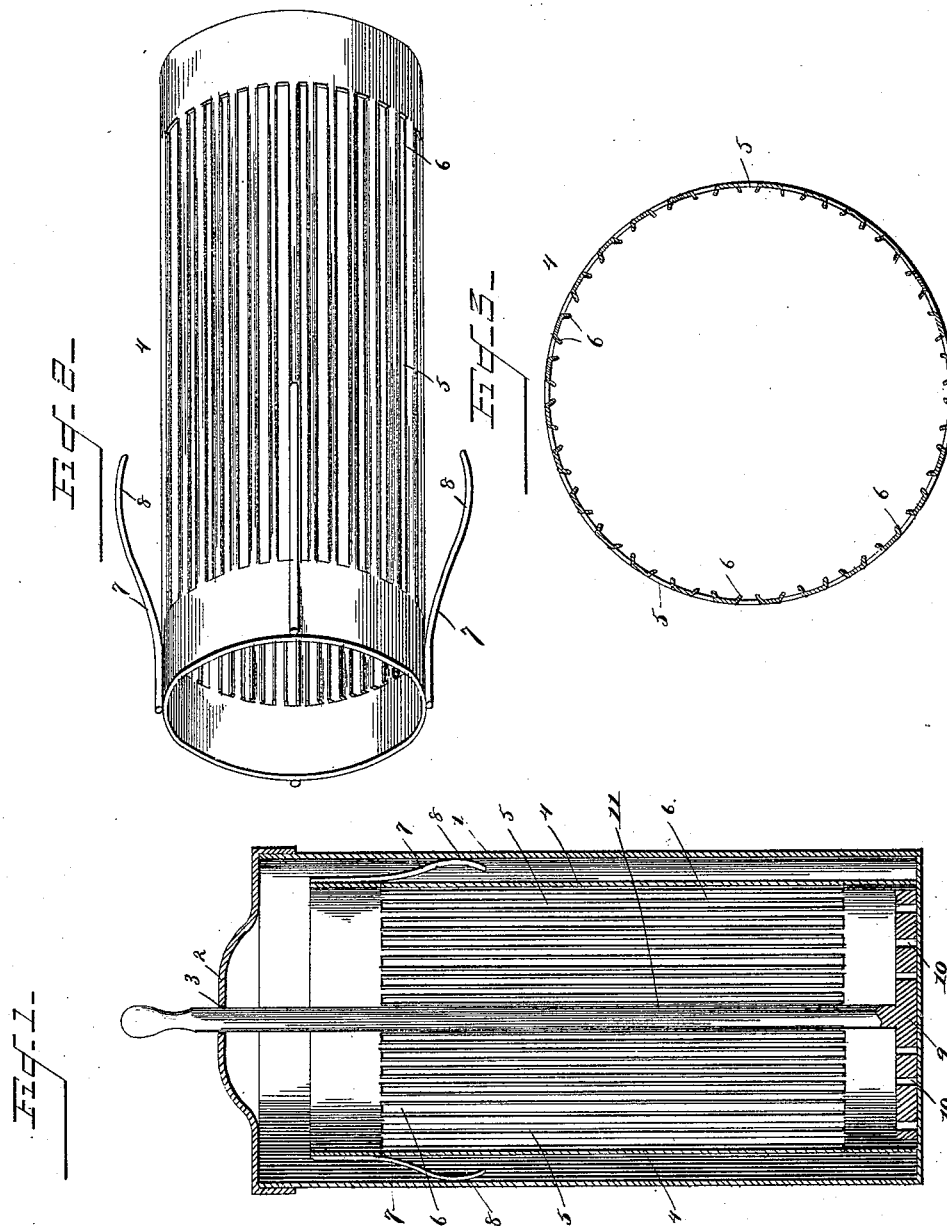


(No Model.)

E. STILLWELL.
CHURN.

No. 420,976.

Patented Feb. 11, 1890.



Witnesses:

Geo. C. Truick.

W. L. Suway.

By *his* Attorneys,

C. A. Snow & Co.

Inventor

Elias Stillwell

UNITED STATES PATENT OFFICE.

ELIAS STILLWELL, OF DADEVILLE, MISSOURI.

CHURN.

SPECIFICATION forming part of Letters Patent No. 420,976, dated February 11, 1890.

Application filed September 25, 1889. Serial No. 325,006. (No model.)

To all whom it may concern:

Be it known that I, ELIAS STILLWELL, a citizen of the United States, residing at Dadeville, in the county of Dade and State of Missouri, have invented a new and useful Churn, of which the following is a specification.

This invention has relation to that class of churns commonly termed "reciprocating dashers;" and among the objects in view are to provide a cheap simple churn, so constructed as to facilitate the converting of cream to butter, and to so arrange the parts as to render them readily detachable for the purpose of securing access to the churn-body for the purpose of cleaning, &c.

With these general objects in view the invention consists in an outer churn body or cylinder and an inner smaller removable cylinder having a series of perforations or openings, in means for retaining the inner cylinder in removable position within the outer cylinder, and in a reciprocating dasher loosely mounted within the inner cylinder.

Referring to the drawings, Figure 1 is a vertical section of a churn constructed in accordance with my invention. Fig. 2 is a detail in perspective of the inner perforated cylinder. Fig. 3 is a transverse section of the same.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents the body of the churn, in this instance cylindrical in cross-section and constructed of any suitable material, and upon the top of the same is mounted a removable cover 2, having a central perforation or opening 3.

4 represents an inner cylinder, in this instance formed of sheet metal and slotted at intervals from near its upper edge to near its lower edge, as at 5, the edges of the slots being inwardly turned, as at 6. The cylinder 4 is bottomless, and, in fact, is opened at both ends, and is designed to rest on the bottom of the churn-body. Projecting from the upper edge of the inner cylinder—in this instance at four points—are spring-arms 7, the free ends of which form a circle slightly larger than the inner circumference of the churn-body, the extremities of the arms being slightly bent in, as at 8. The inner cylinder is introduced, bottom first, into the churn-

body, the curving of the ends of the arms permitting the same to pass within the churn-body and to be compressed toward each other by contact with the wall of the body. When in position within the body, it will be apparent that the spring-arms will serve to maintain the perforated cylinder in position.

Although I have herein shown and described my perforated cylinder as formed of sheet metal, I will here state that the advantages accruing from the construction may be attained equally as well should the cylinder be formed of wood or other suitable material.

9 represents the dasher, which is provided with a series of perforations 10, and 11 represents the dasher-rod, which projects up through the opening in the cover, whereby the dasher may be reciprocated. The dasher is mounted within the inner cylinder and is slightly smaller than the same.

From the above description it will be apparent that the parts may be readily disassembled for the purpose of cleaning the churn and removal of the butter, the formation of which is greatly facilitated by the employment of the perforated inner cylinder, which has the effect of separating or breaking the more quickly the globules of cream, whereby said cream becomes more sensitive to the operation of churning.

I have herein illustrated the inner cylinder as provided with longitudinal slots, and prefer such construction, as I believe such obtains advantages over ordinary perforations, the inwardly-turned edges of the slits or slots serving to cut the globules. However, it will be apparent that any perforated cylinder will obtain to a certain extent advantages obtained by the cylinder described.

Having described my invention, what I claim is—

1. The herein-described cylinder adapted for insertion within a churn-body and provided with a series of radiating spring-arms and a vertically-slotted body, the edges of the slots being inwardly turned to form a series of cream-cutters, substantially as specified.

2. The combination, with the cylindrical body 1, and the cover 2, having the opening 3, of the inner cylinder 4, formed of sheet metal and smaller than the churn-body and having

a series of vertical slots 5, the edges of which are inwardly turned, as at 6, the spring-arms 7, having their upper ends secured to the smaller cylinder and their free ends inwardly bent, as at 8, the dasher 9, mounted in the inner cylinder, having a series of perforations 10, and a dasher-rod 11, secured to the dasher and projecting through the opening in the cover, substantially as specified.

3. In a churn, the combination, with an inner cylinder longitudinally slotted, the oppo-

site edges of said slots being inwardly bent, as at 6, to form breakers, of a dasher mounted for reciprocation within the cylinder, substantially as specified. 15

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

ELIAS STILLWELL.

Witnesses:

JOHN N. LANDERS,
A. R. HEMBREE.