

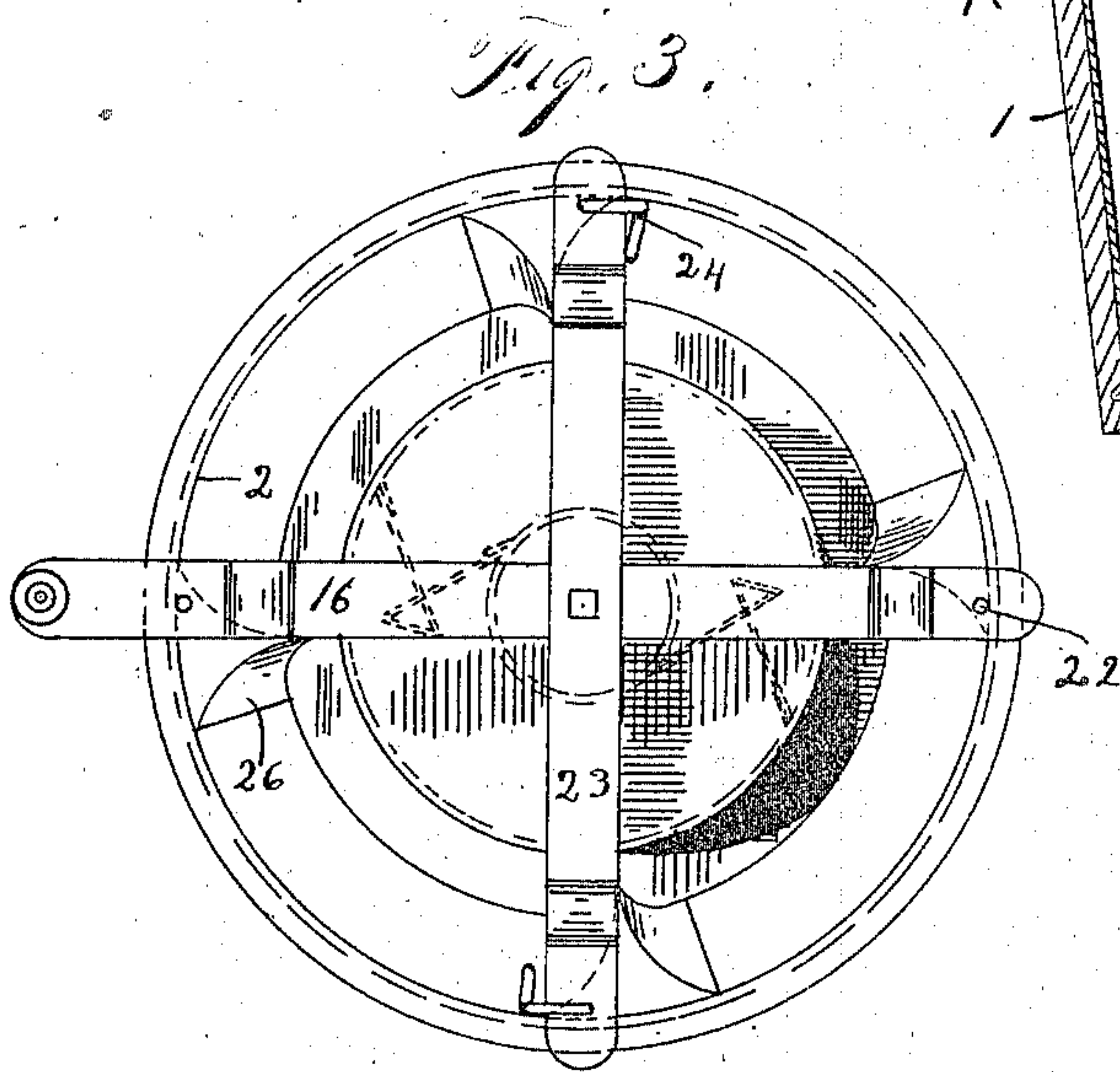
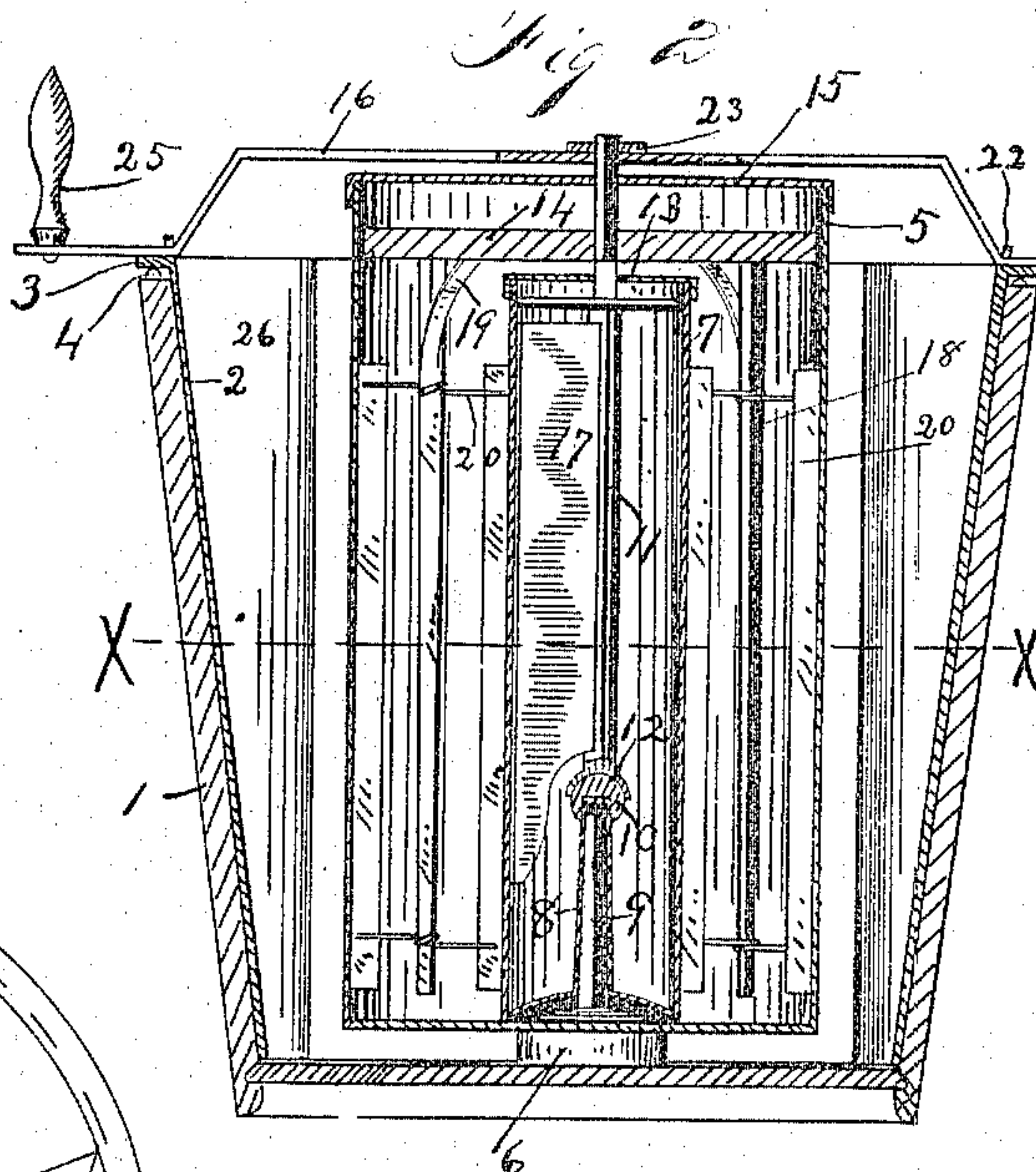
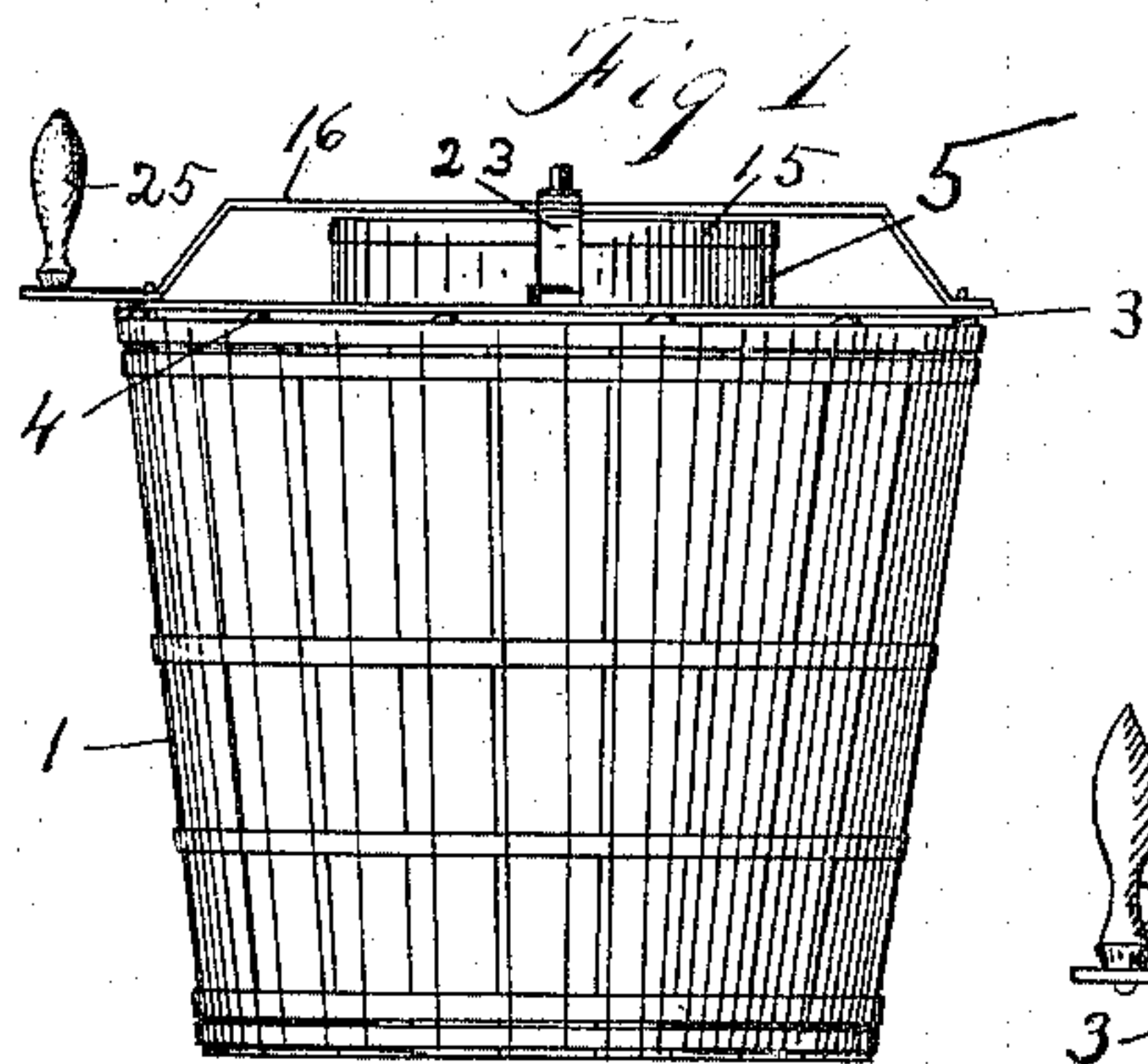
(No Model.)

2 Sheets—Sheet 1.

L. D. RAILSBACK.
ICE CREAM FREEZER.

No. 573,293.

Patented Dec. 15, 1896.



WITNESSES:

A. S. Courtwright.
Gula Green

INVENTOR

Lafayette D. Railsback

BY

V. H. Lockwood

ATTORNEY.

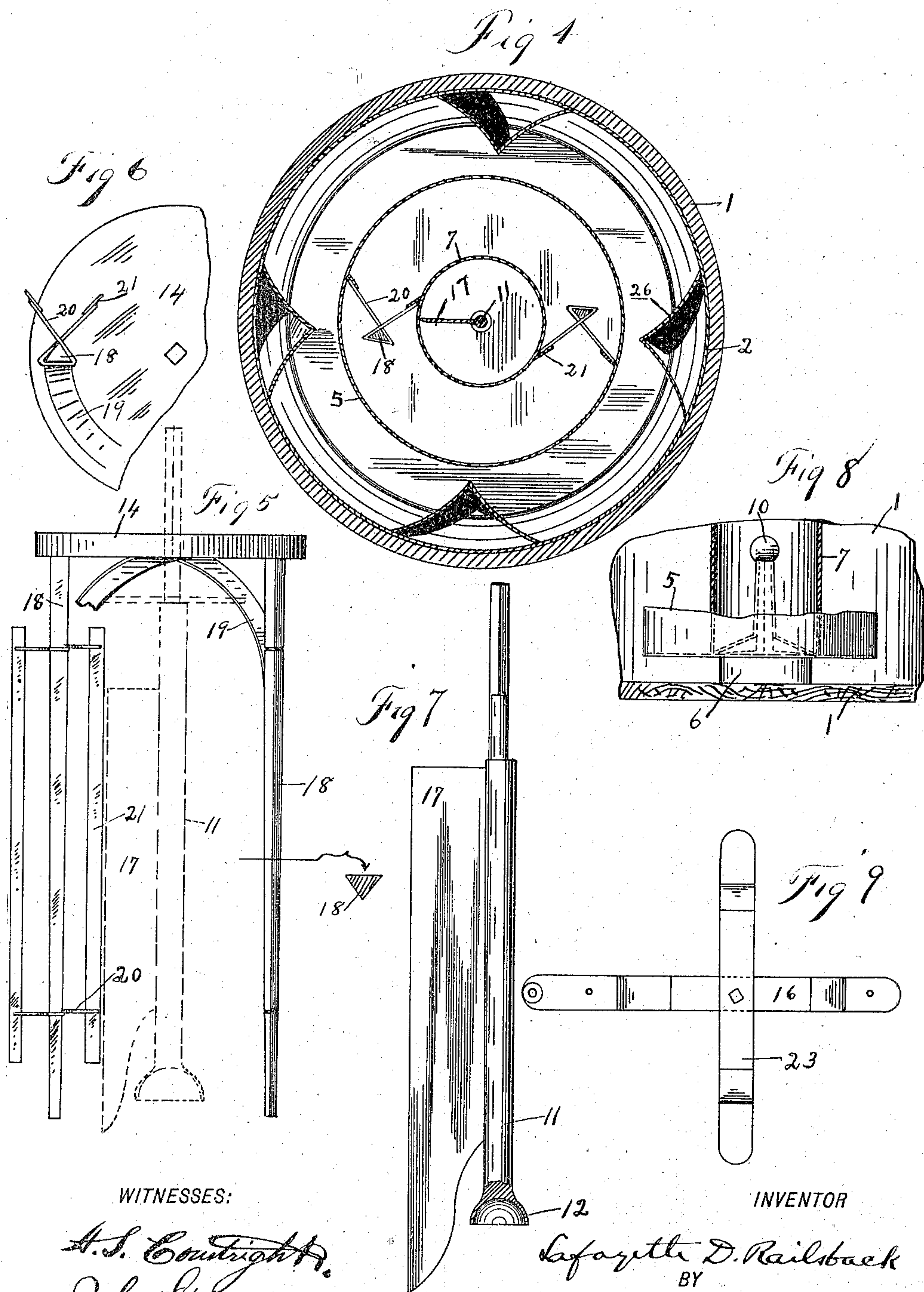
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UNITED STATES PATENT OFFICE.

LAFAYETTE D. RAILSBACK, OF INDIANAPOLIS, INDIANA.

ICE-CREAM FREEZER.

SPECIFICATION forming part of Letters Patent No. 573,293, dated December 15, 1896.

Application filed March 19, 1896. Serial No. 584,003. (No model.)

To all whom it may concern:

Be it known that I, LAFAYETTE D. RAILSBACK, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Ice-Cream Freezer; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

My invention relates to a new ice-cream freezer, my object being to quicken the freezing process and lessen the waste of ice, as well as improve the quality of the cream.

The full nature of my invention will appear from the accompanying drawings and the description and claims following.

In the drawings, Figure 1 is a side elevation of my ice-cream freezer. Fig. 2 is a central vertical section of the same. Fig. 3 is a plan view thereof. Fig. 4 is a cross-section on the line X X of Fig. 2. Fig. 5 is a detail of the scraping mechanism. Fig. 6 is a bottom view of one side of Fig. 5. Fig. 7 is a detail view of the ice-stirrer. Fig. 8 is a vertical central section of the lower part of the device. Fig. 9 is a detail of the means for holding the parts together at the top.

I take an ordinary vessel or bucket 1 and place within it a movable tin lining 2 without any bottom, with an annular outwardly-extending flange 3 at its upper end that overlaps the upper end of the bucket. This flange rests and runs upon a series of friction-rollers 4, mounted in the upper edge of the bucket 1. Within this vessel I place a cream-can 5, mounting it rigidly some distance from the bottom, preferably on the block 6, so that the freezing material may flow under the cream-can. The cream-can is made, preferably, high enough to extend somewhat above the edge of the surrounding vessel and is rigidly secured to the bottom of it. Between the cream-can and the movable lining 2 ice and salt or other freezing materials are placed. Within the cream-can I place another can 7 for ice and salt or other freezing materials, the cream surrounding said central can 7, so that the ice acts upon the cream from both sides, that is, from the outside and inside.

Centrally extending upward through the lower end of the central freezing-can 7 is a socket 8, adapted to receive the post 9, that

is secured to the lower end of the cream-can. Said socket and post are square or angular to prevent the independent movement of the two cans. Upon the socket is secured the ball 10. Resting upon this is a vertical shaft 11, having on its lower end a socket 12, that fits over and rests upon the ball 10. The upper end of the vertical shaft passes through the cover 13 of the inner can 7, and also through the head 14 in the upper end of the cream-can, the lid 15 of the cream-can, and the handle-bar 16. The portion of it passing through the handle-bar and head 14 is squared or angular to fit in similar-shaped apertures, whereby, when the handle-bar 16 is rotated, the shaft 11 and head 14 will also be rotated. On such shaft 11, within the central freezing-can 7, I secure a wing 17 to stir and distribute the ice and force the same against the walls of such inner can.

I provide scrapers in the cream-can as follows: Extending downward from the head 14 I provide a series of shafts 18, triangular in cross-section, that reach almost to the bottom of the cream-can. Their upper ends are braced by the braces 19. On these I mount at each end a pair of spring-arms 20, each arm carrying a scraper 21, so that I have one scraper to engage the central freezing-can and scrape the frozen cream from it and another scraper to engage the wall of the cream-can and at the same time scrape the frozen cream from it. The pairs of arms 20 extend at an angle from each other, as shown by the dotted lines in Fig. 3, so that they tend to press the scraper against the walls of the cream-can on each side and adjust itself to any unevenness in the surface. In other words, they make the scrapers on each side always spring-pressed. The triangular shape of the scraper-shafts causes them to push the cream to either side against the freezing-surfaces of the cream-can and also to thoroughly work the material.

The handle-bar 16 is held in place by its ends having through it pins 22 in the annular flange 3, from which said bar may be readily lifted. It is held down by the strap 23 crossing it at right angles and removably secured also to the annular flange by the hooks 24. On one end of the handle-bar 16 I provide an extension carrying the handle 25.

From the foregoing description it is clear

that movement of the handle 25 causes the movable lining 2, the scrapers in the cream-can, and the ice-stirrer 17 in the central freezing-can to be operated. It is also obvious
5 that the outer vessel or bucket, the cream-can, and also the central freezing-can are stationary.

I provide some V-shaped ribs 26, secured to the movable lining 2 and extending into
10 the space between such movable lining and the cream-can. These ribs carry the ice and salt about the cream-can and keep it well stirred and distributed.

From the foregoing description the purpose
15 of my invention can be seen, namely, having a freezing-surface within the body of the cream, as well as outside of it, so that the speed of the freezing process will be doubled. By this also the body of the cream is not
20 thick and the distance between the freezing-surfaces is very small. It enables me also to scrape constantly both the inner and outer surfaces. The moving of the scrapers through the cream beats it up until it becomes well
25 worked and light. After it is frozen the handle-bar 16 and strap 23 are removed, whereupon the central freezing-can, as well as the scrapers, can be withdrawn from the cream by taking hold of the upper end of the shaft
30 11 and lifting the whole out of the cream-can.

If one does not wish to use the central freezing-receptacle or can 7 for refrigerating or freezing purposes, by leaving out the ice and salt and using the can as a core or similar ob-
35 ject for the purpose of taking up space in the center of the can, I am enabled to freeze the cream much sooner than if it were in a solid body, because the body of the cream is thinner and the freezing-surface is greater in
40 proportion to the amount of cream than if it were all in a solid body.

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

1. In an ice-cream freezer, a suitable outer
45 receptacle, and a cream-can centrally secured

within such receptacle, a movable lining for the outer receptacle having on it ribs for distributing the ice, and means for rotating such movable lining.

2. In an ice-cream freezer, a suitable outer
50 vessel, a cream-can secured within the same, a movable lining for the outer receptacle having secured to it ribs for distributing the ice and also having on its upper end an outwardly-extending annular flange, friction-
55 rollers mounted in the upper end of such outer receptacle on which the flange of the movable lining may be rotated, and means for rotating such movable lining.

3. In an ice-cream freezer, an outer ice-re-
60 ceptacle, a cream-can mounted therein, an ice-receptacle within the cream-can, arms extending down into the cream-can that are triangular in cross-section, a pair of spring-actuated scrapers mounted on such arms
65 which scrape both the inner and outer walls of said cream-can.

4. An ice-cream freezer comprising an outer receptacle, a movable lining therein having ribs for stirring the ice, a stationary cream-
70 can mounted within the receptacle, a stationary freezing-receptacle mounted within the cream-can, a shaft extending down into the inner freezing-receptacle having a wing on it to stir the ice therein, a head mounted on the
75 upper end of such shaft and within the cream-can so as to be rotated by said shaft, arms extending down from said head and carrying suitable scrapers, and a handle-bar secured to the movable lining and to the upper end
80 of said central shaft whereby when said handle-bar is rotated the movable lining with the ribs, the scrapers, and distributor in the central freezing-receptacle will all be rotated.

In witness whereof I have hereunto set my
85 hand this 7th day of March, 1896.

LAFAYETTE D. RAILSBACK.

Witnesses:

V. H. LOCKWOOD,

ELMER MARSHALL.