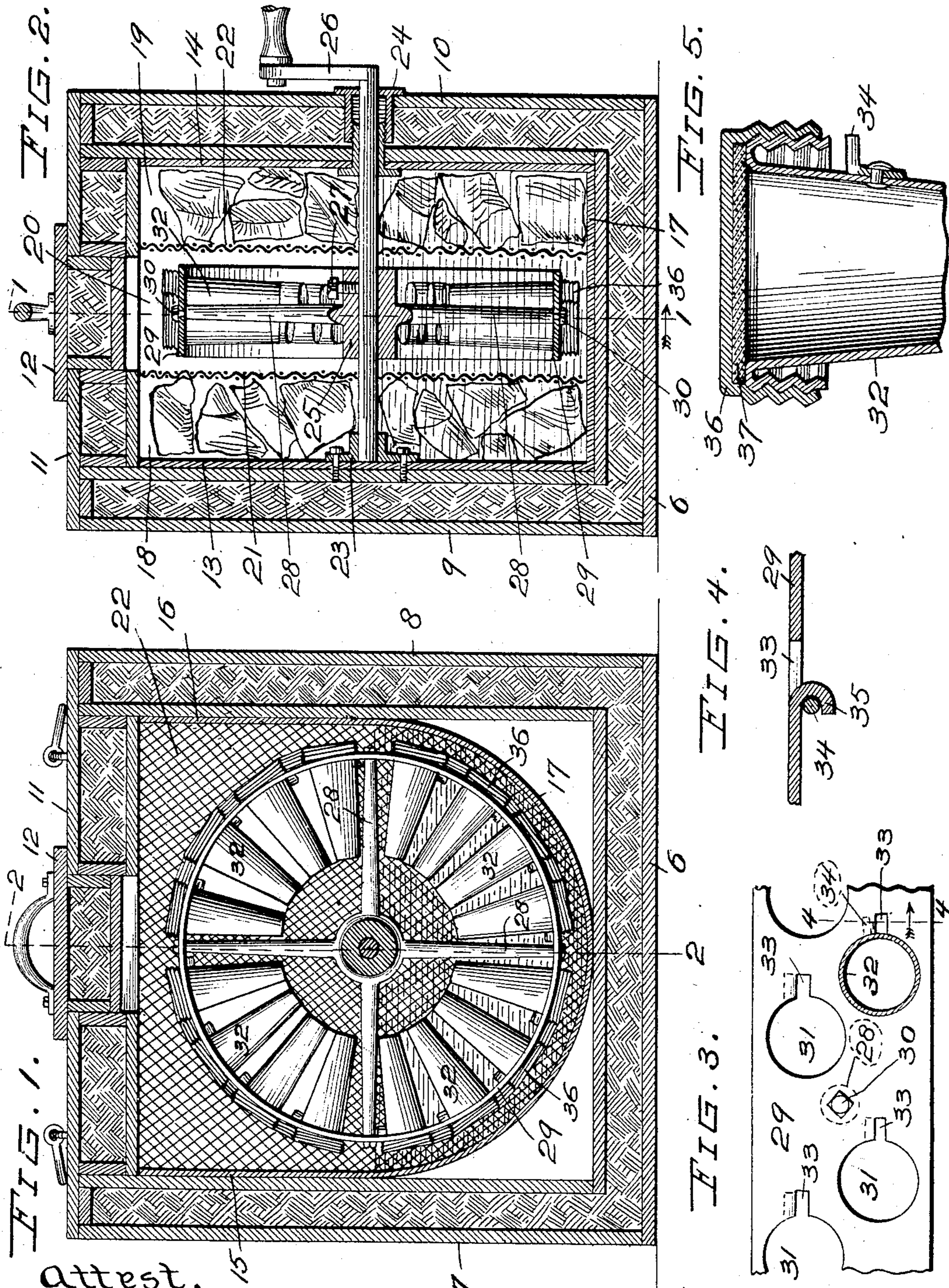


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PATENTED MAR. 28, 1905.

M. LICHTENTAG.
ICE CREAM FREEZER.
APPLICATION FILED MAY 16, 1904.



Attest,
M. M. Brazil
Referee

Inventor.
Morris Lichtentag,
By Higdon & Horgan & Hopkins Attys.

UNITED STATES PATENT OFFICE.

MORRIS LICHTENTAG, OF ST. LOUIS, MISSOURI.

ICE-CREAM FREEZER.

SPECIFICATION forming part of Letters Patent No. 786,129, dated March 28, 1905.

Application filed May 16, 1904. Serial No. 208,233.

To all whom it may concern:

Be it known that I, MORRIS LICHTENTAG, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in Ice-Cream Freezers, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to ice-cream freezers; and it consists of the novel features herein shown, described, and claimed.

In the drawings, Figure 1 is a sectional elevation on the line 1 1 of Fig. 2. Fig. 2 is a vertical cross-section on the line 2 2 of Fig. 1. Fig. 3 is a detail plan of the carrier, parts being broken away to economize space. Fig. 4 is a sectional detail on the line 4 4 of Fig. 3. Fig. 5 is a sectional detail of one of the cream-receptacles.

Referring to the drawings in detail, the main frame comprises a bottom 6, vertical end walls 7 and 8, vertical side walls 9 and 10, the side and end walls being arranged in the form of a rectangle or square; a removable top 11, and a removable cover 12, fitting in the central opening in the top 11, the top 11 fitting in the opening formed by the four vertical walls. The parts 6, 7, 8, 9, 10, 11, and 12 are formed with an outer wall and an inner wall and a packing of non-conducting material between the two walls. A waterproof lining is placed within the box, said lining comprising the sides 13 and 14, the ends 15 and 16, and the curved bottom 17. The sides 13 and 14 fit closely inside of the sides 9 and 10, and the ends 15 and 16 fit closely inside of the ends 7 and 8. The bottom 17 is in the form of a semicircle connecting the ends 15 and 16, and in the opposite direction the bottom is flat.

The space between the sides 13 and 14 is divided into three substantially equal parts 18, 19, and 20 by partition-grates 21 and 22, said grates being of substantially the same shape as the sides 13 and 14, and said grates being secured by solder or in any other suitable way to the ends 15 and 16 and to the bottom 17. The grates 21 and 22 may be sheets of coarse-woven wire or any other suitable construction that will allow water to pass freely

and prevent ice from passing. The bearing 23 is attached to the inner face and near the center of the side 13, and a bearing 24 extends through the side 14 and through the side 10 in alinement with the bearing 23, said bearing 24 being in the form of a removable stuffing-box. A wheel-hub 25 is placed between the grates 21 and 22, and an operating crank-shaft 26 is inserted through the bearing 24, through the hub 25, into the bearing 23, and a set-screw 27 holds the shaft in position in the hub. Spokes 28 extend radially from the hub, and a sheet-metal rim 29 encircles the spokes and is secured to the spokes by lag-screws 30, inserted through the rim and screw-seated in the spokes. Circular openings 31 are formed at regular intervals through the rim 29 to receive the cream-receptacles 32. Slots 33 extend from the opening 31 to receive the locking-lugs 34, extending from the cream-receptacles, the metal cut out of said slots 33 being curved inwardly to form the stops 35 to engage the lugs 34, so that when the receptacle is inserted through an opening 31 the lug 34 will pass through the slot 33, and when the receptacle is rotated entirely around the lug 34 will engage the stop 35. The rim 29, mounted upon the shaft 26, serves as a carrier for the cream-receptacle 32, and when the shaft is rotated the cream-receptacles travel around in a vertical circle.

Ice and salt and other suitable material are placed in the compartments 18 and 19, and the grates 21 and 22 keep the solid matter from passing into the compartment 20 and allow the brine and liquid matter to pass freely into said compartment 20, so as to come in contact with the cream-receptacles as the shaft is rotated. The cream-receptacle 32 has a screw-cap 36 and may have a packing-disk 37 or other suitable means of making the cap tight, so as to hold the cream.

The freezer will produce the best result when the water-line is slightly below the shaft 26. Then as the carrier is rotated the cream-receptacles will travel half a circle through the brine and half a circle through the air, thus producing alternately immersion and evaporation. Both the brine and the air will

become very cold, and the cream being in small bodies in small receptacles will freeze very rapidly. The receptacles 32 are conical or flaring, so that the frozen cream may readily be removed.

When it is desired to remove one or more of the cream-receptacles, the cover 12 is removed and the hand inserted through the opening in the top 11 to grasp the cream-receptacle. If desired, new receptacles may be inserted as fast as the frozen receptacles are removed.

It is obvious that the details of construction may be varied in many ways without departing from the spirit of my invention, the essential elements of which are means of providing a freezing liquid and means of moving the cream-receptacles through the liquid.

I claim—

1. In an ice-cream freezer: the main frame comprising the bottom 6, the vertical end walls 7 and 8, the vertical side walls 9 and 10, the removable top 11 the full size of the receptacle formed by the walls 7, 8, 9 and 10; the removable cover 12 fitting in a central opening in the top 11; a waterproof lining mounted in the receptacle and comprising the sides 13 and 14, the ends 15 and 16, and the curved bottom

17; the partition-grates 21 and 22 dividing the receptacle into three parts; the bearing 23 attached to the inner face and near the center of the side 13; the bearing 24 extending through the side 14; the wheel-hub 25 placed between the grates 21 and 22; and the operating crank-shaft 26 inserted through the bearing 24, through the hub 25 and into the bearing 23; substantially as specified.

2. In an ice-cream freezer: the main frame comprising the bottom 6, the vertical end walls 7 and 8, the vertical side walls 9 and 10; the removable top 11 the full size of the receptacle formed by the walls 7, 8, 9 and 10; the removable cover 12 fitting in a central opening in the top 11; a waterproof lining mounted in the receptacle; partition-grates dividing the receptacle into three parts; and a carrier rotatably mounted in the central part of the receptacle.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

MORRIS LICHTENTAG.

Witnesses:

S. G. WELLS,
F. C. CRISLER.