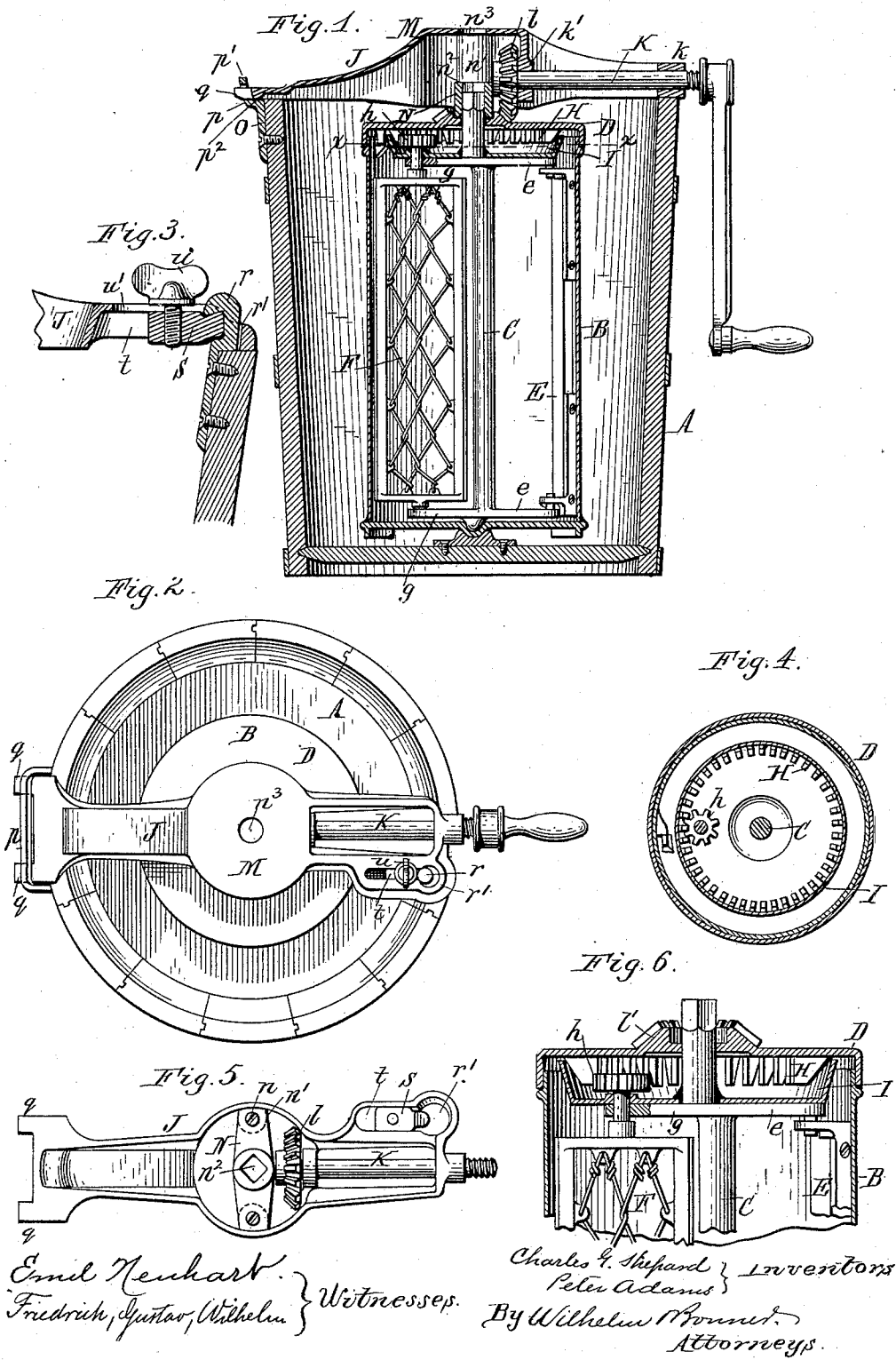


(No Model.)

C. G. SHEPARD & P. ADAMS.
ICE CREAM FREEZER.

No. 469,456.

Patented Feb. 23, 1892.



UNITED STATES PATENT OFFICE.

CHARLES G. SHEPARD AND PETER ADAMS, OF BUFFALO, NEW YORK; SAID
ADAMS ASSIGNOR TO WALTER J. SHEPARD.

ICE-CREAM FREEZER.

SPECIFICATION forming part of Letters Patent No. 469,456, dated February 23, 1892.

Application filed August 17, 1891. Serial No. 402,842. (No model.)

To all whom it may concern:

Be it known that we, CHARLES G. SHEPARD and PETER ADAMS, citizens of the United States, residing at Buffalo, in the county of Erie and State of New York, have jointly invented new and useful Improvements in Ice-Cream Freezers, of which the following is a specification.

This invention relates more especially to that class of ice-cream freezers which have a hinged top frame or cross-piece and in which the cream-can rotates upon a fixed spindle and is provided with a rotary dasher or agitator which is turned by a pinion secured to the dasher-shaft and meshes with a gear-rim on the cover of the cream-can.

Our invention has for its objects to simplify and cheapen the construction of the casing which incloses the actuating-gearing of the dasher to hold the spindle of the cream-can against turning by simple means, to provide a convenient and reliable fastening for the free end of the hinged top frame which permits the frame to be readily locked upon the tub, and finally to improve the construction of the freezer in other details.

In the accompanying drawings, Figure 1 is a sectional elevation of our improved ice-cream freezer. Fig. 2 is a top plan view thereof. Fig. 3 is a fragmentary sectional elevation of the same on an enlarged scale, showing the lock of the hinged top frame. Fig. 4 is a horizontal section of the cream-can in line *x x*, Fig. 1. Fig. 5 is a detached bottom plan view of the top frame. Fig. 6 is an enlarged sectional elevation of the upper portion of the cream-can and adjacent parts.

Like letters of reference refer to like parts in the several figures.

A is the wooden tub of the freezer, and B the rotary cream-can, having at its lower end the usual hollow stud, which turns in a bearing in the bottom of the tub.

C is the stationary spindle provided at its lower end with a stud or teat which is seated in the hollow stud of the can in a common manner.

D is the cover applied to the can so as to turn therewith and having a central bearing

or opening through which the upper portion of the spindle C passes.

E is a scraper of any ordinary construction, which is supported by radial arms *e*, projecting from the spindle, and F is a rotary dasher or agitator journaled in radial arms *g*, arranged on the spindle opposite the arms *e*. The agitator is driven from the rotary cream-can by a pinion *h*, secured to the upper journal of the agitator and meshing with a gear-rim H, formed on the inner side of the cover D.

I is a pan-shaped hood or housing arranged in the upper portion of the cream-vessel and inclosing the driving-pinion of the dasher F and the internal gear-rim of the cover D. The hood is preferably secured to the upper arms of the spindle C and is formed with openings for the passage of the spindle and the upper journal of the dasher. This hood extends upward to the cover of the cream-can, so that its open upper end is closed by the cover when the same is applied to the can. The hood protects the cream in the can from contact with the driving-gear of the agitator and prevents the same from becoming discolored or deteriorated. By this construction the cover of the cream-can is also utilized as a cover for the protecting-hood, thus dispensing with a separate cover for the hood and simplifying and cheapening its construction.

J is the upwardly-swinging top frame or cross-piece of the freezer, and K is the horizontal crank-shaft for actuating the rotary parts of the freezer and which turns in bearings *k k'*, formed on the under side of the top frame. The cream-can is driven from the crank-shaft in the well-known manner by a pinion *l*, secured to the inner end of the latter and meshing with a gear-wheel or rim *l'*, formed on the upper side of the cover of the cream-can. The top frame is formed with the usual hood or cap M, which covers the driving-gearing of the cream-can for protecting the hands of the operator.

N is a cross-bar removably secured to the lower end of the hood M by screws *n*, passing through the cross-bar and entering bosses or enlargements *n'* formed within the hood. This cross-bar is provided with a square or

angular aperture n^2 , which receives the correspondingly-shaped upper end of the spindle C, thereby holding the latter against turning. The removability of the cross-bar N permits the top frame with its hood and bearings to be conveniently cast without the use of a core.

n^3 is an opening formed in the top frame in line with the angular aperture of the removable cross-bar N, and through which said aperture and the square upper end of the spindle are visible, thus enabling the operator to easily center the square-ended spindle in the opening of the cross-bar by rotating the cream-can in case these parts are out of register when the top frame is lowered.

The top frame is detachably hinged to the top of the tub A by an upright plate O, secured to the side of the tub and provided above the upper edge of the tub with openings or loops p , and parallel lugs q , projecting from the inner end of the top frame and arranged loosely in the openings or loops of the upright plate O, so as to rock freely in the loops in raising and lowering the top frame and at the same time permit the frame to be removed by withdrawing its lugs from said loops. The upwardly-projecting portion p' of the plate O is offset or arranged at a short distance outward from the side of the tub, so as to form a horizontal ledge or neck p^2 , upon which the inner end of the top frame is supported when swung upward. The projecting portion p' is inclined outward, as shown, to permit the top frame to be swung slightly outward beyond a perpendicular position and maintain such position by gravity. When the top frame is swung upward out of the way, it rests against the upper portion of the upright plate O, while its lugs bear against the outer side of said plate, whereby the outward movement of the frame is limited.

The tub is provided opposite the outer free end of the top frame with an inwardly-projecting hook or lip r , which extends above the upper edge of the tub and passes through an opening r' in the top frame.

S is a sliding button or bolt guided in a longitudinal groove or way t , formed in a lateral extension at the outer portion of the top frame, and which interlocks with the lip or hook r , thereby holding the outer end of the top frame against upward movement.

u is a clamping or thumb screw attached to the sliding button for securing the same in place. This clamping-screw passes through a longitudinal slot u' in the top frame and its thumb-piece bears against the upper side of the frame. Upon loosening the thumb-screw, the locking-button may be slid inward to disengage it from the hook of the tub and release the top frame, while upon sliding the

button outward under the hook and tightening its thumb-screw, the top frame is firmly secured upon the tub.

The fastening just described forms a very simple, reliable, and inexpensive lock, which permits the top frame to be quickly secured and released.

We claim as our invention—

1. In an ice-cream freezer, the combination, with the rotary cream-can having a cover provided on its under side with a gear-rim, of a stationary spindle upon which the cream-can turns, a rotary dasher journaled in the cream-can and provided with a pinion meshing with the gear-rim of the cover, and a pan-shaped hood inclosing said gear-pinion and rim and secured at its bottom to the spindle and having its upper end closed by the under side of the cover of the cream-can, whereby said cover serves to close the upper end of the hood as well as the cream-can, substantially as set forth.

2. The combination, with the tub and the cream-can having a gear-rim, of the hinged top frame provided with a hood which covers the driving-gear of the cream-can, a removable cross-bar secured to the lower end of the hood and provided with an angular opening or socket, and a spindle for the can having an angular portion seated in the correspondingly-shaped socket of the removable cross-bar, substantially as set forth.

3. The combination, with the tub, the cream-can, and the spindle having an angular upper end, of the upwardly-swinging top frame having a slight aperture, and a removable bar secured to the top frame and having an angular opening visible through said sight-aperture and which receives the angular end of the spindle, substantially as set forth.

4. The combination, with the tub having an upright plate projecting above the upper edge thereof and provided with an offset upper portion inclining outward and having openings or loops, of the upwardly-swinging top frame provided at its inner end with projecting lugs passing loosely through the openings of said upright plate, the inner end of the top frame when raised resting upon the offset of the upright plate of the tub, and the lugs of the frame bearing against the outer side of the upright plate and limiting the outward movement of the frame, substantially as set forth.

Witness our hands this 12th day of August, 1891.

CHARLES G. SHEPARD.
PETER ADAMS.

Witnesses:

C. DEWEY FOWLER,
JOSEPH N. WEIG.