

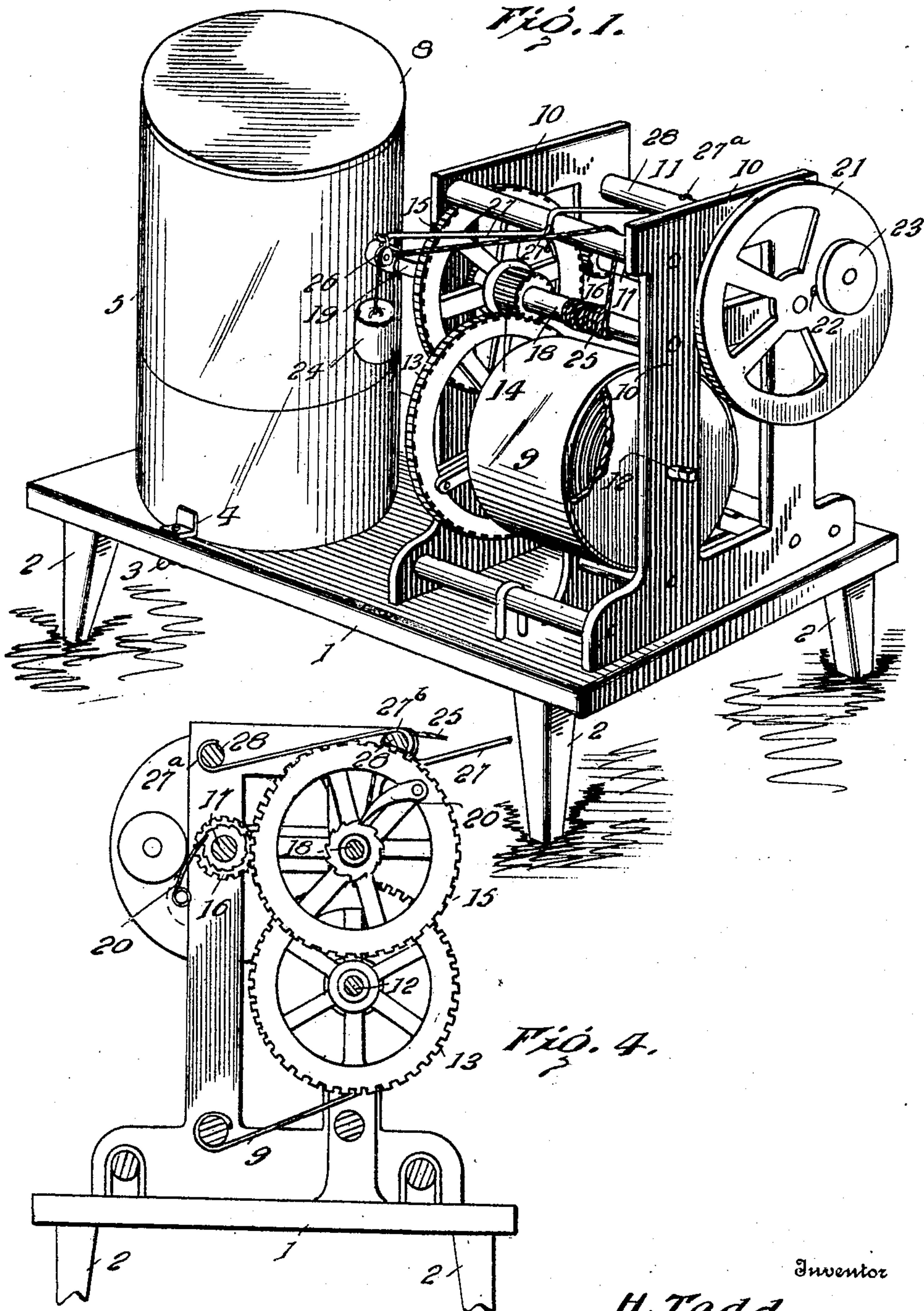
No. 835,335.

PATENTED NOV. 6, 1906.

H. TODD.
CHURN OPERATING MECHANISM.

APPLICATION FILED OCT. 9, 1905.

2 SHEETS—SHEET 1.



Inventor

H. Todd.

Witnesses

W. N. Woodson
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By

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No. 835,335.

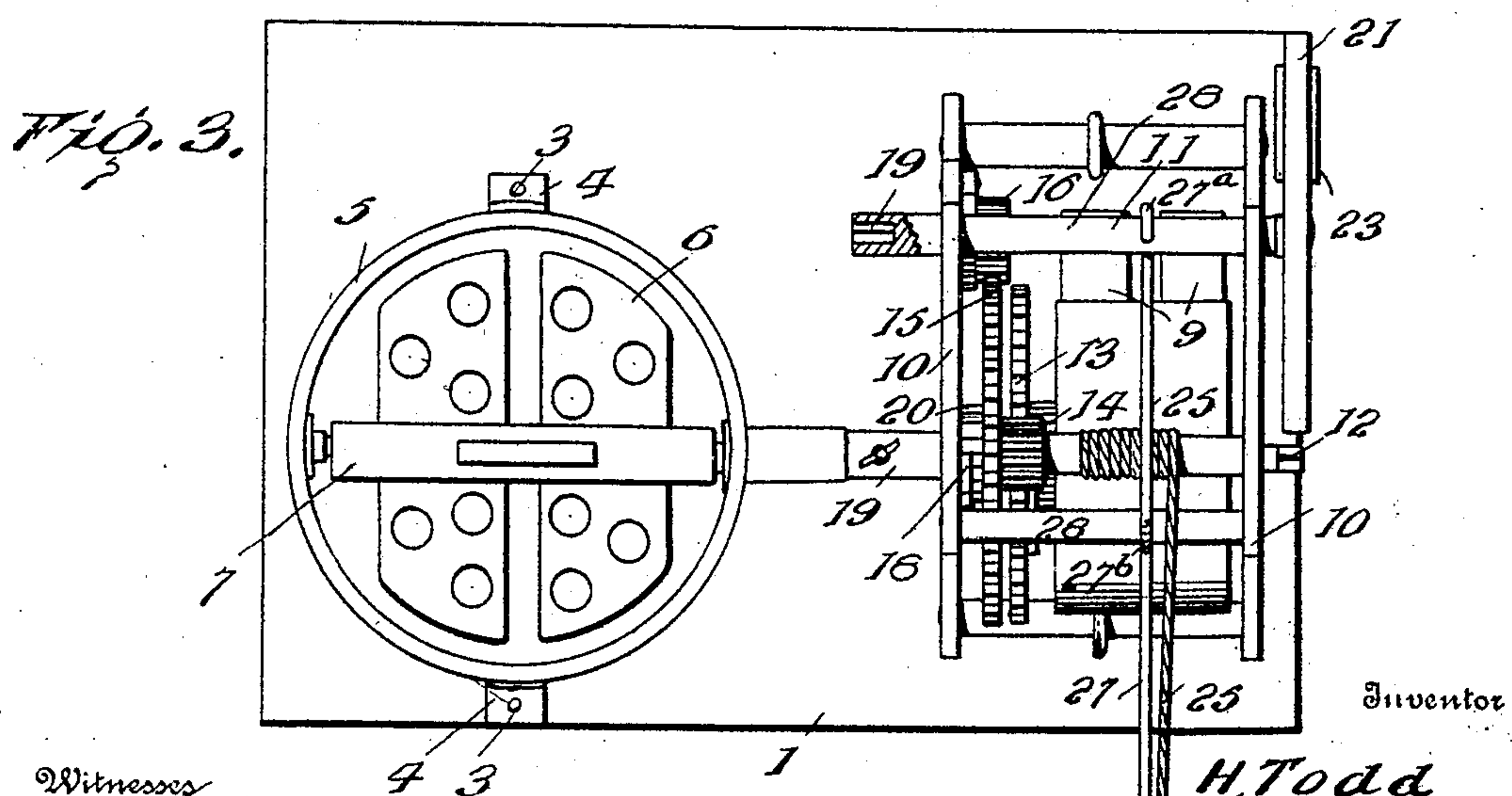
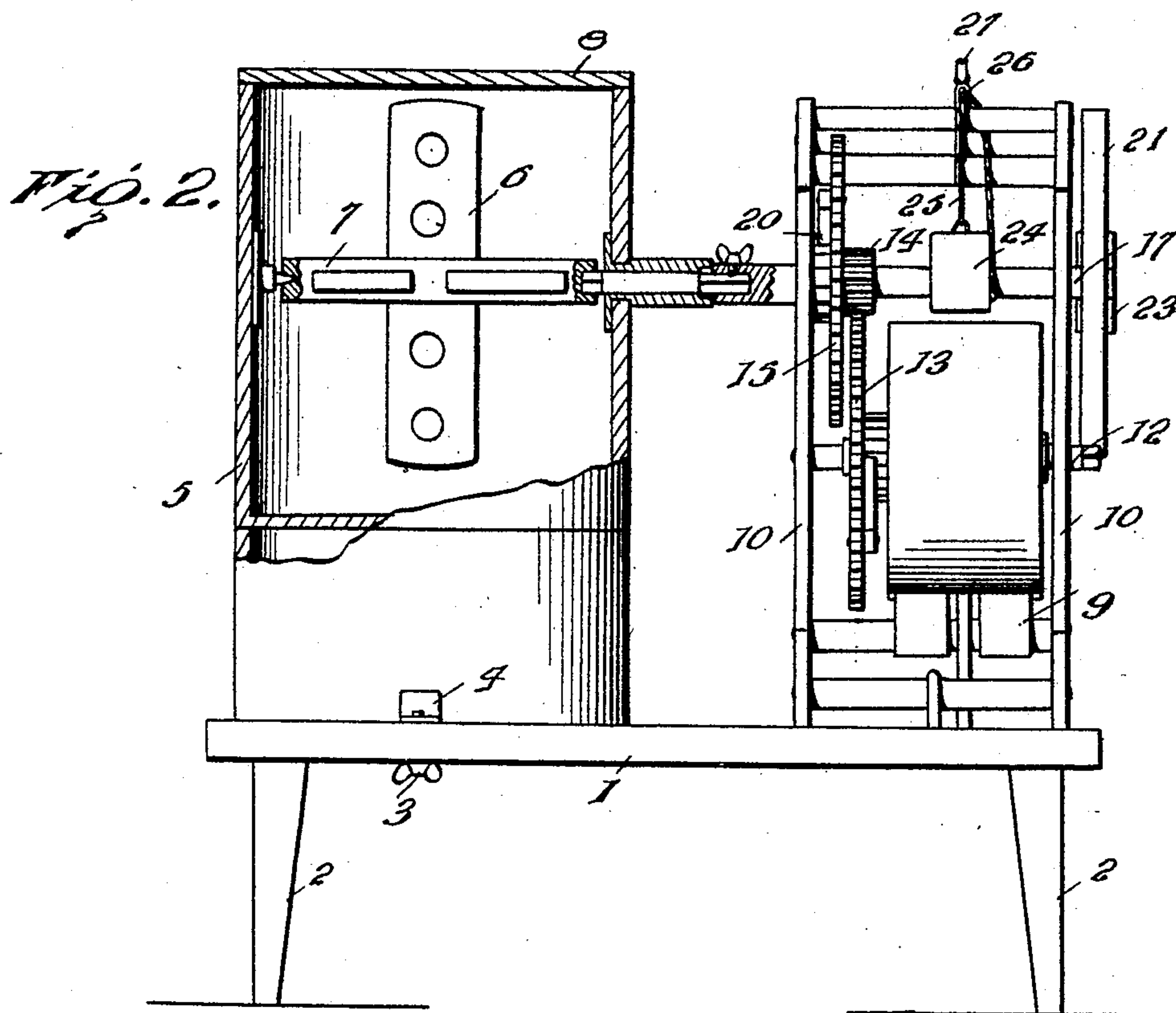
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

HENRY TODD, OF NELSONVILLE, OHIO.

CHURN-OPERATING MECHANISM.

No. 835,335.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed October 9, 1905. Serial No. 281,983.

To all whom it may concern:

Be it known that I, HENRY TODD, a citizen of the United States, residing at Nelsonville, in the county of Athens and State of Ohio, have invented certain new and useful Improvements in Churn-Operating Mechanisms, of which the following is a specification.

This invention embodies novel operating mechanism particularly designed for churns.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a perspective view of a churn and operating mechanism therefor embodying the invention. Fig. 2 is a front elevation. Fig. 3 is a top plan view. Fig. 4 is a vertical sectional view.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In the practical embodiment of the invention it is designed that the operating mechanism be disposed, preferably, on a suitable support, (indicated at 1,) and this support may be an elevated platform or a similar support mounted on legs 2 or the like. The support 1 is provided with suitable attaching means, such as screws 3, whereby brackets 4, secured to the churn 5, may be attached to the support 1. The churn 5 may be of any conventional type, and in the construction illustrated the dasher 6 of said churn is rotatable about a horizontal axis, being mounted on a shaft 7. One end of the shaft 7 projects laterally from the churn 5 and is adapted for operation in connection with the motor mechanism. A suitable cover 8 will be provided for the churn.

The motor mechanism, as shown, illustrates the invention in connection with a spring 9 and clockwork mechanism operated thereby and adapted to operate the shaft 7 of the dasher of the churn. The spring 9 is mounted between spaced sides 10 of a supporting framework 11, and said spring is mounted on a shaft 12, rotatable as it unwinds and carrying a gear 13. The gear 13 meshes with the toothed hub 14 of a second gear-wheel 15, and the last-mentioned gear-wheel 15 is in mesh with a pinion 16 on a shaft 17. The shaft 17 has one end thereof

projecting through an adjacent side 10 of the framework 11, and a counter-shaft 18 has the gear 15 loosely mounted thereon, the two shafts 17 and 18 having ends projecting outwardly from one of the sides 10. Sockets 19 are removably attached to the outwardly-projecting ends of the shafts 17 and 18, and these sockets are adapted to receive the squared end portion of the shaft 7, on which the dasher 6 is mounted. Any suitable means may be utilized for connecting the shaft 7 with either one of the sockets 19, whereby the rotation of the shafts 17 and 18 may be imparted to the shaft 7. The shaft 12 is adapted to be turned by a crank-handle or similar member in order to wind up the spring 9 in the customary manner. Suitable spring-actuated pawls 20 will coact with the pinion 16 and the wheel 15 in the customary way. The shaft 17 has the end opposite that carrying the socket 19 projecting from the opposite side of the framework 11 to receive a fly-wheel 21, and the latter is slotted radially, as shown at 22, to admit of adjustably securing a weight 23 thereto. The adjustment of the weight 23 is adapted to move the same nearer or farther from the center of axis of the wheel 21, whereby the speed of the wheel may be governed in a manner which will be obvious. When the shaft 7 is connected with the socket 19 on the shaft 17 and the spring-motor is being used to actuate said shaft 7, as the spring 9 unwinds the dasher will be rotated, by means of the power transmitted to the shaft 7, through the transmitting-gears connecting the shaft 17 with the shaft 12.

The invention resides in the utilization of a weight-motor for actuating the shaft 7, and in this event it is contemplated that the weight 24 be connected by a cord or rope 25 to the shaft 18, on which the gear 15 is loosely mounted. When the cord or rope 25 is wound upon the shaft 18 and the weight arranged so that said cord or rope passes through a pulley 26, carried by a horizontally-arranged bar 27, the gravitation of the weight 24 will be sufficient to rotate the shaft 18, and this shaft may be connected by a socket 19 with the shaft 7 of the dasher 6. As the shaft 18 can freely rotate independently of the gear-wheel 13, mounted thereon, the rotation of said shaft to impart movement to the dasher 6 will not interfere in any way with the spring-motor mechanism which is out of use, except with regard to the shaft

18. The bar 27 is detachably mounted on the framework 11, one end of said bar being provided with a hook 27^a to engage a connecting-bar 28 of the framework 11, said bar
5 27 also having a shoulder portion 27^b at a point intermediate its ends to engage with another connecting-bar 28 of the framework 11. The hook 27^a engages under the bar 28, with which it coöperates, while the should-
10 dered portion of the bar 27 engages over the other connecting-bar 28, the manner of mounting the bar 27 rigidly holding the same in proper position. The pulley 26 is detachably mounted on the outer end of the
15 bar 27 and is so arranged that the movement of the weight 24 is not interfered with by the adjacent mechanism.

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

20 In operating mechanism of the type described, the combination of a framework, a

churn adjacent thereto, motor mechanism on the framework including a shaft, spaced connecting-bars mounted on the framework and connecting sides thereof a supporting-
25 bar provided with a hook at one end arranged to engage beneath one of the connecting-bars aforesaid and having a shoulder portion intermediate its ends to engage over
30 the other of the said connecting-bars, a pulley connected with the outer end of said supporting-bar, a rope wound about the shaft and passing over the pulley, and a weight connected with said rope to unwind the same
35 thereby operate said shaft.

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

HENRY TODD. [L. s.]

Witnesses:

J. R. HICKMAN,
G. W. SMITH.