

(No Model.)

W. I. PACE.
CHURN.

No. 311,359.

Patented Jan. 27, 1885.

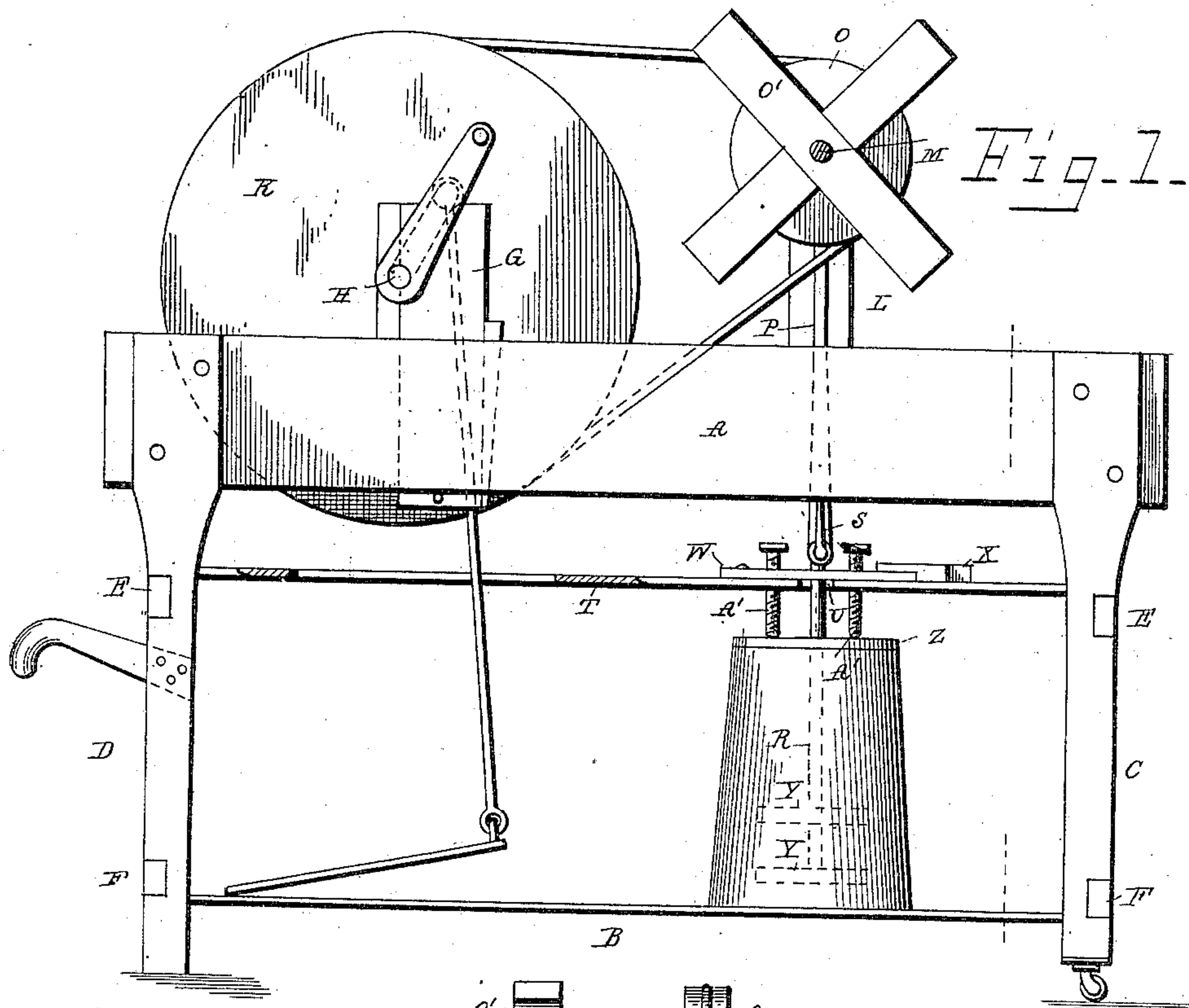


Fig. 1.

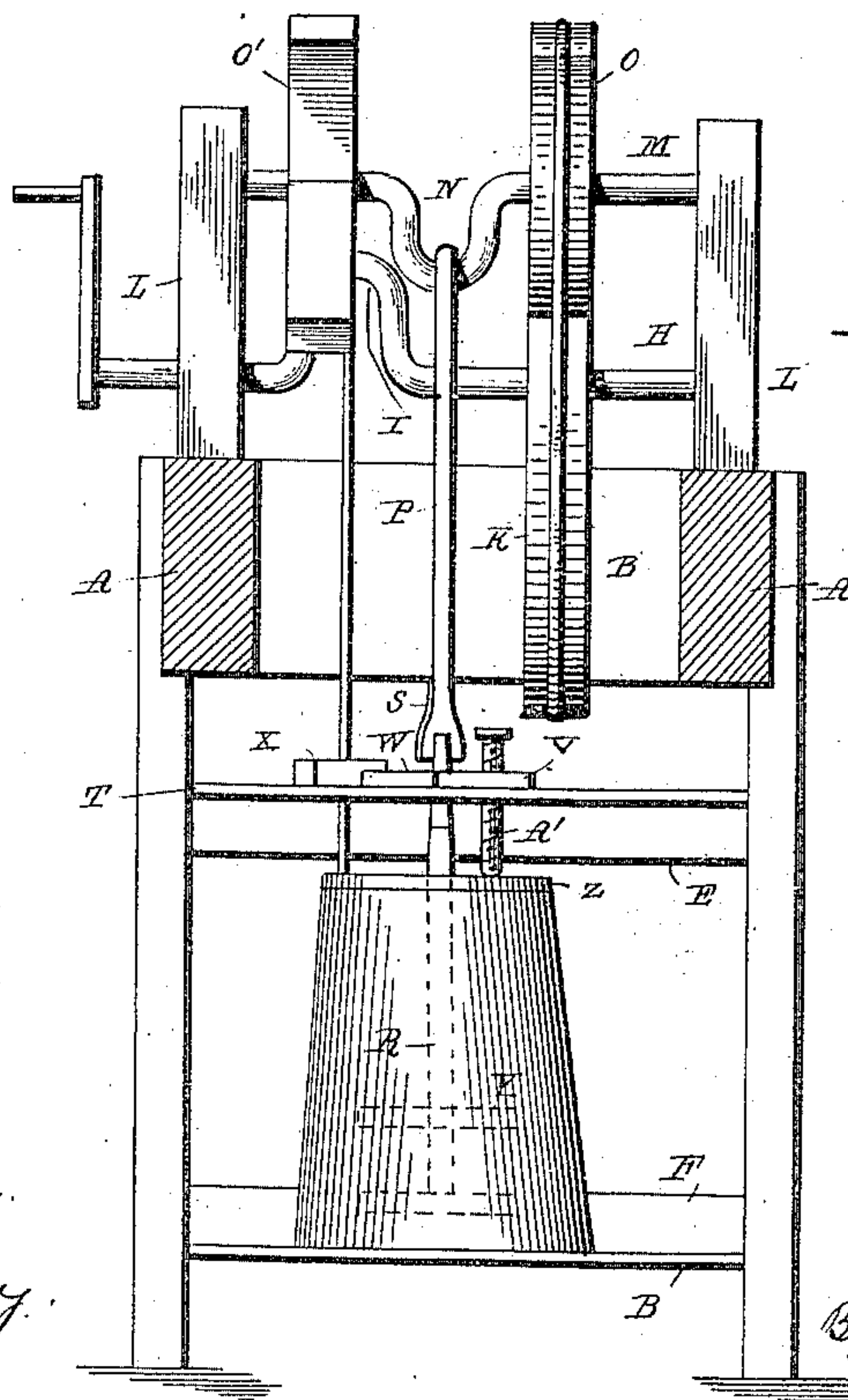


Fig. 2.

WITNESSES
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WILLIAM I. PACE, OF TOM'S CREEK, TENNESSEE.

CHURN.

SPECIFICATION forming part of Letters Patent No. 311,359, dated January 27, 1885.

Application filed April 24, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM I. PACE, a citizen of the United States, residing at Tom's Creek, in the county of Perry and State of Tennessee, have invented certain new and useful Improvements in Churns, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain improvements in powers for operating, more particularly churns, in the production of butter, and provides a convenient and at the same time simple and easily managed device for operating the dasher of the churn, and thus cause the "churning" to be pleasant and expeditious. I have a further object in overcoming certain imperfections and objectionable features attending machines adapted to the purpose mentioned, all of which and the peculiar mode of construction and operation of my device will hereinafter be more fully set forth.

In the drawings, Figure 1 represents a side elevation of the device partly in section, and Fig. 2 represents an end view of the machine with the end piece removed so as to show the working parts.

The working parts of the device are supported in a frame consisting of two side pieces, A, and the two connecting end pieces, B, and the frame is supported at one end by legs C, which are provided with rollers, and at the other end by legs D, which may be provided with handles, so that the said end may be lifted from the floor and moved on the rollers on the other legs. The legs are braced at E and F respectively.

Near one end of each of the side pieces, A, are the upright bearings G, which extend through the said pieces, and are pinned below, as shown, also being provided with shoulders that rest on the said side pieces. The slots that receive them are somewhat longer than the width of the bearings, the space thus formed being filled with a wedge, the purpose of which will be more fully hereinafter set forth. The bearings support a shaft, H, which is provided with a crank, I, between the bearings, so that a treadle and its shaft may be attached, or with an extension of the said shaft from one side, so that a crank and handle may

be attached as desired. The shaft carries a large band-wheel, K, as shown. Toward the other end of the frame are erected, on the side pieces, the upright bearings L, adapted to carry the shaft M, which is also provided with a crank, N. On this shaft is a small band-wheel, O, on one side of the crank. On the other side is a balance-wheel, O', consisting of two arms, one recessed into the other at their middles and placed at right angles, the shaft passing through the intersection. This acts also as a fan, as will be seen. If desired, the band-wheels may be replaced by proper gearing. The bearings L are considerably longer than the bearings G.

To the crank N is secured a pitman, P, which is connected to the dasher R of a churn. The end of the pitman is divided so as to receive the end of the dasher-rod, to which it is pivoted. The pitman is also provided with a swinging spring, S, which is adapted to fit over the head of the pivot securing the pitman and the dasher-rod together, and thus prevent its dropping out when in operation.

Resting on and extending between the braces E of the legs is a piece, T, which has at one end a hole for the passage of the treadle-shaft, and at the other the lateral slot U. On the piece at the end of the slot is a piece, V, against which the dasher-rod bears. Hinged to the piece T, and adapted to cover the slot or to swing to one side to uncover it, is the piece W, which forms the other side of the bearing through which the said dasher-rod passes. This is held in place by the hinge-catch X. By this device the churn and dasher, by being disconnected from the pitman, are easily removed. The dasher-rod may have one or more dashers, Y, the number of dashers increasing the speed with which butter is obtained or "made."

Z represents a churn-cover which is adjusted to the churn by two or more long screws, A', as shown, passing downward from the piece T.

Between the leg-braces F is a piece, B, adapted to receive the churn.

It will be seen that the device can be readily moved about, that the churn will not "wobble" away from its place as it is on the ma-

chine, the churn can be quickly and easily removed, and that the power is simple and effective.

5 The use of the wedges before mentioned is to tighten the belt by forcing the bearings of the large wheel longitudinally.

It is known that the various elements or parts entering into the above-described device are not new in themselves as applied to 10 churn-powers, and the right to the exclusive use of any of them, broadly, is not therefore claimed.

Having described the invention, what I claim is—

15 In a churn-power, the combination, with a frame having casters or rollers and handles, a

churn-supporting cross-piece in the frame, and a cross-piece above the other containing retaining-screws, of a crank-shaft carrying a band-wheel, and provided with adjustable 20 bearings, and a crank-shaft carrying a band wheel or pulley and a rimless fan or balance-wheel, said shaft carrying a pitman connected to and operating the dasher of the churn, substantially as and for the purpose specified. 25

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

WILLIAM I. PACE.

Witnesses:

JAMES P. LEDBETTER,
SARAH ANN PENIX.