

No. 791,664.

PATENTED JUNE 6, 1905.

E. J. WILSON.
CHURN.

APPLICATION FILED MAY 14, 1904.

2 SHEETS—SHEET 1.

Fig. 2.

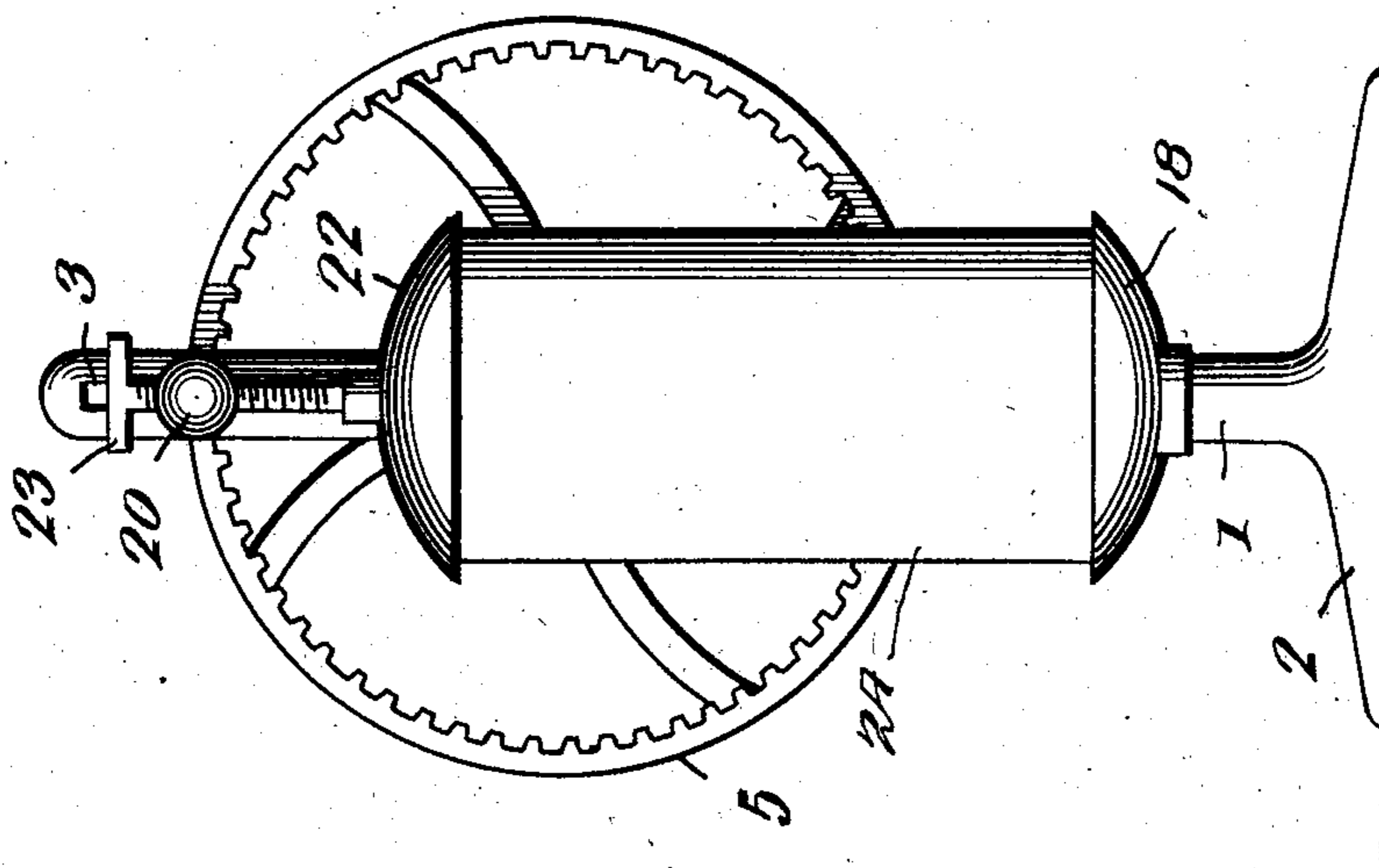
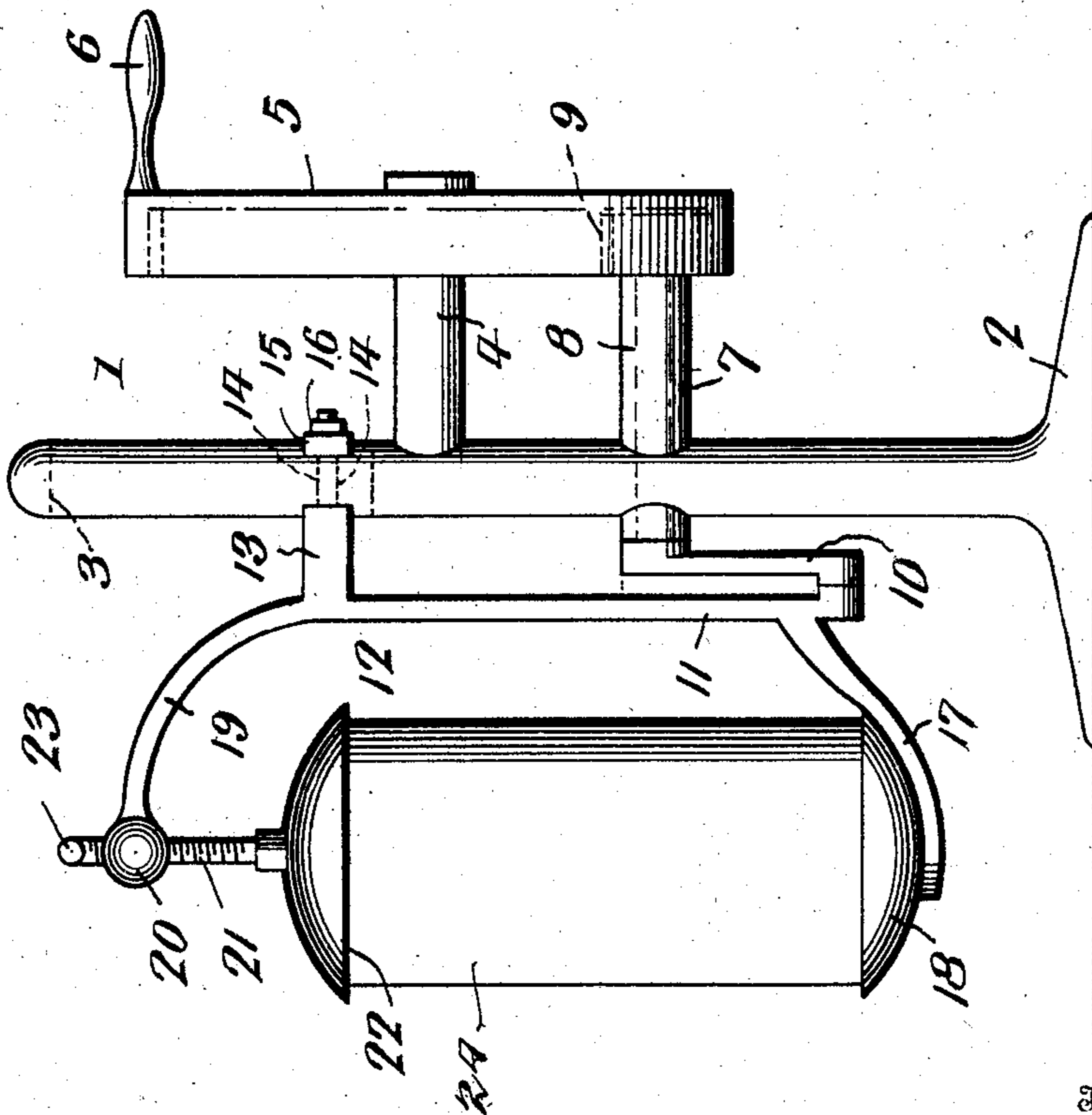


Fig. 1.



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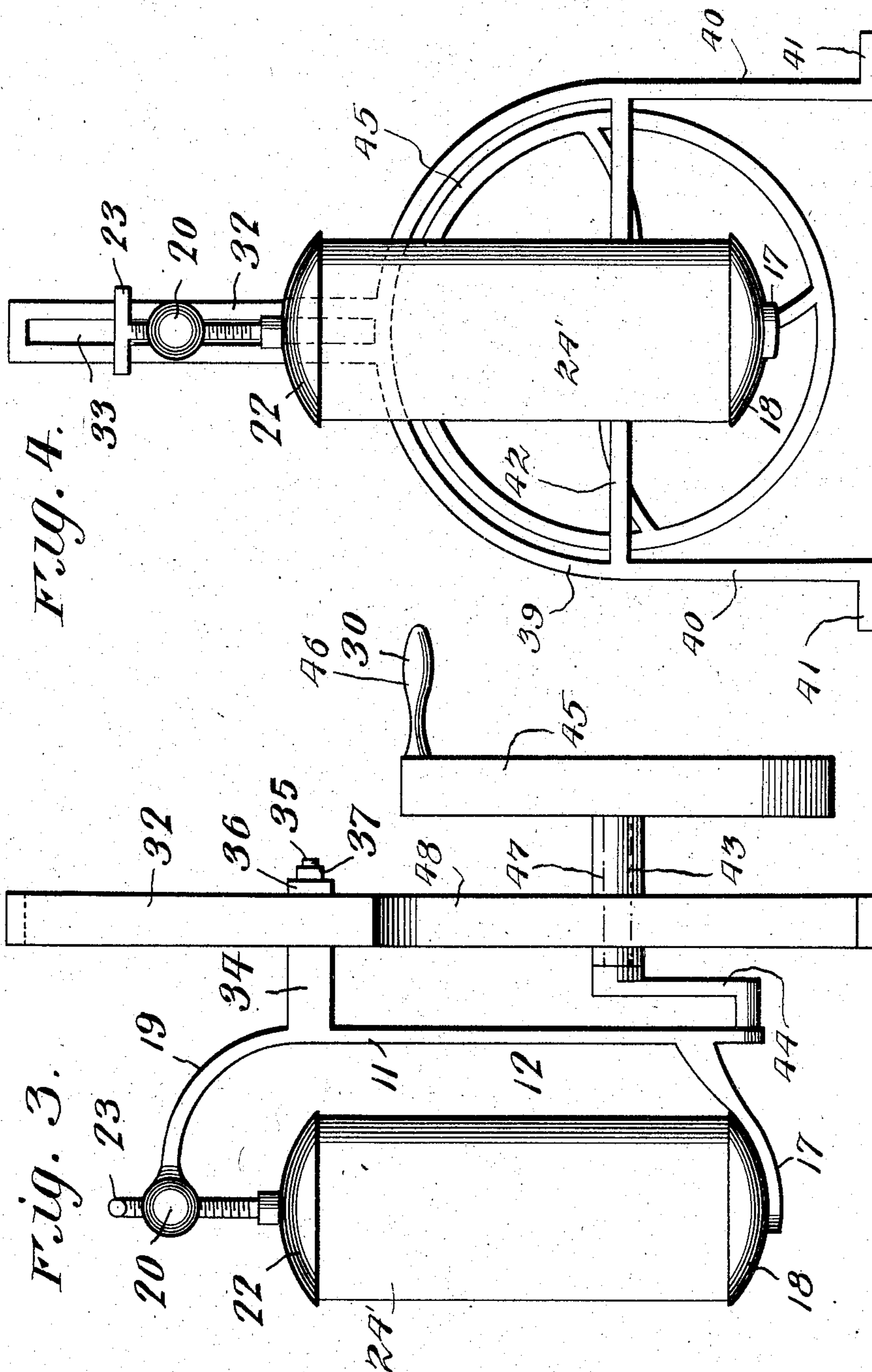
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UNITED STATES PATENT OFFICE.

EMERSON J. WILSON, OF SOUTHBEND, WASHINGTON.

CHURN.

SPECIFICATION forming part of Letters Patent No. 791,664, dated June 6, 1905.

Application filed May 14, 1904. Serial No. 207,985.

To all whom it may concern:

Be it known that I, EMERSON J. WILSON, a citizen of the United States, residing at Southbend, in the county of Pacific and State of Washington, have invented new and useful Improvements in Churns, of which the following is a specification.

This invention relates to churns, and particularly to reciprocating means to which an ordinary jar or analogous receptacle may be applied for holding the cream.

The primary object of the invention is to provide a simple and effective churn of that class wherein a reciprocating movement solely is relied upon to form butter without the use of a dasher or other agitating means located within the receptacle for holding the cream.

A further object of the invention is to provide an organization of cooperating elements which will facilitate the application and removal of a jar or other receptacle to the actuating devices and maintain said jar or receptacle in applied position with such resistance to accidental disengagement that the operating mechanism may be rapidly actuated without serious consequences.

A still further object of the invention is to provide a simple mechanism for reciprocating a support or holder for the containing-receptacle.

With these and other objects and advantages in view the invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter set forth.

In the drawings, Figure 1 is a side elevation of a churn embodying the features of the invention. Fig. 2 is a front elevation of the same. Fig. 3 is a side elevation of my improved churn, illustrating a modified form of support. Fig. 4 is a front elevation of the same.

Similar numerals of reference are employed to indicate corresponding parts in the views.

The numeral 1 designates an upright or standard having a base 2, adapted to be secured on a suitable support or table by any preferred means. The upper extremity of the standard has a slot 3 longitudinally

formed therein, and extending rearwardly from the standard below the lower terminal of the slot is an arm 4, on which an annular gear 5 is rotatably mounted, the said gear having a rearwardly-projecting handle or grip 6 for operating the same located adjacent to the periphery thereof. Below the arm 4 a tubular bearing 7 extends through the standard or upright 1 and has a shaft 8 rotatably held therein, a pinion 9 being secured to the rear end of the shaft and held in continual mesh with the teeth of the gear 5. On the front end of the shaft 8 a crank 10 is secured to rotate with said shaft, the opposite end of said crank being movably attached to the lower terminal of the vertical member 11 of a yoke 12. Extending rearwardly from the upper extremity of the member 11 is a slide projection 13, having a shank 14 extending through the slot 3 in the standard or upright 1 and also through a rear clip or bearing-block 15, the rear end of the shank 14 being threaded and engaged by a nut 16, which closely bears against the block 15. The yoke 12 is also provided with a downwardly-extending curved arm 17, carrying a horizontally-disposed base rest or seat 18. From the upper extremity of the vertical member 11 a curved arm 19 extends and terminates in a spherical head 20, disposed directly over the center of the base rest or seat 18 and formed with a vertical screw-threaded opening which is engaged by a screw-stem 21, having its lower end connected by suitable swivel means with the center of a closing-cap 22, the upper end of the stem connecting with or continuing into a T-head or grip 23, by which it may be operated.

Between the base rest or seat 18 and the cap 22 of the yoke 12 an ordinary glass jar or other receptacle 24 is positioned and held in immovable connection with the yoke by adjusting the cap 22 downwardly over the upper open end thereof. It will be understood that the base rest or seat 18 and cap 22 may have suitable cushioning or packing material applied thereto, the application of such material being an obvious expedient.

In the operation of the churn (shown in Figs. 1 and 2) the cream is placed in the jar

or receptacle 24 and the latter applied between the base rest or seat 18 and cap 22, as heretofore explained, care being taken to closely fit and adjust the cap over the upper
 5 end of the jar or receptacle. The gear 5 is then rotated, and the yoke carrying the jar or receptacle will be vertically reciprocated, the rapidity of reciprocation depending upon
 10 the speed of the operating mechanism. During the reciprocation of the yoke and the jar or receptacle the cream will be thoroughly agitated and dashed and butter thereby produced, the latter appearing, as in all churns without dashers, in small particles. After
 15 the churning operation has been completed the cap 22 is elevated sufficiently to permit the jar or receptacle to be removed, when the butter can be separated from the butter-milk by straining or any other method de-
 20 sired.

The improved churn will be found both expeditious and efficacious in its operation, and one of the essential features of the same is the capability of using as the containing-
 25 receptacle an ordinary jar or other utensil which can be firmly interposed between the base-rest and the closing-cap. It will also be understood that the proportions of the several parts may be varied, and the closing-
 30 cap and base-rest may be primarily made large enough to adapt utensils or receptacles of varying capacities to be interposed therebetween.

Referring to Figs. 3 and 4, wherein is illustrated a modified form of support for the
 35 churn, it will be noted that the receptacle 24' is supported between a seat 18 and a cap 22 of the yoke-arm 19, as in the preferred construction. In this form, however, the stand-
 40 ard comprises an upright 32, longitudinally slotted at 33 to receive the yoke-arm 34, a reduced portion 35 of which passes through the slot 33 and is held in place by a collar 36 and a nut 37 on said reduced portion 35". The
 45 lower portion of the support is branched to

provide curved members 39, having vertical portions 40 and laterally-extending feet 41, the latter being adapted to rest upon and be secured to any fixture. A horizontal brace
 50 42 joins the curved members 39 and is centrally provided with an opening to receive an arm 43, connected by a crank 44 to the lower end of the yoke member. A suitable power-
 55 wheel 45, driven by a handle 46 or by any suitable power, is provided with a laterally-projecting stud 47, preferably squared to engage a square socket in arm 43, whereby revolution of the wheel 45 will reciprocate the yoke.

Having thus fully described the invention, 60 what is claimed as new is—

1. A churn comprising a vertical slotted standard, a yoke having a receptacle-supporting base at one end, a screw-rod mounted in the opposite end of the yoke, a receptacle-
 65 cover swiveled to said rod, an arm projecting from the yoke and movable in the slot in the standard, an arm revolubly mounted in the standard and connected to the yoke, and means for revolving said arm to reciprocate
 70 the yoke.

2. A churn comprising a standard vertically slotted for a portion of its length, a yoke having a receptacle-supporting base at one end, a screw-rod mounted in the opposite end
 75 of the yoke, a receptacle-cover swiveled to said rod, an arm projecting from said yoke and movable in the slot in the standard, an arm revolubly mounted in the standard supporting a pinion at one end and a crank at the
 80 opposite end, said crank being connected to the yoke, a stud projecting from the standard, and a gear mounted on said stud and arranged to engage the pinion.

In testimony whereof I affix my signature 85 in presence of two witnesses.

EMERSON J. WILSON.

Witnesses:

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 OLIVE BROWN.