(No Model.)

J. W. BRUTON.

CHURN.

No. 283,323. Patented Aug. 14, 1883.

Fig. 1.

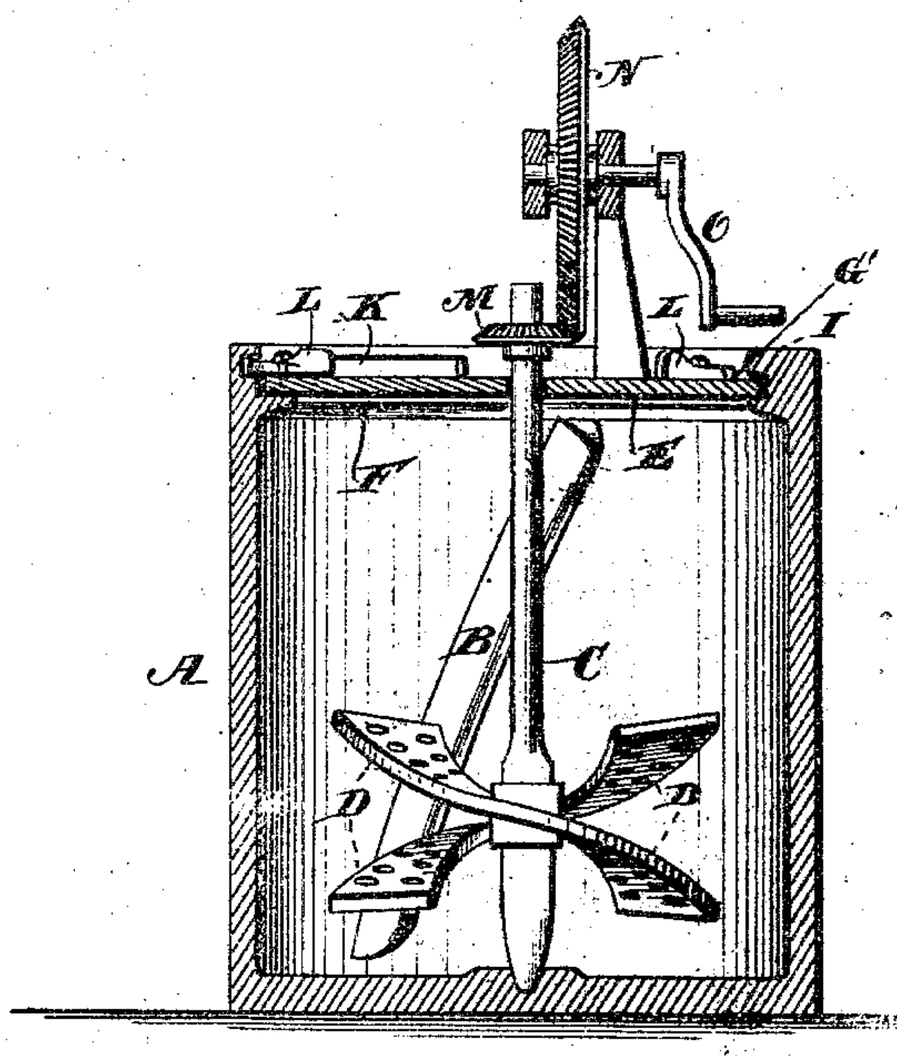


Fig. 3.

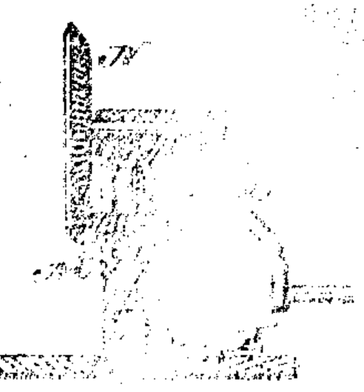
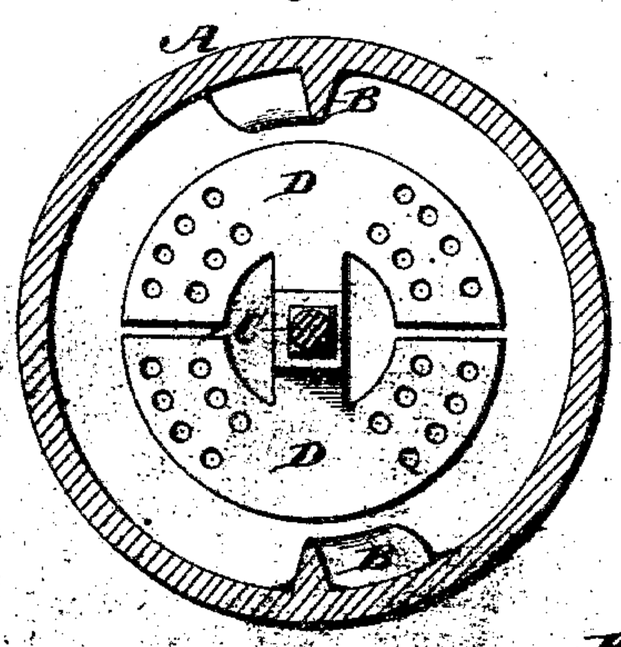


Fig. 2.



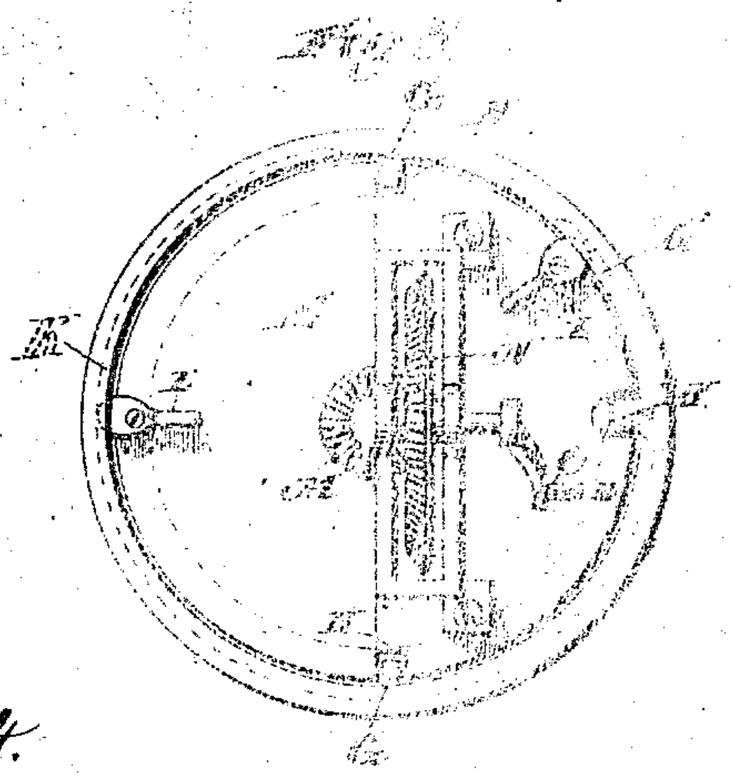
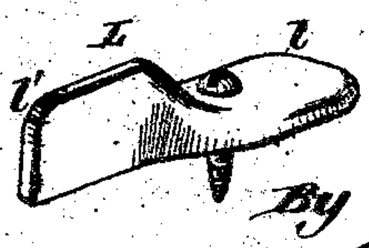


Fig. 4.



Witnesses.

Robt Everett.

J. A. Rutherford

Inventor.

Judson W. Bruton.

By James L. Norris.

Atty.

UNITED STATES PATENT OFFICE.

JACKSON W. BRUTON, OF GUTHRIE, MISSOURI.

CHURN.

SPECIFICATION forming part of Letters Patent No. 283,323, dated August 14, 1883.

Application filed December 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, JACKSON W. BRUTON, a citizen of the United States, residing at Guthrie, in the county of Callaway and State of Missouri, have invented new and useful Improvements in Churns, of which the following is a specification.

This invention relates to that class of earthenware churns in which the agitation of the cream is effected by means of a rotary dasher having a vertical shaft, which is journaled at its upper end in the cover of the churn and operated by means of a crank and intermeshing gear-wheels.

The objects of my invention are to provide the inner wall of the churn-body with an arrangement of devices which, acting in conjunction with the dasher, facilitate the agitation of the cream as the dasher is rotated; also to provide means for securing the cover to the churn-body, whereby the cover can be readily removed or fitted to the churn-body and securely held in place. These objects I attain by means of the devices illustrated in the annexed drawings, in which—

Figure 1 is a vertical section taken on a plane centrally through the churn constructed in accordance with my invention. Fig. 2 is a horizontal section taken above the dasher-blades. Fig. 3 is a top or plan view, and Fig. 4 a detached perspective, of the button for fastening the cover; and Fig. 5, a detached vertical sectional view, showing a modified means of revolving the dasher-shaft.

A indicates the vessel or churn-body, which is provided on its interior with two or more inclined ribs, B, formed in one piece therewith, extending diagonally from the bottom of the churn-body to within a short distance of its top. By this construction the junction of the ribs B with the body A forms an easy angle or curve, which is readily cleaned. The rotary dasher, which is arranged within the churn-body, comprises a vertical rotary dasher-shaft, C, provided with dasher-blades D, consisting of perforated segmental plates arranged in spiral lines around the vertical shaft, to which they are attached. As the dasher revolves, its blades have a tendency to raise and carry round the cream, and also to throw it out against the inclined or diagonal ribs on the inner wall of the churn-body. These ribs, while arresting the motion of the cream, cause it to be violently agitated, since the dasher-blade constantly impels the cream against said inclined ribs. The cover E is divided into two parts, adapted to be fitted together when placed in position to cover the churn-body. The cover rests upon an annular flange, F, provided upon the interior of the churn-body at a point below its upper end. Lugs G are also formed on the interior of the churn-body, above the annular flange, said lugs being received in notches H, formed in the periphery of the cover. By such means the cover is prevented from turning while the dasher is being operated.

I indicates a lug located on the interior of the churn-body at a point above the annular flange, under which lug the edge of one of the halves of the cover is secured, so that the cover will be held down in place. An annular groove, K, is also formed on the inner wall of the churn-body, above the annular flange, said groove being designed to receive the locking ends of one or more buttons, L, pivoted to the churn-cover. These buttons are each made flat on the under side, so as to turn easily on the cover, and formed with a flat locking end, *l*, adapted to engage in a groove, K, and with a handle end, *l'*, which can be conveniently grasped by the operator. These buttons can be turned after the cover is in place, so as to engage in the said annular groove.

Instead of providing an annular groove to receive the locking ends of the buttons, such ends can simply enter short recesses, as at G', and thus effect the same object.

M indicates a pinion on the rotary dasher-shaft, and N a larger gear-wheel, which is journaled on the cover and arranged to mesh with the said pinion. The gear-wheel is provided with a crank-handle, O, whereby it can be turned, so as to cause the rotation of the dasher.

Instead of having the pinion M permanently attached to the dasher-shaft C, as in Fig. 1, the said pinion can be arranged on a short journal in the frame which supports and carries the gear-wheel N and crank-shaft O, in which event the upper end of the dasher-shaft will be provided with an angular socket to receive the angular lower end of the short shaft which carries the pinion M, as represented in Fig. 5.

By the above-described construction and arrangement of parts the cream will be churned in a rapid and efficient manner, and the cover be held securely down during operation.

I am aware that separately-formed ribs have been secured to the inner surfaces of churning-vessels in an inclined or spiral position; but in all such constructions the joint between the body and ribs has afforded a place for the secretion and decomposition of the cream, the ribs were liable to become loose or warp out of place, and difficulty has been experienced in cleaning the vessel, owing to the crack and sharp angle formed thereby.

I am aware of English Patent No. 2,312 of 1879, and do not claim anything therein shown and described; but

What I do claim is—

The churn herein described, consisting of the body or vessel A, of earthenware, having the inclined ribs B formed upon its inner surface, annular flange F, vertical lugs G, horizontal lug I, and segmental groove K, all formed in one piece, the two-part cover E, having notches H, the buttons I, having vertical thumb-bearings l' and flat portion l, and the dasher composed of perforated spiral plates D, standard C, and operating-gear, all combined and operating as set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JACKSON W. BRUTON.

Witnesses:

THOS. H. SAMUEL,

ROBT. A. HUDSON.