

J. L. SHILLITO.
LAMP-EXTINGUISHER.

No. 174,581.

Patented March 7, 1876.

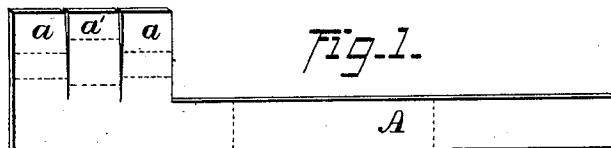


Fig. 1.

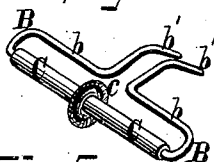


Fig. 2.

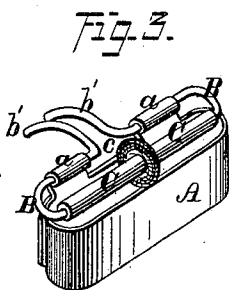


Fig. 3.

Fig. 5.

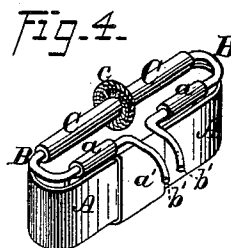
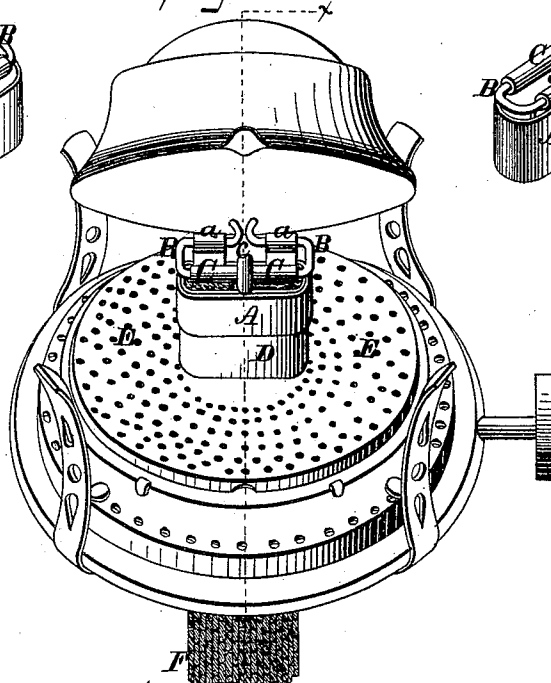
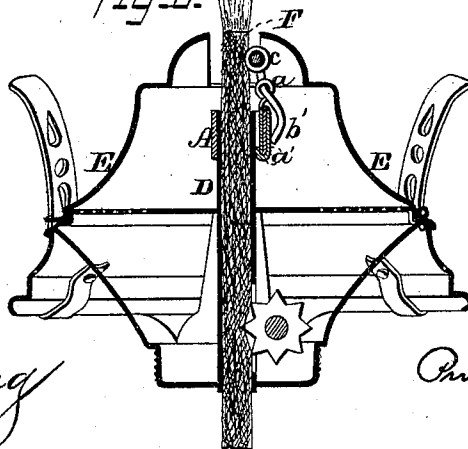


Fig. 4.

Fig. 6.



WITNESSES=

Jas. Hutchinson
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INVENTOR-

J. L. Shillito, by
Carrillo & Co., his Attys

UNITED STATES PATENT OFFICE.

JOHN L. SHILLITO, OF WELLSVILLE, ASSIGNOR OF ONE-HALF HIS RIGHT
TO J. M. HEIGES, OF YORK BOROUGH, PENNSYLVANIA.

IMPROVEMENT IN LAMP-EXTINGUISHERS.

Specification forming part of Letters Patent No. **174,581**, dated March 7, 1876; application filed
February 8, 1876.

To all whom it may concern:

Be it known that I, J. L. SHILLITO, of Wellsville, in the county of York and in the State of Pennsylvania, have invented certain new and useful Improvements in Automatic Lamp-Extinguishers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the frame of my improved extinguisher. Fig. 2 is a like view of the weighted bar of the same. Figs. 3 and 4 are perspective views of opposite sides of my device before attachment to a lamp-burner. Fig. 5 is a like view of said device as applied to a burner, and Fig. 6 is a vertical central section of the same upon line *xx* of Fig. 3.

Letters of like name and kind refer to like parts in each of the figures.

In the use of hydrocarbon oils in lamps, many explosions are caused by efforts to extinguish the light by blowing into the chimney, the downward current thus created causing the flame to be carried into the interior of the lamps and thereby the gas given off from the oil to be ignited.

To obviate this difficulty many devices have been invented, which extinguished the flames by closing or covering the upper end of the wick-tube; but, in consequence of defects in operation, expense of construction, or because of the trouble caused by the necessary manipulation of the mechanism, none have gone into general use, and the danger before named has been practically without remedy.

The design of my invention is to furnish a simple and inexpensive device, which may be easily and quickly attached to or removed from a lamp-burner, will automatically extinguish the light whenever the wick is lowered, and will not obstruct the flame of the burner when not operating as an extinguisher; to which end it consists, principally, in the peculiar construction of the pivoted or hinged bar, substantially as and for the purpose hereinafter specified. It consists, further, in combining with the hinged or pivoted bar, or with the roller-tube placed thereon, a disk or radial

enlargement, which is secured at the longitudinal center of said bar or tube, substantially as and for the purpose hereinafter shown. It consists, finally, in the peculiar construction of the frame which forms the pivotal detachable support for the pivoted or hinged bar, substantially as and for the purpose hereinafter set forth.

In the annexed drawings; A represents a strip of thin sheet metal, provided at one end with three laterally-projecting arms, *a*, *a*, and *a'*, each of which has substantially the same width as said strip, and a length about equal to twice its width, said parts forming the frame of my device. The outer arms *a* and *a* have their ends turned outward, upward, and inward in a curve, so as to form two hollow lugs, and within the same is journaled a frame, which has the form shown in Fig. 2, and consists of a piece of wire, B, that has its ends turned inward for a short distance in a line parallel to the central portion, and then extended outward in a line having a right angle thereto. Upon the central portion or bar of the frame B is journaled a sleeve, C, which, at its longitudinal center, is preferably provided with an enlargement, *c*, while the portions *b* and *b*, parallel to said sleeve, form journals, and are contained within the lugs *a* and *a*, when, as said bar and sleeve have greater weight than the projecting ends *b'* and *b'* of said frame, it will be seen that they will naturally occupy the position shown in Figs. 3, 4, and 5, except when moved therefrom, as is hereinafter described. The strip A is now bent around in the form of a wick-tube of a lamp-burner, and its overlapping ends secured together by means of the central arm *a'*, which is turned downward upon the outer side, beneath the edges, and thence upward against the inner side of the same.

The device thus constructed is applied to the tube D of a lamp burner, E, by passing the frame A downward over the upper end of said tube, and compressing said frame circumferentially until it closely embraces said tube, after which the operation of parts is as follows: When the wick F is raised to the necessary height for lighting, the sleeve C is moved upward and outward, and rests lightly

against the side of the same, as seen in Fig. 6; but when said wick is turned downward, said sleeve will automatically drop downward to the position shown by Fig. 5, and, by inclosing a sufficient portion of the upper end of the tube D, will instantly extinguish the flame.

The operation of the devices will be precisely the same if the sleeve C is omitted, except that the friction of the bar B will be considerably greater upon the wick than is the case when said sleeve is employed.

The office performed by the central enlargement *c*, which may, if desired, be formed upon the bar B, is to cause the extinguisher to impinge upon the center of the flame, and thereby cause the same to be more quickly and certainly extinguished, and, by lessening the bearing upon said wick, to lessen the obstruction offered to the ascending current of air upon the side of said wick when lighted, said enlargement causing a space to be left between the side of said wick and the body of the sleeve C or bar B.

If desired, the detachable frame may be dispensed with, and the overweighted bar may be pivoted directly to or upon the upper end of the wick-tube.

By bending the projecting ends *b'* and *b'* downward until they bear upon the outer side of the frame A, when the wick is raised, the bar B, sleeve C, or enlargement *c* may be

caused to bear with greater or less force upon said wick.

The device described may be applied to any lamp, is simple in construction, and inexpensive, is automatic in its action, and enables a lamp to be instantly and safely extinguished by simply withdrawing the wick within its tube.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. The bar B, provided with the journals *b* and *b*, and with the outward-projecting ends *b'* and *b'*, in combination with suitable bearings upon or attached to the upper end of a wick-tube, substantially as and for the purpose specified.

2. In combination with the hinged or pivoted overweighted bar B, or with the sleeve C, the central enlargement *c*, substantially as and for the purpose shown.

3. In combination with the bar B, *b*, and *b*, and with the wick-tube F, the frame A, *a*, *a*, and *a*, constructed in the form and for the purpose substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of January, 1876.

JOHN L. SHILLITO.

Witnesses:

JOHN W. GRATZ,

SOLOMON OBERETREY.