

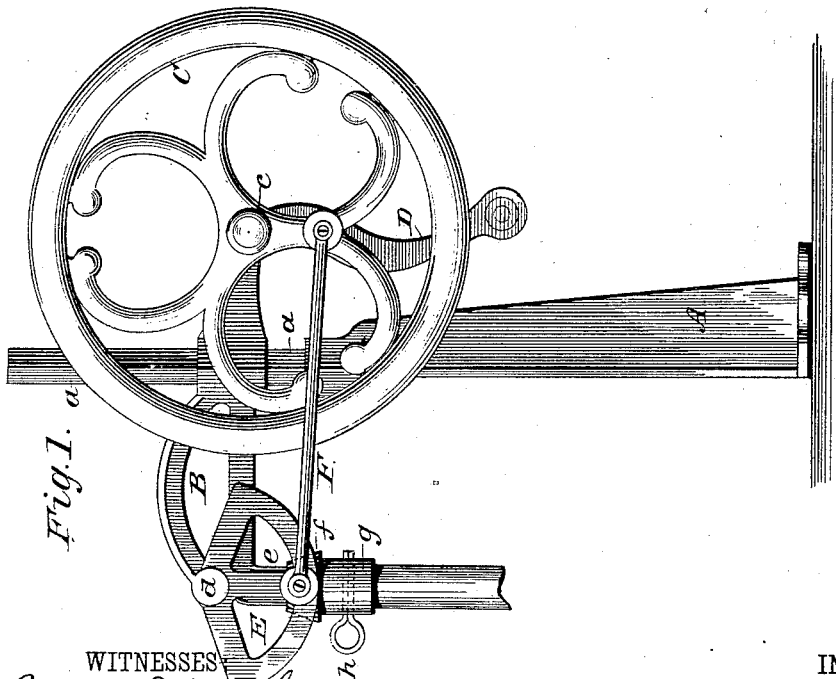
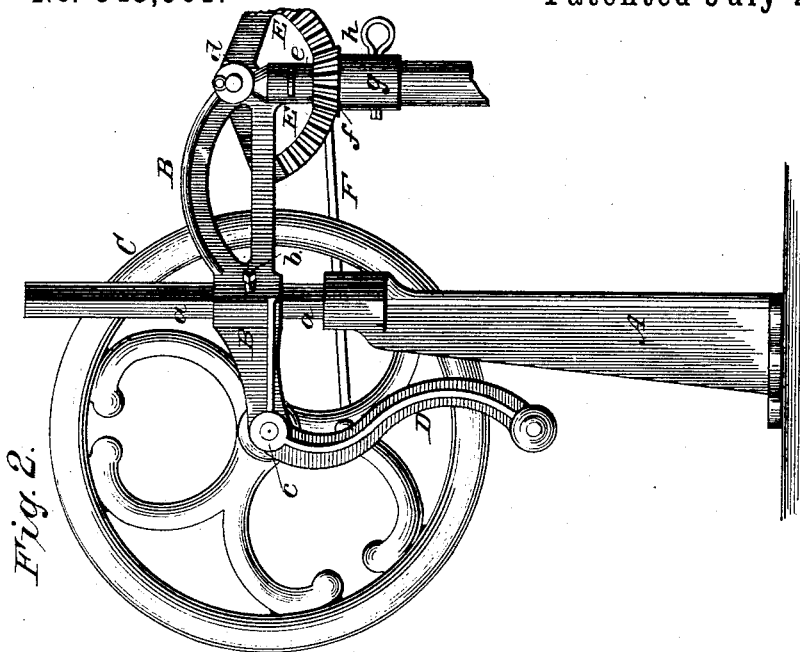
(No Model.)

C. J. FELLRATH.

VIBRATING CHURN.

No. 345,961.

Patented July 20, 1886.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

CHARLES JOHN FELLRATH, OF GATESVILLE, TEXAS.

## VIBRATING CHURN.

SPECIFICATION forming part of Letters Patent No. 345,961, dated July 20, 1886.

Application filed May 15, 1886. Serial No. 202,318. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES JOHN FELLRATH, of Gatesville, in the county of Coryell and State of Texas, have invented a new and useful Improvement in Churn-Powers, of which the following is a specification.

My invention relates to a motive power or driving mechanism, designed more especially for operating churns, but applicable also to other uses; and it consists in the peculiar construction and combination of parts, which I will now proceed to describe with reference to the drawings, in which—

Figure 1 is a side elevation from one side, and Fig. 2 is a side elevation from the other side.

A represents an iron standard having at its bottom a flanged foot provided with screw-holes for fastening it to the floor, and whose upper portion is squared and trued to form a guide and support for the sliding frame B, which has a square hole through the same in vertical direction, which fits upon and slides over the squared portion *a* of the standard, and which frame is held at different heights upon said standard by a set-screw, *b*.

The frame B has upon one side of the standard a journal-bearing, *c*, at its outer end, and upon the other side of the standard another journal-bearing, *d*, at its other end. In one of these bearings, *c*, is arranged a short shaft rigidly attached to a vertical fly-wheel, C, on one side, and to a crank, D, on the other side. In the bearing *d* at the opposite end of the sliding frame is journaled a short shaft attached to a vertical segmental gear, E, which segmental gear is connected by a pitman-rod, F, with the fly-wheel C. With the horizontal bearing *d* is cast or formed a vertical bearing, *e*, just beneath it, which receives a short vertical journal carrying a pinion, *f*, and a socket, *g*, for receiving the churn-shaft, which is fastened detachably in said socket by the split key *h*.

From the herein-described construction it will be seen that as the fly-wheel is revolved by the crank the pitman imparts to the segment an oscillating motion, and this segment meshing with the pinion connected to the churn-shaft socket causes the latter to rotate alternately in opposite directions, thus giving the required motion to the churn-dasher, ice-cream beater, or other object to be operated upon.

In defining my invention with greater clearness, I would state that I do not claim, broadly, the combination of a handle, fly-wheel, pitman, oscillating segment, and pinion on the churn-shaft, as such arrangement has been heretofore used, as shown, for instance, in German Patent No. 419, of September 22, 1877.

My invention is distinctive and possesses advantages in the following features: First, the sliding frame B, bearing the fly-wheel and crank on one side of its supporting-standard, and the toothed gears on the other side, causes the one end of the frame to balance the other; secondly, the fly-wheel and toothed segment being arranged in vertical planes, the mechanism is rendered more compact and simple, and may be closely stored against the side of the wall; and, thirdly, the vertical adjustability of the frame B on the standard permits the mechanism to be adapted to churns or freezers of different heights.

Instead of using the part A as a standard, it may be attached to the ceiling or timbers overhead, after the manner of a hanger, and the frame B reversed.

Having thus described my invention, what I claim as new is—

1. The combination, with the standard A, of the vertically-adjustable frame B, having a vertical opening about its middle, with a horizontal journal bearing at one end carrying a vertical fly-wheel and crank, and a horizontal and vertical journal-bearing at the other end, the first carrying a vertical toothed segment, a pitman connecting the fly-wheel and segment, and a pinion and shaft-socket arranged about a vertical axis and deriving motion from the toothed segment, substantially as described.

2. The combination of the standard A, having squared upper end, the sliding balanced frame B, with set-screw *b*, the crank D, and fly-wheel C, arranged at one end of frame B, the toothed segment E, pitman F, pinion *f*, and shaft-socket *g*, substantially as shown and described.

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Witnesses:

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