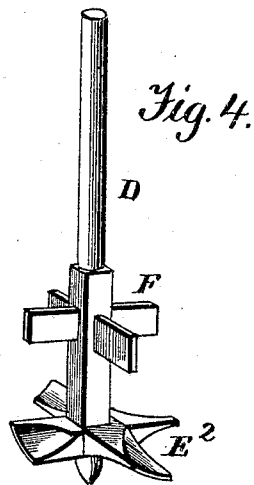
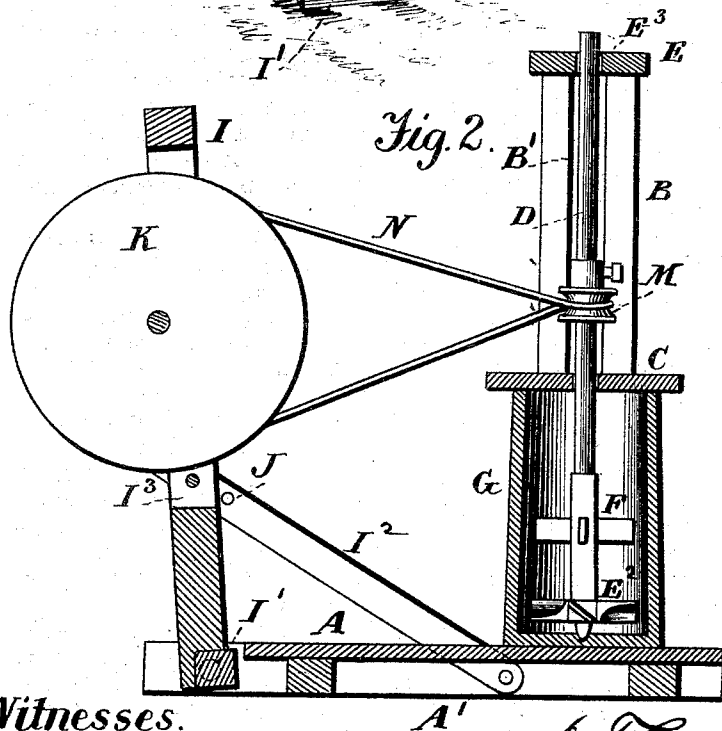
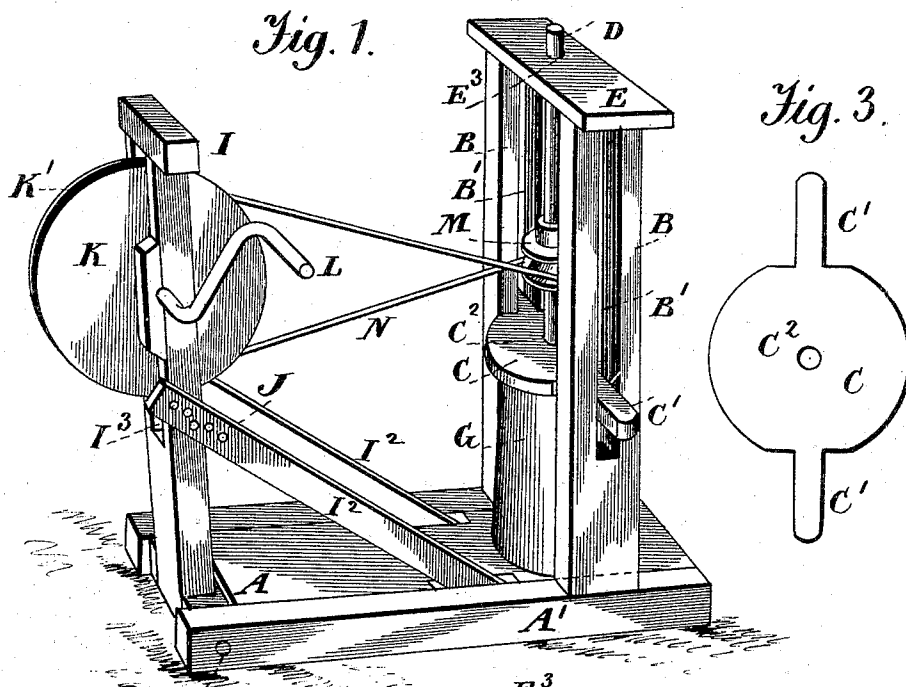


(No Model.)

H. DRYMON.
CHURN.

No. 495,478.

Patented Apr. 18, 1893.



Inventor:

Henry Drymon,
Klin & Hough
His Atty.

Witnesses.

A. Ruppert
P. J. Rogers, Jr

UNITED STATES PATENT OFFICE.

HENRY DRYMON, OF MARVIN, TENNESSEE.

CHURN.

SPECIFICATION forming part of Letters Patent No. 495,478, dated April 18, 1893.

Application filed December 21, 1892. Serial No. 455,894. (No model.)

To all whom it may concern:

Be it known that I, HENRY DRYMON, a citizen of the United States, residing at Marvin, in the county of Greene and State of Tennessee, have invented certain new and useful Improvements in Churns; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in churns and mechanism for operating the same and it has particular reference to that class of churns in which the body of the churn is in a vertical position and the churning is effected by means of dasher blades carried upon a vertical rotary dasher.

The more immediate object of the invention is the provision of churning mechanism of the character described which will be simple and inexpensive, of few parts, easily constructed and operated, which may be readily adjusted and adapted for use in connection with churn bodies of different sizes.

To these ends and to such others as the invention may pertain, the same consists in the peculiar construction and in the novel combination, arrangement and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawings and then particularly defined in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon form a part of this specification, like letters of reference indicating the same parts throughout the several views, and in which drawings;—

Figure 1 is a perspective view of a churning apparatus embodying my invention. Fig. 2 is a vertical section through the churn-body, the dasher and bearings therefor. Figs. 3 and 4 are enlarged details in perspective, which will be more particularly hereinafter referred to.

Reference now being had to the details of the drawings by letter, A designates a platform which at opposite sides and at points near one of its ends, is provided with uprights or standards B, B. The standards are provided

with vertical slots B', which extend from the upper ends of the standards to points near the lower ends thereof and within these slots are fitted the arms or projections C' which extend laterally from the sides of the churn cover C, said cover being provided with a central opening C² for the passage of the dasher-stem D, the upper end of which dasher-stem is journaled in an opening E³ in the cap plate E, which connects the upper ends of the standards B.

The dasher may be provided with blades of any of the various styles or patterns which are commonly used upon vertical rotary dashers, though I prefer the use of the blades which I have shown, which consist of the lower blades E, which extend laterally from the extreme lower end of the dasher stem, and are fashioned like the blades of a screw propeller. A short distance above the blades E, I provide an additional set of blades F, these last named blades being flat and extended at right angles to the dasher-stem.

The churn body G may be of any desired size, and when in use stands upon the platform between the standards B, B, the slots in said standards permitting the raising of the churn cover with the dasher, in order to permit of the placing and adjustment of the churn.

At the end of the platform A opposite to that which is provided with the standards B, is a standard I which at its lower end is attached to a shaft I' the ends of which are suitably journaled within openings provided in the inner sides of the side timbers A' of the platform A. This standard I is inclined at any desired angle, and is held in its adjusted position by braces I² which are at their lower ends pivoted to the side timbers of the platform A, and their other ends are attached to the standard I by means of pins passed through openings J, J in the braces.

K is a wheel which is mounted or journaled within a recess I³ in the standard I, the shaft upon which the wheel is mounted being provided with an operating crank L. The wheel K is provided with a peripheral groove K' and passed around this wheel and a small drum M upon the dasher stem, is a twist belt N.

The operation of the device is simple and from the foregoing description will be readily

understood. It will be seen that turning the operating crank L will impart a rotary motion to the dasher stem.

5 The adjustable features described render the machine capable of use with churn bodies of various heights or sizes. If at any time the belt should become slack, it may be quickly tightened by changing the angle of inclination of the standard I.

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

15 In a churn apparatus, a vertical churn body, vertical standards upon each side of the churn body and provided with slots as described, the churn cover having lateral arms to engage the slots in the standards, the churn dasher

passed through the cover and having its upper end journaled in a cap-piece connecting the upper ends of the standards, the inclined 20 standard I, the inclined braces adjustably connected therewith to vary the inclination of said standard the pulley carried by said standard, the operating crank, the drum adjustable on the dasher-stem and the band 25 connecting the pulley and drum, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY DRYMON.

Witnesses:

WILLIAM A. MOORE,
JOHN W. MOORE.