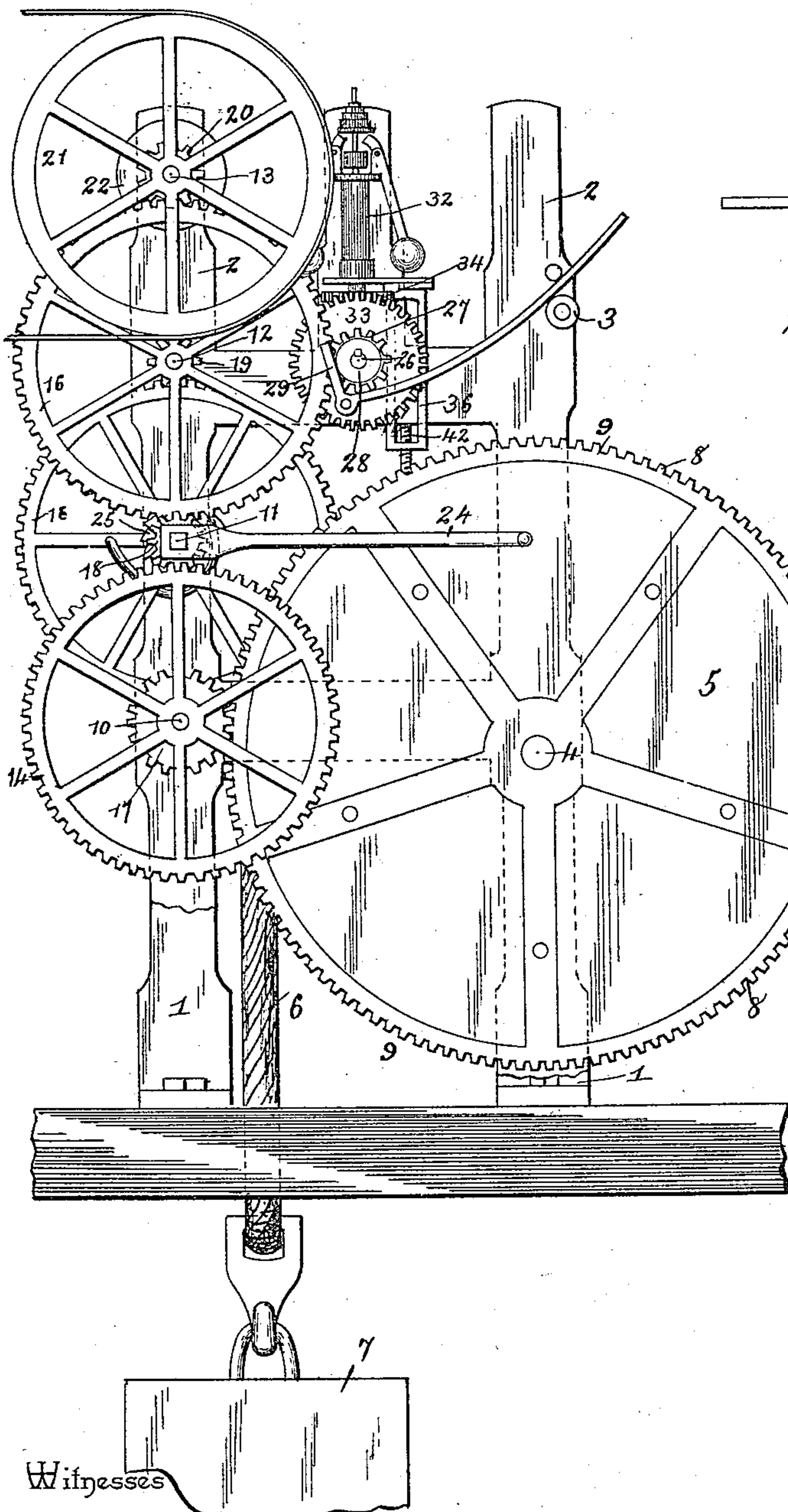


2 Sheets—Sheet 1.

No. 441,143.

Patented Nov. 25, 1890.

FIG. 1.

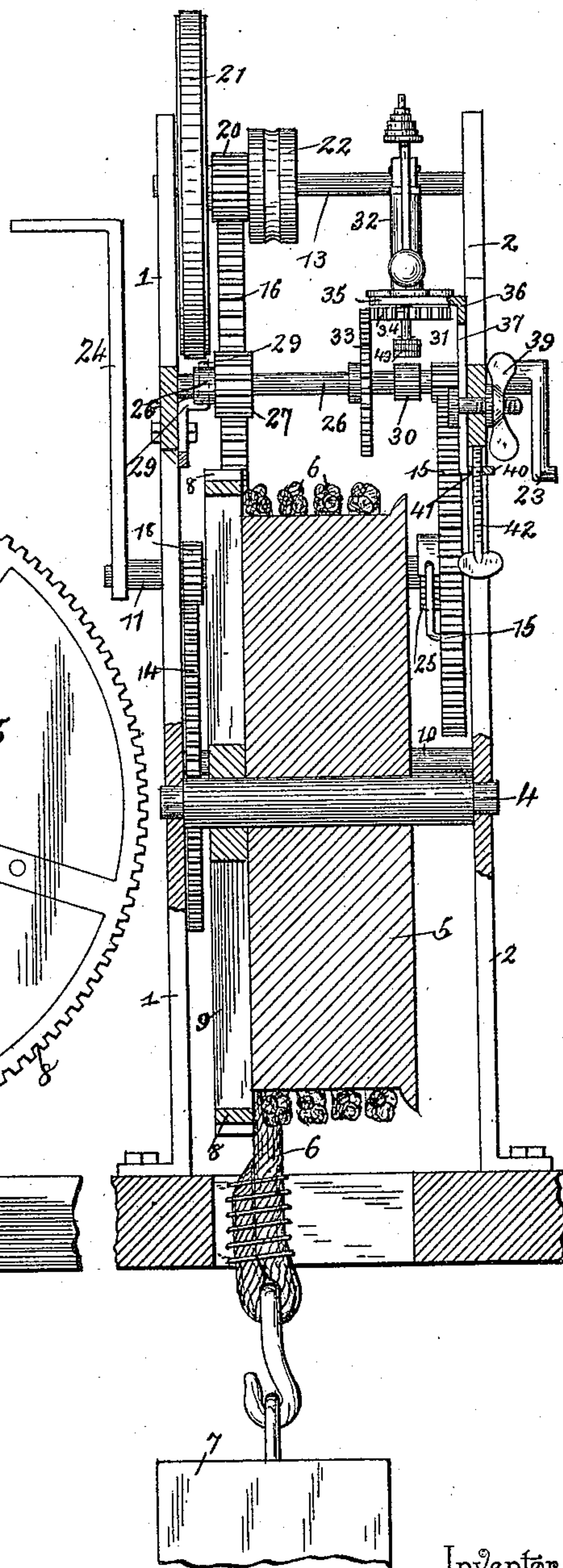


Witnesses

Jas. R. McEachran

H. F. Riley

FIG. 2-



Inventor

Henry D. Deschler

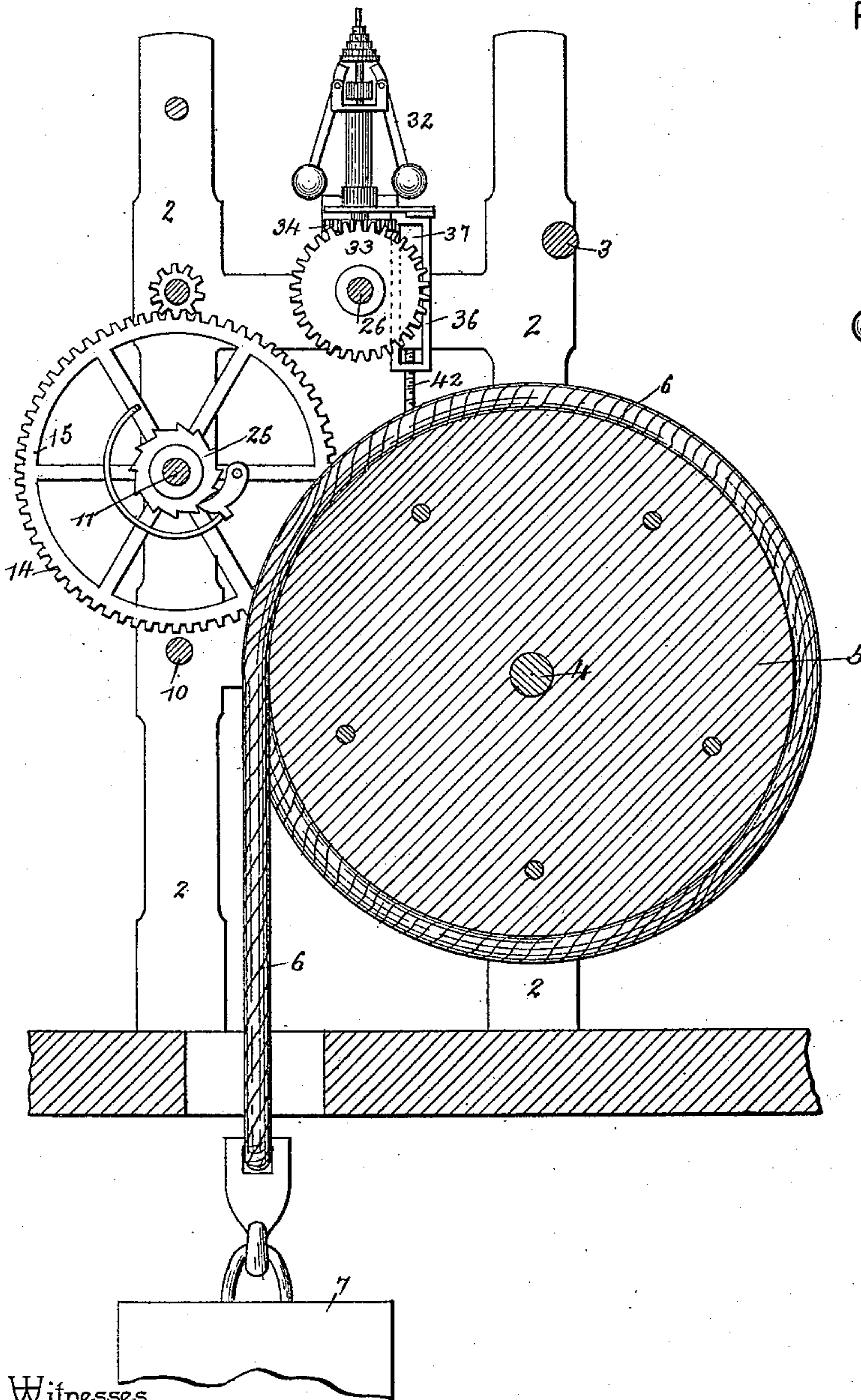
By his Attorneys,

Cash on h/o.

2 Sheets—Sheet 2.

Patented Nov. 25, 1890.

FIG - 4 -



Witnesses

Inventor

Jas. H. McClathran  
H. J. Riley

By *his* Attorneys,

Henry D. Deschler

Chas. Snow Geo.



# UNITED STATES PATENT OFFICE.

HENRY D. DESCHLER, OF EMAUS, PENNSYLVANIA.

## MOTOR.

SPECIFICATION forming part of Letters Patent No. 441,143, dated November 25, 1890.

Application filed July 5, 1890. Serial No. 357,824. (No model.)

*To all whom it may concern.*

Be it known that I, HENRY D. DESCHLER, a citizen of the United States, residing at Emaus, in the county of Lehigh and State of Pennsylvania, have invented a new and useful Motor, of which the following is a specification.

The invention relates to improvements in motors.

The object of the present invention is to simplify and improve the construction of motors and increase the ease and regularity of their motion. Furthermore, the object of the invention is to provide a weight-motor capable of being readily used to run pumps and the like, where engines are usually employed.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a side elevation of the motor constructed in accordance with this invention. Fig. 2 is a transverse sectional view. Fig. 3 is a longitudinal sectional view. Fig. 4 is a detail view of the adjustable bracket and the governor.

Referring to the accompanying drawings, 1 and 2 designate the sides of a frame secured together near their upper rear ends by a cross-bar 3, and having journaled in suitable bearings near its rear end a shaft 4, carrying a drum 5, upon which a rope 6 is secured and wound, and has one end provided with a weight 7, by means of which the motor is propelled; and the said drum is provided upon one side with peripheral teeth 8, that are preferably formed by securing a large cog-wheel 9 to the shaft 4 and arranging it at one side of the drum and the motion of the drum is transmitted by a series of parallel horizontal shafts 10, 11, 12, and 13, that carry cog-wheels 14, 15, and 16, and pinions 17, 18, 19, and 20; and the top shaft 13 is provided with a balance-wheel 21 and a pulley 22, which enables the power of the motor to be readily applied as desired; and the next lower shaft 12 is extended beyond the frame and has secured to it a crank-arm 23, which may be conveniently connected to a pump rod, or the like;

and the motor is especially adapted for use at wells, and the weight may descend in the well at the side of the pump without interfering therewith and without inconvenience at all, and the size of the weight may be varied according to the power desired to be obtained from the motor. One of the shafts, preferably the second one 11, is extended beyond the frame and has the end 24 squared, to be engaged by a suitable crank-handle to turn the shaft and wind the weight; and the said shaft is provided with a ratchet-wheel 25, which permits said shaft to be rotated and the weight to be wound up without turning the cog-wheel 15. When only a light weight is employed, the lowest shaft may form the winding-shaft, and by the above construction an additional winding shaft is rendered unnecessary.

In the rear of the cog-wheel 16 is journaled a shaft 26, that receives motion from the said cog-wheel by a pinion 27, and is provided near one end, between the pinion 27 and the adjacent side of the frame, with a friction-wheel 28, arranged to be engaged by a brake 29, and near its other end with a friction-wheel 30, adapted to be engaged by the presser-foot 31 of a governor 32, which receives motion from the shaft 26 by gears 33 and 34, and the presser-foot 31 is provided with sole-leather disks 43. The governor 32 is secured to a horizontal arm 35 of a bracket 36, that is adjustably secured to the side 1 of the frame, and is adapted to be moved vertically to raise and lower the governor and regulate the pressure of the governor upon the friction-wheel 30, and thereby control the machine. The vertical arm 37 is provided with a longitudinal slot 38, that is engaged by a set-screw 39 of the frame, and the lower end of the said vertical arm is provided with a lug 40, which is provided with a threaded perforation 41, to receive an adjusting-screw 42, that is swiveled to the frame and moves the bracket in its adjustment, and after the governor has been once properly adjusted the set-screw 39 can be tightened and the bracket secured to the frame without strain upon the adjusting-screw.

It will readily be seen that the motor is simple and comparatively inexpensive in con-

struction and can be readily applied where stationary engines are employed, and is capable of running with great ease and regularity.

What I claim is—

- 5 1. In a motor, the combination of the frame, the shaft 26, carrying the friction-wheel 30, the bracket adjustably secured to the frame, and the governor mounted in the bracket and having its presser-foot arranged to engage  
10 the friction-wheel, substantially as described.
2. In a motor, the combination of the frame, the shaft 26, provided with a friction-wheel 30, the bracket having a horizontal arm 35 and a vertical arm 37, provided with a longi-  
15 tudinal slot, and a lug arranged at the lower

end of the arm and provided with a threaded opening, the set-screw 39 engaging the longitudinal slot, and adjusting-screw swiveled to the frame and engaging the threaded opening of the lug, and the governor mounted upon 20 the horizontal arm of the bracket and having its presser-foot arranged to engage the friction-wheel, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 25 presence of two witnesses.

HENRY D. DESCHLER.

Witnesses:

SIMON H. JONES,  
C. R. JAMES.