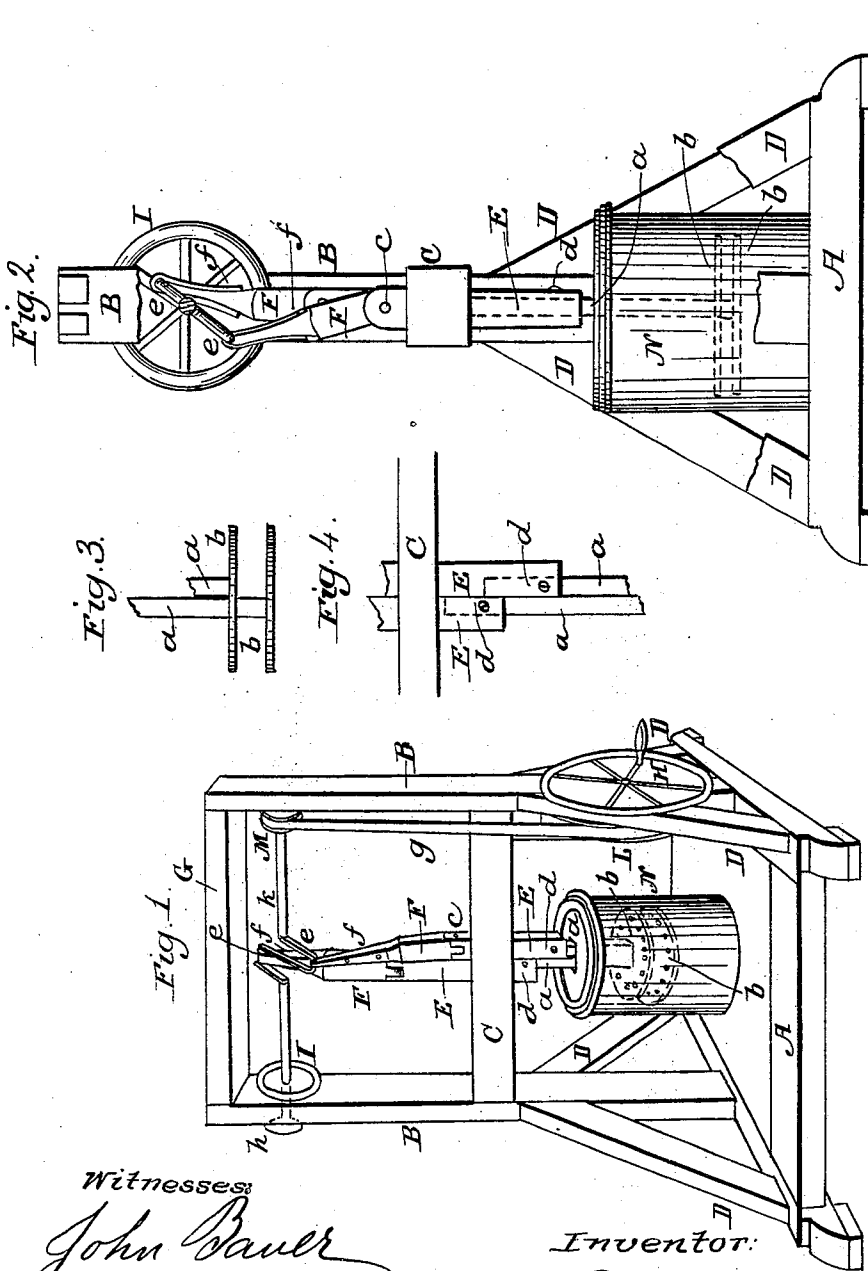


R. MAHR.

Churn.

No. 71,029.

Patented Nov. 19, 1867.



Witnesses:

John Bauer  
Edward Edborn

Inventor:

Remondes Mahr

# United States Patent Office.

ROMÜALDÜS MAHR, OF NEW YORK, N. Y.

Letters Patent No. 71,029, dated November 19, 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, ROMÜALDÜS MAHR, of the city, county, and State of New York, have invented a new and improved Apparatus for Churning; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, figures, and letters of reference thereon, making part of this specification. Of the said drawings—

Figure 1 is a perspective view.

Figure 2 is a side elevation, portions of the frame being broken away to more plainly show the mechanism.

Figures 3 and 4 are parts in detail.

Similar letters of reference indicate like parts in all the drawings.

To enable others skilled in the art to make and use my invention, I will describe the construction and operation thereof.

A represents the base or platform for the churn, B B the standards or uprights, and C and G the cross-ties, which, together with the braces D D D D, for supporting the uprights, constitute the frame for supporting the operative mechanism. E E are slides, which move freely in a mortise in the bar C. F F are connecting-rods, which, with the straps *f f*, connect the slides E E to the cranks *e e* on the shaft K. H is the main balance-wheel, and I the small balance-wheel on the crank-shaft. L is the driving-pulley, upon the same shaft with the main balance-wheel H, and connected with the crank-shaft pulley M by the belt *g*. N is the cylinder or churn for holding the cream. The dashers *b b* consist of plain perforated disks, of the required diameter to fit the churn, and are secured to the rods *a a* in any proper manner. These rods *a a* slide freely in the mortise in the churn-cover, and their upper ends are secured in the grooves of the slides E E by the set-screws *d d*. The crank-connections F F and slides E E are connected at their lower ends by the joints, and secured by the pin *c*. The crank-shaft has its bearings at the right end in the upright B, to which the main balance-wheel is attached, while the other end works on a centre formed on the end of a thumb-screw, which passes through the other upright B.

### Operation.

The operation will be as follows: The churn-dashers being removed, by loosening the screws *d d*, the churn containing the cream is placed beneath the slides in the centre of the platform A, and held in place by suitable means. The dasher-rods, being inserted through the churn-cover, are secured in the desired position to the slides E E by the screws *d d*, and the cover is then firmly attached to the churn. Motion being given to the balance-wheel and main pulley, is communicated to the crank-shaft through the belt and small pulley, and the dashers reciprocate in a vertical plane, and in opposite directions, producing thorough agitation of the cream, with great economy of time and labor, one revolution of the main wheel producing four motions of the dashers.

Having thus fully described my invention, I claim—

The arrangement of the driving-wheel H, pulleys L and M, belt *g*, double crank-shaft K, connecting-rods *f f*, and sleeve-rods E E, for working the reciprocating dashers, the whole constructed and operating substantially as described and specified.

ROMÜALDÜS MAHR.

Witnesses:

JOHN BAUER,

EDWARD E. OSBORN.