

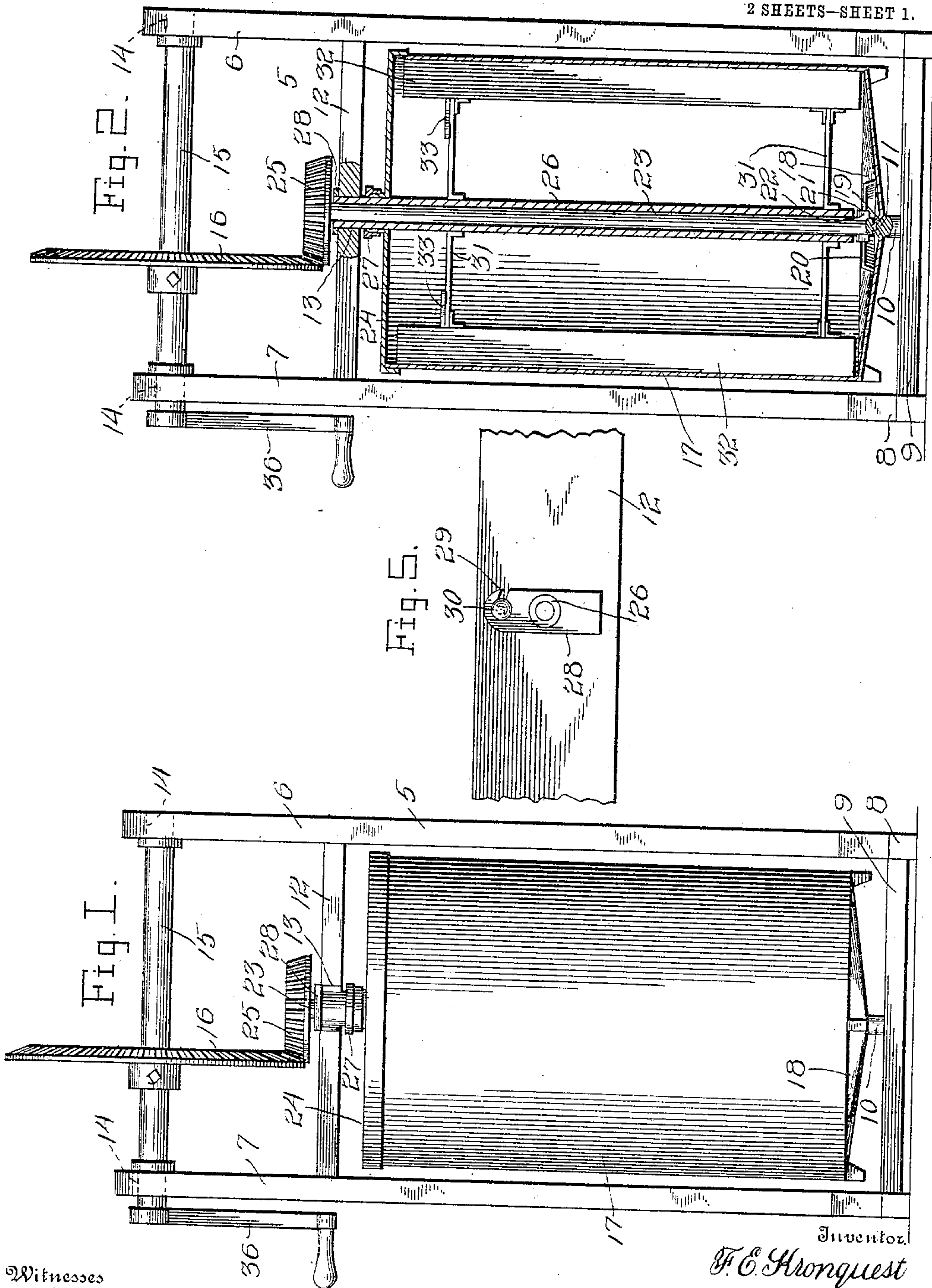
No. 816,166.

PATENTED MAR. 27, 1906.

F. E. KRONQUEST.
CHURN.

APPLICATION FILED JUNE 23, 1905.

2 SHEETS—SHEET 1.



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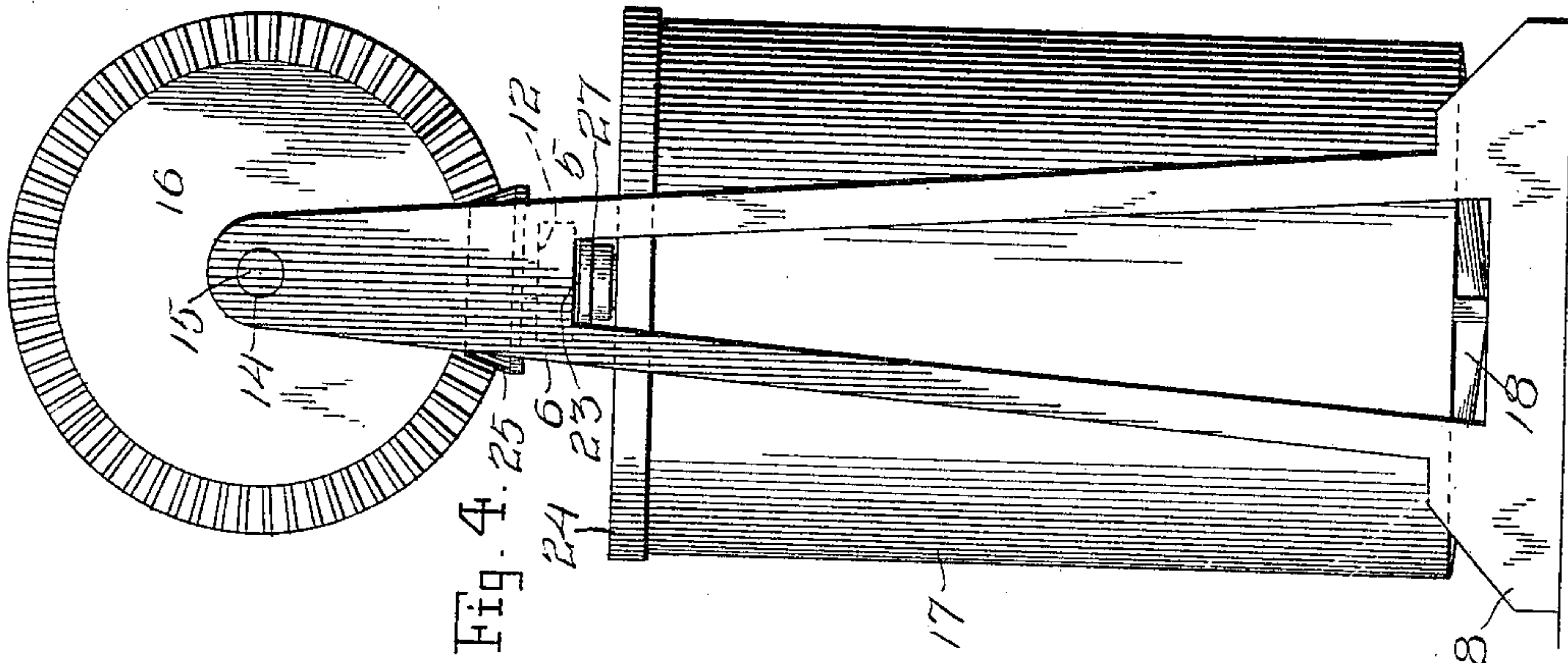


Fig. 4.

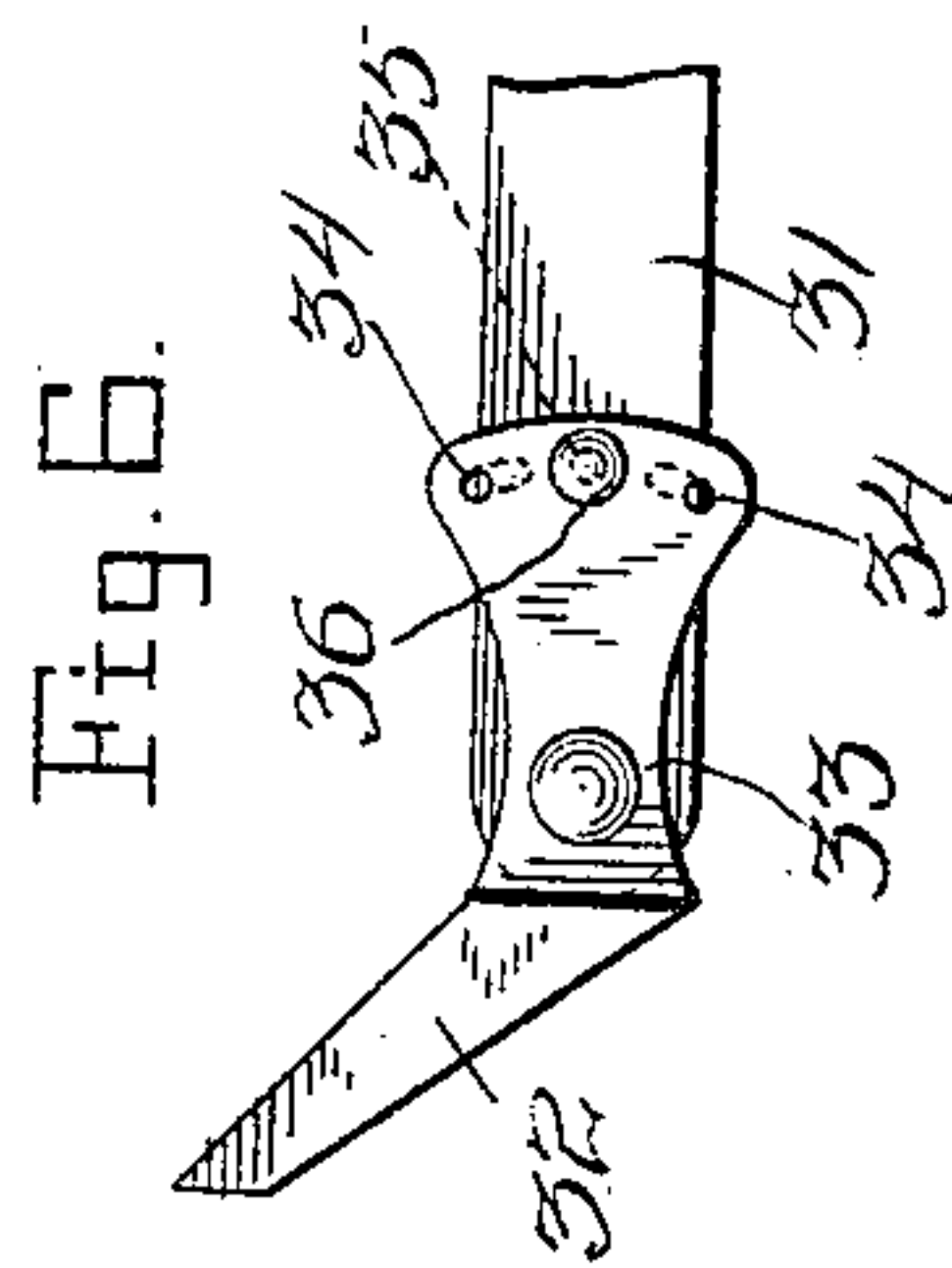


Fig. 6.

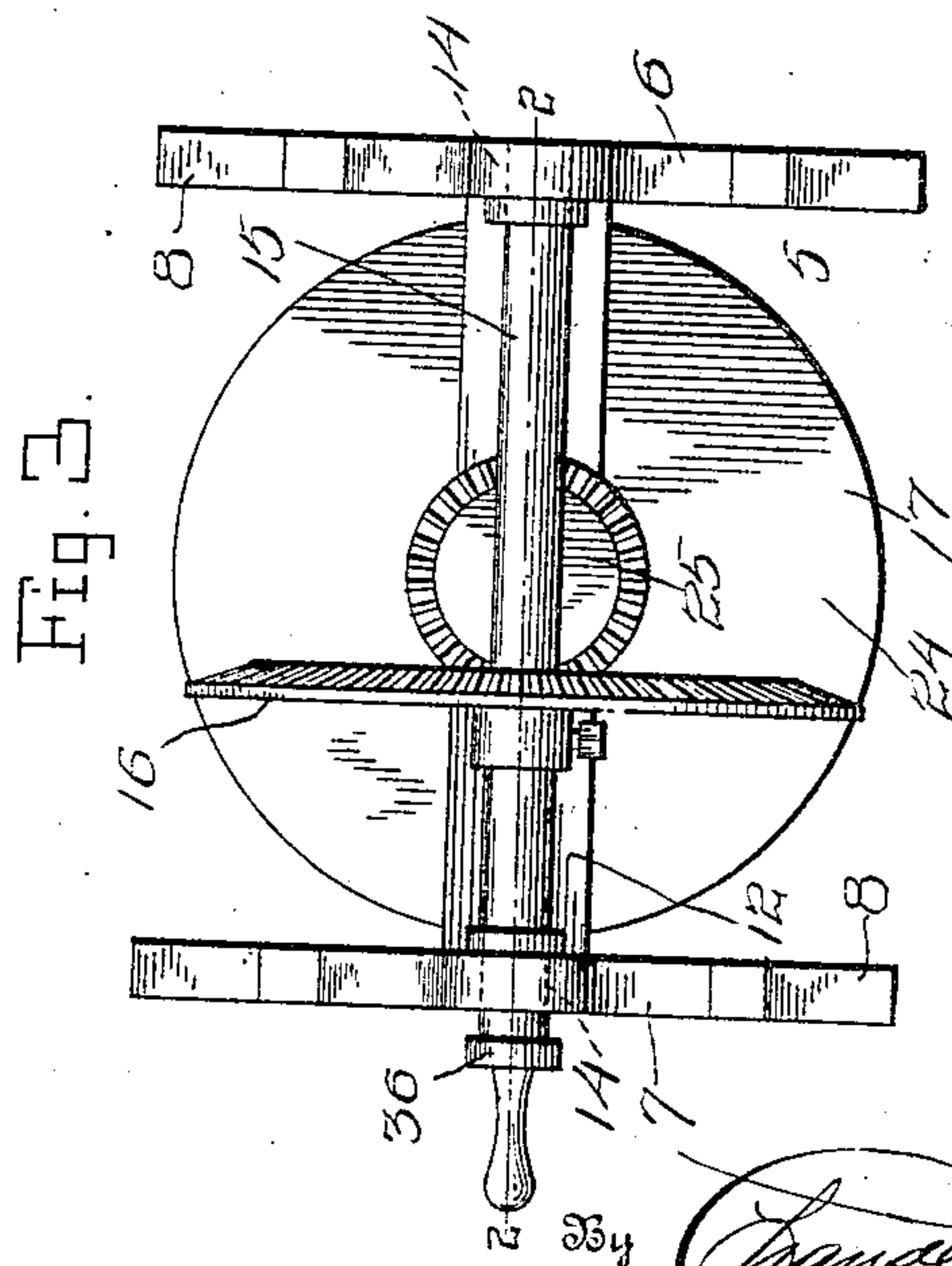


Fig. 3.

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CHURN.

No. 816,166.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed June 23, 1905. Serial No. 266,617.

To all whom it may concern:

Be it known that I, FRANCE E. KRONQUEST, a citizen of the United States, residing at Loomis, in the county of Phelps, State of Nebraska, have invented certain new and useful Improvements in Churns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to churns, and more particularly to those of the rotary type, and has for its object to provide a churn, including a cream-receptacle and a dasher, in which the cream-receptacle will be rotated, the dasher remaining stationary.

Another object is to provide a novel arrangement of parts in the mechanism accomplishing the above result.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific construction shown and described may be made within the scope of the claims and that any suitable materials may be used without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the churn. Fig. 2 is a longitudinal section. Fig. 3 is a top plan view, the line on which Fig. 2 is taken being indicated at 2 2. Fig. 4 is an end view. Fig. 5 is a top plan view of the cross-brace of the frame, illustrating the arrangement of the dasher-retainer. Fig. 6 is a detail view of a portion of one of the arms and one of the dasher-plates, the segmental projection of the latter being shown in top plan.

Referring now to the drawings, the present construction comprises a frame 5, including side uprights 6 and 7, having feet 8 at their bottom and connected between these feet by means of a horizontal bottom board 9, having a central upwardly-extending pivot-pin 10, provided with a conical point 11. Secured between the sides 6 and 7, adjacent to their upper ends, there is a cross-brace 12, having a notch 13 in its forward edge extending slightly beyond the center of the brace and rounded at its inner end. Journaled horizontally in bearings 14 in the upper ends of the sides 6 and 7 there is a shaft 15, which carries a bevel-gear 16.

A cylindrical cream-receptacle 17 has a downwardly-directed conical bottom 18, this bottom having a conical recess 19 at its center, which receives the end 11 of the pin 10, there being thus formed a cone-bearing. Secured to the upper face of the bottom 18 above the center thereof there is a plate 20, having a recess 21 in its upper surface, located centrally of the receptacle 17, and this recess is elongated to receive the lower flattened end 22 of a central vertical shaft 23, which extends upwardly through the cap 24 of the receptacle and passes through the notch 13, this shaft having a bevel-gear 25 at its upper end, which meshes with the gear 16. A tube 26 surrounds the shaft 23, terminating just above the lower end of the shaft and extending upwardly through the top of the churn, where it is surrounded by a bushing 27, carried by the top and extending upwardly through the notch 13. A horizontally-extending plate is carried by the upper end of the tube, and this plate has a notch 29 in one of its side edges adjacent to one end, which receives a pin 30, which projects upwardly from a cross-brace 12, this notch being formed in the edge of the plate which lies in the direction of rotation of the shaft 23, so that the tube is held stationary while the shaft and the receptacle are revolved by rotation of the shaft 15. Laterally-extending arms 31 are removably secured to the tube 26, and at their outer ends they are hinged to vertically-extending dasher-plates 32, which are movable horizontally upon the hinges. The dasher-plates are provided with inwardly-extending projections 33, which are segmental in form and which are provided with series of vertical openings 34, following the curvature of their arcuate edges, and these openings are disposed for successive registration with perforations 35, formed vertically in the arms 31 for the reception of pins 36 to hold the dasher-plates at different points of their movement with respect to the arms, it being thus possible to vary the distance between the dasher-plates and the wall of the receptacle 17 to suit different conditions. If desired, the openings 34 may be somewhat elongated, as shown in dotted lines in Fig. 6, to permit of some movement of the dasher-plates with respect to the arms at all times.

The shaft 15 is provided with a crank 36,

by means of which it may be rotated, and the dasher and the rod 23 may be removed to permit of cleaning the receptacle.

What is claimed is—

5 1. A device of the class described comprising a frame, a receptacle revolubly mounted in the frame, a cross-brace mounted in the frame above the receptacle and having an opening therein, a tube removably engaged
10 in the opening and extending downwardly into the receptacle, liquid-interrupting devices carried by the tube within the receptacle, a shaft revolubly engaged in the tube and connected with the receptacle for rota-
15 tion of the latter therewith, said shaft extending upwardly out of the tube, a shaft journaled in the frame, connections between the second shaft and the first-named shaft for simultaneous rotation thereof, a plate car-
20 ried by the tube above the cross-brace and having a notch therein and a pin carried by the cross-brace in the path of the notch in the plate, said pin being arranged for engagement with the notch to hold the plate and the
25 tube against rotation.

2. A device of the class described comprising a frame, a conical upwardly-directed projection mounted in the frame, a receptacle

having a conical recess in its bottom disposed with the projection engaged in the recess for 30 rotation of the receptacle upon the projection, a flange-plate secured to the bottom of the receptacle within the latter and having an angular opening in its upper surface, a rod having lugs on its lower end engaged in the 35 recess, a dasher rotatably mounted upon the rod, means for holding the dasher against rotation and means for rotating the rod and the receptacle.

3. A churn - dasher comprising a central 40 portion, arms carried by the central portion, dasher-plates pivotally connected with the arms, each of said dasher-plates having an enlarged end provided with a series of open- 45 ings and having a dasher-engaging arm on its other end, and a pin removably engaged in the openings in the arms and the dasher-plate for holding the plate at different points of their pivotal movement.

In testimony whereof I affix my signature 50 in presence of two witnesses.

FRANCE E. KRONQUEST.

Witnesses:

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