

(No Model.)

2 Sheets—Sheet 1.

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CHURN.

No. 528,000.

Patented Oct. 23, 1894.

Fig. 1.

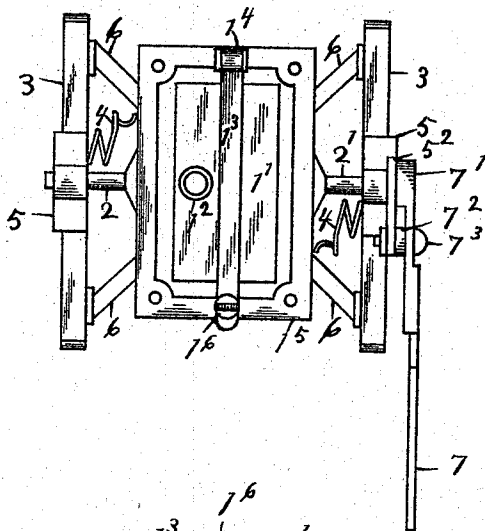
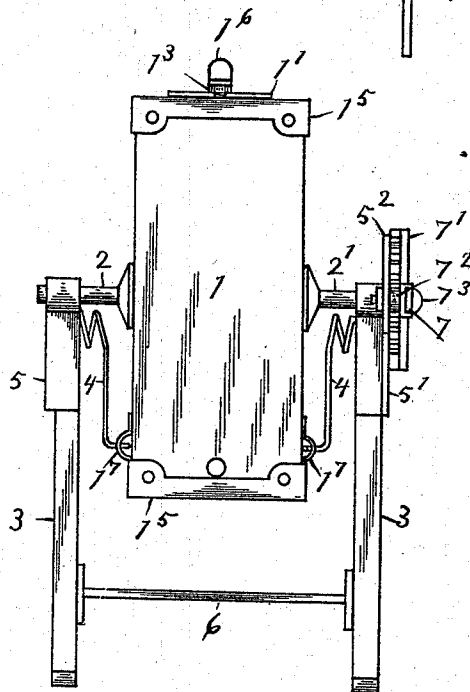


Fig. 2.



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CHURN.

SPECIFICATION forming part of Letters Patent No. 528,000, dated October 23, 1894.

Application filed July 21, 1894. Serial No. 518,172. (No model.)

To all whom it may concern:

Be it known that we, CASWELL LEE LEONARD and ALBERT BEVER, citizens of the United States, residing at Veedersburg, in the county of Fountain and State of Indiana, have invented certain new and useful Improvements in Churns, of which the following is a specification.

Our invention refers particularly to an oscillating churn having for its object the production of an oscillatory churn whereby the movement of the churn is impeded, stopped and reverted at each complete oscillation by means of suitably bent springs, a pair of pivots, and an actuating lever mechanism, and consists in the peculiar construction, combination, and arrangement of the several parts as will be fully pointed out in the following description and claim.

Referring to the accompanying drawings forming a part of this specification, Figure 1 is a top plan view of our churn. Fig. 2 is a front elevation of the same. Fig. 3 is a side elevation. Fig. 4 is a side plan view of the leg casting 5'. Fig. 5 is a plan view showing the inner side of the lever handle 7 and lever casting 7'. Fig. 6 is a detail view of the little lever casting pivot 7².

Like numbers of reference indicate corresponding parts throughout the several views.

In the embodiment of our invention we use a rectangular, oscillating churn-box 1, a pair of pivots 2 and 2' rigidly mounted at the sides of the churn-box, a pair of V-shaped legs 3 supporting the churn-box and pivots, a pair of bent springs 4 securely mounted upon the inner sides of the V-shaped legs, a pair of castings 5 and 5' securely mounted upon the upper ends of the legs, an X-shaped casting 6 bracing the legs, and an oscillating lever mechanism 7 for actuating the oscillatory churn-box 1.

Centrally upon the sides of the rectangular churn-box 1 are rigidly mounted its pivots 2 and 2' standing out laterally therefrom and working in suitable reciprocal apertures in the castings 5 and 5' of the V-shaped legs 3, the supporting frame-work of the churn, the V-shaped legs 3 being braced near the bottom by an X-shaped casting 6.

1' refers to a rectangular lid for being re-

moved so as to pour milk or cream into or out of the churn and is provided with a small circular glass 1² for viewing the interior of the churn-box while churning. The lid 1' is securely held in position on the churn-box by means of a hinged bar 1³ hinged at 1⁴ and adapted to be securely fastened at the free end to the churn-box casting 1⁵ by means of a removable thumb-screw 1⁶.

1⁵ refers to a pair of castings at the ends of the churn-box for rigidly holding it together.

The bent springs 4 being suitably secured to the V-shaped legs are coiled about one and a half times around and bent parallel with the leg to which each is secured and then curved inwardly at the lower end toward the churn-box so as to hook in the staples 1⁷ at the sides of the churn-box to impede, stop, and revert the oscillations of the churn.

6 indicates an X-shaped casting rigidly bracing the lower ends of the V-shaped legs.

The V-shaped legs are suitably and securely mounted at the upper ends in a pair of castings 5 and 5' having suitable reciprocal apertures for the reception of the pivots 2 and 2'. The casting 5' is formed with a segment shaped frame 5² supporting the adjustable, oscillating lever mechanism 7 for operating the churn. The oscillating lever mechanism comprises a lever handle 7, a segment shaped lever casting 7', a small casting pivot 7² for the segment shaped lever casting, and a through-bolt 7³ for securing the casting pivot 7² securely upon the supporting frame 5².

7⁴ refers to a small cog-wheel rigidly fixed upon the outer end of the pivot 2' so as to mesh with the section of cogs 7⁵ on the segment shaped lever casting 7'.

The segment shaped lever casting 7' is provided on the inner side with a section of cogs 7⁵ adapted to mesh with the small cog-wheel 7⁴ rigidly fixed upon the outer end of the pivot 2' and impart to said cog-wheel, pivot, and churn-box one complete revolution at a single stroke of the lever mechanism. The lever handle 7 is securely screwed to the segment shaped lever casting 7' and the casting pivot 7² upon which said casting oscillates, is adapted to be set at any point in its reciprocal circular opening 5³ in the seg-

ment shaped supporting frame 5² and securely bolted there by the through-bolt 7³. This peculiar construction of the adjustable oscillating lever mechanism and its supporting frame enables the operator to set the operating lever mechanism in a horizontal or a vertical position or at any point between said positions. It will be observed that the bent springs impede and stop the churn-box at about a complete revolution and revert its movement in the opposite direction successively and consecutively as it about completes a revolution in either direction, imparting to the churn-box an automatic rocking or oscillatory movement, effectually working its contents in every direction.

Having thus fully described our invention and shown the operation thereof, what we claim as new, and desire to secure by Letters Patent, is—

A churn having a pair of V-shaped legs securely braced near the bottom by an X-shaped casting and mounted at their upper ends in a pair of castings provided with suitable reciprocal apertures for the reception of the churn-box pivots, a rectangular churn box having a removable lid held securely in position thereon by means of a hinged bar having a thumb-screw at its free outer end adapted to be screwed into a reciprocal opening of the casting at the upper end of the churn box, a pair of pivots mounted centrally at the sides of the churn-box standing out

laterally therefrom and adapted to work in reciprocal openings of the V-shaped leg castings, having a small cog-wheel rigidly fixed upon the outer end of a pivot adjacent the adjustable, oscillatable lever mechanism so as to be actuated by said mechanism, a segment shaped supporting frame having a circular reciprocal opening for the reception of the movable casting pivot of the lever mechanism, and an adjustable, oscillatable lever mechanism comprising a lever handle, a segment shaped lever casting rigidly fixed to the lever handle and mounted upon a movable casting pivot adapted to be secured rigidly to the segment shaped supporting frame by a through-bolt and a section of cogs on the inner side of the segment-shaped casting adapted to mesh with the small cog-wheel of the pivot so as to impart to it a complete revolution at a single stroke of the lever mechanism, and a pair of bent springs mounted rigidly upon the inner side of the V-shaped legs adapted to impede and to stop the rocking oscillatory churn-box and to revert its movement in an opposite direction successively and consecutively at about a complete revolution in either direction, substantially as specified.

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