No. 838,557. PATENTED DEC. 18, 1906.

A. H. MACE.

ICE CREAM FREEZER.

APPLICATION FILED JAN. 25, 1906.

Fig. 1.

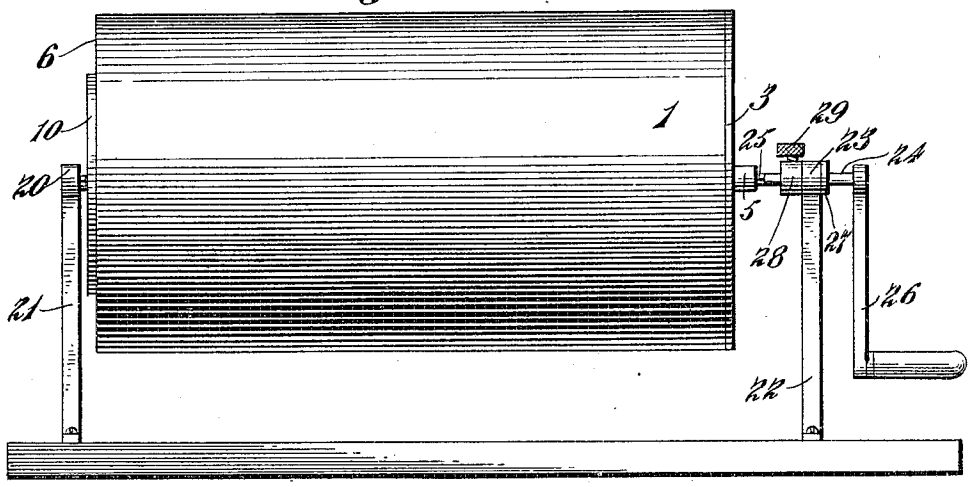
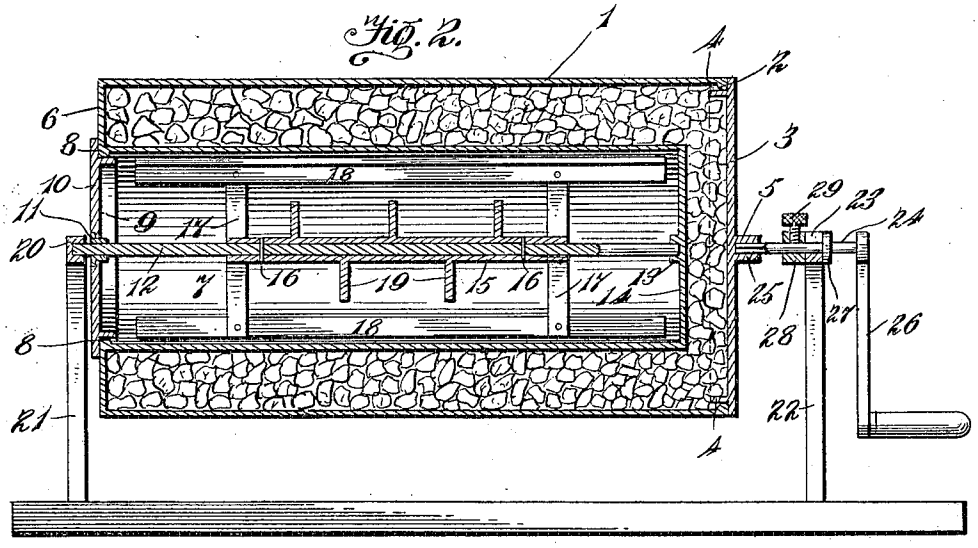


Fig. 2.



Witnesses:

Eugene M. Sinsey

C. C. Cousins

Alfred H. Mace,

Inventor,

By Marion & Marion

Attorneys

UNITED STATES PATENT OFFICE.

ALFRED HARRY MACE, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR TO A. H. MACE & COMPANY, OF MONTREAL, CANADA, A PARTNERSHIP.

ICE-CREAM FREEZER.

No. 838,557. Specification of Letters Patent. Patented Dec. 18, 1906.

Application filed January 25, 1906. Serial No. 297,807.

To all whom it may concern:

Be it known that I, ALFRED HARRY MACE, a citizen of the United States of America, residing in the city and district of Montreal, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Ice-Cream Freezers; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in ice-cream freezers and the like; and it consists in certain features of novelty in the detail construction and arrangement thereof, whereby a horizontally-mounted and rotatable freezer, open at both ends, is provided, which contains a chamber adapted to receive a freezing mixture, inclosing a smaller chamber adapted to receive the cream, &c., with a relatively fixed scraper adapted to impinge the inner face of the inner compartment while the device is in operation, the object of the invention being to provide an ice-cream freezer which is packed with a freezing mixture from one end and has an opening at its opposite end for the reception of the material to be frozen, so that none of the freezing mixture can commingle with the cream.

The invention consists in the combination and arrangement of parts which are shown in the accompanying drawings, all as hereinafter more fully described, and particularly pointed out in the claims, it being understood that said drawings illustrate the preferred construction, which may be departed from in the form, proportion, and minor details of parts therein shown, within the scope of the claims, without sacrificing any of the advantages of the invention.

In the accompanying drawings, in which similar characters of reference indicate corresponding parts in both the views, Figure 1 is an elevational view of the device forming the subject-matter of this invention, and Fig. 2 is a central longitudinal sectional view of the same.

Referring to the parts, 1 is a receptacle of suitable dimensions and preferably cylindrical in form, which receptacle is open at one end, near which end there is provided an inner annular bead 2, which is adapted to cooperate with a closure 3, which closure is provided with an inwardly-projecting flange 4, adapted to impinge the bead 2 to lock said closure 3 is closed position.

Mounted upon or carried by the closure 3 is a bearing 5, having preferably a non-circular seat therein. At the end of the cylinder opposite this closure is an annulus 6, which partially closes one end of the receptacle 1, and connected with said annulus is an inner cylinder 7, which is preferably concentric with the outer receptacle 1. This inner cylinder is preferably provided with an annular bead 8, which is adapted to impinge the flange 9 of the closure 10 for said inner cylinder, and there is a bearing 11 carried by the closure 10, in which is seated the shaft 12, which extends longitudinally of and the entire length of said inner cylinder, there being a bearing 13 in the end 14 to receive the inner end of said shaft 12. Mounted upon the shaft 12 is a sleeve 15, which is pinned to the shaft 12 by means of the pins 16. This sleeve carries the radially-projecting arms 17 near opposite ends thereof, and carried by the outer ends of the arms 17 are scrapers 18, which scrapers are adapted to contact with the inner face of the cylinder 7, there being also agitators 19 projecting radially from said sleeve 15.

The shaft 12 is provided with a non-circular portion which is seated in the bearing 20 of the standard or pedestal 21. The pedestal 22 is provided with a bearing 23, in which is seated the crank-shaft 24, which crank-shaft is provided with a non-circular portion 25, which is seated in the bearing 5 before referred to.

A crank 26 is connected with the shaft 24, by means of which the device may be rotated, while the shaft 12 and its appurtenant connections are held against rotation by means of the squared portion thereof, so as to bring the scrapers 18 into contact with the inner face of said cylinder 7.

On the crank-shaft 24 there is provided a flange or projection 27, which serves as a stop, and on said shaft 24 there is also provided a slidable collar 28, which carries the set-screw 29, by means of which said collar may be locked in position to hold the parts in their assembled relation, as shown in Fig. 2.

When it is desired to dismount the machine and remove the closure 3, the collar 28 may be projected toward the head 3 on the

shaft 24, thereby permitting the device to be removed from its supporting-pedestals to afford access to the interior of the compartments 1 and 7.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an ice-cream freezer open at both ends, an outer compartment, a removable closure, a bearing carried by said closure, a fixed annulus at the opposite end of said compartment, an inner compartment of less diameter than said outer compartment; a closure for the inner compartment projecting within said annulus; a bearing mounted on said last-mentioned closure, a shaft having a non-circular portion, a pedestal having a squared socket in which the non-circular part of the shaft is disposed, a scraper on said shaft within said inner compartment, and means for rotatably mounting said freezer in a horizontal position.

2. In an ice-cream freezer, a pair of concentric cylinders, one of which is closed at its inner end, an annulus connecting the outer edges of the cylinders and said cylinders being provided with beads, closures for the cylinders provided with flanges disposed in frictional engagement with the beads and provided with bearings, a shaft in one of the bearings, a pedestal for the shaft, a crank on the shaft, a shaft disposed through the other bearing, extending into the inner cylinder and provided with a non-circular portion, a pedestal having a non-circular portion in which is disposed the non-circular portion of the latter shaft, and agitator and scraper members carried by the latter shaft within the inner cylinder.

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

ALFRED HARRY MACE.

Witnesses:
C. C. COUSINS,
E. M. SLINEY.