J. F. COE.

Churn.

No. 167,500. Patented Sept. 7, 1875.

Fig. 1.

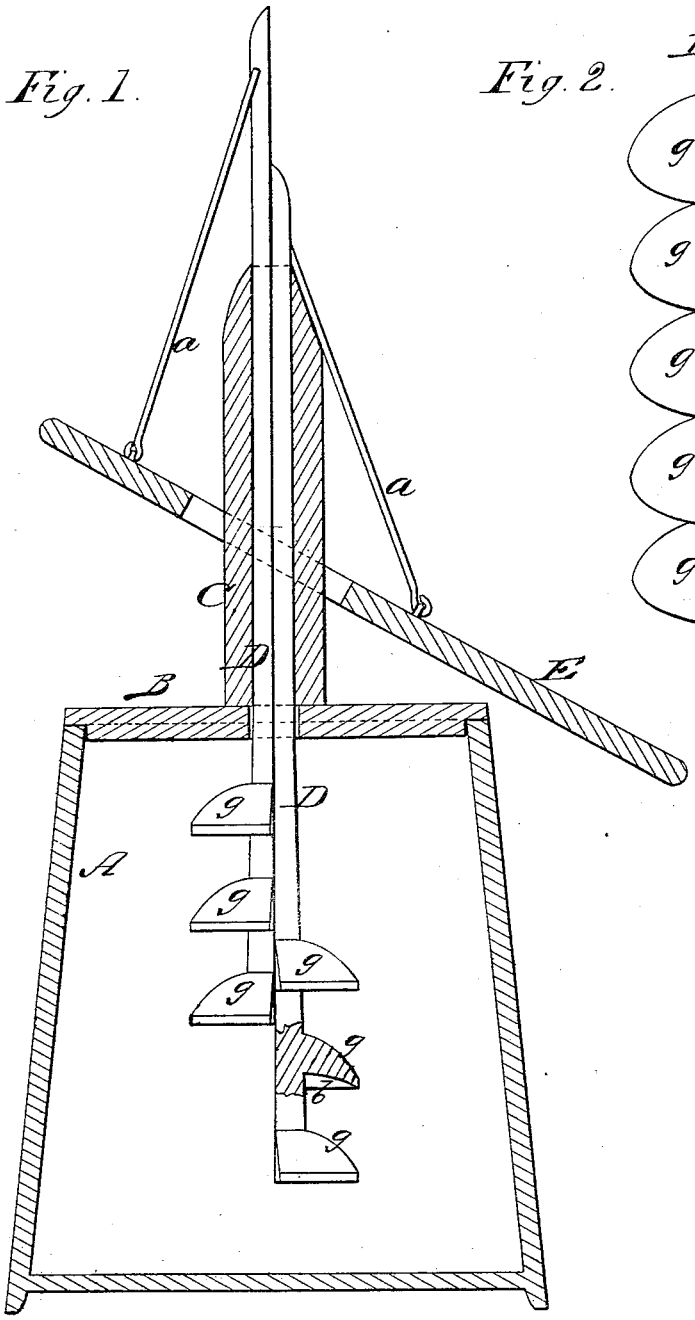
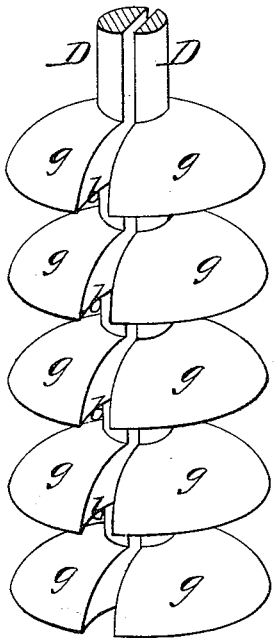


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES FOSTER COE, OF ZALESKI, OHIO.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **167,500**, dated September 7, 1875; application filed March 7, 1874.

To all whom it may concern:

Be it known that I, JAMES F. COE, of Zaleski, in the county of Vinton and State of Ohio, have invented a new and valuable Improvement in Churns; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a sectional view of my churn. Fig. 2 is a detail view of the same.

This invention has relation to churns having vertically-reciprocating dashers; and it consists in two alternately-reciprocating dasher-rods, actuated by a single lever, and constructed with semicircular concavo-convex dashers, which will violently agitate and beat the cream, when a rapid vertical motion is given to them, as will be hereinafter explained.

The following is a description of my improvement:

In the annexed drawings, A designates a circular churn-box, which is preferably made of a circular form, but it may be rectangular, and which is constructed with a removable cover, B. In the center of this cover B a hollow standard, C, is erected and rigidly secured, through which standard and cover a hole is made of rectangular form in cross-section. D D designate two dasher-shafts, which are allowed free vertical play in the standard C and through the center of the cover B, and which are connected to a vertically-vibrating lever, E, on opposite sides of its fulcrum, by means of rods or links *a a*. Lever E is slotted to receive through it the standard C, and this lever has its fulcrum on this standard. Inside of the churn-box A each dash-rod D has a number of semicircular dashers, *g*, formed on or secured to it, the upper surfaces of which are convex, and their lower surfaces are concave, as shown at *b* in both figures of the drawings. When the lever E is vibrated the rods D D, with their peculiar-shaped dashers *g*, alternate with each other in their vertical movements—that is to say, as one set of dashers descend the other set rise. The effect of these movements is to violently dash the cream first toward the right-hand side of the churn-box and then toward the left, owing to the concavities in the bottoms of the dashers; and as each set of dashers are raised their convex surfaces throw the cream toward the sides of the churn-box.

What I claim as new, and desire to secure by Letters Patent, is—

The concavo-convex semicircular imperforate dashers *g g*, and vertically-reciprocating rods D D, in combination with the rods *a a*, lever E, top B, and tubular standard, embracing the dash-rods, constructed and arranged substantially as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES FOSTER COE.

Witnesses:

HENRY ROBERTSON,

CHARLES LUCKETT.