecting the cream-can and stirrer-shaft with the driving-gears is as follows: Affixed to the base or stand A there is a horizontal disk or wheel, H, having upon the upper edge of its rim three cams or wedge-shaped projections, N N' N''. Above this there are two wheels, G and F, of the same shape and construction, one being fastened to the bottom of the stand D and the other placed in the middle, so that the projecting points N of the middle cam enter the depressions in the wheels H and F. Thus the upper surface of the top wheel remains level, and when the center wheel, G, is turned by a handle, O, inserted in one of the holes, P, the stand D is elevated or depressed, (retaining its horizontal position,) and

firmly supported by the three cams or projections N.

The cream-can M is cylindrical, and has a curved bottom, in which there is a step to receive the lower end of the paddle-shaft J. The cover Q is secured to the can by two small knobs or ears, SS', and has one half of a clutch, R, soldered to its top. This receives the upper part of the clutch, which is affixed to the short shaft T and its gear U. This gear is beveled and is driven by the bevel-gear V, affixed to the horizontal shaft W, which is turned by the crank X or by a band running on the pulley Y, thus giving rotary motion to the cream-can M, which turns upon the nipple L and step K.

The two sets of beveled gears are supported by suitable hangers, Z Z', which project from the back-board B, (or from a wall,) and the relative number of teeth in the gear is such as to give to the paddle or stirrer *a b* about double the velocity of the can M, that contains the cream.

The gear *c* is affixed to the shaft W, and turns the gear *d*, affixed to the short central shaft, *e*, which passes through the hollow shaft T, and has in its lower end a square socket, *f*, to receive the upper end of the paddle-shaft J. The relative position of the shaft, the clutch, and its connections is represented in Figs. III and VI.

The paddle or stirrer consists of vanes or arms *g g' g''*, placed between the shaft J and a thin outer frame or cutter, *a b*, which is parallel with the sides of the can. The vanes are higher at their outer edges than they are at the center shaft, J, and the plane of the vanes is not vertical, but slightly inclined, the inclination being in opposite directions upon opposite sides of the shaft. This gives an upward as well as a rotary motion to the cream while it is being frozen, and also carries it to the walls of the can, where the temperature is the lowest.

The shaft D may have a projecting tongue or short arm, I, which traverses vertically in suitable guides to prevent the stand from twisting or turning.

The operation of the machine is as follows: The can is filled with the prepared cream and the stirrer-shaft put into the step. Then the cover is put on, bringing the top of the shaft

J and the cover to their bearings within the clutch and socket, and the can is placed on the step K in the bottom of the tub. The can and tub are then connected with the driving-shafts T and *e* by turning the handle O, causing the cams N to lift the tub and can, while at the same time the clutch and the square socket are guided into place. The tub is then filled with the freezing mixture, and power is applied, causing the can to revolve in contact with the ice and salt, and turning the stirrer at a greater velocity than the can.

The cream-can is readily removed by turning back the handle O, which disconnects the clutch and the socket. It will be noticed that

these connections are made without interfering with the gears or other parts of the motive power.

What I claim, and desire to secure by Letters Patent, is—

The stand-elevator having three cams or projections which raise and lower the tub and cream-can into or out of connection with the gears, and at the same time afford a fixed base or support for the tub, as specified.

JOHN S. SHATTUCK. [L. S.]

In presence of—

JOHN M. BATCHELDER,
FRANKLIN HUNT.