(No Model.)

H. MORRIS.

ICE CREAM FREEZER.

No. 306,696. Patented Oct. 14, 1884.

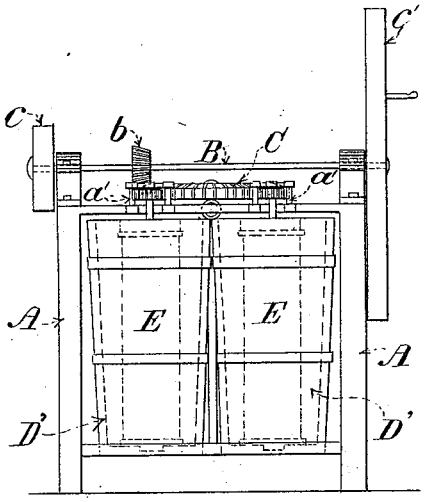

Fig. 1

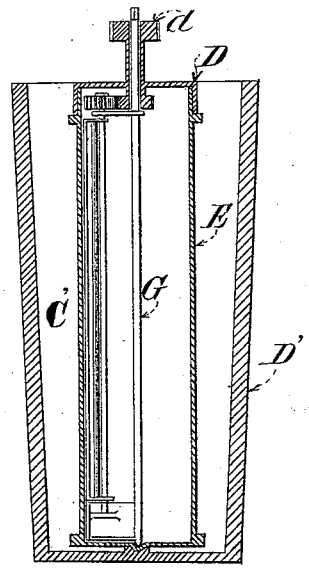

Fig. 3

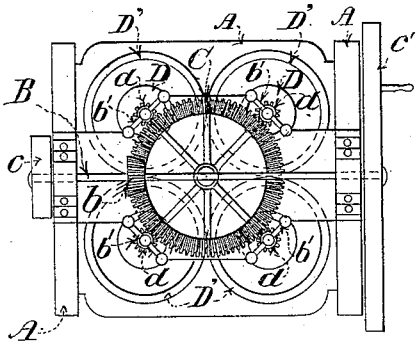

Fig. 2

WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY MORRIS, OF PHILADELPHIA, PENNSYLVANIA.

ICE-CREAM FREEZER.

SPECIFICATION forming part of Letters Patent No. 306,696, dated October 14, 1884.

Application filed July 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, HENRY MORRIS, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Ice-Cream-Freezing Machines; and I do hereby declare the following to be 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.

My invention relates to that class of machines for freezing ice-cream and similar articles in which a number of the cans of cream are prepared and frozen simultaneously.

The invention lies in the particular construction and arrangement of parts, as will hereinafter be described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation of my improved machine, having four tubs and their corresponding cans containing the cream placed in position. Fig. 2 is a plan. Fig. 3 is a vertical section through a tub and can.

A represents the frame of the machine.

B is a shaft extending across the top of the frame.

b is a beveled cog-wheel on the shaft B.

c is a driving-pulley to which a belt is attached when desiring to work the machine by steam-power.

c' is a wheel provided with a suitable handle for turning the machine by hand.

C is a large beveled cog-wheel revolving around a vertical shaft placed on the top of the frame above the top of the tubs and cans. This wheel is also provided with spur-cogs on its outer periphery, and may have small friction-wheels placed underneath the outer rim for the purpose of supporting it and reducing the friction on the central shaft.

D D D D are the several tops of the cans fitted securely thereto, so that when the top revolves the can will turn with it.

d d d d are cog-wheels secured on the upper ends of the tops D.

E E E E are the cans for holding the cream.

D' D' D' D' are the tubs in which the cans are set.

C' is the space between tub and can for the ice.

G is the shaft carrying the stirrer. This shaft remains stationary while the can revolves, and it extends up through and beyond the cog-wheels *d*, the upper end being made square.

a' a' are vertical posts fitted into the frame A on either side of each can.

b' b' are movable bars fitting over the top of the posts *a' a'*. These bars hold the cog-wheels *d* in gear with the large cog-wheel C, and they are provided with a square opening on the under side in the middle thereof, which said square opening forms a seat for the square top of the shaft G of the stirrer, thus holding it stationary.

The cans being filled and placed in the position shown in Figs. 1 and 2, when either the wheel *c* or *c'* is turned in the proper direction, the shaft B revolving turns the beveled cog-wheel *b*, thus revolving the large cog-wheel C, which operates the cog-wheels *d* on top of the cans, and said tops or lids being securely fastened to the body of the can the whole thing is turned around while the stirrer-shaft G is held stationary by the square top thereof fitting into the bar *b'*. Should it be desirable to allow the can to remain stationary, the cog-wheel *d* may be removed from the can-top D and fitted to the stirrer-shaft G, the top of said shaft being made round instead of square, as shown, so as to allow it to revolve.

It will readily be seen that by the means herein shown I am enabled to manipulate all four of the cans of cream by one and the same movement without any multiplicity of wheels or machinery and with the smallest outlay of power.

The number of cans may be increased or diminished; but I have found by experimenting that four is the most convenient and economical number to operate at one time.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination of the horizontal shaft B, having the bevel-gear *b* and means for rotating it, with the main cog-wheel C, having a beveled portion on top for the engagement of the gear *b*, and a vertical portion beneath the beveled portion, the receptacles E, placed in rectangular form and having the shafts G, and pinions *d* and covers D turning about said

shafts G, said pinions engaging the vertical cogs on the wheel C, substantially as set forth.

2. An ice-cream freezer consisting of the frame A, cut out to receive the circular tubs, and having bearings on top for a horizontal shaft, a set of four tubs placed in said frame, freezing-cans in said tubs, a central shaft and stirrer in each can, a cover, D, and pinion *d* on top of each can, adapted to turn together thereon, a main cog-wheel, C, having vertical cogs engaging with the pinions *d* and beveled cogs above said vertical cogs, a beveled gear, *b*, and horizontal shaft B, on which it is placed, and a hand-wheel, C′, mounted on the shaft B, all constructed and combined to operate substantially as herein set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY MORRIS.

Witnesses:

OTIS EGAN,

THOMAS D. MOWLDS.