

No. 677,684.

Patented July 2, 1901.

J. H. McCAUSLAND.

CHURN.

(Application filed Feb. 11, 1901.)

(No Model.)

Fig. 1

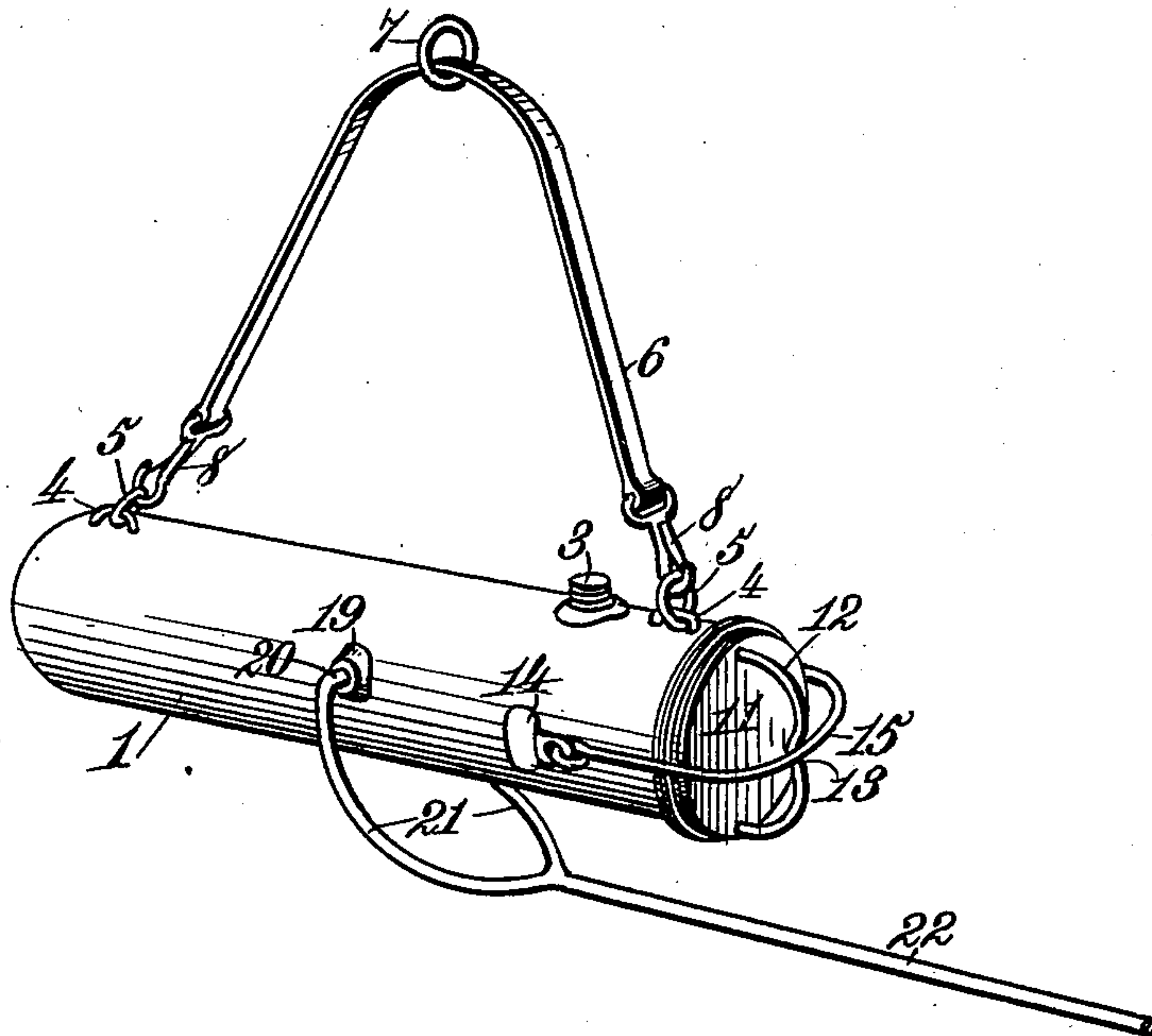


Fig. 2

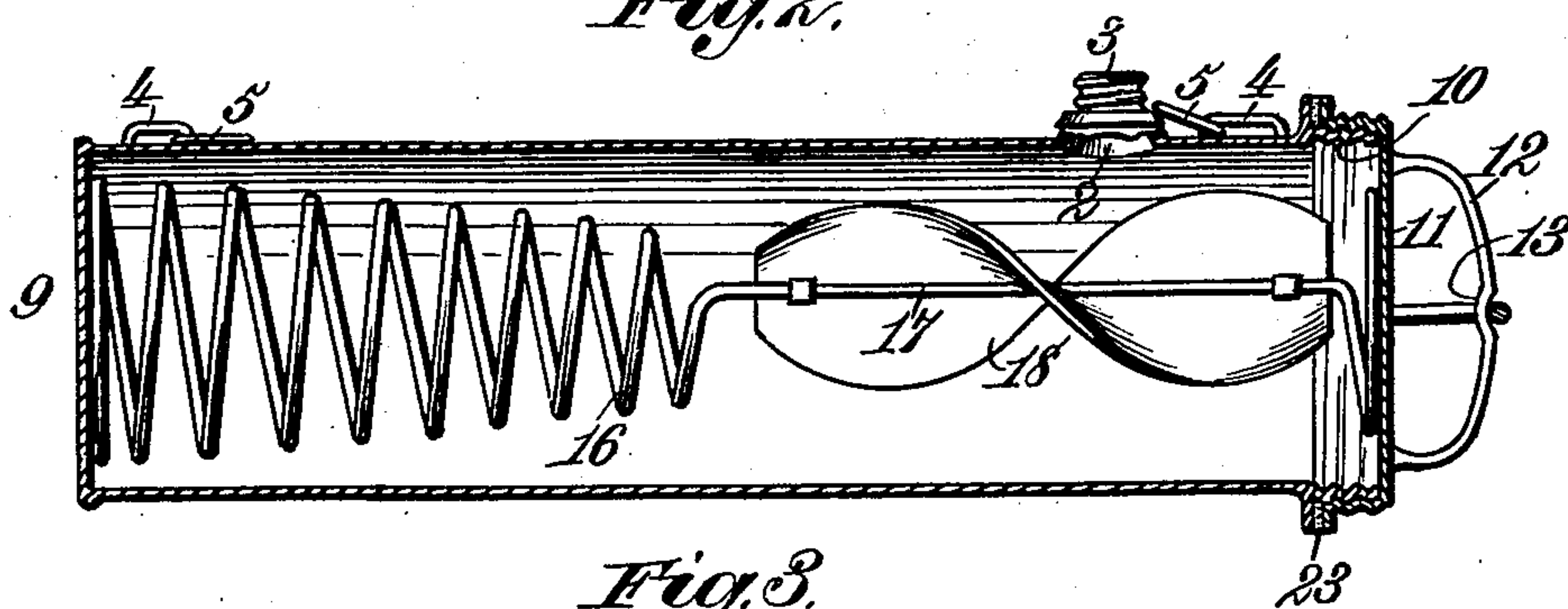
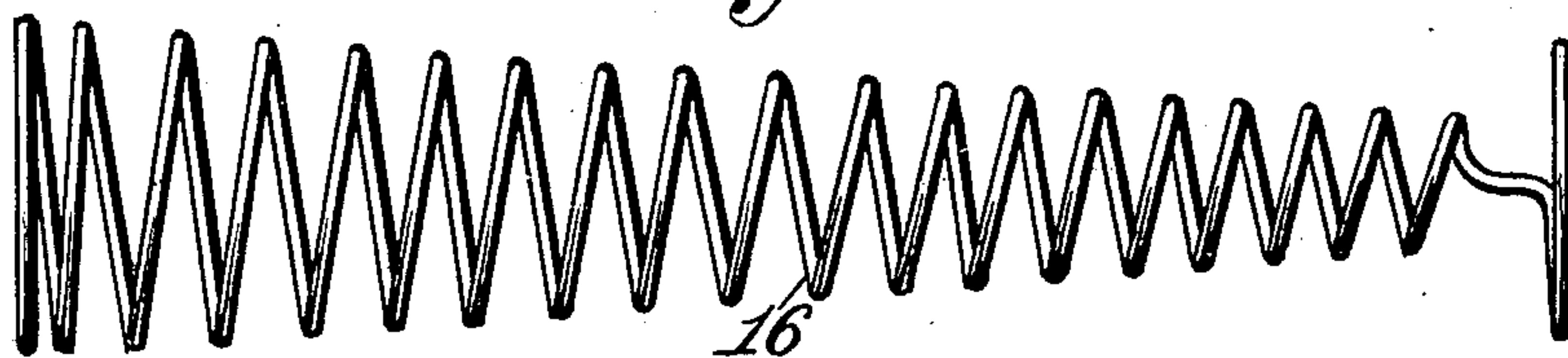


Fig. 3



Witnesses,
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UNITED STATES PATENT OFFICE.

JOSEPH H. McCAUSLAND, OF LAMPASAS, TEXAS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 677,684, dated July 2, 1901.

Application filed February 11, 1901. Serial No. 46,862. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. McCAUSLAND, a citizen of the United States, residing at Lampasas, in the county of Lampasas and State of Texas, have invented new and useful Improvements in Churns, of which the following is a specification.

My invention relates to churns, the object of the same being to provide novel means for securing the cap or cover for the churn-body in place and to provide a novel form of dasher and means for mounting the same within the churn-body.

The invention consists of a cylindrical body provided with means whereby it may be supported for the purpose of reciprocating the same, a closing-cap upon one end of said body and a dasher made from stiff spring-wire and coiled to form a plurality of convolutions, said dasher fitting within the cylindrical body of the churn with the outer ends thereof engaging the ends of said body.

The invention also consists in certain features and details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings forming a part of this specification, Figure 1 is a perspective view of my improved churn. Fig. 2 is a longitudinal section, and Fig. 3 a detail view of the dasher.

Like reference-numerals indicate like parts in the different views.

The body 1 of my improved churn is cylindrical in form and has a vent-opening 2 in one side thereof, adapted to be closed by a removable cap 3, the said vent-opening providing for the escape of air from the interior of the body and serving as a peep-hole through which the interior of the churn may be viewed. Said body is provided adjacent to the opposite ends thereof with the loops 4 4, with which are connected the rings 5 5. To said rings are attached the outer ends of a supporting-strap 6, having a ring 7 at its central portion, by means of which said body may be supported from a hook, nail, or other analogous device. To provide for the attachment and detachment of the straps 6 from the rings 5, the ends of said straps are provided with snap-hooks 8.

One end of the body 1 is normally closed by

what may be termed the "bottom" 9, whereas the opposite end thereof is open and provided with external screw-threads 10. Upon this open end is adapted to be screwed a closing-cap 11, having a handle 12 thereon. The said handle 12 is yoke-shaped, with the ends thereof secured directly to the cap 11 and the central portion thereof extending outwardly from said cap and provided with a depression 13. Pivoted to brackets 14, adjacent to the open end of the body 1, is a bail 15, the said bail being adapted to be turned up over the handle 12 of the cap 11 and to fit within the notch 13 therein, for the purpose of preventing the turning and unscrewing of the cap 11, and thereby hold the same firmly in place.

Within the body 1 the dasher 16 is located, the same being constructed of stiff spring-wire coiled to form a plurality of convolutions and of a length slightly greater than the length of the body 1. When said dasher is first introduced into the body 1, one end thereof projects beyond the open end of said body. When, however, the cap 11 is screwed down into place, it compresses the dasher 16, so that the opposite ends of said dasher engage with spring force the bottom 9 of the body 1 and the cap 11. The said dasher is therefore maintained in its proper position within the body by the frictional engagement of its ends with the opposite ends of said body. When the cap 11 is removed for the purpose of withdrawing the contents of the churn, the pressure is relieved from the dasher 16 and the upper end thereof springs outwardly beyond the open end of the body 1, and the same may be then grasped for the purpose of removing the dasher from the body without bringing the hands in contact with the contents of the churn. This dasher is an important feature in the construction of my device. I prefer that the coils or convolutions which are formed therein extend from one end of the same to the other. I may, however, form said dasher at a point intermediate its ends with a straight portion 17, to which is secured a spiral blade 18.

In using my device the body 1 is turned to an upright position, so that it rests upon the bottom 9 thereof, and the same is filled with cream to the desired height. The dasher 16 is then introduced and the cap 11 applied to

the open end of said body. The said body is then turned to a substantially horizontal position and is supported by the ring 7 upon a hook, nail, or other similar device. The said
 5 body is then rocked or reciprocated back and forth by applying pressure to one end or the other of the body 1. In this way the contents of the churn are thoroughly agitated, the agitation being increased by the dasher 16 on the
 10 inside thereof and by the blade 18, secured to said dasher, when said blade is employed. The result is that in a short while the butter will be produced without danger of breaking up the butter-cells, and thereby destroying
 15 the flavor of the resultant product. The agitation is thorough and complete in every respect, but is so gentle that the danger of breaking up the butter-cells is reduced to a minimum. To observe the condition of the
 20 contents of the body 1 or to permit of the escape of air or gases that may be contained therein, it is merely necessary to remove the cap 3 from the vent-opening 2. When the churning operation is complete, the hook 7 is
 25 disconnected from its support and the body 1 is turned to its vertical position, resting upon the bottom 9. The bail 15 is then turned out of contact with the handle 12 of the cap 11, and said cap is unscrewed from the open end
 30 of said body. When this is done, the end of the dasher 16 is immediately forced out beyond the open end of said body and the same may be removed without the necessity of introducing the hand into the body of the churn
 35 and bringing it into contact with the contents thereof.

To provide means for rocking the churn-body 1 mechanically, I form in the opposite sides of said body the sockets 19, in which
 40 fit the inwardly-extending projections 20 on the ends of the branches 21 of a yoke on the connecting-rod 22, the opposite end of said connecting-rod being provided with means whereby it may be connected with the crank
 45 portion of a sewing-machine, windmill, or other motor. During the operation of the motor the connecting-rod will be reciprocated

and a corresponding movement will be imparted to the churn.

I have heretofore stated that the closing- 50 cap 11 screws upon the open end of the churn-body 1. This means of connection, however, is not essential, as said cap may merely fit without screwing upon the end of the churn-body, the same being securely held in place 55 by means of the bail 15. Of course when the screw-threads of the cap 11 are not employed the bail 15 serves as the sole means for retaining said cap in place. To prevent leakage between the closing-cap and the body, a 60 rubber or other gasket 23 is employed.

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

1. In a churn, the combination with a cy- 65 lindrical body having one end open and a cap for closing its open end, of a dasher located within said body, the said dasher being of greater length than said body and being longitudinally compressible. 70

2. In a churn, the combination with a cylindrical body having one end open, and a cap for closing its open end, of a dasher located within said body, the said dasher being made from spring-wire, coiled to form a plurality 75 of convolutions, and of greater length than said body, as and for the purpose set forth.

3. In a churn, the combination with a cylindrical body having one end open, and a cap for closing its open end, of a dasher lo- 80 cated within said body, the said dasher being made from spring-wire, coiled to form a plurality of convolutions, having a straight portion intermediate its ends and of greater length than said body, and a spirally-ar- 85 ranged blade secured to said straight portion.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH H. McCAUSLAND.

Witnesses:

C. D. STOKES,
 C. N. WITCHER.