(No Model.)

M. W. CLAY.

CHURN MOTOR.

No. 301,678. Patented July 8, 1884.

Fig. 1.

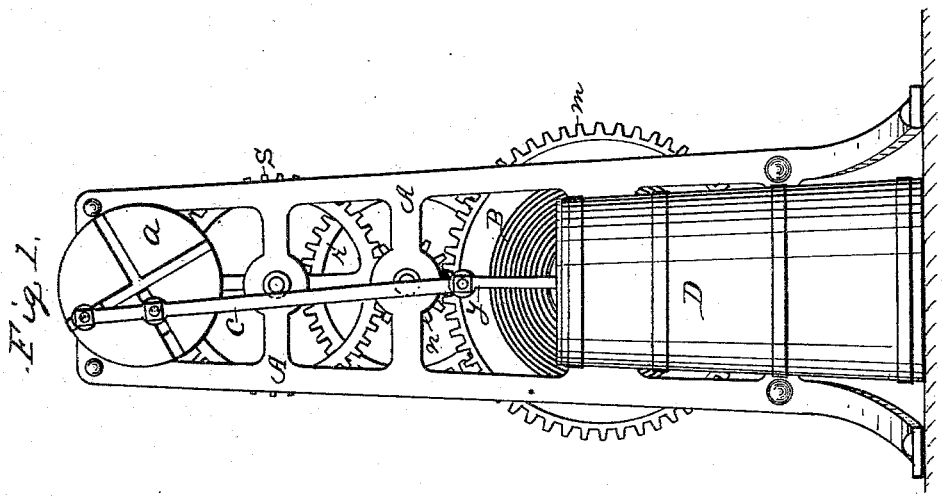
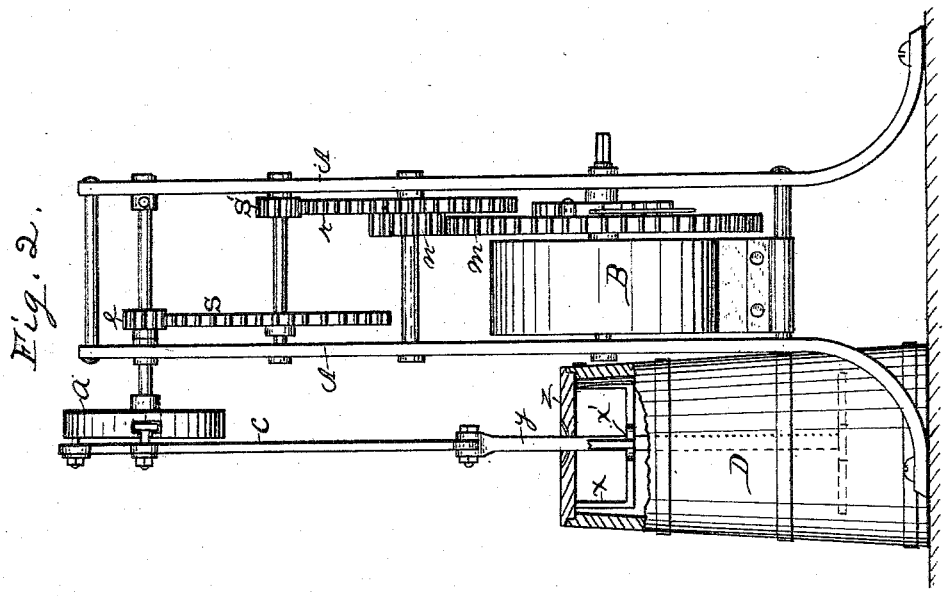


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

MOSES W. CLAY, OF NEOSHO, MISSOURI.

CHURN-MOTOR.

SPECIFICATION forming part of Letters Patent No. 301,678, dated July 8, 1884.

Application filed May 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, MOSES W. CLAY, a citizen of the United States of America, residing at Neosho, in the county of Newton and State of Missouri, have invented certain new and useful Improvements in Churn-Motors, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a front elevation; Fig. 2, a side elevation.

This invention relates to certain improvements in churn-motors, which are fully set forth and explained in the following specification and claims.

Referring to the drawings, A is a frame bearing the train of gears *m*, *n*, *r*, *s'*, *s*, and *e*, which are driven by a coil-spring, B, when wound up in the ordinary manner. The shaft of pinion *e* extends out through the frame, as shown in Fig. 2, and has firmly attached to it the trammel or slotted wheel *a*. This wheel has two slots crossing each other at right angles and forming guides for two sliding blocks, to which the pitman *c* is connected, and which pitman connects below with the churn-dasher *y* of the churn D. As the wheel *a* rotates the sliding blocks keep in their grooves, crossing each other's tracks, and the pitman makes two up and two down strokes for each revolution of the wheel *a*. By the use of this slotted wheel or trammel a much more frequent reciprocation is given the churn-dasher than by means of an ordinary crank and pitman, and consequently more quickly churns the cream.

The spring B is intended to be wound up and furnish the motive power to propel the gearing and trammel for some little time, thus obviating the necessity of churning by manual power.

The lid *z* of the churn is provided on its under side with a plate, *x'*, held by the arms *x*, which plate has a central aperture for the dasher *y* to pass through to cause it to reciprocate vertically without a swaying lateral motion, so it can be operated by the pitman *y*, as shown.

I do not claim the trammel to be new, when disconnected from the other parts described; neither do I claim it is new to run a churn-dasher by gearing deriving its motive power from a coil-spring; but I am not aware that a combination of the trammel and the motive power described has ever before been used for this purpose.

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

1. The combination, with the train of gear-wheels *m*, *n*, *r*, *s*, *s'*, and *e*, coil-spring B, and frame A, of the trammel or slotted wheel *a*, pitman *c*, dasher *y*, and lid *z*, having the guide-plate *x'*, as and for the purpose set forth.

2. In the churn described, the trammel or slotted wheel *a*, in combination with the pitman *c*, dasher *y*, and lid *z*, having the guide-plate *x'*, as and for the purpose set forth.

MOSES W. CLAY.

Witnesses:
GEORGE HUBBERT,
R. F. BULLER.