

J. SIMMERMAN.
GAS LAMP EXTINGUISHER.
APPLICATION FILED FEB. 4, 1909.

930,422.

Patented Aug. 10, 1909.

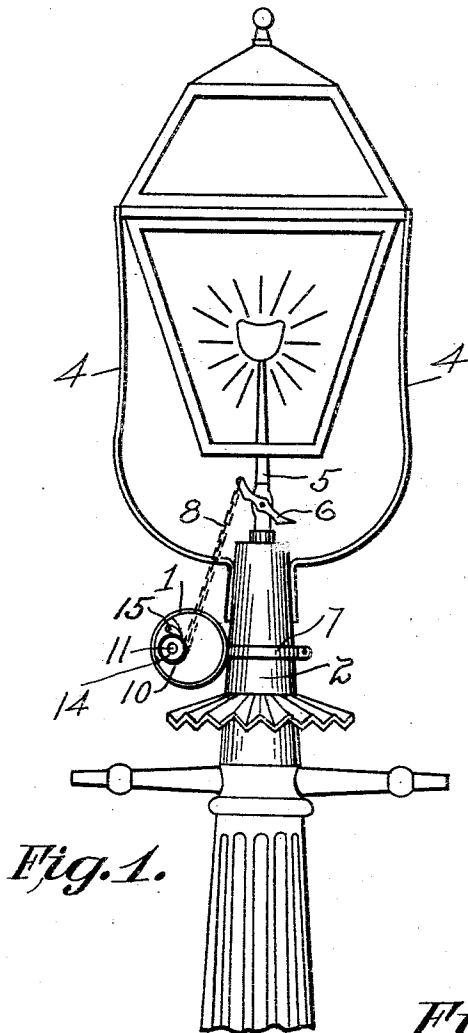


Fig. 1.

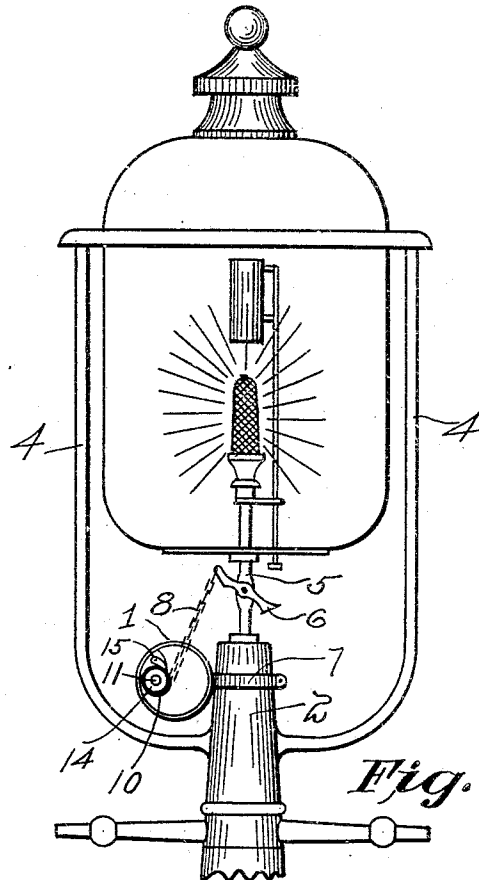


Fig. 2.

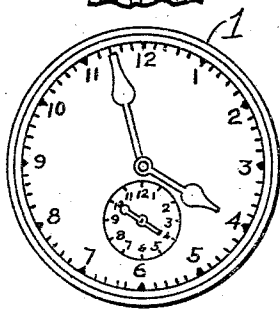


Fig. 3.

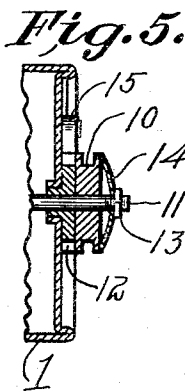


Fig. 5.

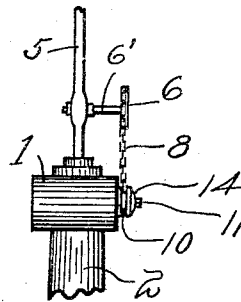


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN SIMMERMAN, OF DAYTON, OHIO.

GAS-LAMP EXTINGUISHER.

No. 930,422.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN SIMMERMAN, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Gas-Lamp Extinguishers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to new and useful improvements in gas light extinguishers and consists of an automatic gas light extinguisher for street lamps.

The object of the invention is to provide a simple and reliable cut-off which is operated in connection with clock mechanism to cut off the flow of gas to the burner at any definite time.

My improvements may be applied to any of the well-known street gas lamps, either of the antiquated or modern types.

In the accompanying drawings,—Figure 1, is a view of the upper portion of a street gas lamp of the more antiquated type, and in which my automatic clock-actuated cut-off is shown. Fig. 2, is a similar view of a more modern form of street gas lamps to which my automatic cut-off is applied. Fig. 3, is a face view of the clock. Fig. 4, is a detail view of the upper end of the lamp post and in which the length of the clock casing is shown. Fig. 5, is a sectional view of a portion of the clock mechanism which is directly involved in the cut-off mechanism.

In a detail description of the invention, similar reference characters indicate corresponding parts.

My automatic cut-off device may be conveniently applied to any of the well-known street gas lamps. It may be placed on the interior of the globe or exterior thereto and it may be inclosed in any suitable housing. These are mere details which do not necessarily involve the cut-off devices or their operation. In the drawings, I have located these cut-off devices in a most conspicuous manner in order that they may be the more readily seen and comprehended. The upper portion of a lamp post of any of the well-known constructions is shown in the drawings to support the removable sleeve portion

2 which usually supports the lamp by means of suitable arms extending therefrom and indicated in the drawings by 4. Regardless of the character of the lamp, the cut-off devices are practically the same and comprise a valve pin which extends in the path of the flow of gas through the pipe 5 to the jet. This pin is extended as at 6' Fig. 4, and has rigidly secured thereto a lever 6. In the incline position of this lever as shown in Figs. 1 and 2, the gas is supplied in one case to the conventional burner and in the other case to the more modern Welsbach burner. To one end of the lever 6 is attached the end of a suitable cable or chain 8 which is attached at its other end to a small grooved pulley 10 which is loose upon an extended portion 11 of the shaft of the alarm mechanism of a clock. The clock is of any of the common types, the mechanism of which is inclosed in a casing 1 which is supported on the upper end of the lamp post in any suitable way.

In the drawings, I have shown a metallic band 7 clamped around the upper portion of the lamp post and to which the clock is attached. The extended portion of the shaft 11 of the alarm mechanism has rigidly secured to it a ratchet wheel 12 which rotates therewith, and adjacent to the outer side of this ratchet wheel, the pulley 10 is located on said shaft 11. As before stated, the pulley 10 is loose upon said shaft but is maintained in sufficient frictional contact with the ratchet wheel 12 to insure the rotation of both elements in unison with the shaft 11. This frictional contact between the ratchet wheel and the pulley is maintained by a spring washer 14 which is on the outer end of the shaft 11 and is held in engagement with the outer side of the pulley 10 by means of a nut 13 which screws onto the outer end of said shaft. It will thus be seen that a sufficient connection between the pulley and the ratchet wheel is maintained to insure their moving in unison with the clock mechanism. When it is desired, however, to slacken the chain 8 after the clock mechanism has operated the lever 6 to extinguish the gas or light, and in order that the lever 6 may be operated to turn on the gas, the pulley 10 may be turned in the reverse direction by pulling on the chain 8 and thus caused to slip on the shaft 11. When said pulley is thus reversed to slacken the chain, the pawl 15 prevents similar movement being im-

parted to the ratchet wheel through the friction between said ratchet wheel and the pulley. The pawl 15 is pivoted to the end of the clock casing.

5 The operation of the device will be readily understood: The clock-alarm mechanism is previously set for operation at a predetermined time, and the operation thereof causes the shaft 12 to rotate a sufficient distance or extent to actuate the chain 8 and the lever 6, the latter as before stated, being attached to the extended portion 6' of the cut-off pin. The winding pulley 10 may be reversed after each operation to admit gas to the burner without interfering with any of the attachments. As before stated, the ratchet wheel 12 is fixed to the extended portion 11 of the shaft of the alarm-clock mechanism, but the pawl 15 prevents any reverse movement being imparted to said shaft through the friction between the pulley 10 and the ratchet wheel.

Having described my invention, I claim:

1. In an automatic cut-off for gas lamps, the combination with a burner tube, a cut-off pin controlling the flow of gas through said tube to the burner, and a lever on an extended portion of said pin, of a chain connected to one end of said lever, a pulley to which the other end of said chain is connected, a

ratchet wheel adjacent to said pulley, a shaft upon which the ratchet wheel is rigidly secured and the pulley is loosely mounted, means for maintaining the pulley in frictional contact with the ratchet wheel to move in unison therewith when the ratchet wheel is rotated with the shaft, and means such as the alarm mechanism of a clock for actuating the shaft.

2. In an automatic cut-off for gas lamps, the combination with a burner tube, a cut-off pin controlling the flow of gas through said tube to the burner, and a lever on an extended portion of said pin and through which the pin is actuated to cut off the flow of gas from or admit it to the burner, a chain connected to one end of said lever, a friction device under the control of clock mechanism for actuating said chain to operate the lever to cut off the gas, said friction device being arranged to permit the chain to slacken, and whereby said lever may be actuated to admit the gas to the burner.

In testimony whereof I affix my signature, in presence of two witnesses.

JOHN SIMMERMAN.

Witnesses:

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