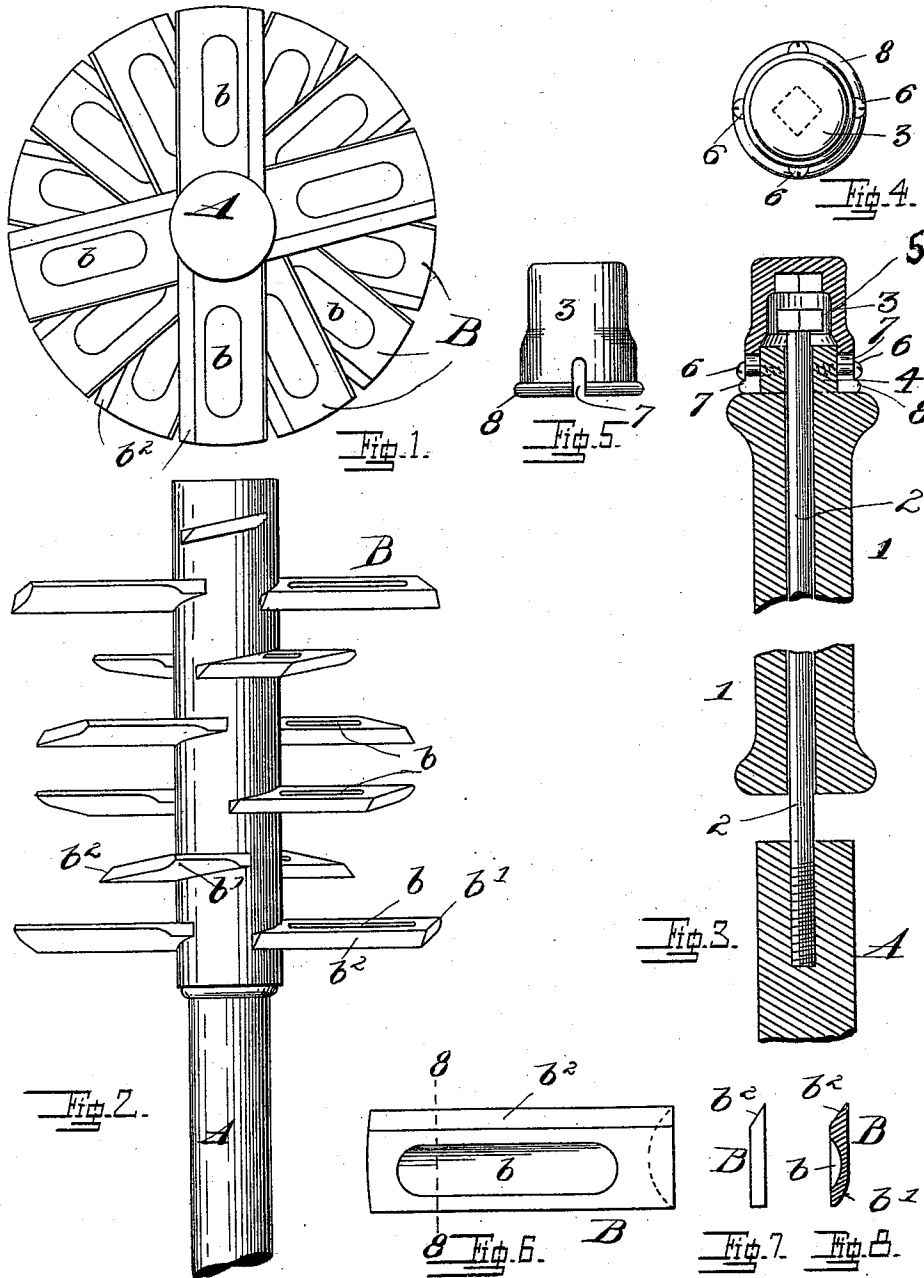


(No Model.)

C. S. ROGERS.
CHURN DASHER.

No. 528,519.

Patented Oct. 30, 1894.



WITNESSES.
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UNITED STATES PATENT OFFICE.

CHARLES S. ROGERS, OF ATLANTA, GEORGIA.

CHURN-DASHER.

SPECIFICATION forming part of Letters Patent No. 528,519, dated October 30, 1894.

Application filed April 9, 1894: Serial No. 506,938. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. ROGERS, a citizen of the United States of America, and a resident of Atlanta, in the county of Fulton and State of Georgia, have made a certain new and useful Improvement in Churn-Dashers; and I do hereby 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 letters and figures of reference marked thereon, which form a part of this specification.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is an inverted plan view of the device forming the dasher, showing the arrangement of the dasher-blades and their form. Fig. 2 is a side elevation of the lower end of the dasher inverted. Fig. 3 is a longitudinal section of the upper end of the handle. Fig. 4 is a plan thereof. Fig. 5 is a side elevation of the metallic cap. Fig. 6 is a view of the under side of a dasher-blade, showing the concavity therein. Fig. 7 is an end view of said dasher-blades showing the cross-sectional form thereof, at and near their inner ends. Fig. 8 is a section on the line 8—8, Fig. 6, showing further the concavity in the under side of the blade.

In the figures like reference marks are uniformly employed in the designation of corresponding elements of construction in all the views.

A is the staff which is preferably enlarged at its lower end substantially as shown in Fig. 2, and B are blades set therein by inserting and securing their ends in suitable grooves in the periphery thereof. The dasher blades are provided on their under sides with concavities *b* extending over as much of the under surface as practicable, their upper edge being chamfered as shown at *b'* and their lower or back edge being also chamfered or rounded as shown at *b''*, Fig. 8. These blades are set angularly to their line of motion in being passed downwardly and upwardly in the cream, which produces a vortex in their descent, and as the dasher ascends through the revolving mass of cream and milk, the same

is by a construction hereinafter described allowed to revolve with said milk and cream and so does not break the vortex or interfere with its revolution. This is facilitated by the thinning down or chamfering of the edges of the dasher-blades. The dish-shaped concavities in the under side of the dasher-blades carry down air into the cream on the descent of the dasher and said air is slowly worked out as it descends and returns upwardly through the milk, thoroughly aerating same during the process of churning. The passing out of the air from the concavities is of course facilitated by the inclination of the blades and the consequent rush of milk across their under sides in the process.

A sleeve 1 is secured to the upper end of the handle or staff A by means of a long screw 2 which is provided with a head and is screwed into the upper end of the staff and lies concentric and parallel thereto. This screw projects from the end of the staff slightly more than the length of the sleeve 1, this difference being slightly more than the thickness of the head of the bolt 2. The sleeve 1 is so shaped as to afford easy grasp for the hand. A cap 3 is secured to the tenon 4 on the upper end of the sleeve 1 and has the upper end of its concavity squared to receive the head 5 of the bolt or screw 2 when the handle is depressed whereby engagement is made at that time between the said bolt and consequently the staff A and the sleeve 1. This taking place on the depression of the dasher by application of the hand to the sleeve 1 prevents the revolution of the dasher as it descends, and as the engagement is disrupted upon the upward pulling of the sleeve the dasher is allowed to move free with the circular motion of the vortex. This cap also serves to guard the head of the screw from pinching the hand of the operator when the sleeve is drawn upwardly. The cap 3 is secured to the tenon 4 by means of screws 6 entering said tenon through slots 7 in the cap, which for purposes of molding in casting the said cap are made open at their lower ends, the flange 8 preventing any withdrawal of the cap from the screws.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

In a churn, a dasher consisting of a staff, blades angularly set in the lower end thereof, a headed screw screwed concentrically into the upper end of said staff, a sleeve loosely set and
5 having longitudinal movement on said screw, a cap on the upper end of said sleeve covering the head of said screw and being provided with an opening adapted to receive and fit the

head of said screw, substantially as and for the purpose specified. 10

In testimony whereof I hereunto set my hand in presence of two subscribing witnesses.

CHARLES S. ROGERS.

Witnesses:

E. P. WOOD,

A. P. WOOD.