L. C. ROBERTS.
Reciprocating Churn.

No. 197,898. Patented Dec. 4, 1877

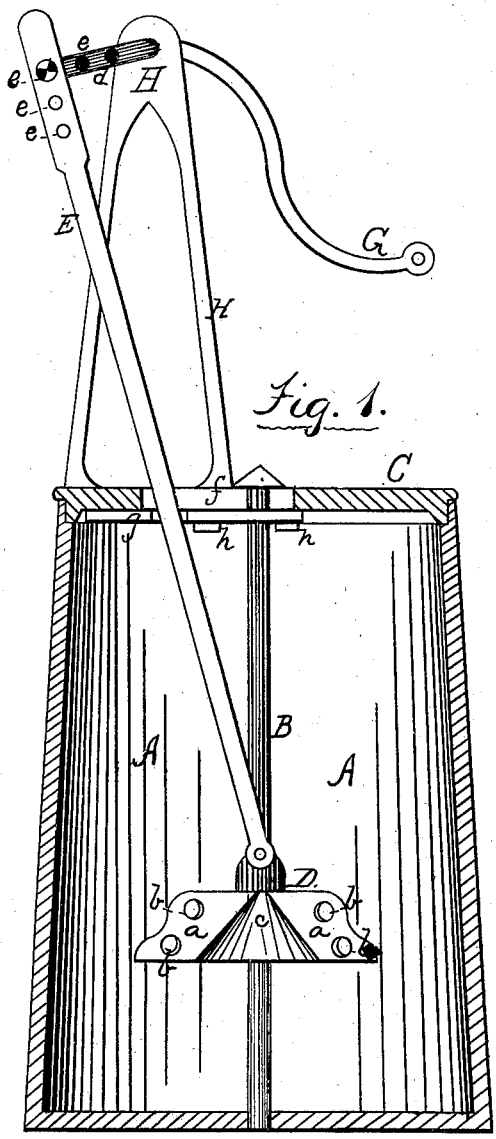


Fig. 1.

Fig. 2.

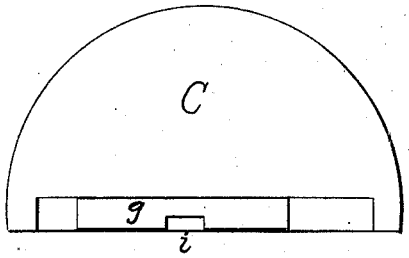
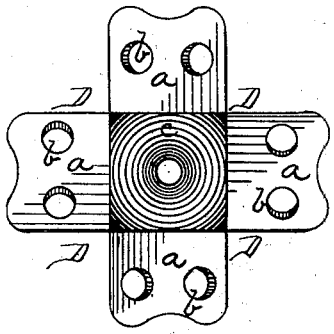


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

LEONARD C. ROBERTS, OF NUNDA, NEW YORK.

IMPROVEMENT IN RECIPROCATING CHURNS.

Specification forming part of Letters Patent No. **197,898**, dated December 4, 1877; application filed May 15, 1877.

To all whom it may concern:

Be it known that I, LEONARD COON ROBERTS, of Nunda, in the county of Livingston and State of New York, have made certain Improvements in Churns, of which the following is a specification:

This invention relates to certain improvements in churns; and consists of a novel construction and combination of parts, which will be fully hereinafter described.

In the drawings, Figure 1 is a side elevation in section. Fig. 2 shows the slide in the lid; Fig. 3, bottom-plan view of the dasher.

A represents the body of the churn, and B a central rod or post fastened to the lid C at the top, and setting in or on the bottom of the churn proper. On this post the dasher D works up and down.

The dash is made of four downwardly-projecting, slanting, and spreading arms, *a a a a*, having vent-openings *b b* in each, said arms being attached to, at an angle, the central part *c*, which surrounds and works on the stationary rod B. This is operated up and down by a vibrating rod, E, pivoted at its lower end to the central dash-piece *c*, and at its upper end pivoted to an arm, *d*, of the crank G. This crank and arm are arranged and operate in connection with an upright frame or post, H, attached to the top of the lid or cover C of the churn.

Both the vibrating rod E and crank-arm *d* have graduating-holes *e e* therein, to give a long or short stroke to the dasher, as may be required.

The vibrating rod E, protruding and working through the lid C, necessitates a long opening or slot, *f*, therein, and through which the cream, &c., would splash out. To prevent this I arrange a slide, *g*, (see Figs. 1 and 2,) moving in a slot on the under side of the lid, and also on brackets or supports *h h*, said slide having an opening, *i*, in the center just wide enough to inclose the vibrating rod B, so that it shuts off the slot-opening *f* in the cover, and, with the movement of the rod, it slides back and forth, offering no impediment to the working, but preventing the contents of the churn being splashed through at every movement of the dasher. This is an important feature.

The construction of the dasher is thought important, as the arrangement of the arms *a a a a* gives a peculiar action to and agitation of the cream, and its operation on the fixed post B gives great steadiness of movement.

I claim—

The combination, with the churn-body A, lid C, and central fixed post B, of the dasher D, constructed with the central conical part *c* and the radiating inclined spreading arms *a*, having perforations *b*, substantially as and for the purpose described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

LEONARD C. ROBERTS.

Witnesses:

J. R. DRAKE,

THOMAS H. PARSONS.