

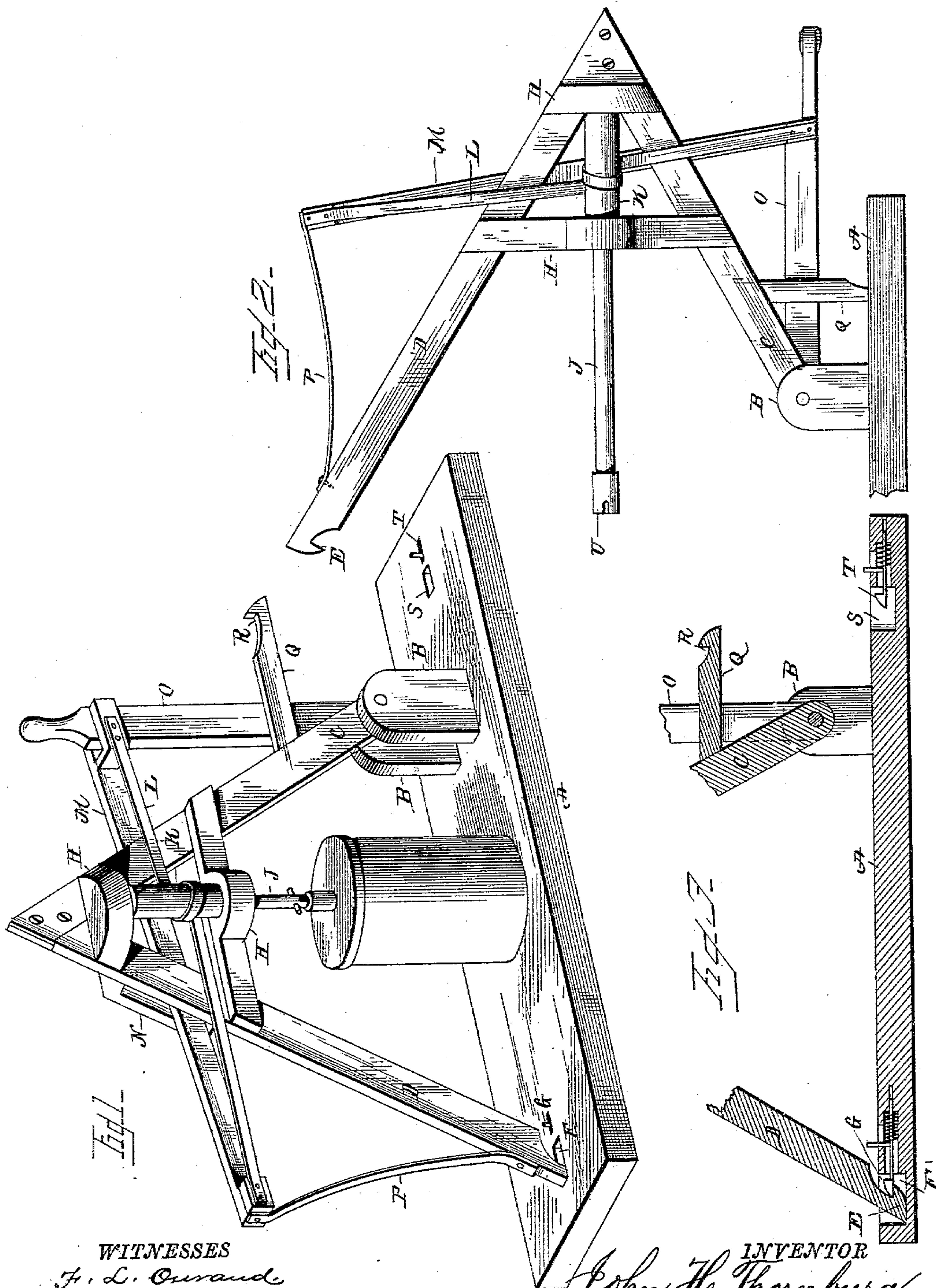
(No Model.)

J. H. THORNBURG.

MECHANICAL MOTOR.

No. 318,832.

Patented May 26, 1885.



WITNESSES

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MECHANICAL MOTOR.

SPECIFICATION forming part of Letters Patent No. 318,832, dated May 26, 1885.

Application filed April 14, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. THORNBURG, a citizen of the United States, and a resident of Harrisville, in the county of Randolph and State of Indiana, have invented certain new and useful Improvements in Mechanical Motors; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved mechanical motor, showing the same arranged in position for operating a churn. Fig. 2 is a side view showing the motor arranged for operation in a different position, and Fig. 3 is a longitudinal vertical sectional view taken through the lower portion of the frame and base.

The same letters refer to the same parts in all the figures.

This invention relates to mechanical motors for the purpose of operating churns and light machinery, to the operation of which the motion of a vertical or horizontal oscillating shaft may be successfully adapted; and it has for its object to provide a device of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency.

With these ends in view the invention consists in the improved construction, arrangement, and combination of parts, whereby the frame of the motor may be tilted, so as to bring the operating-shaft to either a vertical or a horizontal position, and which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A designates a suitable base or platform, provided near one end with a pair of vertical parallel flanges, B B, between the upper ends of which is pivoted one of the legs C of a triangular frame, the other leg of which, D, is provided at its lower end with a notch, E, and adapted to enter a recess or socket, F, in the base, where it may be locked by means of a suitably-constructed spring-catch, G, which serves to retain the frame in position, as shown in Fig. 1 of the drawings.

The frame C C is provided near its upper end with cross-pieces H H, secured to its front side, and affording bearings for a vertical shaft, J, provided with a drum, K, around which is wound a band or cord, L, the ends of which are attached to the ends of a bow, M, arranged to slide in suitable bearings, N N, upon the rear side of the frame C D, near the upper end of the latter. It will be seen that by reciprocating the said bow or sliding it to and fro an oscillating motion will be imparted to the drum K and shaft J, on which the said drum is mounted.

Pivoted between the upper ends of the flanges B B is a lever, O, which is pivotally connected near its upper end with one end of the bow M, which may be conveniently operated by using the upper end of the said lever for a handle. The other end of the bow is suitably connected with the upper end of a spring, P, the lower end of which is suitably attached to the leg D of the frame near the lower end of the latter. Said spring will serve to retract the bow, so that power need to be exercised in one direction only for the purpose of operating the device.

The leg C of the frame is provided with a laterally-extending arm or bracket, Q, the outer end of which has a notch, R, adapted when the frame is tilted, as shown in Fig. 3 of the drawings, to enter a socket, S, in the base, where a spring-catch, T, is provided to engage the notch R, and retain the frame in this position. It will be seen that when the frame is thus tilted the shaft J is brought to a horizontal position, and the lever O is brought to a position in which it may be conveniently operated as a treadle, the upward or retracting motion of the bow M being performed, as before, by the spring P.

The end of the shaft is provided with a suitably-constructed sleeve or coupling, U, by means of which it may be readily connected with the machinery to be driven.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood.

The frame may be readily adjusted so as to bring the driving-shaft to either a horizontal or a vertical position, and is securely retained

for operation in either position by the spring-lock catches G or T.

The bow may be conveniently and efficiently operated in either position by using the lever 5 O, either as a hand-lever or as a treadle, as the case may demand.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

10 1. In a mechanical motor, the combination of a suitable base, a triangular frame pivoted at one end and connected detachably with the base at the other, a shaft journaled vertically in the upper portion of the said frame, a drum 15 upon the said shaft, a bow arranged to reciprocate in suitable bearings at the upper end of said frame, a cord wound upon the drum and attached to the ends of the bow, an operating-lever attached to one end of said 20 bow, and a retracting-spring connected with

the other end of the latter, substantially as and for the purpose herein set forth.

2. In a mechanical motor, the combination of the base, a tilting frame having a laterally-extending arm, means for connecting said arm 25 or the free end of the frame detachably with the base, a shaft journaled in said frame, a bow arranged to oscillate the said shaft, a retracting-spring connected with one end of said bow, and an operating-lever connected with 30 the other end of the latter, substantially as and for the purpose herein set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN H. THORNBURG.

Witnesses:

H. H. NEFF,
ISAAC THORNBURG.