C. S. McCALMAN.

CHURN.

APPLICATION FILED DEC. 30, 1908.

925,015.

Patented June 15, 1909.

Fig. 1

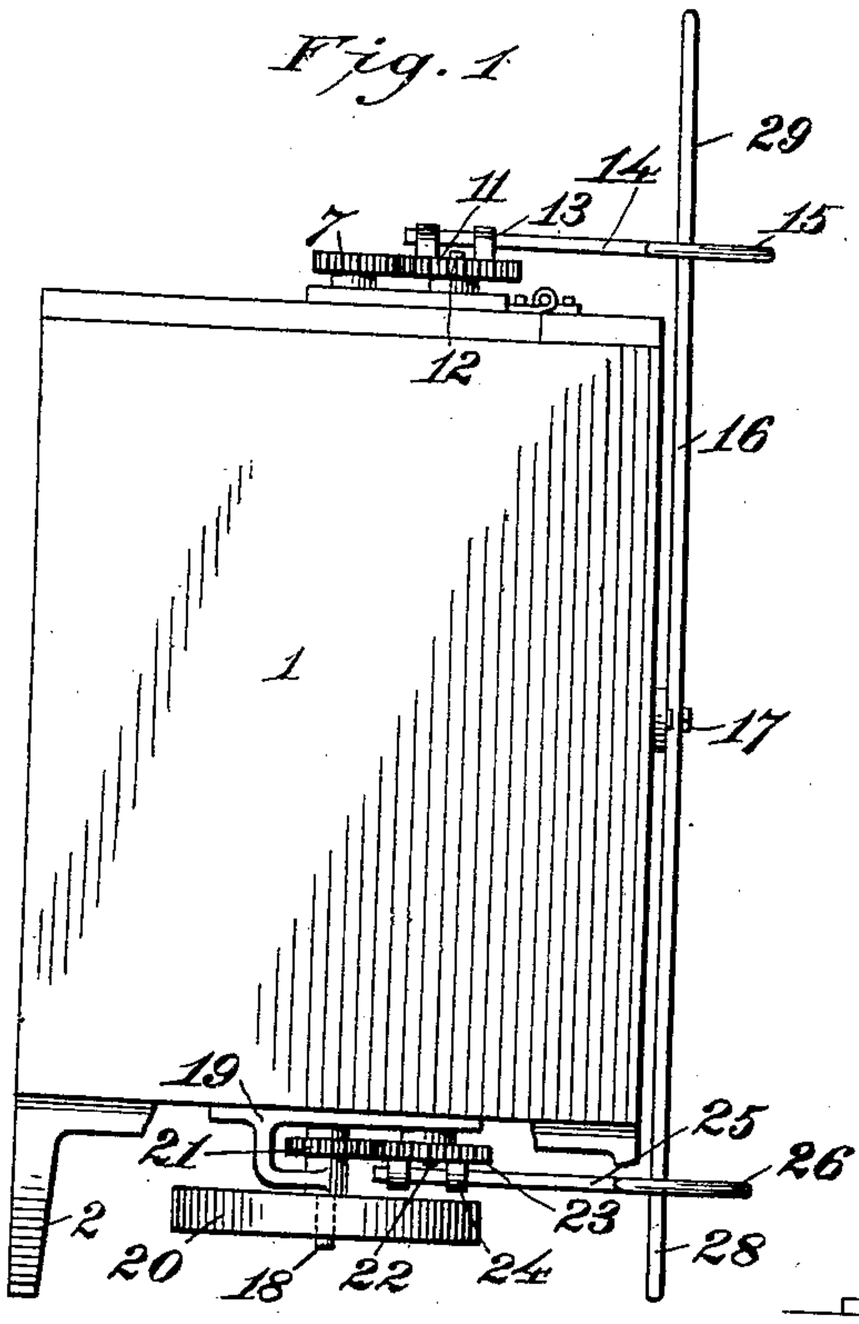


Fig. 2.

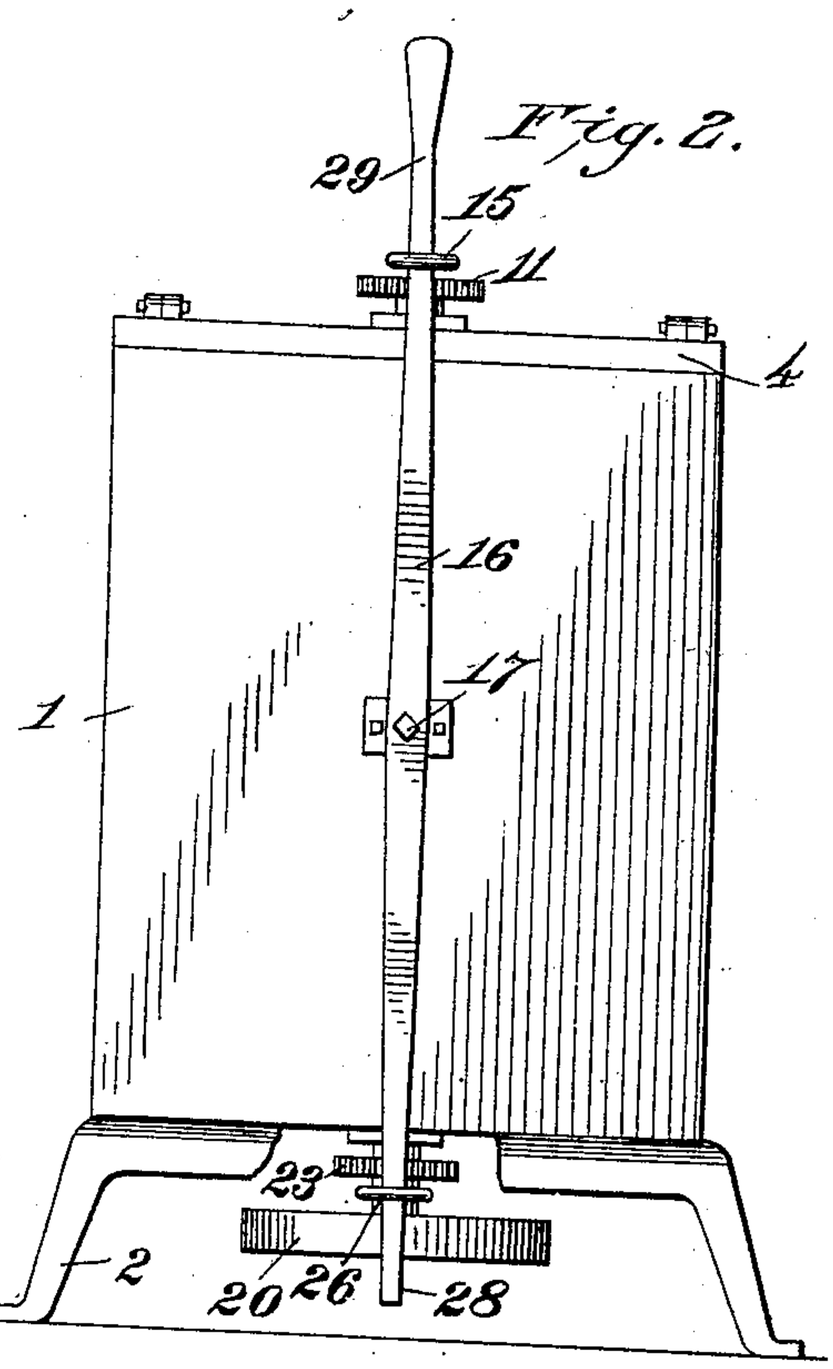


Fig. 3.

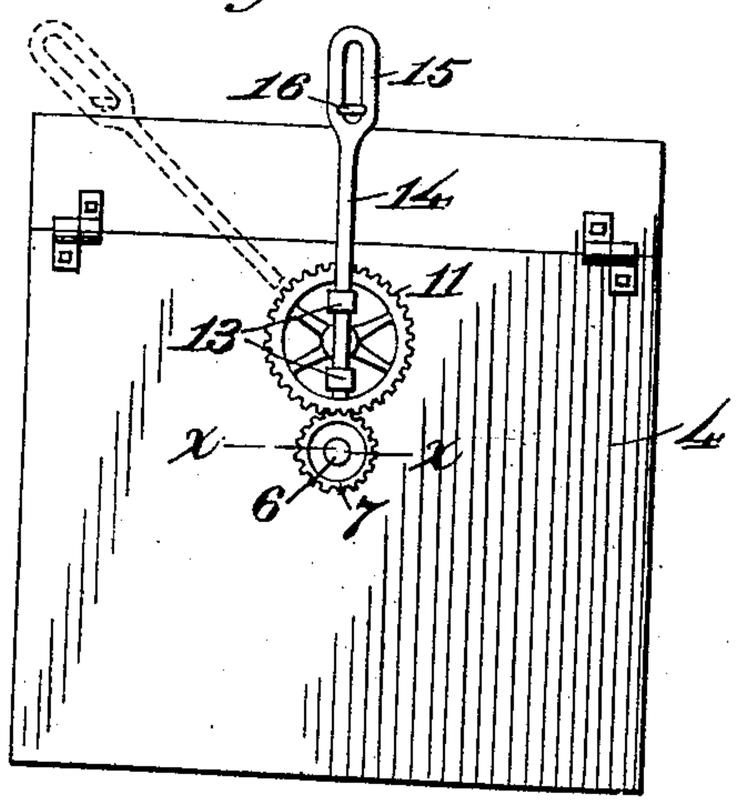
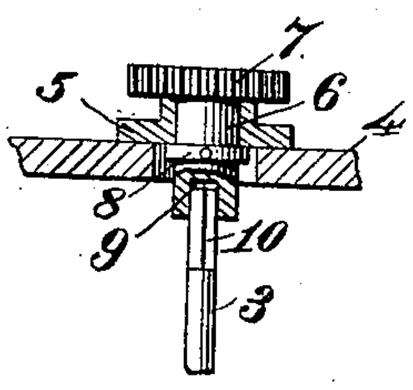


Fig. 4.



Witnesses

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CARL S. McCALMAN, OF MAPLETON, IOWA.

CHURN.

No. 925,015. Specification of Letters Patent. Patented June 15, 1909.

Original application filed October 8, 1908, Serial No. 456,790. Divided and this application filed December 30, 1908. Serial No. 470,084.

To all whom it may concern:

Be it known that I, CARL S. MCCALMAN, a citizen of the United States, residing at Mapleton, county of Monona, and State of Iowa, have invented certain new and useful Improvements in Churns, of which the following is a specification.

This invention relates to churns and is a division of application Serial Number 456,790, filed October 8, 1908, and has particular reference to that class of churns characterized by a stationary receptacle provided with a hinged cover in which is rotatably mounted a vertical dasher shaft.

The object of my invention is to provide improved means for driving the dasher shaft whereby the hinged cover shall not be subjected to the weight of the operating machinery.

A further object of my invention is to provide a device as mentioned with an operating mechanism including a balance wheel and the whole of said mechanism being arranged in convenient and advantageous positions.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which—

Figure 1, is a side elevation of a churn embodying my invention in its preferred form, Fig. 2, is an end elevation thereof Fig. 3, is a top plan view of the device, and Fig. 4, is a fragmentary sectional view on the line *x*—*x* of Fig. 3.

Referring now to the drawings, 1 indicates a rectangular receptacle provided with a stand or legs 2, and 3 indicates the dasher shaft. The receptacle 1 is provided with a hinged top or closure 4. Secured to the top of the closure 4 is a bearing 5 in which is mounted a short shaft or journal 6 of a pinion 7. The journal 6 is provided with a collar 8 which bears against the lower face of the bearing 5 and its lower end is provided with a squared recess 9 to receive the squared upper end 10 of the shaft 3. The upper end of the shaft is inserted in the socket or recess as the lid is closed.

11 indicates a spur gear mounted on a stud 12 which is secured in the bearing member 5, the latter being extended for this purpose.

The gear 11 is provided with perforated lugs 13 in which is inserted the end of a lever 14 and said lever is provided at its free end with an elongated loop 15 which overjets the edge of the receptacle 1, to engage an operating lever 16 which is pivotally mounted as at 17 upon the side of the receptacle 1.

18 indicates a shaft mounted in bearings 18 secured to the bottom of the receptacle and 20 indicates a balance wheel and 21 a spur gear secured thereto. Secured in the bearing block 19 is a stud shaft 22 upon which is mounted a spur gear 23 meshing with the gear 21. The gear 23 is provided with a pair of perforated lugs 24 in which is arranged one end of a lever 25 similar to the lever 14 and provided at its free end with an elongated loop 26 which projects beyond the lower edge of the receptacle to receive the lower end 28 of the lever 16. The upper end of the lever 16 is provided with an operating handle 29.

The operation of the device is as follows: The operator grasps the handle 29 and moves the lever 16 backward and forward causing the levers 14 and 25 to oscillate and with them the gears 11 and 23 which drive the pinions 7 and 21 with which the dasher 3 and the balance wheel 20 are connected. It will be noted that when the lever 14 is moved to the position shown in dotted lines in Fig. 3 it may be slipped out of the lugs on the gear 11, thereby allowing the cover 4 to be turned back on its hinges. It should also be noted that the balance wheel and its driving mechanism are located at the base of the machine where there will be little tendency to rack the device and also under the machine where it is out of the way of the operator.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

In a churn, a receptacle open at the top, a vertical shaft provided with dashers rotatably mounted in said receptacle, a cover to swing about a horizontal axis adapted to close said receptacle, means rotatably mounted on said cover having a portion adapted to be brought into engagement with a portion of said shaft by the closing of the cover, said rotatable means having an opening, a lever operating in a horizontal plane removably mounted in said opening, rotatable means including a balance-wheel

mounted on the under side of said receptacle, said rotatable means having an opening in a horizontal plane, and a two-armed operating lever engaging both of the aforesaid levers to cause them to oscillate, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL S. McCALMAN.

Witnesses:
R. F. SMITH,
H. G. WENGERT.