

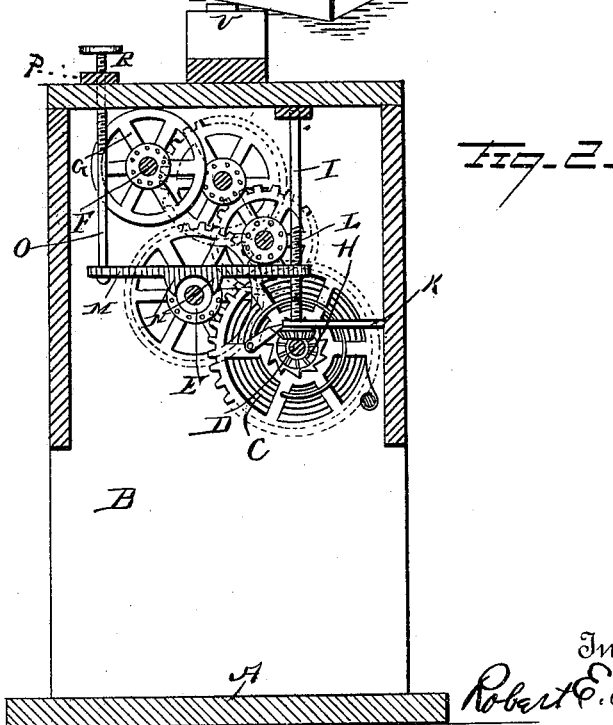
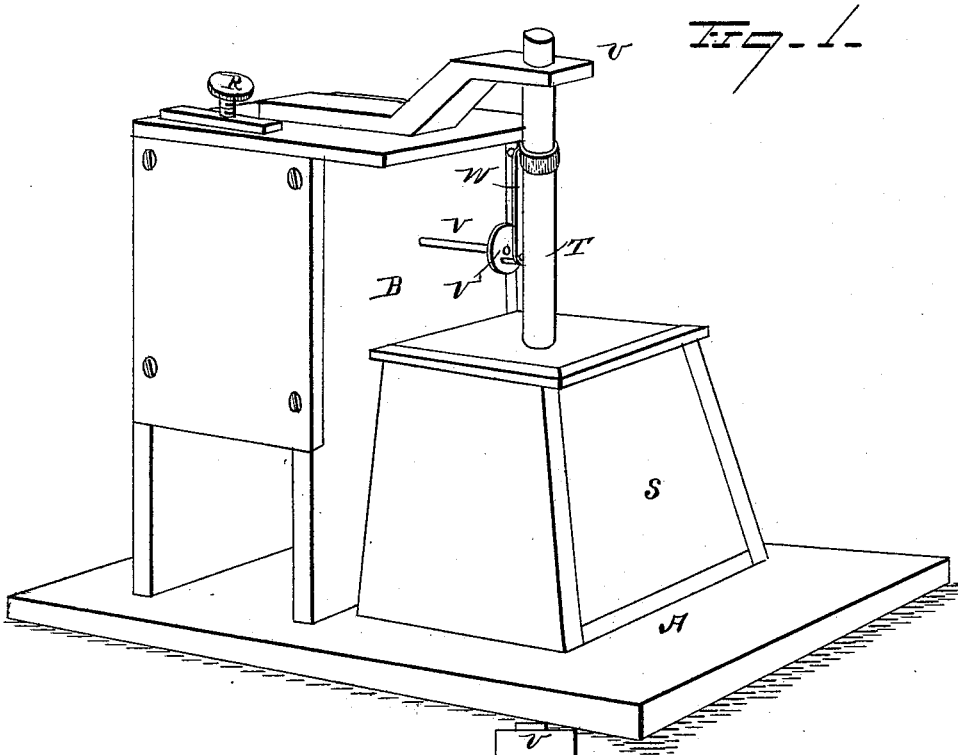
(No Model.)

R. E. L. ROBERTS.

MOTOR.

No. 347,890.

Patented Aug. 24, 1886.



Witnesses

*W. T. Gill*

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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.