



# UNITED STATES PATENT OFFICE.

MARSELOUS C. WINDERS, OF MERIDIAN, MISSISSIPPI.

CHURN.

955,930.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, MARSELOUS C. WINDERS, a citizen of the United States of America, and resident of Meridian, in the county of Lauderdale and State of Mississippi, have invented certain new and useful Improvements in Churns, of which the following is a specification.

My invention relates to a device for securing a maximum churning action in the separation of cream from milk.

The construction will be best understood from the accompanying drawing.

Figure 1 is a side elevation of the device, from which a portion is broken out to indicate some of the interior construction. Fig. 1<sup>a</sup> is an enlarged view of the sliding head and its connections in part. Fig. 1<sup>b</sup> is a cross section at the line A A in Fig. 1<sup>a</sup>. Fig. 2 is a front elevation of the principal mechanism involved. Fig. 3 is a rear view of a portion of Fig. 1. Fig. 4 is a cross section of the construction in Fig. 3, at the line B B. Fig. 5 is a plan of the dasher and propeller, their ends being cut off at the section line C C.

The complete details are the base 1, having a standard 2. The spur wheel 3 is mounted at the top of the standard, and it is provided with a handle 4, for turning the same. At 5 is a pinion engaging with the spur wheel 3, and having a shaft 6, whose bearings are at 7 and 8. The shaft 6 carries also, a bevel gear wheel 8, which engages with a bevel pinion 9, on the upper end of a rod 10, at whose lower end is attached a propeller 11. The bearing for the rod 10 to turn in, is formed of the recessed piece 12, and the recessed frame 13, against which latter the piece 12 bears. The piece 12 is the shorter arm of a lever, whose other arm is 14, the pivot of the lever being at 15 in a projection 16, of the frame 13. A pivoted arm 17 held to the frame 13 by a pivot 18, is jammed between the arm 14 and the frame 13, for forcing the head piece 12 against the rod 10, thereby holding the latter in its proper place for action, while,

when it is desired to remove the propeller for cleaning, and other purposes, the arm 17, may be turned up, and the lever 14 may then be turned also, whereby the rod is released from the grip of the head piece 12. The propeller may be equally easily replaced for use. The rest of the function of the parts thus far described is that when the handle 4 is revolved, the pinion 5 is rotated, and the propeller, in turn, is rotated in the contents of the churn barrel 19. In conjunction with this means of churning, I have provided a dasher 20, whose dasher rod is 21, which is pivoted to a sliding head at 22, by means of a removable screw 23.

24 represents a crank wheel to which is pivoted a connecting rod 25 which joins the sliding head at 22 and the said crank wheel at the pivot 26.

The tracks for the sliding head are numbered 27. The tracks 27 are carried by the inverted U shaped frame 28, which is integral with the frame 13.

The rotation of the pinion 5 rotates the crank wheel 24, which operates the connecting rod 25, which reciprocates the sliding head at 22, which in turn, raises and lowers the dasher 20.

The milk is churned by the dasher and propeller independently of each other, and yet the joint action of the two is about the maximum action that could be obtained for separating milk and cream.

I claim as my invention;—

In a churn, the combination of a barrel, a propeller therein, a supporting rod for said propeller, a frame 13, a lever comprising a recessed head and arm 14, said recessed head pressing against said rod, which latter bears against the frame 13, a pivot for said lever, and an arm 17 pivoted to said frame, and located normally between the frame and the arm 14.

MARSELOUS C. WINDERS. [L. s.]

Witnesses:—

T. T. TALBOTT,  
J. T. SNOWDEN.