

(No Model.)

C. A. RUSSELL.

CHURN.

No. 306,700.

Patented Oct. 14, 1884.

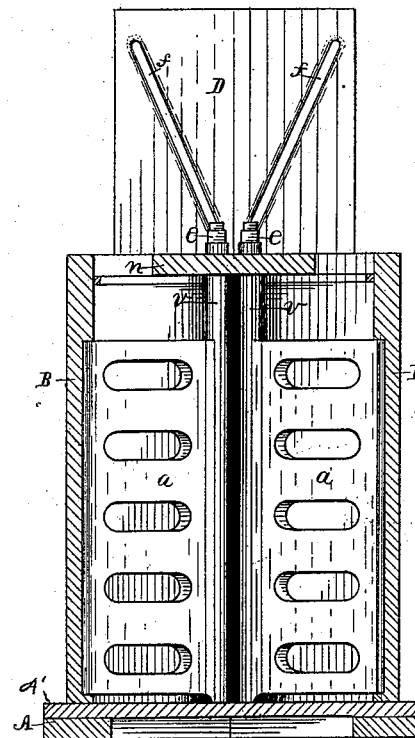
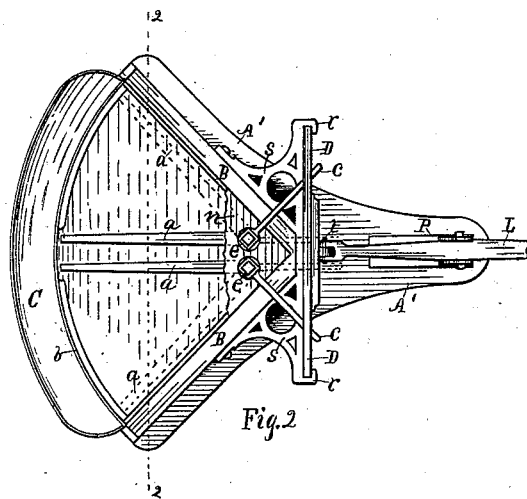
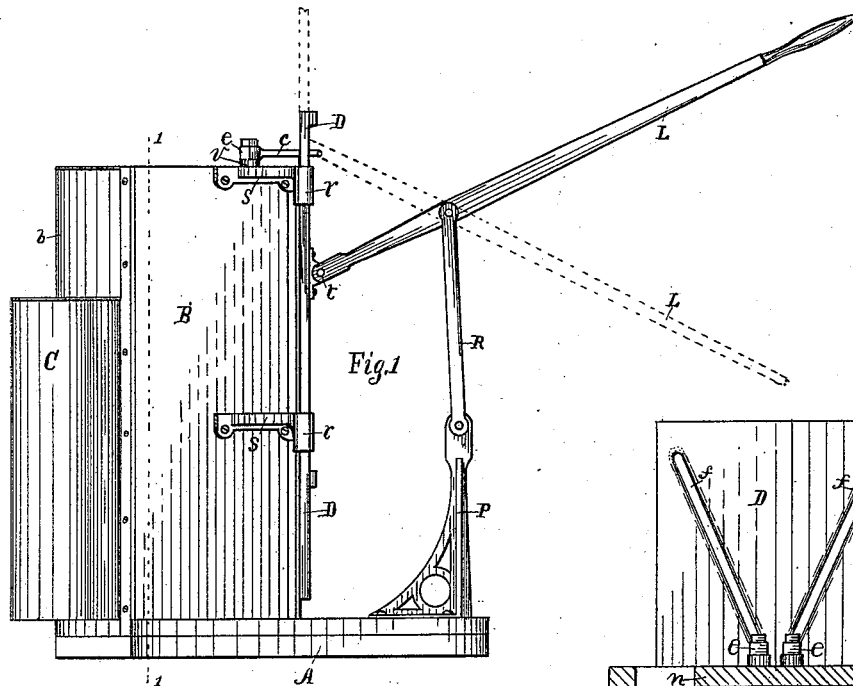


Fig.3

Attest,
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UNITED STATES PATENT OFFICE.

CHARLES A. RUSSELL, OF OTSEGO, MICHIGAN.

CHURN.

SPECIFICATION forming part of Letters Patent No. 306,700, dated October 14, 1884.

Application filed November 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. RUSSELL, a citizen of the United States, residing at Otsego, county of Allegan, State of Michigan, have invented a new and useful Churn, of which the following is a specification.

My invention has for its object a certain new construction and combination of parts to facilitate the operation.

In the drawings forming a part of this specification, Figure 1 is a side elevation; Fig. 2, a top view with portions broken away; and Fig. 3 is a sectional view on lines 1 1 in Fig. 1 and line 2 2 in Fig. 2, looking from a point at the left of said figures, with portions being left full, and a change in the position of certain parts, as indicated by dotted portions in said latter-named figures.

The cream-receptacle of the churn is made sectoral in form, with a stationary bottom inclosure and a detachable top inclosure, *n*.

The cream-agitators *a a* are provided with axle-supports *v v*, which have bearings in the top and bottom at the rear angle of the receptacle B. When said agitators are operated, they alternately swing to the side walls of the receptacle B, and close together midway between said walls, very much in the manner of opening and closing the covers of a book. The upper ends of the axles *v v* extend up through the cover *n*, and are loosely located in the holes through said cover in a manner that the latter may be readily detached and attached. Said upper ends of the axles *v v* are adapted to detachably receive the eye ends *e e* of the operating-levers *c c*. These levers are set at opposite but like angles to the agitators *a a*, and in their vibratory movements during the operation open and close in like manner.

D is a vertically-playing plate, having suitable bearings, *s r*, supporting it at the proper position in relation to the receptacle B and agitators *a a*. This plate D is provided with obliquely-angled slots *f f*, converging at the lower end. In these slots *f f* the levers *c c* loosely play. When the plate is moved upward, Fig. 3, the levers *c c* are closed and the agitators are opened, and vice versa when the plate is moved downward. This plate D may be operated by any suitable means. The device here shown consists in a lever, L, ful-

crumed to the jointed standard R P, and pivotally connected with the plate at *t*. In lieu of this construction, the lever L may be fulcrumed to a rigid support, and terminate in a rigidly-connected circular plate provided with slots *f f*. (Not here shown.)

I do not wish to limit myself to any given number of cream-agitators *a a*, operating-levers *c c*, and means D *f*, for operating said levers *c c*, for it is obvious that the number may be diminished or increased in a substantially like construction.

C is a compartment for holding ice or liquid of any desired temperature, connected outside of the circular wall *b* of the cream-receptacle. These parts may be provided with holes or faucets in the bottom for drawing off the liquid and cream or milk.

A represents the floor or the top of a stand upon which the churn stands.

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

1. The combination, with a sectoral-shaped cream-receptacle, of the cream-agitators, each provided with a lever at the upper end located at an oblique angle to the angle of said agitators, the operating-lever, and the plate provided with the oblique slots converging at the bottom, substantially as set forth.

2. The combination, with the cream receptacle and agitators, the detachable cover forming upper bearings for the agitators, and the detachable operating-levers, of the operating-plate provided with the cam-slots, and the lever for operating said plate, substantially as described.

3. The combination, with a cream-receptacle, of cream-agitators adapted to open and close like the leaves of a book, each provided with a lever at oblique angles thereto, the operating-plate provided with the converging slots, and an operating-lever, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in the presence of two witnesses.

CHARLES A. RUSSELL.

Witnesses:

FRANK C. GIBBS,
ARCH W. ROWLEY.