

(No Model.)

A. COEN.
CHURN.

No. 460,951.

Patented Oct. 13, 1891.

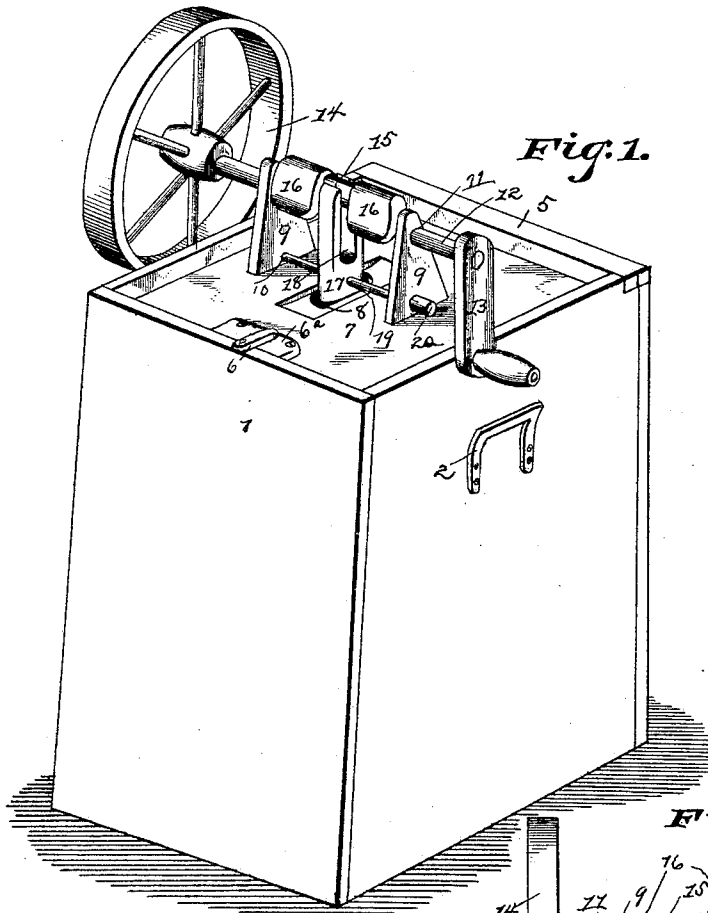


Fig. 1.

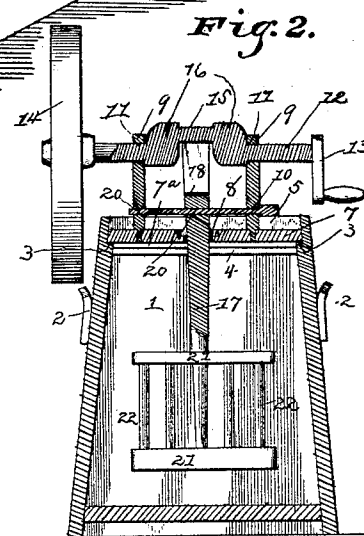


Fig. 2.

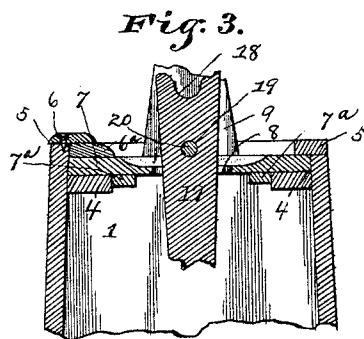


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

ABRAHAM COEN, OF GARDNER, KANSAS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 460,951, dated October 13, 1891.

Application filed May 15, 1891. Serial No. 392,916. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM COEN, a citizen of the United States, residing at Gardner, in the county of Johnson and State of Kansas, have invented a new and useful Churn, of which the following is a specification.

This invention relates to that class of churns known as "vibrating dashers;" and the objects in view are to provide an exceedingly simple, cheaply-constructed, and efficient means for operating the dasher, and furthermore to provide a cover for conveniently and removably supporting said operating means, said cover being so constructed as to form a tight joint between itself and the churn-body, thereby preventing the escape of milk during the agitation thereof by the dasher.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a churn constructed in accordance with my invention. Fig. 2 is a transverse section of the same. Fig. 3 is a section taken at right angles to Fig. 2.

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

1 designates the churn-body, which is rectangular in cross-section and has its four sides converged toward the upper end of the churn-body. The exterior of the body is provided with suitable lifting-handles 2. The opposite side walls of the churn-body are provided near their upper edges and upon their inner surfaces with transverse recesses or channeled portions 3, extending to their edges, and said walls are connected near their side edges by transverse cleats 4, the upper faces of which are flush with the bottom edges of the recesses 3, so that the mouth of the churn is contracted below the upper edge of the same. The opposite side walls have let therein at their upper extremities and at their rear corners a cross-cleat 5, the upper surface of which is flush with the upper edges of the side walls, said cleat 5 being located immediately above one of the cleats 4 and being narrower, as shown, than said cleat. Opposite the cleat 5 a button 6 is secured.

7 designates the churn-cover, and the same

is rectangular and of a size adapting the same to fit within the opening or upper end of the churn-body. The churn-cover is provided upon its under side near its opposite ends with transverse cleats 7^a, located a distance from the ends agreeing with the width of the cleats 4 of the churn-body. In mounting the cover in position the rear edge of the same is inserted between the cleats 4 and 5 at one side of the churn-body, the front end of the cover resting on the opposite cleat 4 and being locked in position by the turn-button 6, overlapping the block 6^a of the cover. The two cleats 7^a serve not only to strengthen the cover and prevent it from splitting, but also prevent the cream from splashing and working between the cover and cleats 4 and thence out of the churn. It will thus be seen that the cover may be easily and securely locked in position, and when so locked forms joints through which the cream cannot be dashed during agitation. The cover is provided with a central opening 8, and from the cover at each side of the opening rises a pair of standards 9, provided with transverse perforations 10 near their lower ends and at their upper ends with transverse bearing-perforations 11. In the bearing-perforations 11 there is mounted a transverse shaft 12, which shaft is provided at its outer end with an operating-crank 13 and at its opposite end carries a fly-wheel 14. Between the bearing-standards the shaft is provided with a central cranked bearing 15, the opposite sides of the crank being thickened to form shoulders 16, which take against the inner sides of the standards, and thus retain the shaft in position between the bearings, and also somewhat loosely embrace the opposite sides of the dasher-staff, hereinafter mentioned, and retaining the same in proper position.

17 designates the dasher-staff, and the same is passed through the opening 8 of the cover, and has its upper end bifurcated, as at 18, to loosely receive the bearing 15 of the shaft 12. A perforation 19 is formed in the staff immediately above the cover, and a pin 20 passes removably through the opposite perforations 10 in the standards and through the bearing-perforation 19 of the staff, said pin serving as a bearing for the staff during its vibra-

tions. At and above the lower extremity of the staff cross-bars 21 are located, said cross-bars being connected at intervals by five vertical spokes 22, the lower end of staff serving as the central spoke, the cross-bars of the spokes constituting a dasher-frame operating upon a well-known principle.

It will be obvious that by turning the crank-handle 13 the crank 15 will serve to oscillate or vibrate the dasher-staff upon its pivot 20, and thus the proper agitation is communicated by the dasher to the body of cream in the churn, which cream is quickly converted into butter.

Having described my invention, what I claim is—

1. The combination, with the rectangular churn-body, the opposite side walls of which are recessed, as at 3, below their upper edges, cross-cleats secured to the front and rear walls and connecting said side walls, at their upper sides flush with the bottoms of the recesses, and a superimposed cleat narrower than and located above one of the cross-cleats, of a cover rectangular in plan and having its rear edge inserted between the superimposed and one of the lower cleats and resting upon the opposite cleat and bottom edges of the recesses, opposite cleats 7^a, secured to the under side of cover and fitting between the cross-cleats of the churn-body, and a turn-button swiveled to one edge of the churn-

body and adapted to be rotated over the free edge of the cover, substantially as specified.

2. The combination, with the churn-cover having the central opening, and the opposite standards located at opposite sides of the opening and provided near their lower ends with perforations and near their upper ends with bearing-perforations, of a dasher-staff bifurcated at its upper end and below the same provided with a bearing-perforation in line with the lower perforations of the standards, a pin removably passed through the perforations of the standards and the staff, which depends through the opening in the cover, and the shaft mounted in the upper bearings of the standards, provided with a central cranked bearing for engaging loosely with the bifurcation of the staff, and provided at each side of said crank with thickened bearing-shoulders 16 for embracing the staff and bearing against the standards, the crank-handle mounted on one end of the shaft, and the fly-wheel on the opposite end, substantially as specified.

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

ABRAHAM COEN.

Witnesses:

C. E. SLATE,
S. L. SHARPE.