

(No Model.)

W. CLARK.
Churn Power.

No. 236,144.

Patented Jan. 4, 1881.

Fig. 1.

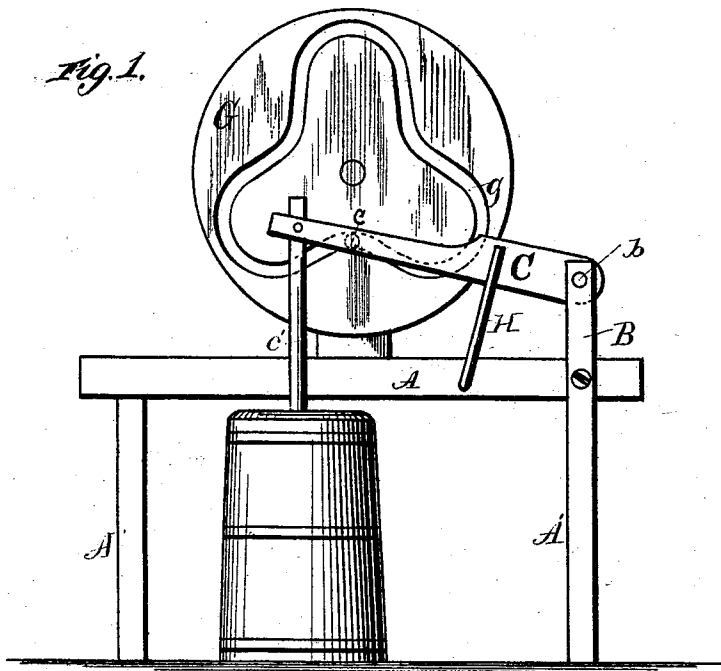
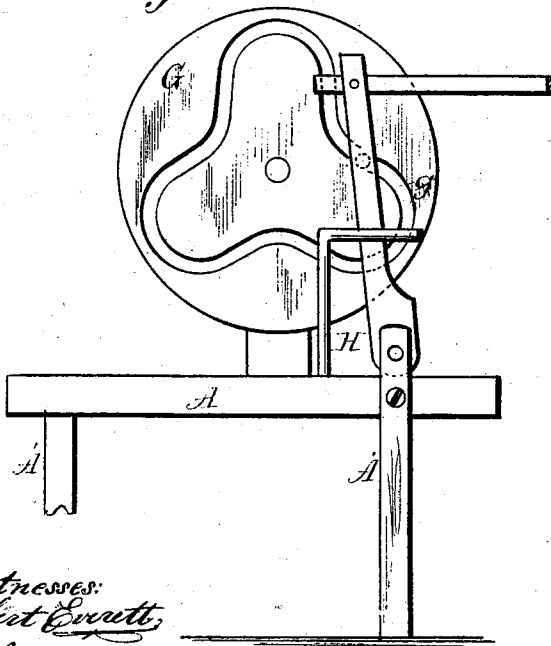
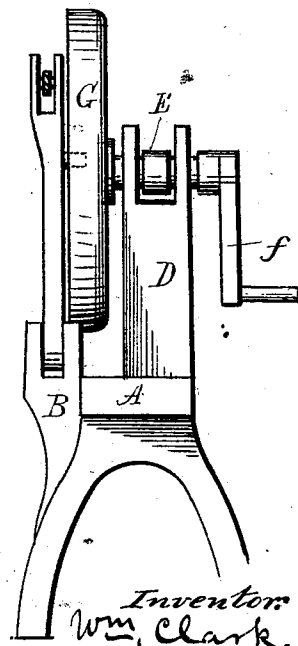


Fig. 2.



Witnesses:
Robert Everett,
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Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM CLARK, OF NACOGDOCHES, TEXAS.

CHURN-POWER.

SPECIFICATION forming part of Letters Patent No. 236,144, dated January 4, 1881.

Application filed August 27, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CLARK, a citizen of the United States, and a resident of Nacogdoches, in the county of Nacogdoches and State of Texas, have invented certain new and useful Improvements in Churn-Powers; and I do hereby declare the following to be a full, clear, and exact description of 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 a simple and efficient device for converting a rotary into a reciprocating motion, which may be either vertical or horizontal, and is especially adapted to the various kinds of churns, washing-machines, and the like now in the market.

The novelty consists in the construction and arrangement of parts, all of which will be hereinafter more fully set forth, and pointed out in the claim.

In carrying out my invention I employ a suitable table or support having two standards, in which is journaled a shaft, carrying upon one end a wheel, upon the face of which is a cam-groove. The other end of the shaft carries a crank, if to be operated by hand, or a pulley, if used with power, the latter being adapted for a belt-connection. To a standard at the end of the table or frame is pivoted a lever or bar, of any suitable length, which carries a pin, stud, or roller, which operates in the cam-groove in the wheel. The pivotal point of the lever is the fulcrum, the central point, where the stud acts in the groove, is the power-point, and the end of the lever is the object-point. The lever may be set horizontal or vertical. The revolution of the wheel, when the lever is horizontal, gives to it a vertical reciprocating motion. When the lever is set vertically a horizontal reciprocating motion is obtained. The cam-groove may be so arranged as to give two, three, or more reciprocating strokes to each single revolution of the driving-wheel.

In the accompanying drawings, Figure 1 is a side elevation of the device as used for the ordinary class of churns, &c., where a verti-

cal motion is required. Fig. 2 is a similar view of the device arranged to give a horizontal motion, and Fig. 3 is an end view.

A represents a table supported on legs A', and B a standard upon one end of the same.

Pivoted at *b* in the standard B is a lever, C, having a stud or roller, *c*, secured or fixed thereon.

Upon the table A are fixed two vertical standards, D, which furnish journal-bearings for a shaft, E, carrying upon one end an operating pulley or crank, *f*, and upon the other a wheel, G, having a cam-groove, *g*, upon its face, as shown.

H represents a standard having a partial spring-action, and it is designed to hold the roller-stud *c* on the lever into operative action in the cam-groove.

As shown in Fig. 1, the device is attached to an ordinary churn. It will readily be seen that by operating the handle *f* the dasher-rod *c'* is given a rapid vertical reciprocating motion.

As shown in Fig. 2, the lever C is placed at a right angle to its former position, and gives a horizontal motion, and by this means the device serves to operate a variety of machines.

I am aware that spring and weight motors having a wheel with an irregular angular groove on the face of it have been used, and such I do not desire to claim.

What I claim as new is—

The herein-described device for converting a rotary motion into a reciprocating motion, which may be either vertical or horizontal at will, consisting of the table A A', the standards D, the shaft E, carrying the crank *f*, and wheel G, having cam-groove *g* upon its face, the standard B *b*, lever C, having roller-stud *c*, and the brace H, for holding the stud *c* in the cam-groove *g*, all combined, arranged, and constructed substantially as and for the purpose set forth.

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

WILLIAM CLARK.

Witnesses:

F. VOIGT,

I. B. HARRIS.