J. H. DUNBAR.

Dasher for Ice-Cream Freezer.

No. 216,607. Patented June 17, 1879.

FIG. 1

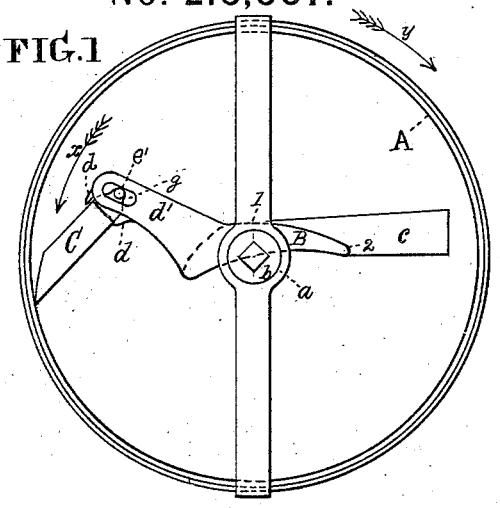



FIG. 2

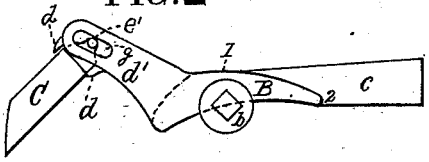



FIG. 3

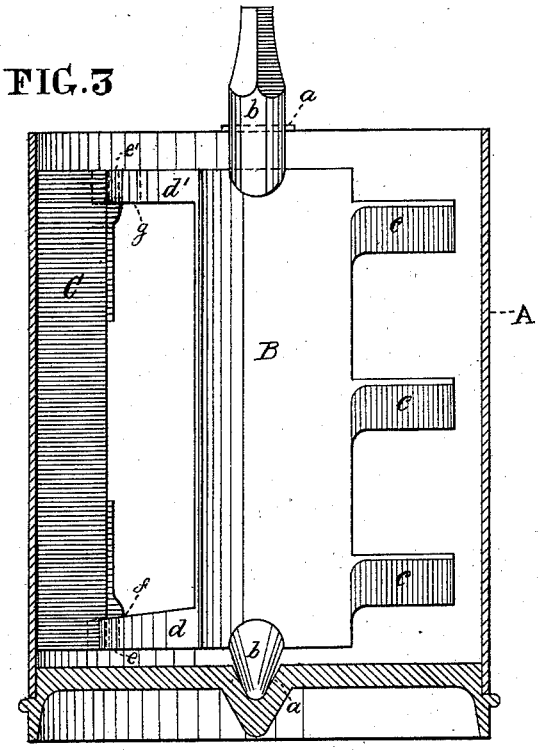
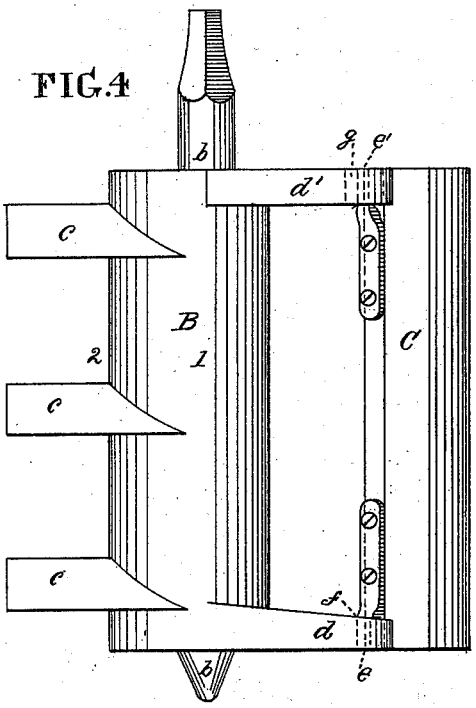



FIG. 4




Witnesses.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN DASHERS FOR ICE-CREAM FREEZERS.

Specification forming part of Letters Patent No. **216,607**, dated June 17, 1879; application filed March 25, 1879.

*To all whom it may concern:*

Be it known that I, JOHN H. DUNBAR, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Dashers for Ice-Cream Freezers, of which the following is a specification.

The nature of my invention, in the first place, consists in the dasher-shaft being in plate form, with one side concave and the other convex, and having beaters at one edge, and its opposite edge extending outside of the line of the pivots of the shaft in such a manner as to force the cream from the center of the can over the concave surface of the shaft to be acted upon by the beaters as the dasher revolves in one direction and the can in the opposite direction. In conjunction with this action of the concave side of the shaft, the convex side from the line of the pivots also forces the cream outward toward the wall of the can over the beater-edge.

The invention, in the second place, consists in the combination of a scraper with a dasher having a circular bearing for a pivot at one end of the scraper, and a radial slot for the connection of the pivot at its other end, to admit of the automatic adjustment of the scraper to the wall of the can in accommodation to any irregularities of the surface of the wall, as fully described hereinafter, and thus dispensing with the use of springs ordinarily employed for that purpose.

In the accompanying drawings, which make a part of this specification, Figure 1 is a plan view of the dasher, in combination with the can, the top of the latter being removed. Fig. 2 is a top view of the dasher. Fig. 3 is a side elevation of the dasher and a vertical section through the can. Fig. 4 is a side elevation of the dasher, showing the reverse side to that shown in Fig. 3.

Like letters of reference in all the figures indicate the same parts.

A represents the can of an ice-cream freezer, and B the dasher-shaft, which is provided with pivots *a a*, that are connected with bearings *b b* at the ends of the can.

The shaft consists of a plate, which is convex on one side and concave on the other side, and having at one edge beaters *c*. The other edge extends beyond the line of the pivots, as represented, so that its concave surface shall press against the cream as the dasher revolves in the direction of the arrow *x*, and the can revolves in the opposite direction to that of the dasher, as indicated by the arrow *y*, and thus cause the cream to slide over the concave surface from the line of the pivots to the outer edge of the shaft to be acted upon by the beaters. The opposite convex side of the shaft also from the pivotal point or axis at 1 to the outer edge at the point 2 as the dasher revolves presses against the cream, and forces it toward the wall of the can to receive the action of the beaters *c*.

C is a scraper, which is pivoted to the arms *d* and *d'* of the shaft B, the lower pivot, *e*, being connected with the bearing *f* of the arm *d*, and the upper pivot, *e'*, with the radial slot *g* of the arm *d'*, so that, the said pivot *e'* being free to move in the slot either toward the center of the can or outward therefrom, the scraper is automatically adjusted, as the cream bears upon it, to any irregularities of the surface of the can without the use of springs, ordinarily employed for that purpose.

I do not claim, broadly, the construction of the dasher-shaft with broad curved surfaces, as that has been heretofore done, as shown in the patent of C. Gooch, dated July 1, 1871, and in subsequent patents. Nor do I claim, broadly, the making of the scraper adjustable at its ends in accommodation to the surface of the can, as in the patent of J. W. Condon, dated July 9, 1872, and in that of O. Dexter, dated July 3, 1877; but

I claim as my invention—

1. The plate-shaft B, having one of its sides concave and the other convex, and having one of its edges provided with beaters and its opposite edge extending beyond the central line of the pivots *a a*, whereby to press the cream toward the wall of the can to be acted upon by the beaters, substantially as set forth.

2. The combination, with a dasher having an arm, *d*, with a circular bearing, *f*, and an arm, *d'*, having a radial slot, *g*, of a scraper, C, having a pivot, *e*, at one end, and a pivot, *e'*, at its other end, whereby the scraper, as the cream bears upon it, is automatically adjusted to any irregularities of the wall of the can, substantially as set forth.

JOHN H. DUNBAR.

Witnesses:
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