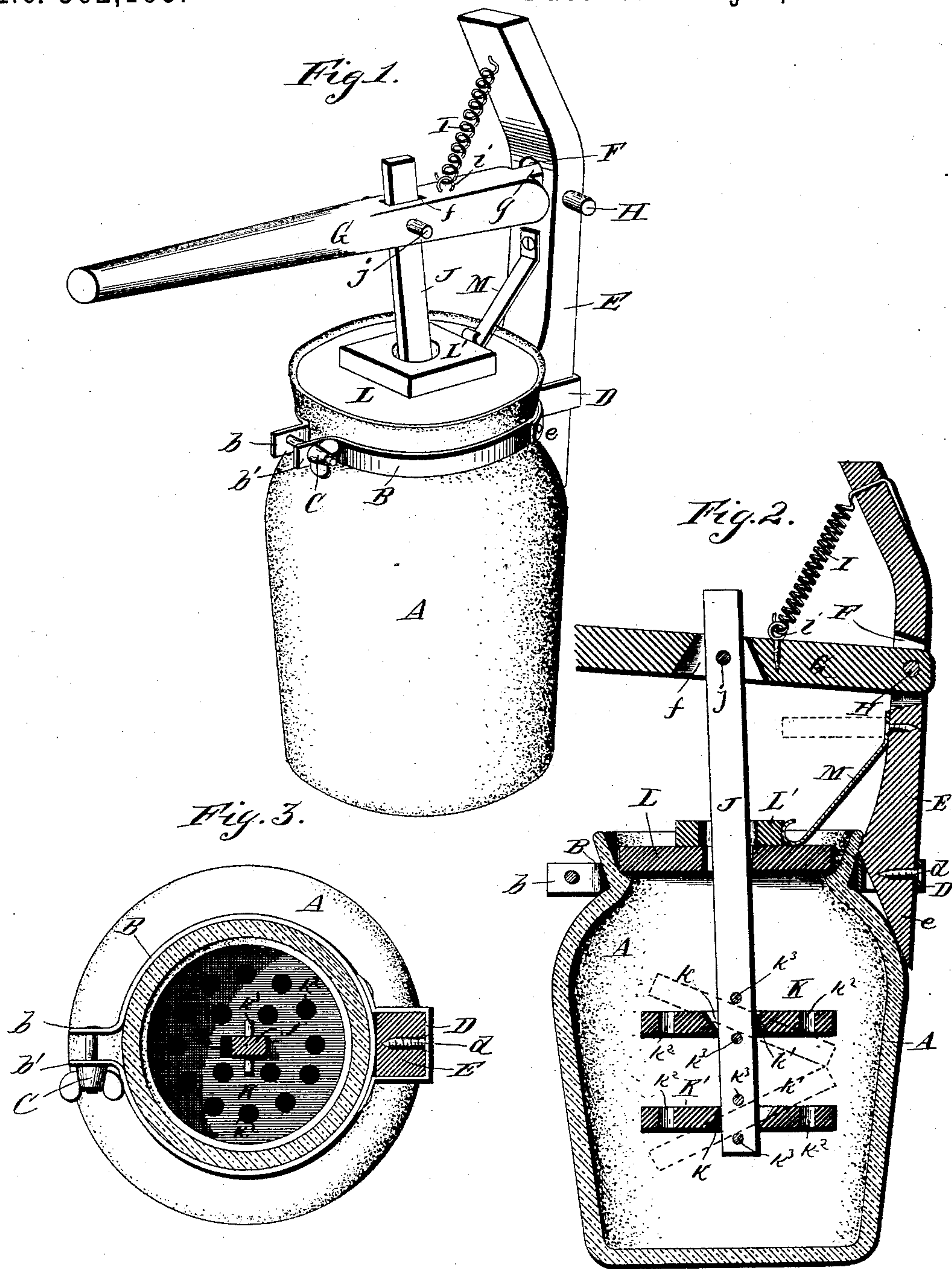


(No Model.)

B. ZIPPERLEN.
CHURN.

No. 362,195.

Patented May 3, 1887.



Witnesses

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BERNHARD ZIPPERLEN, OF OAK HARBOR, OHIO.

CHURN.

SPECIFICATION forming part of Letters Patent No. 362,195, dated May 3, 1887.

Application filed December 24, 1886. Serial No. 222,507. (No model.)

To all whom it may concern:

Be it known that I, BERNHARD ZIPPERLEN, a citizen of the United States, residing at Oak Harbor, in the county of Ottawa and State of Ohio, have invented a new and useful Improvement in Churns, of which the following is a specification.

My invention relates to improvements in churns, the novelty of which resides in the peculiar construction, arrangement, and adaptation of parts for service, as hereinafter fully described, and specifically pointed out in the claims.

The object of my invention is the provision more especially of an attachment adapted to be secured to a jar or churn-body which will thoroughly agitate the cream and produce the butter in a very short time, and without any waste.

A further object is to provide an attachment which can be very easily operated so as not to tire the operator, and which shall be very simple in construction and cheap of manufacture.

In order that the construction of my churn may be fully understood and the advantages attained by my improvements be appreciated, I have illustrated a churn constructed in accordance with my invention in the accompanying drawings, which represent, in—

Figure 1, a perspective view of my improved churn; Fig. 2, a vertical longitudinal sectional view, and Fig. 3 a horizontal sectional view.

Referring to the drawings, in which similar letters of reference denote corresponding parts in the several figures thereof, A designates a jar or other vessel forming the churn-body, to which my attachment is adapted to be applied, and which receives the cream to be churned. Encircling the jar or body A, near the neck or top thereof, is a band or collar, B, formed of any suitable metal. The terminal ends of this encircling band are bent outwardly to provide the lugs or arms *b* and *b'*, which arms are provided with aligned openings which receive the thumb or tightening screw C, the latter serving to clamp the encircling band in place to the top of the jar or other receptacle constituting the churn-body. At a suitable point on the encircling band, preferably near the rear, is secured by means

of rivets the angular clip D. This angular clip is adapted to receive the reduced lower end, *e*, of the post or standard E of my attachment, and the said post or standard E is firmly secured in the clip D by means of the screw or bolt *d*, which passes through an opening in the clip and into the standard or post.

At a suitable point in the post or standard E is a vertical slot, F. In this vertical slot F is received the reduced end *g* of the operating-lever G, which is pivoted in said slot by a pin or bolt, H. This lever G is shaped at the outer end to provide a handle.

The top of the standard E is bent inward, as shown, and to this bent top is secured one end of a coiled or other suitable form of spring, I, and the other end of the said spring is attached to the operating-lever F by means of a screw, *i*, or other suitable connecting means.

From this construction it will be observed that the operating-lever has an upward spring action, the purpose of which will be presently explained.

At a suitable point in the operating-lever G is provided an opening or slot, *f*, which is oblong or square in cross-section, and receives the outer end of the dasher-staff J, which is pivotally secured in said slot by means of the rod, pin, or bolt *j*. This dasher-staff J passes down through an opening in the lid or cover L, and has the dashers K and K' loosely attached to its end. These dashers are provided with the central openings having the oppositely-inclined sides *k* and *k'*, as shown in Fig. 2, and the series of openings or perforations *k''*. Pins *k'''* are provided on the dasher-staff to hold the dashers in place thereon. The oppositely-inclined sides for the openings *k* and *k'* permit the dashers to swing or oscillate vertically in opposite directions, as shown by dotted lines in Fig. 2.

The cover or lid L is provided with the ridge or ledge L' around the opening therein, against which bears the free end of the swinging latch M, that is pivoted at its upper end to the vertical standard E, and swings down upon the lid, its lower end resting in the angle formed by the ledge L' and the lid to secure the lid in place, and prevent its turning or falling off in consequence of the jarring action of churning. Upon reference to the drawings, it will

be seen that this latch M is pivoted to the standard above the churn-body and exerts a downward pressure on the lid. It will also be seen that the latch can be instantaneously swung up from the lid or down onto the same, as will be readily understood.

From the foregoing description, taken in connection with the drawings, the operation of my churn will be readily understood.

10 The cream to be churned is placed in the jar or receptacle and the lid is secured in place on the top of the jar or receptacle. The operating-lever is then forced downwardly, distending the spring, and the lever is caused to be automatically elevated or carried up by the reaction of the spring secured thereto, the operation of churning being very easily performed and in a very short period of time, and with less labor to the operator.

20 It will be observed that the spring is arranged at an angle to the operating-lever, whereby the whole strength of the spring is utilized to draw the said lever upward after having been depressed by the operator. This arrangement and action of the spring is facilitated by the inward inclination given the upper end of the standard. The lower end of the standard, as before stated, is reduced and inserted through the clip D. By reference to 30 Fig. 2 it will be seen that the said lower end of the standard rests upon the bulged portion of the churn-body, and thereby aids the clip in securing the standard in position.

35 The advantages of my churn attachment will be readily appreciated by all acquainted

with the art. The attachment is very simple and cheap, and can be quickly and easily attached to any suitable churn-body, and the operation being very easy renders churning a pleasant task.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a churn, the dasher-shaft, the dasher-blades arranged one above the other and having inclined slots to receive the shaft, the slots in the dashers being inclined in opposite directions, whereby the dashers are caused to oscillate in opposite directions, the supporting-standard, the lever pivoted thereto, and the spring connecting the lever to the standard, whereby the positive downward motion of the lever works the dasher-blades in one direction, while the upward movement of the lever produced by the spring moves the dasher-blades in the contrary direction, as set forth.

2. The combination of the churn-body, the lid having a ridge or ledge, L', the standard supported upon the body, and a swinging latch pivoted to the standard at its upper end and having its lower end resting upon the lid in the angle formed by the ledge and the lid, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

BERNHARD ZIPPERLEN.

Witnesses:

S. A. OSBORNE,
J. F. GOURNO.