

(No Model.)

R. T. WALTON.
ELECTRIC GAS LIGHTER.

No. 428,433.

Patented May 20, 1890.

Fig. 4.

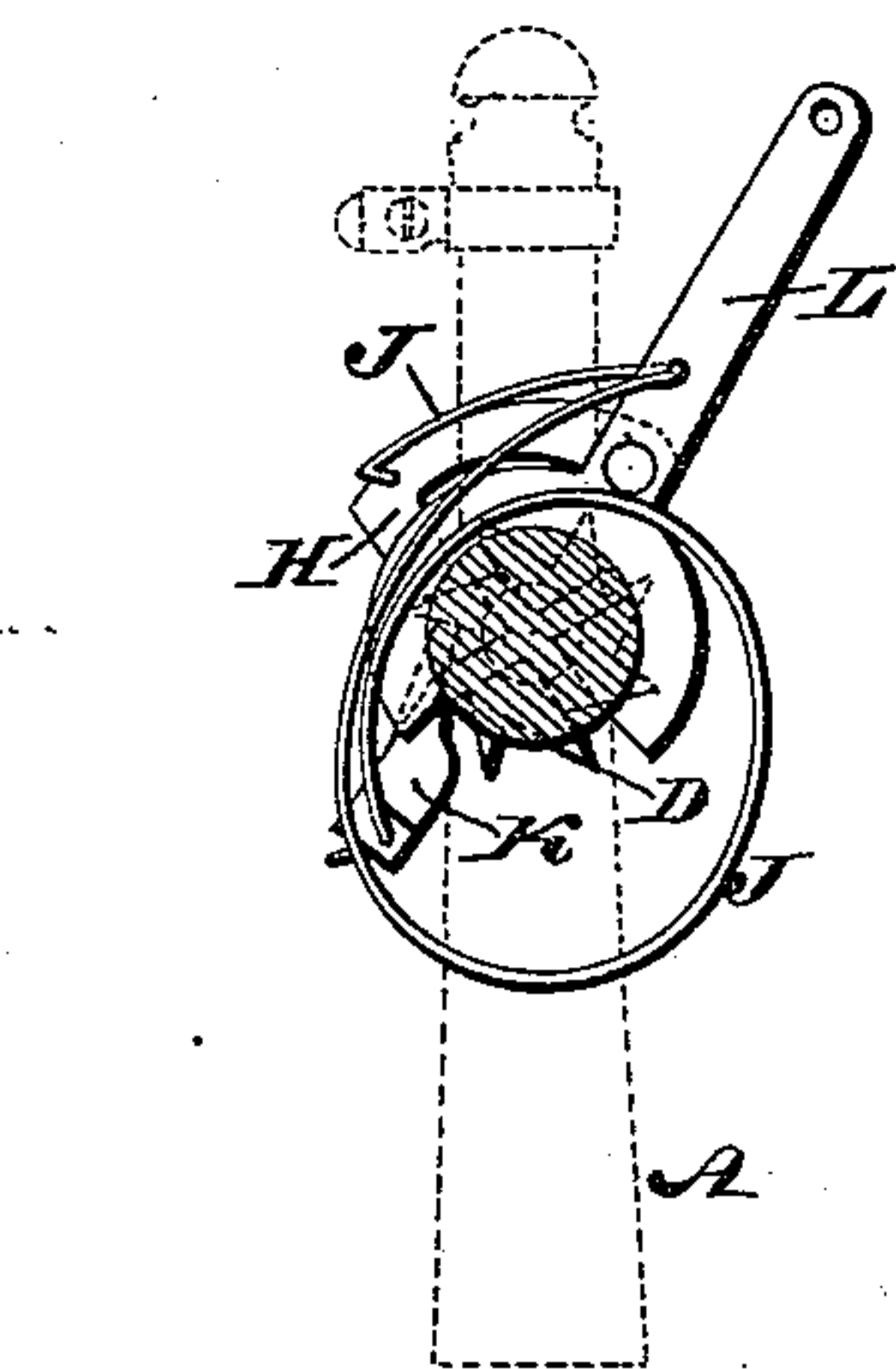


Fig. 1.

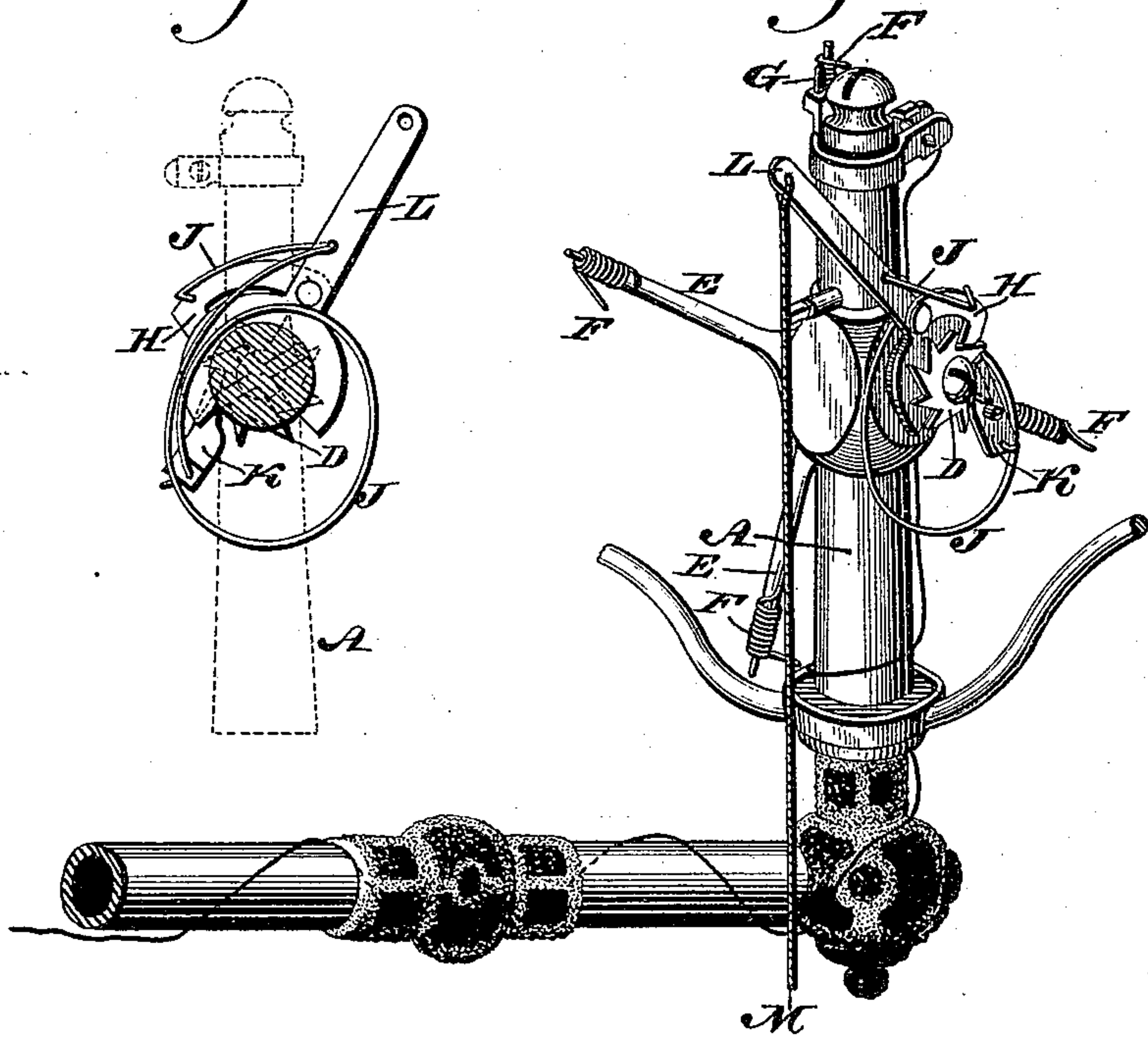


Fig. 2.

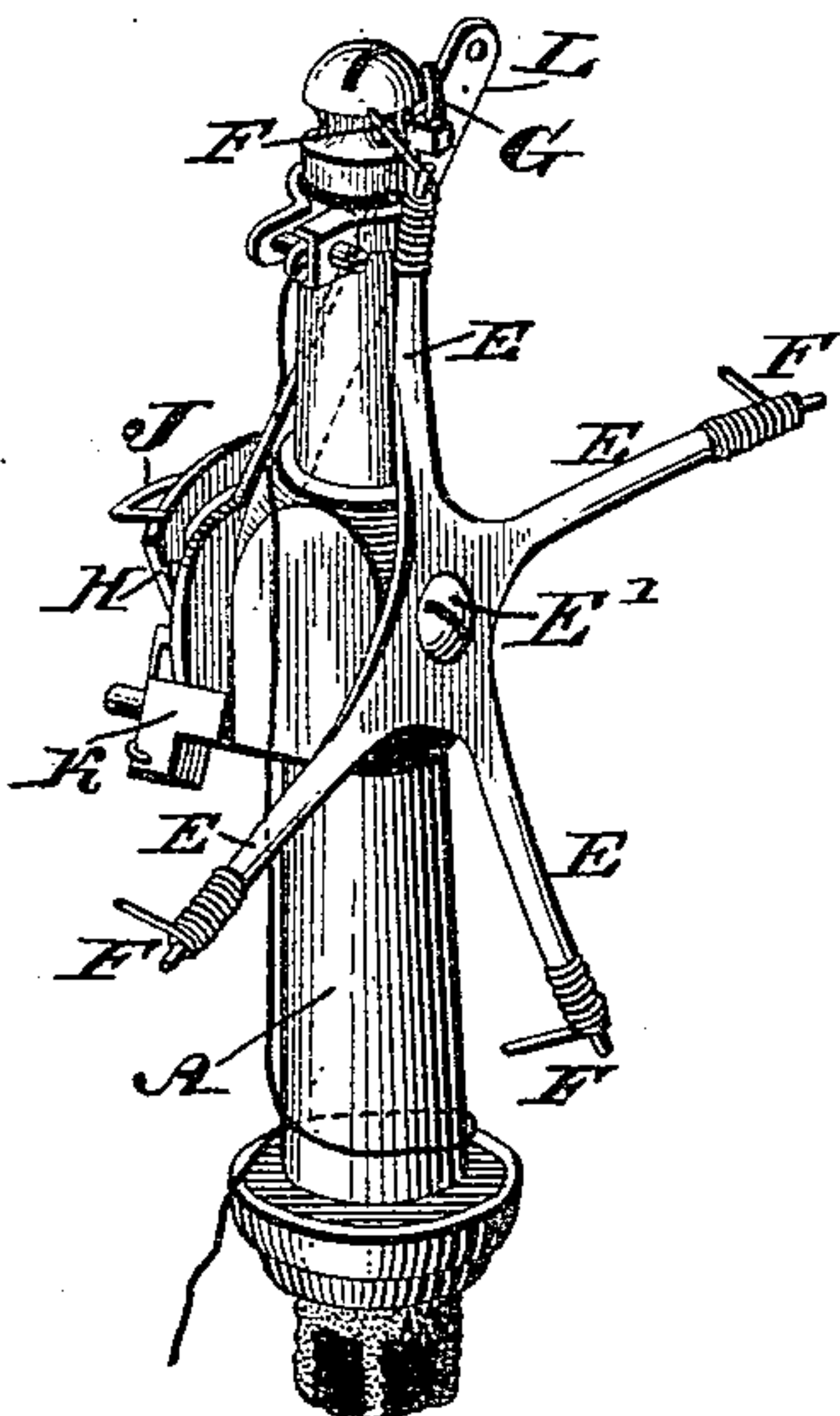
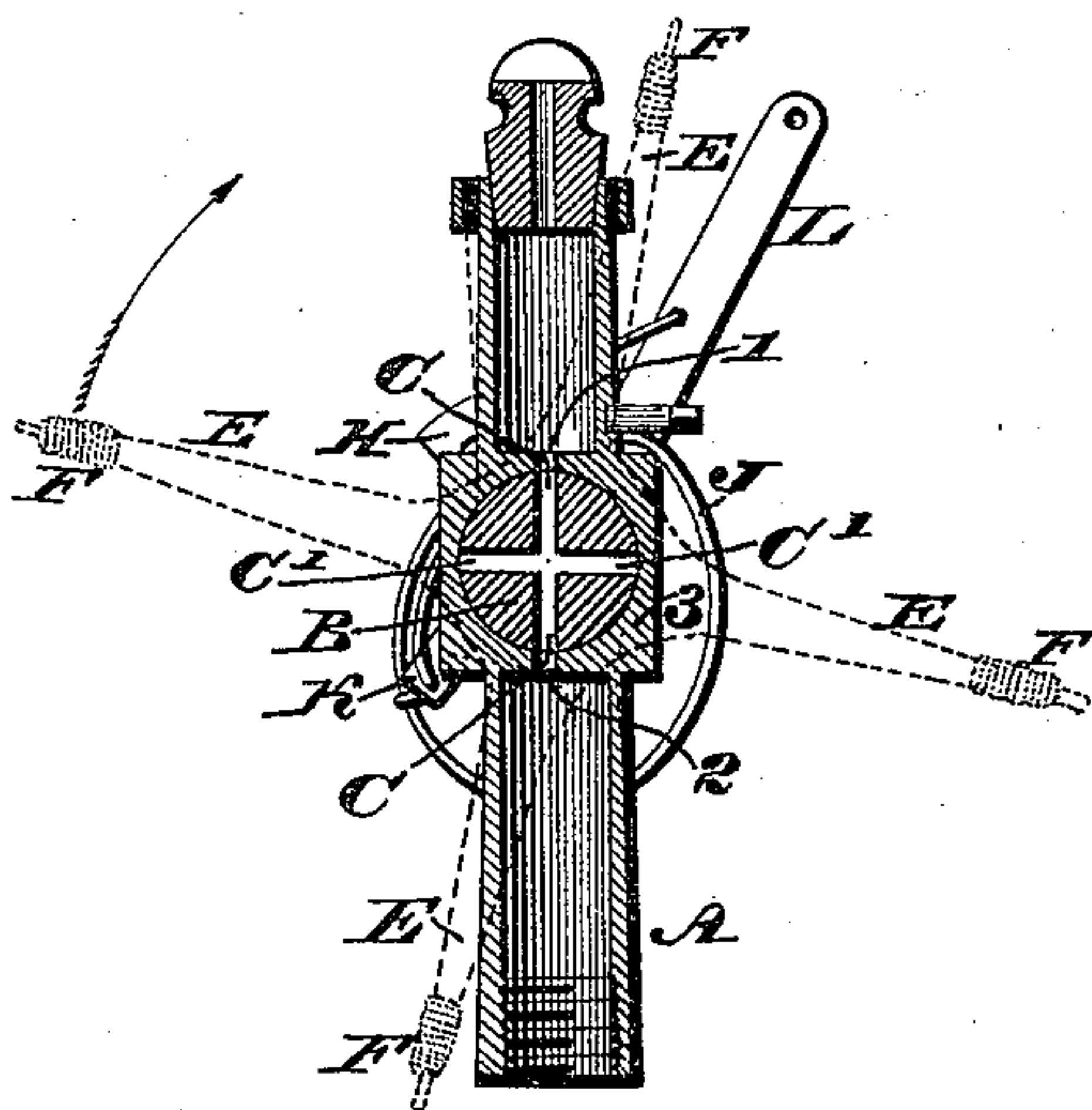


Fig. 3.



WITNESSES:

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ELECTRIC GAS-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 428,433, dated May 20, 1890.

Application filed July 18, 1889. Serial No. 317,898. (No model.)

To all whom it may concern:

Be it known that I, ROBERT T. WALTON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented new and useful Improvements in Electric Gas-Lighters, which improvements are fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in electric gas-lighting devices; and it consists in a burner provided with a rotatable key having ports therein, the latter adapted to register with the opening in the burner, arms detachably secured to said key at one end and a ratchet secured at the other end, a dog with an arm pivoted to the burner, and an electrode secured to the ends of the detachably-secured arms.

It further consists of the combination of parts herein set forth and claimed.

Figures 1 and 2 represent perspective views of an electric gas-lighter embodying my invention. Fig. 3 represents a vertical section thereof. Fig. 4 represents a vertical section of a portion thereof.

Similar letters and numerals of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a gas-burner, which, excepting the features of my invention applied thereto, is in general respects of usual construction.

B designates the plug or key of the burner, the same having ports C C', which in the present case are two in number and intersect at the middle of the key, as will be clearly seen in Fig. 3.

Connected with one end of the key is a ratchet D, and with the other end are arms E, the latter having secured to their ends the wipers F, which are adapted to engage with the electrode G at the tip of the burner, said electrode being suitably insulated from the burner and connected with a wire, as usual in such cases. The ratchet D has in the present case eight teeth, and with either of the same engages a dog H, which is pivoted to the burner and held against the engaging tooth by a spring J, suitably applied. To the burner is also pivoted a spring-pressed check-pawl K, which engages with either of the teeth of the

ratchet and prevents reverse rotation of the latter.

The dog H has an arm L secured to or formed with it, whereby the same may be readily operated by a chain or cord M, whose lower end hangs within convenient reach. In the present case the spring J presses against both the dog H and pawl K.

The operation is as follows: When the parts are in position shown in Fig. 3, the wiper of one of the arms E has just cleared the electrode G, thus creating a spark at the tip, and simultaneously therewith the port C is placed in vertical position, so as to be in communication with the burner, the gas thus being turned on and ignited, it being noticed that the port C is in communication with ports 1 and 2 at the top and bottom of the seat portion 3 of key B. When the gas is to be turned off, the arm L is drawn down, whereby the dog H rotates the ratchet D the distance of one tooth and causes the rotation of the key B a corresponding extent, or one-eighth, whereby the port C leaves the ports 1 and 2 of the seat 3 and the solid portion of the periphery of the key between the ports C C' covers the ports 1 and 2, thus cutting off the gas, the advanced arm E and the key then remaining at rest. Another operation of the arm L and one-eighth revolution of the ratchet D carry one of the said arms E past the tip of the burner, causing contact of the wiper with the electrode and the creation of another spark. Simultaneously therewith the port C' is brought to a vertical position and placed in communication with the ports 1 and 2, thus turning on the gas and admitting it to the tip, where it is ignited or lighted. The alternate lighting and extinguishing of the gas may be continued by the operation of the arm L, it being evident that the number of teeth of the ratchet D, the ports C C', and arms E may be varied, so that a less degree of rotation of the key and arms may accomplish the operation of lighting and extinguishing, as desired, the key, however, being rotated in the same direction to accomplish the two results. The arms E are movably connected with the key by the screw E', whereby they may be set so as to adjust the wipers with nicety in relation to the electrode.

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

1. An electric gas-lighter consisting of a
5 burner having a key with ports, an electrode at the tip of the burner, a series of arms connected with the key, provided with wipers, and means for rotating the key, whereby the
10 gas may be cut off and turned on by operation of the key in the same direction and the wipers successively contacted with the electrode, substantially as described.

2. In an electric gas-lighter, the key of the
15 gas-burner, having a ratchet and arms connected with it, said arms being provided with wipers for engagement with an electrode on the burner, the burner having mounted on it a dog and check-pawl, which engage with

said ratchet, whereby the key is intermittently rotated in the same direction, substantially as described. 20

3. In an electric gas-lighting device, the combination of a burner with an electrode at or near its top and having a rotatable key with ports therein, a series of arms with wipers 25 at their ends, said arms detachably secured at one end of said key and adjustable thereon, a ratchet at the other end of the key, a dog pivoted to the burner and having an arm integral therewith, a detent engaging said 30 ratchet, and a spring bearing against said dog, substantially as described.

ROBERT T. WALTON.

Witnesses:

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