

(No Model.)

J. A. LAWRENCE.

CHURN POWER.

No. 312,278.

Patented Feb. 17, 1885.

Fig. 1.

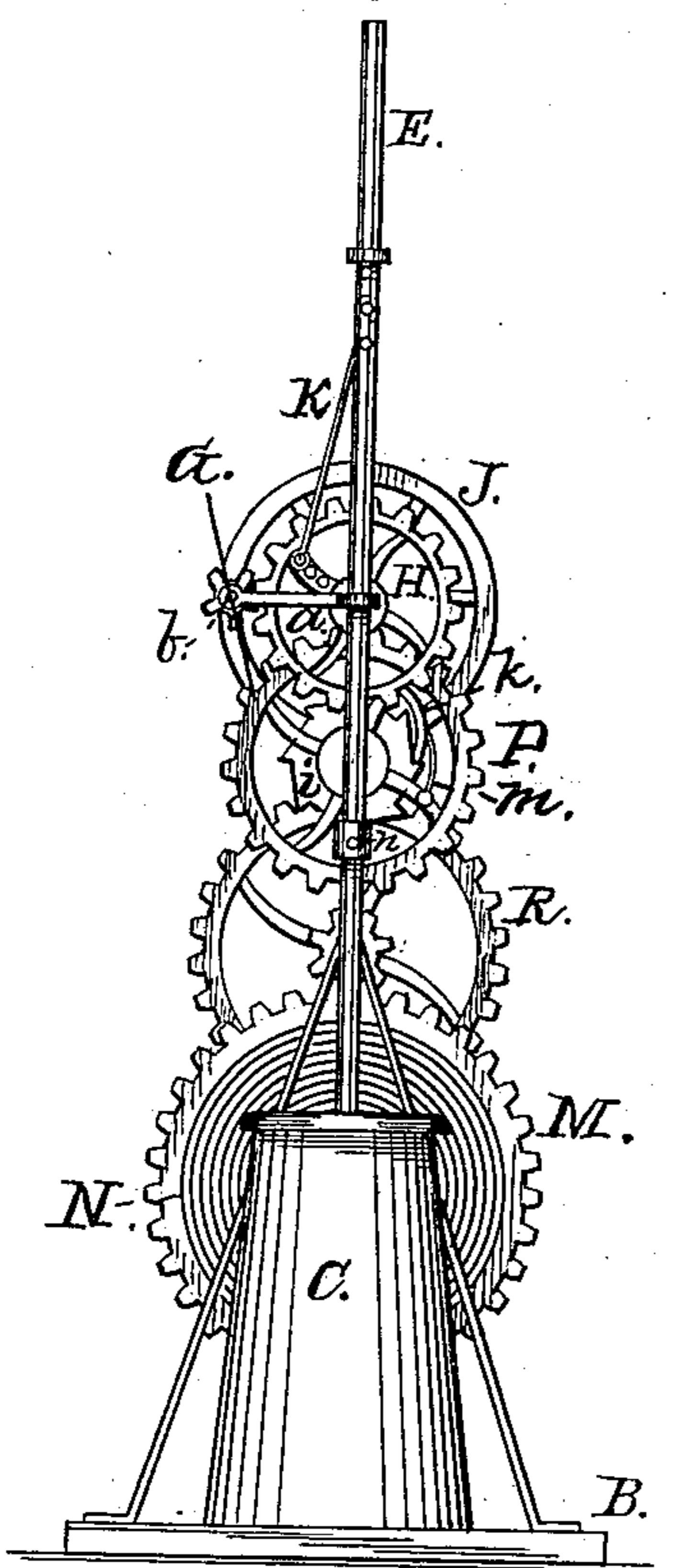
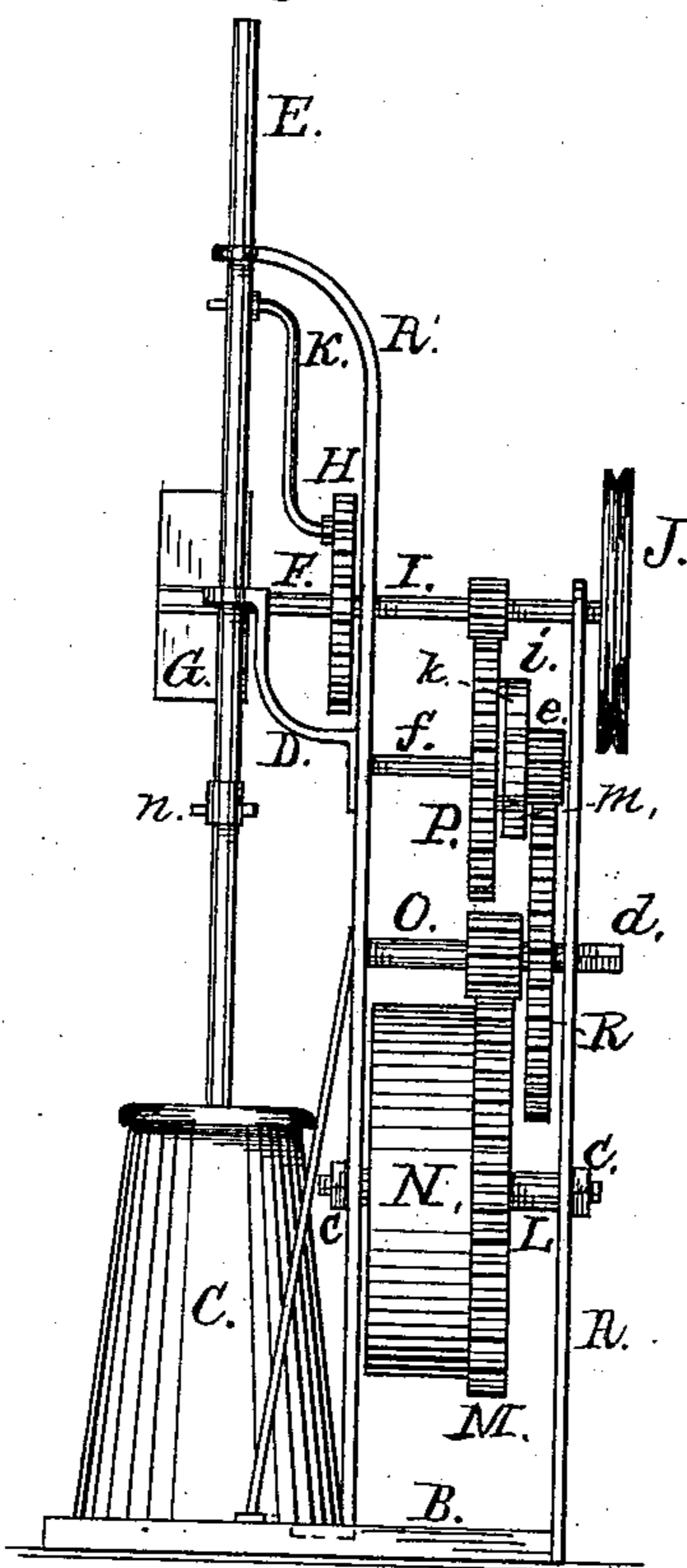


Fig. 2.



Witnesses:
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JOSEPH A. LAWRENCE, OF SHERMAN, TEXAS.

CHURN-POWER.

SPECIFICATION forming part of Letters Patent No. 312,278, dated February 17, 1885.

Application filed November 26, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. LAWRENCE, a citizen of the United States, residing at Sherman, in the county of Grayson and State of Texas, have invented a new and useful Churn-Power, of which the following is a specification.

My invention relates to improvements in churn-powers in which suitable gearing and frame-work operate in conjunction with a vertically-reciprocating dasher; and the objects of my improvements are, first, to provide a spring-power and suitable gearing for operating the dasher, with a view to rendering the same in a high degree effective, convenient, and especially adapted to the requirements of service; and, second, to afford facilities for the easy winding of the powerful spring required for such service. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of the entire mechanism, and Fig. 2 a side view of the same.

Similar letters refer to similar parts throughout the several views.

The frame-work which carries the train of gearing for actuating the churn-dasher consists of two vertical bars, A A', braced as shown, and secured at their bottom ends to a platform, B, upon which the churn C rests. The bar A' extends upward and forward, which, with the bracket D, also attached to the bar A', forms a guide for the dasher-shaft E.

From the bar A' and bracket D extend arms a, in which are formed bearings b for shaft F. To one end of this shaft is attached a fan, G, which serves the double purpose of regulating the speed of the dasher, and also of fanning insects from about the churn.

H designates the crank-wheel for operating the dasher-shaft, and it is secured to one end of shaft I. At the other end is a grooved balance-wheel, J, serving to steady the motion, and by disconnecting the dasher-shaft and placing a band around it a sewing-machine may be driven.

K is a detachable pitman, which connects the wheel H and dasher-shaft E, the said pitman being fitted at one end into a series of holes formed in the dasher-shaft, and at its remaining end into one of a series of holes formed in a spoke of the crank-wheel H.

Instead of winding my spring by turning the main shaft L, as is common with nearly all spring-powers, and providing a ratchet and pawl operating with this shaft and main wheel M, for holding it, I secure this shaft solidly in the standards A A' by nuts c at either end, and attach one end of the spring N to it and the other end to the periphery of main wheel M, and wind the spring by placing a crank on the square end d of shaft O. The winding-power being applied to this pinion-shaft O instead of to the main shaft L, as is generally the case, renders the winding of the powerful spring required for the work a very easy matter. The pinion e and ratchet i are keyed to shaft f; but the wheel P turns loosely upon it. When the winding-shaft O is turned, the wheel R turns the pinion e and ratchet-wheel i without operating the dasher. The pawl k, secured loosely to an arm of the wheel P, engages the notches in ratchet-wheel i, thus holding the spring as it is wound. m is a spring attached to another arm of the same wheel. It presses against the pawl, causing it to engage with the notches of the ratchet. By removing the pin n, the churn can be readily taken from the platform B and either emptied or filled, as the case may be, and then the several parts reconnected for purposes of churning.

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

In a churn-power, the bars A A', the latter bar being curved at its upper end, and, in connection with the bracket D, forming guides for the shaft E, said bars forming journals for the shaft I, said shaft having secured to its inner and outer ends the crank-wheel H and fly-wheel J, respectively, in combination with the pitman K, for operating the dasher-shaft, having its ends suitably secured to said shaft and crank-wheel, and the gearing herein described for operating the same, substantially as set forth.

JOSEPH A. LAWRENCE.

Witnesses:

THOS. W. RANDOLPH,
E. P. GREGG.