(No Model.)

H. G. CRONK.

CchurN.

No. 422,736. Patented Mar. 4, 1890.

Fig 1

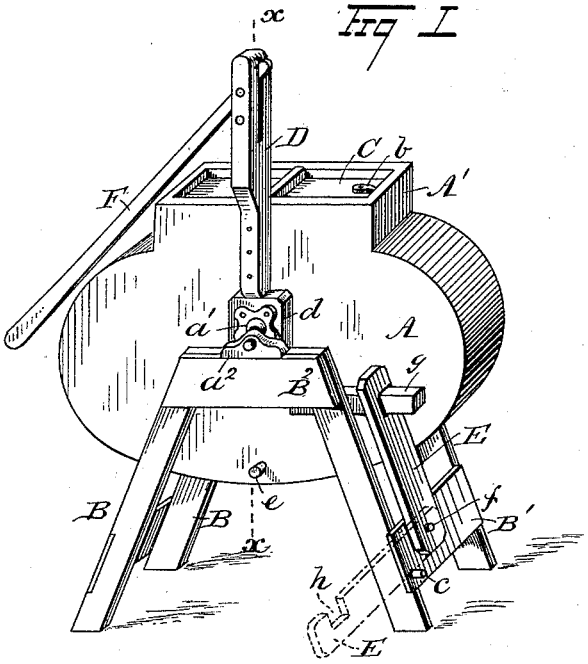


Fig 3

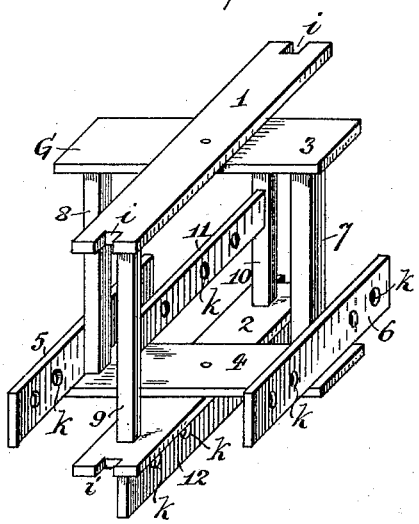
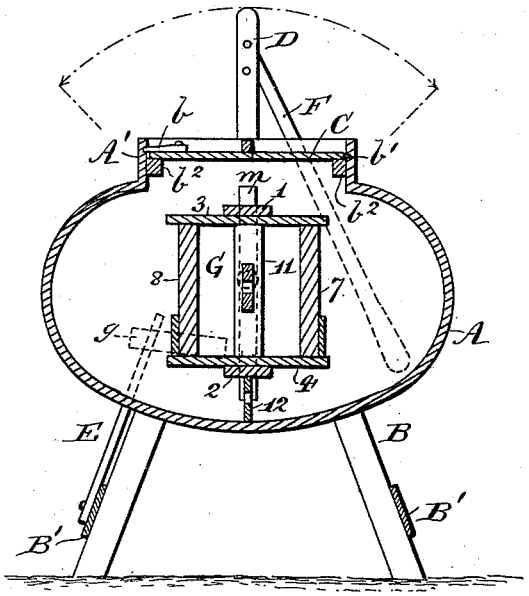


Fig 2



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CHURN.

SPECIFICATION forming part of Letters Patent No. 422,736, dated March 4, 1890.

Application filed October 1, 1889. Serial No. 325,669. (No model.)

To all whom it may concern:

Be it known that I, HOMER G. CRONK, a resident of Apopka, in the county of Orange and State of Florida, have invented a new and useful Improvement in Churns, of which the following is a full, clear, and exact description.

The object of my invention is to produce a churn of simple form and neat design of a type in which the cream receptacle or chamber is pivotally supported to rock and by dashing agitation of the contents produce butter.

A further object is to furnish the cream-holding chamber with a latching-bar which will retain it stable when this is necessary, and when the churn is in use to afford a foot-rest for the operator.

With these ends in view, my invention consists in the provision of a specially-formed removable agitator-frame located in the cream-chamber, and also in a latching-bar of novel construction, all of which will be hereinafter specially described, and indicated in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective elevation of the churn. Fig. 2 is a longitudinal section of the churn taken through its transverse center, and Fig. 3 is an enlarged detached view in perspective of the cream-agitator.

The cream-holding chamber A is preferably made elliptical, the major axis of which lies in a horizontal plane. On the upper side of the oblong chamber thus provided a rectangular border-frame A′ is vertically projected, said frame surrounding an aperture of similar form, which affords free access to the interior of the chamber A.

On the inner surface of the frame A′, at opposite points on its end walls, cleats b^3 are attached, these serving as seats for a lid C, which is provided with dowel-pins b' at one end and a latch b at the opposite end. The dowel-pins project from the edge of the lid and enter mating perforations in the wall of the frame A′. The latch b is pivoted on the top of the lid and engages its free end with a notch cut in the adjacent vertical wall of the surrounding frame. When the parts are connected the lid will be secured in place and close the aperture.

A trestle-frame for the support of the chamber A is provided, which consists of legs B, four in number, held spaced apart by transverse strips B′, secured at each end of the two sections of the frame, said sections each consisting of pairs of legs connected by horizontal pieces B^2, firmly fastened to the upper ends of the legs, which latter are spread apart at their lower ends to render the entire structure stable. Blocks d are fastened oppositely on the sides of the elliptical chamber A near the center of weight of the same, and pintles a are secured to the blocks by the plates a', from which they project and to which they are rigidly secured. On the top of the trestle-frame, near the longitudinal center of the pieces B^2 thereof, the bracket-boxes a^2 are secured, these being provided for the reception of the pintles a. The chamber A, when located between the trestle-frame sections and pivotally supported on them, as stated, will be free to rock. On one side of the chamber A an upright standard D is fastened, which projects above the chamber a suitable distance to afford proper leverage, and to the upper end of said standard a handle-bar F is pivoted by one end, the other end being free to be grasped by the operator, and by its reciprocal movement rock the cream-chamber. Within the chamber A two oppositely-located vertical guide-strips m are attached to its side walls, one being shown in Fig. 2. These are for the support of the cream-agitator frame shown in Fig. 3, and designated as an entirety by the letter G. The frame G consists of rectangular wooden bars and strips, connected as shown. Two similar flat boards 1 2 of proper width and length to suit the capacity of the cream-chamber are held parallel, and spaced apart by the vertical rectangular bars 9 10, and on the lower board 2, on its bottom surface, a dasher-board 12 is affixed edgewise, said dasher extending nearly the length of the piece 12, which it is attached to. A rectangular frame-section is produced when the parts are assembled as stated. Another similar frame-section comprised of the horizontal pieces 3 4 and vertical bars 7 8 is provided. The vertical dimension of this mating frame-

section is such, relatively, that it may be slid between and neatly fit against the horizontal pieces 1 2 of the first section, to which it is secured at right angles thereto. Duplicate dasher-boards 5 6 are secured to the outer faces of the upright-bars 7 8 near the center of the length of said dashers, and about midway between the top and bottom horizontal boards 1 2 on the bars 9 10 another dasher-board 11 is fixed, it extending horizontally and between the bars, having its sides in a vertical plane. All of the dasher-boards 5 6 11 12 are perforated at spaced intervals of length, said orifices *k* being of proper dimension to freely pass cream through them.

The horizontal pieces 1 2 are notched on their ends, as at *i* in Fig. 3, to engage the guide-strips *m*, and thus retain the agitator-frame G centrally located in the chamber A. The aperture of which the frame A′ is a border is of suitable width and length to admit the free downward passage into or removal of the frame G from the chamber A.

A latch-bar E is pivoted by one of its ends upon the outer face of the cross-strip B′. Said bar, when upwardly rocked, will engage the notch *h*, formed in one edge, with the laterally-projecting ledge *g*, formed on the side of the chamber A and retain it horizontal, as shown in Fig. 1. When the churn is to be put in use, the latch-bar is thrown down. It then rests on the pin *c*, and by reason of its outward horizontal projection affords a convenient foot-rest for an operator seated and vibrating the churn.

The securing of the churn-chamber in a horizontal position is desirable when the cream is being poured into it, or the contents inspected to see if butter is forming. It is also available when butter is to be gathered by hand and removed from the churn.

An escape-orifice for decanting buttermilk from the chamber A is formed, as at *e* in Fig. 1. This hole is plugged up when not in use for the purpose named or for removal of water used in cleansing the churn.

In operation the cream will be forcibly dashed against the numerous shoulders of the agitator-frame G, and also be forced through the perforations *k* in the dashers by the rocking movement of the chamber A. This will quickly break up the globules by a rupture of their sacs and release the butter from the other components of the cream. It may then be collected in the usual way.

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

1. In a rocking churn, a cream-agitator frame G, comprised of two rectangular frames secured together at right angles to each other, said frames being provided with parallel perforated dasher-boards 5 6 11 12, the top and bottom boards of one frame-section being notched to engage the guide-strips *m*, that are secured to the churn-body, substantially as set forth.

2. In a rocking churn, the combination, with a churn-body which is longitudinally elliptical and is provided with an aperture and a lid therefor, a frame which supports the churn-body that is made to rock endwise, and a handle-bar to rock the churn-body, of a cream-agitator frame adapted to slide within the churn-body and comprised of two rectangular frame-sections joined together at right angles to each other, each frame-section having perforated dasher-boards arranged in parallel vertical planes, substantially as set forth.

3. In a rocking churn, the combination, with an elliptical churn-body pivotally supported on a trestle-frame, and a trestle-frame, of a latch-bar pivoted at one end to a cross-bar of the trestle-frame and notched on one edge near its opposite end, a ledge on the churn-body engaged by the latch-bar, and a stop on the trestle-frame that will retain the latch-bar horizontally extended, substantially as set forth.

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