

(No Model.)

2 Sheets—Sheet 1.

J. A. E. ANDERSON.  
ICE CREAM FREEZER.

No. 603,227.

Patented Apr. 26, 1898.

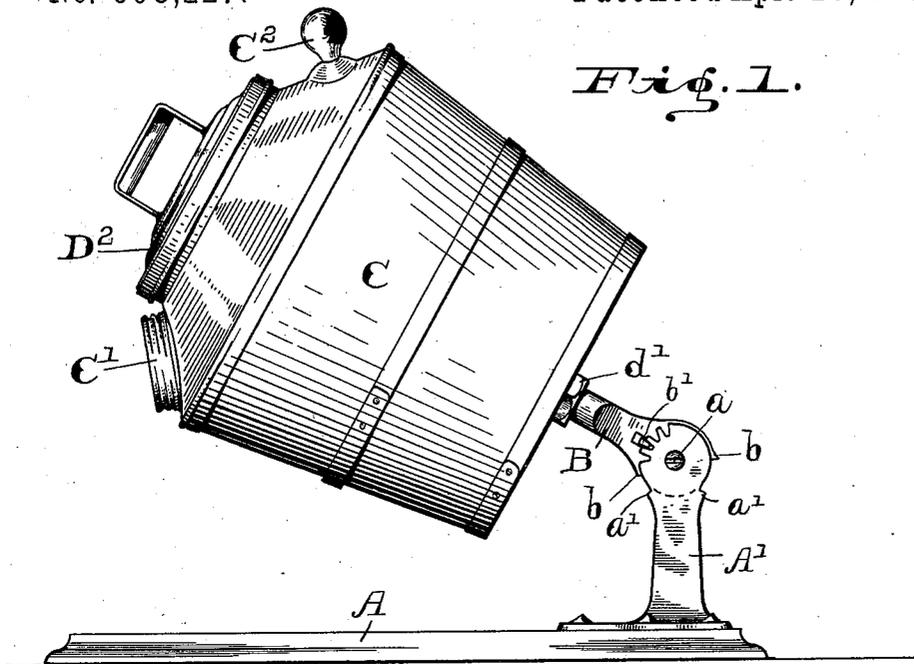


Fig. 1.

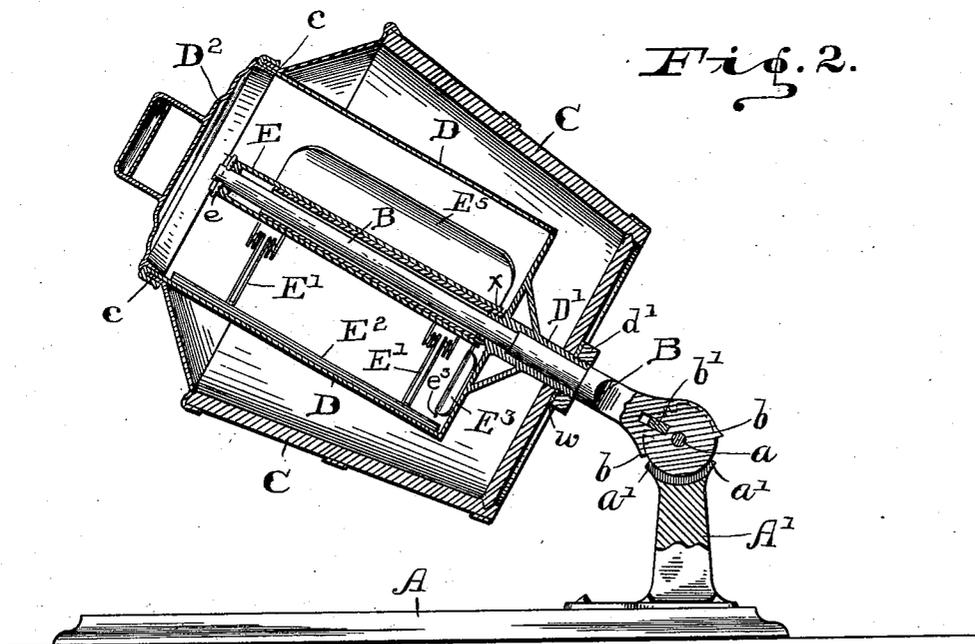


Fig. 2.

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ICE CREAM FREEZER.

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Fig. 3.

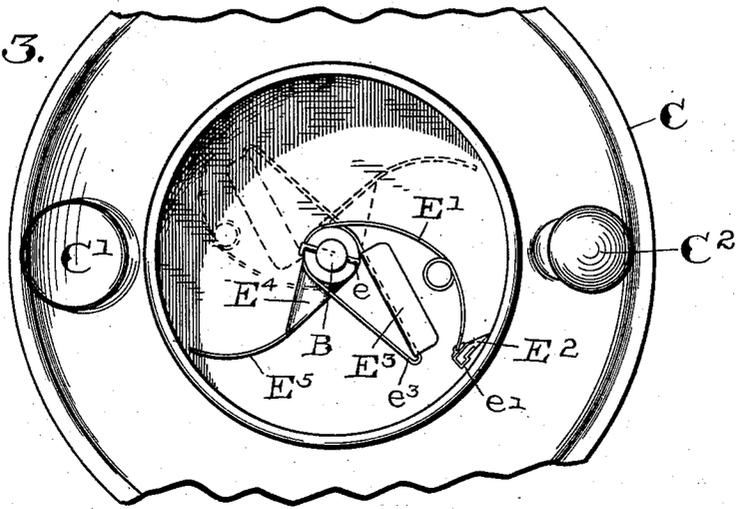


Fig. 4.

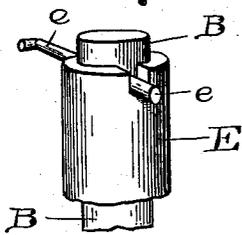


Fig. 5.

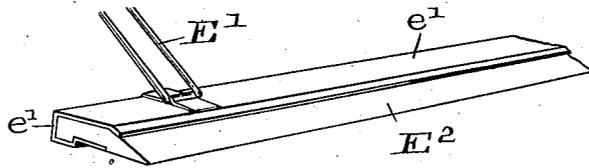


Fig. 6.

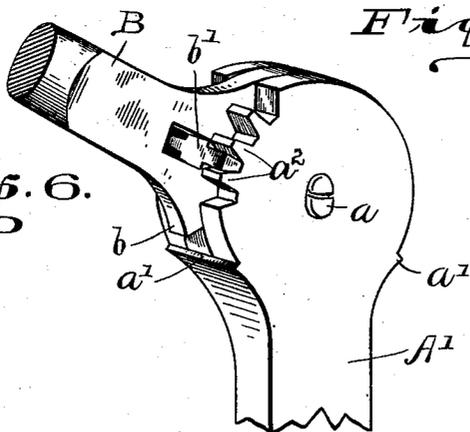
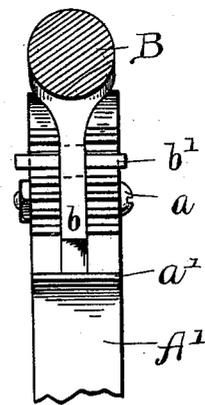


Fig. 7.



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# UNITED STATES PATENT OFFICE.

JOHN A. E. ANDERSON, OF INDIANAPOLIS, INDIANA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF TWO-THIRDS TO WILLIAM L. HIGGINS AND THEODORE O. CALLIS, OF SAME PLACE.

## ICE-CREAM FREEZER.

SPECIFICATION forming part of Letters Patent No. 603,227, dated April 26, 1898.

Application filed May 25, 1897. Serial No. 637,995. (No model.)

### *To all whom it may concern:*

Be it known that I, JOHN A. E. ANDERSON, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Ice-Cream Freezers, of which the following is a specification.

The object of my said invention is to simplify and cheapen the construction of that class of ice-cream freezers in which the cream-receptacle and surrounding ice-receptacle revolve about the mechanism, at the same time increasing its efficiency.

Said invention consists of certain details of construction and arrangements of parts, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof and on which similar letters of reference indicate similar parts, Figure 1 is a side elevation of an ice-cream freezer of the character in question; Fig. 2, a central sectional view of the same; Fig. 3, an end elevation, on a somewhat enlarged scale, with the cover removed, displaying the interior mechanism; Fig. 4, a perspective view showing fragments of the upper end of the spindle and the sleeve thereon; Fig. 5, a perspective view of a fragment of the scraper; Fig. 6, a perspective view illustrating the joint of the adjustable support for the freezer, and Fig. 7 an edge elevation thereof.

In said drawings the portions marked A represent the platform upon which my improved ice-cream freezer is mounted; B, an adjustable spindle carried thereby; C, the tank or case within which the freezing mixture is placed; D, the can or cylinder within which the cream to be frozen is placed, and E a sleeve which surrounds the spindle B and forms the shaft or central portion of the interior mechanism.

The platform A has a standard A', which, as best shown in Fig. 6, develops into a disk-like and bifurcated head having a series of notches  $a^2$  around a portion of its periphery and is also provided with a central bolt or pin  $a$ , by which the lower end of the spindle B is connected thereto.

The spindle B has a flattened lower end

which is mounted between the sides of the bifurcated head of the stem A', being secured thereto by the bolt  $a$ , around which it is adapted to rock from side to side, as may be desired, its motion being limited by its projections  $b$ , which come in contact with the projections  $a'$  on the sides of the stem A'. Centrally it has a mortise, and within this is placed a sliding detent  $b'$ , the ends of which project out to the sides and are adapted to engage with the notches  $a^2$  in the periphery of the head of the stem A', as shown most plainly in Fig. 6. This forms an easy, cheap, convenient, and quickly-operated means for adjusting the angle of inclination of the spindle B in respect to the standard A', and consequently changing the position of the entire freezer structure as may be desired. The spindle B continues through the various other parts of the structure to the top, where it engages with the sleeve E<sup>6</sup>, as will be presently explained. After entering the freezer structure it is reduced in size for the greater portion of its length to secure freedom of contact with the surrounding part, and thus avoid the friction which would otherwise result.

The tank C is in itself of an ordinary form. The sides and bottom are preferably composed of wood, and the top, which is inwardly inclined, of sheet metal, terminating in an edge  $c$ , which is parallel with the axis. The space inside this tank, between it and the can D, is to be filled with a suitable freezing mixture.

The can D is a metal can and at the bottom develops into a tubular extension D', adapted to pass through the bottom of the tank C to the outside and is screw-threaded upon its extreme end to receive a nut  $d'$ . The upper end of this can turns over, as shown at  $d^2$  in Fig. 2, and when in place covers the rim  $c$  on the extreme upper end of the tank C. When the parts are put together and the nut  $d'$  screwed up tightly, the tank C and can D are secured and rigidly held together. A suitable washer  $w$  aids in making a perfectly water and air tight joint between the parts. The can D is provided with a cover D<sup>3</sup> of a usual form.

The sleeve E is mounted within the can D, to which it is firmly secured, preferably by a

screw-threaded formation, as shown at *x*, and surrounds the spindle B. A second sleeve E<sup>6</sup> surrounds this sleeve, its upper end being secured to the upper end of the spindle B by means of a pin *e*, extending through said parts beyond the end on said sleeve E, as shown, (see Figs. 2, 3, and 4,) transverse slits in the end of said sleeve being formed to engage said pin. Secured to this sleeve are the spring-arms E', carrying the scraper E<sup>2</sup>. The joints connecting the arms and the scraper-back are pivotal, so that the scraper may yield properly in passing over irregularities. It also carries the scraper E<sup>3</sup> upon a separate arm *e*<sup>3</sup> at the bottom. Upon the opposite side are other arms E<sup>1</sup>, carrying the blade E<sup>3</sup>, which serves as a means of "smoothing" the cream.

The relative position of the various parts while the machine is in operation is shown in full lines in Fig. 3. Their position after the cream is frozen and while it is being removed are shown in the same figure by means of dotted lines. The scraper E<sup>2</sup>, I prefer to make of hard wood, bone, hard rubber, or some such substance which will not have the same tendency to mar and wear the interior of the metal can as a metal scraper would have. Its form is best shown in Fig. 5, where, as well as in Fig. 3, the spring-arms E' are shown as terminating in a thin sheet-metal clasp *e*', which receives the back of said scraper E<sup>2</sup>, the formation being such that said scraper is securely held therein.

The operation of a freezer embodying my invention may be briefly stated as follows: The freezing mixture is introduced into the case C through a suitable opening in the top, which is preferably covered by a screw-cap C'. The cream is placed in the can, which is then covered by the cover D<sup>2</sup>. The interior mechanism being in the position shown by the full lines in Fig. 3, where it is held by the pin *e*, the structure is revolved upon the spindle B by means of the handle C<sup>2</sup> or otherwise. The freezing mixture, being in contact with the outer surface of the can D, freezes a thin film of ice or ice-cream on the interior, which, as the structure is revolved, is removed therefrom by the scraper E<sup>2</sup> and falls to the bottom, where, in the further operation of the machine, it is forced back and smoothed by the blade E<sup>3</sup>. In a very few moments the cream is frozen to the desired extent, the cover D<sup>2</sup> removed, the pin *e* taken out, the mechanism revolved until it occupies the position indicated by the dotted lines in Fig. 3, when the pin *e* is reinserted, the space below being thus left free for the insertion of an implement to remove the cream.

As shown in Figs. 1 and 2, the structure preferably sets at an angle in operation. At times it is desirable to have the structure set upright and at other times at varying angles of inclination. To achieve this result, it is not new in itself, but I believe the means shown, consisting of the teeth or notches on the periphery of the head of the stem A and

the detent *b*', moving in a mortise in the lower end of the spindle B, to be new, and it certainly is very convenient and quickly operated. It is only necessary, when it is desired to change the angle of inclination, to lift this detent with the fingers, swing the spindle to the required point, and drop the detent into a new set of notches, all as will be readily understood.

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

1. The combination, in an ice-cream freezer, of a spindle having a shoulder, an outer receptacle or tank for the freezing mixture, an inner can or receptacle for the material to be frozen having a sleeve-like extension which passes through the bottom of the tank and is adapted to rest against the shoulder on the spindle and an overlapping upper edge adapted to engage with the upper edge of the outer casing, and a nut adapted to be placed on the sleeve-like extension outside the bottom of the tank and thus draw the parts tightly together, substantially as shown and described.

2. The combination, in an ice-cream freezer, of the tank forming the receptacle for the freezing mixture, the inner can for containing the material to be frozen formed with a sleeve-like extension which extends through the bottom of said tank to the outside and is secured thereto, a spindle mounted on a suitable base and passing through said sleeve-like extension to the interior, the sleeve E secured to the interior of said can at its bottom and surrounding said spindle for the greater portion of its length, the sleeve E<sup>6</sup> secured to the upper end of said spindle beyond the end of said sleeve E, which it surrounds, and scrapers secured to said sleeve E<sup>6</sup>, the several parts being arranged and operating substantially as set forth.

3. The combination in an ice-cream freezer, of the base, the outer tank, the inner can, said tank and can being secured together and mounted to revolve on a spindle secured on said base and extending through the bottom of the structure into said can, a sleeve secured to the bottom of said can and surrounding said spindle for a greater portion of its length, another sleeve secured to the top of said spindle and extending down over said first sleeve, spring-arms and scrapers being secured to said outside sleeve and carried thereby, substantially as set forth.

4. The combination, in an ice-cream freezer, of a spindle carried by a suitable base, a revolving structure mounted thereon consisting of an outer tank or receptacle for the freezing mixture, an inner can or receptacle for the mixture to be frozen, an internal spring-mounted mechanism for removing the film of ice from the interior of the can, consisting of a sleeve mounted on said spindle, wings and scrapers, said sleeve having a slit across its upper end, and said spindle having a perforation therethrough which registers

with said slit, and a pin adapted to be inserted in said perforation and engage with said slit and thus hold the said parts in the desired relation to each other, which relation  
5 may be changed from an operative to a non-operative position, substantially as shown and described.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 18th day of May, A. D. 1897.

JOHN A. E. ANDERSON. [L. S.]

Witnesses:

CHESTER BRADFORD,  
JAMES A. WALSH.