

(No Model.)

T. J. MISSILDINE.
CHURN.

No. 500,021.

Patented June 20, 1893.

Fig. 1.

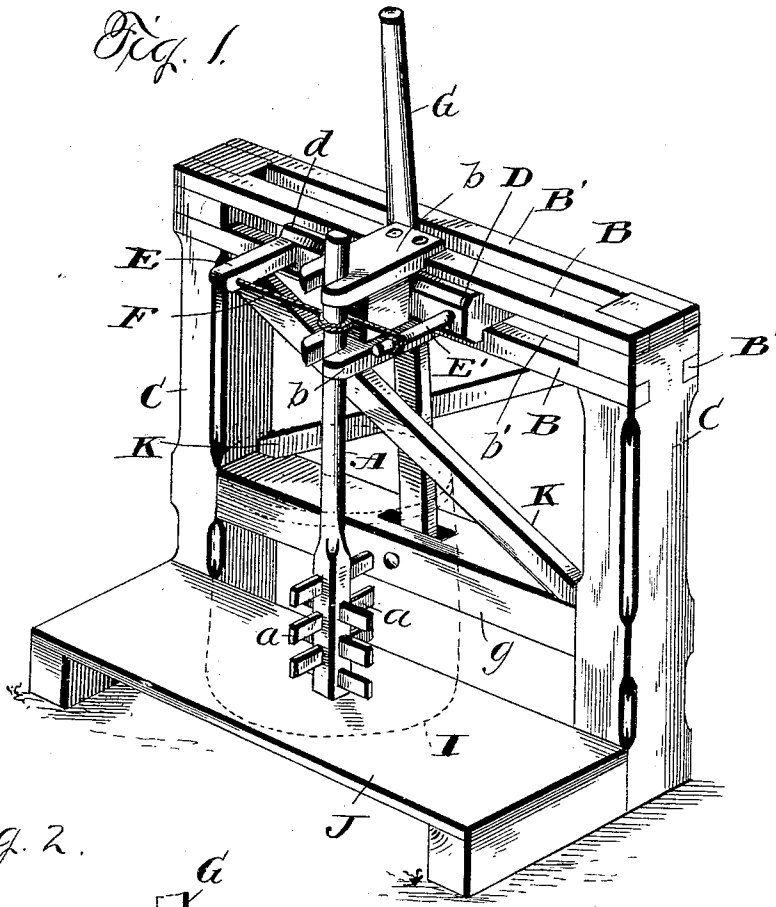


Fig. 2.

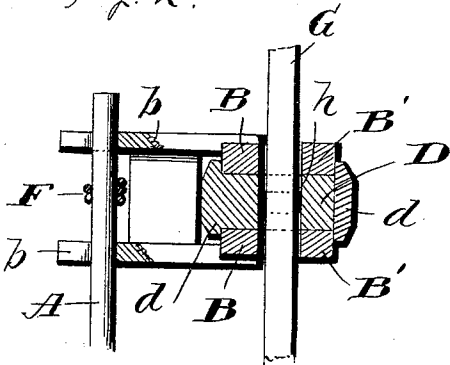
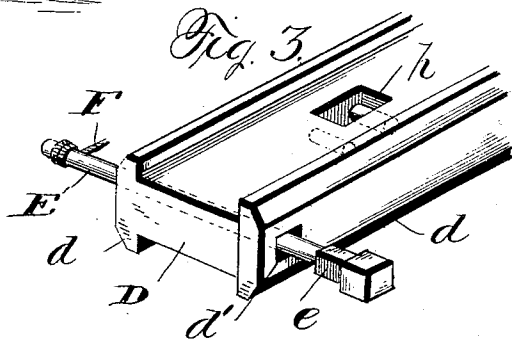


Fig. 3.



Witnesses
C. Williamson,
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Inventor
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att'y.

UNITED STATES PATENT OFFICE.

THOMAS JEFFERSON MISSILDINE, OF RAMER, ALABAMA, ASSIGNOR OF ONE-HALF TO SELMAN U. TURNIPSEED, OF SAME PLACE.

CHURN.

SPECIFICATION forming part of Letters Patent No. 500,021, dated June 20, 1893.

Application filed March 23, 1893. Serial No. 467,323. (No model.)

To all whom it may concern:

Be it known that I, THOMAS JEFFERSON MISSILDINE, a citizen of the United States, residing at Ramer, in the county of Montgomery and State of Alabama, have invented certain new and useful Improvements in Churn-Motors; 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 churns having rotary dashers and my object is to provide an easily operated, simple and strong churn of the class indicated, and capable of producing butter very quickly.

To these ends said invention consists in the churn having the construction and combination of parts hereinafter specified, and shown in the accompanying drawings, in which—

Figure 1, is a perspective view of the invention. Fig. 2 is a vertical section. Fig. 3, is a detail view of the cord-tightening device.

Reference now being had to the details of the drawings by letter A designates the spindle or shaft of the dasher, whose upper portion is round, while its lower end is square in cross-section. Projecting from each side of the squared lower end is a series of radial flat arms *a, a*, those on diametrically opposite sides being in line with each other, and opposite the spaces between those of the other two sides. This latter alternate arrangement, provides a very efficient dasher. At its upper end the shaft A is journaled in outwardly opening slots, provided in two parallel horizontal arms *b, b*, arranged one above the other, and fastened to and projecting from the longitudinal center of two parallel horizontal bars B, B, that are supported at their two ends upon vertical posts or uprights C, C. In addition to the two bars B, B, there are two other like bars B', B', parallel with each other, and said bars B, B, are also supported by the uprights C, C.

In the horizontal space or slot *b'*, between the bars B, B, and B', B', I place a slide-block or shuttle D, adapted to be reciprocated be-

tween the uprights and being held in place by plates or flanges *d* on its opposite sides that overlap the outer sides of said bars. One or both of the flanges *d* may be detachable.

Carried by the two arms E, E' that project horizontally from opposite ends of the block D, is a cord or rope F that is passed around the dasher-shaft several times, which in a well known way, by the reciprocation of the block, will impart a rotary motion to the dasher. The arm E is fixed, but the arm E' is made rotary to enable the tension of the cord or rope to be adjusted by being wound or unwound thereupon, as occasion may require. Said arm E' extends entirely through the block D, from one side to the other, and, to enable it to be held from turning, it is made square or polygonal at its outer end, as shown at *e*, to engage a correspondingly shaped opening in the side of the adjoining plate or flange *d*. When it is desired to turn the rod E', it is moved longitudinally sufficiently to free the squared part *e* from the opening, when it will be free to be rotated. The block D is reciprocated by means of a lever G pivoted at its lower end to a horizontal beam *g* that extends between the posts C, C and being passed through a slot or opening *h* in the center of the block. By properly proportioning the lever in respect to pivot, power, &c., the labor necessary to be expended in working the churn can be materially reduced.

The churn I (shown in dotted lines), is supported on a table or platform J, mounted on two horizontal beams that extend from the lower ends of the uprights C, C.

To brace the framing thus far described, I employ diagonal bars K, K, although, if desired, these may be omitted as obviously without them the structure is very strong and capable of long use without impairment.

To reduce friction between the block D and its guides, I propose to employ anti-friction rollers, suitably disposed, and rollers are also to be placed in the slot for the lever to bear against. It will be noted that the lever passes up between the bars B, B, and B', B', so that by engaging said bars it can be made to relieve the flanges *d* of some of the work of guiding and holding the block D. It will also be seen that the rope or cord operates to hold

the dasher-shaft in its place in the slots in the arms *b, b*.

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

1. In combination with the rotary dasher, a reciprocable block, two arms projecting therefrom, one of which is adapted to be rotated and moved longitudinally to adjust the tension of the cord, and the cord connecting said arms and said dasher, said movable arm having a polygonal part to co-operate with a like shaped opening in the block, substantially as described.

2. In combination with a rotary dasher, the

two arms having open ended slots journaling the upper end of the dasher shaft, the cord passed around said shaft, the sliding block, carrying arms to which said cord is attached one of which arms is adjustable, the pivoted lever, passing upward through an opening in said block, and the guide-bars for the block, substantially as and for the purpose specified.

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

THOS. JEFFERSON MISSILDINE.

Witnesses:

B. H. BOYD,

R. H. BOZMAN.