

A. H. MACE.
ICE CREAM FREEZER.
APPLICATION FILED FEB. 24, 1908.

952,339.

Patented Mar. 15, 1910.

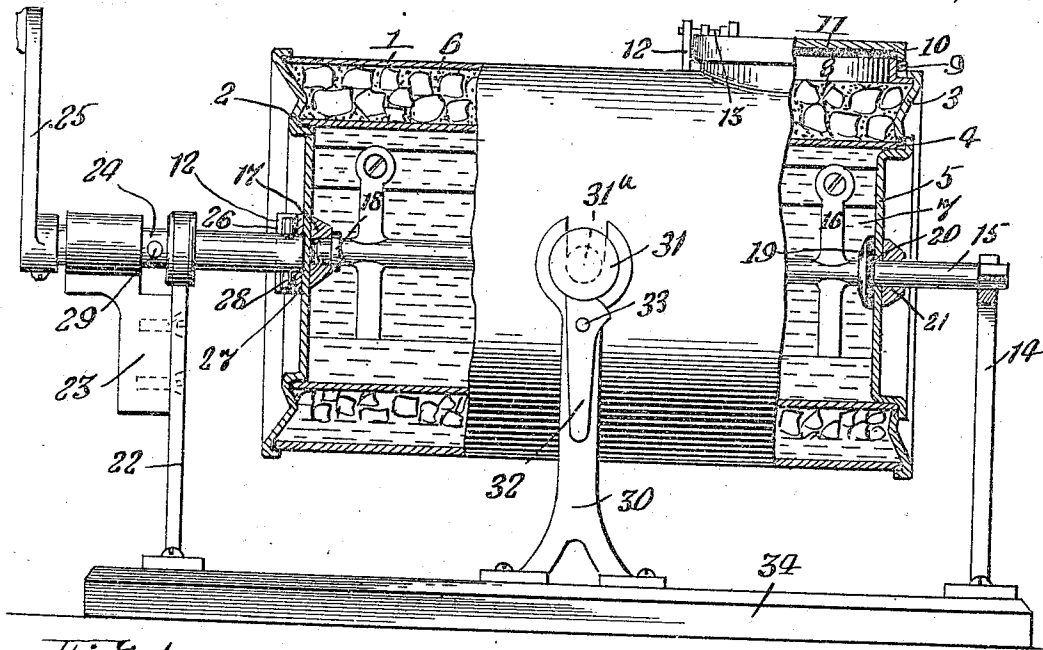


Fig. 1.

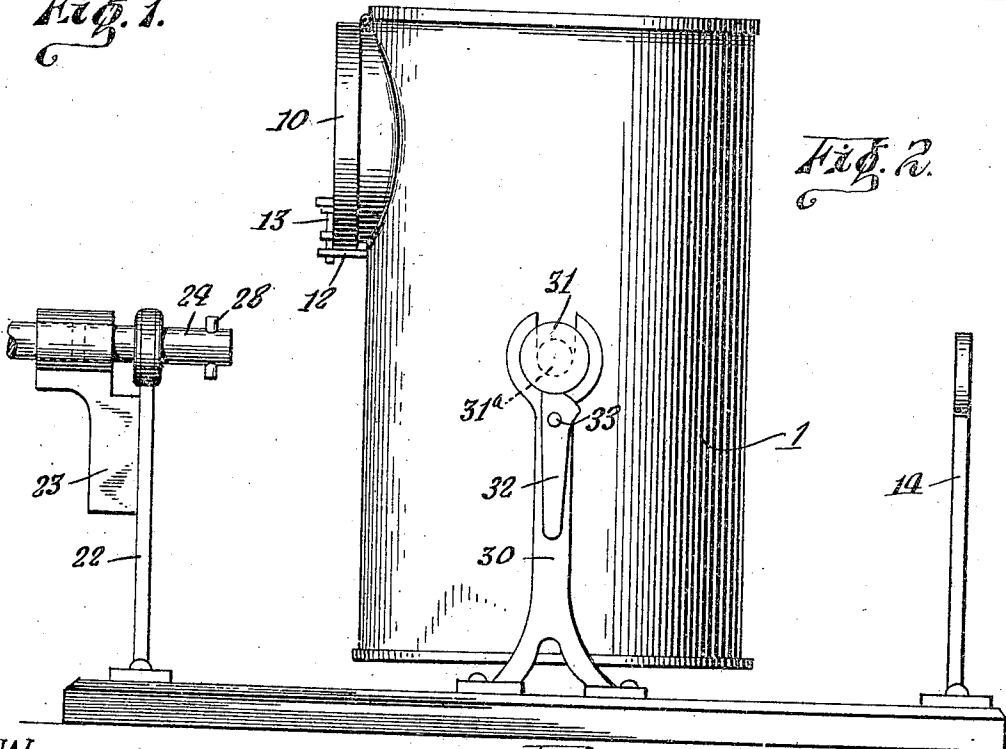


Fig. 2.

WITNESSES:

Eugene M. Slimey
J. Harney

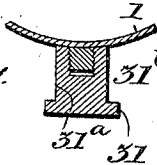


Fig. 3. Alfred H. Mace.
INVENTOR.

By C. Cousins

ATTORNEY.

UNITED STATES PATENT OFFICE.

ALFRED HARRY MACE, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR OF FIVE-EIGHTHS
TO WILLIAM RUTHERFORD AND THOMAS J. RUTHERFORD, BOTH OF MONTREAL,
CANADA.

ICE-CREAM FREEZER.

952,339.

Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed February 24, 1908. Serial No. 417,321.

To all whom it may concern:

Be it known that I, ALFRED HARRY MACE, a citizen of the United States, residing at Montreal, Province of Quebec, Canada, have invented a certain new and useful Improvement in Ice-Cream Freezers, of which the following is a specification.

My invention relates to ice cream freezers.

The object of my invention is to provide a freezer which may be suspended and rotated in a horizontal plane, and which may be rocked to a vertical plane.

A further object of my invention is to provide a freezer in the use of which the matter to be frozen and the freezing medium cannot become mixed, and in which the freezing medium may be charged without removing the freezer from its normal position.

My invention consists of the construction, combination and arrangement of parts, as herein illustrated, described and claimed.

In the accompanying drawings, forming part of this application, I have illustrated a form of embodiment of my invention, in which drawings similar reference characters designate corresponding parts, and in which:

Figure 1 is a side elevation, partly broken away; and, Fig. 2 is a side elevation, showing the freezer rocked to a vertical position. Fig. 3 is a section through the outer wall and trunnion of the freezer.

My invention relates to the type of freezer in which the dasher is fixed against rotation and in which the containers for the freezing medium and the matter to be frozen are simultaneously rotated. The object of this latter construction is to permit the liquid portion of the freezing mixture to drain away by gravity from the surface of the cream container so that its surface is covered with comparatively dry matter.

The invention further contemplates the use of a gearless-driven construction with the objects of simplicity of construction and ease of operation, and also the use of removable trunnions at the sides of the freezer casing to permit rocking thereof, for the purpose of removing its contents.

Referring to the drawings, 1 designates a cylindrical casing, having a closure 2 at one end and having at its opposite end a flange 3. Extending from the edge of the flange 3 to the closure 2 is an inner, cylindrical casing 4. This construction forms a double-

walled casing, having a compartment 6 for the freezing medium and a compartment 7 for the matter to be frozen, the open end of the compartment 7 being closed by the frictionally held closure 5. A charging opening 8 is formed in the casing 1 and is surrounded by a collar 9, and is covered by a hinged closure 10. A gasket 11 is disposed on top of the collar to form a tight joint, and the closure is locked by means of a finger 12 on the casing 1 through which works a slide bolt 13.

An end standard 14 is provided with a slotted upper end to receive the angular, projecting end of a dasher shaft 15 and to hold the same against rotation. The dasher shaft extends from the standard into the inner casing 4 through an opening in the closure 5, and carries a dasher 16. The inner end of the dasher shaft is stepped in a bearing 17 on the inner face of the end closure 2 and is provided with a bearing flange 18 to evenly distribute the wear. Adjacent the closure 5 the dasher shaft is provided with a flange 19, between which and the inner face of said closure is disposed a washer 20 to prevent the escape of liquid from the inner casing 4. A strengthening boss 21 is disposed on the outer face of the closure 5 and the dasher shaft is disposed therethrough.

An end standard 22 is secured at the end of the casing 1 opposite the standard 14, and has secured thereon a bearing block 23, leaving a space at the upper end between the face of the block and the standard.

A shaft 24 is slidably disposed through the upper end of the standard 22 and the bearing block 23, and may be rotated by means of the crank 25. Opposite the end of the slidable shaft 24 there is secured to the outer face of the end closure 2 a recessed boss 26, having in its outer face slots or recesses 27, adapted to receive a pin or lugs 28 on the end of the shaft, so that the shaft may be engaged with the boss and the casing rotated by rotation of the shaft. To lock the shaft against longitudinal movement after it is engaged with the boss 26 and to prevent its entire removal and loss, an insertible pin 29 is disposed through the shaft at a point between the bearing block 23 and the standard 22.

Secured at the sides of the casing 1 are standards 30 having upper slotted ends.

Trunnions 31, having reduced portions 31^a are disposed through the slotted ends of the standards and removably engaged with the sides of the casing 1, as by being screw-threaded to a boss 31^b secured to the casing 1. When the shaft 24 is disengaged from the boss 26 the casing 1 may be swung or rocked to a vertical position on these trunnions, as shown in Fig. 2 of the drawings, or the entire casing may be readily lifted from the standards.

In order to overcome the weight on the inner end of the shaft 24, to permit its ready disengagement, a lever 32 is pivoted, as at 33, to the standard 30, so that its upper end bears against the under side of one of the trunnions. By actuating the lever the casing may be slidably raised and the shaft or trunnion disengaged.

All of the standards 14, 22 and 30 are fixed on a single base 34, so that the freezer may be clamped to a table or other support, or may be easily transported.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In an ice cream freezer, in combination with a casing, means for rotatably supporting one end of the casing, a standard adjacent the opposite end of the casing, a shaft slidably disposed on the standard, means for preventing the removal of the shaft from the standard and means for engaging the end of the shaft with the casing.

2. In an ice cream freezer, in combination with a casing, means for rotatably supporting one end of the casing, a standard adjacent the opposite end of the casing, a bearing block on the standard, a shaft slidably disposed in the bearing block, and a removable pin disposed through the shaft adjacent the bearing block.

3. In an ice cream freezer, in combination with a rotatably supported casing, a rotat-

ing shaft detachably connected with the casing, and trunnions screwed to the casing intermediate of its ends for rockably supporting the casing when the shaft is detached.

4. In an ice cream freezer, in combination with a casing, detachable means for rotatably supporting the ends of the casing, means for rockably supporting the casing when the end supporting means are detached, and means for raising the casing to permit a part of the end supporting means to be detached.

5. In an ice cream freezer, in combination with a casing, detachable means for rotatably supporting the ends of the casing, means for rockably supporting the casing when the end supporting means are detached, and a lever pivoted to engage the latter means and raise the casing.

6. In an ice cream freezer, the combination comprising a base, supporting standards at the sides and ends of the base, a shaft having its end removably disposed in one standard and fixed against rotation, a shaft slidably carried by the opposite standard, a casing rotatably and removably supported by the shafts, and removable means on the other standards for rockably supporting the casing.

7. In an ice cream freezer, in combination with a casing, detachable means for rotatably supporting the casing, means for rockably supporting the casing when the rotatably supporting means are detached, and pivoted means for moving the casing to permit shifting from one to the other supporting means.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ALFRED HARRY MACE.

Witnesses:

EUGENE M. SLINEY,
P. HARNEY.