(No Model.)

# J. T. WALLACE & W. D. HOLLEMAN.

## SPRING MOTOR.

No. 421,334. Patented Feb. 11, 1890.

Fig. 1.

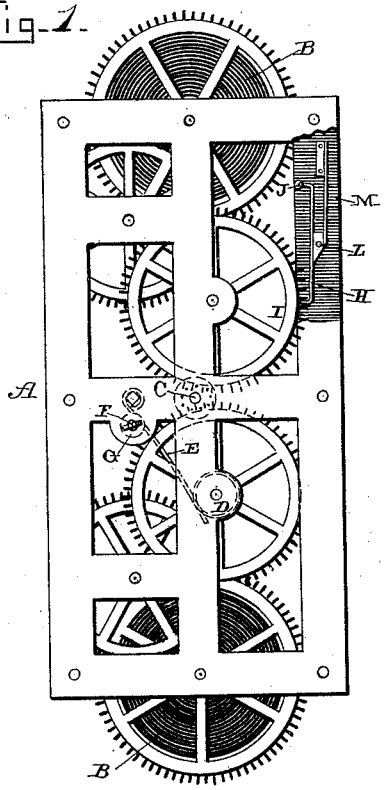
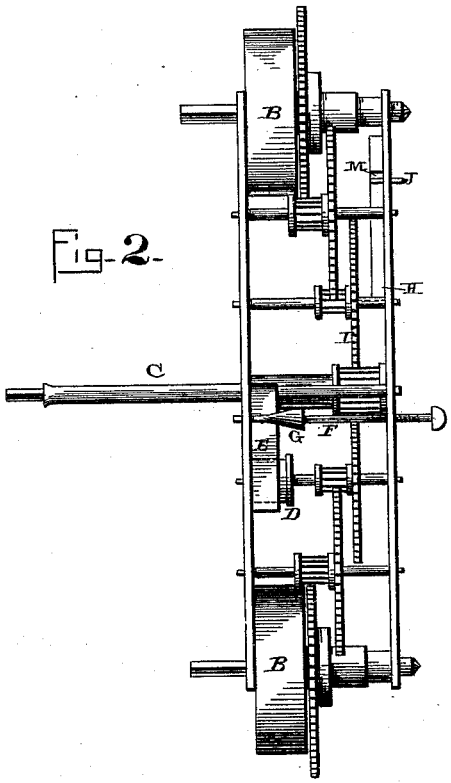



Fig. 2.




Witnesses:
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# UNITED STATES PATENT OFFICE.

JAMES T. WALLACE AND WILLIAM D. HOLLEMAN, OF GOULD, TEXAS.

## SPRING-MOTOR.

SPECIFICATION forming part of Letters Patent No. 421,334, dated February 11, 1890.

Application filed August 20, 1889. Serial No. 321,415. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES T. WALLACE and WILLIAM D. HOLLEMAN, of Gould, in the county of Rusk and State of Texas, have invented certain new and useful Improvements in Spring-Motors; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in spring-motors; and it consists in, first, the combination, with a spring-motor, of a spring-stop, which is provided with a bend at one end and a handle at the other, and is held either in or out of contact with the wheel by the elasticity of the spring, and, second, the combination, with the motor, of a spring-brake and a screw-rod provided with a cone for bearing against the spring and either tightening or loosening it.

Figure 1 is a side elevation of the motor alone. Fig. 2 is an edge view of the same.

A represents the motor, which is to be placed in a suitable inclosing case or frame, and is provided with either one, two, or more springs B, according to the power required. Each of the springs B transmits its power to the driving-shaft C, to which the fan is to be attached. In case but a light power is required only one spring and set of wheels will be used. In order to regulate the speed at which the fan shall be driven, a spring E is secured in the frame and has its free end to bear against a friction-drum D, placed upon one of the shafts of the motor. Passing through the frame at right angles thereto is the rod F, which may be made screw-threaded at one end and which is provided with a cone G, which bears against the outer side of the spring E. In proportion as the cone is forced inward and made to press against the spring E the friction of the spring upon the small drum D is increased, and as the rod F is moved outward, taking the pressure of the cone off from the spring E, the friction of the spring against the drum D is decreased. The greater the friction of the spring against the drum D the less speed the fan will have, and the less friction of the spring against the drum the greater the speed.

In order to start and stop the motor at the will of the operator, there is secured to the frame of the motor the stop H, which is provided with a catch at one end to engage with the wheel I of the motor and with a handle J at the other end. This stop is pivoted at L, and bearing against the back of the stop is the spring M, which has its outer end rigidly fastened to the frame of the motor. When the handle J is moved inward, the projection upon the end of the stop H is moved out of contact with the wheel I, and when the handle J is forced outward the projection engages with the wheel I, so as to stop the motor. The spring M is buckled or bent outward at its center by the movement of the stop H, and is thus made to hold the stop either in or out of contact with the wheel I.

Having thus described our invention, we claim—

1. The combination of a motor with a drum attached to one of its shafts, a spring, and a rod provided with a cone bearing laterally against said spring for increasing or decreasing the friction of the spring against the drum, substantially as shown.

2. The combination of the motor with a stop H, which is provided with a bend at one end and a handle at the other, with the spring M, which bears upon the stop and which is rigidly secured to the frame at its outer end, the stop being pivoted at L, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES T. WALLACE.
WILLIAM D. HOLLEMAN.

Witnesses:
G. R. WOOD,
T. I. CLAYTON.