(No Model.)

A. JOHNSON.

CHURN MOTOR.

No. 265,094. Patented Sept. 26, 1882.

Fig. 1.

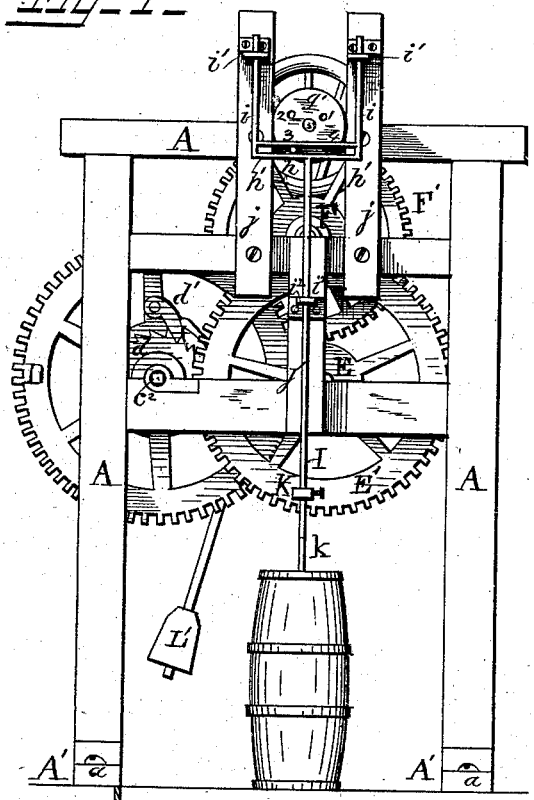


Fig. 2.

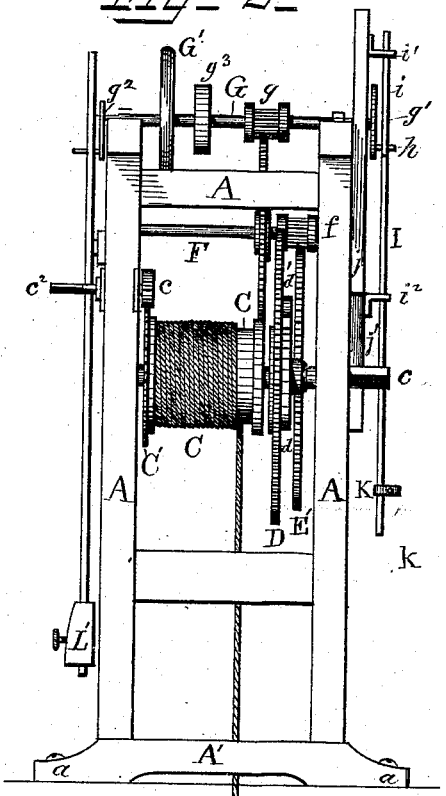
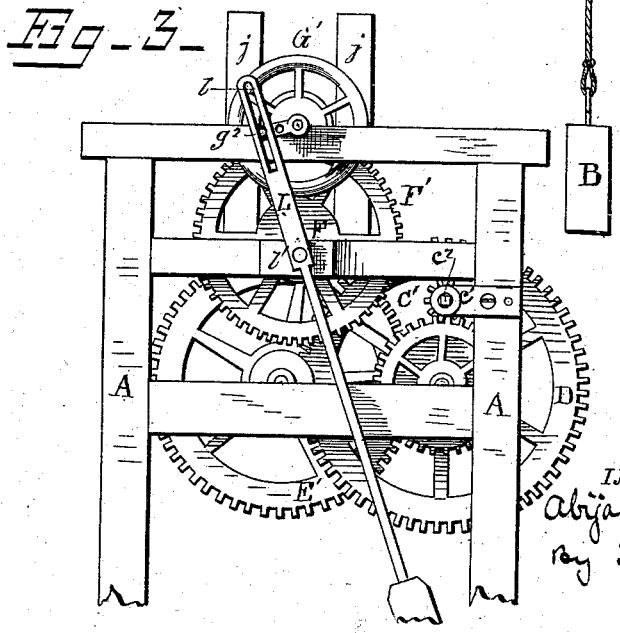


Fig. 3.



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UNITED STATES PATENT OFFICE

ABIJAH JOHNSON, OF RINGGOLD, GEORGIA.

CHURN-MOTOR.

SPECIFICATION forming part of Letters Patent No. 265,094, dated September 26, 1882.

Application filed August 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, ABIJAH JOHNSON, a citizen of the United States, residing at Ringgold, in the county of Catoosa and State of Georgia, have invented certain new and useful Improvements in Mechanical Motors, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improved motor for working churns or other light machines; and it consists in the application to the gearing of an adjustable pendulum, whereby the velocity of the machine may be changed; also in the manner in which the pitman-rod is connected, all of which will be hereinafter more particularly described, and set forth in the claims.

In the drawings herewith accompanying and forming a part of this specification, Figure 1 is a side elevation of the machine. Fig. 2 is an end view. Fig. 3 is an elevation of the side opposite to Fig. 1.

A A is a frame made of wood and strengthened by cross-beams, and placed on two sills, A′ A′, which can be fastened to the floor by screws *a a*.

The machine is operated by a weight, B, suspended to a cord, *b*, wound around a drum, C, the shaft *c* having a square end, *c′*, for winding it around. On shaft *c* is a gear-wheel, D, on the side of which is a ratchet-wheel, *d*, and retaining-pawl *d′*, so that wheel D is held stationary when drum C is being wound up. At the other end of the drum C is a smaller gear-wheel, C′, which engages a pinion, *c′*, the shaft c^2 of which is also for winding, so that a larger weight than B may be easily wound up. There is a train of clock-work extending from wheel D to a pinion on shaft E.

E′ is a spur-gear on shaft E, and it meshes with a pinion, *f*, on shaft F.

F′ is a spur-gear on shaft F, and it meshes with a pinion, *g*, on shaft G on top of the frame. On shaft G is a balance-wheel, G′. At the right-hand end of shaft G in Fig. 2 is an eccentric disk, *g′*, having a series of holes in it at different distances from the center, as seen in face view in Fig. 1, numbered 1 2 3 4, so that the pin *h* may be secured in either one of these holes to lengthen or shorten the stroke of the pitman H, which is connected to the cross-slotted head *h′*. From the head *h′* a guide-rod, *i*, at each end extends up to eyes *i′ i′*, fastened to the standards *j j*, which are properly secured to the side of the frame A A. The pitman I is guided in its movements vertically in the eye i^2 on the frame *j′*. At the lower end is a screw-clamp, K, in which can be inserted the upper end of the dasher-rod *k* of a churn, or any other connecting-rod, for a vertical reciprocating motion. At the opposite end of shaft G is a crank and wrist-pin, g^2.

L is a pendulum-rod having a groove, *l*, in its upper end, through which the wrist g^2 is passed. Pendulum-rod L is pivoted at *l′* on the side of frame A. A movable pendulum, L′, is secured by a clamp-screw, and it can be adjusted at any distance from the center of motion at *l′* to go fast or slow, as may be desired. g^3 is a pulley on shaft G, and from it a band may be carried to a counter-shaft to give a rotary motion to any machine where it may be requisite.

I claim—

1. The combination of the eccentric disk *g′*, having a series of holes for a wrist-pin at different distances from the center of motion, with the cross-head *h′* of a pitman-bar having guides *i i*, substantially as and for the purpose described.

2. The combination, in a motor, of the eccentric disk having a series of holes, as described, the cross-head of a pitman, the shaft G, the crank and wrist-pin g^2, and the adjustable pendulum and rod, all substantially as and for the purpose described.

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

ABIJAH JOHNSON.

Witnesses:
R. T. GRAY,
T. L. BAILEY.