

J. M. ROBERTS.

CHURN.

No. 182,851.

Patented Oct. 3, 1876.

Fig. 2.

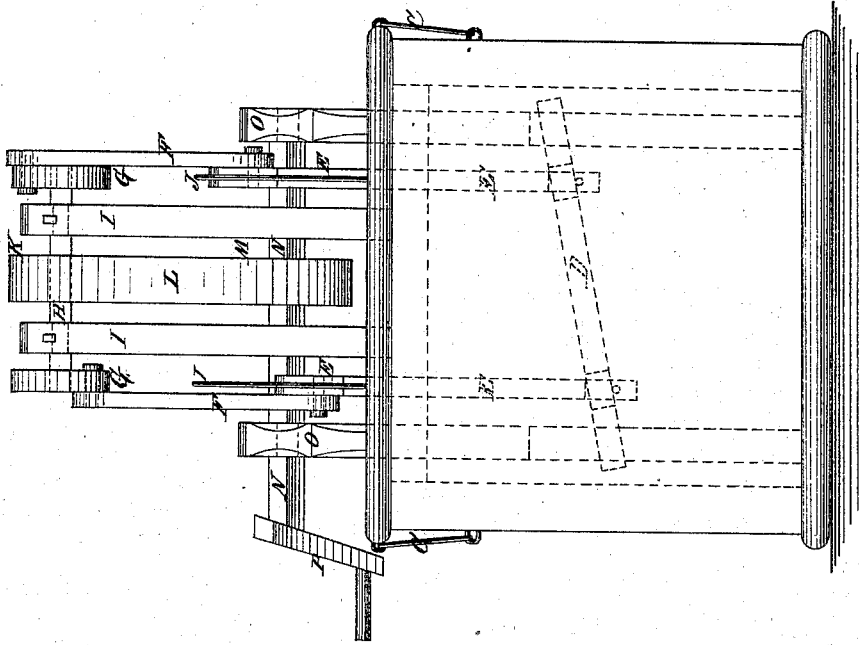
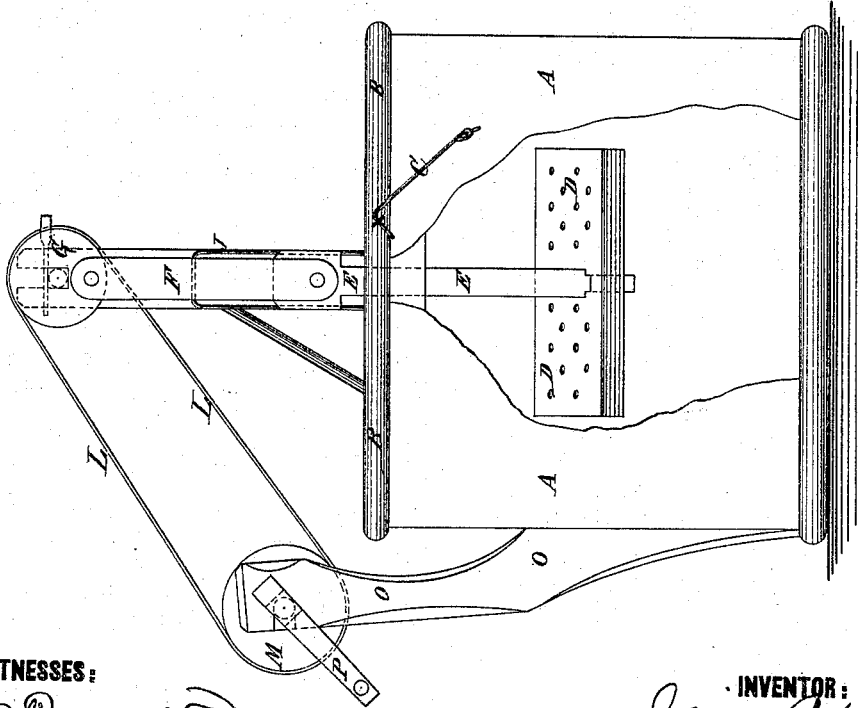


Fig. 1.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JAMES M. ROBERTS, OF EAST MONROE, OHIO.

## IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **182,851**, dated October 3, 1876; application filed June 6, 1876.

*To all whom it may concern:*

Be it known that I, JAMES M. ROBERTS, of East Monroe, in the county of Highland and State of Ohio, have invented a new and useful Improvement in Churning Apparatus, of which the following is a specification:

Figure 1 is a side view of my improved churning apparatus, part being broken away to show the construction. Fig. 2 is a front view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved churning apparatus, simple in construction, inexpensive in manufacture, which shall have no metal to stain or otherwise affect the milk or butter, and so that it may be readily repaired at home without its being necessary to take it to a foundry or blacksmith-shop, and which shall be effective in operation, bringing the butter quickly, and at the same time gathering the said butter.

The invention consists in the combination of the oscillating dasher, the shafts, the connecting-bars, the cranks or crank-wheels, the shaft, the pulleys and belt, and the driving-shaft and its crank, with each other, and with the churn-body, as hereinafter fully described.

A represents the churn-body, which is made rectangular in form, of any convenient size, and is provided with a cover, B, secured to it by hooks and eyes C, as shown in Figs. 1 and 2. D is the dasher-board, which is made somewhat smaller than the cavity of the churn-body A, and has numerous holes formed through it for the passage of the milk. In short slots in the end parts of the dasher D are pivoted the lower ends of the two dasher-shafts E, which pass up through holes in the cover B. The upper ends of the shafts E are enlarged, or have blocks attached to them, the side edges of which have grooves formed in them to receive the guide-rods J, attached to the cover B, so that the said

shafts may be compelled to move up and down in vertical lines. To the upper ends of the shafts E are pivoted the lower ends of the connecting-rods F, the upper ends of which are pivoted to the crank-pins of the wheels or cranks G, at the opposite sides of said wheels, so that one of the rods F and shafts E may be moving upward as the other is moving downward. This gives an oscillating motion to the dasher D, which throws the milk toward the center of the churn and gathers the butter.

The cranks or crank-wheels G are attached to the ends of the shaft H, which revolves in the upper ends of standards I attached to the cover B. To the center of the shaft H is attached a pulley, K, around which passes a band, L. The band L also passes around a pulley, M, attached to the shaft N, which revolves in bearings in the upper ends of the brackets O, and to its end is attached the crank P, by means of which the churn is operated. The lower ends of the brackets O are attached to the rear side of the churn-body A. The ends of the belt L should be secured to each other by belt-hooks, so that the said belt, when thrown off the driving-pulley, may be conveniently detached to allow the cover B and its attachments to be readily removed to give access to the interior of the churn-body A.

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

The oscillating dasher D, the shafts E, the connecting-bars F, crank-wheels G, the shaft H, the pulleys and belt K M L, the shaft N, and the crank P, as arranged with each other and with the churn-body A, substantially as herein shown and described.

JAMES M. ROBERTS.

Witnesses:

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EDSON WILSON.