

G. W. FOWLER.

Churn.

No. 68,060.

Patented Aug. 27, 1867.

Fig. 1.

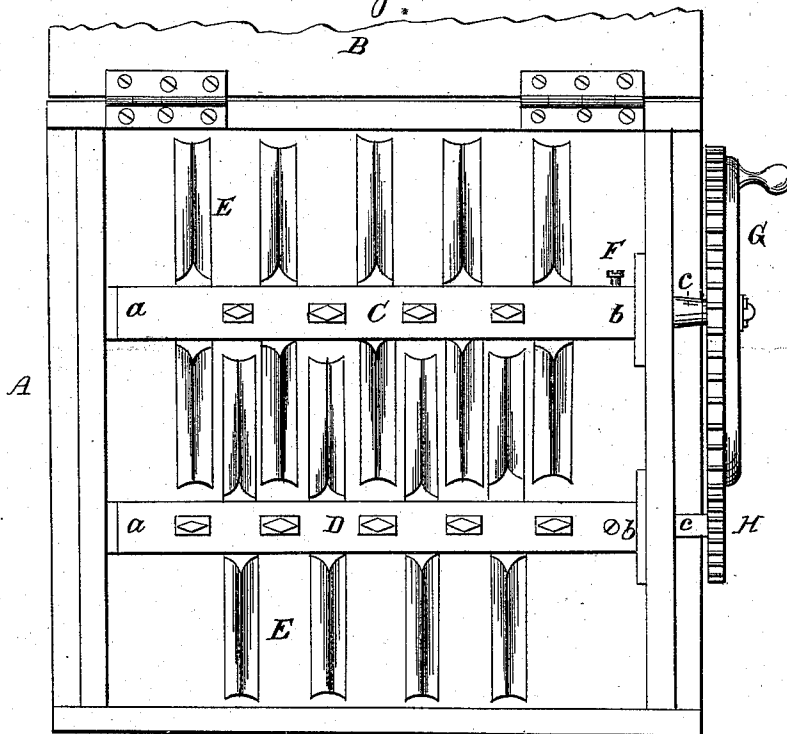
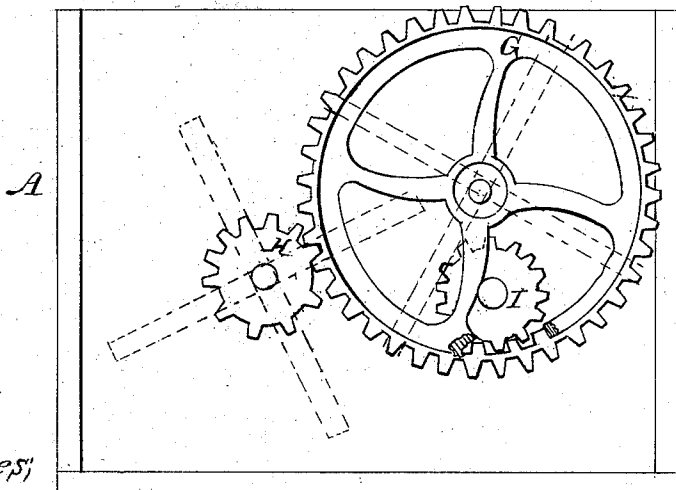


Fig. 2.



Witnesses;  
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GEORGE W. FOWLER, OF JENNER'S X-ROADS, PENNSYLVANIA.

*Letters Patent No. 68,060, dated August 27, 1867.*

## IMPROVEMENT IN CHURNS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, G. W. FOWLER, of Jenner's X-Roads, in the county of Somerset, and State of Pennsylvania, have invented certain new and useful Improvements in Churns; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention I will proceed to describe it.

My invention consists of a new and improved box-shaped churn, provided with horizontal shafts, having arms with square surfaces, arranged to play rapidly between each other.

Figure 1 represents a top plan view, and

Figure 2 represents an end view.

I construct a tight, square box, A, having its top B hinged. Into this box I place two shafts, C D, each having a series of radial arms E, their cross-section being diamond-shaped, and standing at right angles with each other, and arranged as shown in fig. 1. These shafts I place in a horizontal position, equally distant from the sides of the box, and the same distance from each other. Their ends *a b* are provided with sockets to receive at their ends *a* bearings which are attached to the side of the box, and at their ends *b* smaller shafts *c*, which are introduced through the opposite side, and to which the large shafts C D are keyed or fastened by the thumb-screws F. To the outer ends of the small shafts *c*, which are on the outside of the box, I attach the pinions H and I, which play into the large driving-wheel G, having cogs on its outer and inner surface, as shown in fig. 2, for that purpose. As the cogs on the inside of the driving-wheel stand in an opposite direction from those on the outside, the pinions H I, which are geared to it, are turned in opposite directions.

By this arrangement of the arms on the shafts and the gearing, it will be seen that when motion is imparted to the same, the arms E, on one shaft, will strike in the same place as those on the opposite shaft, which have immediately preceded it in their revolution; those on the two shafts in the same plane or line across the box, standing at right angles with each other, whereby the arms on one shaft pass out of the way of those on the other shaft, which follow immediately in the wake. It will also be seen that by turning the driving-wheel G in one direction, the arms may be made to strike inward towards the centre, and by reversing the motion of the wheel they may be made to strike outward towards the sides.

In operating my churn, I put in the cream, then turn the large driving-wheel G; this acts upon the pinions H I, and causes the shafts C D, with their arms E, to revolve rapidly in opposite directions, and get up the necessary agitation to produce the butter. When that is done I loosen the thumb-screws F, take out the shafts C D, and then gather and take out the butter.

By this simple arrangement I am able to provide a cheap, convenient, labor-saving churn. It will readily be seen that the shafts can be placed in a vertical position, and have the driving-wheel and pinions on the top of the churn if desired.

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

A churn, having two horizontal parallel dasher-shafts, provided with radial arms, arranged to strike in pairs alternately, in the same plane, said shafts being provided with pinions, operated by the gear-wheel G, having teeth arranged on it both internally and externally, as shown and described.

G. W. FOWLER.

Witnesses:

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