

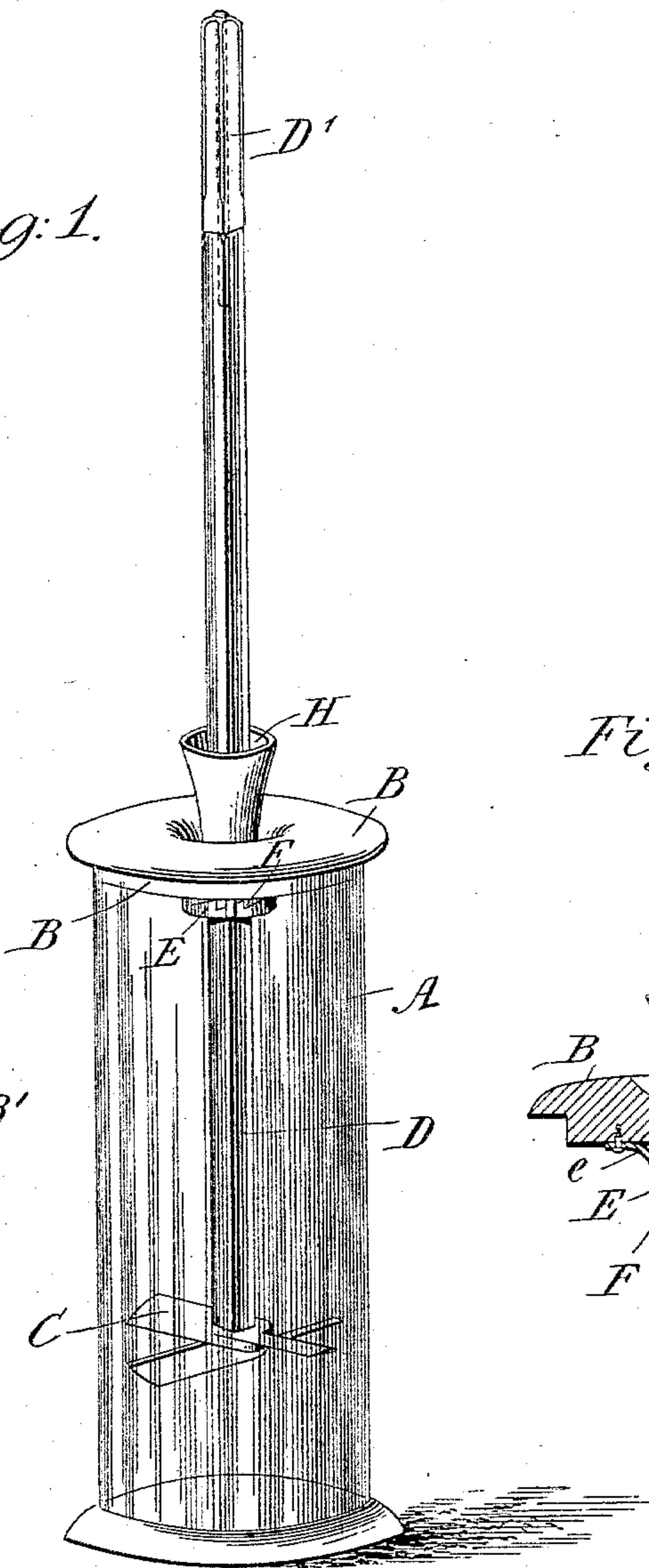
(No Model.)

J. E. GIBBS.  
CHURN.

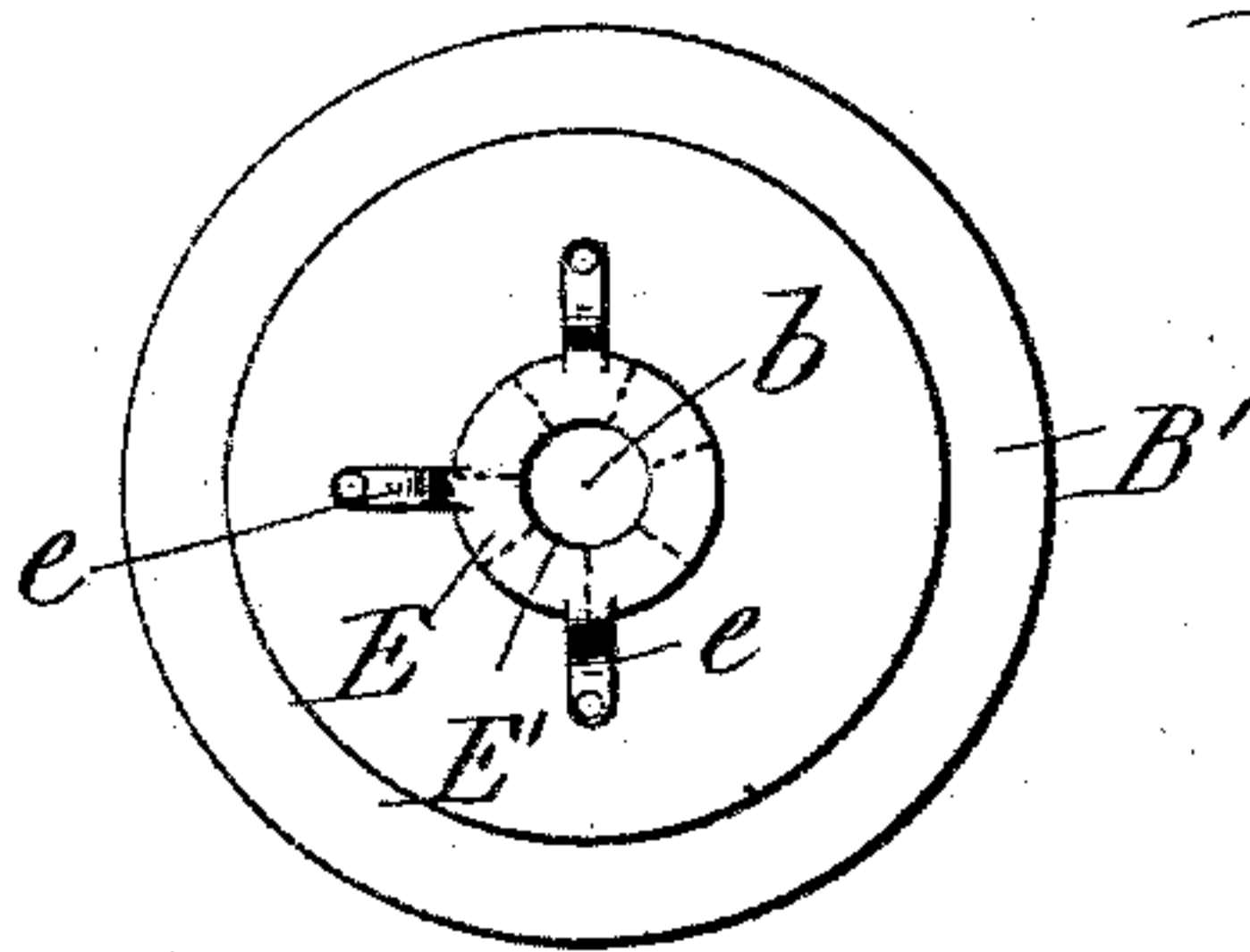
No. 597,060.

Patented Jan. 11, 1898.

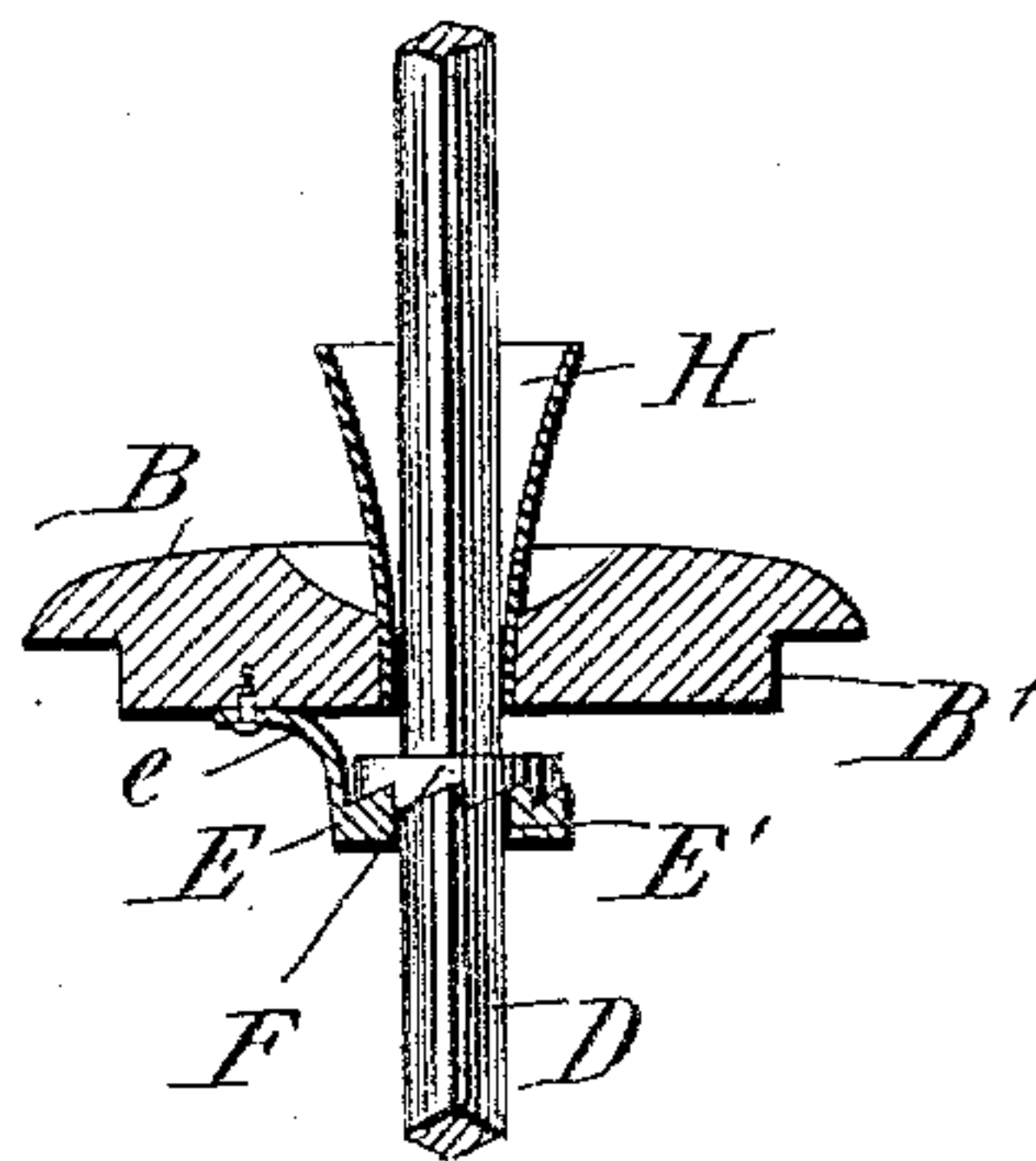
*Fig. 1.*



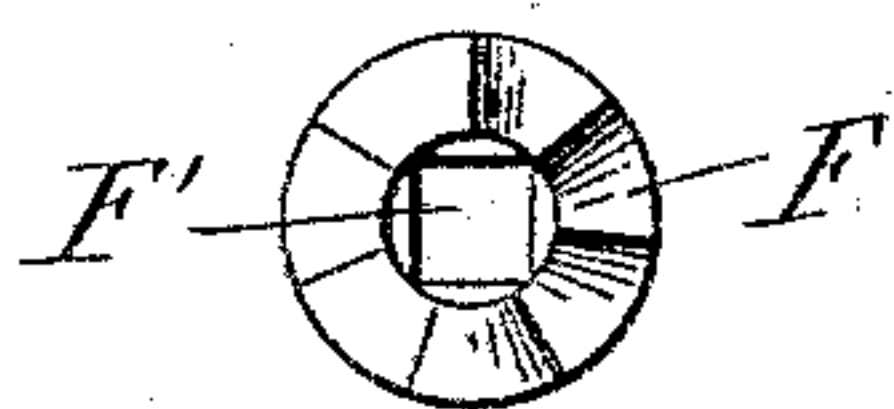
*Fig. 2.*



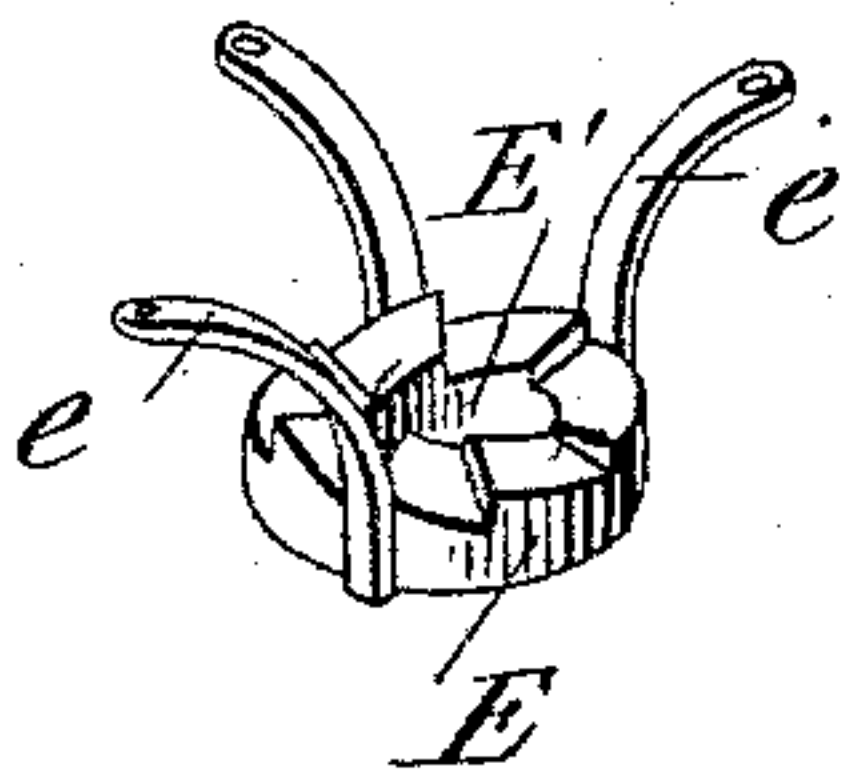
*Fig. 3.*



*Fig. 5.*



*Fig. 4.*



Witnesses.

*John Rennie.*  
*Philip Measi.*

Inventor.

*James E. Gibbs.*

*E. W. Anderson*  
*his*  
Attorney.



# UNITED STATES PATENT OFFICE.

JAMES E. GIBBS, OF BRIDGEWATER, VIRGINIA, ASSIGNOR OF ONE-HALF TO  
WILLIAM A. BYERLY, OF SAME PLACE.

## CHURN.

SPECIFICATION forming part of Letters Patent No. 597,060, dated January 11, 1898.

Application filed June 17, 1897. Serial No. 641,156. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES E. GIBBS, a citizen of the United States, and a resident of Bridgewater, in the county of Rockingham and State of Virginia, have invented certain new and useful Improvements in Churn Covers and Dashers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a perspective view of a churn embodying my improvements. Fig. 2 is a bottom plan view of cover. Fig. 3 is a detail partly in section, and Figs. 4 and 5 are detail views of respective ratchet-plates.

This invention is designed to provide an improved churn cover and dasher which is more especially intended as an improvement upon the cover and dasher described and claimed in my Patent No. 568,086, dated September 26, 1896.

The improvements consist, first, in a rearrangement of the ratchet-plates, whereby the dasher-rod is locked upon the downstroke and released upon the upstroke from the outside to the inside of the cover, and, second, the provision of means for preventing the cream in churning from being thrown off from the angular rapidly-rotating dasher-rod upon its upstroke.

The invention also consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, the letter A designates a churn-body, which is illustrated as being of glass, although any suitable barrel-body may be used. In fact, my improved cover and dasher is especially adapted to be applied to churn-bodies now in use with the old-style covers and dashers, whereby the owner of such a churn may discard his old cover and dasher and substitute the present devices therefor without going to the expense of buying an entirely new churn.

B designates the cover, which is provided with a central circular opening *b* for the dasher-rod and which has upon its under side a boss *B'*, which fits the mouth of the churn-body, all as in my said patent.

C designates the rotary reciprocating dasher, and D the squared dasher-rod having a swiveled handle portion *D'*.

E designates the fixed ratchet-plate, which is secured to the under side of the cover by means of feet or lugs *e*, which are of sufficient length to hold the plate at some little distance below the cover. The ratchet-teeth are upon the upper surface of this plate and the opening *E'* therethrough for the dasher-rod is circular and of sufficient diameter to permit said rod to play loosely therethrough.

F is the movable ratchet-plate, which is placed between the under surface of the cover and the plate E and is capable of a sufficient vertical play to permit its teeth to become entirely disengaged from the teeth of the plate E upon the upstroke of the dasher. The opening *F'* in this plate is square and is but slightly larger than the rod.

H designates a funnel which is fitted either removably or otherwise to the opening *b* of the cover and extends up around the rod for a distance of several inches above the cover. The purpose of this funnel is to catch the cream which is thrown from the angular corners of the rapidly-rotating rod upon its upstroke and to return the same to the interior of the churn.

In operation upon the downstroke of the dasher the two ratchet-plates become securely locked together and the dasher and rod are thereby held against rotation. Upon the upstroke, however, the plate F is lifted by the rod out of engagement with the plate E, and the dasher and rod are rapidly rotated as they are lifted. This action results in a rapid centrifugal motion of the cream in one direction and effects a speedy separation of the butter.

The dasher is also excellently adapted for use as a cream-separator and also for aerating milk.

The lugs *e*, by means of which the fixed ratchet-plate E is secured to the cover, are so



disposed (see Fig. 4) as to leave an opening between them through which the plate F can be inserted and removed for cleaning, &c.

By placing the ratchets upon the under side of the cover instead of upon the upper side, as in the said patent, I make the cover serve as a guard to limit its upward movement and obviate the employment of separate means therefor. The cream which necessarily lodges on the ratchet-plates also finds its way back into the churn much more readily. The noise or "click" produced by the engagement and disengagement of the ratchet-teeth is also much less noticeable when the ratchets are located upon the inside.

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

1. The combination with the rotary reciprocating dasher and its squared rod, of the cover, the fixed ratchet-plate having upwardly-extending legs or lugs which are secured to the under side of the cover and are of sufficient length to hold the plate some distance below the same, said plate having its teeth upon its upper side and formed with a circular opening therethrough for the dasher-rod, and a loose ratchet-plate interposed between the under side of the cover and the said fixed plate, said loose plate having its teeth upon its under side or face, and formed with a

squared opening therethrough for the dasher-rod, said legs or lugs being arranged to form an opening through which said loose plate may be inserted and removed, substantially as specified. 35

2. The combination with the rotary reciprocating dasher and its squared rod, of the cover, the fixed ratchet-plate having upwardly-extending legs or lugs which are secured to the under side of the cover and which are of sufficient length to hold the plate some distance below the same, said plate having its teeth upon its upper side and formed with a circular opening therethrough for the dasher-rod, and a loose ratchet-plate interposed between the under side of the cover and the said fixed plate, said loose plate having its teeth upon its under side or face and formed with a squared opening therethrough for the dasher-rod, said legs or lugs being arranged to form an opening through which said loose plate may be inserted and removed, together with a funnel held in the said cover, substantially as specified. 40 45 50 55

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

JAMES E. GIBBS.

Witnesses:

PHILIP C. MASI,

GEORGE H. PARMELEE.