

No. 639,712.

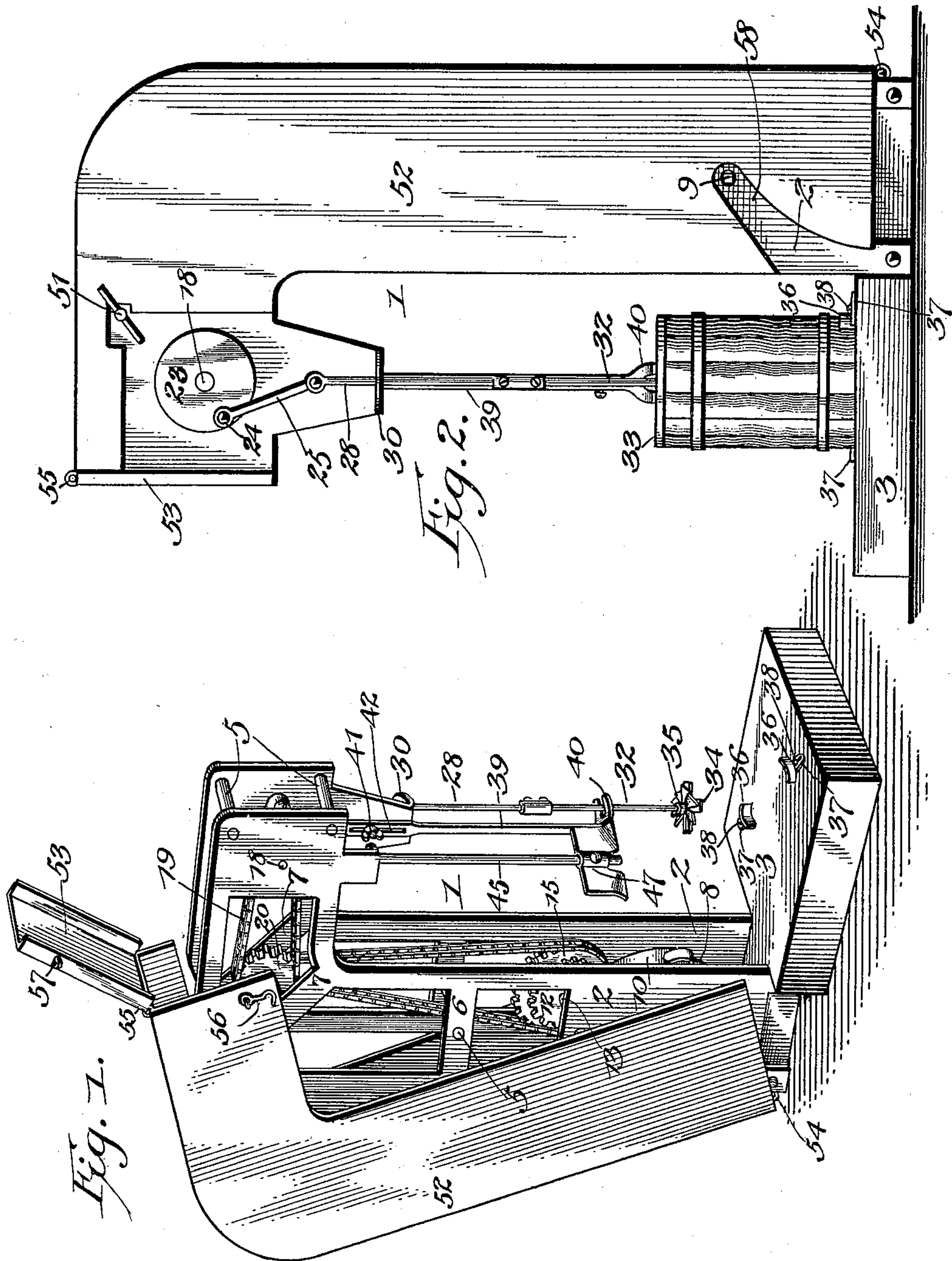
Patented Dec. 26, 1899.

J. T. COLEMAN.
CHURN POWER.

(Application filed Mar. 18, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
A. Roy Appleman
J. G. Riley

By *his* Attorneys,
John T. Coleman, Inventor.

Cashnow & Co.

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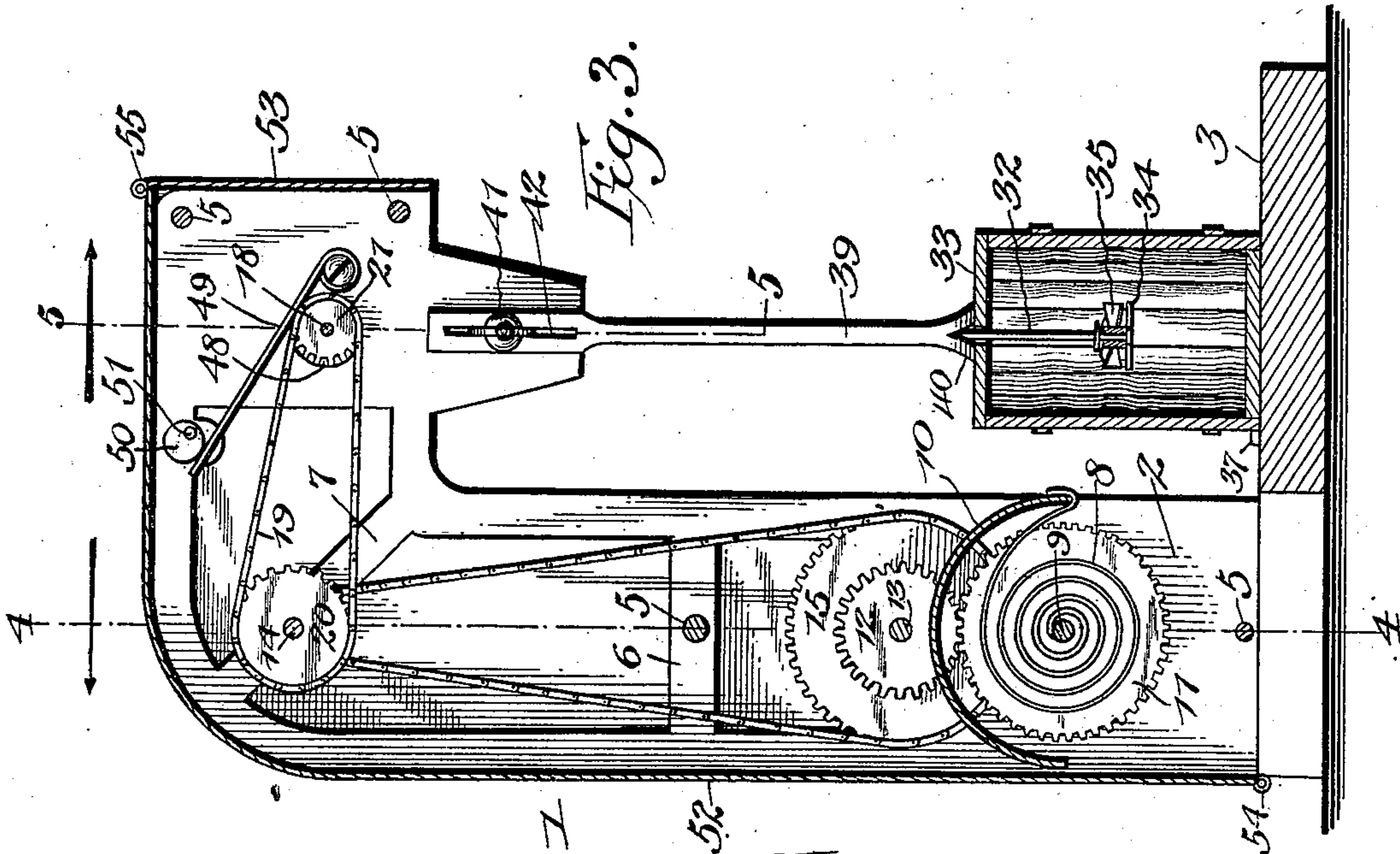
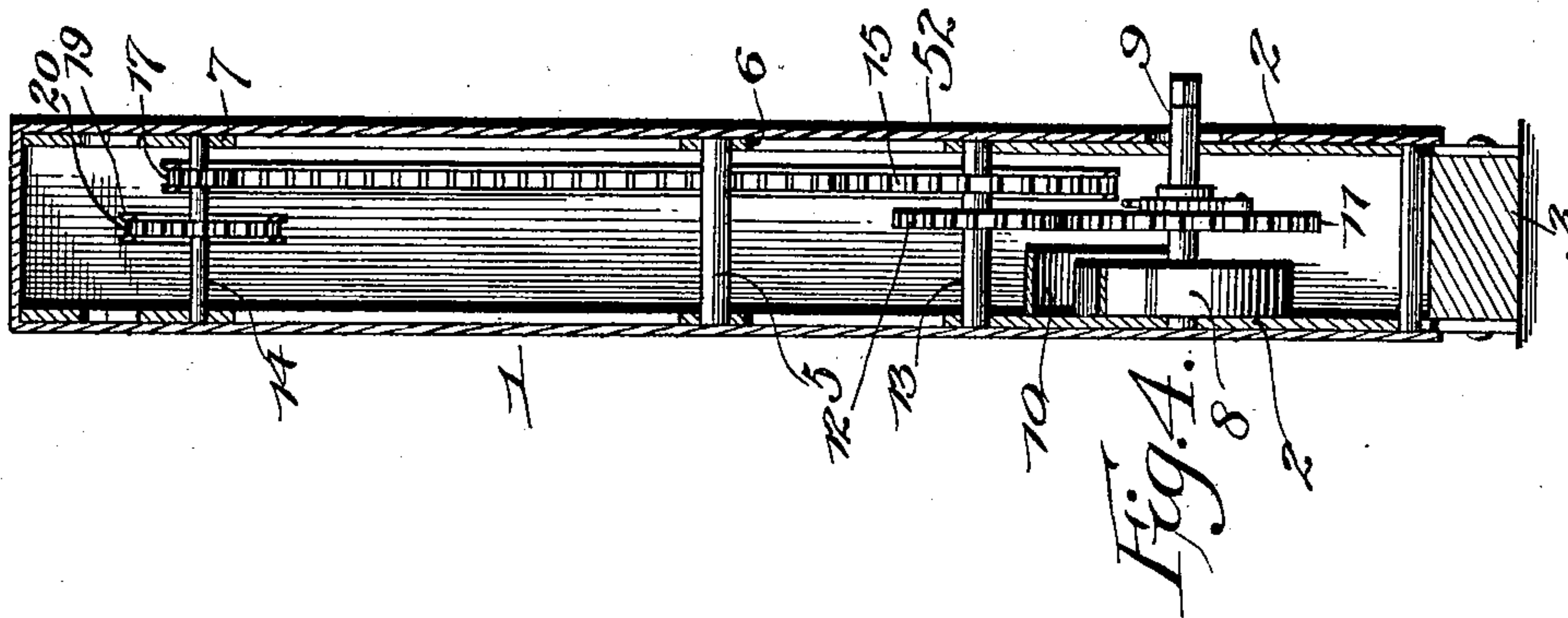
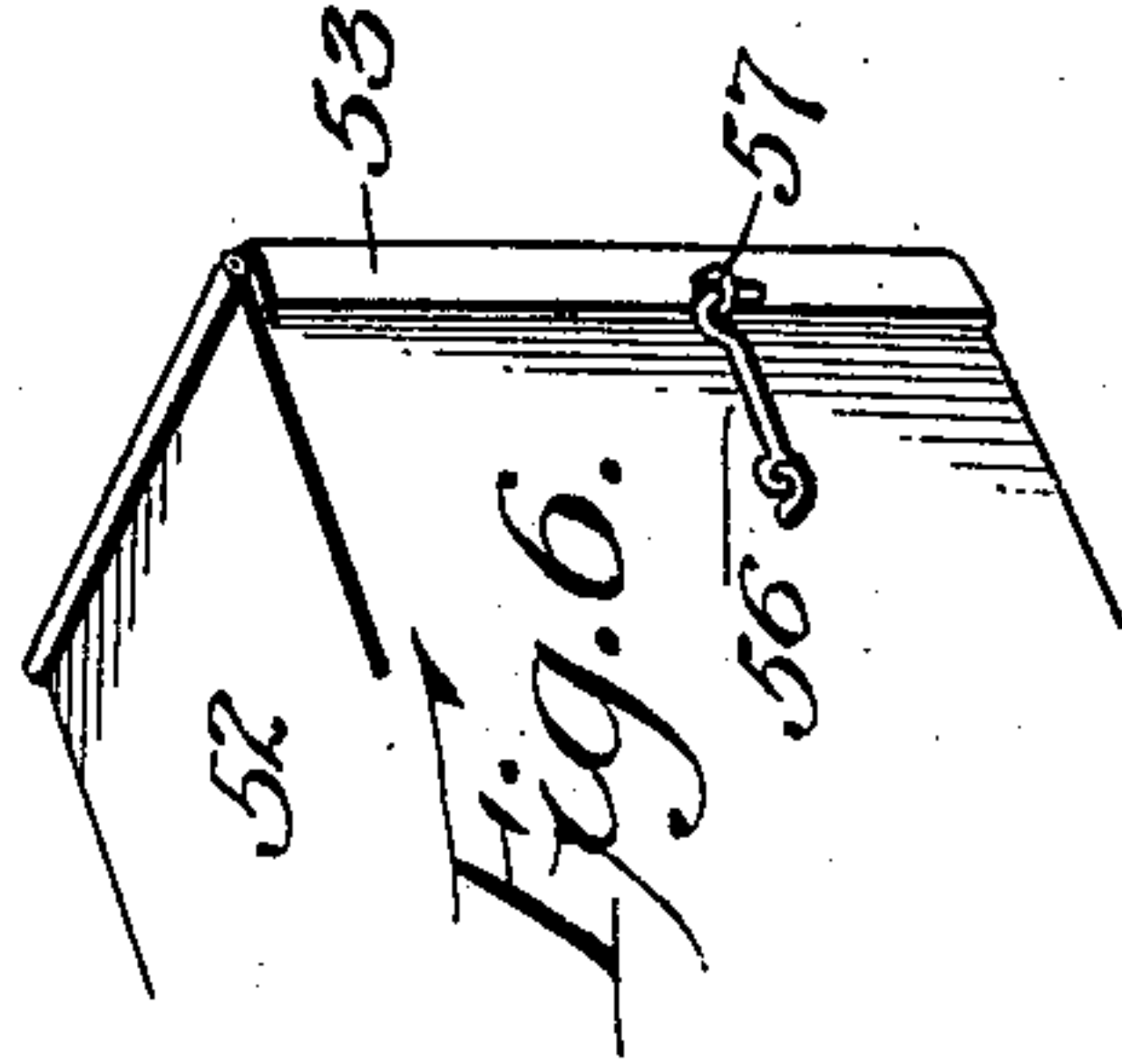
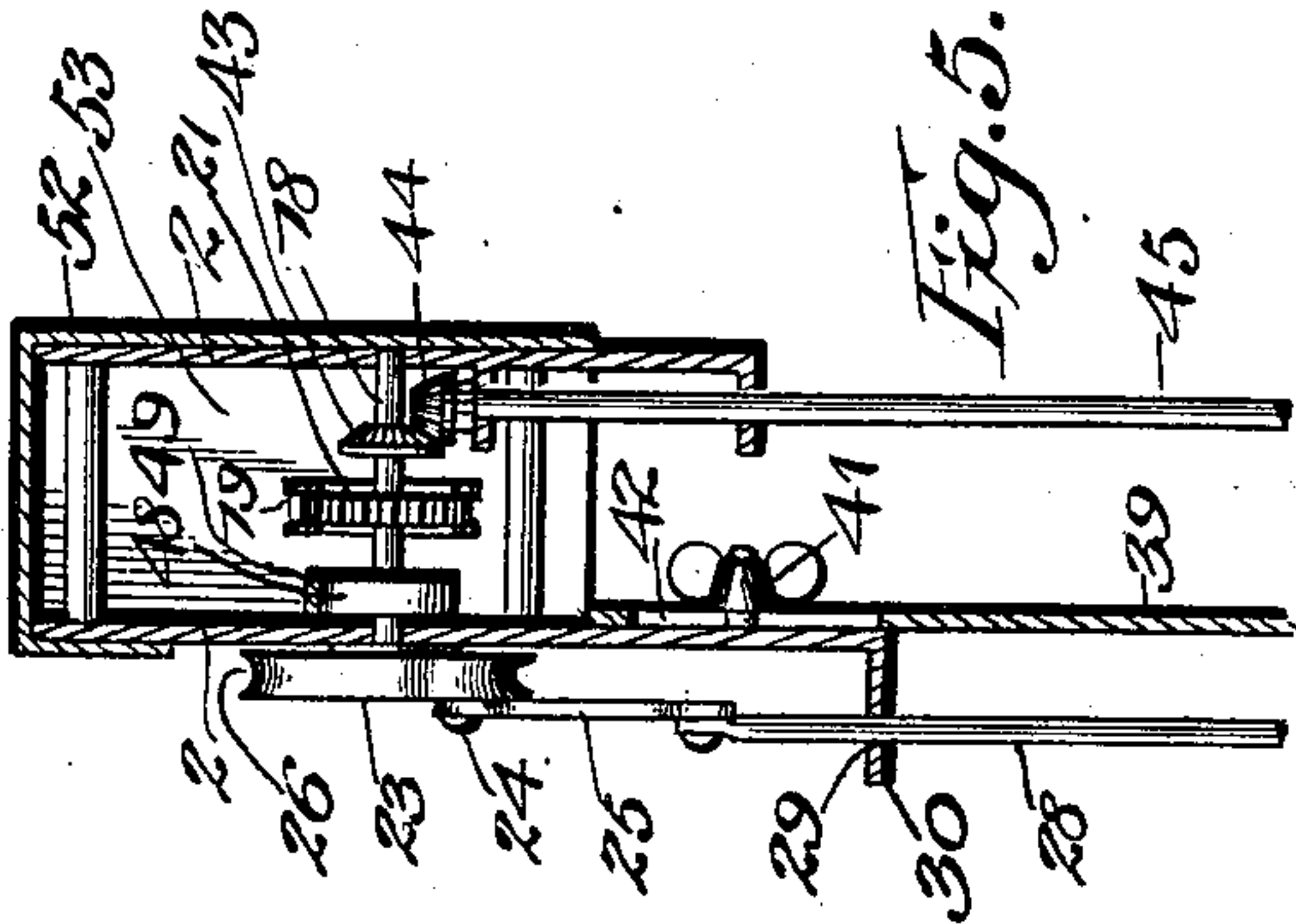
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2 Sheets—Sheet 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN T. COLEMAN, OF MICCOSUKEE, FLORIDA, ASSIGNOR OF ONE-FOURTH
TO LEWIS E. VOYLES, OF DELAND, FLORIDA.

CHURN-POWER.

SPECIFICATION forming part of Letters Patent No. 639,712, dated December 26, 1899.

Application filed March 18, 1899. Serial No. 709,632. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. COLEMAN, a citizen of the United States, residing at Miccosukee, in the county of Leon and State of Florida, have invented a new and useful Churn-Power, of which the following is a specification.

The invention relates to improvements in churn-powers.

10 The object of the present invention is to improve the construction of churn-powers and to provide a simple and comparatively inexpensive one which will be capable of rapidly effecting the production of butter and in
15 which the gearing will be housed, but which will afford ready access to the same.

The invention consists in the construction and novel combination and arrangement of parts, hereinafter fully described, illustrated
20 in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a churn-power constructed in accordance with this invention, the casing being
25 partly swung back and the churn-body being removed to illustrate the construction more clearly. Fig. 2 is a side elevation of the same, the casing being in position. Fig. 3 is a vertical longitudinal sectional view. Fig. 4 is a
30 transverse sectional view on line 4 4 of Fig. 3. Fig. 5 is a similar view on line 5 5 of Fig. 3. Fig. 6 is a detail perspective view of the front end of the top of the casing, illustrating the manner of locking the latter in position.

35 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a supporting-frame composed of two sides 2, rising from an extension of a
40 rectangular base 3, and these sides, which are substantially L-shaped, as shown, are connected by transverse rods 5 and have open upper portions provided with cross-bars 6 and 7 to form bearings for the gearing and to
45 provide supports for the transverse rod, which is located near the center of the supporting-frame. The power is derived from a barrel-spring 8, arranged within the frame and connected with the same and with a winding-
50 shaft 9, having one end squared and extend-

ed beyond the frame to receive a key or other suitable device for winding up the spring. The outer end of the spring is provided with a hook, which engages one end of a curved flange 10, arranged above the spring and forming a partial guard for the same. 55

The winding-shaft or drive-shaft is connected by a suitable clutch with a drive-wheel 11, which meshes with a cog-wheel 12 of a counter-shaft 13, which is connected with a
60 horizontal shaft 14 by sprocket-gearing. A sprocket-wheel 15 is mounted on the shaft 13 and receives a sprocket-chain, which extends to a sprocket-pinion 17 of the shaft 14, and the latter is connected with a front horizontal
65 shaft 18 by sprocket-gearing, consisting of a horizontal sprocket-chain 19 and sprocket-wheels 20 and 21, mounted, respectively, on the shafts 14 and 18. Instead of employing spur-gearing for connecting the shafts 9 and
70 13 the drive-wheel 11 and the cog-wheel 12 may be omitted and the sprocket-wheel 15 will then be mounted on the winding-shaft 9.

The front horizontal shaft 18 has keyed or otherwise secured to one of its ends a wheel
75 or pulley 23, having an eccentrically-arranged wrist-pin 24 to receive a pitman 25 and provided with a grooved periphery 26, adapted for the reception of a belt, so that the motor can be connected with a sewing-machine or
80 the like. The pitman is connected at its lower end with a vertically-reciprocating rod 28, passing through a guide-opening 29 of an L-shaped arm 30 of the adjacent side of the supporting-frame and having a dasher-rod de-
85 tachably secured to it by means of a cuff or other suitable device. The dasher-rod 32, which reciprocates through an opening of the top of a churn-body 33, is provided at its lower end with a fixed dasher 34, and it has
90 a rotary dasher 35 journaled on it and arranged above the fixed dasher, and these dashers are adapted to thoroughly agitate the contents of the churn-body and are capable of rapidly effecting the production of butter. 95

The churn-body, which preferably consists of a cylindrical receptacle, may be of any desired construction and is retained on the base by adjustable clamps 36, having curved
100 flanges to engage the churn-body and pro-

vided with slotted arms or plates 37, receiving adjusting devices 38, consisting of screws or bolts passing through the slots and mounted on the base and adapted to retain the
5 clamps at any desired adjustment.

The cover of the churn-body is detachably held in place by an adjustable rod 39, having its lower end bent at right angles to form a foot and bifurcated to straddle the dasher-rod, and this foot 40 engages the cover and is held in such engagement by a clamping device 41, which connects the upper end of the bar with the arm 30 of the frame. The bar, which is arranged vertically, is provided at
15 its upper end with a slot 42, and the clamping device consists, preferably, of a screw passing through the slot and a winged nut mounted on the screw and engaging the bar. The horizontal shaft 18 is also connected by
20 bevel-gears 43 and 44 with the upper end of a fan-shaft 45, journaled in suitable bearings of the supporting-frame and carrying an adjustable fan 47, which is adapted to be raised and lowered and which is secured at the desired elevation by a set-screw.

The speed of the churn-power is controlled by a brake consisting of a brake-wheel 48, mounted on the shaft 18, and a resilient bar or shoe 49, secured at one end to the supporting-frame and engaging the brake-wheel at a point between its ends. The free end of the bar or shoe is engaged by a rotary cam or eccentric 50, mounted on a spindle or stem 51, which is provided with an exteriorly-arranged
35 handle portion and which is adapted to be rotated to vary the pressure of the bar or shoe on the brake-wheel.

The supporting-frame and the gearing are housed within an L-shaped casing 52, consisting of two L-shaped sides connected at the back and top by a continuous strip and provided with a hinged front 53. The L-shaped casing is hinged at its lower end at 54 to the back of the supporting-frame and is
45 adapted when the hinged front is opened to be swung backward, as illustrated in Fig. 1 of the accompanying drawings, to expose the gearing and the supporting-frame. The back of the casing is provided at the bottom with
50 an eye, which is arranged between a pair of eyes of the extension of the base, and the pintle of the hinge 54 passes through the said eyes.

The front 53 has its upper end 55 hinged to the top of the casing, and it is provided at opposite sides with flanges and is secured in its closed position, as illustrated in Fig. 6 of the accompanying drawings, by a fastening device 56, consisting of a hook hinged to the casing at one side thereof and engaging an eye 57 of the adjacent side of the front. The hook is adapted to be readily sprung into and out of engagement with the eye 57, and it locks the casing in its closed position. The side of
65 the casing adjacent to the pitman and the wheel or pulley 23 is cut away, and a slot 58

is provided for the projecting end of the winding-shaft.

The invention has the following advantages: The motor, which is simple and comparatively inexpensive in construction, is strong and durable and positive and reliable in operation, and while it is especially adapted for churning it may also be used for other light work. The casing, which houses the supporting-frame and gearing, is hinged at its lower end at the back of the supporting-frame and is adapted to be swung rearward to uncover the same, and the fastening device of the hinged front locks the casing in its closed position.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. In a device of the class described, the combination of a supporting-frame, gearing arranged within the frame, and a casing conforming to the configuration of the latter and composed of a body portion hinged at its bottom and adapted to swing outward from the frame, a hinged front mounted on the body portion of the casing and arranged to engage the front of the frame to hold the casing in position, and means for detachably securing the front to the body portion of the casing, whereby the latter is removably held on the frame, substantially as described.

2. In a device of the class described, the combination of an L-shaped supporting-frame having a horizontal arm at the top, gearing mounted on the frame, an L-shaped casing covering the supporting-frame and hinged at its bottom to the back of the same, said casing being provided with a front hinged at the top to the body portion of the said casing, and a locking device securing the lower portion of the front to the body portion of the casing, whereby the said casing is detachably held on the supporting-frame, substantially as described.

3. In a device of the class described, the combination of an L-shaped supporting-frame having a horizontal arm at the top, sprocket-gearing arranged in the vertical and horizontal portions of the frame, a barrel-spring mounted on the frame at the lower portion thereof and connected with the said sprocket-gearing, the curved flange 10 arranged above the spring, forming a guard for the same and connected with the outer end thereof, and a casing arranged over the frame, substantially as described.

4. In a device of the class described, the combination of a supporting-frame, a shaft 18 journaled thereon, a vertical fan-shaft depending from the frame and connected by gearing with the shaft 18, a dasher-rod, a crank disk or wheel mounted on the shaft 18, a pitman connecting the dasher-rod with the

crank disk or wheel, a brake-wheel mounted
on the shaft between the ends thereof, a re-
sili-ent bar or shoe engaging the brake-wheel
and having one end free, and a cam arranged
5 within the frame and engaging the resilient
bar or shoe, and having an exteriorly-ar-
ranged operating-handle, substantially as de-
scribed.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in 10
the presence of two witnesses.

JOHN T. COLEMAN.

Witnesses:

S. D. SMITH,
F. A. SMITH.