

No. 801,709.

PATENTED OCT. 10, 1905.

W. H. BROWN.
CHURN DASHER.

APPLICATION FILED AUG. 5, 1905.

FIG. 1.

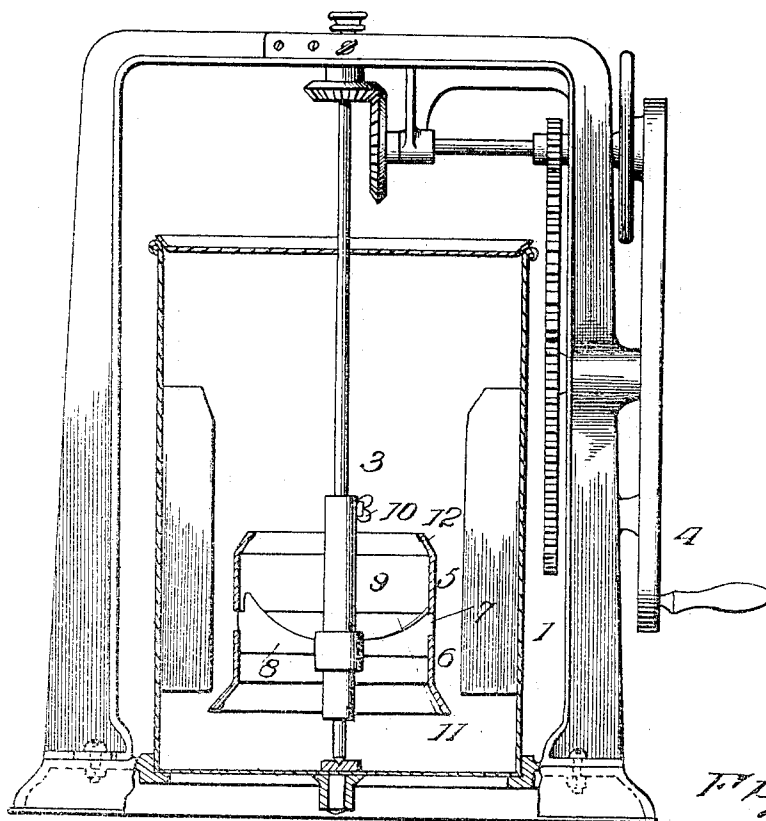


FIG. 4.

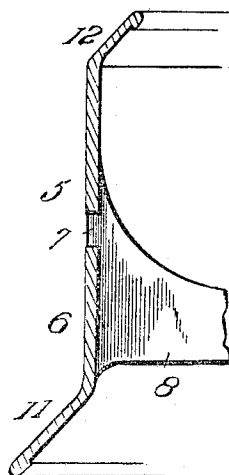
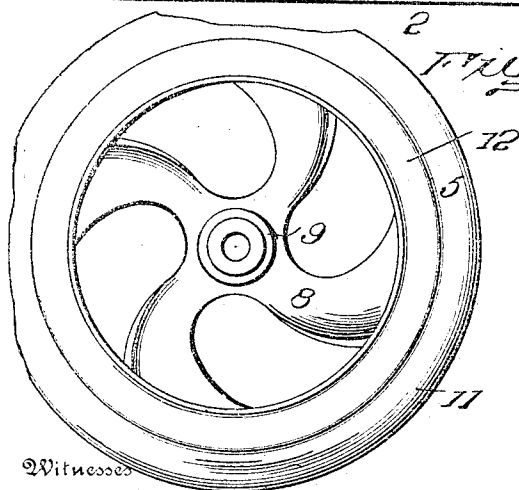
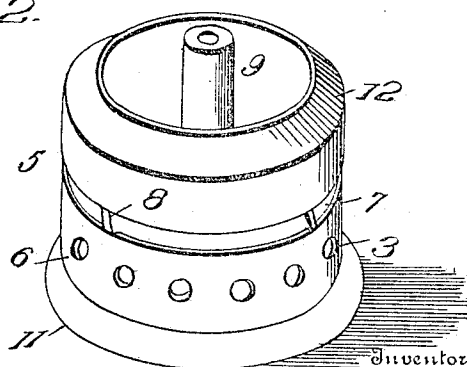


FIG. 3.



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Witnesses

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CHURN-DASHER.

No. 801,709.

Specification of Letters Patent.

Patented Oct. 10, 1905.

Application filed August 5, 1905. Serial No. 272,831.

To all whom it may concern:

Be it known that I, WILLIAM H. BROWN, a citizen of the United States, residing at Newark, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Churn-Dashers, of which the following is a specification.

This invention relates to churns, and more particularly to an improved form of dasher for those of the rotary type.

The object of the invention is to produce a device of this character which will greatly facilitate and hasten the separation of the butter and which will produce the butter in a better and more granulated form than is the case with those churns commonly in use.

With these objects in view the invention consists, essentially, of means whereby the cream in circulation is sucked up into the dasher from a large area and ejected through a comparatively small opening.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a vertical longitudinal sectional view through a churn provided with a dasher constructed according to the invention. Fig. 2 is a top plan view of the dasher. Fig. 3 is a perspective view of the dasher and shows a modification thereof. Fig. 4 is an enlarged sectional view through a portion of the dasher.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The numeral 1 designates the churn-body, which is mounted upon a suitable standard 2 and provided with a rotary dasher-rod 3, connected by suitable gearing to a crank-wheel 4, by means of which it is rotated. The dasher itself comprises two metallic bands 5 and 6, which are approximately the same size and are spaced from each other to form an opening 7, which facilitates the circulation of the cream. These bands 5 and 6 are connected, by means of radial arms 8, to a sleeve 9, which slides up and down upon the dasher-rod 3 and is held in the desired position by means of a set-screw 10. The radial arms 8

connect the bands 5 and 6 and hold them in a fixed relative position and are flat and arranged at an angle, so as to act like a fan and cause the cream to circulate through the dasher when same is rotated. The lower edge of the band 6 is flared outwardly at 11, so as to suck the cream up from the entire bottom of the churn, and the upper edge of the band 5 is contracted at 12 and serves to condense the cream in its upward passage.

A modification is shown in Fig. 3, in which the lower band 6 is provided with a number of perforations 13, which under certain conditions may be found useful in increasing the circulation of the cream.

In operation the ferrule 9 is adjusted to the desired height upon the dasher-rod 3, as determined by the amount of cream in the churn, and is then clamped in position by means of the set-screw 10. The dasher is then rotated by turning the crank-wheel 4, and owing to the action of the radial arms 8 the cream is drawn upward into the dasher from a large area which comprises practically the entire bottom of the churn and is ejected through the contracted portion 12 of the upper band 5 and also through the space 7 between the two bands. This peculiar action of the dasher has been found to have a compressing effect upon the cream, which hastens and very materially aids the separation of the oily globules therefrom.

Having thus described the invention, what is claimed as new is—

1. A rotary churn-dasher comprising two spaced bands, a ferrule slidably mounted upon the dasher-rod, radial arms connecting the spaced bands and the ferrule and adapted to act like a fan and produce a circulation of cream through the dasher, the lower portion of the bottom band being outwardly and downwardly flared so as to draw the cream from a large area, and the upper portion of the top band being upwardly and inwardly contracted so as to eject it through a comparatively small space.

2. A rotary dasher for churns comprising two spaced bands one of which is provided with a series of perforations a ferrule slidably mounted upon the dasher-rod, radial arms connecting the spaced bands and the ferrule and adapted to act like a fan and produce a

circulation of cream through the dasher, the lower portion of the bottom band being outwardly and downwardly flared so as to draw the cream from a large area and the upper
5 portion of the top band being upwardly and inwardly contracted so as to eject it through a comparatively small space.

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

WILLIAM H. BROWN. [L. S.]

Witnesses:

J. V. HILLIARD,
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