(No Model.)

A. J. BLACKMAN.

CHURN DASHER.

No. 266,011. Patented Oct. 17, 1882.

Fig. 1.

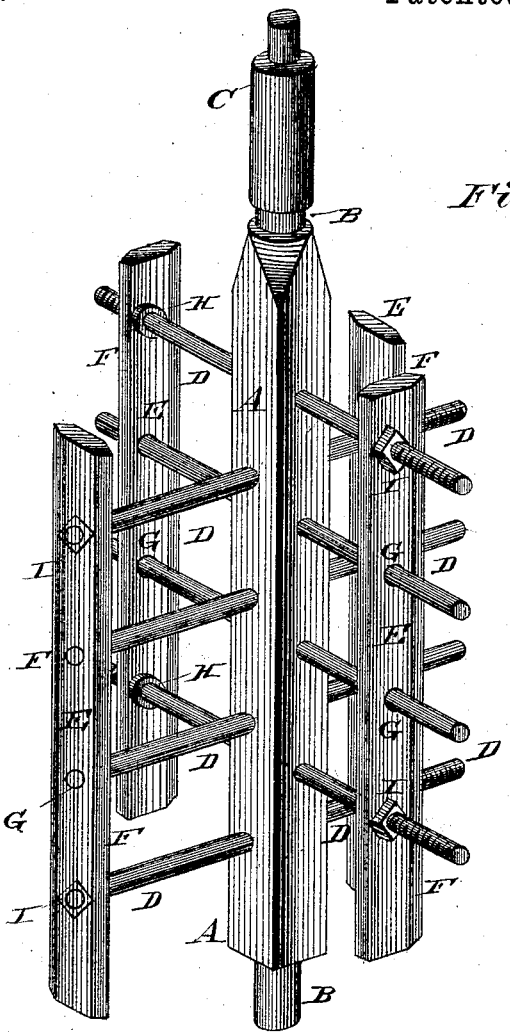
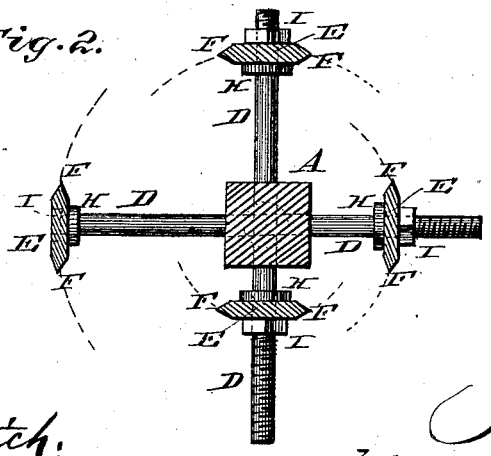


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ANDREW J. BLACKMAN, OF MERIDIAN, MISSISSIPPI.

CHURN-DASHER.

SPECIFICATION forming part of Letters Patent No. 266,011, dated October 17, 1882.

Application filed March 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, A. J. BLACKMAN, of Meridian, in the county of Lauderdale and State of Mississippi, have invented certain new and useful Improvements in Churn-Dashers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a perspective view of my improved churn-dasher, and Fig. 2 is a transverse sectional view of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention relates to dashers for rotary churns; and it consists in the improved construction of the same, which will be hereinafter fully described, and particularly pointed out in the claim.

In the drawings hereto annexed, A represents the shaft of my improved dasher, which is provided with journals B B, by which it may be mounted in suitable bearings in the churn-body. The shaft A extends at C beyond the journal B, in order that a crank or other means for imparting motion may be attached thereto. The shaft A is provided with radiating arms or beaters D, placed closely together over the entire length of the shaft, and projecting from the four sides of the shaft at right angles to each other. Mounted upon each of the four sets of arms or beaters, which are all of equal length, so as to extend nearly to the sides of the churn-body, is a longitudinal cutter-bar, E, which is flat, as shown, and provided on both sides with sharp edges F. The cutter-bars E have perforations G registering with the arms D, to enable them to be mounted upon said arms, where the said cutter-bars are placed at unequal distances from the central shaft—thus, one at the outer ends of the beaters, one between the middle and the outer ends, one near the middle, and the fourth near the shaft. The cutter-bars may be retained in their proper positions by means of flanges H and nuts I upon two or more of each set of beaters, or in any other suitable manner.

By the peculiar arrangement of the cutter-bars, as herein described, the entire body of cream which is whipped by the arms or beaters D is thoroughly cut and stirred, thus enabling me to manufacture butter by the use of my improved dasher in a very short time. The dotted lines in Fig. 2 show how the cutter-bars move in four different courses, while Fig. 1 illustrates how the beaters, being arranged over the entire length of the shaft, will serve to agitate the entire body of cream, no matter whether the churn be filled or only partly full. The construction is simple, and the dasher may be manufactured at a small expense.

I am aware that a rotary shaft having radial arms on which cutter-bars are arranged, and rotary shafts having cutters at unequal distances from the shaft, are old, and such I do not claim as my invention.

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

In a rotary churn-dasher, the combination, with the central rotary shaft, A, having radial beaters D arranged in four sets or series, having the beaters arranged one above the other, and the beaters of one set adapted to correspond, when the shaft revolves, to the space between the beaters of the adjoining sets, said beaters being all of the same length and extending nearly to the sides of the churn, of the vertical beaters or cutters having perforations G, by which they are adjusted, one on each set of beaters D, parallel to the shaft, and arranged, one on the extreme ends of the beaters of its series D, the next near the center of the beaters, the next at the center, and the next near the shaft, so that the cutters each operate in a different circular course, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ANDREW JUDSON BLACKMAN.

Witnesses:
ROBERT J. TRAVERS,
GREEN H. BALL.