L. BOORE.

Gas-Extinguisher for Street-Lamps.

No. 164,711. Patented June 22, 1875.

Fig: 1.

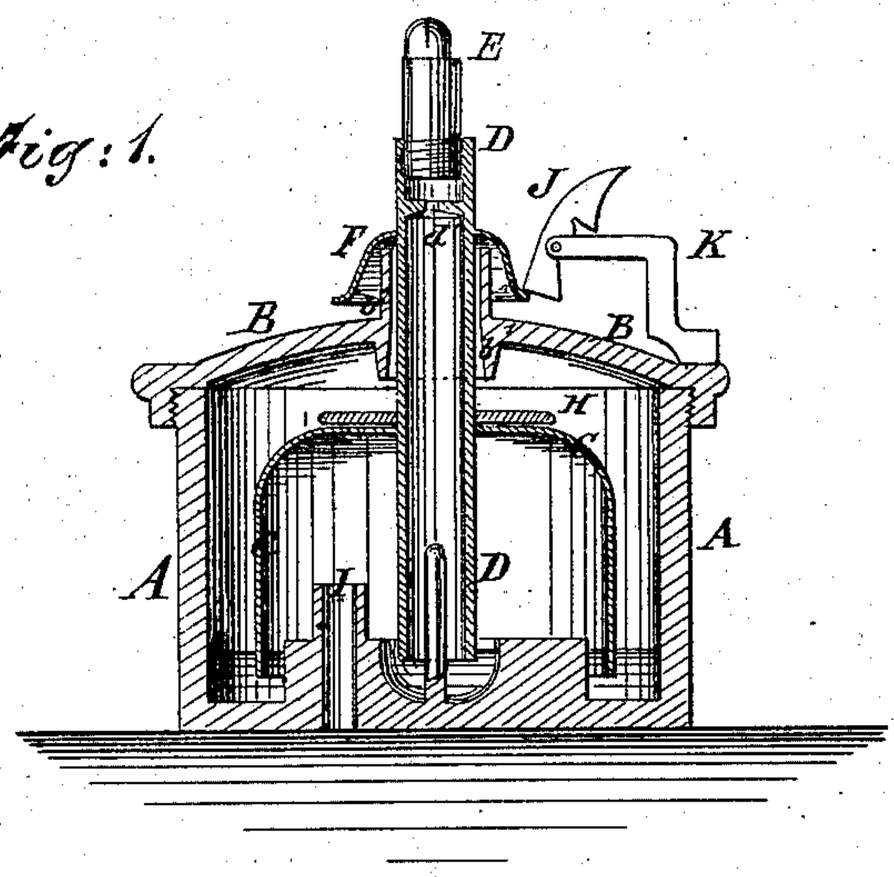

Fig: 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

LEWIS BOORE, OF BUFFALO, NEW YORK.

IMPROVEMENT IN GAS-EXTINGUISHERS FOR STREET-LAMPS.

Specification forming part of Letters Patent No. **164,711**, dated June 22, 1875; application filed May 28, 1875.

To all whom it may concern:

Be it known that I, LEWIS BOORE, of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Device for Shutting off the Gas from Street-Lamp-Post Burners, of which the following is a specification:

Figure 1 is a vertical section of my improved device. Fig. 2 is a vertical section, showing a slight modification of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved device for shutting off the gas from street-lamp-post burners, and thus putting out the lights, by altering the pressure at the gas-works, and which shall be simple in construction, and reliable in operation.

The invention consists in the combination with each other of the case, provided with a grooved and recessed bottom, and an inlet-tube, the cover provided with outwardly and inwardly projecting flanges around a hole formed through its center, the inverted cup provided with an outlet-tube, and the burner-tip, whether said tip be attached directly to the outlet-tube, or to an exterior burner; in the combination of the inclined ring-flange with the outlet-tube of the device, and with the outer flange of the cover; and in the combination of the lock-catch and its bracket with the cover and with the inclined flange formed upon the outlet-tube of the device, as hereinafter fully described.

A is a metal case, upon the top of which is screwed a cover, B. In the bottom of the case A is formed a ring-groove to receive the edge of the inverted cup C. The cup C is secured to a tube, D, which passes down through the center of the top of the cup C, and its lower end enters a cavity in the center of the bottom of the case A. The lower end of the tube D is three-sixteenths of an inch, more or less, higher than the lower edge of the cup C, so that the end of the tube D may be raised out of the mercury placed in the bottom of the case A while the edge of the cup C is still immersed. The ring-groove and the central cavity in the bottom of the case A are intended to lessen the quantity of mercury required to effect a perfect seal. The upper part of the tube D passes up through and slides longitudinally in a hole in the cover B of the case A; and to its upper end is attached a burner-tip, E. In the upper end of the tube D is placed a plug, d', having a hole formed through it smaller than the capacity of the burner-tip. Upon the inner side of the cover B, around the opening through said cover, is formed a ring-flange, b^1, to prevent the mercury from escaping through the said hole, should the case A B be turned upon its side, or even bottom upward. Upon the upper side of the cover B, around the hole through said cover, is formed a ring-flange, b^2, to protect the said hole, and serve as a guide to the tube D to keep it vertical as it moves up and down. To the tube D, above the top of the flange b^2, is attached a cap or downwardly-projecting flange, F, to cover the upper edge of the flange b^2 and prevent the entrance of dust.

In the modification shown in Fig. 2, the tube D terminates at about the top of the flange b^2, and an ordinary gas-burner, G, is screwed upon the said flange b^2. In this case the hole through the plug d', inserted in the upper end of the tube D, must be smaller than the capacity of the burner-tip, to prevent the pressure upon the outer and inner surfaces of the cup C from becoming gradually equalized, and thus allowing the said cup C to settle down and put out the light. This could not happen with the construction first described.

The cup C may have weights H placed upon it to gage it to resist any desired pressure.

The gas enters through a tube, I, which passes in through the bottom of the case, and projects into the cavity of the cup C, so far above said bottom that the mercury cannot flow out through it.

The tube I may be formed as a solid part of the case A, if desired, and its lower end should be so formed that it may be conveniently connected with the gas-pipe of the lamp-post.

With this construction, when the pressure upon the gas is increased at the gas-house above the amount to resist which the cup is weighted, the said cup will be forced upward, raising the lower end of the tube D above the mercury, and allowing the gas to pass through said tube to the burner. The tube D is held down against the increased pressure by the

catch J, which is pivoted to a small bracket, K, attached to the cover B. As the cup C and tube D descend upon the decrease of the pressure, the edge of the flange F strikes the catch J, pushes it back, and passes below it. The said catch immediately swings forward over said flange, preventing the rise of said cup and tube until the said catch has been drawn back. When the time for lighting the street-lamps approaches, the pressure upon the gas is increased to the desired point at the gas-house. Then as the lamp-lighter comes to each lamp-post he pushes back the catch J, and as the tube and cup rise with the pressure he lights the escaping gas. When the time for putting out the lights arrives, the attendant at the gas-house reduces the pressure to the proper point, and all the lights in the street-lamps are put out at the same time.

Another advantage of this invention is, that no gas can be lit or allowed to remain lighted during daylight, or at any other time, except when the gas company desire it, and properly adjust the pressure at the gas-works.

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

1. The combination of the case A, provided with a grooved and recessed bottom, and an inlet-pipe, I, the cover B, provided with outwardly and inwardly projecting flanges b^1 b^2, around a hole formed through its center, the inverted cup C, provided with an outlet-tube, D, and the burner-tip E, substantially as herein shown and described.

2. The combination of the inclined ring-flange F with the outlet-tube D of the device, and with the outer flange of the cover b^2, substantially as herein shown and described.

3. The combination of the lock-catch J and its bracket K with the cover B and with the inclined flange F, formed upon the outlet-tube D of the device, substantially as herein shown and described.

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Witnesses:
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