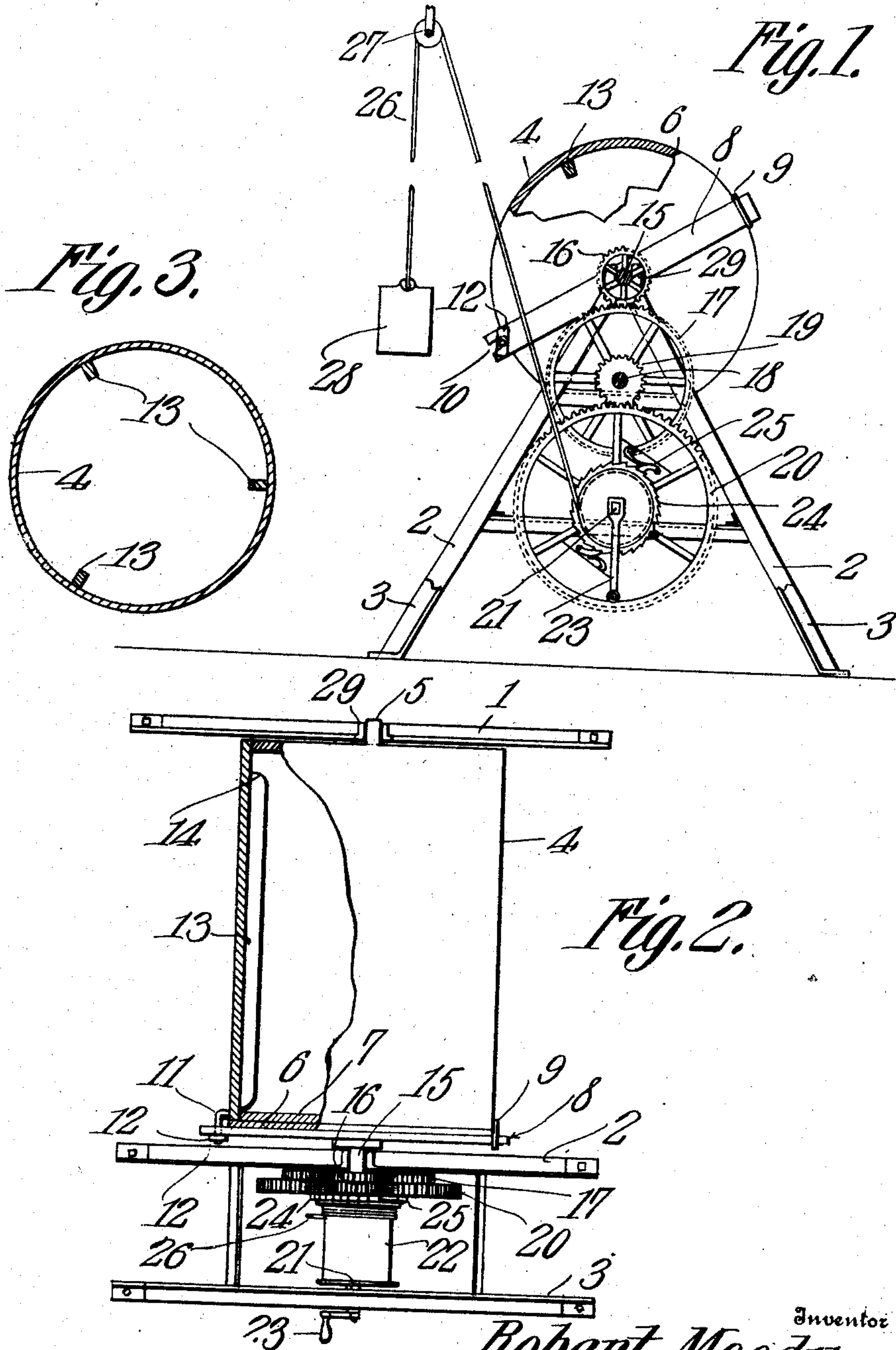


R. MOODY
CHURN.

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908,796.

Patented Jan. 5, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT MOODY, OF GUNTERSVILLE, ALABAMA.

CHURN.

No. 908,796.

Specification of Letters Patent.

Patented Jan. 5, 1909.

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To all whom it may concern:

Be it known that I, ROBERT MOODY, a citizen of the United States, residing at Gunterville, in the county of Marshall and State of Alabama, have invented a new and useful Churn, of which the following is a specification.

This invention relates to churns and to motors for actuating the same, and its object is to provide a churn body of novel construction having simple and efficient means whereby the same can be rotated horizontally.

Another object is to provide a churn body having means therein whereby the churning operation is facilitated, said means serving to quickly break the milk globules and dispensing with the use of a dasher such as ordinarily employed.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claim.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a front elevation of the churn and its power mechanism, parts being broken away. Fig. 2 is a plan view, the churn body being shown partly in section. Fig. 3 is a transverse section through the churn body.

Referring to the figures by characters of reference, 1, 2 and 3 designates A-shaped standards or supports, the standards 1 and 2 constituting bearings for the churn body while the standards 2 and 3 have the motor arranged therebetween and supported thereby.

The churn body which has been indicated at 4 is preferably cylindrical in form and has a central trunnion or neck 5 extending from one end thereof and bearing upon the top of the standard 1. The other end of the churn body is provided with a disk-like closure 6 having a circular extension 7 designed to fit snugly within the open end of the churn body. A cross bar 8 is suitably secured diametrically upon the closure 6 and has its ends projecting beyond the periphery thereof. One of these ends is designed to enter a retaining loop or keeper 9 extending beyond the open end of the churn body while the other end of the bar 8 is forked as shown at 10 and designed to receive an angular bolt 11 which extends beyond the open end of the churn body at a point diametrically

opposite the loop 9. Any suitable means such as a wing nut 12 is arranged upon this bolt and designed to bear against the forked end of the bar and thus firmly clamp the closure upon the end of the churn body and seal it.

Arranged longitudinally within the churn body and upon the inner surface of the wall thereof are radial wings 13 the ends of which are preferably rounded as shown at 14 and disposed at points removed short distances from the two ends of the churn body. These wings extend any desired distance toward the axis of the churn body.

Extending from the center of the closure 6 is a trunnion 15 which bears upon the standard 2 and has a gear 16 secured to it and meshing with a larger gear 17 loosely mounted upon a stud 18 extending from the standard 2. Another small gear 19 rotates with the gear 17 and meshes with a large drive gear 20 loosely mounted upon shaft 21 which is journaled in the two standards 2 and 3. A drum 22 is suitably secured to and rotates with this shaft and a crank 23 or other means for rotating the shaft is attached to the forward end of said shaft. A ratchet wheel 24 is secured to the drum and is normally engaged by a pawl 25 carried by the gear 20. A cable or other flexible device 26 is secured to and designed to be wound upon the drum and extends upward and over a supporting sheave 27 and is provided at its free end with a weight 28.

When it is desired to operate a churn such as herein described the same is partly filled with the milk to be churned, after which the closure 6 is secured in place by inserting one end of bar 8 into loop 9 and fastening the other end by means of the bolt 11 and wing nut 12. The churn body is then placed in a horizontal position upon the standards 1 and 2, there being forked bearings provided therefor as indicated at 29 so that the churn body can be readily placed in or removed from position. It is of course to be understood that the gear 16 will drop into mesh with the gear 17 when the churn body is placed in position on the standards. The flexible device 26 is wound upon the drum by turning said drum in one direction by means of the crank 23, this winding operation causing the ratchet 24 to slip past pawls 25. When the weight 28 has been raised to a desired elevation the winding may be stopped and the weight will pull downward on the connection 26 and

cause it to unwind from the drum, thus actuating the gearing and causing the churn body to rotate upon its bearings. As said body rotates the wings 13 are caused to beat
5 against the liquid contents of the churn body, which contents are normally held by gravity upon the lower portion of the churn body. The beating action referred to will break the globules within the milk so that butter will
10 soon be formed as a result of the constant rotation of the body.

A structure such as herein described dispenses with the use of a churn dasher and enables the churning operation to be effected
15 mechanically without, however, the use of any complicated or expensive machinery.

What is claimed is:

A churn comprising a cylindrical body having an inlet opening at one end, a closure
20 detachably mounted on said end, a retaining loop outstanding from the wall of the body

at said end, a cross bar arranged diametrically upon the outer face of, and immovably secured to the closure, the ends of said bar extending beyond the edge of the closure and
25 beyond opposite portions of the body, one of said ends being slotted longitudinally, the other end of the bar being insertible into the loop, means extending beyond the body for detachably engaging the slotted end of the
30 bar, and for holding the bar in engagement with the loop, a trunnion outstanding from the bar, and mechanism for operating the trunnion to produce a corresponding movement of the closure and the body. 35

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ROBERT MOODY.

Witnesses:

EDW. D. HOER,

CHAS. B. KENNAMER.