(No Model.)

W. BECHTOLD.

CHURN.

No. 381,668. Patented Apr. 24, 1888.

Fig. 1.

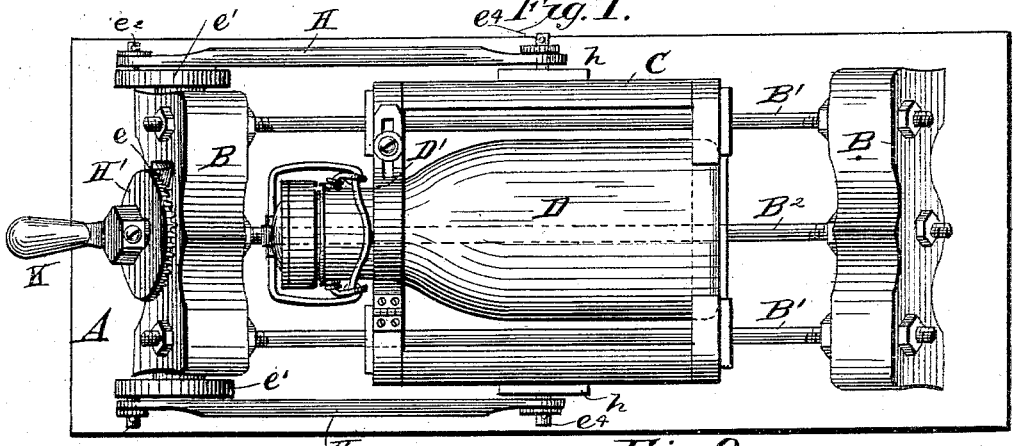


Fig. 2.

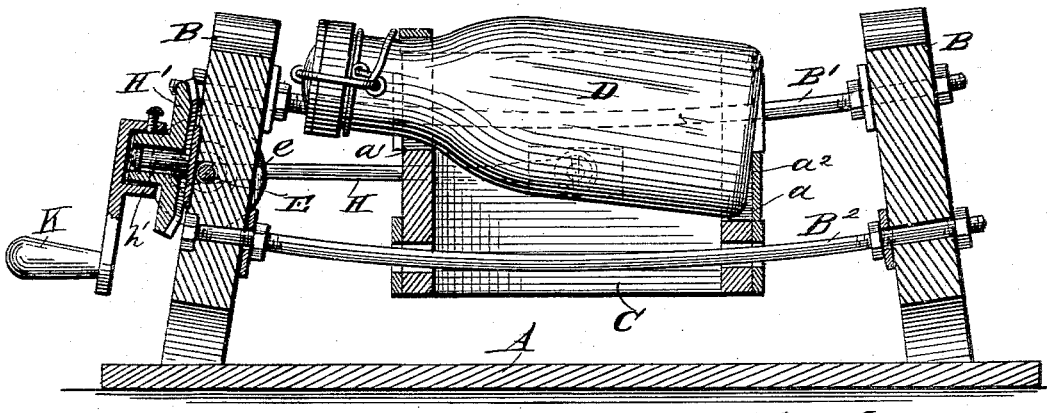
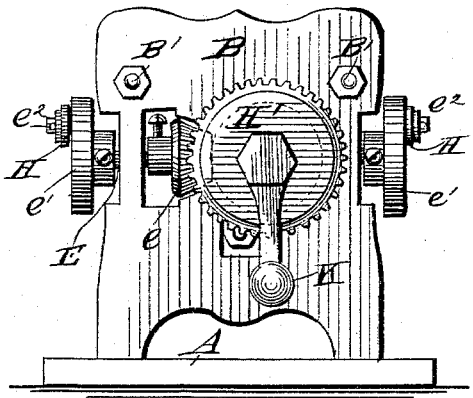
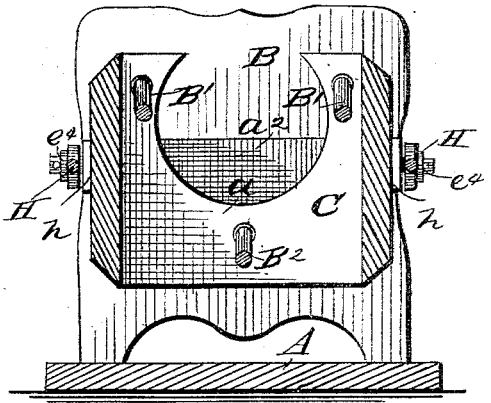


Fig. 3.

Fig. 4.





WITNESSES:

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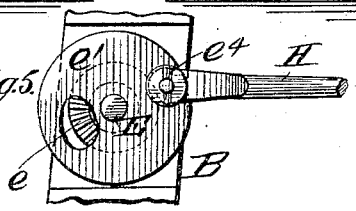
C. Sedgwick.

Fig. 5.



INVENTOR:

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UNITED STATES PATENT OFFICE.

WILLIAM BECHTOLD, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO DAVID EISENHARDT, OF SAME PLACE.

CHURN.

SPECIFICATION forming part of Letters Patent No. 381,668, dated April 24, 1888.

Application filed December 29, 1887. Serial No. 259,305. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BECHTOLD, of the city, county, and State of New York, have invented a new and useful Improvement in Churns, of which the following is a full, clear, and exact description.

My invention relates to an apparatus for making butter from cream, and has for its object to provide a means whereby the cream may be churned in a simple and expeditious manner, and wherein the apparatus may be manufactured at a minimum cost.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the apparatus; Fig. 2, a central vertical section. Fig. 3 is an end view. Fig. 4 is a central transverse section with the cream-receptacle removed, and Fig. 5 is a detail view of parts hereinafter fully described.

In carrying out the invention, A represents a base-plate of any desired construction or material, and B standards secured to said base near its ends, which standards are made to face each other, and preferably caused to incline inward to insure strength, as illustrated in Figs. 1 and 2.

Parallel rods B′ are passed through the standards, one at each side, near their upper ends, which rods extend horizontally over the base, and preferably describe a gradual downward curve throughout their length; but may be made straight, if desired. By curving the rods B′, however, a rocking motion is given the carriage as it passes to and fro along the rods, and this materially increases the agitation and facilitates the process of churning. A third rod, B^2, similarly curved, is projected over the base between the aforesaid rods B′, being secured centrally in the standards a distance from the base, as illustrated most clearly in Figs. 2 and 4.

Upon the rods B′ and B^2 a carrier, C, is held to reciprocate, which carrier is preferably rectangular in contour, having an open top and provided with a recess, *a* and *a′*, respectively, at each end, the recess *a* being the deepest, and partially closed by a plate, a^2, attached to the outer face of the carrier, as shown in Fig. 4.

In the carrier C a cream-receptacle, D, is detachably held, which receptacle is preferably made to resemble in contour an ordinary milk can or bottle, and is constructed of glass. The receptacle is given an inclined position in the carrier, as shown in Fig. 2, by resting its base in the recess *a* and against the plate a^2, its neck being placed in the recess *a′*, with its mouth projecting out therefrom.

In order to retain the receptacle immovably in the carrier, a strap, D′, is hinged upon the upper edge of the carrier at one side of the recess *a′*, as shown in Fig. 1. The said strap is made to conform to the upper contour of the cream-receptacle at its neck, and is adapted to clamp the same at that point, being secured by a set-screw or in any other suitable and readily-detachable manner to the carrier upon the opposite side of the recess *a′*.

To reciprocate the carrier a shaft, E, is transversely journaled in one standard, B, projecting beyond its sides. At one side of the center of the said shaft a bevel-pinion, *e*, is keyed, and upon the outer ends of said shaft a disk, *e′*, is secured, provided near its periphery with a wrist-pin, e^2. Upon the outer sides of the carrier, at or near its center, a plate, *h*, is attached having an integral horizontally-projecting stud, e^4, motion being communicated to the carrier from the disk through a connecting-rod, H; pivoted, respectively, upon the wrist-pin e^2 and stud e^4.

The beveled pinion *e* is actuated through the medium of a bevel-gear, H′, meshing therewith, which gear revolves upon a horizontal shaft, *h′*, attached to the one standard B, the actuating mechanism being a crank, K, attached by a set-screw or equivalent means to a collar integral with the outer face of the gear. The crank may, however, be dispensed with and means substituted for driving the gear by steam-power.

I wish it distinctly understood that I do not confine myself to a glass cream-receptacle, as it may be made of any other desired material, glass, however, being preferred.

In operation, cream having been placed in

the receptacle and the receptacle secured upon the carrier, the crank is rapidly manipulated, which, reciprocating the carrier, imparts a quick churn-like motion to the cream, bringing butter in a few minutes. The apparatus may also, if desired, be advantageously employed in the manufacture of cheese.

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

The combination, with inwardly-inclined standards, parallel horizontal curved rods secured in said standards at opposite ends near their tops, a third curved horizontal rod secured in the standards below and between the parallel rods, and a carrier reciprocating upon said rods provided with recesses at its ends of unequal depth, of a cream-receptacle held in said carrier and resting in said recesses, a transverse shaft journaled in one standard provided with a disk at each end carrying a wrist-pin, connecting-bars pivoted to the outer sides of the carrier and to said wrist-pins, and means, substantially as described, for rotating said shaft, as set forth.

WM. BECHTOLD.

Witnesses:
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