V. S. KLICK.

CHURN.

APPLICATION FILED OCT. 22, 1908.

929,229. Patented July 27, 1909.

Fig. 1.

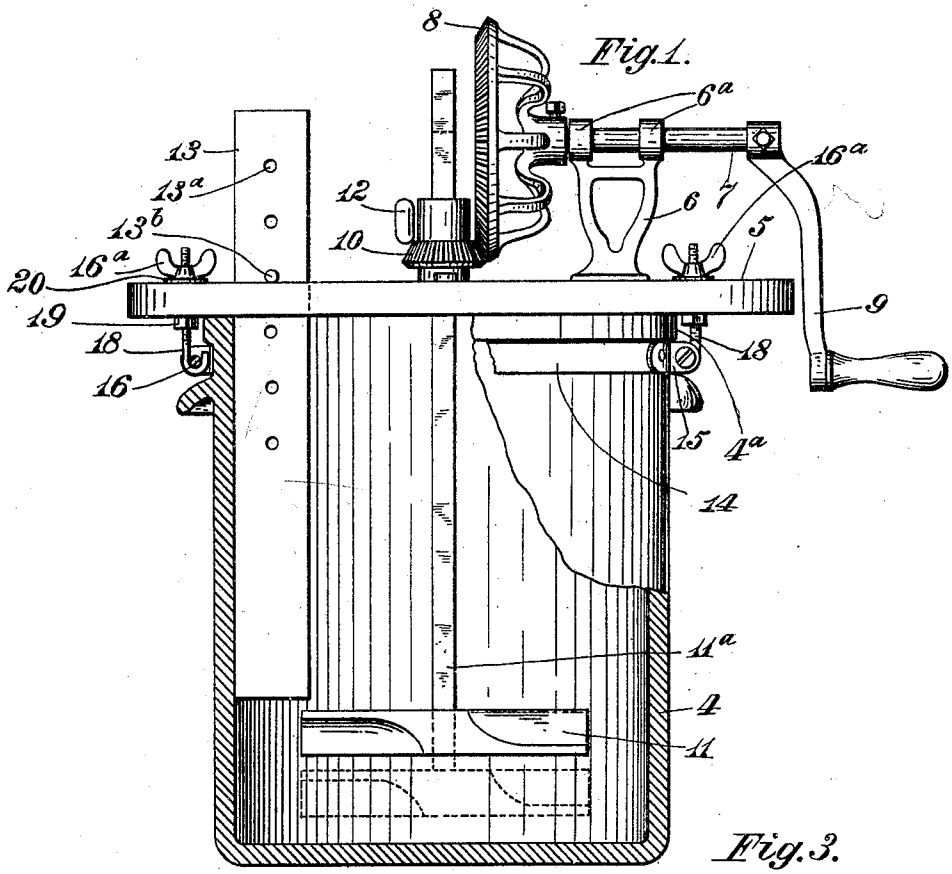


Fig. 3.

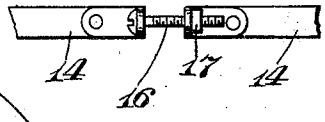
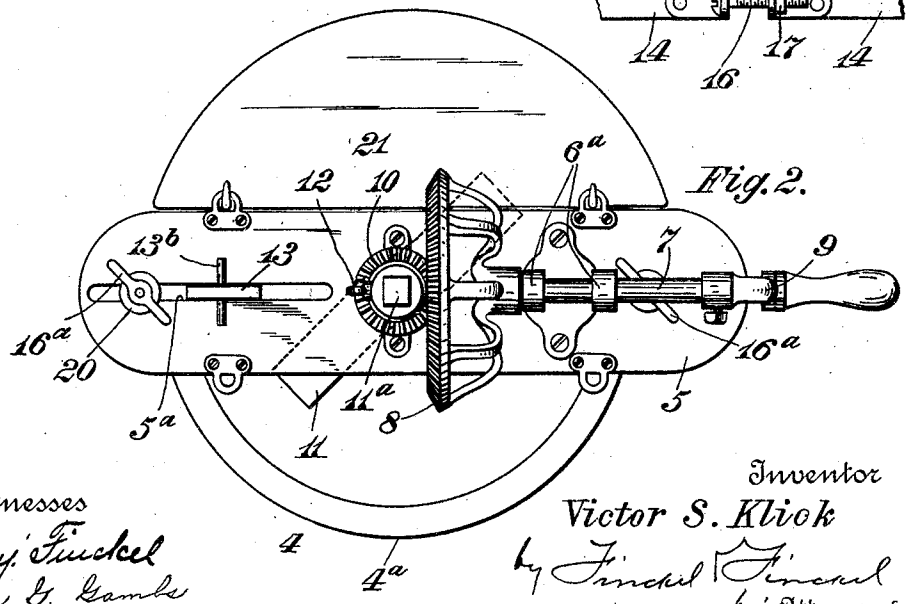


Fig. 2.



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CHURN.

No. 929,229. Specification of Letters Patent. Patented July 27, 1909.

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To all whom it may concern:

Be it known that I, VICTOR S. KLICK, citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Churns, of which the following is a specification.

The object of this invention is to provide an improved churning device of simple and economical construction that can be applied to an ordinary earthen jar.

In the domestic manufacture of butter the fresh milk is first placed in crocks and allowed to stand until the cream rises to the top. The cream is then skimmed off and deposited in a jar or crock. From this last jar or crock the cream is poured into the usual wooden churn body or reservoir. There are thus two transfers of the cream. Wooden churn bodies, because of their form and the porous nature of their surfaces, are difficult to keep clean and free from germs.

The principal object of my invention is, therefore, to provide a churning apparatus that can be applied to the earthen jar or crock in which the cream is collected, thereby saving its transference from such a jar to the usual wooden churn body.

The invention consists in the details of construction and combination of parts hereinafter described and pointed out in the claims.

In the accompanying drawings showing one embodiment of the invention—Figure 1 is an elevation of the apparatus applied to a jar, the latter being in section to disclose the arrangement of the interior portions. Fig. 2 is a top plan view, and Fig. 3 is a detail of the adjusting devices for the band that encircles the top of the jar and to which the operating mechanism is secured.

Like characters of reference in the several views designate corresponding parts.

In said views the character 4 designates the earthen ware jar which, as usual, has an annular outwardly projecting rim or shoulder 4^a at its top.

5 is a main supporting board or base upon which the operating parts are mounted. One end of this board 5 is made with a longitudinal slot 5^a. Secured on the said base board 5 is a metallic standard 6 having bearings 6^a at its upper end, and in these bearings is supported a rotary shaft 7. One end of the shaft 7 has secured to it a beveled master gear 8 while the other end of the shaft is furnished with a handled crank 9 by which the shaft and gear are turned.

10 designates a beveled pinion having an axial hole through it, said hole being square in end view. The pinion 10 is mounted to mesh with the master gear and to turn in a suitable metallic thimble in the base 5, as well understood. The character 11 designates the paddle and 11^a the shank thereof. The shank is square in cross section and fits in the square hole of the pinion so that it can be moved up or down. A set screw 12 in the pinion engages the shank, and so fixes the paddle in adjusted position. When the paddle is turned somewhat rapidly in the jar containing a liquid the latter is thrown by centrifugal action up the sides of the jar. To prevent the liquid from flowing over the top of the jar and at the same time to adequately agitate or churn the liquid, I employ a break piece 13 consisting of a strip of wood provided with a number of holes 13^a. The break piece is slipped through the slot 5^a and held at the proper height above the blade by a pin 13^b, as shown.

To secure the base to the top of the jar I provide a metallic band consisting of two strips of metal 14 of equal length, having angle pieces 15 secured to their ends. The angle pieces are each provided with perforations to receive a threaded bolt 16, said bolt being passed through two of the angle pieces and secured by a nut 17, as seen in Fig. 3. The metallic band thus constructed is fitted under the shoulder 4^a of the jar and tightened in place by properly turning the nuts 17.

18 designates hooks engaging the shanks of the bolts 16. These hooks have threaded shanks that extend up through the base 5 at one side through the slot 5^a and at the other through a suitable hole or slot in the base provided for the purpose. At their upper ends these shanks are provided with thumb nuts 16^a. At the under side of the base 5 the shanks of the hooks 18 can be provided with nuts 19 and washers 20 can be used under the thumb nuts at the upper side of the base if desired. By loosening the thumb nuts the operative parts and the base 5 can be removed as a unit from the jar.

21 are segmental pieces of wood constituting covers that are connected by hooks and eyes to the edges of the base 5 to close spaces there at the top of the jar.

With this device it will be observed that

the cream can be churned in the jar in which it is collected, the band being left on when the cream is collected. The cleansing of an extra wooden vessel is entirely avoided. The jar being of earthen ware and glazed as such jars usually are is easily and thoroughly cleaned.

The device as thus constructed is adapted to various sizes of jar.

The device is not only adapted to the churning of cream for the production of butter, but is also adapted for various other useful work. For instance, it is eminently suitable for beating eggs in bakeries where considerable quantities of cakes are made.

What I claim and desire to secure by Letters Patent is:

1. In a churning device, the combination with a vessel, of a ring to encircle and be secured to the upper end of the vessel, said ring composed of two strips of metal 14 of substantially equal length with bolts 16 uniting their ends, a board 5 to rest on the top of said vessel, said board provided with slots 5^a, hooks 18 adjustably secured in said slots 5^a to removably engage the shanks of said bolts 16, a churning device mounted on said board, and a breaking device 13 secured in one of the slots of said board and extending into the vessel, substantially as described.

2. In a churning device, the combination with a vessel, of a ring to encircle and be secured to the upper end of the vessel, said ring composed of two strips of metal 14 of substantially equal length with bolts 16 uniting their ends, a board 5 to rest on the top of said vessel, said board provided with slots 5^a, hooks 18 adjustably secured in said slots 5^a to removably engage the shanks of said bolts 16, a churning device mounted on said board, said churning device including a vertically adjustable dasher shaft, and a breaking device 13 vertically adjustable in one of the slots of the said board and extending into the vessel, substantially as described.

VICTOR S. KLICK.

Witnesses:
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