

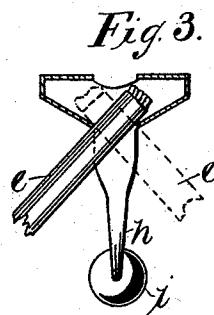
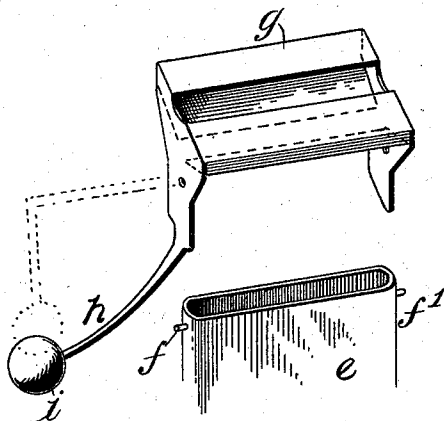
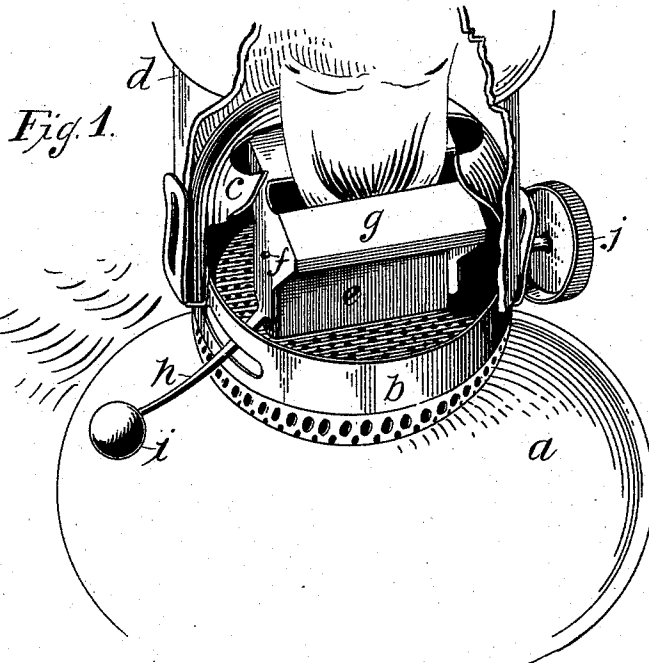
(No Model.)

E. J. BROWN.

AUTOMATIC FLAME EXTINGUISHER FOR LAMPS.

No. 567,677.

Patented Sept. 15, 1896.



Witnesses.
L. H. Homer.
C. L. Sturmy.

Inventor.
Edmund J. Brown
By Allen Webster
Attorney.

UNITED STATES PATENT OFFICE,

EDWARD J. BROWN, OF SPRINGFIELD, MASSACHUSETTS.

AUTOMATIC FLAME-EXTINGUISHER FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 567,677, dated September 15, 1896.

Application filed February 17, 1896. Serial No. 579,519. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. BROWN, a citizen of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Automatic Flame-Extinguishers for Lamps, of which the following is a specification, reference being had to the accompanying drawings, and the letters of reference marked thereon, in which drawings like letters of reference indicate like parts.

Figure 1 is a perspective view of a lamp with a part of the burner broken away, showing my improved device mounted in position. Fig. 2 is a perspective view of the extinguisher detached from the wick tube. Fig. 3 is an edge view of the tube, showing my device mounted thereon, the extinguisher in the figure being shown in section and the tube being shown as canted to one side, as would result were the lamp to be tipped.

In detail, *a* indicates the bowl of the lamp; *b*, the burner; *c*, the cup; *d*, the chimney; *e*, the wick-tube; *f*, pivots mounted on the edges of the wick-tube; *g*, the extinguisher; *h*, an arm attached to the latter, and *i* a weight.

The object of my invention is to provide an improved device which, while being of simple construction and effective in operation, may be attached to burners of various constructions, requiring but slight alteration, and which will operate automatically by gravity to cause the flame to be extinguished when the lamp is turned from its normal position to a dangerous extent, thus avoiding the danger of fire and explosion attending the overturning of a lamp.

I accomplish the objects of my invention by the construction herein set out.

The construction and operation will be readily understood on reference to the drawings.

The extinguisher is constructed, as shown in the drawings, with the top covered, except for an opening above the wick-tube when it is in vertical position, and the sides are also closed when the tube is vertical, or substantially so, except for openings at each side of the tube.

While the partial covering of the wick will in many instances operate to extinguish the

flame, the more effective method is to cut off the supply of air from below, and when the wick end is covered and the supply of air from below cut off at the same time the extinguishment becomes absolutely certain. I therefore construct the device, as before stated, closed upon all sides except for air-inlets below and flame-outlet above, and upon its being turned on its pivots to the requisite extent the overhanging top upon one side or the other is carried over the wick and the edges of the bottom are carried against the side walls of the wick-tube, thus cutting off the supply of air and extinguishing the flame.

To cause the device to remain in proper position when the lamp is at its normal level approximately and to cause the device to operate automatically by gravity when the lamp is tipped to a dangerous extent I mount an arm *h* on one of the end pieces, which arm projects downwardly and outwardly, and on the end I mount a weight *i*, which weight being below the pivotal point and of sufficient heft holds the device normally in the desired position, and if the lamp be tipped the weight still maintains the device in substantially the same position, regardless of the relative position of the wick-tube, so that if the lamp be tipped to the danger limit the end of the wick will be covered and the supply of air from below be cut off and the flame thereby extinguished.

It will of course be seen that the device may be used for the purpose of extinguishing the flame while the lamp is in its normal position by simply moving the lever in either direction to the desired extent.

It will also be seen that the arm may, instead of being projected downwardly and outwardly inside the burner and passed through a slot in the burner, be carried outwardly in a straight line concentric with the pivotal point and then projected downwardly and provided with a weight, as shown in dotted lines in Fig. 2.

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

1. The combination with a lamp, of a pivotally-mounted cap *g* having an opening through it, and an arm *h* attached to the cap

and projecting downwardly and outwardly,
and a weight mounted on said arm whereby
the cap is held normally in position with the
opening above the wick, substantially as
5 shown.

2. The combination with a lamp-burner,
of a cap *g* having flaring sides and vertical
ends and pivotally mounted at the ends of
the cap on the wick-tube, an arm *h* secured

to one end of the cap below the pivotal point 10
and projecting downwardly and outwardly
through a slot in the burner and a weight on
the arm, substantially as shown.

EDWARD J. BROWN.

Witnesses:

ALLEN WEBSTER,
L. H. HORNER.