

(No Model.)

W. J. ALLEN.

MOTOR.

No. 313,641.

Patented Mar. 10, 1885.

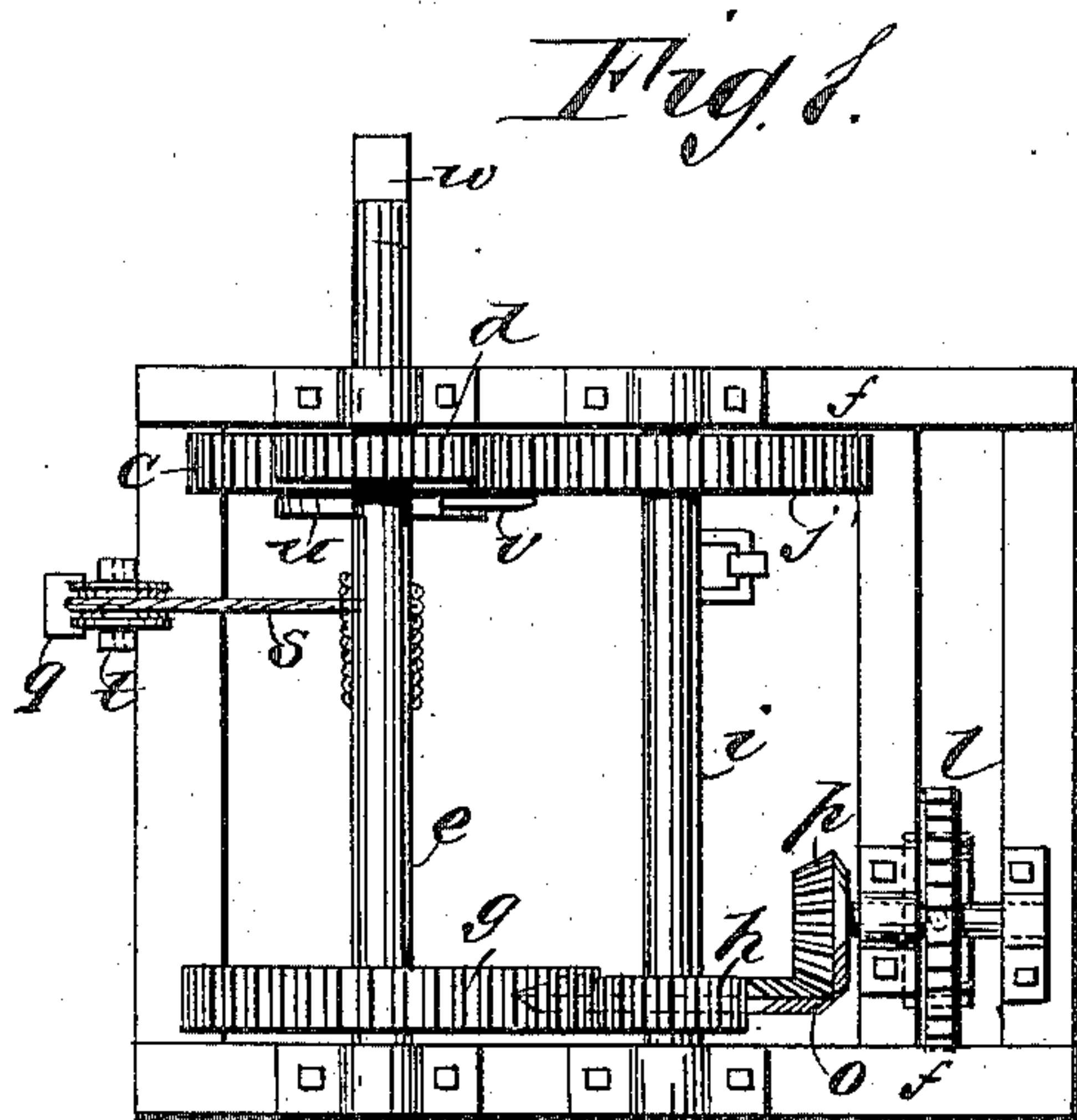


Fig. 2.

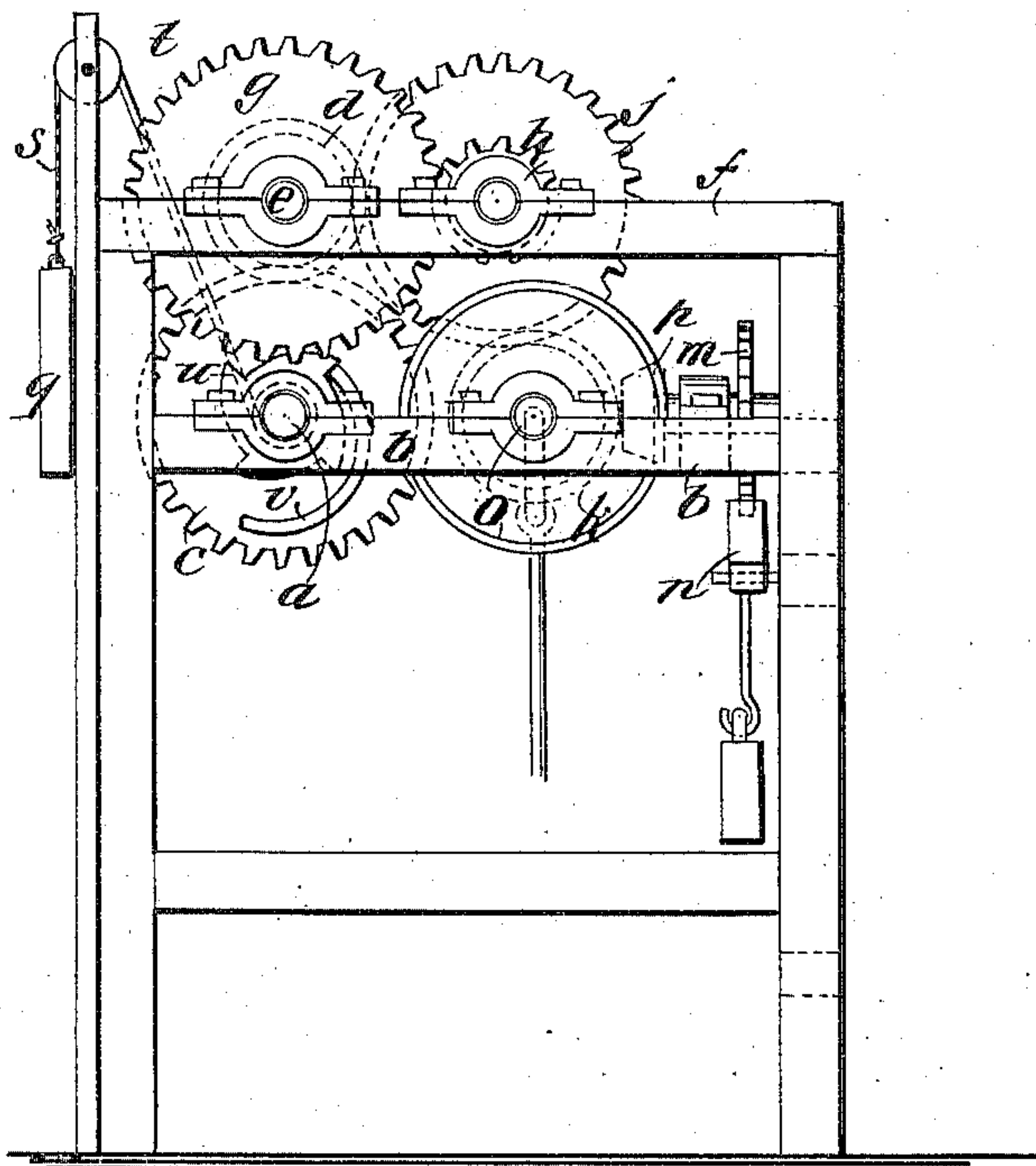
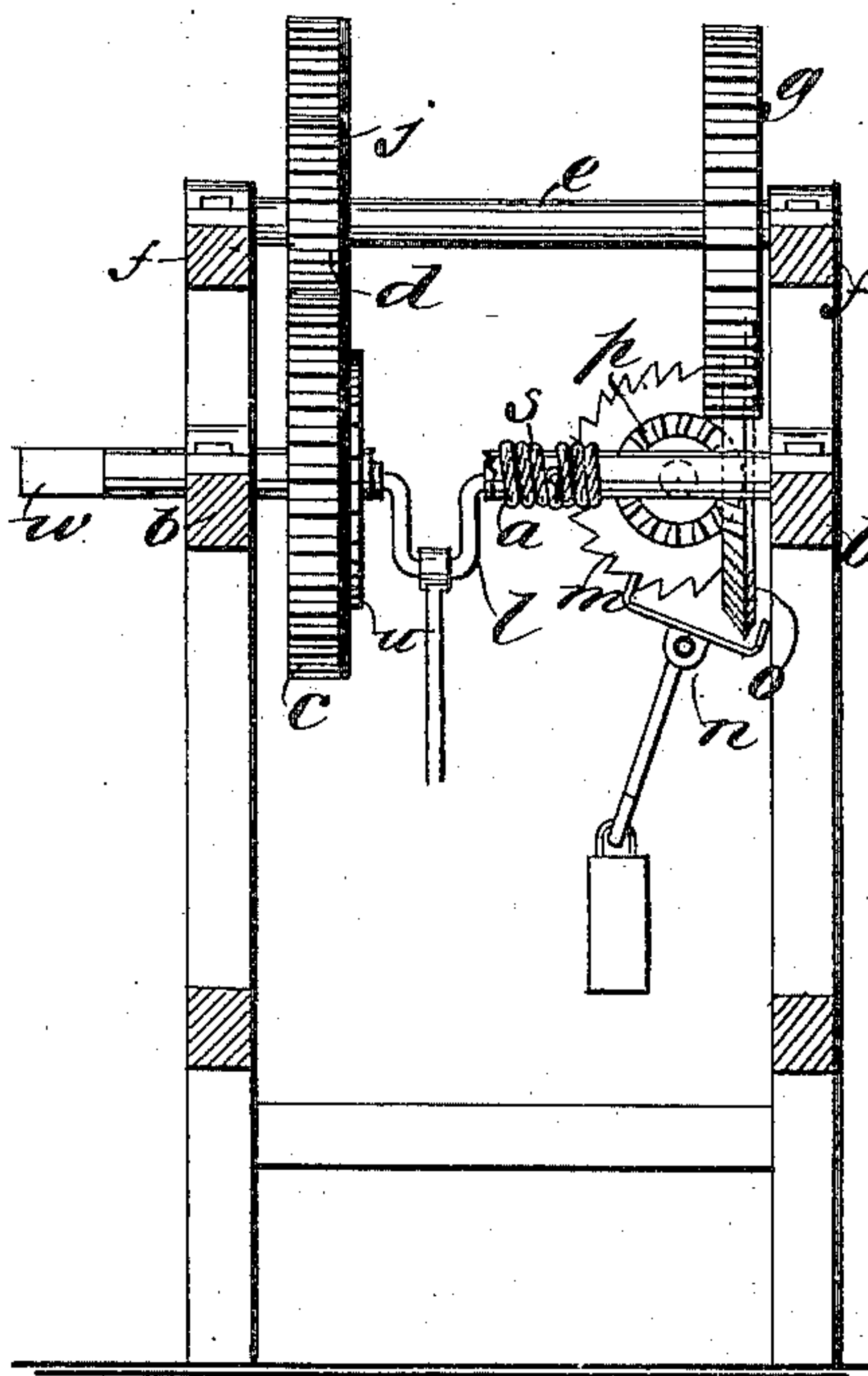


Fig. 3.



WITNESSES:

Francis M. Apple
C. Sedgwick

INVENTOR:

W. J. Allen
BY *Munn & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM J. ALLEN, OF NORBORNE, MISSOURI.

MOTOR.

SPECIFICATION forming part of Letters Patent No. 313,641, dated March 10, 1885.

Application filed August 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. ALLEN, of Norborne, in the county of Carroll and State of Missouri, have invented a new and Improved Motor, of which the following is a full, clear, and exact description.

My invention consists of an improved contrivance of apparatus, comprising a weight and drum, multiplying train, and a regulating-escapement, for a motor to operate a pump or other device, as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved motor. Fig. 2 is a side elevation, and Fig. 3 is a sectional elevation.

I make a small frame of wood, varying in size according to the capacity of the power required, and mount the drum-shaft *a* on a pair of beams, *b*, a short distance below the top of said frame, gearing said shaft by a wheel, *c*, with a pinion, *d*, on an intermediate shaft, *e*, mounted on the top beams, *f*, of said frame, and gearing by wheel *g* with the pinion *h* on another intermediate shaft, *i*, also mounted on the top beams of said frame, and this shaft gears by the wheel *j* with the pinion *k* on the crank-shaft *l*, which is mounted on the beams *b* under the shaft *h*. With this crank-shaft I gear the escapement-wheel *m*, having a pendulum-escapement, *n*, by the bevel-wheel *o* and pinion *p*, thus making a simple and efficient gear-train for the driving-crank and an equally simple pendulum-regulator therefor, the said train being worked by the weight *q* and cord *s*, suitably applied to the drum *a* and working

over the pulley *t*. The wheel *c* is connected to the drum-shaft by the usual ratchet, *u*, and spring-pawl *v*, to allow the drum to be turned backward for winding up the rope without running the gear-train backward. A crank is to be applied to the drum-shaft at *w* for winding up the rope. The pulley *t* may be elevated to any desired height, according to the time the machine is required to run; or the machine may be located in an upper story of a building.

The essential object of this contrivance is to provide a simple, cheap, and effective power that may be profitably used in lieu of the more expensive windmill-powers for working wells in isolated places for watering stock and the like purposes. Besides being cheaper and less liable to damage by wind-storms, it may also be located in valleys, barns, and other places where windmills will not work.

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

The improved weight-and-drum motor having the drum-shaft *a* and crank-shaft *l*, arranged on the lower beams, *b*, and gearing with intermediate shafts, *e* and *i*, arranged on the upper beams, *f*, of a supporting-frame, as described, the crank-shaft geared with the pendulum-escapement *m n*, and the drum-cord *s*, extended over the elevated pulley *t*, said drum being connected to the main wheel of the driving-train by the usual ratchet-and-pawl connection, *u v*, substantially as described.

WILLIAM J. ALLEN.

Witnesses:

S. M. MAXEY,
E. O. BETTS.