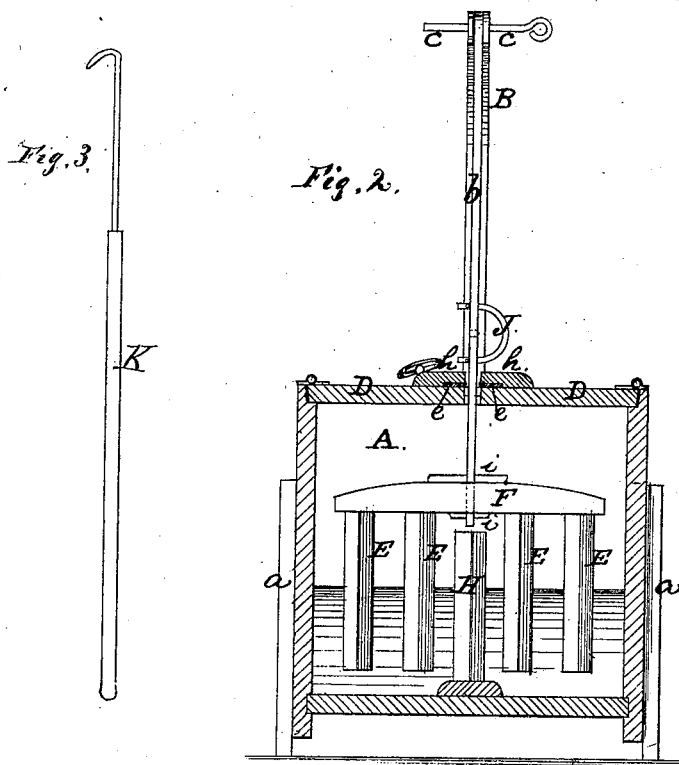
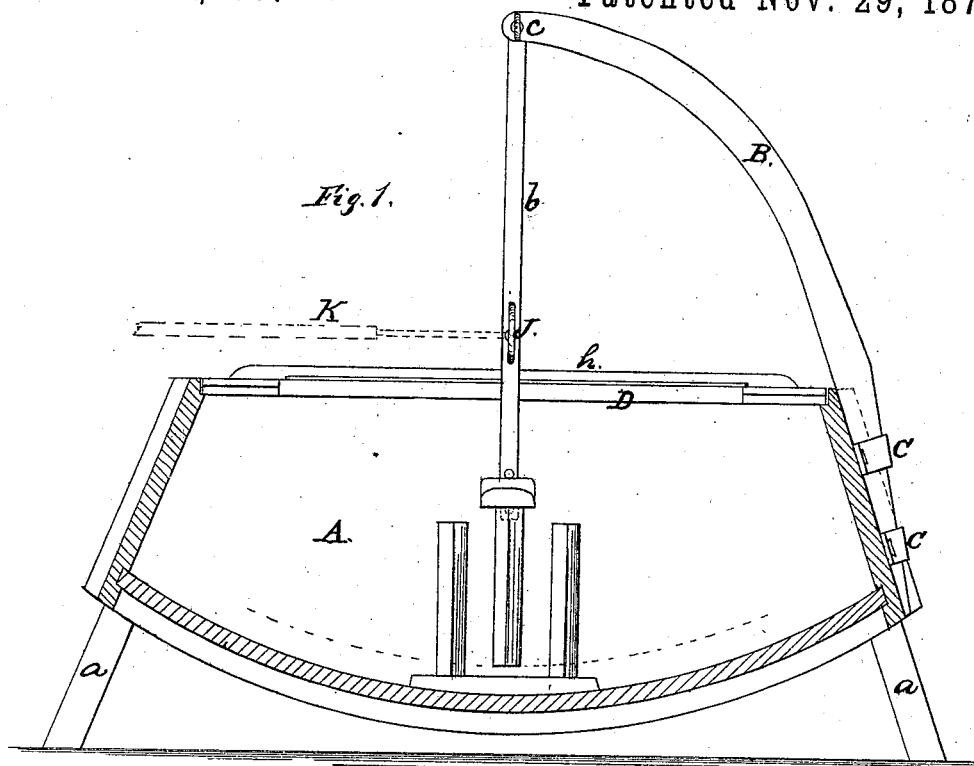


S. RISLER.
Vibrating Churn.

No. 109,759.

Patented Nov. 29, 1870.



Inventor.
Hacy Risler
By attorney,
W. B. Fowler.

Witnesses.
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United States Patent Office.

STACY RISLER, OF LOCKTOWN, NEW JERSEY.

Letters Patent No. 109,759, dated November 29, 1870.

IMPROVEMENT IN CHURNS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, STACY RISLER, of Locktown, in the county of Hunterdon and State of New Jersey, have invented a new and useful Improvement in Churns; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a longitudinal section.

Figure 2 is a transverse section.

Figure 3 is a view of lever for operating the dasher.

Like letters in the different figures of the drawing indicate like parts.

My invention is intended as an improvement upon that patented by me December 14, 1869, and consists in a certain arrangement of parts, as will be hereinafter fully explained, by which the churn is made more simple, less expensive in cost of construction, and more efficient in its operation.

A is the churn, consisting of an oblong-shaped box, made with a curved bottom and with inclined ends, to suit the oscillating movement of the dasher, and supported in a suitable manner on legs *a*.

B is a cast-iron standard, to which is attached the arm *b* of the dasher, and curved so as to allow the arm to hang centrally in the churn.

The arm *b* is attached to the end of the standard by the pin *c*, and can be easily removed at any time. By withdrawing the pin, the arm swinging freely from the latter.

C C are iron boxes attached to the end of the churn. In these boxes the standard B is slipped.

The upper box is made larger than the lower one, and the end of the standard B tapered so as to fit tightly in the boxes, and yet loose enough to be easily removable.

This arrangement of the standard enables me to dispense with the standards and connecting-brace in the churn of my former patent, and also the cleats on the ends thereof, forming the sockets for receiving and holding the standards, all of which tends to complicate and render the churn unnecessarily expensive in cost of construction.

The dasher-arm *b* is of metal, and thin or flat in shape, so as to require but a small opening between the edges of the lid, where they close, for the arm to play in.

These lids D D, instead of being removable, as in my patent referred to, are hinged to the sides of the churn by hinges *d*, and are provided with lips or projections on the edges for a short distance from the ends, so as to overlap one another, and thus render the lids milk or cream-tight as possible over the top of the churn.

I design, by hinging the lids, to prevent their rising up, and consequently the milk or cream from spattering out, which occasionally happens with the removable lids in the churn of my former patent while churning.

I also avoid another difficulty, which is this: the lids in that extend to top pieces projecting from the ends of the churn, which cause an inconvenience when cleaning the churn; but by dispensing with those pieces and extending the lids from end to end of the churn, as in this, every part of the seam is rendered conveniently accessible for cleaning.

Metallic plates *e e* are fastened to the top of the lids next to the edges thereof, where they close, to protect the edges from the friction of the dasher-arm.

Screwed down to the lids, over these plates, are strips *h h*, for increasing the thickness of the lids around the opening, so as to avoid the liability of the milk or cream spattering out through the same.

These strips are not on the lids of the churn of my former patent, and of course are considered an essential part of my improvement in this.

The dasher is composed of four diamond-shaped blades E, attached to a piece, F, which piece is connected with the arm *a* by the end thereof being inserted through an opening in the center of said piece corresponding with the shape of the arm, and by the insertion of pins *i i* through holes above and below said piece, the pin above being of a wedge-shape, so that it may be made to hold the dasher to the arm as tightly as may be desired.

H H are diamond-shaped blades, arranged at proper distances apart, and attached centrally to the bottom of the churn.

The blades E of the dasher are arranged to have the inner ones wide enough apart to permit of the dasher passing freely the blades H H. This arrangement of the blades facilitates the conversion of the milk or cream into butter, and also avoids the dashing up of the milk into the middle or upper part of the churn, and consequently its flying out through the opening or slot in which the arm of the dasher works, which was sometimes the case in the churn of my former patent, the dasher in that having only four blades, and none on the bottom of the churn.

These blades, of course, may be of any other shape.

J is a handle for operating the dasher when sitting down, the operator sitting alongside of the churn and taking hold of the handle.

This handle is made similar to that of a hand-saw, and may be of wood or any suitable material, and is fastened in holes in the arm by pins, and if desirable may be removed at any time.

This handle is unlike the one in the churn of my

former patent, it being a straight one; and the advantage of it over that is that it can be fastened and removed in a more convenient manner.

K is a lever for operating the dasher also, and is to be used when standing up, when the operator does not desire to sit down, the end having a hook by which it is attached to a hole in the arm, between the holes which receive the ends of the handle above described.

Having thus fully described my invention,

What I claim therein as new, and desire to secure by Letters Patent, is—

The arrangement of the standard B, boxes C C,

hinged lids D D provided with metallic plates *ee* and strips *h h*, diamond-shaped blades H H attached to bottom of churn, and dasher-arm *b* provided with similar-shaped blades E, and handles for operating it, all as shown and described.

As evidence that I claim the foregoing as my invention, I have hereunto set my hand and seal in the presence of two witnesses.

STACY RISLER. [L. S.]

Witnesses:

AUGUSTUS LARGE,
RICHARD QUICK.