

*J. A. Cozad,
Rotary Churn.*

No. 33061.

Patented July 27, 1869.

Fig. 1.

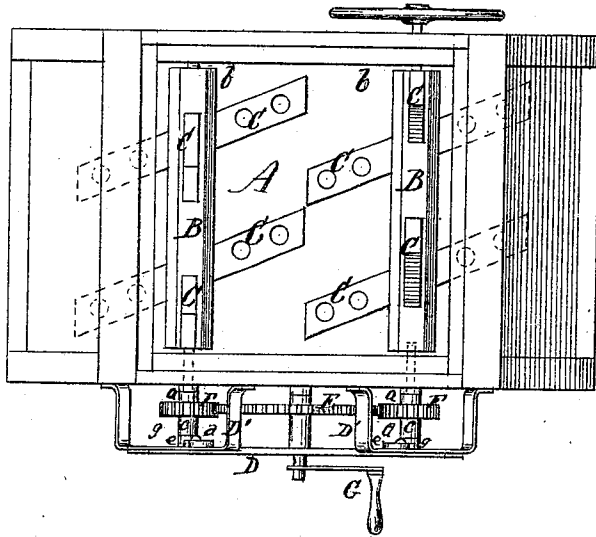


Fig. 2.

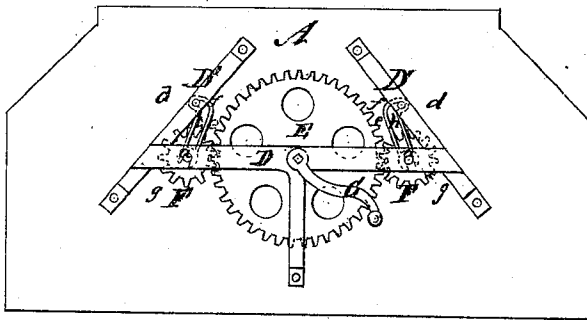


Fig. 3.

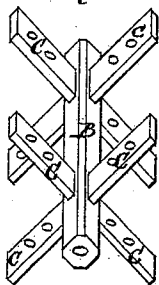
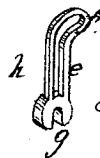


Fig. 4.



*Witnesses.
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United States Patent Office.

JOHN A. COZAD, OF MERCER, PENNSYLVANIA.

Letters Patent No. 93,061, dated July 27, 1869.

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, JOHN A. COZAD, of Mercer, in the county of Mercer, and State of Pennsylvania, have invented a new and useful Improvement in Churns; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to accompanying drawings, in which—

Figure 1 is a plan view, without the lid;

Figure 2, a side elevation; and

Figures 3 and 4, details.

Like letters designate like parts in all the figures.

The nature of my invention consists in the peculiar construction and arrangement of mechanism by means of which the dashers are held in their place, or by its operation rendering their removal an easy matter.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the drawing—

A represents the churn.

B B, the shafts, in which are blades C, thus forming the dashers.

These blades are placed at right angles to each other on each shaft, but are arranged obliquely to the sides of the churn, as seen in fig. 1, and any desired number may be used.

In these blades are holes, as in ordinary dashers.

To one side of the churn is secured a frame, D D', and between it and the churn, is placed the driving-mechanism, which consists of a large gear-wheel, E, and two pinions, F F.

Outside of the frame, on the shaft of the gear-wheel E, is a crank, G.

In the ends of the shafts B are recesses, the inner ends of the shafts a a of the pinions F F fitting into those in the ends of the shafts B next to them; and in the other side of the churn are pivots b b, which fit into the recesses in the other end of the shaft B.

On the shafts a a are shoulders c c, the portion of the shafts outside of these shoulders being smaller than the diameter of the said shoulders.

The outer ends of these shafts rest in the horizontal

portion D of the frame, leaving a space between the inside of the frame and the shoulders c c.

On the inside of the parts of the frame D' are small pins, d d, each pin having a head on its outer end.

On these pins are slotted bars e e, the upper ends f f of which are turned at or about right angles to the sides of the bars, and their lower ends g g are forked.

These bars are suspended on the pins d, which pass through the slots h, and the forked ends rest on the shafts a a, between the shoulders c c and the horizontal part D of the frame; the pin d being in the extreme upper portion of the slot h, and that portion being at or about right angles to the sides of the forked ends of the bars e e, the said bars are here held firmly on the shafts a a.

When it is desired to remove the dashers, move the bars e e horizontally on the pins d, until the vertical part of the slot is under the pins d, then raise the bars e e, which leave the space open between the shoulders c c and the frame D.

The shaft a and its pinions F can then be drawn out towards the frame D, thereby removing the inner end of the shaft a from the socket or recess in the end of the shaft of the dasher, thus releasing it so that it can be removed for cleansing or other purposes.

I am aware that both straight and curved slotted bars have been used to hold the dasher-shafts in place while in use, but they are not self-locking devices.

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

The angular self-locking slotted bars e e, in combination with the frame D D' and shafts a a, when constructed and operated substantially as shown and described.

JOHN A. COZAD.

Witnesses:

WM. STEUART,

WILLIAM JACK.