(No Model.)

J. A. WERNER.

Churn.

No. 243,666. Patented June 28, 1881.

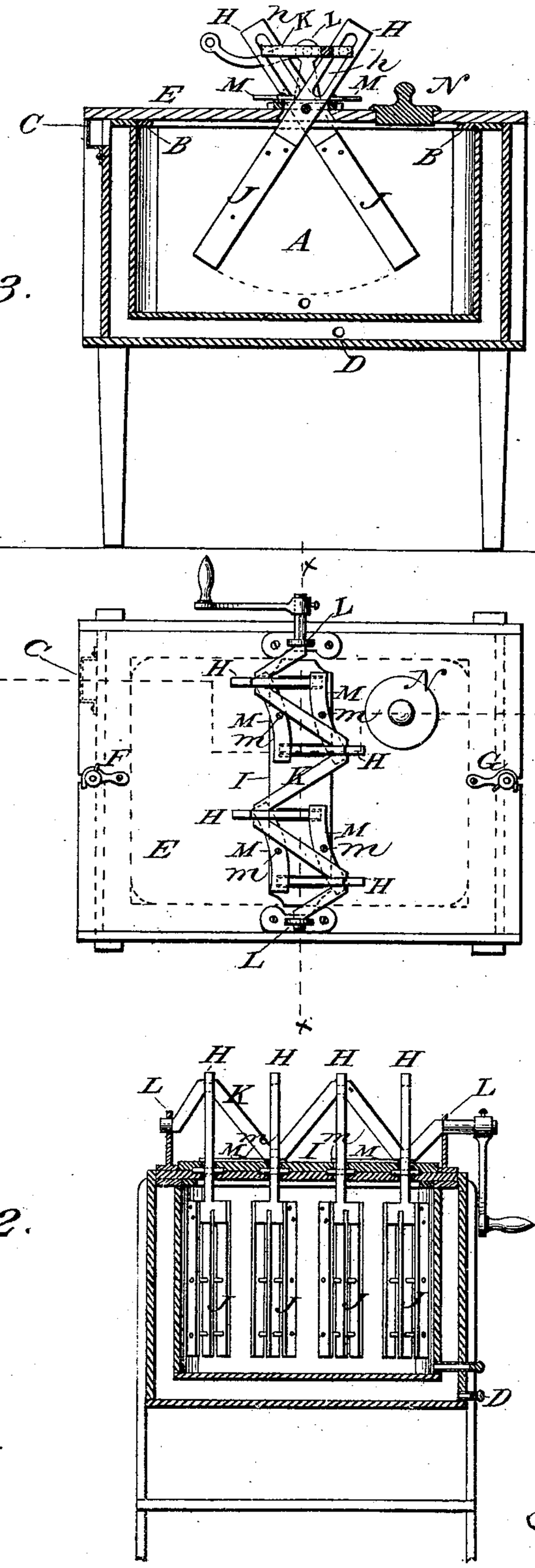

Fig. 3.

Fig. 1.

Fig. 2.

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UNITED STATES PATENT OFFICE.

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CHURN.

SPECIFICATION forming part of Letters Patent No. 243,666, dated June 28, 1881.

Application filed July 22, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. WERNER, a citizen of the United States, residing at Mount Pleasant, Henry county, Iowa, have invented a new and useful Improvement in Churns, of which the following is a specification.

Figure 1 is a top-plan view of this churn. Fig. 2 is a vertical central section on line *x x*, Fig. 1. Fig. 3 is a vertical central section of line *y y*, Fig. 1.

This invention relates to that general class of churns which have reciprocating dashers; and it consists more particularly in the use of peculiar means to prevent the outflow of the cream, and in the general construction and combination of the several parts, as will now be more fully set out and explained.

In the accompanying drawings, Fig. 1 represents a square or other shaped double wooden box.

The inner box, A, is composed of thin wood. Between this and the outer casing is a space, on the bottom and all sides, for a refrigerator. This space is completely covered at the top by means of a frame, B.

The lid E, covering the churn, is provided with a flange on its under side to fit the churn. The lid is held in position by the fastening device F G at either end.

To the lid E are fastened the wooden shanks H H, &c., having their upper portion slotted. These shanks are pivoted in a vibrating position, near their centers, with wooden pins, which are secured by means of the panel I, through which the shanks pass. The lower portion of these shanks is provided with dashers, consisting of a series of blades, knives, or fingers, J J, &c., which are set at an angle on the shanks, as shown in Fig. 2.

Passing through the slots *h* in the shanks H H is an eccentric metal shaft, K, to which the crank is attached, with the ends of said shaft journaled in the metal uprights L L, which are secured to the lid by screws.

The operation of the invention is as follows: Adjust the lid; secure it firmly in its place by means of the fastenings F G; turn the crank, which moves the eccentric shaft K. This sets in motion the shanks H H by means of said shaft K working in the slots of the shanks H H. This throws the blades, knives, or fingers in motion. This reciprocating motion of these blades, being set on an angle with the slotted shanks, breaks the globules of the cream with greater rapidity than the old method.

The space between box A and the outer casing is for the purpose of holding water or ice, keeping the butter or any articles of food cool and fresh in the summer.

The mouth C is the entrance to the refrigerator, where the water or ice is put in. D is the discharge-spout for said refrigerator.

The automatic covers M are slightly curved and pivoted on the panel I at their centers *m*, between each pair of dasher-shanks, and so as to be moved by said shanks, and are for keeping the cream from splashing out, being so constructed and operated as to instantly cover alternately the opening in the panel I, made by the receding shanks H H.

The plug N fills the usual air or other opening in the churn-lid.

Having thus fully described my invention, the parts I claim and desire to secure by Letters Patent are as follows:

1. In a churn, in combination with the dasher-shanks, the covers M, hinged at their centers *m* upon panel I, and operating to swing and close alternately the shank-slots in the churn-cover, substantially as described.

2. In a churn, the eccentric shaft K, in combination with the straight slotted shanks H, pivoted to or upon the cover E, and attached to and upon the shaft K by slots *h* in their upper ends, and dashers J, said shaft being mounted centrally on the churn and giving alternate motion to the dashers completely from side to side of the churn, substantially as described.

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