H. FELT & P. P. CHILD.

Rotary-Churn.

No. 165,086. Patented June 29, 1875.

FIG. 1.

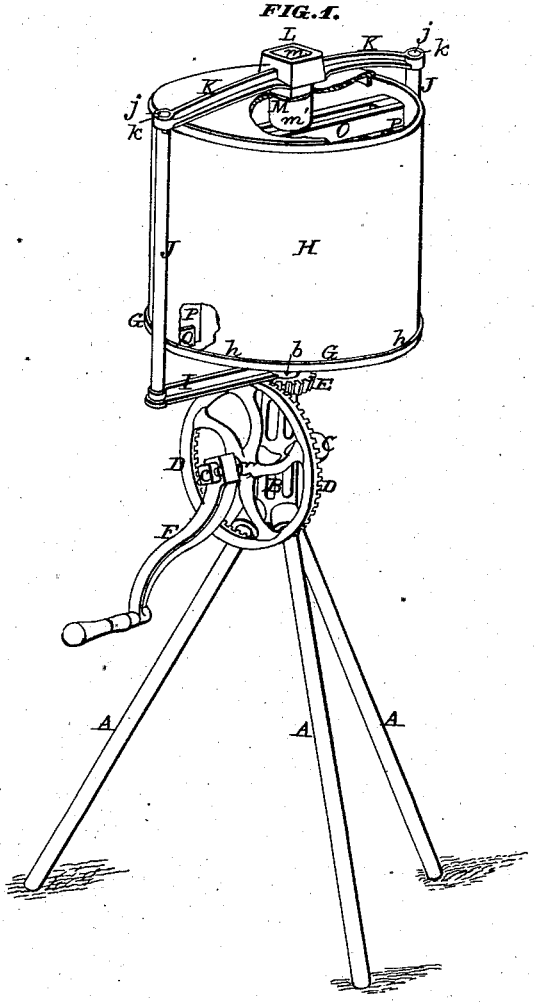
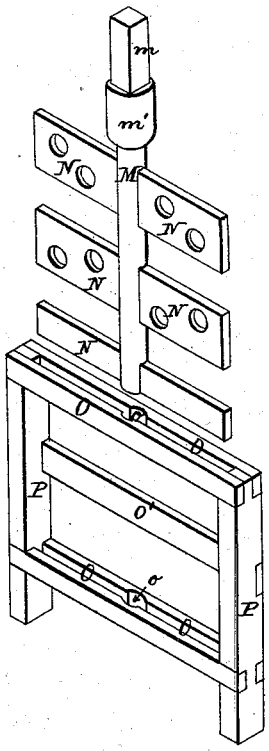


FIG. 2.



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UNITED STATES PATENT OFFICE.

HANNIBAL FELT, OF ODIN, AND PASCAL P. CHILD, OF CARLYLE, ILLINOIS.

IMPROVEMENT IN ROTARY CHURNS.

Specification forming part of Letters Patent No. **165,086**, dated June 29, 1875; application filed May 1, 1875.

To all whom it may concern:

Be it known that we, HANNIBAL FELT, of Odin, Marion county, Illinois, and PASCAL P. CHILD, of Carlyle, Clinton county, Illinois, have invented a certain Improvement in Churns, of which the following is a specification:

Our improvement consists, first, in the combination of a cream-vessel resting on a stand, a rotating frame carrying a removable cross bar or head constituting the driver of the dasher, whose upper angular end passes through a suitable socket in the cross-bar. The second part of our invention relates to the construction of the dasher. This has a rectangular frame, which fits against the sides and rests on the bottom of the cream-vessel, and into this frame the rotating part of the dasher is dropped vertically and has bearing. The frame has bearing against the sides of and bottom of the cream-vessel, and is prevented from turning by two lugs at the lower corner of the vessel.

In the drawings, Figure 1 is a perspective view of the churn with part broken out to show the interior. Fig. 2 is a perspective view of the dasher with parts detached.

A A A are the spreading legs shown as cast in the head B. The head gives journal-bearing to the arbor C of the winch-wheel D, and forms the arbor, on which turns the bevel-pinion E, which is attached to the bottom bar of the driving-frame of the dasher. F is the winch or crank by which the churn is operated. At the top of the neck *b* of the head B is a table, G, upon which sits the cream-vessel H, the vessel being held in place by a marginal upturned flange, *h*. I is the bottom cross-bar of the rotating frame, and consists of arms extending radially from the hub of the pinion E. J are vertical uprights extending upward from the ends of the cross-bar I. The upper end of the uprights J consists of pins *j*, which enter eyes *k* in the ends of the cross-bar K. This cross-bar has an angular eye or socket, L, which receives the angular upper end *m* of the dasher-spindle M. The dasher has wings N extending diametrically through the spindle. The spindle has side bearings in the recesses *o* of the cross-bars O of the fixed dasher-frame, and vertical bearing by the resting of the boss or collar *m'* upon the upper cross-bars O. P are the vertical bars of this frame, which rest against the sides of the cream-vessel H. The lower ends of the side bars P rest against corner pieces or lugs Q attached to the cream-vessel, to prevent the rotation of the frame O P, and the said frame checks the rotary motion of the cream in the vessel. The cross-bars O, besides giving journal-bearing to the spindle M, check the rotary motion of the cream, and, together with the cross-bar O' and the wings N, serve to impart to the cream violent agitation.

It will be seen that the churn can be easily separated into detached parts for cleaning and airing. In doing this the driving-bar K can be first lifted off, and then the dasher may be lifted out of the cream-vessel in one or two parts. The rotating part may be drawn out of the part O P, the wings N passing between the slats or bars O.

What we claim as our invention is—

1. The combination of the driving-gear D E F, rotating frame I J K, dasher M N O P, cream-vessel G, and stand A B H, substantially as set forth.

2. The dasher constructed with a rotary frame, M N, having bearings in a removable frame, O P, substantially as set forth.

3. The combination of dasher, constructed as set forth, with the cream-vessel having lugs Q, as and for the purpose set forth.

HANNIBAL FELT.
PASCAL P. CHILD.

Witnesses:
SAML. KNIGHT,
ROBERT BURNS.