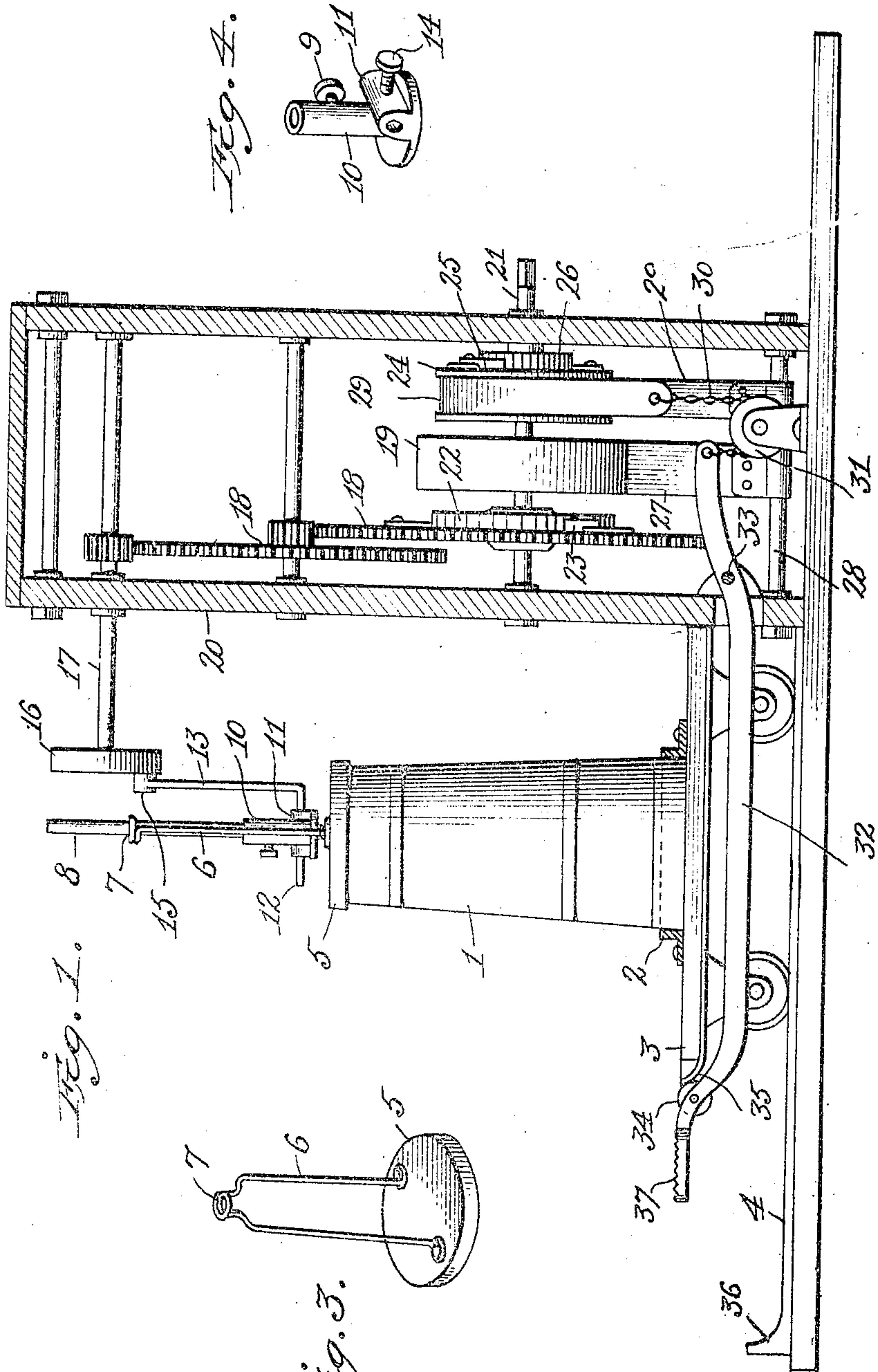


L. ROBERSON.
MOTOR CONTROLLING MECHANISM.
APPLICATION FILED JAN. 26, 1909.

925,653.

Patented June 22, 1909.

2 SHEETS—SHEET 1.



Witnesses

Percey B. Hill
Edwin F. Frey

Fig. 3.

Fig. 2.

Luther Roberson
Edwin L. Jewell
His Attorney

Inventor

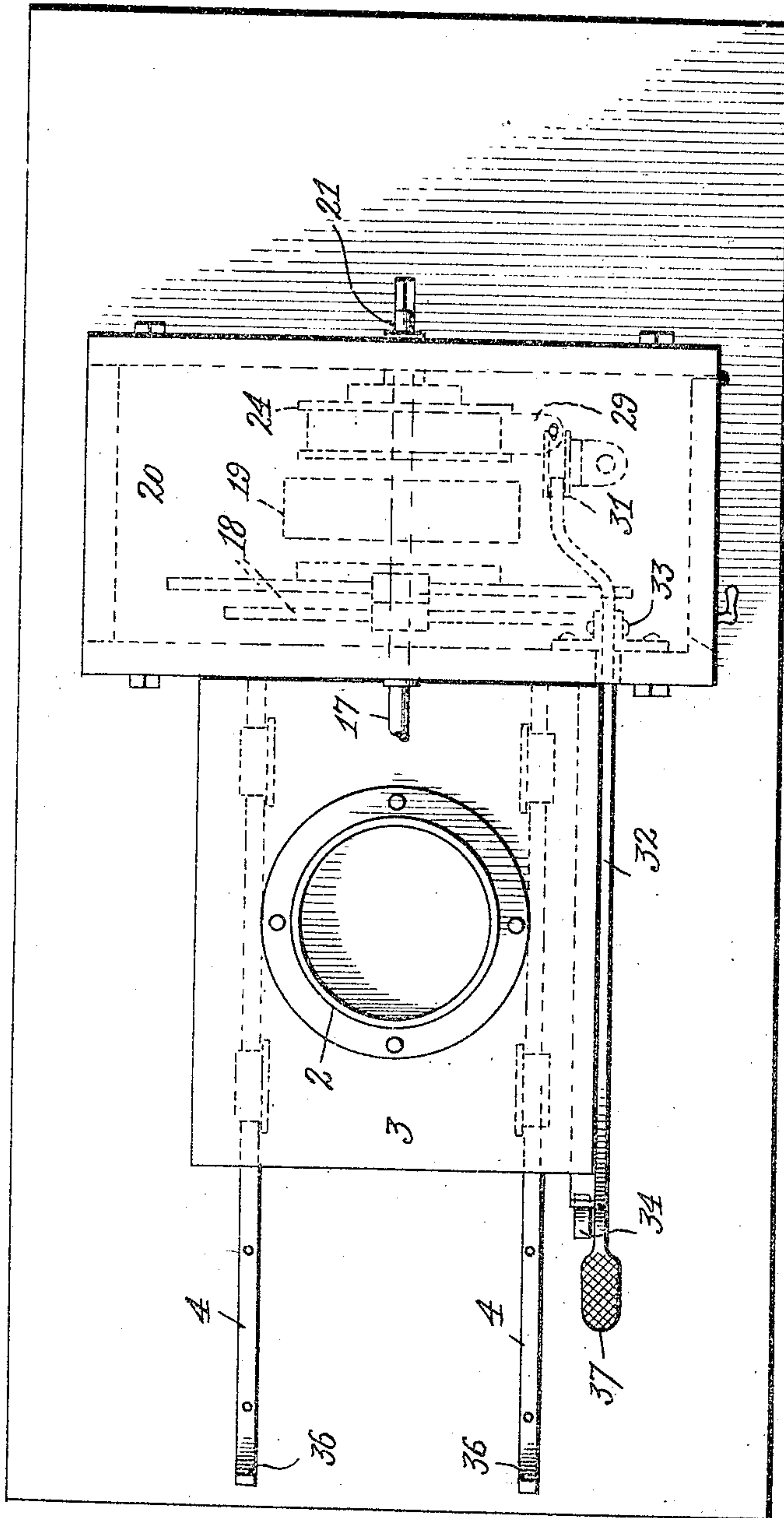
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Fig. 2.



Inventor

Witnesses

Percy B. Hills
Edwin F. Frey

Luther Roberson

By

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UNITED STATES PATENT OFFICE.

LUTHER ROBERSON, OF SHARPSBURG, KENTUCKY.

MOTOR-CONTROLLING MECHANISM.

No. 925,653.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed January 26, 1909. Serial No. 474,312.

To all whom it may concern:

Be it known that I, LUTHER ROBERSON, citizen of the United States, residing at Sharpsburg, in the county of Bath and State of Kentucky, have invented certain new and useful Improvements in Motor-Controlling Mechanism, of which the following is a specification.

My invention relates to motor controlling mechanism, and has for its main object to provide, in connection with a spring motor for operating a device such as the dasher of a churn, means for bringing the device into and out of operative relation with respect to said spring motor, and for automatically unbraking and braking said spring motor by the movement of said device toward and from the operative position.

My invention also embodies certain other minor details of construction as will be hereinafter described and claimed, reference being had to the accompanying drawings, in which:

Figure 1 is a side elevation, partly in section, of my improved device shown in connection with a churn. Fig. 2 is a top plan view of the same, with the churn body removed. Fig. 3 is a detail perspective view of the churn body cover and dasher shaft guide. Fig. 4 is an enlarged detail perspective view of the casting detachably connecting the dasher shaft with its operating pitman.

Similar numerals of reference denote corresponding parts in the several views.

In the said drawing the reference numeral 1 denotes a churn body of the usual construction, the same being removably mounted in a circular seat 2, bolted to a wheeled platform or truck 3, that is movable on suitable tracks 4, as shown. The churn body cover 5 has fixed thereto a guide 6 formed preferably of a single piece of heavy wire bent at its center to form a circular aperture 7 to receive the dasher shaft 8 and permit vertical reciprocating movement of the latter therein, said dasher shaft carrying at its lower end any suitable form of dasher blades (not shown). Mounted on said dasher shaft 8, but vertically adjustable thereon by means of the set screw 9, is a casting 10, which also has formed integral therewith a horizontally apertured socket 11, adapted to removably receive the lower bent end 12 of an operating pitman 13. Said pitman 13 is eccentrically connected at

15 to a disk 16, carried by shaft 17 that is operated by means of a train of gearing 18, by a coiled spring 19, said gearing and spring being mounted in a casing 20, as shown. Said spring 19 has its inner end fixed to a winding and supporting shaft 21, which also has fixed thereto ratchet wheel 22 in mesh with a pawl 23 mounted on the lower member of gear train 18, whereby said spring may be wound without actuating said gear train, and yet will impart its unwinding movement thereto. Also mounted loosely on shaft 21 is a brake wheel 24, carrying a spring pawl 25 engaging a ratchet wheel 26, fixed to shaft 21, in such manner that said shaft 21 may be turned independently to wind spring 19 but must rotate said brake wheel 24 therewith as said spring unwinds.

The outer end 27 of spring 19 is fixed to a bar 28, mounted in casing 20, and to said bar is also fixed one end of a band brake 29, which passes around brake wheel 24, and has attached to its other free end a chain 30, which passes beneath a pulley 31 and is connected at its other end to one end of a lever 32 pivoted at 33 in the casing 20. Said lever 32 lies in the path of travel of the platform or truck 3, and is bent upward at its outer end in which bent end is mounted an anti-friction roller 34, which, when said platform or truck 3 is in its innermost position, is in contact with the curved outer end 35 of said platform or truck in such position that an initial movement of said platform or truck away from the casing 20 will cause said lever 32 to be depressed at its outer end, thereby raising its inner end and drawing the band brake 29 into frictional contact with brake wheel 24 to check the movement of the spring motor.

In operation, with the parts in the position shown in Fig. 1, and the bent end 12 of pitman 13 engaged with casting 10, the spring motor will impart to dasher shaft 8 and its dasher blades a rapid vertically reciprocating motion in guide 6, whereby the contents of churn body 1 will be churned. Upon the completion of the churning operation the platform or truck 3 is moved outward, which will instantly result in depressing the outer end of lever 32 and thereby applying brake band 29 to stop the spring motor, and said lever 32 will remain depressed so long as the platform or truck 3 is moved away from its operative position, the ends of

tracks 4 being preferably upturned at 36 to limit the outward movement of said platform or truck. This movement of said platform or truck 3 will carry with it the churn body 1 and the dasher shaft 8 and casting 10, which will cause the latter to become disengaged from the bent lower end 12 of pitman 13, whereupon the churn body cover 5 and its dasher shaft 8 and casting 10 may be removed from said churn body, the latter lifted from its seat 2 on the platform or truck 1, and a fresh churn body, filled with cream to be churned, substituted in place thereof. The same churn cover 5, dasher shaft 8 and casting 10 being then placed in the fresh churn body 1, the platform or truck may be returned to its initial position, during which movement the lower bent end 12 of pitman 13 will reengage with the aperture in socket 11 of casting 12, and when said initial position of the platform or truck is reached, the lever 32 will be automatically released to remove the pressure of band brake 29 and permit the spring motor to operate the dasher shaft 8.

By providing the set screw 9 for connecting the casting 10 with the dasher shaft 8, I provide for varying the position vertically of the dasher blades on dasher shaft 8, in the churn body 1, whereby churn bodies of different heights may be used.

I prefer to extend the outer end of lever 32 into a foot treadle 37, whereby the band brake 29 may be applied independently of the movement of the platform or truck 3. I may also provide a set screw 14 in the socket 11 of casting 10, whereby the lower bent end 12 of pitman may be fixed to said casting. When this is done the band brake must be applied, through the foot treadle 37, in order to unscrew the set screw 14, before the platform or truck is withdrawn.

It will be understood that my improvement is equally well adapted for use with any structure other than a churn wherein there is a movable member to be operated, such, for instance, as a washing machine.

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

1. The combination with a device to be operated and a motor adapted to operate said device, said device and motor adapted to be moved relatively into and out of operative engagement, of means operated by the movement of the parts out of operative relation for automatically checking the operation of said motor.

2. The combination with a motor, a brake for said motor, a platform or truck movable

toward and from said motor and a device to be operated removably mounted on said platform or truck and adapted when moved with the latter toward and from said motor to engage and disengage, as to its operative parts, said motor, of means controlled by the movement of said platform or truck for applying and removing said brake.

3. The combination with a motor, a brake for said motor, a platform or truck movable toward and from said motor and a device to be operated removably mounted on said platform or truck and adapted when moved with the latter toward and from said motor to engage and disengage, as to its operative parts, said motor, of a lever pivoted intermediate its length and connected at one end with said brake and lying at its other end in the path of movement of said platform or truck, whereby the movement of the latter away from said motor will operate said lever to apply said brake.

4. The combination with a spring motor, a band brake for said motor, a platform or truck movable toward and from said motor, and a device to be operated removably mounted on said platform or truck and adapted when moved with the latter toward and from said motor to engage and disengage, as to its operative parts, said motor, of a lever pivoted intermediate its length and connected at one end with said band brake and at its other end lying in the path of travel of said platform or truck in such relation thereto as to be depressed by said platform or truck so long as the latter is in any but an engaging position for the operative parts of the device to be operated with the motor, said lever when so depressed applying said band brake to said motor.

5. The combination with a device to be operated having a dasher shaft, a motor, and a pitman operated by said motor, of a casting fixed to said dasher shaft and apertured to receive said pitman when said device is moved into operative relation to said motor.

6. The combination with a device to be operated having a dasher shaft, a motor, and a pitman operated by said motor, of a casting carried by said dasher shaft and vertically adjustable thereon and apertured to receive said pitman when said device is moved into operative relation to said motor.

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

LUTHER ROBERSON.

Witnesses:

MIKE GALLAGHER,
I. L. ROBERSON.