Oct. 14, 1924. 1,511,641

M. E. SULLIVAN

ICE CREAM FREEZER

Filed Oct. 31, 1923

Fig. 1.

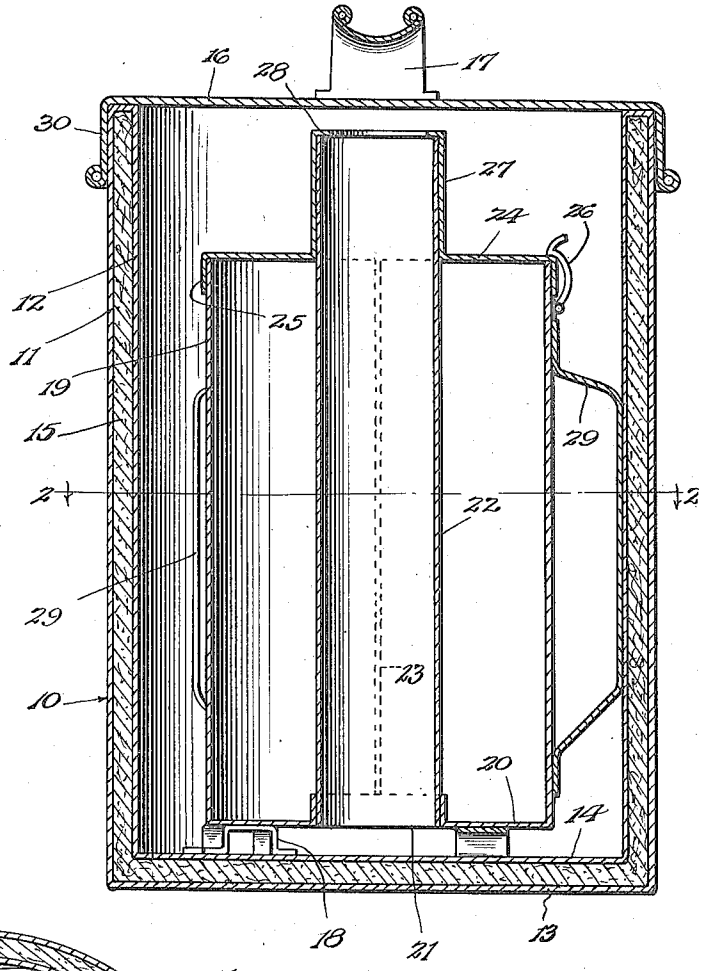
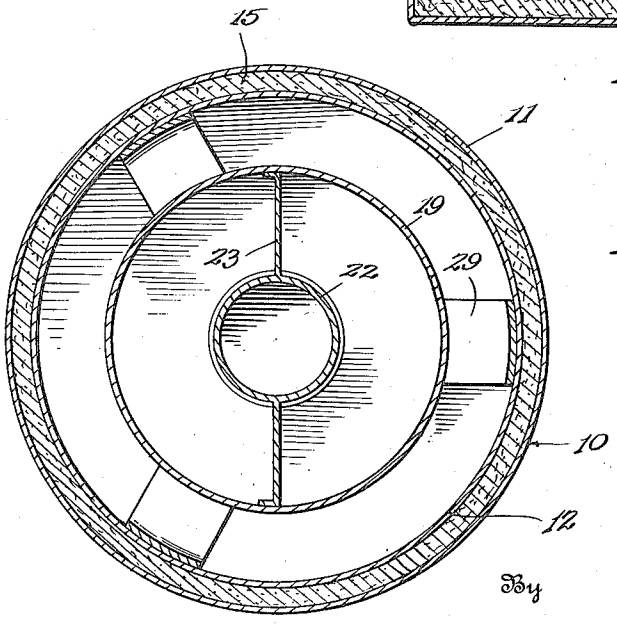


Fig. 2.



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By

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UNITED STATES PATENT OFFICE.

MYRTLE E. SULLIVAN, OF FORT STOCKTON, TEXAS.

ICE-CREAM FREEZER.

Application filed October 31, 1923. Serial No. 671,949.

To all whom it may concern:

Be it known that I, MYRTLE E. SULLIVAN, a citizen of the United States, residing at Fort Stockton, in the county of Pecos and State of Texas, have invented certain new and useful Improvements in Ice-Cream Freezers, of which the following is a specification.

My invention relates to improvements in ice cream freezers and the main object of the invention is to provide a freezer which cools and freezes the cream hard, not only on its outer surface, but also and simultaneously in the center. Usually the cream remains soft in the center, while freezing hard on the outside.

Another object of the invention is to construct the freezer so that two or more kinds of differently flavored ice creams may be produced at the same time.

Other objects and advantages of the invention will be understood from the following description.

In the accompanying drawing one embodiment of my invention has been illustrated, and;

Figure 1 represents a vertical axial section of the freezer; and

Figure 2, a horizontal section along line 2—2 of Figure 1.

The exterior vessel or container 10 is preferably constructed with double walls 11 and 12 and double bottoms 13 and 14 spaced from each other and with heat insulating material 15, such as asbestos lining, inserted between both the walls and the bottoms. In this manner a cold retaining vessel is provided, which is closed at its top by a tight fitting cover 16 preventing warm air to enter the vessel. At 17 is shown a suitable handle for the cover and upon the inner bottom are secured spacing members or lugs 18 intended to raise the can 19 from the bottom 14, so that the freezing material may be packed all around the can.

Both the vessel 10 and the inner can 19 are preferably cylindrical and while the former is made of galvanized sheet metal, the inner can 19 may be made of black tin. The bottom 20 of the can 19 is provided with a central opening 21 from which rises a tubular column 22 secured to the bottom and extending above the upper end of the can, as seen in Figure 1, so as to form a channel or passage in axial direction through the can 19. This tubular column is connected to the side walls of the can 19 by means of two or more wings 23 dividing the interior into two or more compartments, these wings extending from the bottom 20 to the top of the can, as seen in Figure 1.

The can is closed at its top by means of a lid 24 with an annular flange 25 extending part way down along the side of the can and clasps 26 are furnished on the can to hold the lid 24 in position thereon. This lid has a central sleeve 27 of an interior diameter suitable to engage around the upper end of the tubular column 22 and its top edge 28 is turned over to engage over the top edge of the tubular column 22 in order to prevent all communication between the compartments in the can and the exterior of the vessel 10.

The can 19 may be provided with radially projecting arms or handles 29 which are of a size to contact loosely with the interior wall 12 of the vessel 10 in order to position the can 19 centrally therein.

When using this freezer, the can 19 is first filled with cream which may be of different flavoring in the two compartments shown in the drawing. The lid is thereupon secured by means of the clasps 26 on top of the can 19, and the latter inserted in the vessel 10. The freezing mixture such as salt and snow or crushed ice is then tightly packed closely around the can 19, the tubular column filled therewith and freezing mixture also packed over the lid 24 and around its sleeve 27. Finally the cover 16 is placed in position with its cylindrical flange 30 engaging the top end of the vessel 10 to exclude all warm air from the outside.

It is evident that the freezing of the cream will now take place simultaneously from the inside through its contact with the tubular column 22 containing freezing mixture, as well as from the outside of the can through the freezing mixture surrounding it on all sides. The provision of the tubular column 22 will insure the radial freezing in outward direction so that the center of the cream, which usually remains soft will now be as hard as the exterior layer thereof.

In order to increase the rapidity of freez-

ing, the container or outer vessel 10 may be mounted in a suitable crate to be revolved therein in the usual manner.

Having thus described the invention what is claimed as new is:

1. An ice cream freezer comprising an outer vessel having a suitable closure, a can adapted to be inserted in said vessel, means for spacing the can from the walls and bottom of said vessel, and a central tubular column secured in the bottom of said can and open at both ends, establishing communication between the upper and lower strata of the outer vessel.

2. An ice cream freezer comprising an outer vessel having a suitable closure, a can adapted to be inserted in said vessel, means for spacing the can from the walls and bottom of said vessel, a central tubular column secured on the bottom of said can and open at both ends establishing communication between the upper and lower strata of the outer vessel, a lid for said can adapted to close its open end, a sleeve on the lid engaging around said column, and partitions extending between said column and the cylindrical side of the can dividing the same into a plurality of compartments.

3. An ice cream freezer comprising an outer vessel having a suitable closure and spaced double walls filled with heat insulating material, a can adapted to be inserted in said vessel, means for spacing the can from the walls and bottom of said vessel, a central tubular column secured on the bottom of said can and open at both ends establishing communication between the upper and lower strata of the outer vessel, a lid for said can adapted to close its open end, a sleeve on the lid engaging around said column, and partitions extending between said column and the cylindrical side of the can dividing the same into a plurality of compartments, said means including radially extending handles on the can and feet below its bottom.

In testimony whereof I affix my signature.

MYRTLE E. SULLIVAN. [L. S.]