

(No Model.)

J. G. BALL.  
WEIGHT MOTOR.

No. 549,425.

Patented Nov. 5, 1895.

fig: 1.

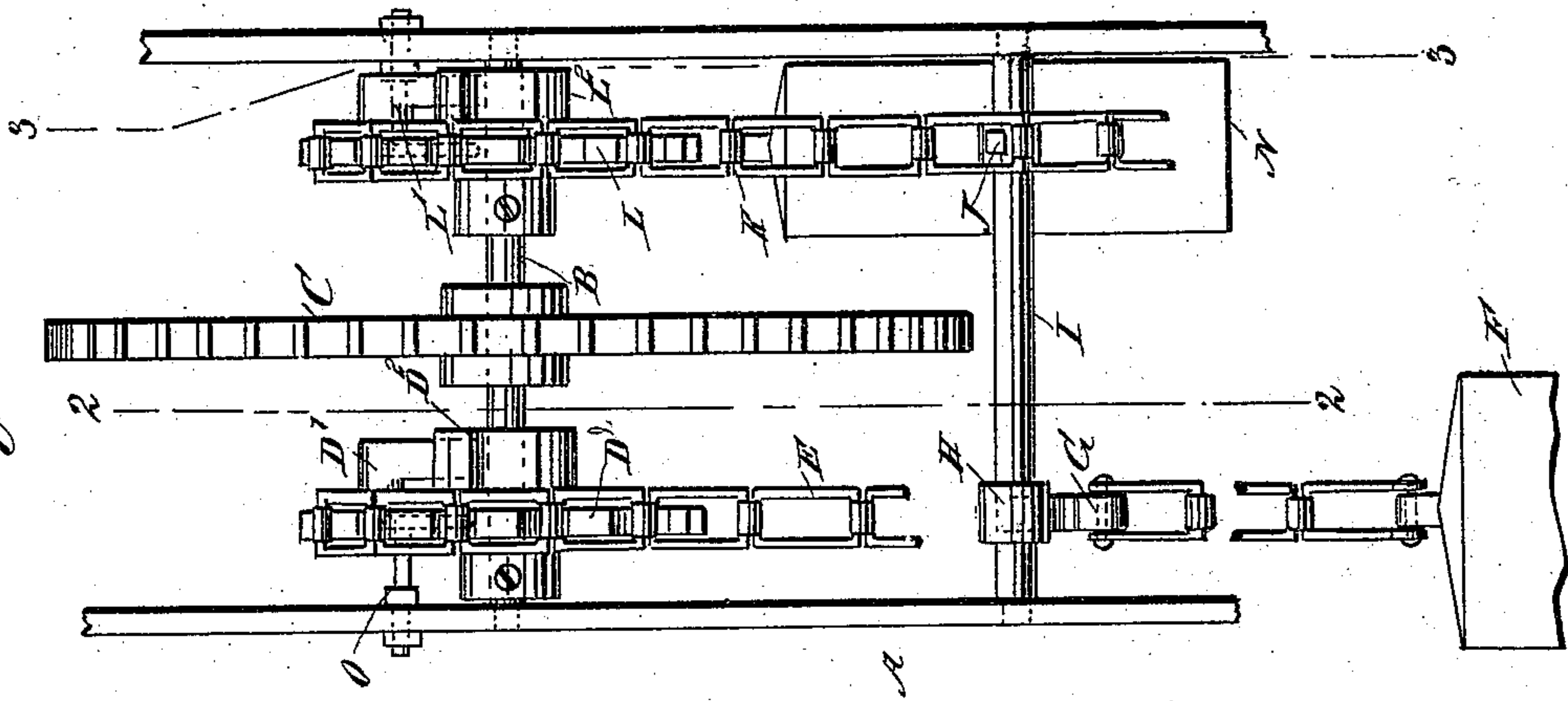


fig: 3.

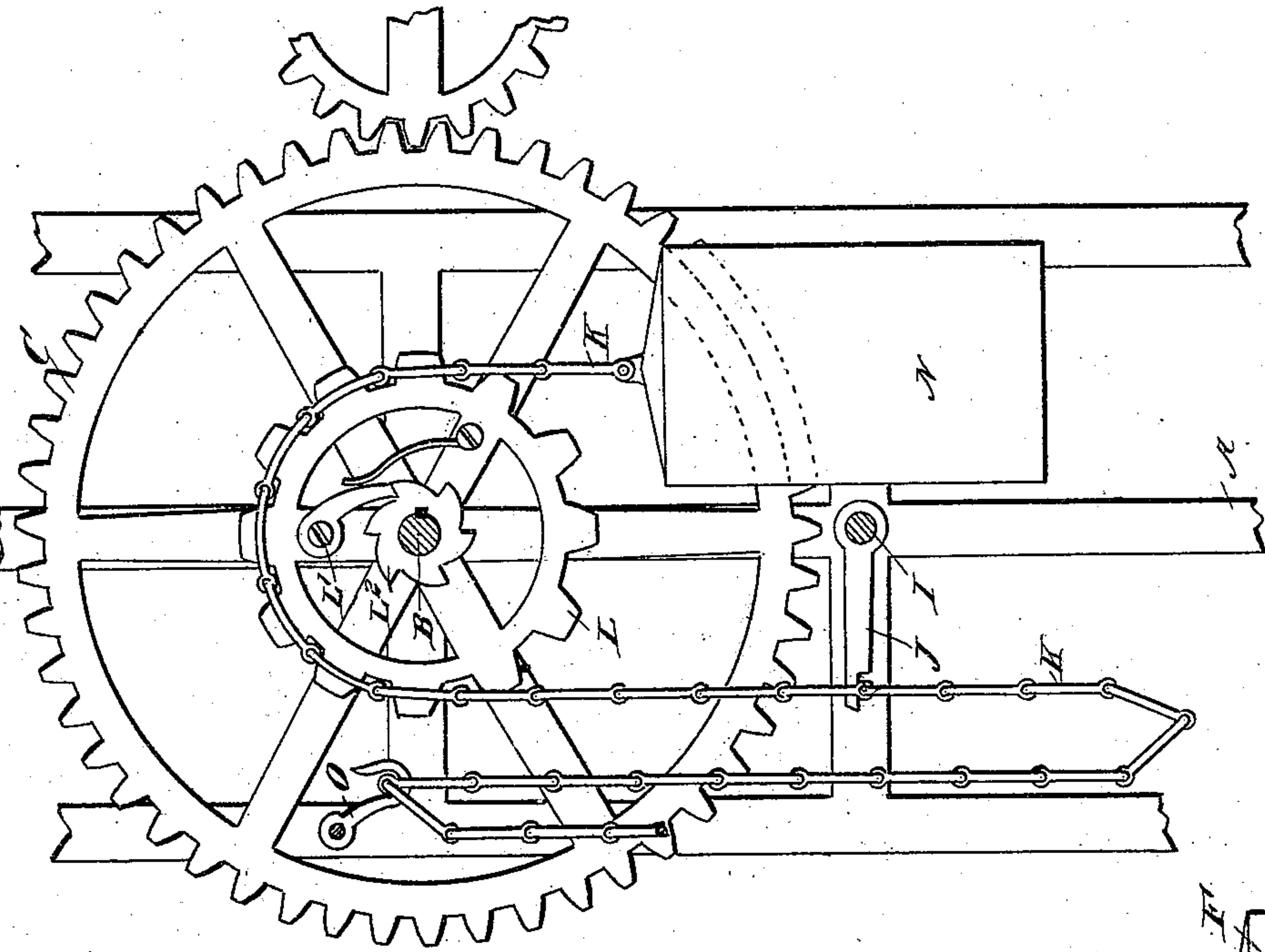
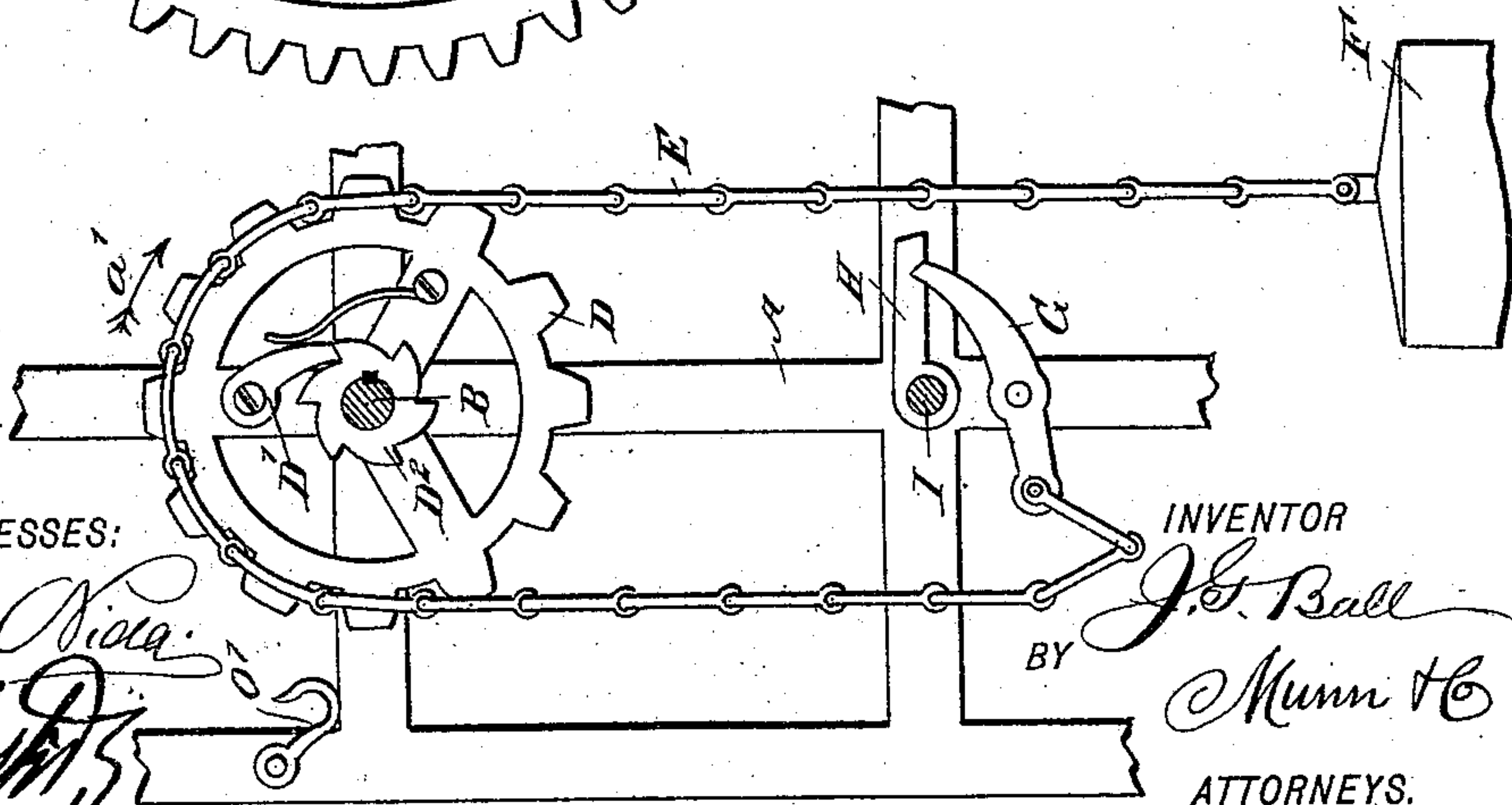


fig: 2.



WITNESSES:

Chas. Viola  
H. B. Ball

INVENTOR

J. G. Ball

BY

Munn & Co

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

JOHN GREEGE BALL, OF CHESTERVILLE, OHIO.

## WEIGHT-MOTOR.

SPECIFICATION forming part of Letters Patent No. 549,425, dated November 5, 1895.

Application filed February 26, 1895. Serial No. 539,754. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN GREEGE BALL, of Chesterville, in the county of Morrow and State of Ohio, have invented a new and Improved Weight-Motor, of which the following is a full, clear, and exact description.

The invention relates to weight-motors such as shown and described in the Letters Patent of the United States, No. 493,053, granted to me on March 7, 1893.

The object of the present invention is to provide certain new and useful improvements in weight-motors, whereby a series of weights are successively put in action, so that the motor is insured to run for a considerable length of time without requiring rewinding of the weights.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

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

Figure 1 is an end elevation of the improvement. Fig. 2 is a sectional side elevation of the same on the line 2 2 of Fig. 1, and Fig. 3 is a similar view of the same on the line 3 3 of Fig. 1.

The improved weight-motor, as illustrated in the drawings, is provided with a suitably-constructed frame A, in which is journaled a shaft B, carrying a gear-wheel C, connected with the machinery to be driven. On the shaft B is mounted to rotate loosely a sprocket-wheel D, carrying a spring-pressed pawl D' in mesh with a ratchet-wheel D<sup>2</sup>, keyed on the shaft B, so that the shaft is rotated in the direction of the arrow *a'* whenever a movement in this direction is given to the said wheel D. Over the wheel D passes a chain E, supporting at one end the weight F, serving as part of the motive power, the other end of the chain being connected with a lever G, fulcrumed on the frame A and engaging with its free end a notch in an arm H, held on the tripping-shaft I, mounted to turn in suitable bearings in the frame A. This shaft I is held stationary by the tripping-lever G, engaging

the arm H; but as soon as the weight runs down and nears its lowermost position then the pull exerted by the left-hand run of the chain E on the lever G causes the latter to disengage the notch in the arm H to unlock the shaft I. On the shaft I is secured a second arm J, engaging one of the links of a chain K, passing over a sprocket-wheel L, mounted loosely on the shaft B, similarly to the sprocket-wheel D, and carrying a spring-pressed pawl L' in mesh with a ratchet-wheel L<sup>2</sup>, keyed on the shaft B.

The chain K carries a weight N, which when in its uppermost position, as shown in Fig. 3, is held in this position, together with the wheel L, by a link of the chain being hooked onto the arm J. The remainder of the chain hangs loosely or is hung upon a hook O, held on the frame A of the machine. A similar hook O' is employed for the chain E.

Now it will be seen that when the shaft I is unlocked, as previously described, at the time the weight F moves into its lowermost position then the arm J unlocks the chain K to permit the weight N to rotate the wheel L to cause a continuation of the rotary movement of the shaft B in the direction of the arrow *a'* at the time the weight F has completely run down.

Any number of such devices as described may be connected one with the other, so that one weight-chain when nearing its run-down position releases the next succeeding wound-up weight-chain to insure continuous running of the main shaft B until all the weights have run down.

By employing the hooks O and O' the chains can be hooked at any desired parts of their length to cause a quicker or shorter running down of the chain. By this arrangement the operator can set the motor to run for a certain length of time.

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

1. A weight motor, comprising a shaft, sprocket wheels thereon, weighted chains passing around said sprocket wheels, a tripping shaft provided with an arm engaging a link of one of the chains, and means controlled

by the other weighted chain for locking the said tripping shaft, substantially as described.

2. A weight motor, comprising a shaft, 5 sprocket wheels on the shaft, weighted chains passing around the sprocket wheels, a tripping shaft provided with two arms, one of which engages a link of one of the chains, and

a pivoted lever connected with the other chain and engaging the other arm of the tripping shaft to lock said shaft, substantially as described.

JOHN GREEGE BALL.

Witnesses:

FRANCIS R. LORD,  
JUDSON LENERING.