G. W. EICHHOLTZ.

Churn-Dasher.

Patented Sept. 7, 1875.

No. 167,512.

Fig 1

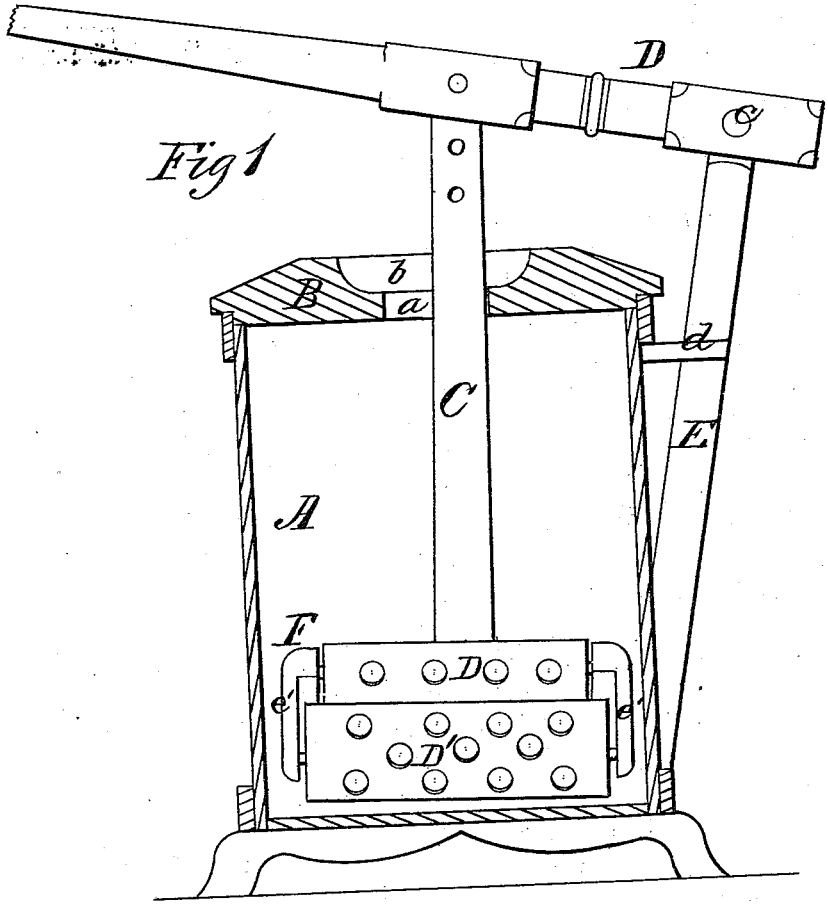
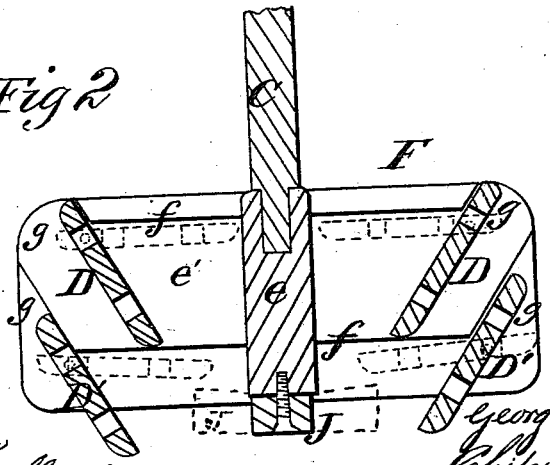


Fig 2



WITNESSES

Eug. H. Johnson

Francis J. Clasi

INVENTOR

George W. Eichholtz,

Chipman Howson & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE W. EICHHOLTZ, OF NORTH MANCHESTER, INDIANA.

IMPROVEMENT IN CHURN-DASHERS.

Specification forming part of Letters Patent No. **167,512**, dated September 7, 1875; application filed May 22, 1875.

To all whom it may concern:

Be it known that I, GEORGE W. EICHHOLTZ, of North Manchester, in the county of Wabash and State of Indiana, have invented a new and valuable Improvement in Churn-Dashes; 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 annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical central section of a churn, showing my dasher, and Fig. 2 is a vertical central sectional view of my dasher.

This invention has relation to improvements in churn-dashers, wherein a number of perforated blades are secured to a frame at the end of a dash-rod; and the novelty consists in the construction of the dasher, as will be hereinafter more fully set forth and claimed.

In the annexed drawings, A designates a preferably rectangular churn-tub, having a detachable lid, B, through which is cut a slot, *a*, terminating in a cup-shaped circular enlargement, *b*, through which slot is passed a rod, C, operated by means of a vertically-vibrating lever, D, fulcrumed at *c* to an inclined standard, E, rigidly secured as to its lower end to the tub, and stayed, as well against lateral as outward displacement, by a bracket, *d*. Rod C is mortised into the cross-bar *e* of an H-shaped frame, F, the end bars *e'* of which are provided with ledges *f*, the one above the other, which are cut away at each end, forming inclined recesses *g*, as shown in figure. D D' represent, preferably, perforated wooden dashers or beaters, which are journaled in pairs, and one above the other, in end bars *e'*, at each side of cross-bar *e*. These beaters are so journaled in frame F that they will automatically gravitate into an inclined position, their angle of inclination in relation to bar *e* being about forty-five degrees, and they are prevented from further gravitating by the abutting of their upper edges against the correspondingly beveled or inclined ends of ledges *f*. They also vibrate upward into a horizontal position against the under side of the said ledges, striking against which, they will be prevented from further upward movement.

When the churn is in use, and butter is in process of being made, each downward movement of the dasher will cause beaters D D' to vibrate upward, owing to the resistance opposed to its descent by the cream in the tub, into a horizontal position, and will cause the currents of cream to pass rapidly through the holes of the lower wings or blades D', striking violently against the upper beaters D, and then rush through the perforations therein, thus breaking up the butter-cells rapidly and effectually through the hammering action thus produced. In raising the dash, the breakers D D' are thrown into the inclined position shown in Fig. 2, allowing the dasher to ascend with but little labor, and yet materially aiding the butter-making process by throwing the cream violently against the cross-bar *e*, rebounding from which it will pass successively through the upper and lower beaters. The frame-work of the dasher, at all points where it is in contact with the churn-tub, is beveled, thus doing away with all suction and allowing the dasher to work freely and easily.

J represents a turn-button pivoted to the under side of cross-bar *e* in such a manner that when it is turned crosswise to the said bar it will overlap the lower wings or breakers D', and will hold them rigidly against vibration. By this means the flat surface of these wings will be presented to the cream, both during the ascent and descent of the dasher, the upper wings opposing their flat surfaces only during the descent. I sometimes use this button to limit the upward vibration of the lower wings, by allowing them to gravitate to their full extent and then turning the said button crosswise to bar *e*. In this position the lower wings will abut against the beveled ends of the said button, and they will have a minor degree of vibration, with relation to the dasher, well suited for effectually breaking up the butter-cells. When the lower dashers are allowed to have their full swing, button J acts as a bumper, and prevents the more fragile portions of the dasher from striking against the bottom of the churn-tub and being broken.

I am aware that churn-beaters, adapted to assume a horizontal position during the descent of the dasher, and an inclined position during its ascent, are not new, and I therefore lay no claim to such invention.

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

The churn-dasher herein described, consisting of the H-shaped frame F, having angular ledges *f f*, and provided with perforated beaters D D′ eccentrically pivoted in said frame, and turn-button J, whereby the lower set of beaters may be retained in a horizontal position in gathering the butter, while the upper set is inclined, causing the general current of cream to flow toward the center in removing the dasher from the churn in gathering the butter, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE W. EICHHOLTZ.

Witnesses:
JOHN F. EICHHOLTZ,
JOHN J. VALDENAIRE.