F. M. JOHNSON.

CHURN-DASHER.

No. 189,469. Patented April 10, 1877.

Fig. 1.

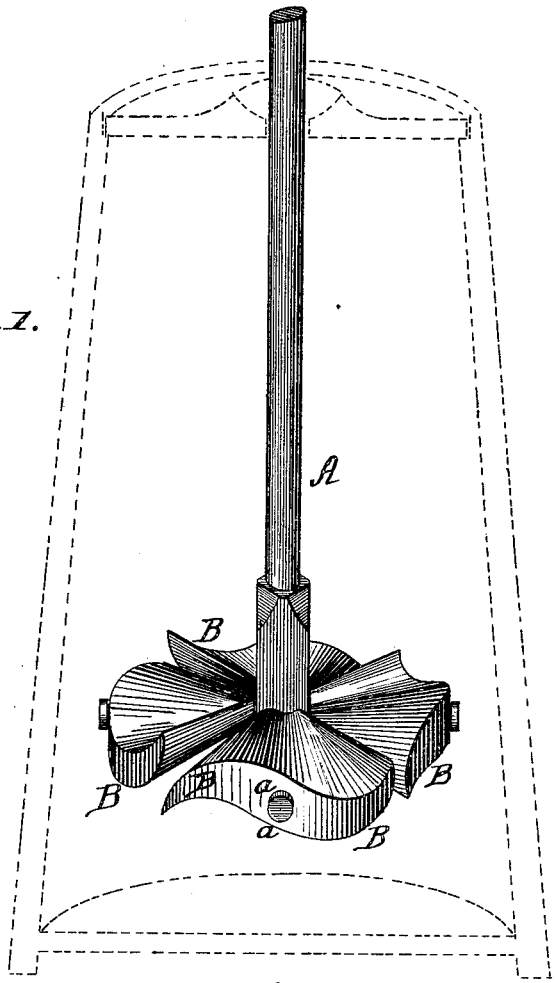
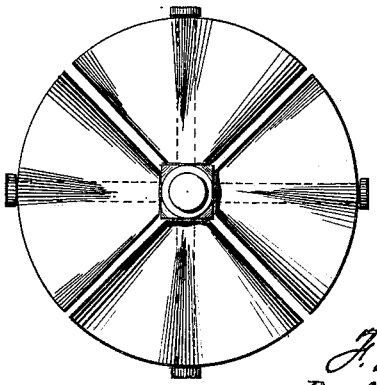



Fig. 2.



Attest:
H. R. Perrine
James M. Wright, Jr.

Inventor.
F. M. Johnson.
By James L. Norris.
Attorney.

# UNITED STATES PATENT OFFICE.

FRANKLIN M. JOHNSON, OF ASHEVILLE, NORTH CAROLINA, ASSIGNOR OF ONE-HALF HIS RIGHT TO W. M. COCKE, JR., OF SAME PLACE.

## IMPROVEMENT IN CHURN-DASHERS.

Specification forming part of Letters Patent No. **189,469**, dated April 10, 1877; application filed March 9, 1877.

*To all whom it may concern:*

Be it known that I, FRANKLIN M. JOHNSON, of Asheville, Buncombe county, North Carolina, have invented certain new and useful Improvements in Churn-Dashers, of which the following is a specification:

My invention relates to churn-dashers; and it consists in a series of rotating paddles, placed upon radial arms or spindles projecting from a vertical dasher rod or shaft, and also in the construction of said paddles, all as hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a side elevation of my improved churn-dasher. Fig. 2 is a plan view of the same.

A represents the dasher rod or handle, provided near its lower end with four radial arms, *a a*, more or less, at equal distances apart. Upon each of the arms *a* is placed a segmental or sectoral paddle, B, made in serpentine shape, with concave and convex upper and lower surfaces.

Each paddle has a central hole for the passage of the arm *a*, around which it revolves, and the paddle is held on said arm by means of a hook, *b*, as shown, thereby also allowing them to be easily removed when necessary for cleaning or other purposes.

By the serpentine shape of the paddles, forming a concave on each surface, air is conveyed into the milk while the agitation is going on by the up-and down motion of the dasher. The paddles may be made of wood, metal, or other suitable material.

The dasher thus constructed is placed in any ordinary churn or other vessel and operated up and down, as in the common mode of churning. The peculiar shape and circular or rotating, as well as reciprocating, motion of the paddles causes the globules of butter to be collected in a solid lump on their inner edge, next to the handle, in a comparatively short time, and in a thorough and convenient manner.

If desired, the shape of the paddles may be changed to any form deemed most advantageous; but they should in all cases be made rotating upon spindles or arms projecting radially from the rod or handle.

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

1. In a vertically-reciprocating churn-dasher, a series of independently-rotating paddles, placed upon stationary arms or spindles projecting from the dasher rod or handle, substantially as herein set forth.

2. The rotating sectoral paddles B, constructed in serpentine form, with concave and convex upper and lower surfaces, substantially as and for the purposes herein set forth.

3. The combination of the rod or handle A, the radial arms *a* projecting therefrom, and the rotating sectoral paddles B, made in serpentine form and provided with the hooks *b*, substantially as and for the purposes herein set forth.

FRANKLIN MARIAN JOHNSON.

Witnesses:
H. G. ROBERTSON,
W. G. CORPENNING.