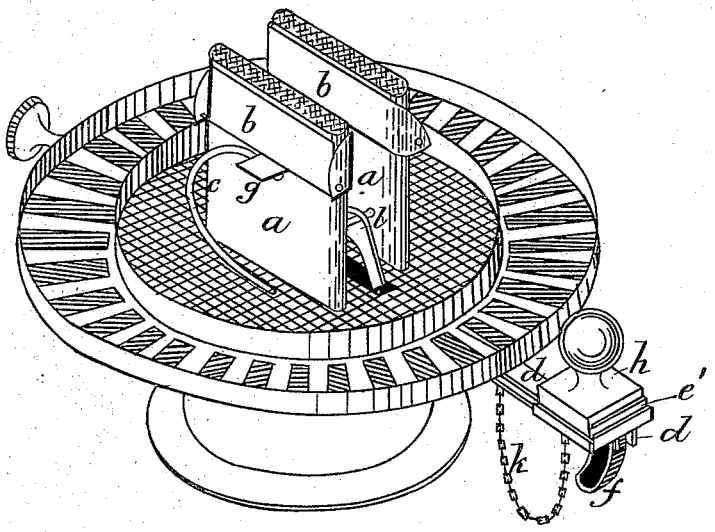
(No Model.) 2 Sheets—Sheet 1.

G. RAYNER.

LAMP EXTINGUISHER.

No. 343,851. Patented June 15, 1886.

FIG. 1.



Witnesses.
J. A. Rutherford
Robert Everett.

Inventor.
George Rayner.
By James L. Norris.
Atty.

(No Model.) 2 Sheets—Sheet 2.

G. RAYNER.

LAMP EXTINGUISHER.

No. 343,851. Patented June 15, 1886.

FIG. 2.

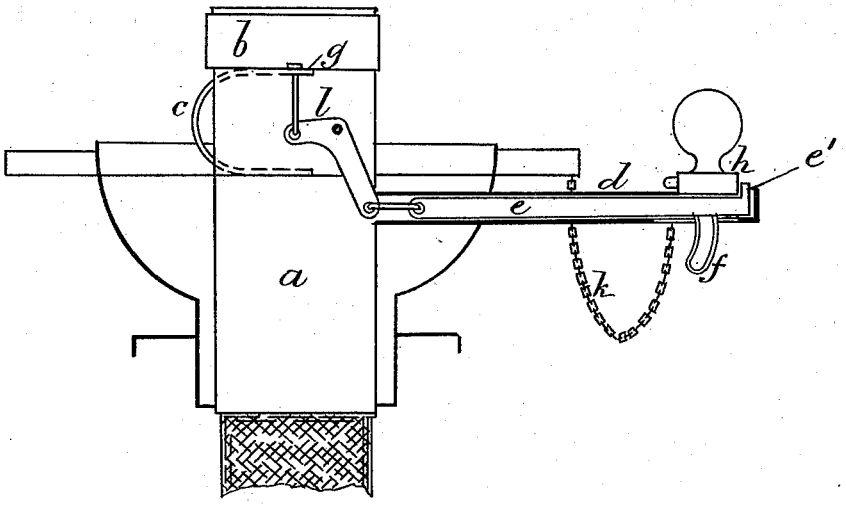
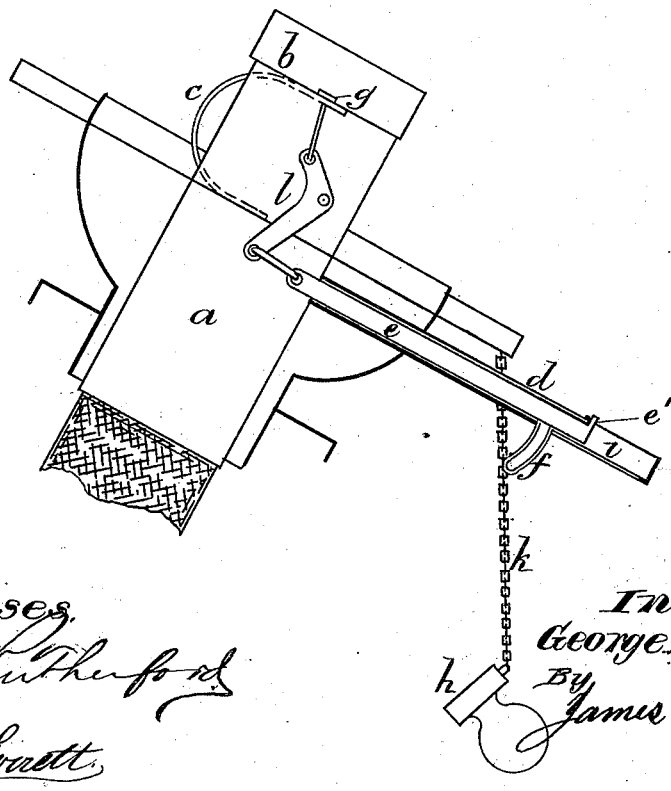


FIG. 3.



Witnesses,
J. A. Rutherford
Robert Gravatt

Inventor,
George Rayner,
By James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

GEORGE RAYNER, OF HACKNEY, COUNTY OF MIDDLESEX, ENGLAND.

LAMP-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 343,851, dated June 15, 1886.

Application filed June 18, 1885. Serial No. 169,087. (No model.) Patented in England April 24, 1885, No. 4,179; in Belgium May 4, 1885, No. 69,004; in Germany May 20, 1885, No. 35,250; in France May 22, 1885, No. 169,097, and in Austria August 20, 1885, No. 21,670.

To all whom it may concern:

Be it known that I, GEORGE RAYNER, a subject of the Queen of Great Britain, residing at No. 328 Mare Street, Hackney, Middlesex county, England, have invented certain new and useful Improvements in the Construction of Lamps for Burning Paraffine and other Oils, (for which I obtained Letters Patent in Great Britain April 24, 1885, No. 4,179; in France May 22, 1885, No. 169,097; in Belgium May 4, 1885, No. 69,004; in Germany May 20, 1885, No. 35,250, and in Austria August 20, 1885, No. 21,670,) of which the following is a specification.

The object of my invention is to manufacture lamps for burning paraffine and other oils in an improved manner, by fitting them with simple and efficient means for extinguishing the same, such means being rendered automatic when an accident occurs, such as the falling or overturning of the lamp.

In carrying out my invention I fit the wick tube or tubes with sliding flaps or covers, which close over the wicks when they rise, and thereby extinguish the flame or flames. These flaps or covers are pressed upward by suitable springs, and when they are drawn down or lowered below the tops of the wick-tubes such tubes hold the flaps apart; but when allowed to rise these flaps close over the wicks. Between the wick-tubes, or on the outer side of such wick-tubes, (or tube or circular wick-tube, as the case may be,) I fit a small horizontal rod in the gallery, the outer end of which projects beyond the gallery and terminates in a finger-catch. The inner end of this rod is connected with a bell crank or cranks or other suitable devices for drawing down the extinguisher flap or flaps. The outer end of the rod is also fitted with a catch, which traverses a small rectangular box, in which it slides. A small cubical piece of metal or plug is attached by a chain to the gallery. This plug may be made in an ornamental form or surmounted with a figure representing a head or bust or other suitable design. When the horizontal rod is drawn back by the finger, it lowers the extinguisher-flaps, and while in this position, if the plug is inserted in the rectangular box, the flaps are retained in such position, and the lamp can then be lighted, and will continue to burn until the plug is removed, when the springs will immediately raise the extinguisher-flaps and extinguish the flames. I usually make the plug about three-eighths of an inch square at the bottom and about three-quarters of an inch in height, (more or less.) This plug is therefore very easily removed from its position, either by the finger or the tilting or upsetting of the lamp, or by a knock or slight blow, by which means it becomes displaced and the lamp is thereby instantly extinguished from the springing back of the rod and the raising of the flap or flaps; and in order that my said invention may be more clearly described and ascertained, reference is hereby made to the accompanying drawings, wherein one arrangement for carrying the same into effect is shown with a double wick, by way of example, and in which drawings similar letters of reference indicate corresponding parts.

Figure 1 is a perspective view of a portion of a double-wick lamp fitted with my invention. Fig. 2 is a section of the same; and Fig. 3 is a similar section in an inclined position, with the extinguisher-flaps raised.

a a are the wick-tubes.

b b are the flaps for extinguishing the flames.

c c are two springs, which press against lugs *g*, attached to the flaps *b b*. These springs not only press the extinguishing-flaps upward, but also inward, when raised, so as to overlap the tubes and extinguish the flames, as shown in Fig. 3.

d is a tube attached to the lamp under the gallery. In this tube there is a rod, *e*, having a finger-catch, *f*, for drawing the rod outward to the position shown in Figs. 1 and 2.

h is a piece of metal, which is placed in the space *i*, formed for its reception at the end of the tube, as shown. This block *h* may be surmounted by a small globe of metal, as shown, or may have a bust or other ornamental design, the intention being that its center of gravity shall be sufficiently raised to insure its falling out of place when the lamp is inclined at a considerable angle, but that it should not fall out of position when slightly inclined, as

in ordinary cases of removal from place to place when carried in the hand.

e' is a lip attached to the bar *e*, against which the block *h* impinges. The block *h* is attached to the gallery by the chain *k*. By throwing the block *h* out of position by the finger the lamp may be extinguished at any time.

l is a bell-crank lever, by means of which the horizontal movement of the rod *e* is converted into and caused to impart vertical movement to the flaps *b b*, as shown.

I do not confine myself to any particular form of flaps for extinguishing lamps, or to any particular description of spring or bell-crank connection, as the same may be greatly varied; and various forms of extinguishing-tubes and spring-flaps may be used for lamps having circular wicks.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is—

The combination of the wick-tube *a*, the flaps *b*, hinged together and sliding vertically on said tube, the spring *c*, exerting an upward pressure on said flaps, a laterally-projecting tube, *d*, a rod sliding in said tube and connected with said flaps by a crank and formed with a lip and finger, and a block, *h*, to fit in said tube between a portion of it and the lip of the rod, to lock said flaps below the top of the wick-tube, substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand this 2d day of June, 1885.

GEORGE RAYNER.

Witnesses:
GEO. C. DOWNING,
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ARTHUR R. SKERTEN,
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