(No Model.)

F. P. STEBBINS.

CHURN.

No. 253,122. Patented Jan. 31, 1882.

Fig. 1.

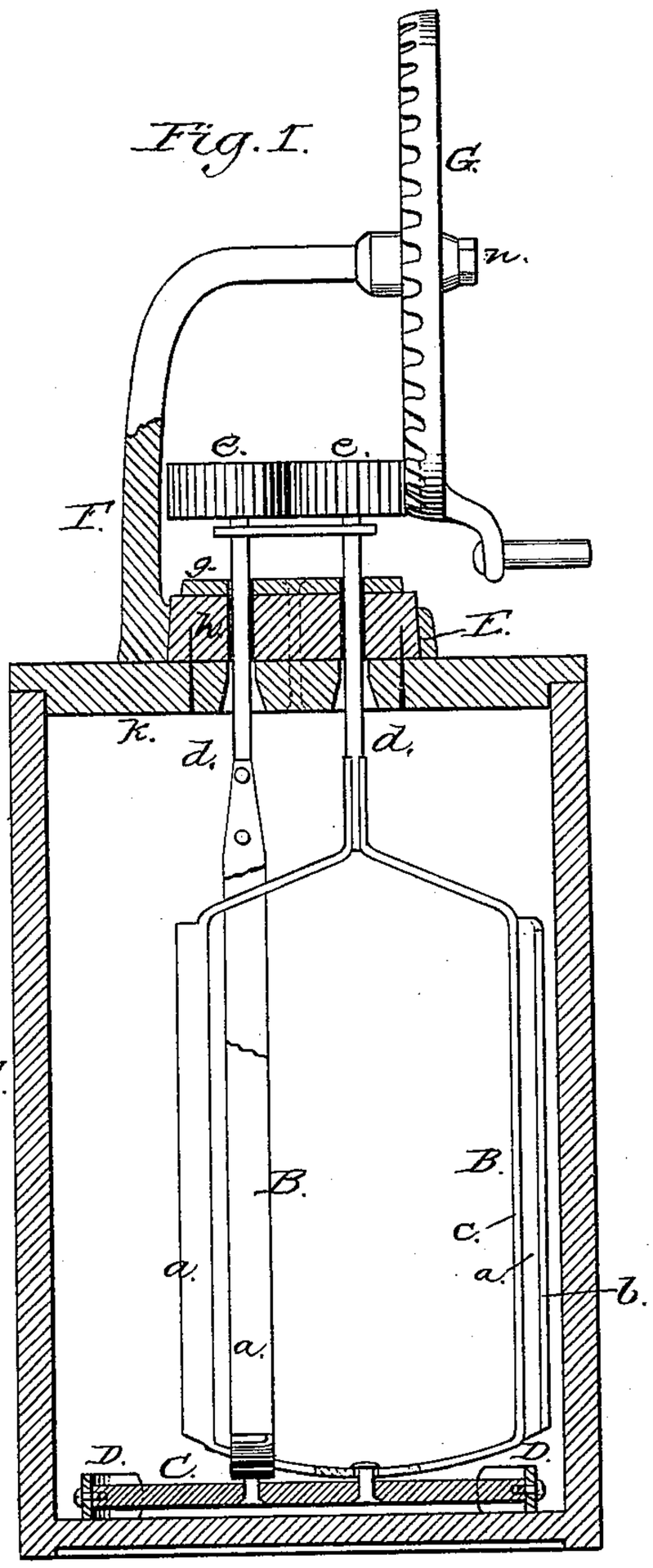


Fig. 4.

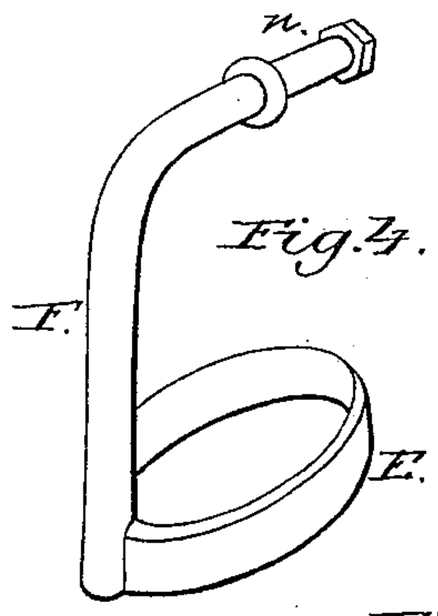


Fig. 3.

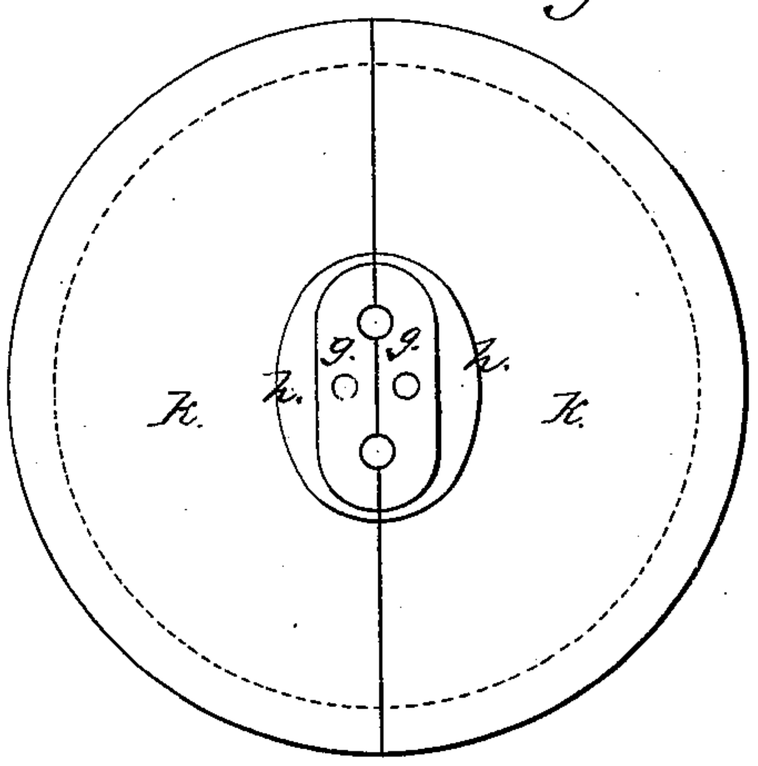
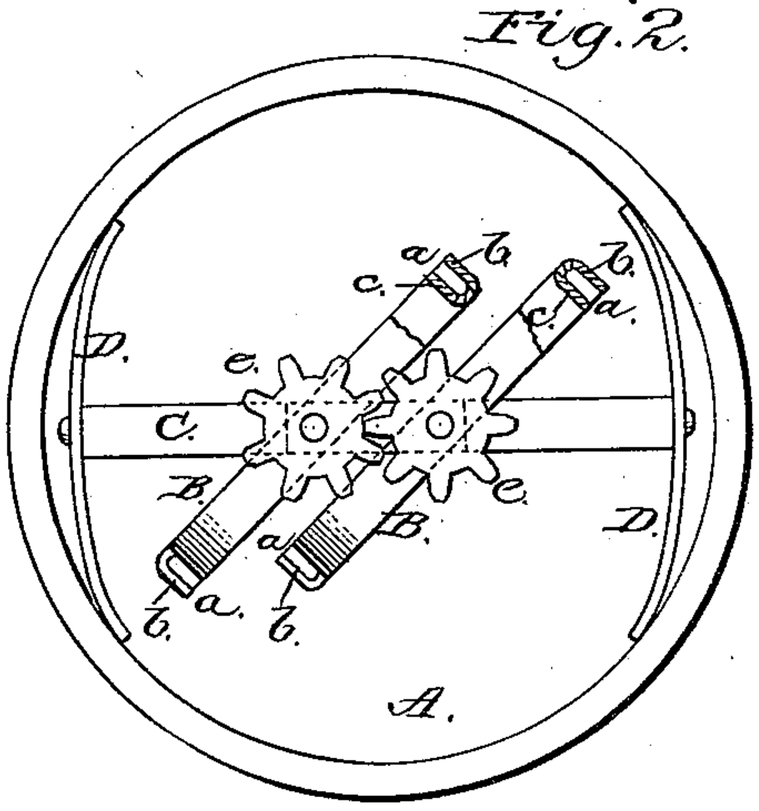


Fig. 2.



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CHURN.

SPECIFICATION forming part of Letters Patent No. 253,122, dated January 31, 1882.

Application filed October 25, 1881. (No Model.)

To all whom it may concern:

Be it known that I, FRANK P. STEBBINS, a citizen of the United States, a resident of Collins, in the county of Ionia and State of Michigan, have invented a new and valuable Improvement in Churns; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical section of my invention. Fig. 2 is a plan view with the cover-sections removed. Fig. 3 is a plan view of the cover-sections, and Fig. 4 is a perspective of the band and arm.

This invention has relation to double rotary churns operated by gearing; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, the letter A designates the churn-case, which may be of any form, the cylinder shape being preferred.

B B indicate the dashers, which are made in open or loop form, the sides of each passing into the opening of the other as they are rotated. The lower ends of these dashers are pivoted to the foot bearing or bar C, which extends horizontally across the bottom of the churn-case, and is provided at its ends with elastic or pliable arms or guards D, these being arranged transversely with relation to the bearing-bar C, and extending horizontally beyond the limit of movement of each dasher, so that when the device is introduced into a churn-case the dashers will be held in proper position, and will not be liable to strike the sides of the churn.

The guards D should be made of wire or band metal, so that they will adapt themselves readily to the size and shape of the case.

The dashers are provided at their sides with grooves or ways *a*, which extend downward along the entire length of each beater or side, and open transversely, as indicated in the drawings. This formation may be readily effected by constructing bent flanges *b* on the sides or beaters *c* of each dasher, as indicated in the drawings, the flanges being usually turned in opposite directions on the beater sides of each dasher.

The upper end of each dasher is provided with a journal-stem, *d*, which carries at its end a pinion, *e*. These journal-stems are seated in bearings *g*, which are sectional and rise above the sections *h* of the cover-sections *k*, to which they are secured. The circumferential contour of these bearings, when in juxtaposition, is elongated, and by preference elliptical, as shown in the drawings, and the bearings are held in close relation by means of a band, E, which is removable. This band carries an arm, F, which extends upward and is carried over in bent form, so that its end is horizontally arranged and located above one of the pinions *e*. At this end of the arm is formed a journal, *n*, upon which is received the hub or central bearing of the drive-wheel G, which is toothed and engages the outer pinion *e* of the pair. When the fastening-band E is removed from the bearings *g* the sections of the churn-cover can be readily taken off, and the entire dash, including the foot-bar and guards can be lifted out of the churn.

In its operation the churn is designed to effect a thorough aeration of the milk by means of the air-passages, ways, or grooves *a*, which extend downward along each beater.

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

1. In a double-dash rotary churn, the foot-bearing C, carrying the pivots of the dashers, and the transverse guards D, substantially as specified.

2. In a double dash rotary churn, the dashers B B, their foot-bar C, and guard D, the pinions *e e*, raised sectional bearings *g h*, and fastening-band E, carrying the drive-wheel bearing, substantially as specified.

3. In a rotary churn, the combination, with the cover-sections and the raised bearings *g h*, of the fastening-band E, its arm F, and terminal journal-bearing *n* for the drive-wheel, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FRANK PIERCE STEBBINS.

Witnesses:
A. F. MOREHOUSE,
BENJAMIN F. LELAND.