C. HARVEY.

Improvement in Churns.

No. 128,306.

Patented June 25, 1872.

Fig. 1

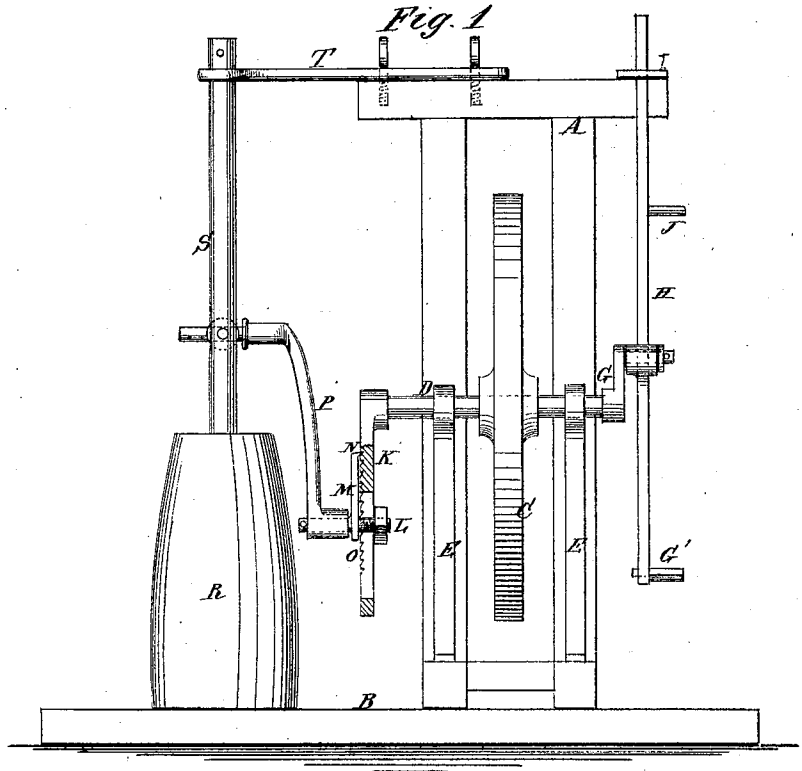
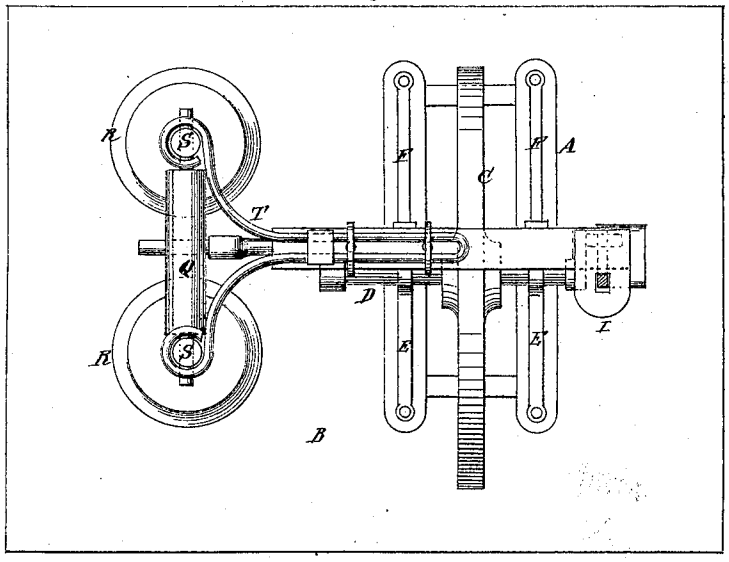


Fig. 2



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CHARLES HARVEY, OF CAIRO, NEW YORK.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 128,306, dated June 25, 1872.

Specification describing a new and Improved Churn-Power, invented by CHARLES HARVEY, of Cairo, in the county of Greene and State of New York.

In the drawing, Figure 1 represents an elevation of the machine, showing the general construction and arrangement of parts. Fig. 2 is a top or plan view.

Similar letters of reference indicate corresponding parts.

This apparatus consists of a frame, A, resting on the platform B, with fly-wheels, shaft, and cranks, and vertical working-rod. C is a fly-wheel revolved on the double-crank shaft D. The shaft D revolves in eyes in the ends of the braces E E, which braces support the upright frame A on one side. F F are the braces on the other side. G is a crank on the outer end of the shaft D, to which is attached one end of the working-rod H. This rod extends down to near the platform, and is turned so as to form a horizontal place for a foot-piece, G′, and is then bent upward and passed through a guide-piece, I, as seen in the drawing. J is a handle on this rod H. Upon the other end of the shaft D is the slotted crank K, the wrist-pin L of which is made adjustable so as to give a longer or shorter stroke. The wrist-pin passes through a plate, M, at the end of which is a lip, N, which engages with the ratchet-teeth O of the crank K, seen in Fig. 1, as the wrist-pin is moved toward or from the center. By this means the wrist-pin is held in any desired position on the crank. P is the pitman or rod, by means of which the power is conveyed to the churn.

In this example of my invention I have shown two churns placed side by side, the dasher-rods of which are connected by the cross-bar Q, to which the connecting-rod P is attached; but a single churn may be operated by connecting the rod P directly with the dasher-rod.

R R are the drums, and S S are the dasher-rods. T is an adjustable guide on the top of the frame A, through which the dasher-rods pass, as seen in the drawing.

By this construction and arrangement the churns or churn are worked mainly by the foot and weight of the body. The entire force being exerted downward the operation of churning is, consequently, less fatiguing than when performed in the ordinary manner.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a notched and slotted crank-arm, K, with a wrist-pin, L, having lip N, as described, for adjusting throw-off crank.

2. The reciprocating device G′ H I J, the double-crank and balance-wheel shaft D, and the pitman P, all combined, as described, with the dasher-rod of a plunge-churn, as and for the purpose set forth.

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