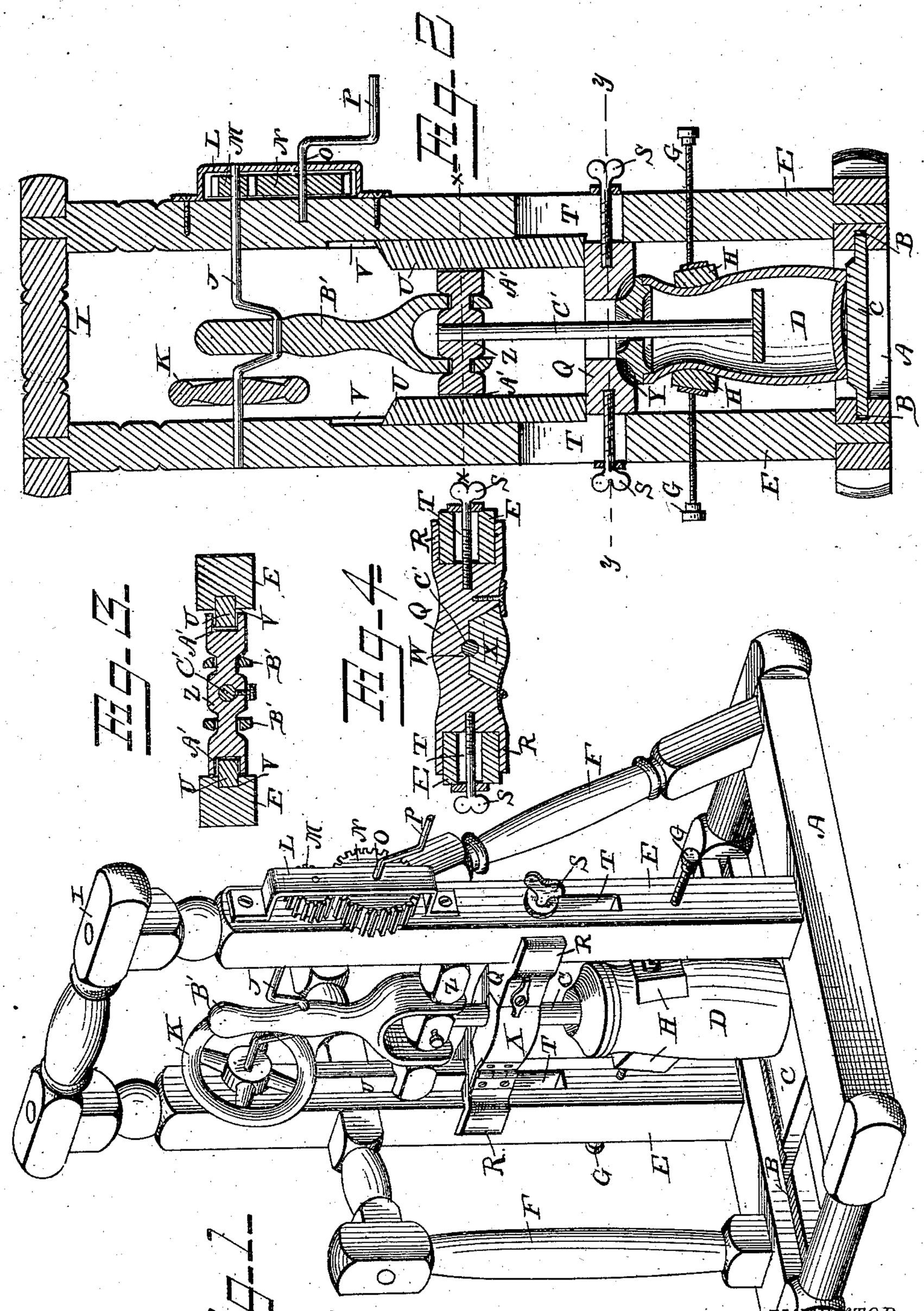
(No Model.)

O. E. PERRY.

CHURN MOTOR.

No. 290,799. Patented Dec. 25, 1883.



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UNITED STATES PATENT OFFICE.

ORSANUS E. PERRY, OF WHITEHALL, MICHIGAN.

CHURN-MOTOR.

SPECIFICATION forming part of Letters Patent No. 290,799, dated December 25, 1883.

Application filed June 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, ORSANUS E. PERRY, a citizen of the United States, residing at Whitehall, in the county of Muskegon and State of Michigan, have invented a new and useful Churn-Motor, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to motors for that class of churns which are provided with vertically-reciprocating dashers; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view. Fig. 2 is a vertical transverse sectional view. Fig. 3 is a horizontal sectional view on the line *x x* in Fig. 2, and Fig. 4 is a horizontal sectional view on the line *y y* in Fig. 2.

The same letters refer to the same parts in all the figures.

A in the drawings designates the rectangular base-frame, the sides of which have grooves B B in their inner sides, to accommodate a longitudinally-sliding floor or plate, C, which supports the churn-body D. The sides of frame A have uprights E E, strengthened by suitable braces, F F, and provided with bearings for a pair of transverse thumb-screws, G G, carrying at their inner ends swiveled clamps H H, adapted to clamp and hold the churn-body during operation. The upper ends of the uprights E E are connected by a cross bar or brace, I.

Journaled transversely in the uprights E E, near the upper ends of the same, is a crank-shaft, J, having a fly-wheel, K. One end of the shaft J extends through one of the uprights E and into a bracket, L, secured to the side of the latter, and carries a pinion, M, engaging a spur-wheel, N, mounted upon a shaft, O, journaled in the upright E and bracket L, and provided with a crank, P, by which it may be operated.

Q is a brace, having forked ends R, that straddle the uprights E E, with which the said brace is adjustably connected by thumb-screws S S, working in vertical slots T in the said uprights. The brace Q is provided with upwardly-projecting vertical guides U U, capable of sliding vertically in grooves V V in the inner sides of the uprights E, which said grooves serve to hold the guides U firm and steady. The brace Q has a vertical perforation, W, access to which may be had through a hinged clamp, X, at the front side of said brace, and the under side of the latter has a cup-shaped recess or concavity, Y.

Z is a cross-head sliding vertically between the uprights E E, and having its ends grooved, as at A′, to engage the guides U. The said cross-head is connected by a pitman, B′, with the crank upon the main shaft J. The dasher-staff C′ is connected detachably with the cross-head Z, and passes through the perforation W in brace Q into the churn.

In operation the churn is placed upon the sliding floor, and moved under the brace Q, the clamp X of which may be opened to admit the dasher-staff into the opening W. The dasher-staff is then connected with the cross-head, and the brace Q, with its attachments, is then lowered until the cup-shaped recess Y in its under side holds the cover firmly upon the churn. The churn-body is held securely during operation by the thumb-screws with their swiveled clamps. When the churning has been finished, the brace Q, with its attachments, is raised, and the churn may then be readily removed.

I claim as my invention and desire to secure by Letters Patent of the United States—

1. In a churn-motor, the combination of a base-frame, a pair of uprights, a cross-brace vertically adjustable between the said uprights and having a cup-shaped recess in its under side adapted to inclose the churn-cover, and provided with upwardly-projecting guides sliding in grooves in the inner sides of the uprights, a vertically-sliding cross-head having grooved ends engaging the said guides, a pitman connecting the said cross-head with a crank-shaft, and mechanism for operating the latter, substantially as set forth.

2. The combination, in a churn-motor, of the rectangular base-frame, the floor sliding longitudinally in the same, the uprights, thumb-screws working in the latter and having swiveled clamps, the vertically-adjustable brace having hinged clamp in front, cup-

shaped recess in its under side, and a vertical perforation, guides projecting upwardly from said brace, a vertically-sliding cross-head having grooved ends engaging said guides, the pitman, crank-shaft, and operating mechanism, all arranged and operating substantially as set forth.

3. The combination of the uprights having vertical slots, and provided with vertical grooves in their inner sides, the brace having forked ends that straddle said uprights, and provided with binding-screws working through the vertical slots, guides projecting upwardly from the said brace and sliding in the grooves in the inner sides of the uprights, a cross-head having grooved ends engaging the said guides, and mechanism for operating the said cross-head, substantially as described.

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

ORSANUS E. PERRY.

Witnesses:
C. A. HAMMOND,
W. L. HAMMOND.