

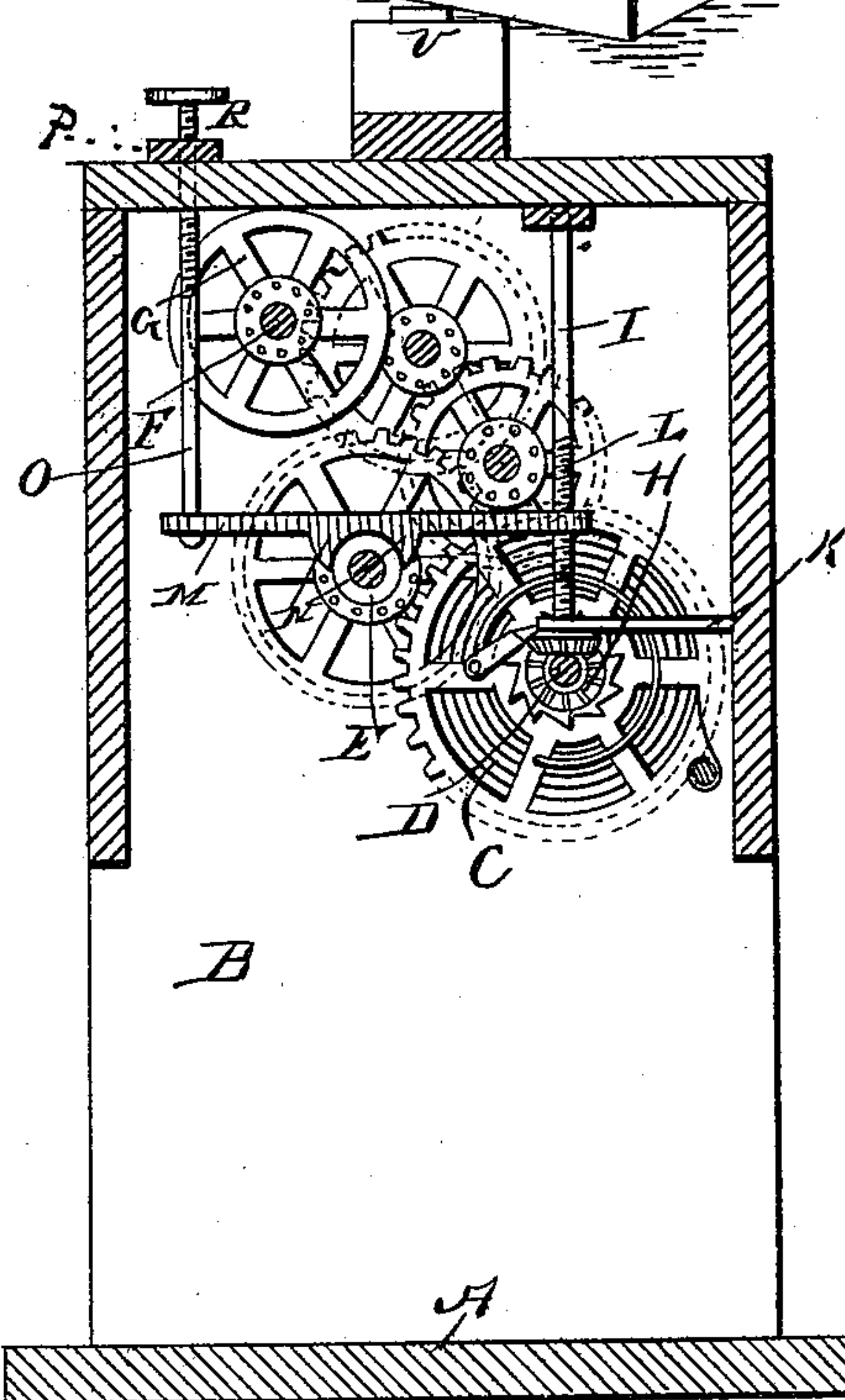
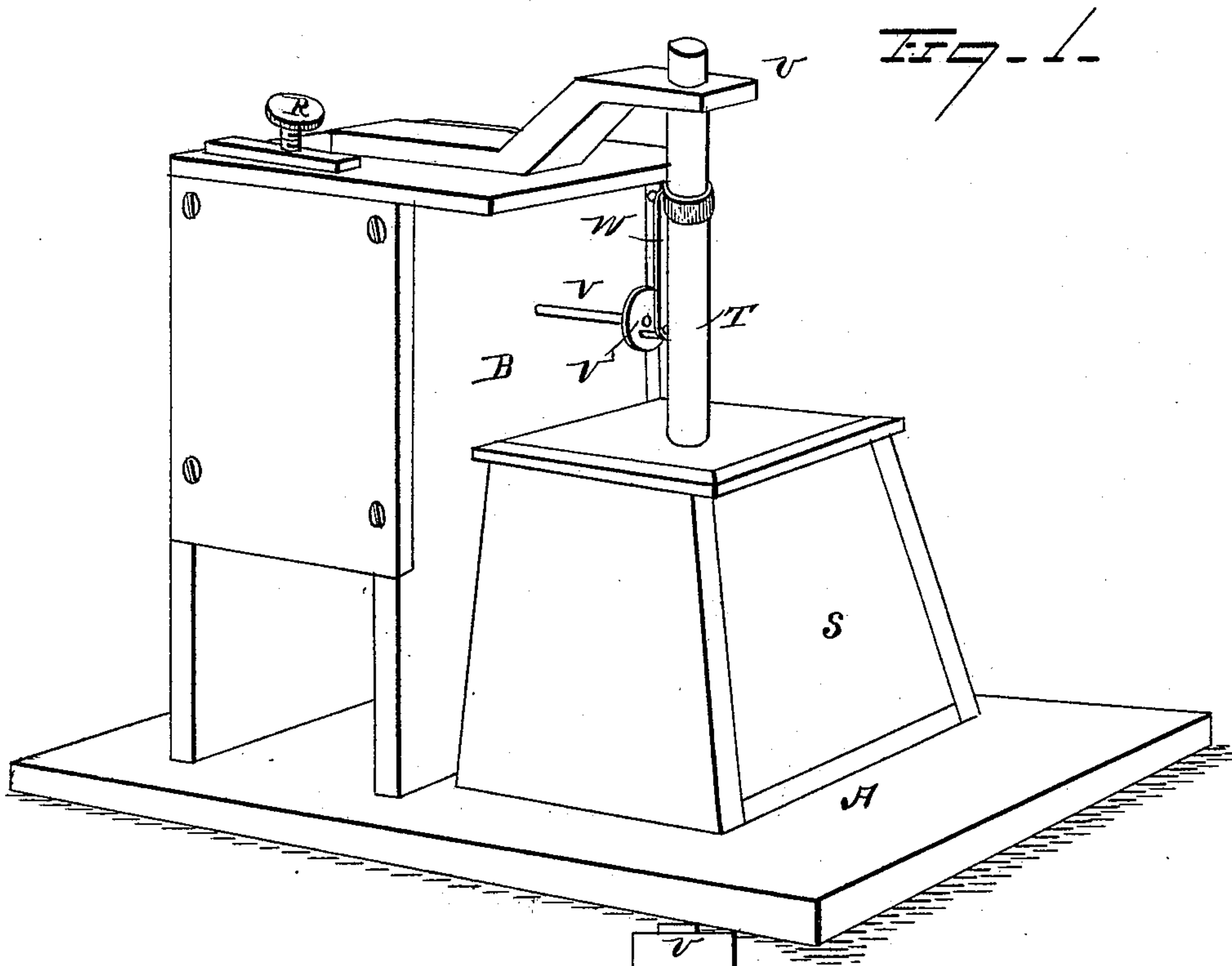
(No Model.)

R. E. L. ROBERTS.

MOTOR.

No. 347,890.

Patented Aug. 24, 1886.



Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT EDWARD LEE ROBERTS, OF FARMERS BRANCH, TEXAS.

MOTOR.

SPECIFICATION forming part of Letters Patent No. 347,890, dated August 24, 1886.

Application filed April 19, 1886. Serial No. 199,386. (No model.)

To all whom it may concern:

Be it known that I, ROBERT EDWARD LEE ROBERTS, a citizen of the United States, residing at Farmers Branch, in the county of Dallas and State of Texas, have invented a new and useful Improvement in Motors, of which the following is a specification.

My invention relates to an improvement in motors; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my invention. Fig. 2 is an elevation of the same, partly in section.

A represents the platform, upon one end of which is secured a vertical frame or casing, B, in which is located a train of gear-wheels or clock-work mechanism provided with a spring, C, for imparting motion to the main shaft D. One of the shafts of the clock-work mechanism is provided with a drum, E, and the shaft F, which forms the terminus of the train, is provided with a fly-wheel, G. The spring C is provided with the usual pawl-and-ratchet winding mechanism, and the driving-shaft carries a miter gear-wheel, H.

I represents the vertical shaft, the lower portion of which is journaled in suitable bearings, K, in the case or frame B. The upper portion of the shaft I is screw-threaded, as at L.

M represents a spring brake-bar, which is provided with shoes N, that bear on opposite sides of the drum E. The threaded portion of the shaft I passes through a threaded opening which is made in one end of the brake-bar M, and the opposite end of the said brake-bar is swiveled or otherwise connected to the lower end of a vertical screw-shaft, O, which passes through a bearing or nut, P, with which the frame or casing B is provided. To the upper end of the shaft O is secured a hand-wheel, R.

For the purpose of illustrating the operation of my device I have shown it attached to a churn, in which S represents a vertical churn-body, which is secured on one end of the platform A. This churn is provided with a reciprocating dasher-rod, T, the upper end of which is guided in an arm, U, that pro-

jects from the top of the box or casing B. A shaft, V, projects through the rear side of the said box or casing from the clock-work mechanism, and to the outer end of the said shaft is attached a crank-wheel, V'. A pitman, W, connects the crank-wheel with the dasher-rod.

The operation of my invention is as follows: The cream to be churned is placed in the churn, and the spring C is wound up. This spring sets the clock-work mechanism in operation, and thereby imparts reciprocating motion to the dasher-rod, as will be very readily understood. The function of the spring brake-bar M, having the shoes bearing on the drum E, is to regulate the clock-work mechanism so as to cause it to run at the same speed during the operation of churning. While winding the machine or spring the screw L turns through the outer end of the brake-bar M, thereby tightening it against the friction-drum E. While the machine is in motion the screw L is turned in the reverse direction gradually, and thus slowly releases the pressure of the brake-bar on the friction-drum, thus causing the said brake-bar to bear more firmly on the friction-drum when the machine first starts, and when the spring is at the height of its power, the friction of the brake-bar on the drum being gradually and steadily lessened as the machine runs down and the spring becomes less powerful, thereby securing a uniform rapidity in the motion of the machine at all times. When it is desired to stop the machine, the screw O is caused to bear the brake lever or bar firmly on the upper side of the friction-drum.

Having thus described my invention, I claim—

1. The combination, in a clock-work mechanism, of the spring-shaft, the screw L, geared thereto, whereby the said screw will be rotated simultaneously with the spring-shaft, the friction-drum E, and the brake-bar bearing on the said drum and engaging the screw L, for the purpose set forth, substantially as described.

2. The combination, in a clock-work mechanism, of the spring, the screw L, geared thereto, whereby the said screw will be rotated si-

multaneously with the spring-shaft, the friction-drum E, and the brake-bar bearing on the friction-drum and having one end attached to the screw L, and the screw O, bearing on the
5 opposite end of the brake-drum, substantially as described.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in presence of two witnesses.

ROBERT EDWARD LEE ROBERTS.

Witnesses:

GEO. W. GOOD,
J. H. LONGMIRE.