

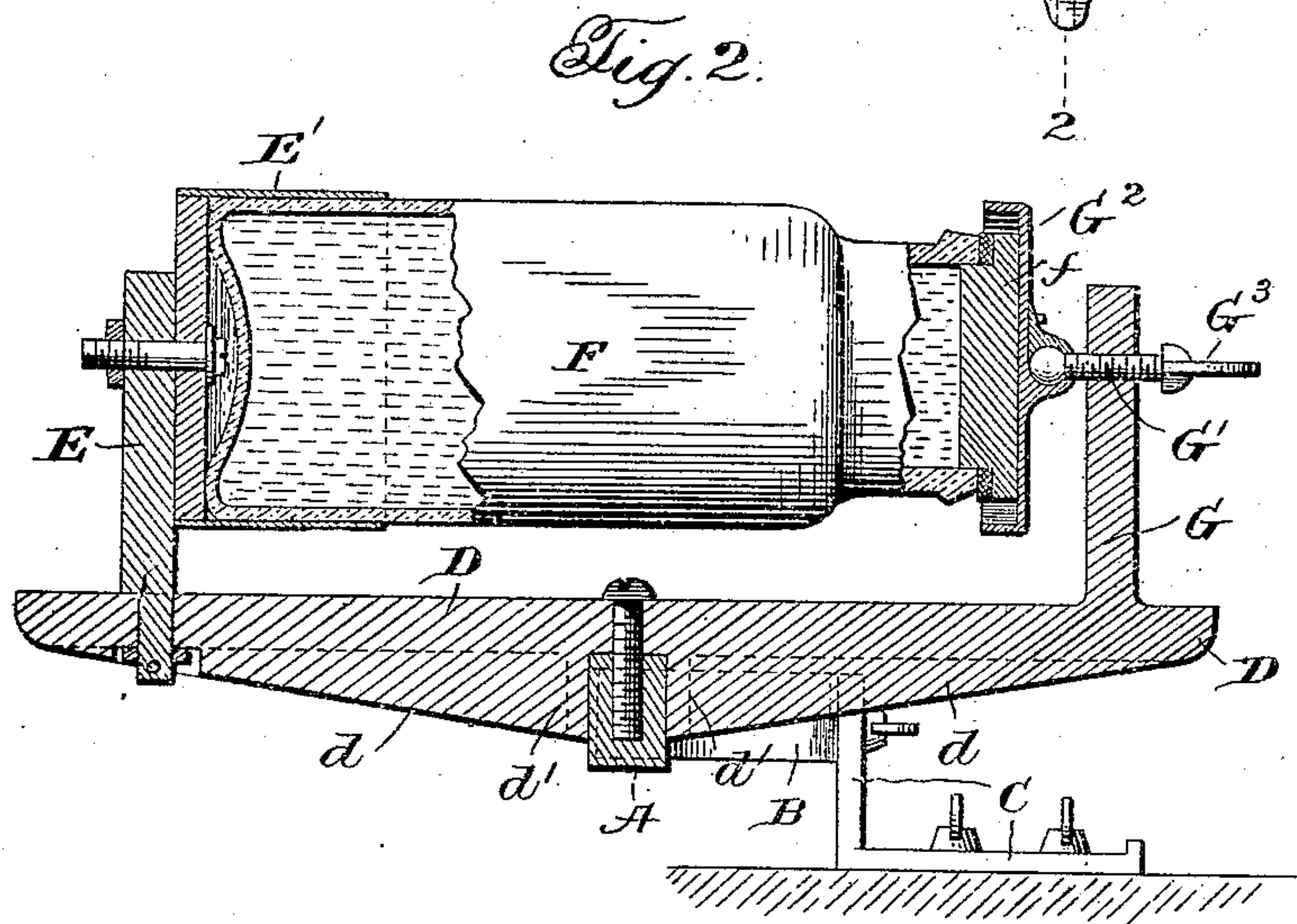
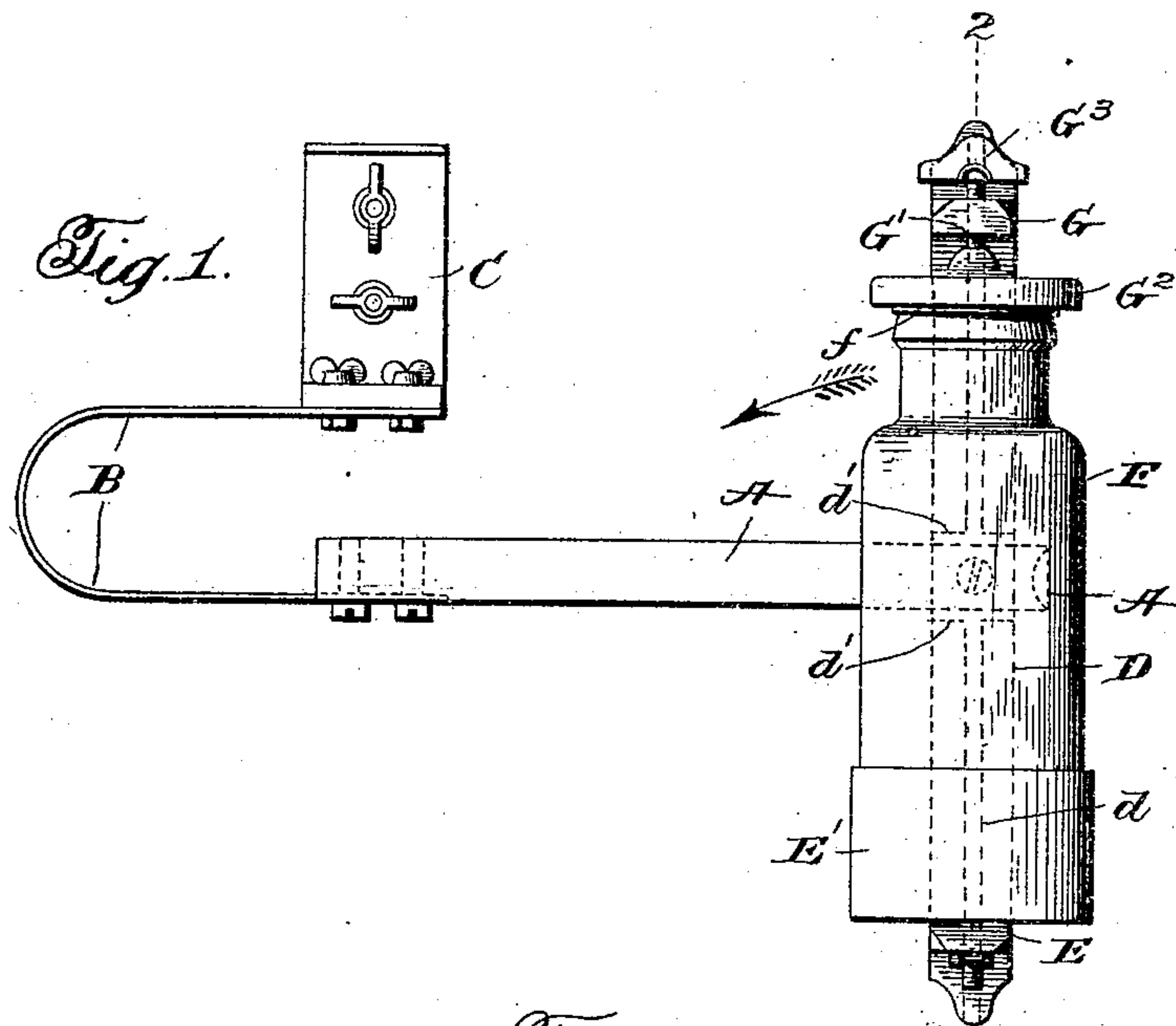
J. R. BRADY.

CHURN.

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958,585.

Patented May 17, 1910.



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES R. BRADY, OF PAROLE, MARYLAND.

CHURN.

958,585.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES R. BRADY, a citizen of the United States, residing at Parole, in the county of Anne Arundel and State of Maryland, have invented certain new and useful Improvements in Churns, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an improvement in churns and more particularly to an improved churn in which the ordinary milk bottle or receptacle is utilized as the churn body.

The object of the present invention is the provision of a simple and efficient device of this character in which all complicated actuating mechanism is dispensed with.

A further object of the invention is the provision of means for securing the milk bottle or container to the actuating member of the churn so that it may be readily secured thereto or removed therefrom without disturbing the contents thereof.

Other objects of the invention will be apparent from the detailed description hereinafter when read in connection with the accompanying drawings forming a part hereof, wherein a preferable embodiment of the invention is illustrated and wherein like numerals of reference refer to similar parts in the several views.

In the drawings, Figure 1 is a plan view of the device, and Fig. 2 is a cross section on line 2—2 of Fig. 1.

Referring now more particularly to the drawings, A designates the actuating arm of the churn, which is conveniently formed of cast iron and to the rear end of which is secured one end of a U-shaped leaf spring B the end of said spring being preferably seated in a countersunk portion in the side of the arm A to prevent relative movement between the parts. The opposite end of the U-shaped springs B is detachably secured in any suitable manner to the vertical flange of an L-shaped bracket C, the horizontal portion of which is adapted to be secured to a table or other fixed support. The end of the U-shaped spring B is preferably connected to the vertical flange of the bracket C by means of bolts and thumb nuts so that it can be readily removed therefrom if desired and the bracket C is also preferably secured to the table or other fixed support by means of bolts and thumb nuts so that the entire

device can be removed when desired. From the above described construction it will be seen that the arm A is so supported that the operator can by pulling upon the subse- 60 quently releasing the same cause it to vibrate rapidly in a horizontal plane.

Carried by the outer end of the arm A is a cross arm D upon which is adapted to be supported the milk bottle or other con- 65 tainer so that when the arm A is vibrated, motion will be imparted to such bottle or container in a direction substantially parallel to the longitudinal axis thereof. The underside of the cross arm D is provided 70 with ribs *d d* which extend inwardly from the ends thereof to points adjacent the center of the cross arm and merge into transversely disposed ribs *d' d'* formed on the underside of the cross arm, the space 75 between said transverse ribs constituting a pocket into which the outer end of the arm A snugly fits. The outer end of the arm A is secured to the cross arm D by means of a screw or other fastening device and it will 80 be seen that no strain is brought to bear on such fastening device during the vibration of the arm A owing to the provision of the ribs on the underside of the arm D heretofore referred to. Rotatably supported in one 85 end of the cross arm D and extending upwardly therefrom is a post E, to which is rigidly secured a cup-shaped member E', which is adapted to receive the lower end of a milk bottle or container F, the upper 90 end of which is closed by a cap *f* of any suitable construction. Secured to and extending upwardly from the other end of the cross arm D is a fixed post G in the upper portion of which is threaded a screw 95 G' in axial alinement with the center of the cup-shaped member E' heretofore described. Movably secured to the inner end of the screw G' by a ball and socket or other universal joint connection is a cup-shaped mem- 100 ber G², which is adapted to fit over the capped end of the bottle F or other container when the same is secured in position. The outer end of the screw G' is provided with an operating handle or portion G³ of 105 any suitable construction.

In the use of the device, the screw G' is manipulated to move the same to its innermost position and the cup-shaped member E' is then moved to a position to permit the 110 base of the bottle or other container to be introduced thereinto; the cup-shaped mem-

ber E' is then moved to bring the same into axial alinement with the screw G' and said screw is manipulated to bring the cup-shaped member G² carried thereby over the top of the bottle and to force the same tightly into engagement with the cap f thereof, thereby firmly clamping the bottle to the cross arm D in such a manner as to prevent the escape of the contents thereof. The arm A is then vibrated by the operator until the contents of the bottle have been thoroughly churned, after which time the screw G' is manipulated to release the cup-shaped member G² from engagement with the cap f thereof after which the cup-shaped member E' can be turned to one side and the bottle F removed therefrom.

While a convenient embodiment of the invention is illustrated in the accompanying drawings, it will be understood that many changes may be made to the form and construction therein shown without departing from the spirit of the invention as defined in the appended claims.

I claim—

1. In a churn, a movable arm, a cross bar carried by the outer end of said arm, a cup-shaped member pivoted to said cross bar, and a clamping screw carried by the cross bar and arranged opposite the cup-shaped member pivoted thereto.

2. In a churn, a movable arm, a cross bar carried by the outer end of said arm, a cup-shaped member pivotally supported upon said cross bar adjacent one end thereof, a clamping screw carried by the other end of the cross bar and in axial alinement with the pivoted cup-shaped member, and a cup-shaped member secured to the inner end of said clamping screw.

3. In a churn, a yieldably supported arm, a cross bar carried by the outer end of said arm, a post rotatably supported in one end of said cross bar, a cup-shaped member carried by said post and rotatable therewith, a fixed post carried by the other end of the

cross bar a clamping screw mounted in said fixed post, and a cup-shaped member pivotally connected with the inner end of said clamping screw.

4. In a churn, a movably supported arm, a cross bar carried by the outer end of said arm, a bottle support pivoted to said cross bar at one end thereof and a clamping member at the other end of the cross bar.

5. In a churn, a cross bar provided on the underside thereof with integral ribs extending inwardly from the ends thereof and terminating short of the center thereof to form a pocket therebetween, means for supporting a container upon said cross bar, an actuating arm having its outer end secured to the cross bar between the ribs on the underside thereof, a fixed support and a spring connecting the inner end of the arm and fixed support.

6. In a churn, a cross bar, provided on the underside thereof with integral ribs extending inwardly from the ends thereof and merging into separated transverse ribs formed integral with the cross bar, means for supporting a container upon the cross bar, an actuating arm having its outer end secured to the cross bar and fitted between the transverse ribs on the underside thereof, a fixed support, and a yieldable connection between the inner end of said arm and the fixed support.

7. In a churn, a movable arm, and means carried by said arm for securing and supporting a churn receptacle, comprising a pivoted churn body engaging member, and an adjustable clamping member arranged opposite thereto and spaced therefrom, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES R. BRADY.

Witnesses:

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