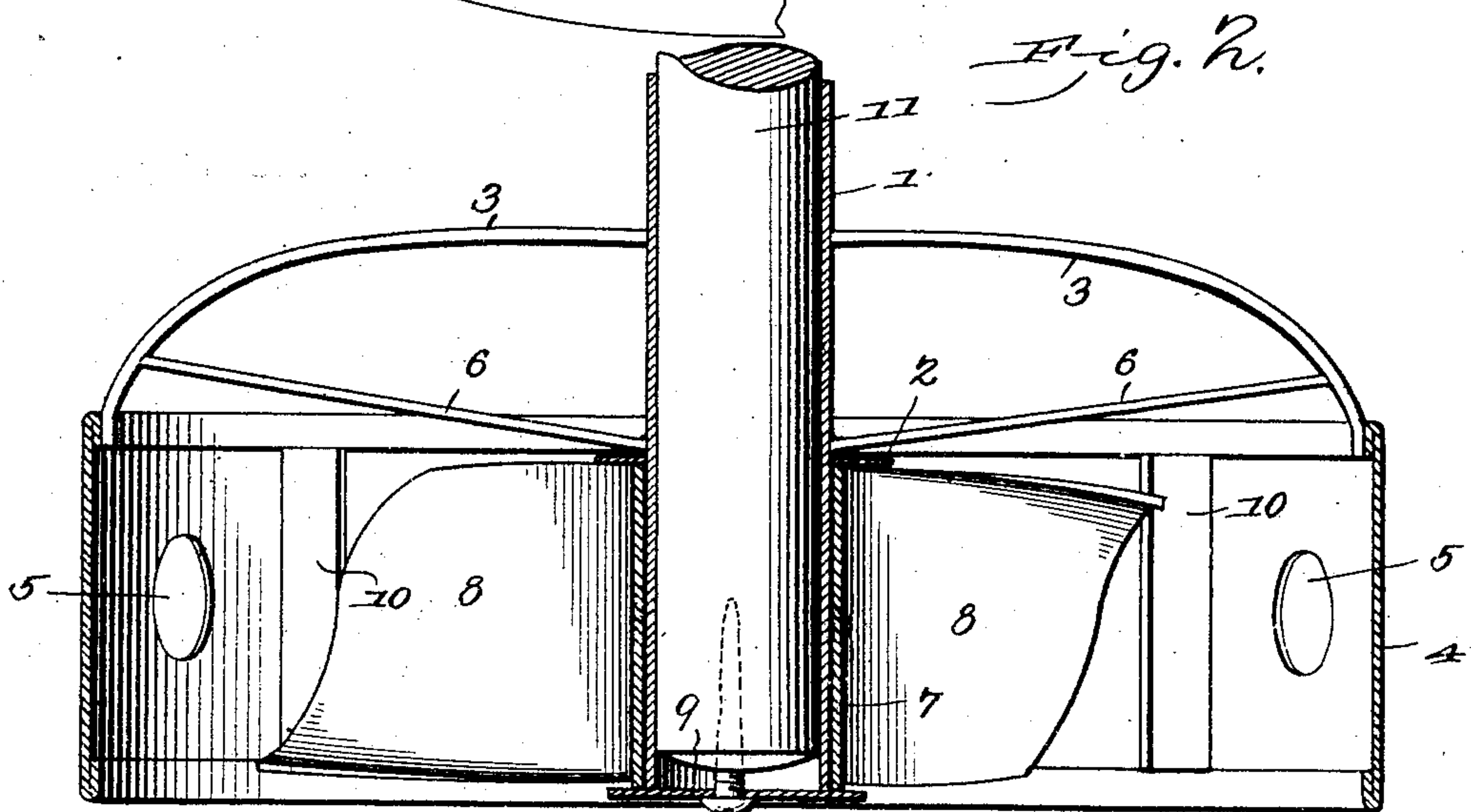
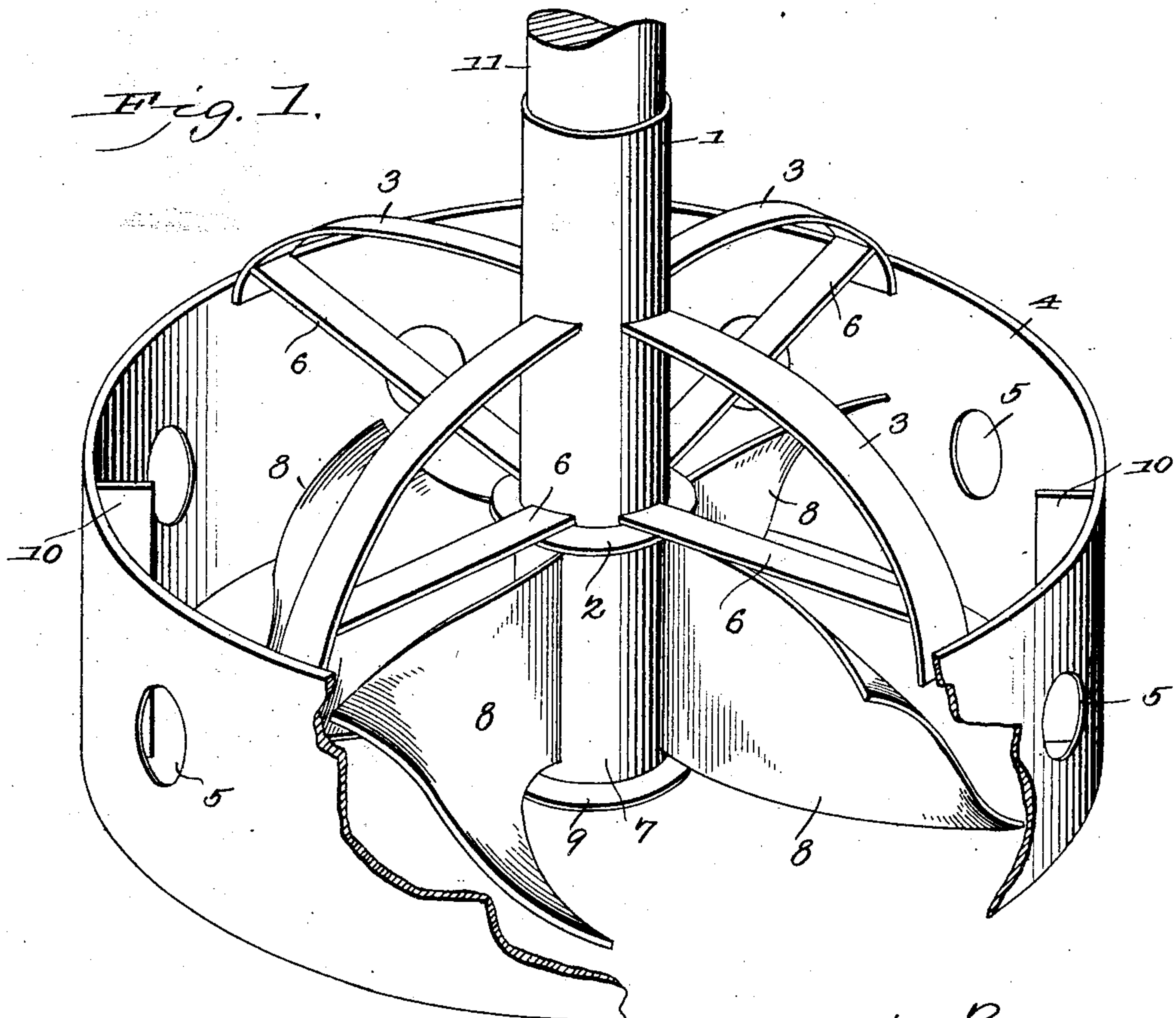


No. 786,525.

PATENTED APR. 4, 1905.

S. C. SIMONS.
CHURN DASHER.

APPLICATION FILED NOV. 28, 1904.



Witnesses

E. J. Stewart
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UNITED STATES PATENT OFFICE.

SILAS C. SIMONS, OF RISINGSTAR, TEXAS, ASSIGNOR OF ONE-HALF
TO SAMUEL H. CLARK AND LOUTHER M. CLARK, OF RISINGSTAR,
TEXAS.

CHURN-DASHER.

SPECIFICATION forming part of Letters Patent No. 786,525, dated April 4, 1905.

Application filed November 28, 1904. Serial No. 234,683.

To all whom it may concern:

Be it known that I, SILAS C. SIMONS, a citizen of the United States, residing at Risingstar, in the county of Eastland and State of Texas, have invented a new and useful Churn-Dasher, of which the following is a specification.

This invention relates to churn-dashers, and has for its object to provide an improved hand-operated device of this character capable of being used in any ordinary form of churn-body—such, for instance, as a stone crock—without any alteration or addition thereto. It is furthermore designed to arrange the device for convenient reciprocation by hand and at the same time to effect rotation of the rotary member of the device, so as to obtain an effective agitation of the cream.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of a churn-dasher embodying the features of the present invention, parts being broken away to expose the interior thereof. Fig. 2 is a central longitudinal sectional view of the dasher.

Like characters of reference designate corresponding parts in both figures of the drawings.

The present dasher includes a central upright tubular socket 1, which is provided about midway of its ends with an external annular flange or shoulder 2. Substantially radial and downwardly-bowed arms 3 extend outwardly from the socket above the flange 2 and carry at their outer ends an upstanding circular band 4, which is pierced at regular intervals by openings 5. Braces 6 extend outwardly from the socket adjacent the upper side of the flange 2 and incline upwardly with their outer

ends connected to the inner sides of the respective arms, so as to effectually brace the latter.

Upon the lower portion of the socket 1 is a rotary dasher-wheel in the nature of a propeller comprising a tubular hub 7, rotatably embracing the socket and provided with radial propeller-blades 8, there being a cap or plate 9 applied to the lower end of the socket with its peripheral edge portion projected beyond the socket and forming a flange or collar for the support of the hub 7, which is held against endwise movement between the flange 2 and the cap 9.

Suitable upright breakers 10 in the nature of flat metallic plates are secured to the inner side of the rim or band 4 and are located just outside of the path of the propeller-wheel.

For the manipulation of the device a suitable dasher staff or handle 11 is introduced into the open upper end of the socket 1 and is manipulated to reciprocate the dasher within any ordinary or preferred form of churn-body. During the reciprocation of the dasher the arms 3 and the braces 6 operate as substantially horizontal breakers, while the propeller-wheel rotates in one direction during the upward movement of the dasher and in the opposite direction during the downward movement of the dasher, thereby producing alternate upward and downward streams or currents in the cream and also dashing the cream against the breakers 10, thereby producing currents in various directions and breaking up the same, so as to effectually agitate the cream and quickly bring the butter.

The function of the rim 4 is to somewhat confine the swirl produced by the dasher-wheel in order that said swirl or current may be directed alternately upward and downward, and the band is provided with the openings 5 to permit some of the cream being violently dashed out through the openings, so as to be broken up by contact with the edges thereof.

From the foregoing description it is apparent that the rigid members of the present dasher are connected to the central socket member in an exceedingly simple and durable

manner, so as to prevent any of these parts from working loose, and the propeller-wheel is mounted in a simple and convenient manner upon the lower end of the socket beneath the radial arms, whereby the upward current is broken up by said arms. All of the parts of the device are conveniently accessible and may thereby be readily cleansed, so as to maintain the dasher in a sanitary condition. It is proposed to form all of the parts of the dasher of metal, the dasher staff or handle, of course, being of wood, so as not to add materially to the weight of the dasher.

It is proposed to provide for readily removing the rotatable wheel from the non-rotatable socket 1, and this is accomplished by having the cap 9 separate from the socket and centrally pierced by a threaded fastening 12, which is fixed to the cap and enters the bottom of the handle 11, whereby the cap is detachably held in place, and the handle is held against endwise displacement from the socket. By unscrewing the fastening the cap 9 will be removed therewith, whereupon the hub 7 of the wheel may be slid from the socket, so as to give access to the interior of the hub and that portion of the socket which is covered by the hub for cleansing the same.

Having fully described the invention, what is claimed is—

1. A churn-dasher comprising a central tubular socket, substantially radial arms extending from the socket downwardly, an upright rim hung from the outer ends of the arms and provided with an annular series of openings, substantially radial braces extending from the socket to the outer end portion of the arms, an annular flange upon the socket below the braces, a propeller-wheel having its hub rotatably embracing the lower portion of the socket, a removable annular flange upon the lower end of the socket, the hub being held against endwise movement between the two flanges, the socket being open at its upper end for the reception of a dasher-staff, and upstanding breaker-blades carried by the inner side of the rim.

2. A churn-dasher comprising a tubular socket for the reception of a dasher-staff, an intermediate annular flange upon the socket, a propeller-wheel having its hub rotatably embracing the socket at the under side of the flange, and a cap removably applied to the lower end of the socket and projected around the periphery thereof with the hub of the propeller-wheel supported upon the projected portion of the cap.

3. A churn-dasher comprising a tubular socket which is open at opposite ends and capable of receiving a dasher-staff within one end thereof, a propeller-wheel having its hub rotatably embracing the socket, and a detachable cap applied to the other end of the socket and projected around the periphery thereof with the hub of the propeller-wheel supported upon the projected portion of the cap.

4. A churn-dasher comprising a tubular socket for the reception of a dasher-staff, a propeller-wheel having its hub rotatably embracing the socket, a cap detachably applied to one end of the socket and projected around the periphery thereof with the hub of the propeller-wheel supported upon the projected portion of the cap, and a fastening piercing the cap and entering the socket for engagement with the dasher-staff.

5. A churn-dasher comprising a tubular open-ended socket, a dasher-staff entering one end of the socket, a propeller-wheel having its hub rotatably embracing the socket, a removable cap applied to the other end of the socket and projected around the periphery thereof with the hub of the propeller-wheel supported upon the projected portion of the cap, and a fastening carried by the cap and piercing the dasher-staff to detachably retain the cap in place.

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

SILAS C. SIMONS.

Witnesses:

ALBERT TYSON,
S. H. CLARK.