M. R. WHELCHEL.

Churn.

No. 215,850. Patented May 27, 1879.

Fig. 3

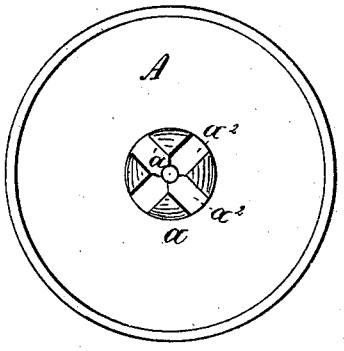



Fig. 1.

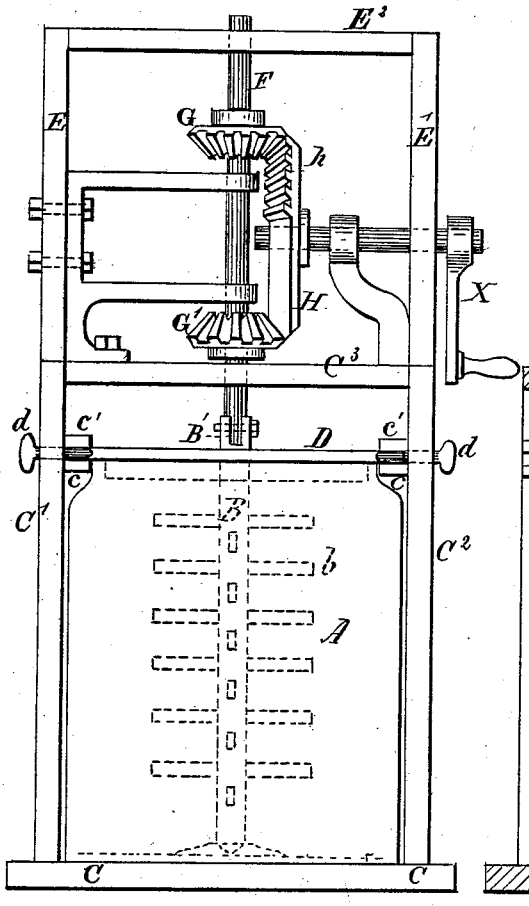
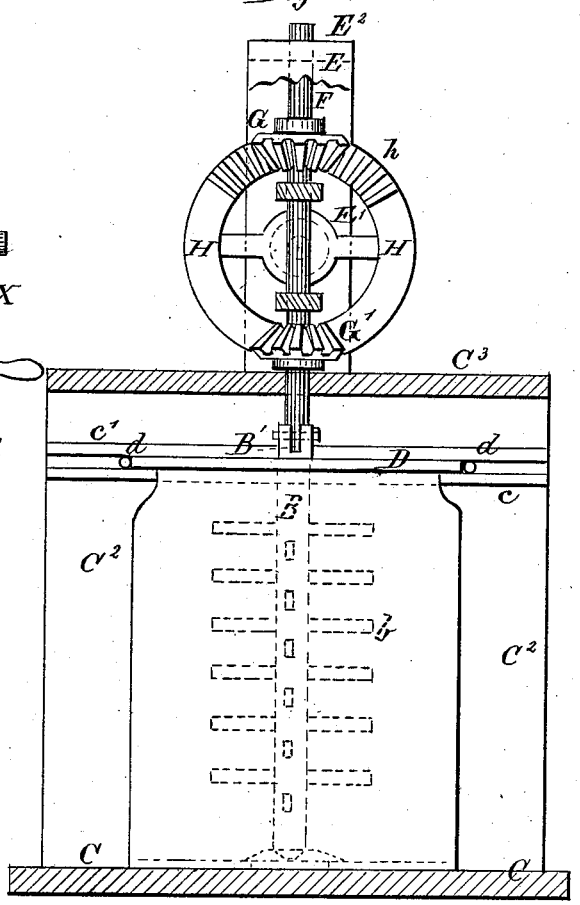



Fig. 2.




Witnesses.
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# UNITED STATES PATENT OFFICE.

MOSES R. WHELCHEL, OF HARTVILLE, MISSOURI.

## IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **215,850**, dated May 27, 1879; application filed January 24, 1879.

*To all whom it may concern:*

Be it known that I, MOSES R. WHELCHEL, of Hartville, in the county of Wright and State of Missouri, have invented certain new and useful Improvements in Churns; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a front elevation of my improved churn. Fig. 2 is a vertical section of the same. Fig. 3 is a plan view of the bottom of the churn.

In the drawings, A represents the main body of the churn, which, in its general conformation, may be constructed in the ordinary or in any desired form.

Upon the bottom of the churn there is a step, *a*, which receives the lower end of the dasher-shaft. This step has a central cylindrical recess, $a^1$, in which the dasher-shaft rests when at work.

In order to readily guide the shaft into said recess $a^1$, I form in the step *a* several radial slots or grooves, $a^2$ $a^2$, leading into the central recess, $a^1$.

B represents the dasher-shaft, and *b b* are the radial arms or blades. $B^1$ is a mortise or recess formed in the upper end of shaft B.

The churn is supported in a frame consisting of the bottom C, sides $C^1$ $C^2$, and a top, $C^3$. *c c' c c'* are cleats secured to the opposite side walls, $C^1$ $C^2$, respectively.

D is the lid or cover of the churn, adapted in size and shape to be guided and held in place by the cleats *c c' c c'*. After the lid has been placed in proper position it is held from slipping laterally by pins *d d*. The lid is provided with an aperture directly over the recess $a^1$, through which the dasher-shaft B passes.

The dasher is operated as follows: E $E^1$ are uprights or standards, extending from the walls $C^1$ $C^2$, and they are joined at the top by a cross-girt, $E^2$, the whole forming a supplemental frame to support the driving parts of the churn. F is a shaft, mounted in this frame at its upper or outer end, at a point directly in line with the recess $a^1$ and with the above-described aperture in the churn-lid. This shaft F passes through an aperture in the top $C^3$ of the churn-casing, adapted to the purpose, and it is square or flattened at its lower end, to fit into the mortise or slot $B^1$ in the upper end of the dasher-shaft B. G G' are pinions attached to shaft F, to impart rotary motion thereto. H is a wheel, mounted in the frame E $E^1$ $E^2$ on a shaft at right angles to the shaft F. This wheel H is provided with a mutilated or broken gear, (shown at *h*,) meshing with the pinions G G' and rotating them alternately. Power is applied to the wheel H at X by a crank or by other suitable means. A continuous rotation of wheel H in one direction will, through pinions G G', give an intermittent rotary motion in opposite directions to shaft F and dasher B *b*.

When the operation of churning is completed the churn can be removed after withdrawing the pins *d d* and uncoupling the shafts B and F, as the lid D will then slide freely between the cleats *c c'*.

What I claim is—

The combination, with the shafts F and B and the cover D, of the frame $C^1$ $C^2$ and the retaining parts *c c' d*, substantially as set forth.

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

MOSES R. WHELCHEL.

Witnesses:
N. B. GARNER,
N. N. NICHOLS.