

O. M. CORNWELL.
CHURN DASHER.
APPLICATION FILED DEC. 31, 1909.

972,827.

Patented Oct. 18, 1910.

Fig. 1.

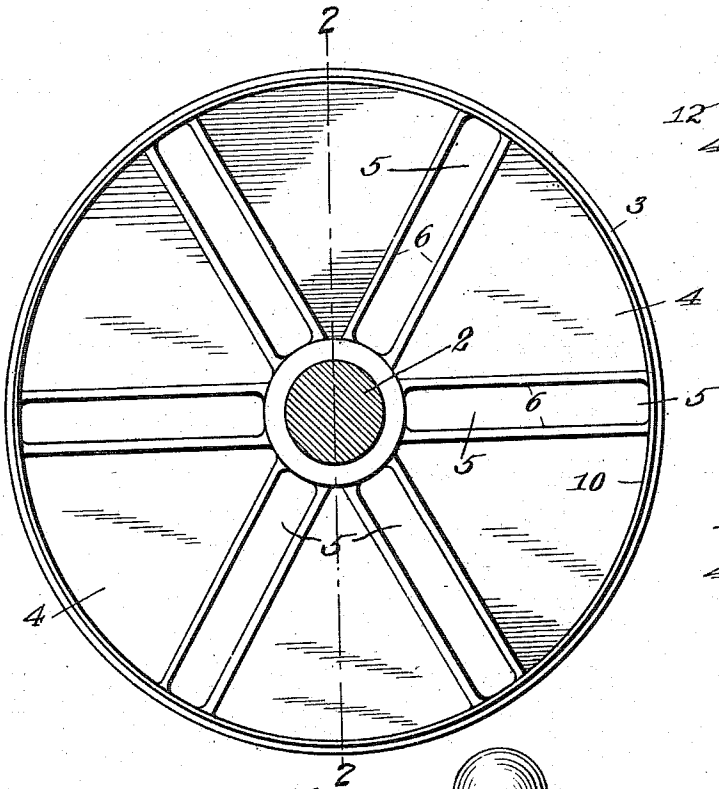


Fig. 2.

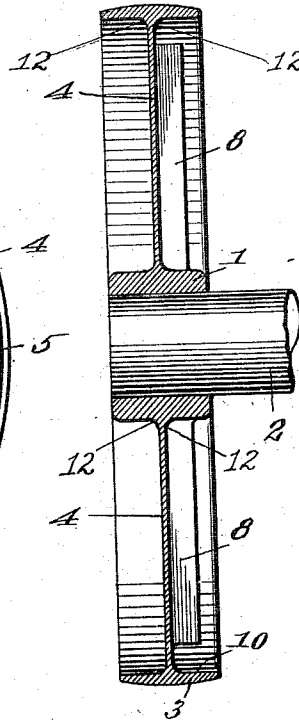
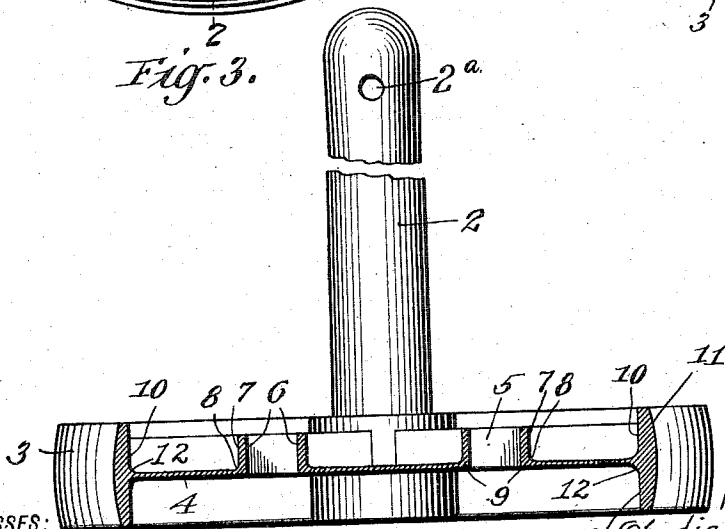


Fig. 3.



WITNESSES:

H. Brocheron
M. Zerkovitz

INVENTOR

O. M. Cornwell
BY *S. M. Cornwell*
ATTORNEY

UNITED STATES PATENT OFFICE.

OBADIAH M. CORNWELL, OF PLATTSBURG, MISSISSIPPI.

CHURN-DASHER.

972,827.

Specification of Letters Patent.

Patented Oct. 18, 1910.

Application filed December 31, 1909. Serial No. 535,765.

To all whom it may concern:

Be it known that I, OBADIAH M. CORNWELL, a citizen of the United States, residing in Plattsburg, R. F. D. No. 1, county of Winston, and State of Mississippi, have invented a new and useful Improvement in Churn-Dashers, of which the following is a description.

This invention relates to butter-churns and, particularly, to a novel construction of the dasher.

Among the objects of my invention may be noted the following: To provide a dasher which will be light, strong, durable and which will create no unnecessary friction in the tub; to provide a dasher which will facilitate the production of butter and thereby materially lessen the labor in churning; and to provide certain novel features of construction which render the churn dasher more effective, easier to operate and much more sanitary.

With the above objects in view and others which will be detailed during the course of this description, my invention consists in the parts, features, elements and combinations of elements, as hereinafter described and claimed.

In order that my invention may be clearly understood, I have provided drawings wherein:

Figure 1 is a top-plan view of the dasher showing the handle in section; Fig. 2 is a section substantially on the line 2—2 of Fig. 1; and Fig. 3 is a side elevation and partial section calculated to show the details of construction.

Referring to the drawings, the numeral 1 indicates the hub of the dasher, which is centrally bored for the reception of the handle 2, one end of which is tightly driven in said hub in suitable manner, so as to form a sufficient adhesion between the metal and wood to prevent any possibility of it coming out and to fit accurately, making this part of it more sanitary than if it were fastened with a wedge. A hole 2^a is bored transversely through the upper end of the handle to provide a means for suspending the dasher. The rim 3 of the dasher is connected by radial sector-shaped webs 4 to said hub, said webs being, for the major portion of their width, of substantially uniform thickness and located midway between the top and bottom edges of the rim and

the hub. Longitudinal slots 5 extend radially from the hub to the rim and between the several webs 4, the walls 6 of said slots being considerably thicker or higher than the said webs; that is to say, the walls, along their length are vertical, as at 7, and at their junction with the webs 4 are slightly rounded, as at 8, to avoid angles. The webs are flat throughout their bottom surfaces, the thickened portions being all on the top surface thereof. The rim, on its inner face, on opposite sides of the webs, is substantially vertical, as indicated at 10; but its periphery is convexed transversely, as indicated at 11. The points of connection of the webs with the rim and hub are rounded, as at 12, the object being to eliminate all angles or corners at points where there is possibility of accumulation of milk or butter which would result in putrefaction or the production of germs.

The convexed periphery is given to the rim for the purpose of preventing the top and bottom edges of said rim from striking or scraping the inner walls of the churn, thus avoiding wear on the inner sides of the churn and preventing the glazing thereof from being scratched or knocked off.

From a sanitary standpoint, the foregoing structure is highly important, since thereby bacteria are prevented from collecting or forming in the pores of the churn. If the churn be made of metal, the wear thereon by the convexed periphery of the dasher and the lower end of the handle would be very slight and the great wear and strain which would ordinarily be produced by striking the top and bottom edges thereof would be avoided. Moreover, this form of plano-convex rim is much stronger and more durable.

The radial slots between the webs are of the same width from hub to rim and are made comparatively narrow, and the sides of the walls facing the slots are perpendicular or at a right angle to the webs. This results in causing the milk or clabber in the churn, on the downward stroke of the dasher, to change abruptly from a horizontal to a perpendicular direction of movement, resulting in violent agitation and producing better and quicker results. As the slots are comparatively narrow and the clabber is forced therethrough and between the rim and inner sides of the churn, it quickly ex-

pands into the vacuum formed both above and below the webs 4 of the dasher, resulting in cleansing the milk and butter by forcing the air out of it. With this construction, furthermore, more air is forced into the milk and butter and with greater force than with constructions heretofore used, producing a much more wholesome quality of milk and butter, since the air goes into and through it with enough force to thoroughly cleanse it from all impure gases and forms a cohesion between the particles of butter.

By increasing the thickness of the webs at the radial slots, as described, greater strength is given to the webs and greater durability to the dasher, as a whole; and the structure thus formed produces a dish between each pair of slots in which a part of the butter as it is produced or separated will remain, while the milk will overflow the edges of the thickened portions and run down into the churn through said slots and space on the upward stroke of the dasher.

I prefer to make my dasher of aluminum, inasmuch as it is non-corrosive, very light and exceedingly strong and tough. In consequence, germs are not liable to be conveyed to the milk, nor form in the fluid from corrosion of the metal, as would be the case with a metal liable to corrode, the operator will not become fatigued so quickly, and the dasher will last a very long time in com-

parison with others of ordinary construction.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A churn dasher having a rim and a hub connected by a plurality of webs formed by narrow radial slots, the rim having a convex periphery, substantially as described.

2. A churn dasher having a rim and a hub connected by a plurality of webs separated by radial slots, the opposing walls of the slots being substantially at right-angles to the lower surface of the webs and the material of the webs adjacent to the slots being increased in thickness on the upper surface of said webs.

3. A churn dasher provided with a hub and rim connected by radial webs, the latter being separated from each other by radial slots, the walls of the slots being raised along the length of the webs, whereby to form, between the latter and the said rim, receptacles for conveying the butter as it is produced to the top of the milk.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

OBADIAH M. CORNWELL.

Witnesses:

J. H. WATSON,

J. C. McGOHEY.