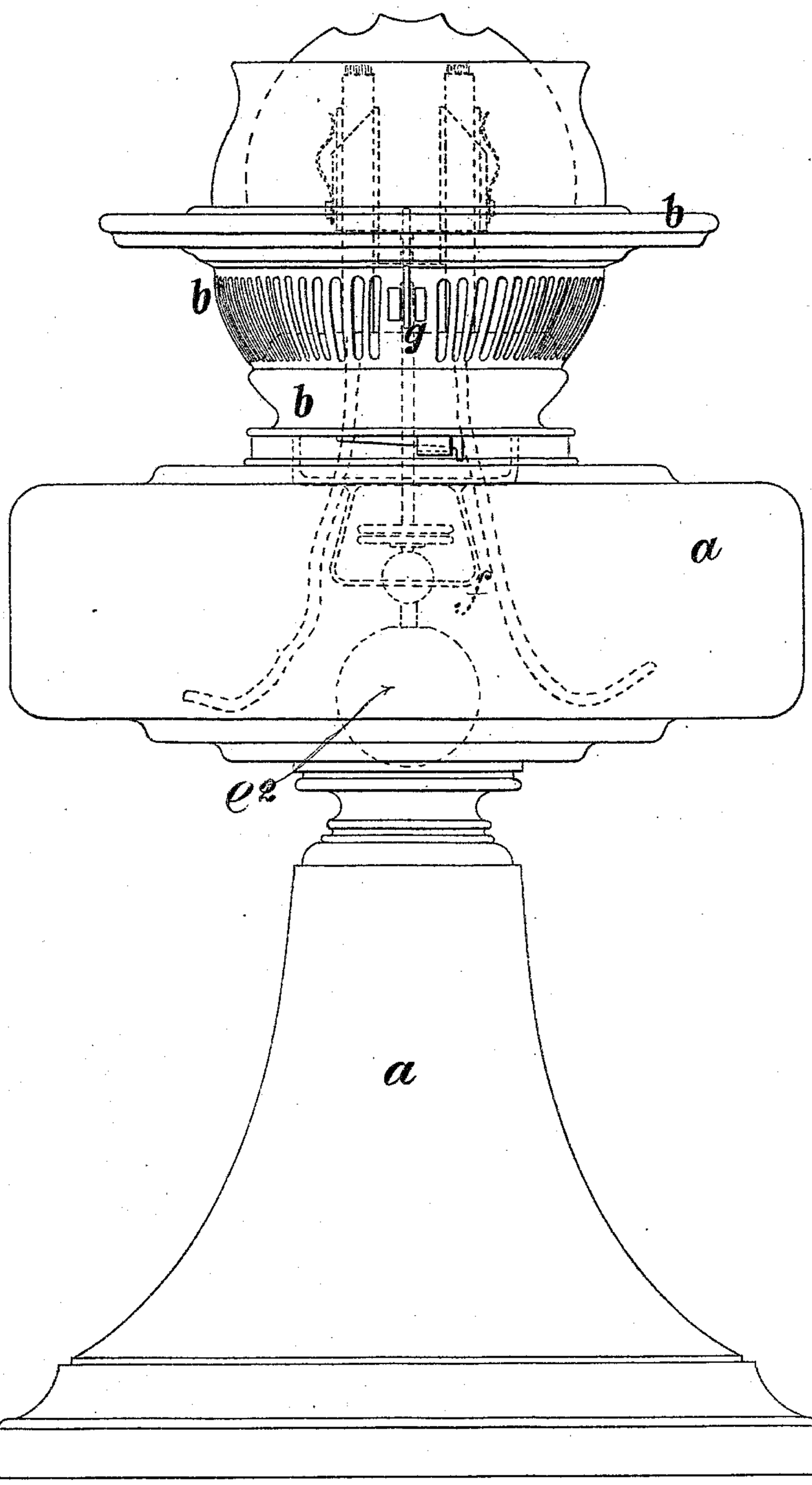
(No Model.) 4 Sheets—Sheet 1.

# R. OGDEN & R. J. ANDERSON.

## LAMP EXTINGUISHER.

No. 296,771. Patented Apr. 15, 1884.

FIG. 1.

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(No Model.) 4 Sheets—Sheet 2.

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## LAMP EXTINGUISHER.

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FIG. 2.

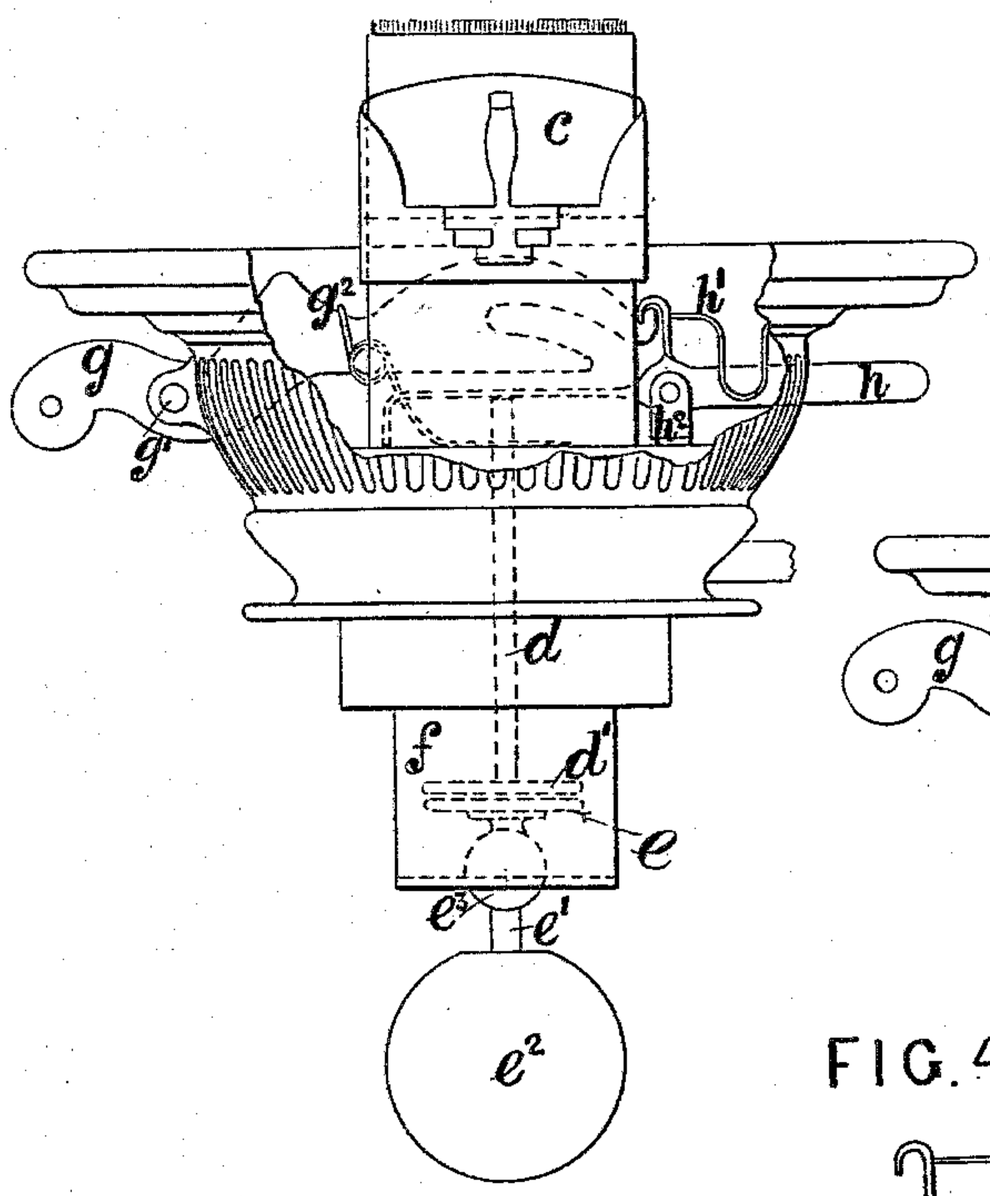



FIG. 5.

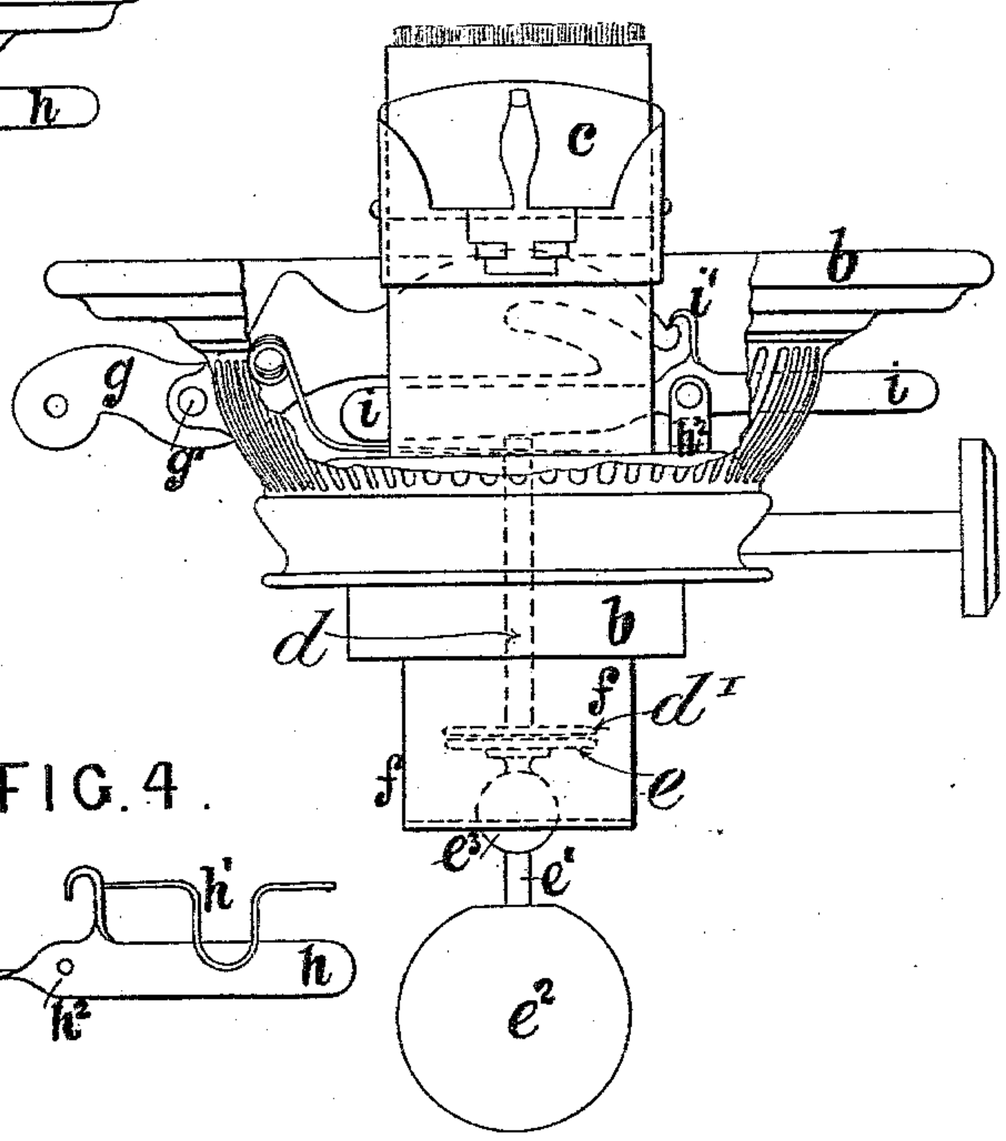



FIG. 4.




FIG. 3.

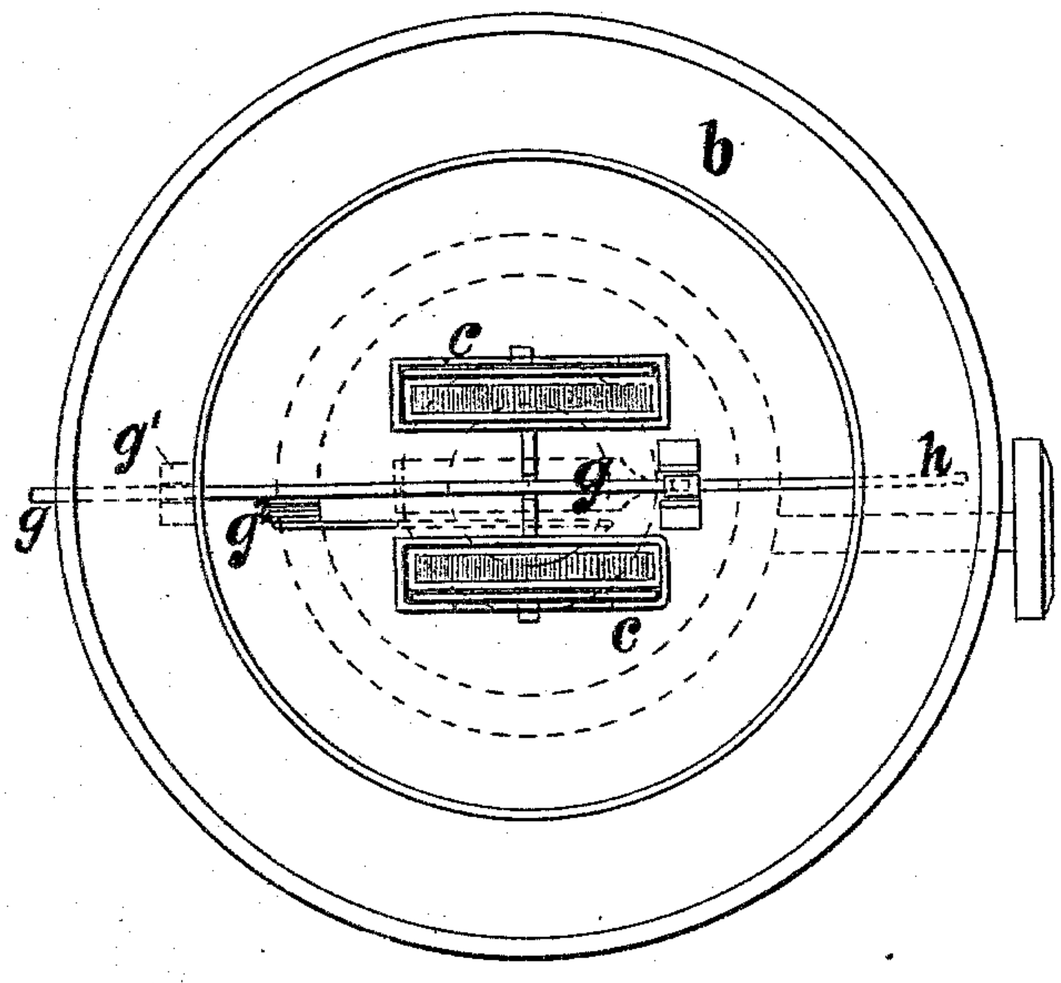



FIG. 6.

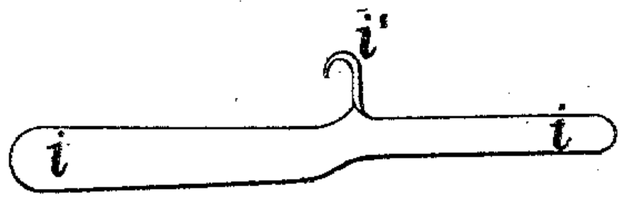
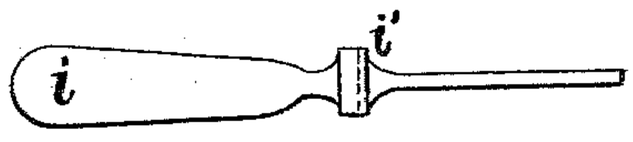



FIG. 7

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(No Model.) 4 Sheets—Sheet 3.

# R. OGDEN & R. J. ANDERSON.

## LAMP EXTINGUISHER.

No. 296,771. Patented Apr. 15, 1884.

FIG. 9.

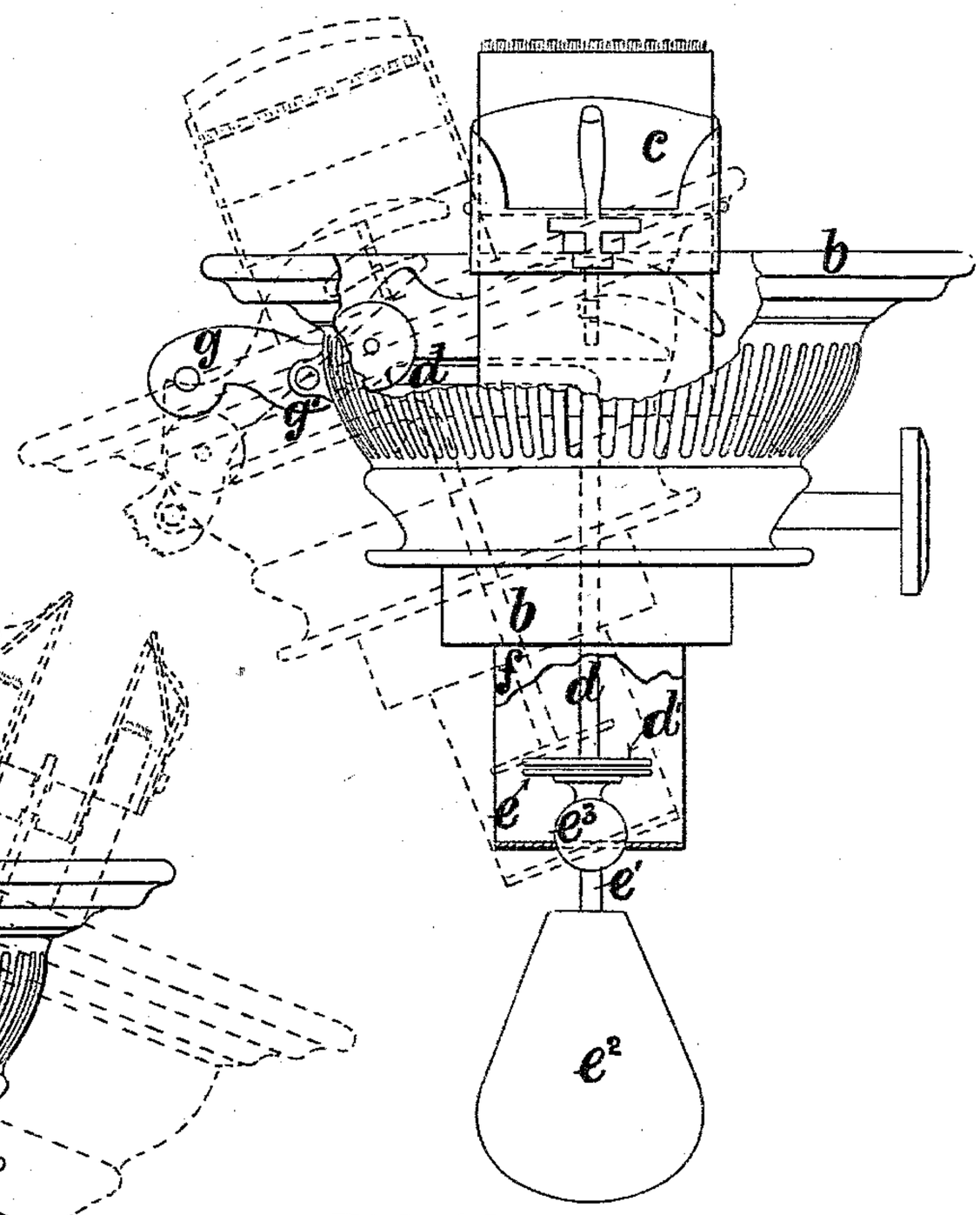



FIG. 8

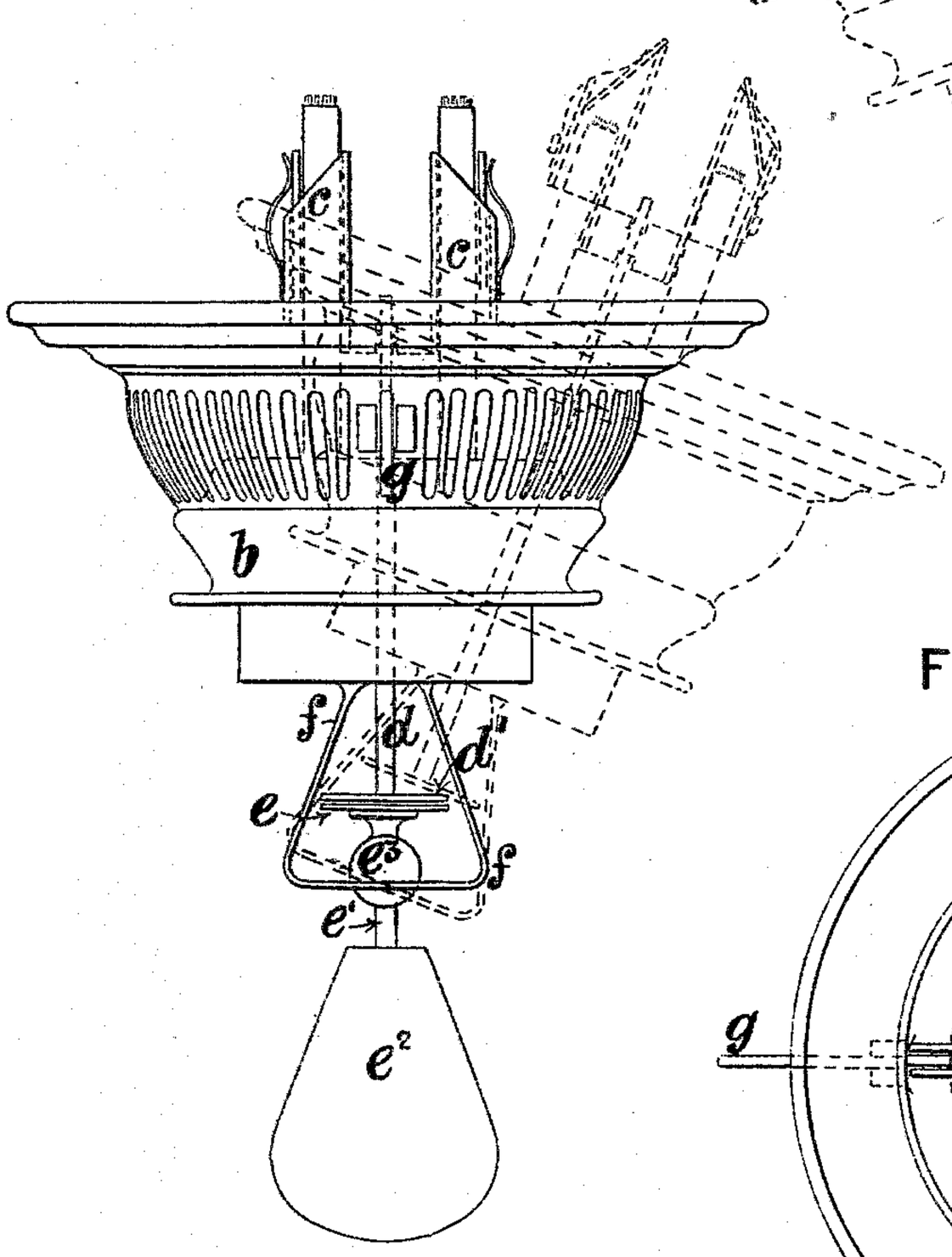
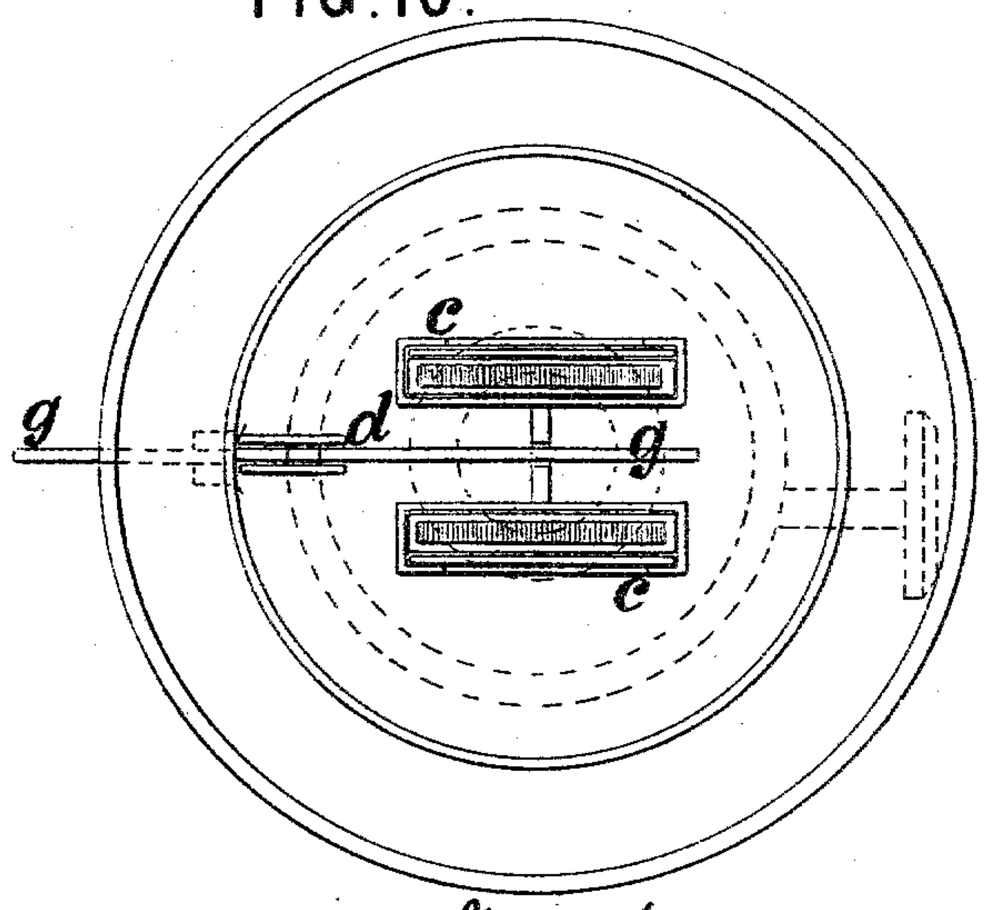



FIG. 10.

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## LAMP EXTINGUISHER.

No. 296,771. Patented Apr. 15, 1884.

FIG. 11.

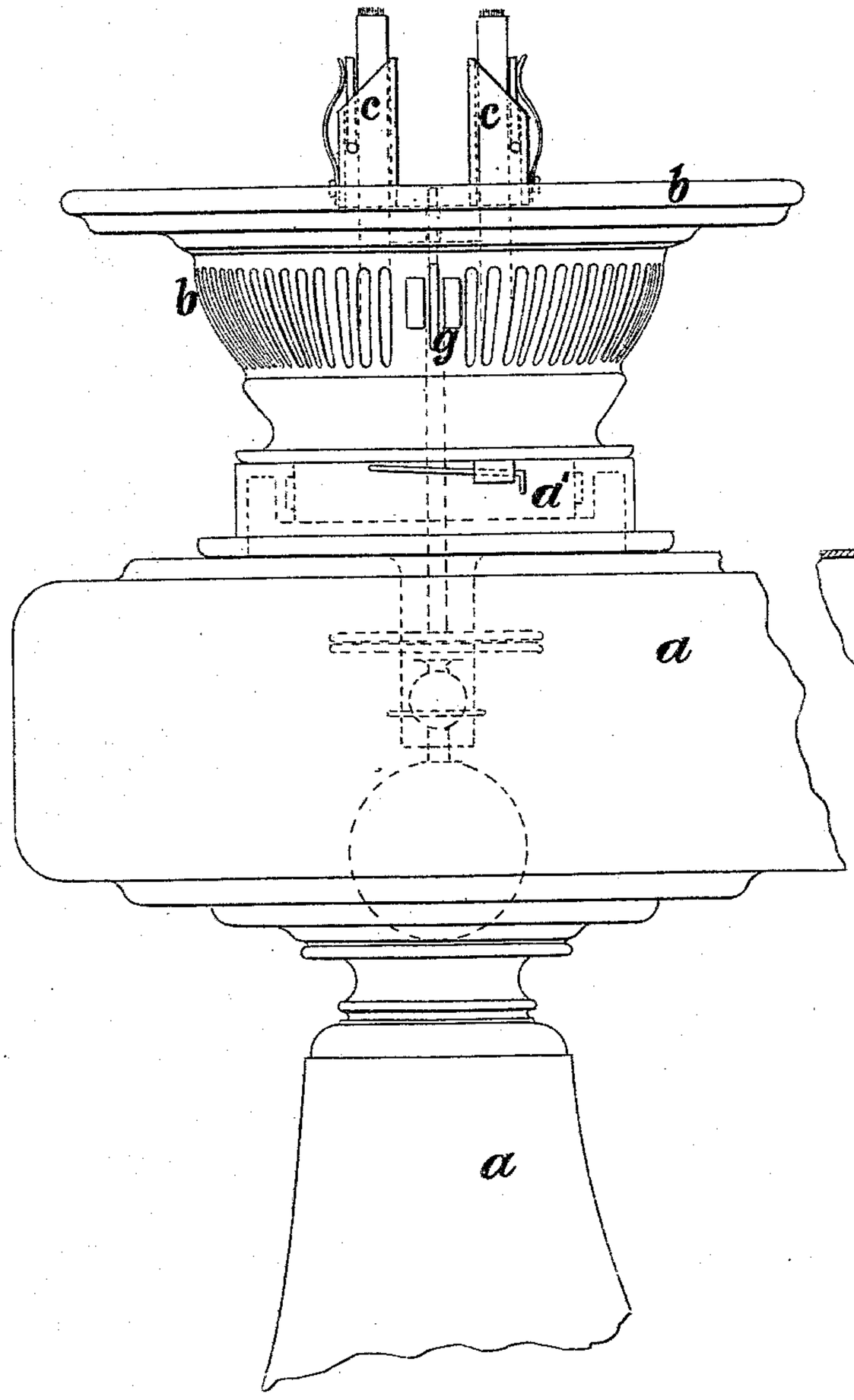



FIG. 12.

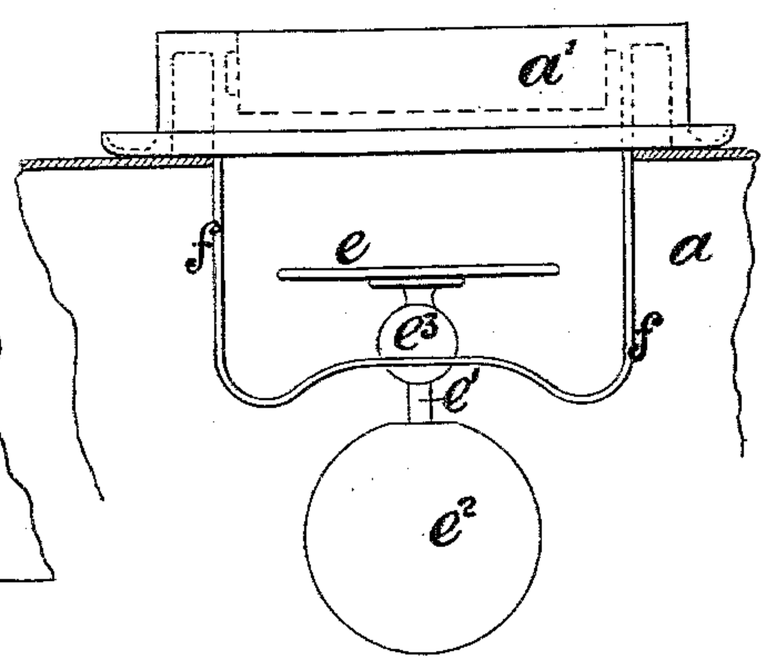
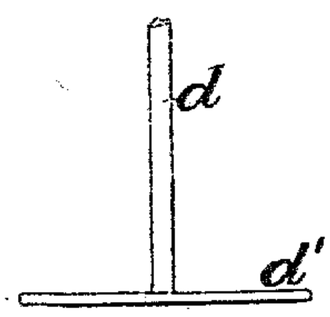



FIG. 13.

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# UNITED STATES PATENT OFFICE.

ROBERT OGDEN, OF MANCHESTER, AND ROBERT JAMES ANDERSON, OF LIVERPOOL, COUNTY OF LANCASTER, ENGLAND.

## LAMP-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 296,771, dated April 15, 1884.

Application filed November 7, 1883. (No model.) Patented in England February 6, 1883, No. 657.

*To all whom it may concern:*

Be it known that we, ROBERT OGDEN, of Manchester, and ROBERT JAMES ANDERSON, of Liverpool, both in the county of Lancaster, England, have invented a certain new and useful Improvement in Lamps, (for which we have obtained a patent in Great Britain, No. 657, bearing date February 6, 1883,) of which the following is a specification.

Our invention relates to an improvement in lamps, and is applicable to all kinds of movable lamps, whether carried by hand or otherwise, and the object of our invention is to extinguish the light or lights of a lamp automatically if the lamp be upset or moved sufficiently out of the perpendicular, thereby preventing accidents, such as explosion or fire. We attain this object by the mechanism illustrated in the accompanying four sheets of drawings, in which—

Figure 1 is an elevation of a lamp to which our improvement is applied. Fig. 2 is an elevation with part of the frame removed, and Fig. 3 a plan of a burner fitted with our improvement. Fig. 4 is a detached view of a spring trigger or catch. Fig. 5 is an elevation, with part of the frame removed, of a burner in which a weighted lever is used instead of a spring-catch, and Figs. 6 and 7 are detached views of the weighted lever. Figs. 8 and 9 are side views, and Fig. 10 a plan of a modification of our invention. Figs. 11 and 12 are two views of another modification, and Fig. 13 is a detached view of the upper spindle, *d*, and disk *d'*.

Similar letters refer to similar parts throughout the several views.

In Figs. 1 to 4, *a* is an ordinary table-lamp, with a duplex or other burner, *b*, fitted with sliding extinguishers *c*. A small vertical spindle, *d*, passes through the center and lower part of the burner *b* into the oil-reservoir. A small metal disk, *d'*, is secured to the bottom of the spindle *d*. Below and in contact with the disk *d'* is another and similar disk, *e*, secured to the upper end of a spindle, *e'*, which is weighted at the other end, $e^2$, and suspended by means of a ball, $e^3$, in a bracket, *f*, attached to the lower portion of the burner. The weighted spindle *e'* is thus free to swing in any direction.

To allow the lamp to be lighted, the sliding extinguishers *c* are lowered in the ordinary manner by the lever *g*, which is pivoted to the frame at *g'*, and to which a spring, $g^2$, is attached to close the extinguishers *c* when required. The end of this lever *g* is then caught and held by a small trigger, *h*, (shown detached in Fig. 4,) fitted with a spring, *h'*, to hold the trigger over the end of the lever *g*, and pivoted to the frame at $h^2$. This trigger *h* is immediately over the spindle *d* and disk *d'*, acted on by the disk *e* and weighted spindle *e'*.

If the lamp, when burning, is upset or inclined to a sufficient angle, the weighted spindle *e'* and lower disk, *e*, swing in the ball-and-socket or universal joint and raise the upper disk, *d'*, and spindle *d*, thus raising one end of the trigger *h* and releasing the lever *g*. The spring $g^2$ is then left free to close the extinguishers *c* and put out the light. The angle at which the trigger acts to release the lever *g*, and thus cause the light to be extinguished, may be adjusted and set to any degree desired.

Figs. 5, 6, and 7 represent a modification of our invention in which a weighted lever, *i*, with a catch, *i'*, is employed in place of the trigger *h*, thereby dispensing with the spring *h'*.

In the arrangement shown in Figs. 8, 9, and 10 neither the spring $g^2$, spring-trigger *h*, nor its equivalent, the weighted lever *i*, are employed; but the sliding spindle *d* is bent near the upper end and acts directly upon the lower side of the lever *g* at a point near the pivot *g'*, so as to raise the end of the lever *g* sufficiently to slide the extinguishers *c*, and thus put out the light, when the lamp is tilted or upset. The dotted lines indicate the relative positions which the weighted spindle, disks, and extinguishers would occupy if the lamp were upset or tilted to one side.

In Figs. 11 and 12 the bracket *f* is shown secured to the collar *a'* of the lamp, instead of to the burner *b*, as previously represented. This arrangement enables us to use larger disks, and is also more convenient, as the weight is not removed from the lamp when the burner is lifted out to renew the wicks, fill the oil-reservoir, or for other purposes.

It may be mentioned with reference to each of the foregoing arrangements that the act of lowering the extinguishers *c* by means of the

lever *g* preparatory to lighting the lamp is sufficient to set the automatic extinguishing mechanism.

Having stated the nature of our invention and described the manner of performing the same, we would have it understood that what we claim, and desire to secure by Letters Patent of the United States, is—

The combination of a sliding extinguisher with a lever, *g*, for raising and lowering the same, the spring $g^2$, which operates said lever to automatically raise said extinguisher for allowing the same to close, the spring-pressed trigger *h*, which normally holds said lever out of operation, the spindle *d*, arranged below said trigger, and provided at its lower end with a disk, *d'*, and the weighted spindle *e'*, having at its upper end a disk, *e*, in contact with said disk *d'*, for the purpose set forth.

The foregoing specification of our improvement in lamps signed by us this 26th day of October, 1883.

ROBERT OGDEN.
ROBERT JAMES ANDERSON.

Witnesses:
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