

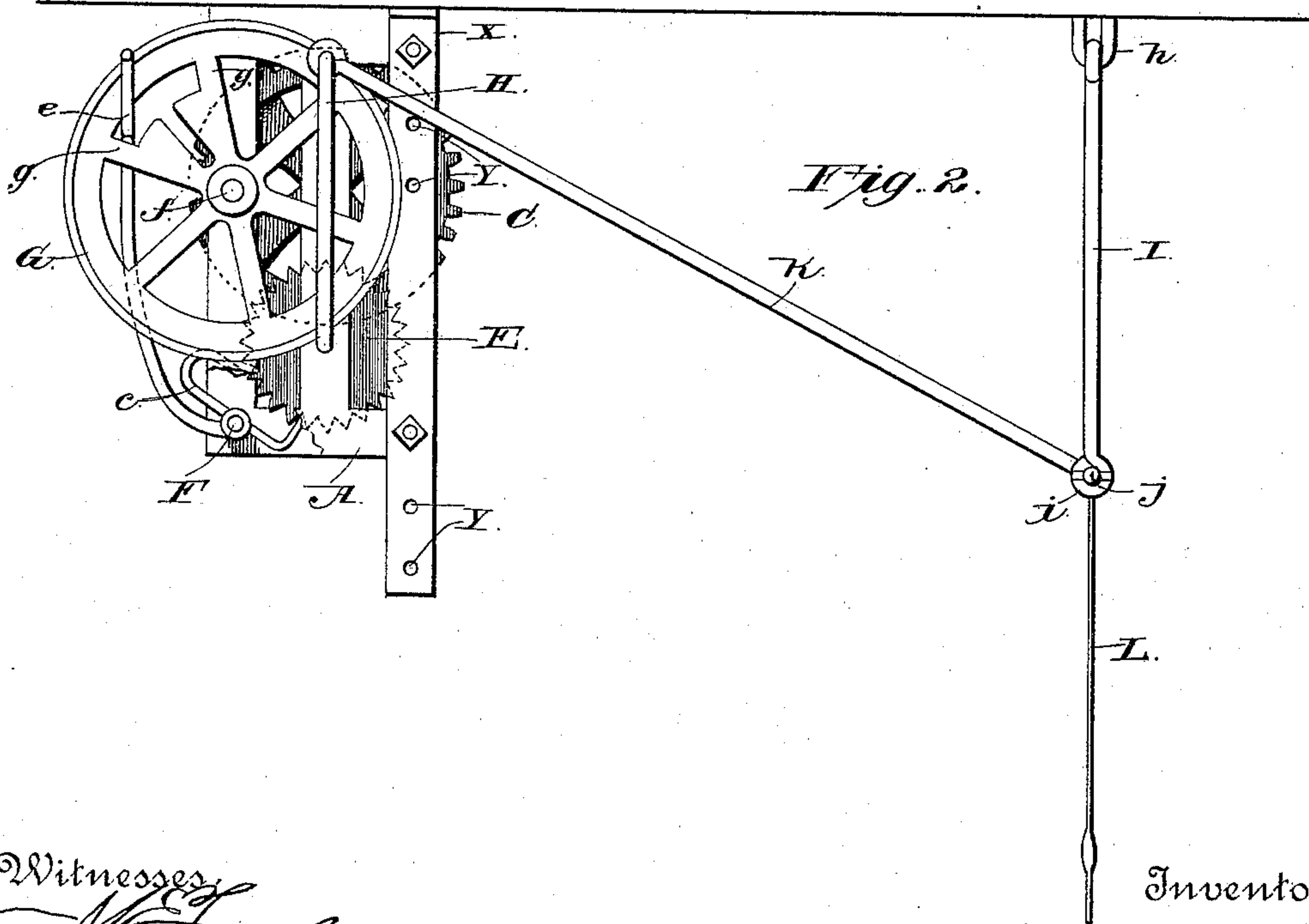
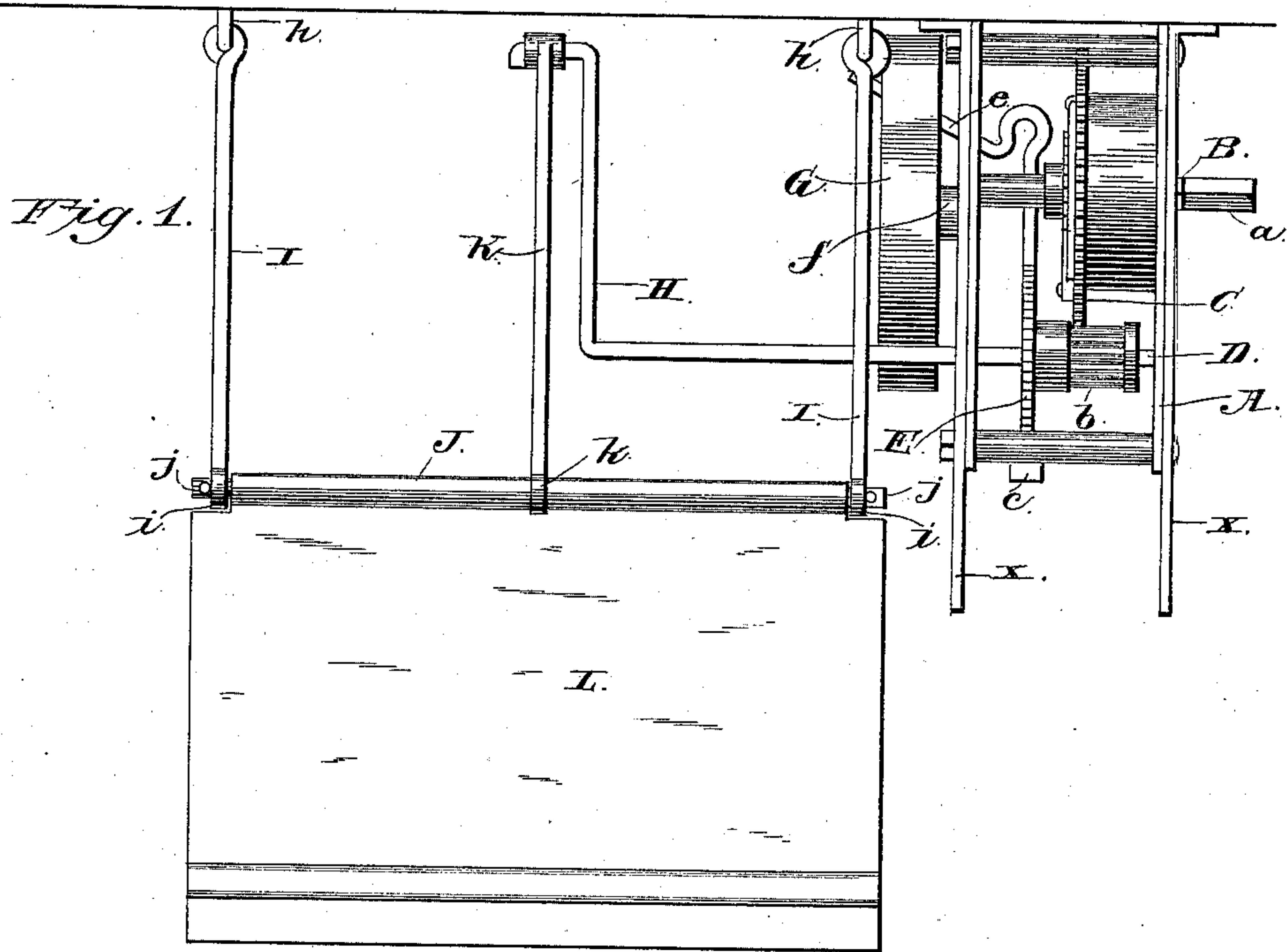
(No Model.)

J. G. STEPHENS.

MOTOR FOR FANS.

No. 387,325.

Patented Aug. 7, 1888.



Witnesses
M. Fowler.
J. H. Jiggers.

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UNITED STATES PATENT OFFICE.

JAMES G. STEPHENS, OF SHERIDAN, ARKANSAS.

MOTOR FOR FANS.

SPECIFICATION forming part of Letters Patent No. 387,325, dated August 7, 1888.

Application filed April 3, 1888. Serial No. 269,464. (No model.)

To all whom it may concern:

Be it known that I, JAMES G. STEPHENS, a citizen of the United States, residing at Sheridan, in the county of Grant and State of Arkansas, have invented a new and useful Improvement in Motors for Operating Fans, &c., of which the following is a specification.

My invention is a motor for operating fans, &c.; and it consists in the novel construction hereinafter described, whereby a simple and efficient motor is provided for the purpose stated.

In the drawings, Figure 1 is a side elevation of a device embodying my improvements. Fig. 2 is an end view of the same.

A metallic frame, A, is supported below the ceiling and contains the motor mechanism proper. This latter comprises a winding arbor, B, upon which is mounted the actuating-spring communicating motion to the gear-wheel, C, upon the same shaft. One end, *a*, of the arbor B projects beyond the side of the frame and is square-ended for the application of the winding-key. A shaft, D, in said frame carries a lantern-pinion, *b*, which rotates with an escapement-wheel, E. An arbor, F, carries the escapement-pawl *c*, which engages with the escapement-wheel E, while a rod rises vertically from said arbor and is bent obliquely outward, as represented in Fig. 1, to form a transverse projecting arm, *e*. A stud, *f*, on one side of the motor-frame adjacent to the arm *e* has pivotally mounted thereon a heavy balance-wheel, G, two of the spokes *g* of which are webbed to form a limiting agent to the vibration of the arm *e*, occasioned by the escapement.

The shaft D is extended at one side to form a crank, H. Suspended from the ceiling at some distance from the motor are eyes *h*, each of which is pivotally engaged by rods I, which are hooked at their lower ends, *i*, to receive the reduced ends *j* of the transverse shaft J. This latter is also reduced at its center, at which point it has pivotally connected thereto the looped end *k* of a pitman, K, the other end of which is connected to the crank H. A fan, L, depends from the shaft J.

When the motor is wound up and the gear-

ing set in motion, the crank H is rotated and through its pitman-connection swings the shaft J and its fan back and forth. The duration of the actuating power of the motor is greatly increased by the presence of the balance-wheel G, which moves back and forth with the arm *e*, so that movements of the latter are necessarily much slower, and the action of the escapement correspondingly reduced.

In order that the device may be adjusted to the height of the ceiling, I provide the parallel bars X, which depend from the ceiling, and are each provided with a longitudinal series of transverse perforations, Y. The frame is placed between the bars, and the securing-bolts are then inserted through the proper perforations Y and aligned openings in the frame. The frame may thus be readily secured at the proper height, as will be understood. When the ceiling is high, the frame will be secured in one of the lower perforations, and when it is low the frame will be secured in one of the higher perforations. The frame can be adjusted in this way also to suit the wishes or tastes of the user.

For the sake of convenience it will be found desirable to use a key for winding up the motor similar in form to the crank-handle of a windlass.

Of course it will be understood that any number of fans may be pivotally suspended from the ceiling and then connected together so as to swing in unison with the movements of the prime fan.

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

The combination, in a spring-motor, of the escapement-pawl, the balance-wheel, and the arm extending from the escapement-shaft to the balance-wheel and engaging the same, as set forth.

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

JAMES G. STEPHENS.

Witnesses:

W. C. C. DOROUGH,
W. T. VEAZEY.