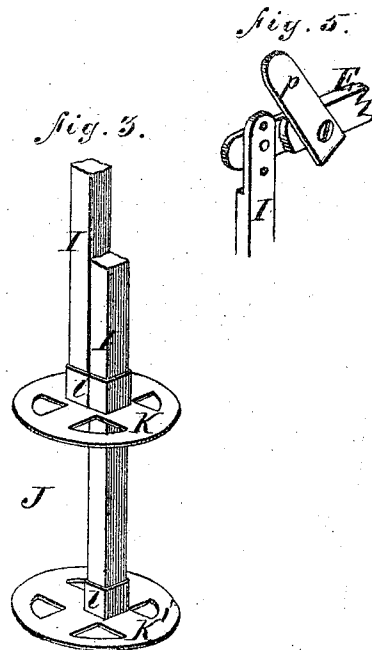
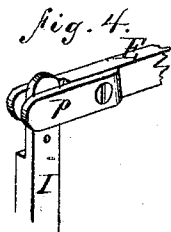
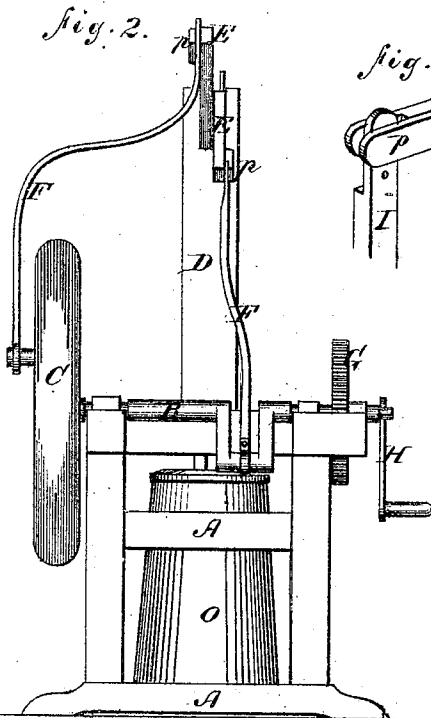
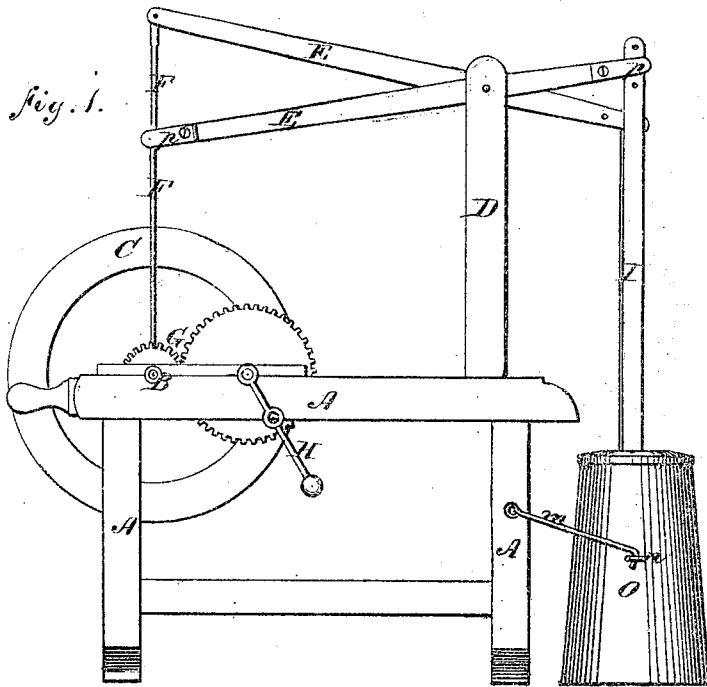


M. LOCKWOOD.
Churns.

No. 133,462.

Patented Nov. 26, 1872.



Witnesses.
C. B. ...
D. H. Ellsworth.

Inventor.
Martin Lockwood.
By Hill & Ellsworth,
His Atty.

UNITED STATES PATENT OFFICE.

MARTIN LOCKWOOD, OF CUBA, NEW YORK.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 133,462, dated November 26, 1872.

To all whom it may concern:

Be it known that I, MARTIN LOCKWOOD, of Cuba, in the county of Allegany and State of New York, have made certain new and useful Improvements in Churns; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a side elevation of a churn, showing the application of my improvements; Fig. 2 is an end elevation of the same; Fig. 3 is a perspective view of the double dasher; and Figs. 4 and 5 are perspective views, showing the means for attaching the churn-dashers to their operating-levers.

Similar letters of reference in the accompanying drawing denote the same parts.

My invention relates to improvements in churns, hereinafter more fully set forth.

In the accompanying drawing, A is a wooden frame of rectangular or other suitable form, upon which is mounted transversely a crank-shaft, B, provided with a fly-wheel, C. D is an upright upon one end of the frame, to the upper end of which two levers, E, are mounted upon the same pivot. The longer arms of these levers are connected by rods F, one to the crank-shaft B, and the other to a wrist-pin upon the outer face of the driving-wheel. The crank-shaft is rotated to impart a vibratory motion to the levers by means of the gearing G and adjustable crank H, as shown in Fig. 1. I are two dasher-handles pivoted to the short arms of the levers, and J is the compound dasher, consisting of two flat rings, K K', each containing a series of flat radial arms or spokes. The rings are secured to the ends of the dasher-handles, one immediately over the other, the handle of the lower ring passing eccentrically through the upper ring, while the latter is secured eccentrically to its handle, so that a line drawn vertically through the center of the rings would pass between the handles.

By this arrangement the rings are caused to move in the same vertical plane, and therefore enter the mouth of the churn without enlarging the latter—that is to say, if the mouth of the churn is of the requisite diameter to receive one, it will also receive both together without enlargement. *l* are sockets formed upon the rings to receive the handles, the upper socket acting also as a guide for the handle of the lower ring. When the churn is in operation the dashers are moved to and from each other with great rapidity, and, owing to their peculiar construction, quickly break up the cream and release the butter. *m* are hooks extending from the end of the frame to enter staples *n* secured to opposite sides of the churn O for the purpose of holding the latter firmly in place to prevent the dasher-handles from binding or being cramped in the cover, and to admit of the churn being detached from the frame when this becomes necessary. The dasher-handles and the connecting-rods F are attached to the levers E by means of pivots, whose ends are covered by buttons, *p*, upon the levers. By turning the buttons the handles and connecting-rods can be removed entirely from the levers or adjusted thereon to regulate the stroke of the dasher.

Having thus fully described my invention, what I claim is—

1. The upper dasher K provided with a socket for its handle and a guide for the handle of the lower dasher, in combination with the lower dasher K' having a socket for its handle, when said sockets are eccentrically situated for the reception of the handles, as set forth.

2. The levers E E provided at each end with the fastening-buttons *p p* for the attachment of the rods F and dasher-handles I, as and for the purpose set forth.

MARTIN LOCKWOOD.

Witnesses:

JAMES WALRATH,
JASPER PALMER.