W. REDHEFFER.

Egg-Beater.

No. 166,143. Patented July 27, 1875.

Fig. 1.

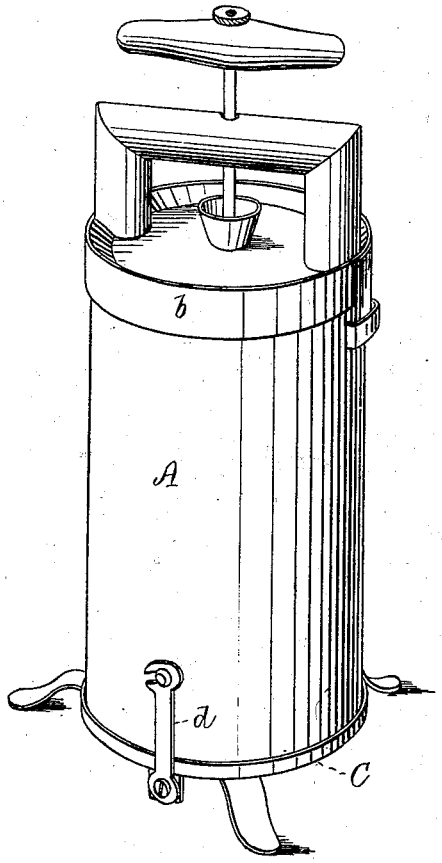


Fig. 2.

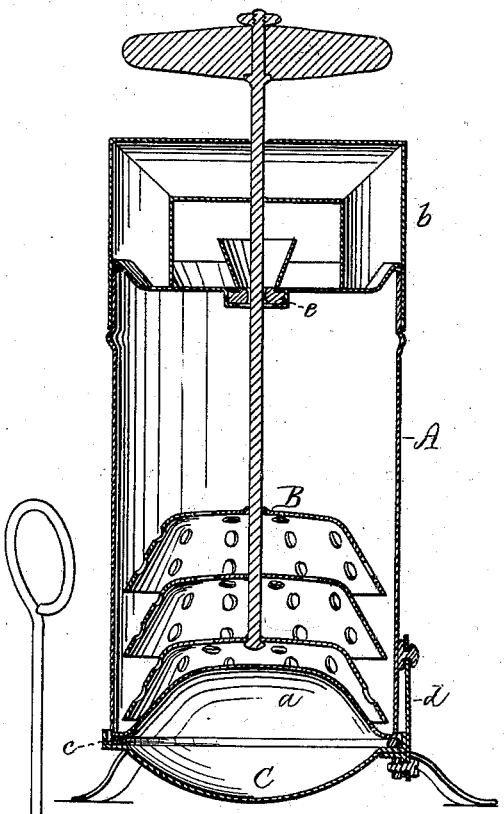


Fig. 3

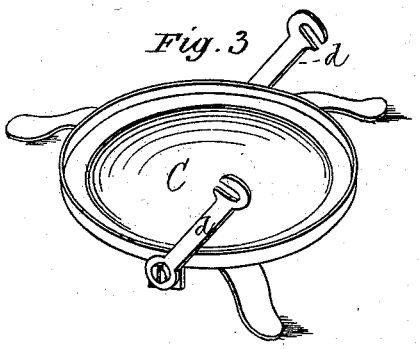
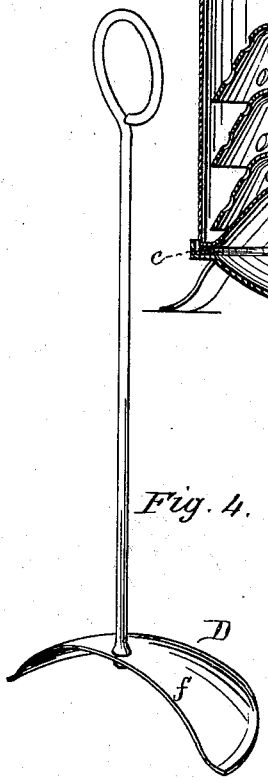


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM REDHEFFER, OF ST. LOUIS, ASSIGNOR OF TWO-THIRDS HIS RIGHT TO WASHINGTON H. CHICK, OF ST. LOUIS, AND JOSEPH S. CHICK, OF KANSAS CITY, MISSOURI.

IMPROVEMENT IN EGG-BEATERS.

Specification forming part of Letters Patent No. **166,143**, dated July 27, 1875; application filed December 4, 1874.

To all whom it may concern:

Be it known that I, WILLIAM REDHEFFER, of the city and county of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Egg-Beaters, of which the following is a specification:

My said improvements relate to the reciprocating class of beaters, and they are herein represented as embodied with the invention patented by me January 20, 1874.

The partial object of my improvements is to afford a more complete control by the beater over the matter to be beaten than has heretofore been afforded to my knowledge; also, to so construct the apparatus, that while it is improved as an effective and useful egg-beater by virtue of the novel features embodied therewith, it will also be specially adapted to varied domestic uses.

My invention consists, first, in the combination, with a beater composed of one or more hollow perforated frustums of cones, of a can having a convex bottom corresponding practically with the interior of the hollow frustum, whereby, on each complete downward thrust of the beater, the entire contents of the can will be forced through the perforations in the beater, instead of leaving a portion of the contents in a comparatively quiescent state at the center of the can at the bottom, and for other incidental purposes hereafter more fully described; secondly, in the combination, with the can, of a detachable base, whereby it may be set firmly on the floor or table during long continued and extensive operations, and thus rendered more securely operative in the hands of children and others who could not safely hold the can in the hand or lap, and also for other valuable purposes, hereafter more fully described; thirdly, in a novel egg-beater clearer for removing the mass of beaten eggs from the can.

To more particularly describe my invention, I will refer to the accompanying drawings, in which—

Figure 1 represents one of my egg-beaters in perspective. Fig. 2 represents the same in vertical section. Fig. 3 represents, in perspective, the detachable base removed from the can. Fig. 4 represents a novel clearer for removing the beaten mass from the can.

A denotes the can. It is preferably composed of tin-plate, and strongly constructed. The bottom *a* is convex. The cover *b* is securely fitted and provided with a slip-joint, whereby it is prevented from rotation independently of the can. The cover at the center is provided with an aperture, through which the beater-handle passes. A non-metallic washer is firmly located at that point, as shown at *e*, which renders the operation of beating comparatively noiseless. The outside bottom edge of the can is clad with a heavy metal ring, as shown at *c*. B denotes the beater, which is substantially the same as that patented by me January 20, 1874. It is provided with a detachable hand-bar on the handle, which admits of the removal of the beater from the can and cover on occasion. The cover is provided with a handle, through which the beater-handle passes. C denotes the detachable base. It is preferably concave, as shown, and provided with a vertical flange, affording a receptacle for receiving the bottom of the can.

For economy in construction it will preferably be composed of sheet-iron, struck up in dies, and provided with the feet, as shown, or a full annular base-flange. When concave, as shown, the center of the bottom will be so depressed that it will afford a central bearing on the floor or table. At opposite points of its flange-periphery it is provided with the hooks or clamps *d*, which engage respectively with headed studs projecting from the can. The hooks, preferably, will open in opposite directions, in order that they may not be readily detached by the ordinary movement and use of the apparatus. These clamps may be variously constructed, but the hooks are simple, inexpensive, and operative for the purpose.

It will be seen that the convexity of the inner bottom surface of the can causes the entire contents thereof to be forcibly ejected through the perforations in the beater at every downward stroke, and therein lies its prime value. It has, however, other incidental values in connection with a domestic imple-

ment of this character, adapted to varied domestic uses, as, for instance, after eggs have been beaten, and milk and sugar added for boiled custards, and properly worked with the beater, the can detached from the base may be put into an open kettle of boiling water over a fire, and there safely cooked, the concave surface at the bottom of the can preventing it from being in close contact with the bottom of the kettle, and so obviating lumpy custard and all possibility of burning it. Again, when frozen custards are desired, the can, detached from its base, may be employed as an ordinary cream-freezer, the base-ring *c* serving as a firm foundation, and preventing the edges of the can from injury. When so used, the concavity embraces and retains more or less ice, accelerating the cooling operation from below. In making whips and fruit-floats, after the eggs and fruit have been properly beaten it is desirable that they be served as cool as possible without solidification. This is readily effected by putting fine ice into the concave base and working the beater.

In large sizes of beaters it is desirable that the length of the can be increased in greater proportion than the diameter, in order that the length of stroke of the beater may be proportioned to the quantity of matter to be beaten, and, therefore, these cans are quite readily upset, and without the base would be more or less objectionable.

For small families who desire to use my improved egg-beater as a churn, the base will be found of special value, and I will say in this connection that I have observed that a can of small diameter, and a perforated beater with great length of stroke will effect the operation of churning more rapidly and perfectly than with reciprocating churns, as ordinarily constructed.

I am aware that in rotary egg-beaters, as heretofore constructed the cans have been detachable from the frame-work of the apparatus; but I am not aware that prior to my invention the can of a reciprocating egg-beater was ever provided with a detachable base.

D denotes a novel egg-beater clearer for removing the beaten mass of eggs from the can. It consists of a handle and a semicircular concavo-convex scraper and lifter, *f*. When the eggs are beaten stiffly the can is inclined to one side, and the scraper inserted in contact with the upper interior surface, and passed to the bottom of the can. In its passage, by reason of its outline form and its concavity, it thoroughly clears that side of the can, and forces the mass scraped by it to the center of the can. On arrival at the bottom the scraper is turned half around and then withdrawn, bringing out the mass at one draft, and thoroughly clearing the surface of the can.

Having thus described my invention, I claim as new—

1. An egg-beater can provided with a convex bottom, in combination with a beater composed of one or more perforated hollow frustums of cones, substantially as described, whereby the entire contents of the can may be forced through said perforations at each full downward stroke of the beater, as set forth.

2. In a reciprocating egg-beater, the combination, with the egg-beater can, of a detachable base, substantially as described.

3. The egg-beater clearer composed of a handle and a semicircular concavo-convex scraper, as set forth.

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