J. K. CUMMINGS.

Motor.

No. 200,516. Patented Feb. 19, 1878.

Fig. 1.

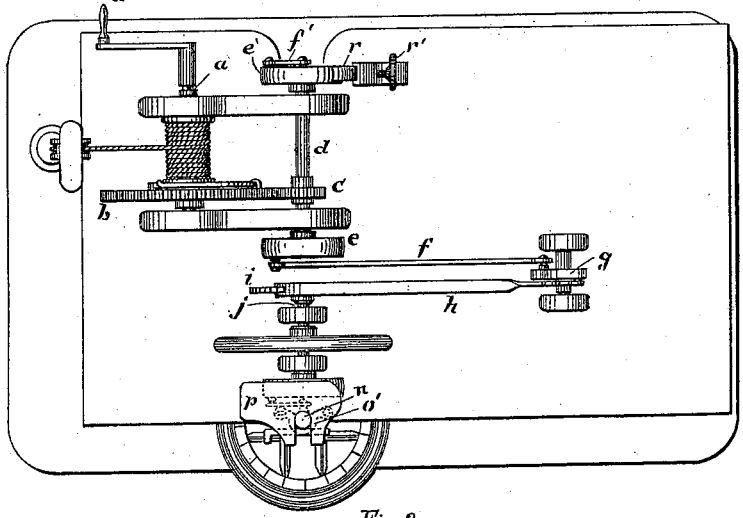
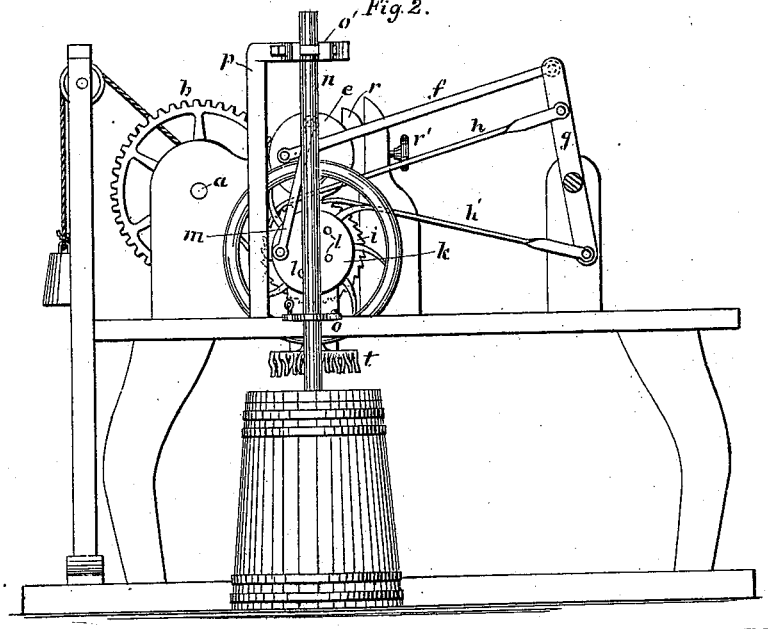


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES K. CUMMINGS, OF LADONIA, TEXAS.

IMPROVEMENT IN MOTORS.

Specification forming part of Letters Patent No. **200,516**, dated February 19, 1878; application filed January 5, 1878.

To all whom it may concern:

Be it known that I, JAMES K. CUMMINGS, of Ladonia, in the county of Fannin and State of Texas, have invented certain new and useful Improvements in Churn-Powers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to motors for operating churns.

The object of my invention is to provide a machine for doing the work of churning; and my invention, which consists of a machine for operating a churn to be driven by spring-power, a weight, or any other power that may be available, will be fully understood from the following description and claims.

Figure 1 is a plan of the machine. Fig. 2 is a side elevation.

The shaft *a* is driven with whatever power there may be available. The power employed may be a heavy weight, in which case the rope will be wound on a drum on the shaft *a;* or, if spring-power is used, the springs are attached to and coiled about the shaft. It carries the large gear-wheel *b*, which transmits the power to the pinion *c* on the shaft *d*. The shaft *a* and gear-wheel *b* are connected by a pawl and ratchet, and the end of the shaft has a crank-arm, *a''*, for winding up the motive power. The shaft *d* has at both ends wheels *e e'*, provided with wrist-pins and connecting-rods *f f'* The rod *f* is connected with the oscillating lever *g*, which operates the pawls *h h'*, pivoted to the lever *g* on opposite sides of its fulcrum, and which work into the teeth of the ratchet-wheel *i*. The shaft *j*, which carries the ratchet-wheel *i*, has also at its end the wheel *k*, which has in its face a number of sockets, *l*, placed at different distances from the shaft, to receive the wrist-pin, to which the connecting-rod *m* is attached. The other end of the rod *m* is pivoted to the handle *n* of the churn. The machine is preferably mounted on a frame, which brings it above the churn, and the handle of the churn rests in guides *o o'*. The guide *o* is a recess in the side of the platform supporting the machine, in which the handle is placed, and then a button or slide closes the front of the recess. The guide *o'* is a similar recess in the end of an arm, *p*, which brings it near the top of the churn-handle, and the front of the recess is closed by a sliding bolt.

Any device may be used to retain the churn-handle in the guides. The brake for regulating and controlling the speed of the machine is a shoe, *r*, actuated by the screw *r'*, which is pressed against the periphery of the wheel *e'*. The machine is stopped entirely by screwing the brake-shoe *r* against the periphery of the wheel *e'*, and the speed of the machine is regulated by the friction of the shoe on the brake-wheel. The connecting-rod *f'* is pivoted at its lower end to one end of the lever *s*, and the other end of the lever *s* is provided with a forked brush, *t*, which straddles the handle of the churn just above the cover, and by its vibrating motion keeps off the flies.

I claim as my invention—

The combination of the shaft *d*, the connecting-rod *f'*, operated from one end of the shaft *d*, and the connecting-rod *f*, oscillating lever *g*, pawls *h h'*, ratchet-wheel *i*, and the connecting-rod *m*, operated from the other, the whole being arranged substantially in the manner described, and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JAMES K. CUMMINGS.

Witnesses:
N. K. BARNES,
J. W. HADEN.