(No Model.)

H. B. & E. T. LYNES.

CHURN.

No. 405,577. Patented June 18, 1889.

Fig. 1.

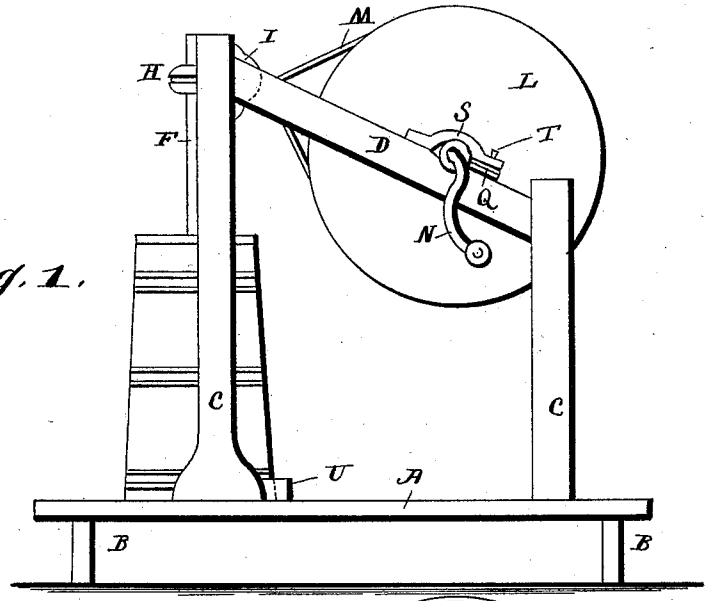


Fig. 2.

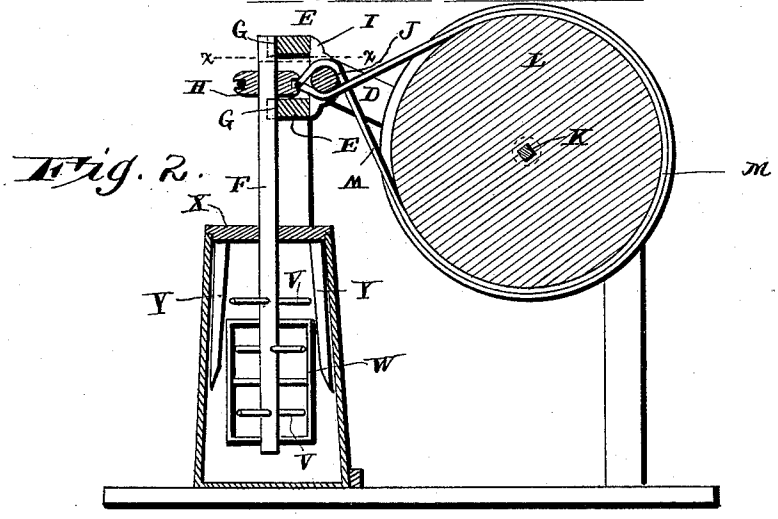


Fig. 3.

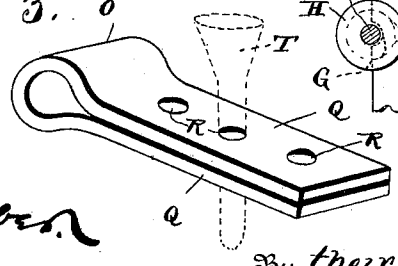
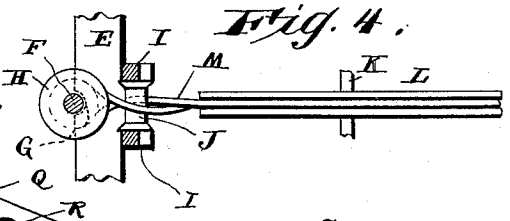


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY B. LYNES AND EZRA T. LYNES, OF WICHITA, KANSAS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 405,577, dated June 18, 1889.

Application filed January 25, 1889. Serial No. 297,524. (No model.)

To all whom it may concern:

Be it known that we, HENRY B. LYNES and EZRA T. LYNES, citizens of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented new and useful Improvements in Combined Churn and Egg-Beater, of which the following is a specification.

Our invention relates to improvements in churns and egg-beaters; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view of our improved churn and egg-beater. Fig. 2 is a longitudinal vertical section, and Fig. 3 is a detail view of the journal-box of the driving-shaft. Fig. 4 is a detail section on line *x x* of Fig. 2.

Referring to the drawings by letter, A designates the base supported upon suitable legs B, and of proper dimensions. At the sides of the base and near the opposite ends of the same we erect the standards C C, which are connected by the longitudinal beams or braces D D, as shown. The standards near one end of the base are connected at their upper ends by the cross-bars E, and the dasher-shaft F has its upper end fitted in curved recesses G in the edges of these cross-bars, and is provided with a grooved pulley H between the said cross-bars.

To the rear sides of the cross-bars E we secure the journal-boxes I, in which an idler J is mounted.

The driving-shaft K is mounted in bearings on the longitudinal beams D, and carries the grooved driving-pulley L, around which the belt M passes. This belt M is crossed between the driving-pulley and the idler and then passes over and under the idler, as shown. The front portion of the belt passes around the pulley H on the dasher-shaft, so as to transmit motion thereto, as will be readily understood. The driving-shaft is provided at one end with a crank-handle N, and is journaled in adjustable bearing-boxes O, secured on the upper sides of the longitudinal beams D. These bearing-boxes O consist of a metallic strap doubled on itself to provide the bearing-loop for the shaft, and having the arms Q, extending from said loop, provided with a series of perforations R. The bearings are held in place by the keeper-plates S, secured on the upper side of the beams D, and the pins T inserted through one end of the keeper-plate and one of the perforations in the bearings. By this construction the position of the driving-shaft can be shifted so as to tighten the belt, as will be readily understood.

The base is provided on its upper side, near one end, with the transverse bar or stop U, having a curved notch or recess in one edge adapted to receive the body of the churn or egg-beater.

The dasher-shaft is provided at and near its lower end with a series of radial breaker-pins V, which are adapted to agitate the contents of the body and thereby beat the eggs or effect the churning. The pins are arranged so as to form a spiral series and thus produce an upward current of the contents of the body when the device is in use.

W designates a loop or ring, which passes across the end of one of the breaker-pins, and has its ends secured to the dasher-shaft, so as to provide additional means for agitating the contents of the body and thereby hasten the desired results.

The body may be of any desired construction, and is provided with a lid X, from the under side of which depend the breakers Y, against which the contents of the body are thrown by the breaker-pins in the operation of the device. These breakers serve to more thoroughly break up the contents of the body, as will be readily understood.

From the foregoing description the operation of our device will be readily understood. The body is placed in position and the eggs to be beaten or the cream to be churned is placed therein, and after the lid has been placed on the body the driving-shaft is rotated, and the motion of the said shaft will be transmitted to the driving-shaft through the pulleys and the belt, as will be understood.

The device is composed of few parts and is very compactly arranged. It is very efficient in its operation and requires very little power to operate it. When the belt has become loose from constant use, the driving-shaft is shifted, as before stated, to tighten the belt.

By the use of the idler the driving-belt is caused to almost completely encircle the driving-pulley, and thus a larger portion of the belt receives its motion directly from the driving-pulley.

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

1. The combination of the supporting-frame, the dasher-shaft mounted therein, the driving-shaft, the idler between the driving-shaft and the dasher-shaft, the bearing-boxes for the driving-shaft, consisting of metallic straps bent to form the bearing-loops for the driving-shaft, and the arms extending from said loops and provided with a series of perforations, the keeper-plates secured on the upper side of the supporting-frame and passing over the bearings for the driving-shaft, and the securing-pins passed through the said keeper-plates and one of the perforations in the arms of the bearings for the driving-shaft, as specified.

2. The combination of the frame, the bearing-boxes thereon, consisting of straps doubled on themselves to form bearing-loops, and arms extending from said loops, the keeper-plates secured to the frame and extending over the bearing-boxes, and the pins passing vertically through the ends of the keeper-plates and through the arms of the bearing-boxes into the frame, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

HENRY B. LYNES.
EZRA T. LYNES.

Witnesses:
R. D. SEAMAN,
I. T. BLACK.