J. A. CUBITT.

RECIPROCATING-CHURN.

No. 192,900. Patented July 10, 1877.

Fig. 1.

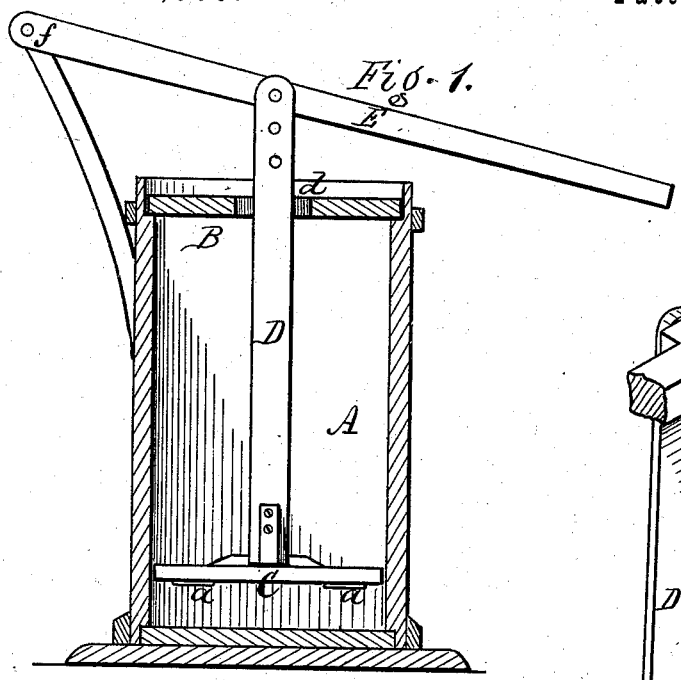


Fig. 2.

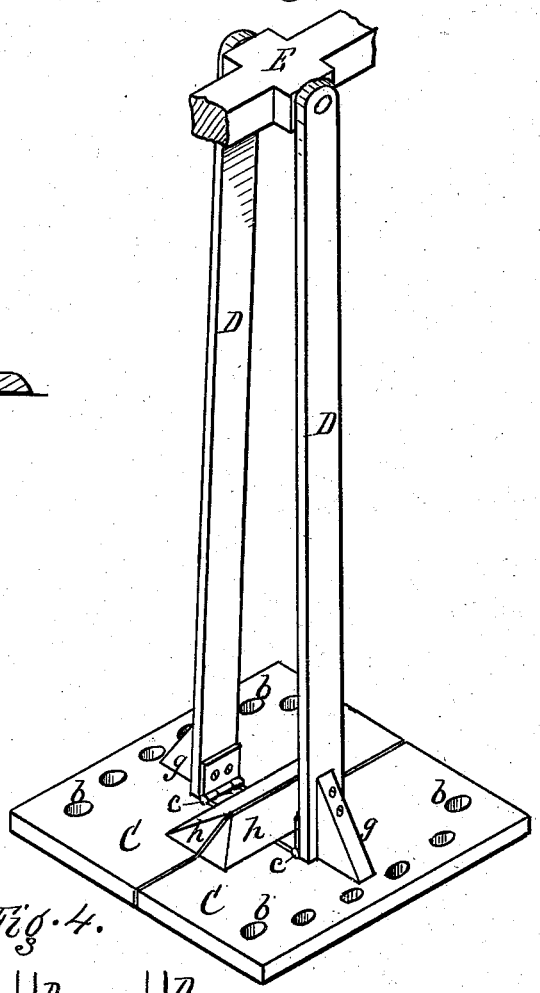


Fig. 3.

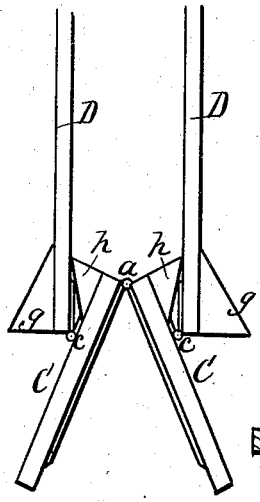
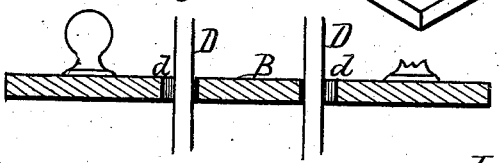


Fig. 4.



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IMPROVEMENT IN RECIPROCATING CHURNS.

Specification forming part of Letters Patent No. **192,900**, dated July 10, 1877; application filed June 20, 1877.

To all whom it may concern:

Be it known that I, JOHN A. CUBITT, of Brockport, in the county of Monroe and State of New York, have invented a certain 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 drawings, in which—

Figure 1 is a central vertical section of a churn, showing my improvement. Fig. 2 is a perspective view of the dasher in the extended form. Fig. 3 is a side elevation of the same in the closed or collapsed form. Fig. 4 is a section of the cover.

My improvement relates to dasher-churns, and is of that kind where two wings are hinged together, which expand when forced into the cream, but collapse or close when drawn out.

The invention consists in the combination, with wings hinged directly together, of two dasher-rods, extending up through the cover, and stops of peculiar construction, for limiting the opening and closing movement of the wings, as hereinafter more fully described.

A represents a churn-body, square or rectangular in cross-section, and B is its cover. The interior of the churn may, if desired, be lined with tin, but preferably not. C C are the two wings constituting the dasher. They are square in outline, fitting the interior of the churn-body, and are hinged directly together at *a a* by strap-hinges, so that when the dasher is forced down into the cream the wings will open or expand into the horizontal position shown in Fig. 2; but when drawn up through the cream they will collapse or close in inverted V form, as shown in Fig. 3. To accomplish this the hinges are on the under side. The wings are provided with holes *b b* near the margin, to allow the passage of the cream in the down movement.

D D are two dasher-rods, hinged at *c c*, respectively, to the tops of the opposite dasher-wings, and extending up through two slots, *d d*, in the cover B, where they are pivoted at the top to a lever, E, having its fulcrum at *f*. The attachment is such that the lower ends of the dasher-rods expand and contract with the corresponding movements of the wings.

g g are stops on the lower ends of the dasher-rods. They form feet standing out radially, and are so arranged that when the wings are expanded to the horizontal position, as shown in Fig. 2, their tops strike these stops and can go no farther. *h h* are angular V-shaped stops on the contiguous inner edges of the wings. They are so arranged that when the wings are closed or collapsed, as shown in Fig. 3, they strike the dasher-rods D D, and prevent both the rods and the dashers from closing any farther, the wings in that case retaining the V form shown.

One peculiarity in my invention is the hinging of the dasher-wings directly together, edge to edge, without intervening parts. I am aware that dashers having similar opening and closing movements are well known; but they are hinged to a central cross-bar or frame having bearing-pieces at the ends, which is objectionable, as they are difficult to clean, and leave a large opening or break in the center, which allows the passage of the cream, and also contract the size of the dasher-wings. By hinging the wings edge to edge I avoid this difficulty.

Another peculiarity consists in the use of the two dasher-rods D D, hinged respectively to the tops of the opposite wings. A single rod is generally employed, attached to the central cross-bar or frame before spoken of, in which case the movements of the wings, in opening and closing, depend entirely upon the resistance of the cream, and one wing frequently remains inoperative, while the other performs its functions in opening or closing. By the use of my two dasher-rods, as described, the wings are made automatic in action, as they are so connected that one cannot open or close without opening or closing the other.

Another peculiarity consists in the two sets of stops *g g h h*, arranged in opposition, one set limiting the opening and the other the closing movement, as described. The wings might be hinged on top and the edges beveled with a similar effect.

Having thus described my invention, I do not claim, broadly, a dasher consisting of opening and folding wings; but

I claim—

1. The combination, with the wings C C, hinged directly together, of the two dasher-rods D D, hinged to the top of the wings, arranged as described, to produce an automatic action of the dasher-wings in opening and closing, as herein described.

2. The combination of the wings C C, hinged directly together, the two dasher-rods D D, hinged to the tops of the wings, and the two opposing sets of stops *g g* and *h h*, for gaging the opening and closing movements of the wings, as herein shown and described.

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

JOHN A. CUBITT.

Witnesses:
JOHN ALLEN,
C. W. PEAKE.