

No. 765,710.

PATENTED JULY 26, 1904.

C. C. PULLEN.
CHURN.

APPLICATION FILED APR. 24, 1903. RENEWED JUNE 10, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

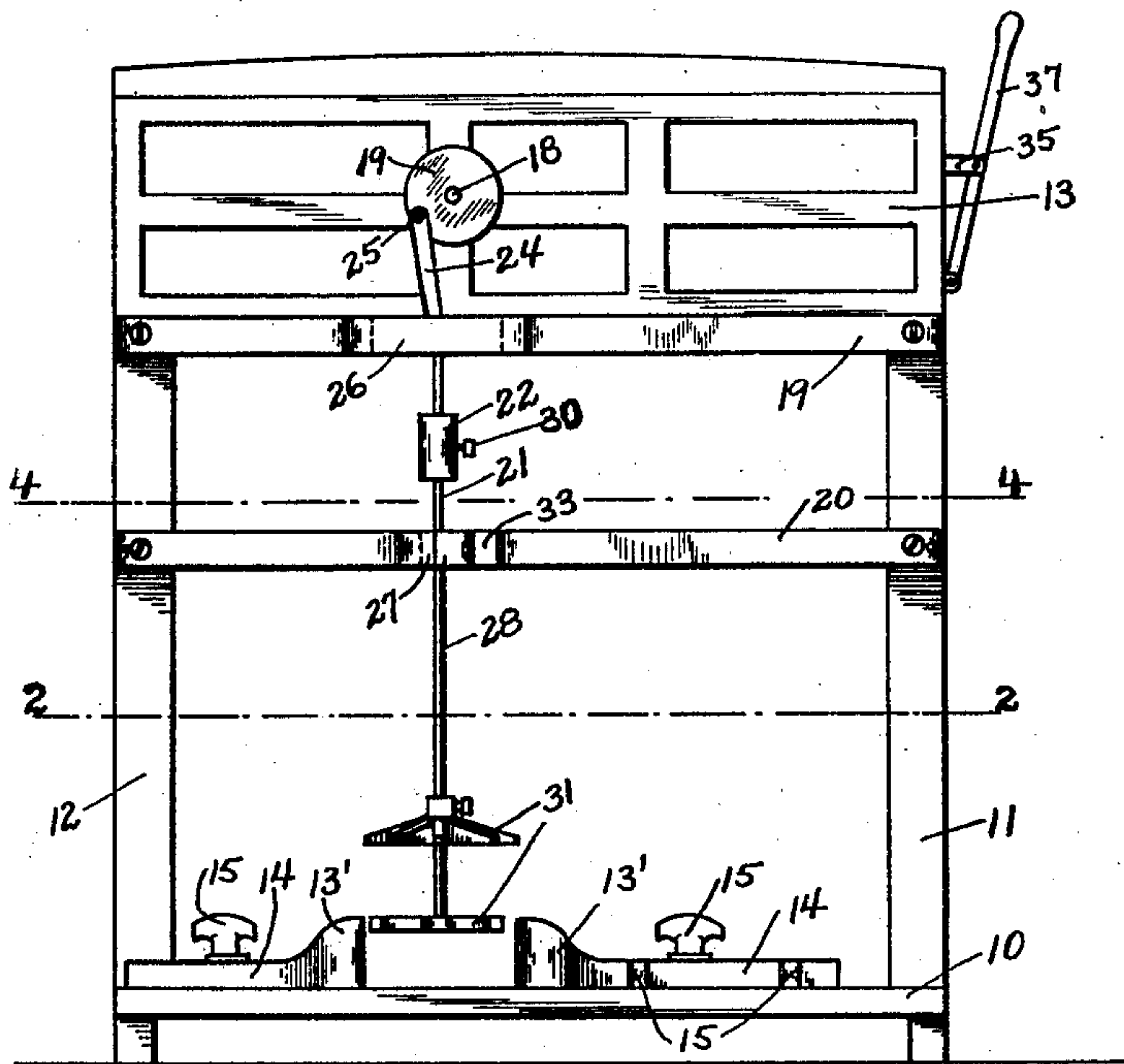


Fig. 1.

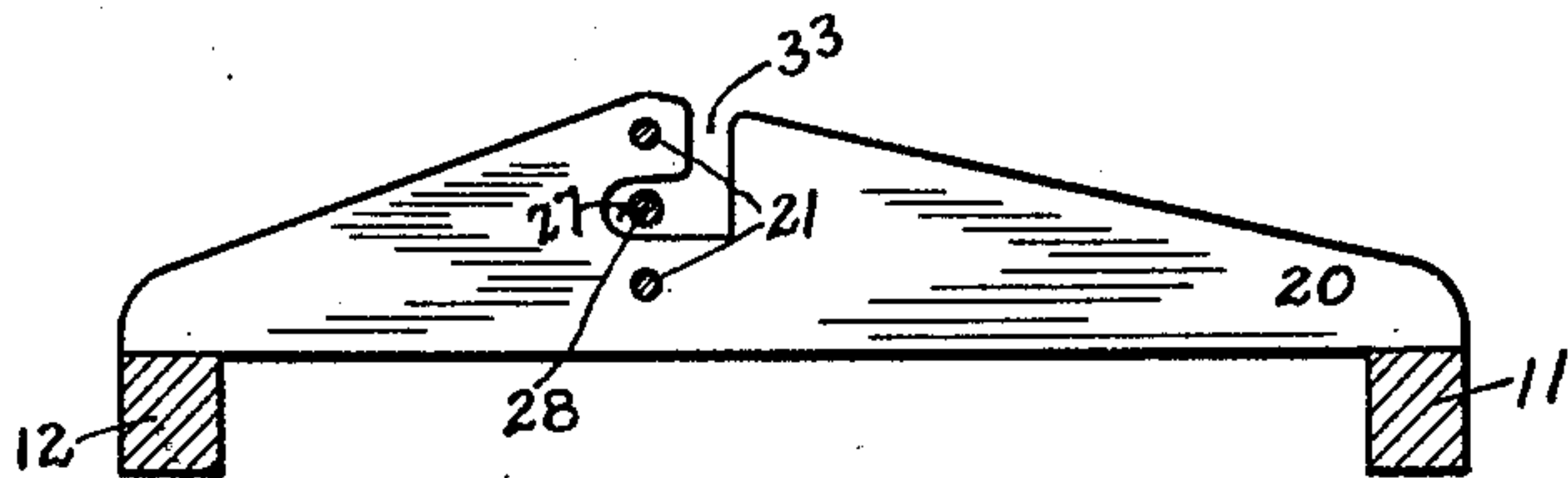


Fig. 4.

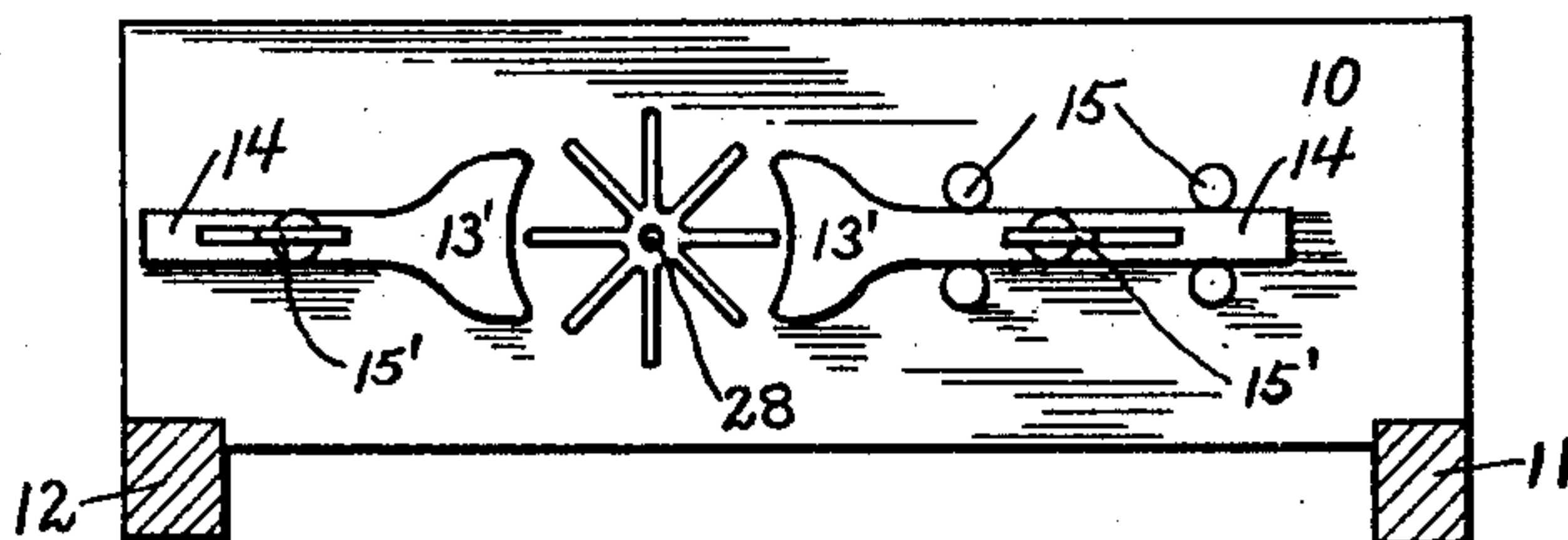


Fig. 2.

Witnesses
Charles Morgan.
Harry Elin Charles

Inventor
C.C. PULLEN.
by *Charles Chandler*
Attorneys

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2 SHEETS—SHEET 2.

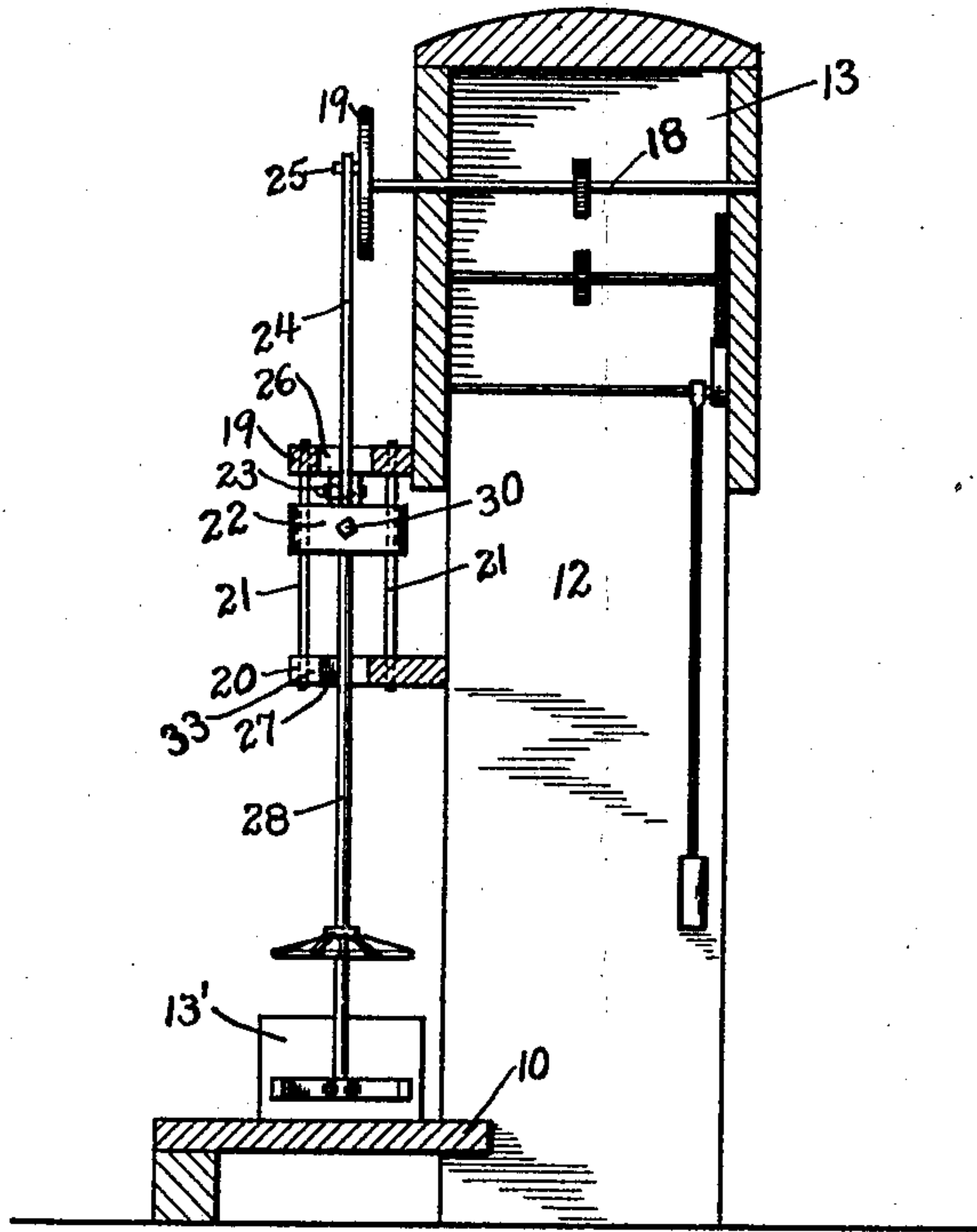


Fig. 3.

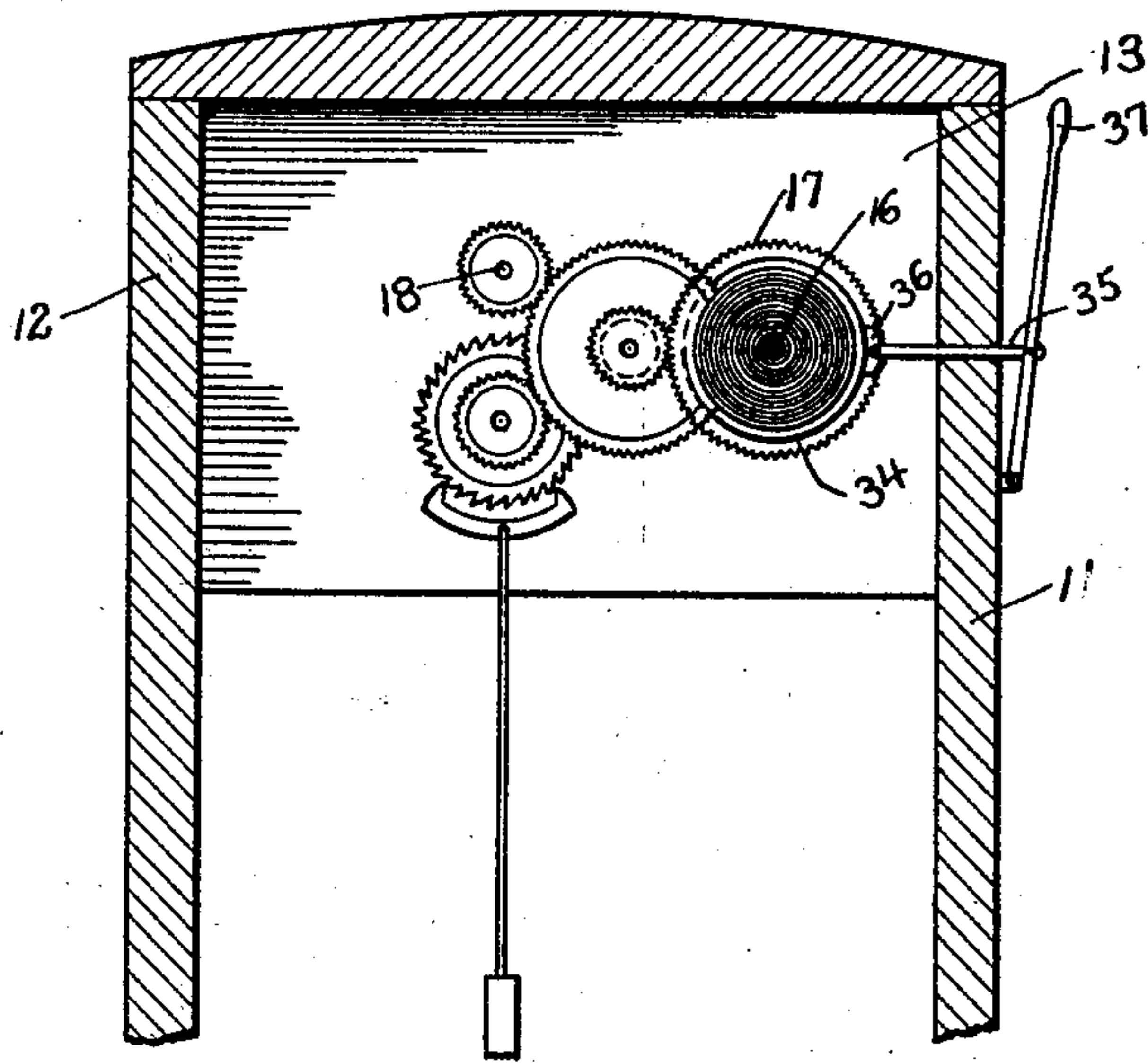


Fig. 5.

Witnesses
Charles Morgan.
Harry Ellis Chandler

Inventor
C. C. PULLEN.
by
Charles Chandler
Attorneys

UNITED STATES PATENT OFFICE.

CHRISTOPHER C. PULLEN, OF WAVERLY, TENNESSEE.

CHURN.

SPECIFICATION forming part of Letters Patent No. 765,710, dated July 26, 1904.

Application filed April 24, 1903. Renewed June 10, 1904. Serial No. 211,976. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER C. PULLEN, a citizen of the United States, residing at Waverly, in the county of Humphreys, State of Tennessee, 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 the means for operating the dasher and for holding the body immovably during the churning operation, the object of the invention being to provide an efficient structure wherein the body may be quickly put in place and removed, as may also the dasher.

Other objects and advantages of the invention will be understood from the following description.

In the drawings forming a portion of this specification, in which like numerals of reference indicate similar parts in the several views, Figure 1 is an elevation showing a churn-operating means and means for holding a churn in place. Fig. 2 is a section on line 2 2 of Fig. 1, showing the clamp for holding the churn-body. Fig. 3 is a vertical section through the dasher, the cross-head, and the pitman connected to the latter. Fig. 4 is a section on line 4 4 of Fig. 1, showing the slot through which the dasher-shaft is applied and removed. Fig. 5 is a front elevation of the motor, the casing thereof being in section.

Referring now to the drawings, there is shown a base or platform 10, upon which are the vertical uprights 11 and 12, having a casing 13 secured at their upper ends and in which casing is arranged the actuating portion of the churn-motor. The platform 10 is designed to receive and support the churn-body, which may be of any specific style. To hold the churn-body upon the platform, clamping-jaws 13' are provided, having concaved faces for engagement with the sides of the body and having rearwardly-directed stems 14, which slide between the guides 15 on the platform and through the slots of which stems are engaged set-screws 15', so that when the jaws are adjusted to their proper positions the set-

screws may be operated to clamp them against movement.

Within the casing 12 is a spring-drum 16, having a gear-wheel 17, which forms one member of a train of gearing which serves to drive the shaft 18, which projects forwardly through the front of the casing, where it is provided with a crank-disk 19.

Transversely of the uprights are secured the plates 19 and 20, connecting which are the vertical guide-rods 21, on which is slidably disposed a cross-head 22, having upwardly-directed ears 23, between which is pivoted the lower end of the pitman 24, the opposite end of which is engaged with the crank-pin 25 of the disk 19. With this arrangement as the shaft 18 is rotated the cross-head 22 is reciprocated vertically, it being noted that the cross-piece 19 has an opening 26, in which the pitman 24 operates.

Through the cross-piece 20 is an opening 27, in which operates the dasher-shaft 28, the upper end of which is removably engaged in a socket 29 in the bottom of the cross-head, said shaft when in operation being held in the socket by means of a pin 30, which is engaged in alining perforations in the cross-head and shaft. At the lower end of the dasher-shaft are the blades 31, which operate in the body of the churn, and in order that the dasher may be removed with the churn-body a slot 33 is formed in the cross-piece 20 and communicates with the opening through the latter, so that the dasher-shaft may be moved laterally from the cross-piece 20 when the churn-body is correspondingly moved.

The spring-drum in the casing 12 has a brake-flange 34, and in the end of the casing is slidably mounted a rod 35, having a brake 36 at one end for contact with the brake-flange, said rod being connected to a hand-lever 37, pivoted to the side of the casing for movement to shift the rod with the brake-shoe into and out of active engagement with the brake-flange. By this means the motor may be stopped or released, as desired. When the motor is in operation, the dasher will be reciprocated in the churn-body.

In practice modifications of the specific construction shown may be made, and any suit-

able materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

- 5 An apparatus of the class described comprising a platform having threaded openings therein, uprights mounted upon the platform, a motor mechanism supported upon the said uprights, upper and lower transverse guide-
10 bars having alining openings therein, the lower guide-bar having a slot connecting with the opening therein, vertical guide-rods connecting the guide-bars, a cross-head slidably engaged with the guide-rods and provided
15 with a socket and upwardly-directed ears, a dasher-shaft removably engaged in the said socket and adapted to move into and out of the opening in the lower guide-bar through

the slot connected therewith, a pitman connected at one of its ends with the motor mechanism and at its opposite end with the ears of said cross-head, guide-pins upon the platform, clamps having slotted shanks disposed with their shanks between the guide-pins, said clamps being adapted to receive the base of
20 the churn between their jaws, and thumb-bolts disposed within the slots of the shanks and engaged with the threads of the perforations to hold the clamps against movement.

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

CHRISTOPHER C. PULLEN.

Witnesses:

JNO. E. PULLEN,
MASON SANDERS.