W. W. Reid,

Churn.

No. 30,424. Patented Oct. 16. 1860.

Fig: 1.

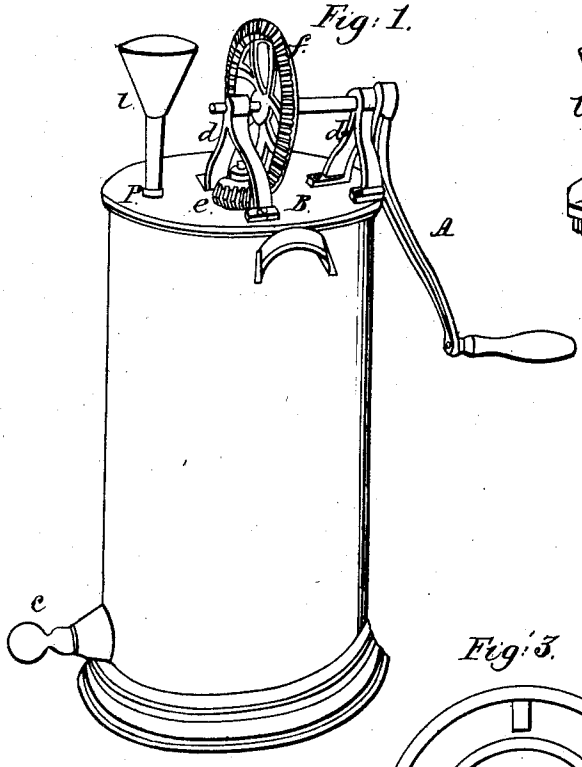


Fig: 2.

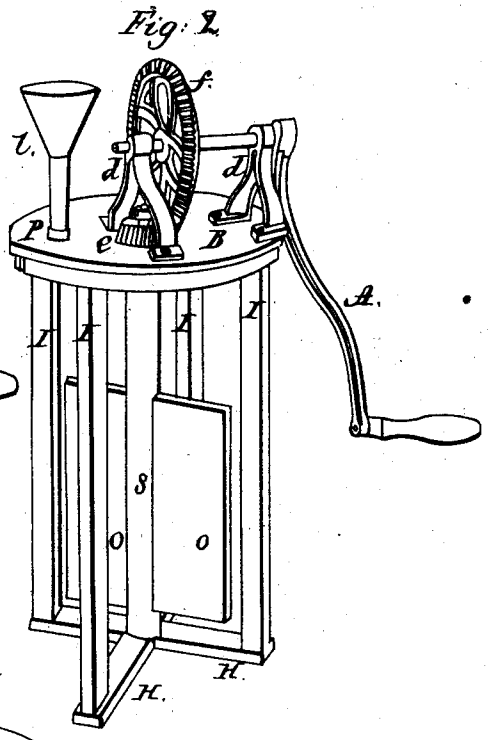
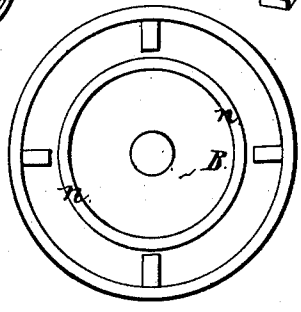


Fig: 3.

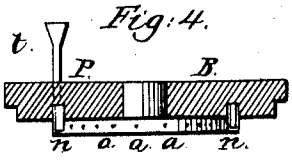


Witnesses:

John Allen

A. K. Cutter

Fig: 4.



Inventor:

Wm. W. Reid

UNITED STATES PATENT OFFICE.

WILLIAM W. REID, OF ROCHESTER, NEW YORK.

CHURN.

Specification of Letters Patent No. 30,424, dated October 16, 1860.

To all whom it may concern:

Be it known that I, WILLIAM W. REID, of the city of Rochester, county of Monroe, and State of New York, have invented new Improvements in the Construction of Churns; and I do declare that the following is a full and exact description thereof, reference being had to the drawings, accompanying this specification, and to the letters of reference marked thereon.

Figure 1, represents the churn complete in perspective. Fig. 2, represents in perspective, the cover, the rotary dasher and all the other internal parts combined together and removed together from the outside cylinder of the churn.

B, is the lid or cover, to the upper side of which, is firmly attached the supports *d*, *d*, which support the wheel *f*. The perpendicular shaft S, has a small pinion *e*, at the top, working into the wheel *f*, which is driven by the crank A. The foot of the shaft S, rests in a socket in the center of the horizontal cross bars H, H, and O, O, are two perpendicular flat slats of suitable width and length, firmly attached to opposite sides of said shaft and together with it constitute the perpendicular revolving dasher. The cross bars H, H, are locked together in their middle and form a base, both for the dasher and also for the four upright bars I, I, I, I, which are securely fastened in the four extremities of the horizontal cross-bars H, H, at their lower ends and in the cover B, at their upper ends, and thus all the parts are united together and may be replaced and removed together from the cylinder of the churn, without dropping the dasher and separating the gearing every time the cover is removed. The upright bars, thus serve two purposes—first, they constitute abutments, against which the milk or cream is dashed, and prevent it from taking a revolving motion, and, second, they unite and hold together all the parts as above described. I do not confine myself to the use of four bars—but two, three, or more may be used.

Fig. 3, is a plan of the underside of the lid B, and Fig. 4, is a transverse section of said lid, intended to show an annular tube *n*, attached to the underside of the lid. This tube is rectangular and made of tin. (It may be round and made of any suitable material.) It is perforated with small holes *a*, *a*, *a*, about one inch apart, both on its inner and outer face. It is sunken or let into a groove, nearly half of its depth, into the lid B. It may be simply attached to the lid. Its annular diameter, must be small enough to come within the inner edges of the bars I, I, I, I.

The tunnel *t*, fits into a short tube P, which passes through the lid B, and is inserted into the annular tube *n*, so that when water is poured into the tunnel *t*, it is projected in numerous small jets both inwardly upon the dasher and also outwardly against the upright bars I, I, I, I, and sides of the churn, and thus washes off the milk and small particles of butter.

By this device is obviated the necessity of removing the lid when it is required to rinse down the dasher and churn, or to introduce either cold or hot water into it.

C, Fig. 1, is a plug or faucet through which either the milk or water may be drawn off.

By combining and uniting together permanently the gearing, cover, dasher, perpendicular bars and cross pieces at the base several advantages are obtained. It renders the churn with gearing and a rotary dasher nearly as simple and convenient as the old perpendicular hand-dasher; the several parts being removed, cleansed and replaced with nearly the same facility. The two great objections to geared rotary dashers, whether perpendicular or horizontal, are the separation of the several parts and their readjustment every time it becomes necessary to remove and replace them in the churn, and also the greater difficulty of cleaning and keeping them clean.

What I claim as my invention and desire to secure by Letters Patent is—

The annular perforated tube *n* in combination with the bars I I and dasher O for the purposes above specified.

WM. W. REID.

Witnesses:
JOHN PHIN,
H. H. LANGWORTHY.