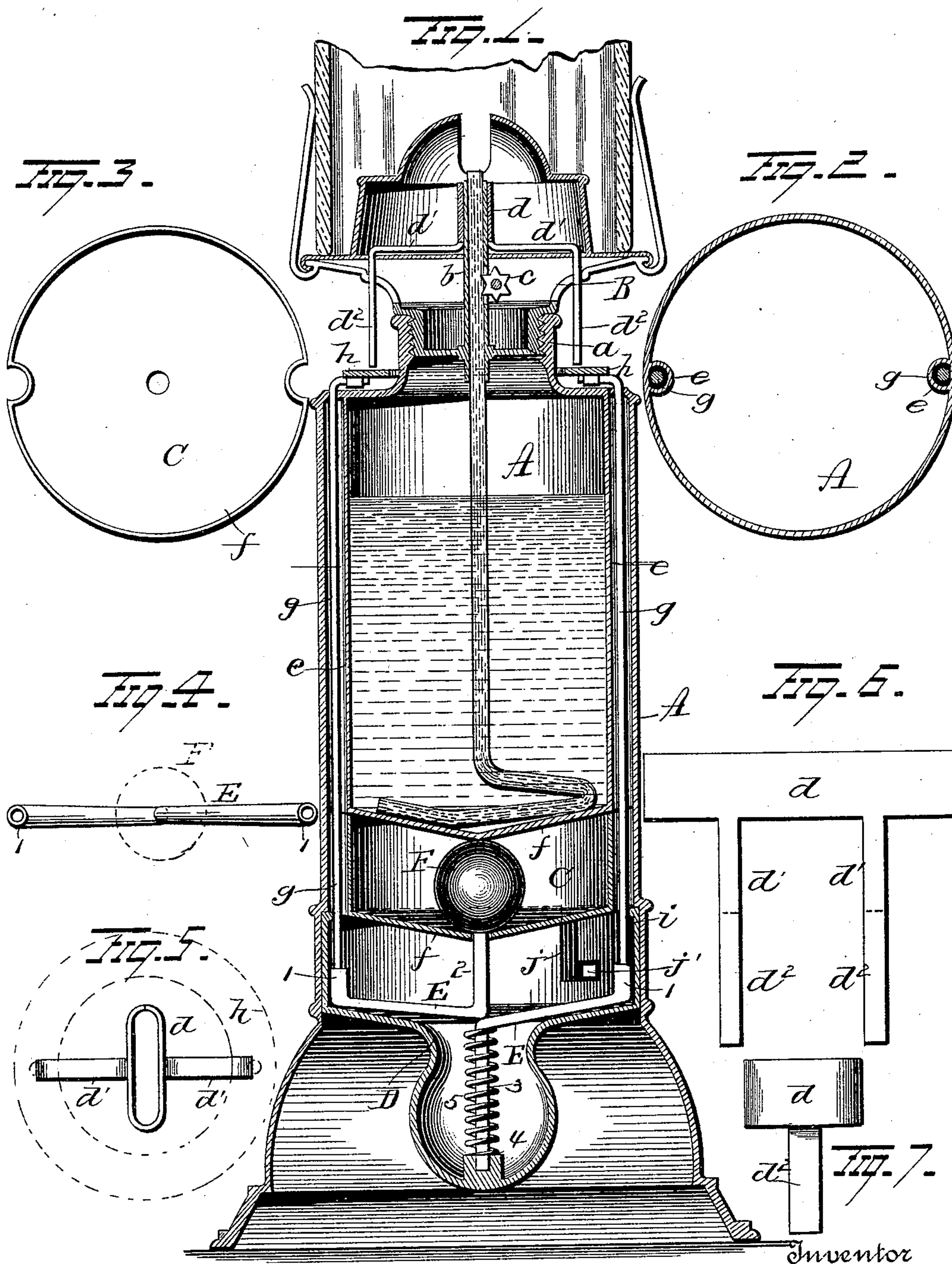


J. B. PRICE.
LAMP EXTINGUISHER.

No. 481,268.

Patented Aug. 23, 1892.



Witnesses
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(No Model.)

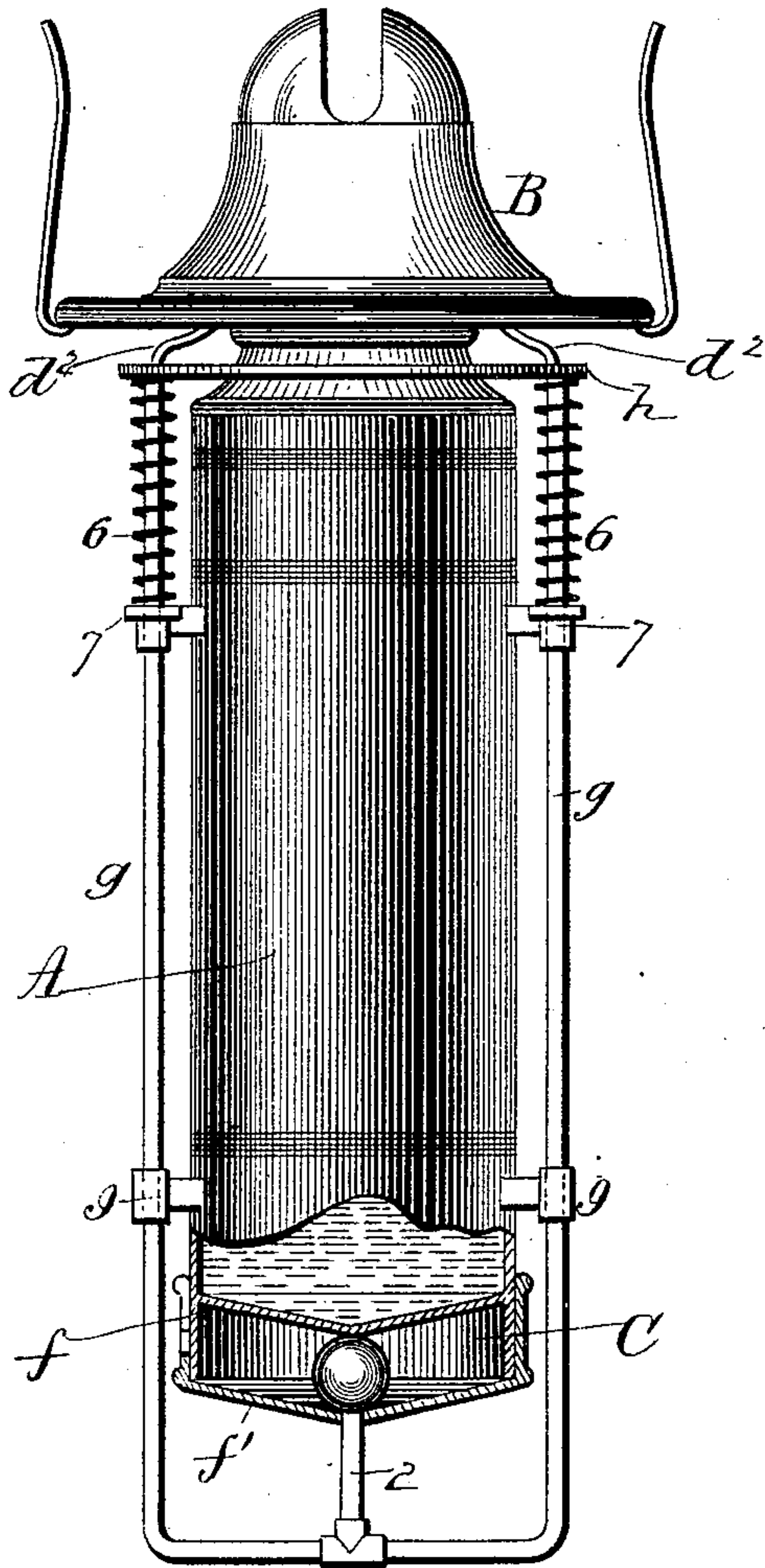
2 Sheets—Sheet 2.

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Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN B. PRICE, OF WOLLASTON, MASSACHUSETTS.

LAMP-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 481,268, dated August 23, 1892.

Application filed November 2, 1891. Serial No. 410,681. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. PRICE, of Wollaston, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Lamp-Extinguishers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in lamps, and more particularly to means for causing the light to be automatically extinguished in case the lamp is jarred or overturned, the object of the invention being to produce simple and efficient devices for the accomplishment of the purpose above stated, which devices shall be comparatively cheap to manufacture, easy to assemble, and which shall be effective in the performance of all their functions.

With this object in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical sectional view of the body of a lamp having my improvements applied thereto. Fig. 2 is a section on the line $x x$ of Fig. 1. Figs. 3, 4, 5, 6, and 7 are detail views. Fig. 8 is a view of a modification.

A represents the body of a lamp adapted for the reception of oil, such as kerosene, said body A being provided at its upper end with an internally-screw-threaded neck a for the reception of the similarly-threaded shank of a lamp-burner B, which latter is provided with a wick-tube b and wick raising and lowering device c . Adapted to loosely embrace the upper end of the wick-tube, so as to have a vertical movement thereon, is a short tube d , having laterally-projecting arms d' , from the outer ends of which arms d^2 depend and, passing through the burner B, terminate just above the top of the lamp-body, said tube d and arms d' and d^2 constituting an extinguisher which when moved above the top of the wick by the means hereinafter described will extinguish the light instantly. Located within the lamp-body at diametrically-opposite sides thereof are two tubes $e e$, at the lower ends of

which a chamber or receptacle C is located, said receptacle or chamber having a conical top f and conical bottom f' , the top f serving as a bottom for the oil-reservoir. Passing loosely through the tubes $e e$ and extending to the bottom of the lamp-body A are two rods g , said rods being projected through the top of the lamp-body and having a flat ring h secured to the tops thereof, said ring being adapted when the rods g are moved upwardly to make contact with the depending arms d^2 of the extinguisher, and thus raise said extinguisher to extinguish the light on the wick. The chamber or receptacle C is supported by means of the upwardly-projecting annular flange i of a casing D, which flange i is provided with an L-shaped slot j for the reception of a pin or projection j' on the interior of the body, whereby the receptacle or chamber C will be properly supported and the casing D retained in proper position.

Located in the lower end of the body A of the lamp is a bracket E, comprising arms 1 1, 2, and 3. The upturned ends of the arms 1 1 are provided with sockets for the reception of the lower ends of the rods g . The arm 2 extends upwardly through a perforation in the lower end of the receptacle or chamber C, and the arm 3 projects downwardly through the casing D at the bottom of the lamp, its end being adapted to enter a socket-piece 4. A spiral spring 5 encircles the arm or rod 3 and tends to normally force said arm and the bracket of which it is a member upwardly. The bracket E is maintained normally at the lower extremity of its movement by means of a weight or ball F, located in the conical chamber or receptacle C, and said chamber or receptacle being of a conical form the ball or weight F will rest upon the upper end of the rod or arm 2 of bracket E when the lamp is upright. Now if the lamp should become suddenly jarred or overturned the weight or ball F would move away from the opening in the bottom of the receptacle or chamber C, and thus release the bracket E. The bracket being thus released, the spring 5 will force it upwardly, and thus force the rods g upwardly. The rods g , being forced upwardly, will cause the ring h , carried thereby, to engage the arms d^2 of the extinguisher and raise said extinguisher and extinguish the light, as previ-

ously explained. By providing the ring *h* the raising of the extinguisher is rendered certain, whereas if small plates were provided to engage said extinguisher they might not
 5 always be in line with the arms *d*² of the extinguisher, as the lamp-burner might not always be screwed on to the full extent.

The object of making the ends of the wires 11 of bracket E with sockets to receive the
 10 ends of the rods *g* is that it facilitates manufacture and allows the lamp to be taken apart for exhibition or cleaning. By unclasping the lower casing D the spiral spring may be removed, the bracket E can be separated from
 15 the rods *g*, and when that is done the ball-supporting receptacle C can be removed. By removing the lamp-burner B the ring *h* can be removed. As shown in Figs. 6 and 7, the extinguisher may be made in one piece and
 20 bent as shown in said figures.

Instead of locating the spiral spring in the casing D, said casing may be dispensed with, as shown in Fig. 8, and two spiral springs 5
 25 located on the rods *g*, one end of said springs bearing against the ring *h* and the other ends of said springs bearing on lugs 7, connected to said rods and encircling the body of the lamp. Other lugs 9 will in this case be provided near the lower end of the lamp-body
 30 and provided with loops, through which the rods *g* pass. In this construction both rods *g* may be made of a single piece of wire.

It will be seen that when the lamp is placed upright the ball or weight F will roll to the
 35 center of the receptacle C and depress the bracket E, and thus release the extinguisher and permit it to drop, so as to expose the wick. Should the extinguisher fail to drop by its own gravity, it may be readily forced down by
 40 hand.

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

1. The combination, with a lamp, of an ex-
 45 tinguisher adapted to embrace the wick-tube, rods extending parallel with the body of the lamp and adapted to engage the extinguisher, a bracket connected with said rods, a spring adapted to normally force said bracket and
 50 rods upwardly, and a weight adapted to automatically maintain said rods normally out of contact with the extinguisher against the tension of said spring and automatically release said bracket and rods when the lamp is jarred
 55 or overturned and cause the extinguisher to be elevated to extinguish the light, substantially as set forth.

2. The combination, with a wick-tube, an extinguisher embracing this tube, and devices
 60 projecting outwardly from this extinguisher, of a ring surrounding a portion of the burner and adapted to move up and draw thereon and located in position to strike these project-

ing devices when it moves out of its normal position and means for locking the ring, said
 65 means being located and arranged to automatically unlock the ring when the lamp is suddenly jarred or tilted out of its perpendicular position, substantially as set forth.

3. The combination, with a lamp and an ex-
 70 tinguisher adapted to embrace the wick-tube, of rods adapted to run parallel with the lamp-body and engage said extinguisher, a receptacle having a conical bottom located near the lower end of the body of the lamp and
 75 adapted to produce the bottom of the oil-receptacle, a spherical weight within said receptacle, a bracket connected with said rods and having an arm adapted to project through an opening in the conical bottom of the re-
 80 ceptacle and be engaged by the weight, a casing at the bottom of the lamp-body, into which one arm of said bracket projects, and a spring encircling said last-mentioned arm and adapted
 85 to force the bracket upwardly against the weight, substantially as set forth.

4. The combination, with a lamp and an ex-
 90 tinguisher adapted to embrace the wick-tube, of rods adapted to engage said extinguisher, a bracket attached to said rods, a chamber having a conical bottom and adapted to receive one arm of said bracket in the bottom thereof, a spherical weight in said receptacle,
 95 a casing removably attached to the bottom of the lamp-body, and a spring in said casing adapted to force the bracket and attached rods upwardly, said spring being of a tension less than the force exerted by the spherical weight, substantially as set forth.

5. The combination, with a lamp and an ex-
 100 tinguisher adapted to embrace the wick-tube, of rods adapted to engage the extinguisher, a bracket having arms provided with sockets for the reception of the lower ends of said rods, a sphere for normally holding the bracket
 105 in its depressed position, and a yielding device for elevating said rods when the sphere is moved from its normal position, substantially as set forth.

6. The combination, with an extinguisher, 110
 rods connected thereto, and a spring or springs for elevating said rods, of a chamber having a sloping bottom and a sphere fitting snugly between the top and bottom walls of said chamber and adapted when in its lowest po-
 115 sition to rest on a projection from the rods and hold said rods depressed, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscrib-
 120 ing witnesses.

JOHN B. PRICE.

Witnesses:

A. C. SHAW,
 GLANCY SHERMAN.