

(No Model.)

J. SAMPSON.
CHURN.

No. 459,653.

Patented Sept. 15, 1891.

Fig. 1.

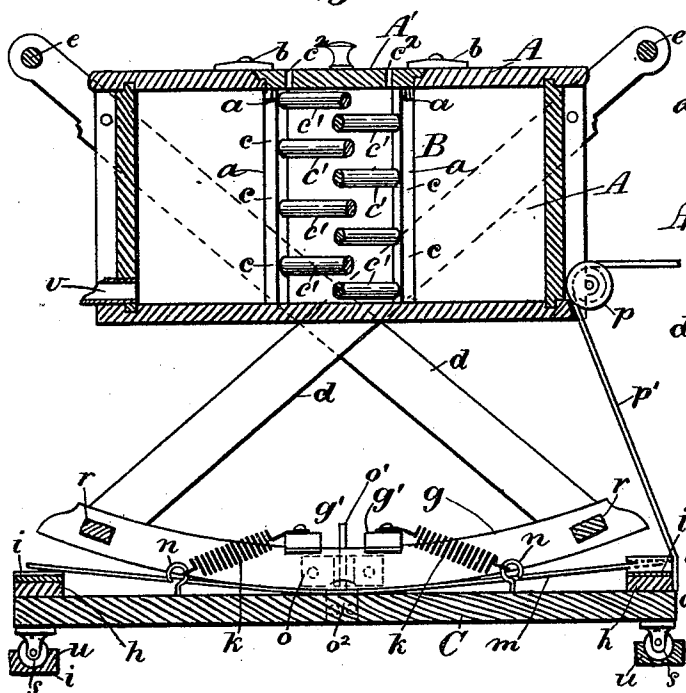


Fig. 3.

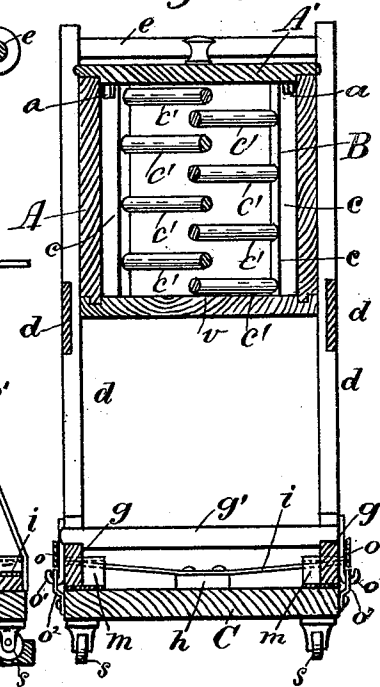
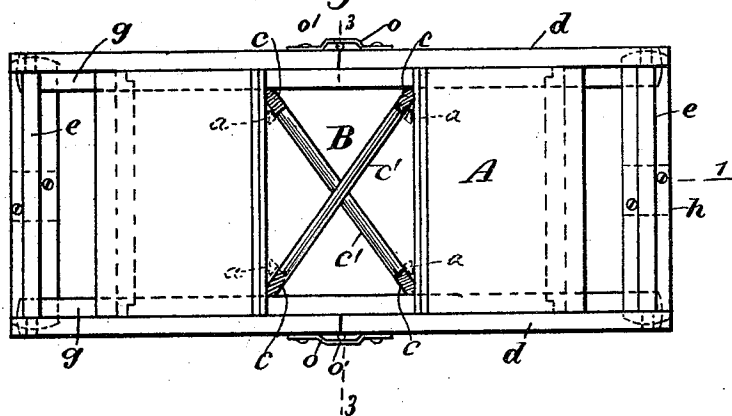


Fig. 2.



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JOHN SAMPSON, OF WAITSBURG, WASHINGTON.

CHURN.

SPECIFICATION forming part of Letters Patent No. 459,653, dated September 15, 1891.

Application filed March 19, 1891. Serial No. 385,618. (No model.)

To all whom it may concern:

Be it known that I, JOHN SAMPSON, of Waitsburg, in the county of Walla Walla and State of Washington, have invented a new and useful Churn, of which the following is a full, clear, and exact description.

This invention relates to improvements in churns of the rocking type, and has for its object to provide a simple and effective device of the character indicated which will be easy to operate by hand or foot power.

To this end my invention consists in the construction and combination of parts, as is hereinafter described and claimed.

Reference is to be made to the accompanying drawings, forming a portion of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal section on the line 1 1 in Fig. 2. Fig. 2 is a plan view with the lid removed, and Fig. 3 is a transverse section on the line 3 3 in Fig. 2.

The cream-chamber A of the churn is in rectangular box form, having a top that is closed except at its longitudinal center, where a transverse opening is produced of proper dimensions, said opening extending across the chamber from one side to the other.

Within the cream-chamber A the removable dasher B is placed directly below the opening mentioned, and is there supported and retained by depending lugs a, that are secured on the lower side of the lid A', which lid is adapted to fit closely within the opening formed in the top wall of the cream-chamber, and is secured in place removably by the turn-buttons b. There are two small perforations c² formed in the lid A' to admit air and allow it to escape from the cream-chamber.

The dasher B is constructed of four strips c, which are held together in pairs by the rods c', there being two skeleton frames thus produced that are loosely connected by inserting one series of rods between the rods of the other frame, so that one half of the dasher crosses the other half diagonally. The dasher is held in place by means of lugs a, depending from the top of the chamber A. When withdrawn from the churn, the dasher will fold together, so as to occupy less space and also allow it to be more conveniently handled

and cleaned than would be practicable if its parts were rigidly connected.

Upon each side of the cream-chamber A there is a pair of crossed frame-bars d secured, which project at each top corner of the chamber, and are there connected by the handle-bars e, that afford one means for manipulating the churn. The lower ends of the frame-bars d, which extend a proper distance below the cream-chamber, are attached as legs to the upper edges of two similar rockers g, the supports of which will be described.

A rectangular base-board C, made of a flat piece of wood, preferably, is provided, which has a proper width and length proportioned to the capacity and dimensions of the churn, and on it a bolster-block h is secured near the center of width at each end of the base-board. On each of the bolster-blocks h a spring-bar i is fastened at its center, the ends of which bars extend toward the sides of the frame C and afford elastic support to the ends of the longitudinally-extended plate-springs m, that are attached near their center of length to the lower edges of the rockers g. The rockers g are secured together near their centers of length by the spacing-bars g', which are seated upon said rockers and have their ends secured thereto. Near the transverse centers of the spacing-bars g' one end of each of a pair of spiral springs k is secured to one of the bars, their remaining ends being oppositely extended and secured in taut condition to the screw-eyes n or a substitute therefor, which are affixed to the base-board near the transverse center, so as to cause the force of the springs to draw in opposite directions when the churn is rocked. Upon the outer sides of the rockers g, near their longitudinal centers, the keeper-plates o are affixed, which are designed to receive the guide-rods o', said rods having a jointed connection with the ears o², that are attached to the edges of the base-board C, the rods by their loose connection with the keeper-plates serving to prevent a lateral displacement of the rockers and allow a free movement of the same longitudinally. There is a grooved pulley p supported to revolve on the cream-chamber A at one end, which pulley is engaged by a cord p', that has one end attached below to the base-

board C and by its manipulation affords means to rock the churn, the cross-bars τ , (see Fig. 1,) when engaged by the foot of the operator, enabling a similar movement to be imparted to the cream-chamber without using the hands. Preferably the churn is supported upon casters s , which are secured on the lower side of the base-board C at each corner to provide for the easy movement of the same from one locality to another, and to retain it stationary the casters are seated in cavities formed at proper points in the scotching-strips u , which when in position will prevent the movement of the churn from a desired position. The base-board C can be made in the form of a frame, if preferred, and answer the same purpose as a solid board, and gum contractile springs may also be used in place of the wire springs shown.

In operation the provision of the removable dasher B, constructed as represented, affords a superior means for breaking the butter globules when the cream is thrown from end to end of the chamber by its tilting movement, which latter, being facilitated by the mounting of the rockers g upon the springs, is rendered easy to effect, the springs k co-acting with the plate-springs and spring-bars to secure such a result.

As the dasher is adapted to be lifted out of the cream-chamber upon the removal of the lid A', it is easy to clean, and when removed

the entire interior of the cream-chamber is devoid of projections that are objectionable features in a churn. After butter has been formed it may be consolidated into a lump readily within the chamber A and the whey drawn off through the aperture v , which has been plugged up while the churning operation is in progress.

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

1. The combination, with the churn-body adapted for oscillation, as specified, of the collapsible folding dasher composed of two like parts or frames, each of which is formed of two vertical and several horizontal connecting-rods c' , the rods of one part loosely interlocking with those of the other, as shown and described.

2. The combination, with the rocking churn-body and its base C, of the keepers o , affixed to the rockers, the perforated ears o^2 , secured to said base, and the hooked guide-rods o' , pivoted to the ears and working vertically free in the keepers, as shown and described.

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