G. S. BEEMER.

CHURN OPERATING MEANS.

APPLICATION FILED OCT. 21, 1912.

1,135,655. Patented Apr. 13, 1915.

Fig. 2.

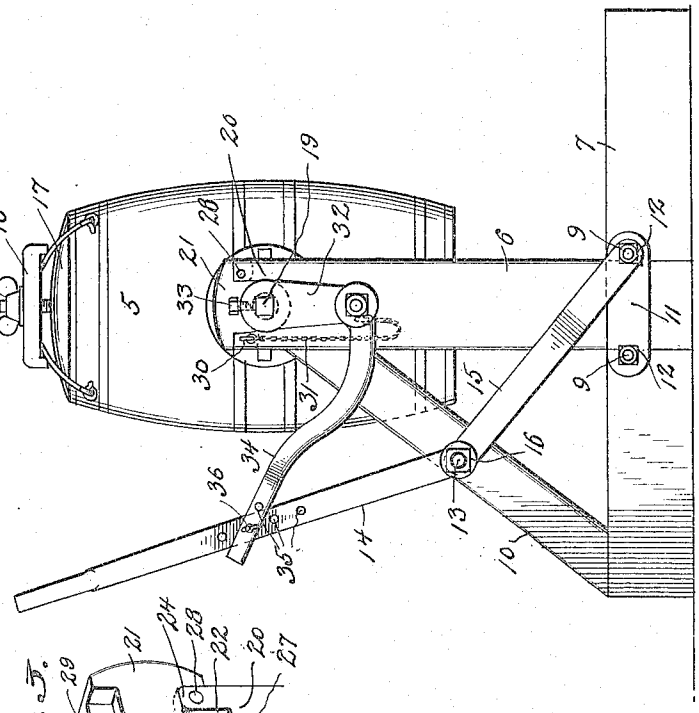


Fig. 3.

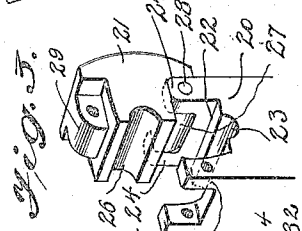
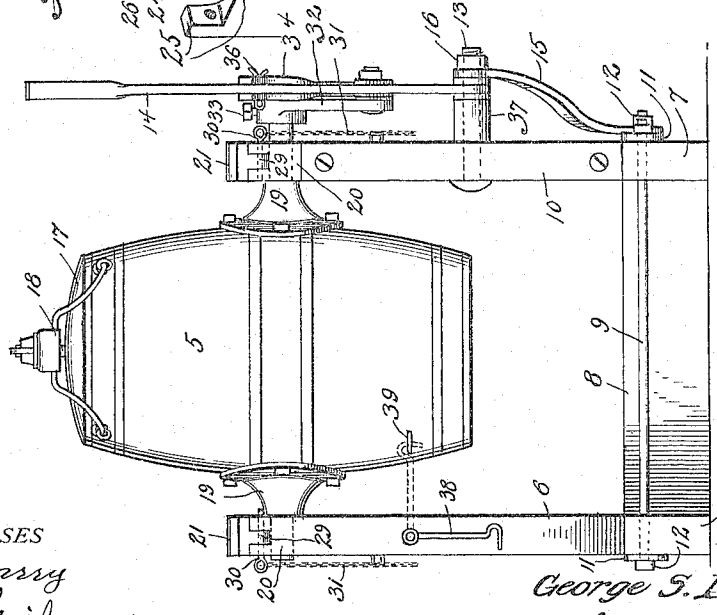


Fig. 1.



WITNESSES

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UNITED STATES PATENT OFFICE.

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CHURN-OPERATING MEANS.

1,135,655. Specification of Letters Patent. Patented Apr. 13, 1915.

Application filed October 21, 1912. Serial No. 726,991.

To all whom it may concern:

Be it known that I, GEORGE S. BEEMER, a citizen of the United States, residing at Meeker, in the county of Rio Blanco and State of Colorado, have invented certain new and useful Improvements in Churn-Operating Means, of which the following is a specification.

This invention relates to that class of churns known as barrel churns, and its object is to provide a churn of this kind embodying certain novel features of construction to be hereinafter described and claimed.

The invention also has for its object to provide a novel and improved support for the barrel, and means for revolving the barrel.

These objects are attained by a combination and arrangement of parts to be hereinafter described in detail, and illustrated in the accompanying drawing.

In the drawing, Figure 1 is a front elevation of the churn; Fig. 2 is a side elevation thereof, and Fig. 3 is a detail in perspective showing one of the bearings.

Referring specifically to the drawing, the supporting stand or frame of the churn receptacle or barrel 5 comprises spaced standards 6 rising from side sills 7 connected by a cross sill 8 and cross brace-rods 9. One of the standards has a brace 10 which extends between the same and the corresponding sill 7. The sills and standards are put together by mortising. On the outer face of the side sills, over the joint between the same and the standards, is placed a plate 11 against which screw nuts 12 which secure the brace-rods 9, said rods being threaded at their ends for the nuts, and passing through the side sills and the plates. This structure provides a strong and durable stand. The brace 10 carries a projecting bolt 13 on which a hand-lever 14 is fulcrumed. The bolt 13 is braced by a bar 15 having at one end an aperture through which said bolt passes, and at its other end an aperture through which one of the ends of one of the rods 9 passes. The nut 12 screwed on said rod 9 secures one end of the brace, and the other end of the brace is secured by a nut 16 screwed on the bolt 13. The barrel 5 has a closure 17 provided with a suitable lock 18, and to opposite sides of the barrel are secured trunnions 19 which seat in bearings 20 at the top of the standards 6. Each bearing has a hinged cap 21 which may be swung open to permit removal of the barrel. The cap prevents the trunnions from slipping out of the bearings when the churn is being operated.

As shown more clearly in Fig. 3, the bearing comprises a lower half having a recess 22 in the floor of which is a longitudinal semi-circular groove 23 forming a seat for the trunnion. On opposite sides of the recess are upstanding spaced ears 24 and 25, respectively. The cap 21 is shaped to fit in the recess 22, between the ears 24 and 25, and has a bottom semi-circular groove 26 which coincides with the groove 23. The cap therefore forms the upper half of the bearing. On one end of the cap is a reduced portion 27 forming a hinge knuckle which fits between the ears 24, and a pin 28 passing through said parts completes the hinge joint of the cap. The other end of the cap has a reduced portion 29 which fits between the ears 25. A pin 30 passing through the parts 25 and 29 locks the cap, and upon removing said pin, the cap may be swung away from the lower half of the bearing, as shown in Fig. 3. When the two caps are in this position, the trunnions can be removed and the barrel taken out of the stand. The pin 30 is carried by a chain 31 to prevent its loss.

One of the trunnions 19 projects from its bearing and said projecting end is squared, as shown in Fig. 2, to receive a crank 32 which latter is locked to the trunnion by a set screw 33. Before the barrel can be removed from the stand it is necessary to take the crank off the trunnion, which is readily done by unscrewing the set screw 33. The crank 32 is connected to the hand-lever 14 by a pitman 34. An adjustable connection is had between the hand-lever and the pitman, by providing said parts with a plurality of apertures 35 for a pin 36 forming the connection. A sleeve 37 on the bolt 13 brings the hand-lever in line with the pitman. One of the standards 6 carries a hook 38 which is adapted to engage an eye 39 on the barrel 5 for the purpose of holding the same stationary so that the milk will not spill when the cover 17 is off.

The churn is operated by swinging the hand-lever 14 back and forth, which, through the pitman 34 and the crank 32, rotates the barrel.

A churn constructed as herein described

is strong and durable, and has no complicated parts to get out of order. The churn can also be easily worked with the operator standing up or sitting down.

I claim:

The combination of a stand comprising sills and standards rising therefrom, a brace extending between one of the standards and sills, a fulcrum bolt passing through the brace and projecting from one side thereof, and a rigid bar fastened at one end to the last-mentioned sill and having its other end connected to the projecting end of the bolt in spaced relation with the brace from which the bolt projects.

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

GEORGE S. BEEMER.

Witnesses:
T. J. CASSIDY,
C. B. JEFFRIES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."