G. D. WOODS.

CHURN-DASHER.

No. 187,955. Patented Feb. 27, 1877.

Fig. 1.

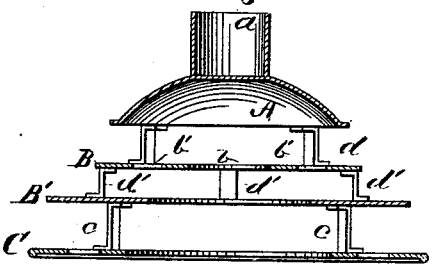


Fig. 2.

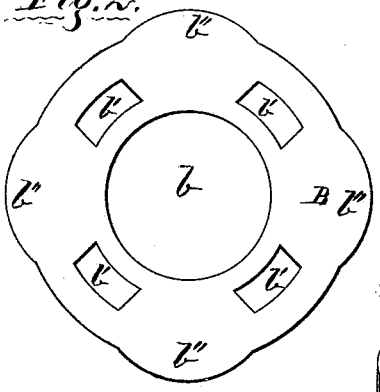


Fig. 3.

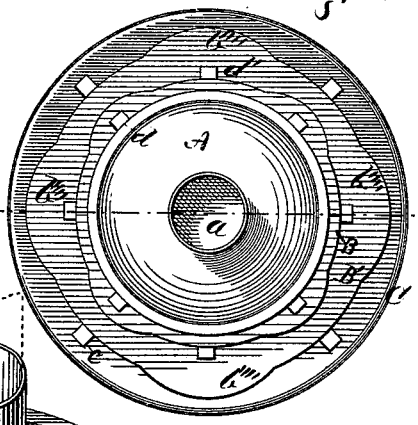
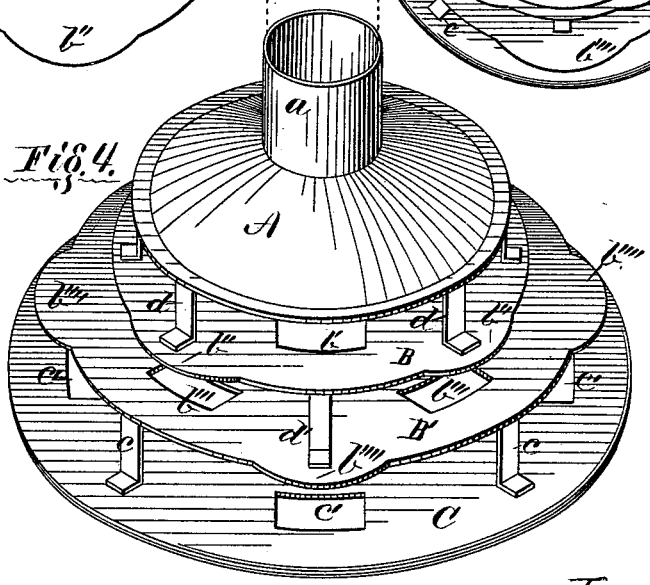


Fig. 4.



Witnesses:

W. H. Barringer.

P. R. Richards.

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UNITED STATES PATENT OFFICE.

GEORGE D. WOODS, OF AURORA, ILLINOIS.

IMPROVEMENT IN CHURN-DASHERS.

Specification forming part of Letters Patent No. **187,955**, dated February 27, 1877; application filed December 5, 1876.

To all whom it may concern:

Be it known that I, GEORGE D. WOODS, of Aurora, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Churns; and I do hereby declare the following to be a full, clear, and exact description thereof, which 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 is a sectional view of a churn-dasher embodying my invention, in the line *x x* of Fig. 3. Fig. 2 is a plan view of a detached dasher-plate. Fig. 3 is a top view; and Fig. 4 is a perspective view of my device.

My invention relates to improvements in churn-dashers, of the vertical plunger class; and the invention consists in the peculiar construction of the dasher, as hereinafter fully described, and set forth in the claims hereto annexed.

Referring to the drawings by letters, letter A represents an inverted cup-shaped plate, constituting the upper plate of my dasher, to the upper side of which is attached a suitable receptacle, *a*, for the handle, and to which are attached a series of subjacent plates, B, B′, and C. The plate B is somewhat larger than A, and is formed, as shown at Fig. 2, with a larger central circular opening, *b*, and smaller rectangular perforations *b′*, and projections *b″* on its periphery. This plate B is secured below, and to the plate A, by standards *d*. The plate B′ is formed similar to the plate B, but somewhat larger, and is secured beneath the plate B by standards *d′*, and is so placed that its openings *b‴* are brought beneath the projections *b″* of the plate B. C is the lower plate, and is formed similar to the plate B′, but is larger, and is circular. It is mounted beneath the plate B′ by standards *c*, and its openings *c′* are placed below the projections *b⁗* of the plate B′.

In operation, as the dasher is forced downward through the cream, the fluid will be forced upward through the circular and the rectangular openings in the plates C B′ B, and the various ascending currents will be deflected by the variously-shaped plates B, B′, C, and A, in ways not necessary to enumerate herein, but in ways which will give, it is believed, about the proper and necessary agitation to the cream, to rupture the fat globules, not so rapidly as to produce soft and frothy butter, nor so slowly as to render it tenacious and badly flavored.

The combination of the cup-shaped plate A with the other plates will facilitate the operations by carrying air downward and directly into the main ascending central column of cream, and its conical upper side, in combination with the general conical shape of the dasher, and the perforations in the different plates will permit easy ascending movement of the dasher.

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

A churn-dasher, constructed as described, of circular ring C and plates B′ B, having circular openings and projections *b″ b⁗*, and slots arranged as described, and with the inverted imperforate cup-shaped plate A, all united and operating substantially as and for the purpose specified.

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

GEORGE D. WOODS.

Witnesses:

THOS. MCREE,

P. R. RICHARDS.