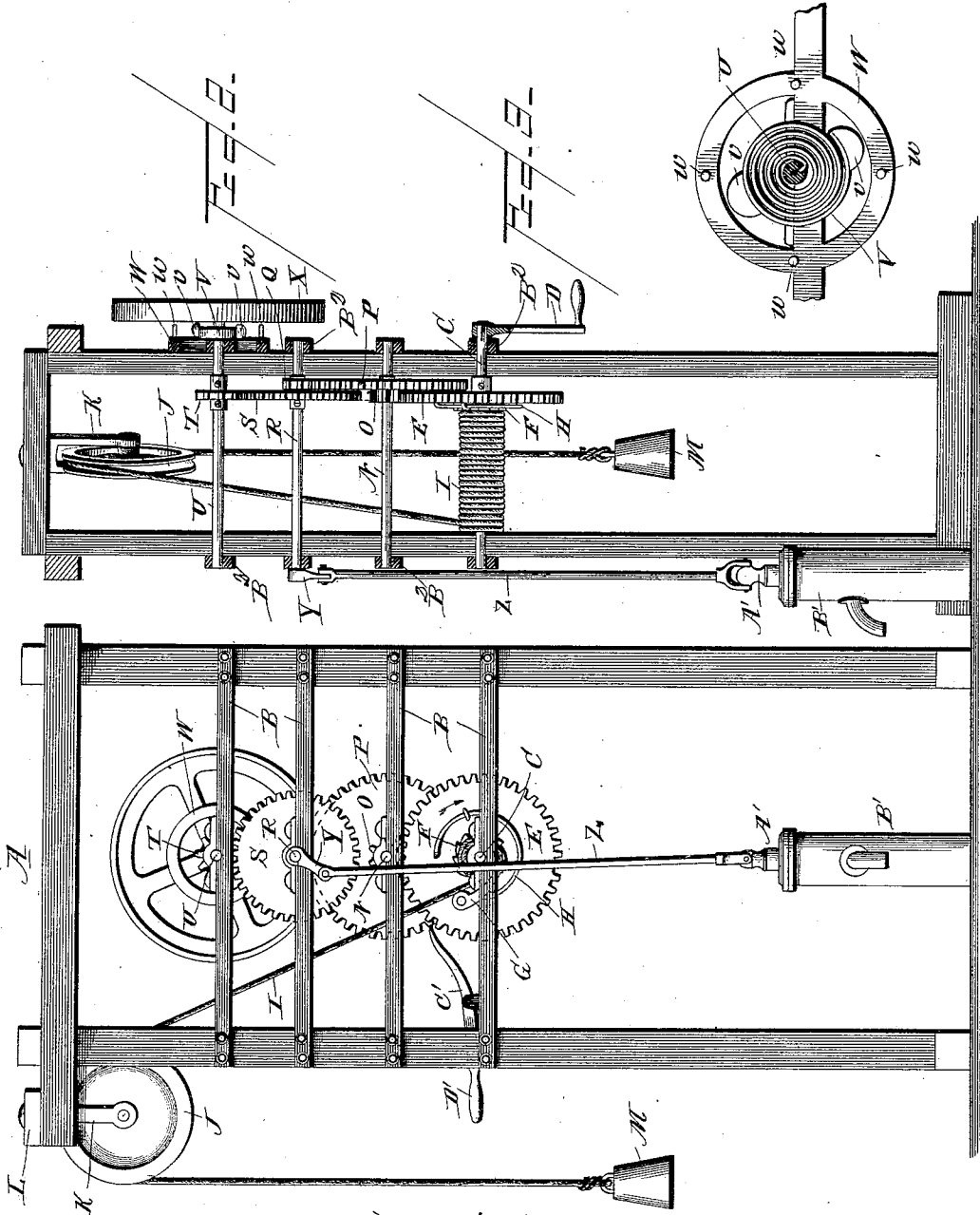


(No Model.)

W. D. WARE & M. I. SIMPSON.  
MOTIVE POWER FOR PUMPS, &c.

No. 434,537.

Patented Aug. 19, 1890.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM D. WARE AND MONROE I. SIMPSON, OF LATHROP, MISSOURI.

## MOTIVE POWER FOR PUMPS, &c.

SPECIFICATION forming part of Letters Patent No. 434,537, dated August 19, 1890.

Application filed May 27, 1890. Serial No. 353,371. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM D. WARE and MONROE I. SIMPSON, of Lathrop, Clinton county, Missouri, have invented certain new and useful Improvements in Motive Power for Pumping and other Purposes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to an improvement in motive power; and it consists in the novel construction and arrangement of devices, as will be readily understood from the following specification, taken in connection with the drawings.

Our object is to provide a motive power to be applied to pumps, machinery, &c., to be operated either by weight, as shown in the drawings, or by spring-power secured in any suitable manner, as will be readily understood.

Referring to the drawings, Figure 1 represents a side elevation of our invention as adapted for pumping. Fig. 2 is an end view of the same. Fig. 3 is a view showing the governor arrangement.

Similar letters refer to similar parts in all of the figures, in which—

A represents the frame-work, to which is secured the horizontal side bars B.

C represents the horizontal shaft, the outer end of which is squared and adapted to receive the end of the crank D.

E represents a cog-wheel secured upon the said shaft and having secured upon its face the ratchet F, engaged by the pawl G, which is held in place by the spring H, secured upon the face of the cog-wheel E. Wound upon the drum of said axle is the rope I, which passes over the idle pulley J, journaled loosely between the arms of the hanging bracket K, which is swiveled at its upper end to the cross-bar L. The lower end of the rope I has secured to it the weight M. The cog-wheel E engages with the pinion O, which is secured upon the face of the cog-wheel P, which is secured upon the shaft N, the end of which rests in the bearings B<sup>2</sup> on the frame. Engaging with the cog-wheel P is a pinion Q, secured to the cog-wheel S, which is secured upon the shaft R, journaled in bearings B<sup>2</sup> in the frame. The cog-wheel S engages the pinion T, secured upon the shaft U, which carries the fly-wheel

X on its outer end. Secured to the shaft U, between the fly-wheel and the bearings B<sup>2</sup>, is the coiled spring V, having weights *v* thereon, which will, upon a rapid rotation of the shaft U, be thrown outward and will strike the lugs or projections *w* on the casting W, thus checking its speed and serving as a governor, the casting W being secured to the supporting-frame, as shown.

Secured on the outer end of the shaft R on the side opposite to the crank-handle is the crank-arm Y, which is secured to the upper end of the pitman-rod Z, which is secured at its lower end to the piston A' of the pump B'.

Pivoted between ears secured upon the lower bar B, on the side nearest the cog-wheel E, is a lever C', which, being pivoted forward of its center, is normally held out of engagement with the cog-wheel E. This lever is provided with a handle D'.

When enough of water is procured, the operation of pumping is easily stopped by the simple upward movement of the handle D', which causes the front end of said lever to engage with the teeth of the cog-wheel E. When water is needed, the action is reversed, allowing the weight to descend and the mechanism to operate.

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

1. In a governor, the combination, with a revolving shaft, of a coiled spring carried thereby having weights upon its sides and fixed lugs against which the said weights will strike, as described.

2. The combination, with a series of geared shafts carried by a suitable frame, of a motive power connected to one of the end shafts of the said train, means for transmitting motion from an intermediate shaft, a spring carried by the remaining end shaft, weights upon the sides of the said spring, and a casting secured to the supporting-frame and having lugs thereon adapted to be struck by the said weights, as described.

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

WILLIAM D. WARE.  
MONROE I. SIMPSON.

Witnesses:

JOHN R. SHREWSBURY,  
MICHAEL W. GIDLEY.