(No Model.)

J. B. DOWDALL.

AUTOMATIC SAFETY EXTINGUISHER FOR LAMPS.

No. 486,439. Patented Nov. 22, 1892.

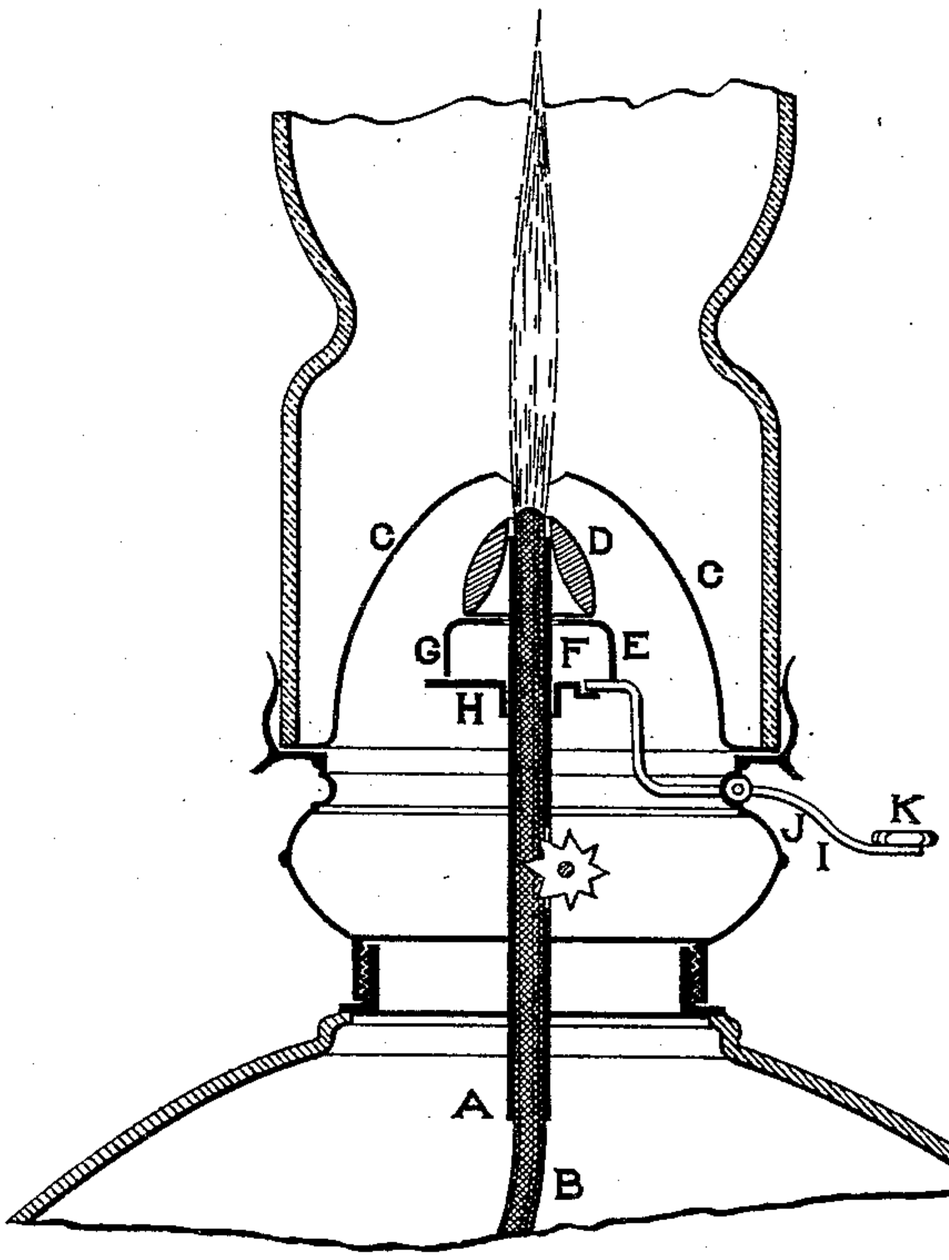

FIG: 1.

FIG: 2.

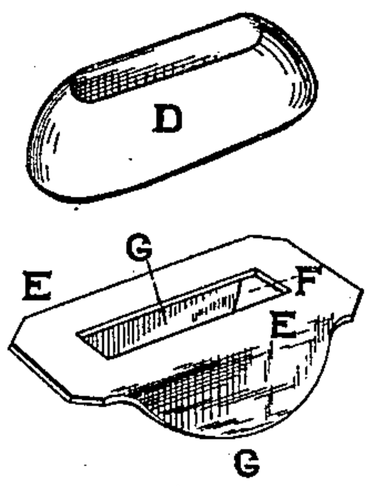

FIG: 3.

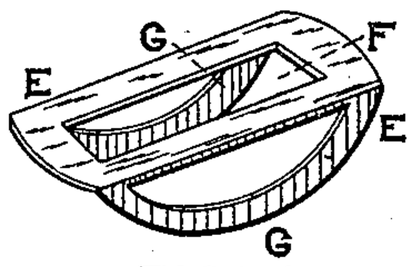

FIG: 4.

WITNESSES

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AUTOMATIC SAFETY-EXTINGUISHER FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 486,439, dated November 22, 1892.

Application filed September 8, 1891. Serial No. 405,073. (No model.)

To all whom it may concern:

Be it known that I, JAMES BERNARD DOWDALL, a subject of the Queen of Great Britain, residing at Manchester, in the county of Lancaster, England, have invented certain new and useful Improvements in Automatic Safety-Extinguishers for Lamps, of which the following is a specification.

This invention has for its object a simple apparatus for extinguishing lamps in case of their being accidentally upset, and also enabling the user to put them out at a moment's notice whenever he wishes and without lifting off the chimney. It will be best understood by reference to the accompanying drawings, in which—

Figure 1 is a sectional elevation of the burner portion of a lamp fitted with this device. Fig. 2 is a perspective view of the extinguisher, and Figs. 3 and 4 perspective views of the loose rocking platform upon which the extinguisher rests.

A is the wick-tube, B the wick, and C the dome, all of ordinary construction, as are also the lifting apparatus for the wick and generally the other parts of the lamp.

D is the extinguisher, which, as will be seen from the perspective view in Fig. 2 and the section in Fig. 1, is a hollow cap with an opening at the top nearly corresponding with the size and shape of the wick-tube around which it rests and by preference having the body of the material inside cut away so as to leave room for the passage of air between the extinguisher and the wick-tube and also to reduce the bulk of the extinguisher, and thus reduce its liability to relight the gases given off by the wick when the lamp is extinguished. Reducing the quantity of material at the lower part also tends to make the upper portion more or less top-heavy—an advantage, as it is then likely the more readily to extinguish the lamp if tilted over.

The construction of the rocking platform E will be seen from the perspective views, Figs. 3 and 4, either of which forms may be used. It consists of a flat plate provided with a slot or opening F to fit over the wick-tube A and depending curved rockers G, which rest upon a special fixed platform H, Fig. 1, or other suitable support. The depending curved rockers G in the form shown in Fig. 4 have each a slot cut therein to allow of a current of air passing through. The rocking platform E is loose or removable, and is not fixed or pivoted to the lamp.

I is a lever pivoted in any convenient portion of the burner, as at J, the inner end of which rests underneath any convenient part of the loose rocking platform E, or it may enter an opening provided for it therein. The outer end of the lever I carries a finger-button K, or is otherwise arranged to be depressed by the person using the lamp.

The operation is as follows: In ordinary burning the lamp acts as usual; but should it be tilted sidewise (to the left or right in the drawing Fig. 1) the extinguisher D falls over toward the lower side, thus raising its upper rim and extinguishing the flame. Should the lamp be tilted in a plane at right angles to the former one—that is, nearer to or farther from the spectator—in Fig. 1, the loose rocking platform E adjusts itself so as to keep approximately horizontal, thus tilting the extinguisher and raising one end of it over the wick-tube, and thus again extinguishing the flame. In the drawings a single flat-wicked lamp has been illustrated; but it will be understood that the application of the invention is not restricted to any particular shape or arrangement of wick.

The extinguisher D, Fig. 2, is not a new device; but hitherto, instead of resting upon the rocking platform E, it has rested upon some fixed portion of the lamp, with the result that while when the lamp was tilted sidewise the flame was extinguished. If the flame were tilted in a plane at right angles thereto, the flame would not be extinguished. The loose rocking platform therefore obviates this drawback of the extinguisher and makes it very perfect.

To extinguish the lamp without tilting it, the button K is depressed and the inner end of the lever I is raised, tilting or raising the rocking platform E, operating the extinguisher and putting out the light.

The extinguisher may be made of any suitable material, such as pottery, porcelain, fire-clay, metal, or the like, porcelain or fire-clay being preferred.

It will be understood that the object of the loose rocking platform being to tilt or other-

wise readily displace the extinguisher D, its exact shape and movement may be varied so long as the element of instability is sufficiently pronounced.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In an automatic extinguishing device for lamps, consisting of the combination, with a loose extinguisher D, which surrounds the wick-tube, of a loose removable rocking unstable platform E, placed upon a flat plate or collar and upon which the extinguisher rests, substantially as described.

2. In an automatic extinguishing device for lamps, the combination, with the extinguisher D, of a loose rocking unstable platform E, provided with a slot F, through which the wick-tube passes, and depending wings or rockers G, which rest loosely and rock to and fro upon a fixed platform beneath them, substantially as described.

3. In an extinguishing device for lamps, the combination, with the extinguisher D and fixed platform H, of the loose rocking unstable platform E and pivoted lever I, substantially as described.

4. In an automatic extinguishing device for lamps, the combination of the wick-tube A, the extinguisher D, the loose unstable rocking platform E, provided with downward-projecting curved rockers G, and the fixed platform H, upon which the rockers loosely rest, substantially as described.

5. In an extinguishing device for lamps, the combination, with the wick-tube A and the dome C, of the extinguisher D, the loose removable rocking unstable platform E, provided with projecting rockers G, the fixed platform H, upon which the rocking platform moves to and fro, and the pivoted lever I, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

J. B. DOWDALL.

Witnesses:
I. OWDEN O'BRIEN,
WILLIAM H. TAYLOR.