

T. MILLS & G. M. MILLS.  
Ice-Cream Freezers.

No. 128,414.

Patented June 25, 1872.

FIG. 1.

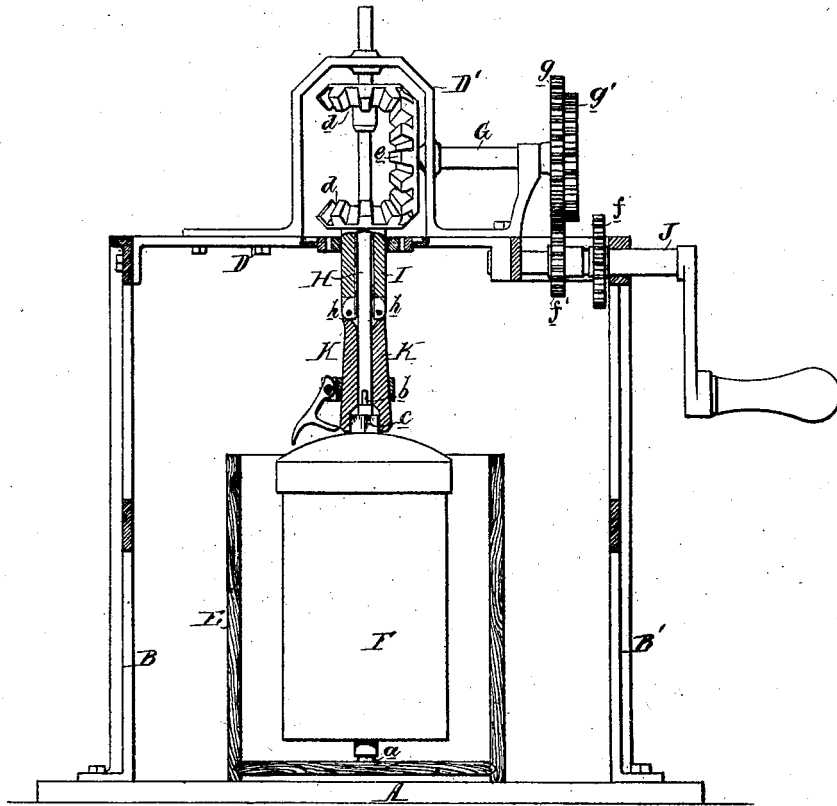
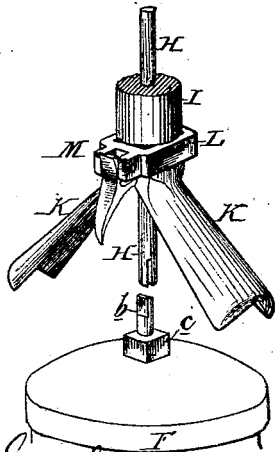
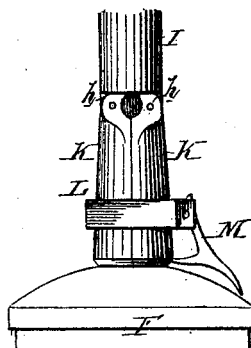


FIG. 2.



WITNESSES,  
Leary Smith  
Thomas McShann

FIG. 3.



Thomas Mills, and  
George M. Mills  
by their Atty.  
Hiram A. Weston

# UNITED STATES PATENT OFFICE.

THOMAS MILLS AND GEORGE M. MILLS, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN ICE-CREAM FREEZERS.

Specification forming part of Letters Patent No. 128,414, dated June 25, 1872.

Specification describing an Improvement in Ice-Cream Freezers, invented by THOMAS MILLS and GEORGE M. MILLS, both of the city and county of Philadelphia, State of Pennsylvania.

### *Improvement in Ice-Cream Freezers.*

Our invention relates to an improvement in the construction of ice-cream freezers; and it consists in the employment of certain peculiar clutches or clamping-jaws, fully described hereafter, for connecting the operating spindles to the cream can and dasher.

In the accompanying drawing, Figure 1 is a vertical section of an ice-cream freezer with our improvement, and Figs. 2 and 3 detached views, drawn to an enlarged scale, of the part to which our invention especially relates.

The frame of the machine consists of a base, A, uprights B B', cross-piece D, and wheel-frame D' secured to the top of the said cross-piece. The tub E for containing the freezing-mixture rests upon the base A and contains the cream-can F, which is supported by and arranged to be rotated upon a pivot, *a*, in the bottom of the said tub. The can has the usual internal arrangement of dashers, which it has not been deemed necessary to illustrate in the drawing. These dashers are connected to a spindle, *b*, which extends upward through a square projection, *c*, on the top of the can, the latter being rotated in one direction and the dashers in the opposite direction from a counter-shaft, G, through the medium of two vertical spindles, H and I, the former extending through the latter, and each being provided with a bevel-wheel, *d*, which gears into a bevel-wheel, *e*, on the said counter-shaft. This shaft derives its motion from a crank-shaft, J, which has two cog-wheels, *f* and *f'*, of different diameters, arranged to slide upon but not to turn independently of the shaft, so that they can be caused to gear into either of two wheels, *g* and *g'*, of different diameters, on the counter-shaft, according as it is desired to increase or diminish the speed of the latter. The dasher-spindle *b* is flattened or squared at its upper end, as shown in Figs. 1 and 2, and is adapted to a transverse recess cut in the lower end of the spindle H, from which it can be disconnected by withdrawing it laterally. To the

lower end of the outer spindle I are pivoted, at the points *h*, two jaws or clutches, K K, which can be closed tightly together so as to form a continuation of the spindle, as shown in Figs. 1 and 3, and which are recessed on their inner sides, as best observed in Fig. 2, so as to fit snugly around the inner spindle H and against the opposite corners of the squared projection *c* at the top of the can. The jaws, when closed, are clamped together and to the projection *c* by a band, L, which is slipped downward over the same from above, as shown in Figs. 1 and 3. The said jaws, when thus clamped together, serve not only to secure the can to the spindle I so that it may be rotated by the latter, but they retain the dasher-spindle *b* in connection with the spindle H, without interfering with the rotation of the said spindle, in a direction opposite that in which the can is turned.

The can with its dashers can be instantly detached from the machine by merely raising the clamping-band L to a point above the pivots *h* and then separating the jaws, as shown in Fig. 2; and, for the purpose of holding the jaws open and out of the way until it is again necessary to complete the connection with the can, we propose to combine with the clamping-band L a lever-catch, M, having a projection, *i*, on its inner side, which enters the space between the jaws when the latter are opened, and thus prevents them from closing. When the can is replaced the lever-catch is withdrawn from between the jaws, when the latter will fall by their own weight and close upon the spindle H and projection *c* to which they are clamped, as before, by the band L, which, after disengaging its catch M, is turned quarter-way round and then permitted to fall until it binds against the tapering sides of the jaws, or it may be forced downward by a slight pressure.

We prefer to use the lever-catch M for holding the jaws open, but it will be evident that a spring-catch or other device attached to the clamping-band, and arranged to be projected into the space between the opened jaws, would answer the purpose.

We claim as our invention—

1. The clamping-jaws K K pivoted to the spindle I, and adapted to the projection *c* of

a rotating cream-can, substantially as and for the purpose described.

2. The combination, substantially as described, with the said jaws K K of a clamping-band, L.

3. The combination of the jaws K K, band L, and the lever-catch M or any equivalent device attached to the band for the purpose of holding the said jaws open.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

THOMAS MILLS.  
GEORGE M. MILLS.

Witnesses:

WM. A. STEEL,  
HARRY W. DOUTY.