No. 687,738. Patented Dec. 3, 1901.

J. C. FLEMING.

LANTERN FOR ELECTRIC OR OTHER LIGHTS.

(Application filed Dec. 8, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

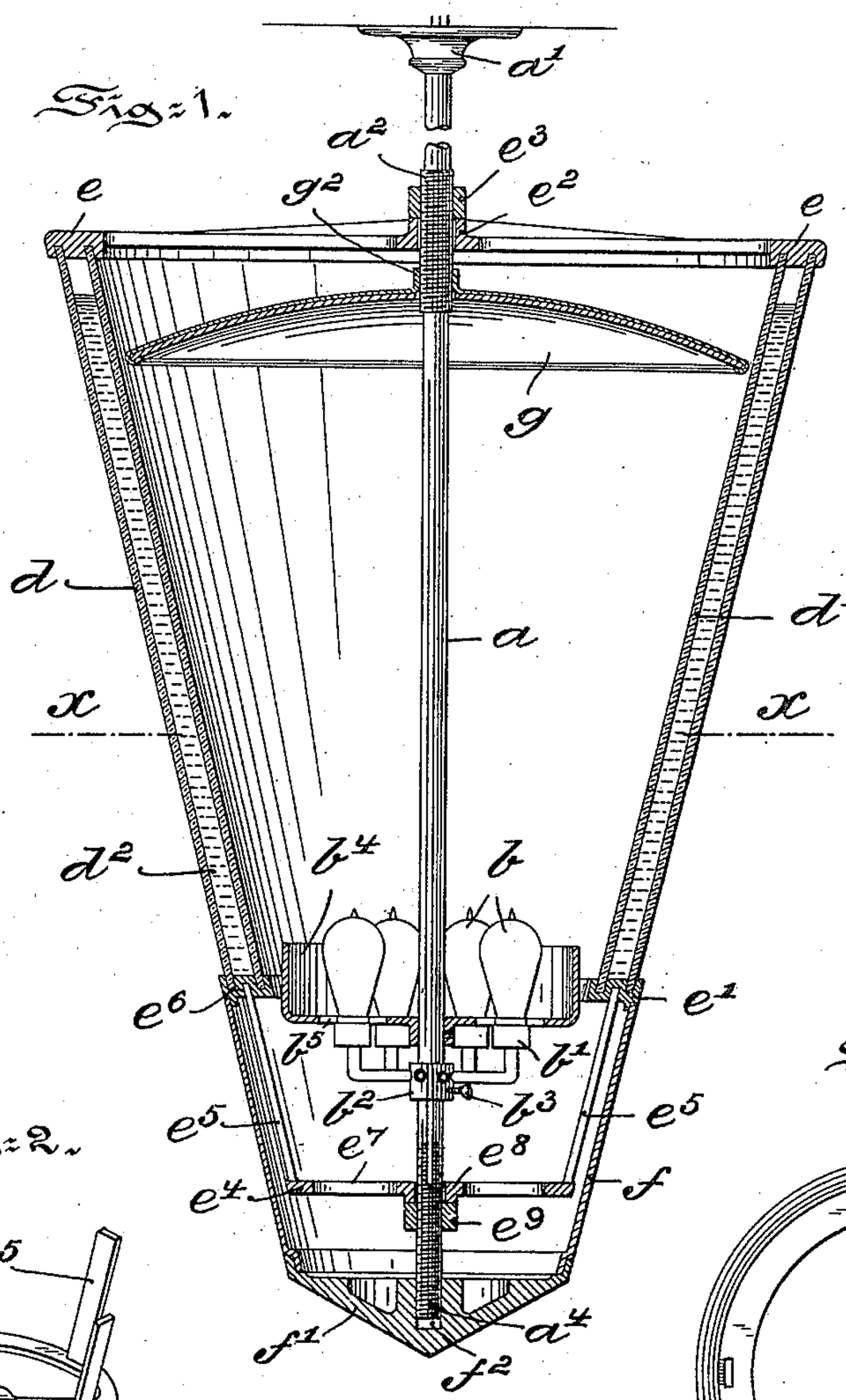


Fig. 3.

Fig. 2.

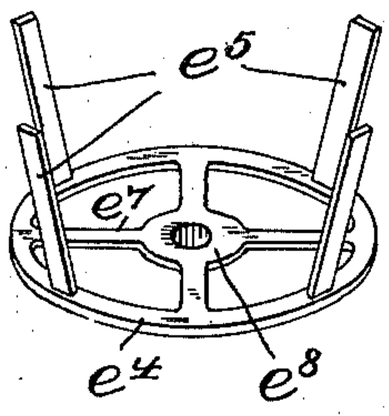
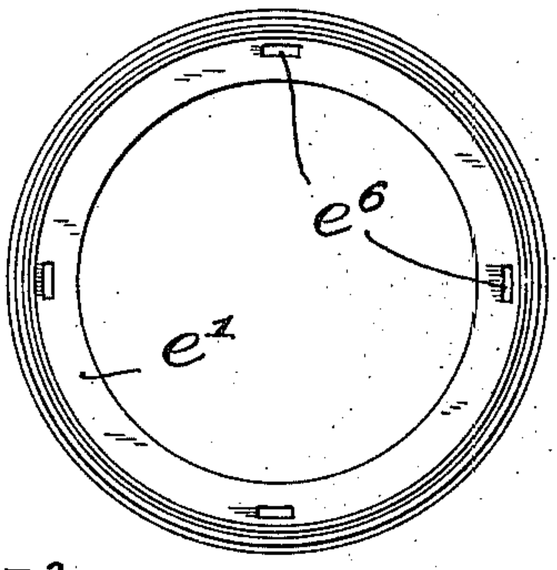
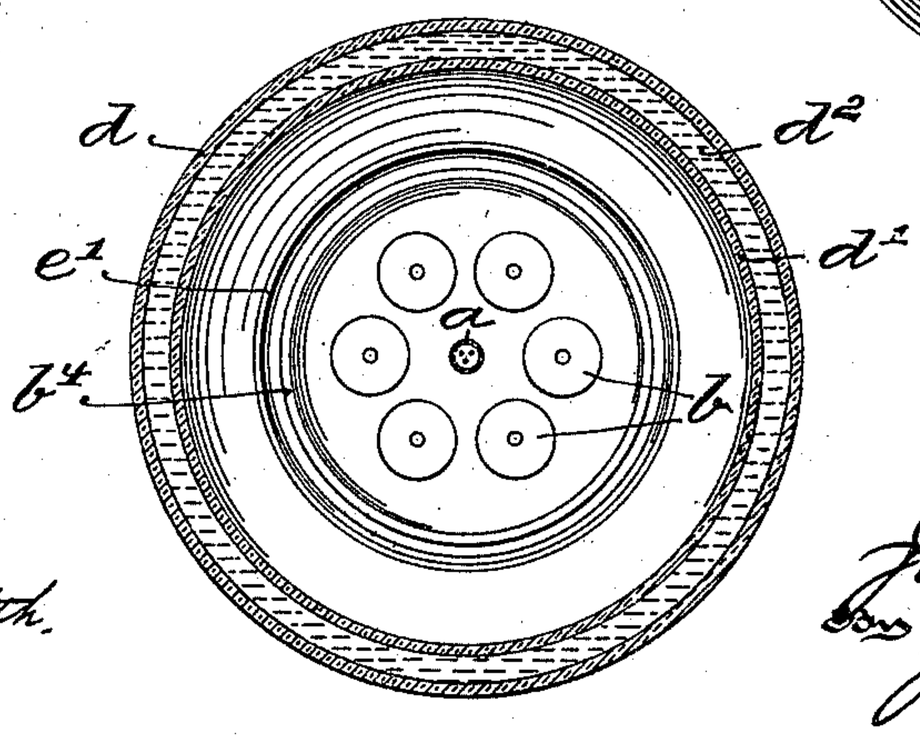


Fig. 4.





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(No Model.) 2 Sheets—Sheet 2.

Fig. 5.

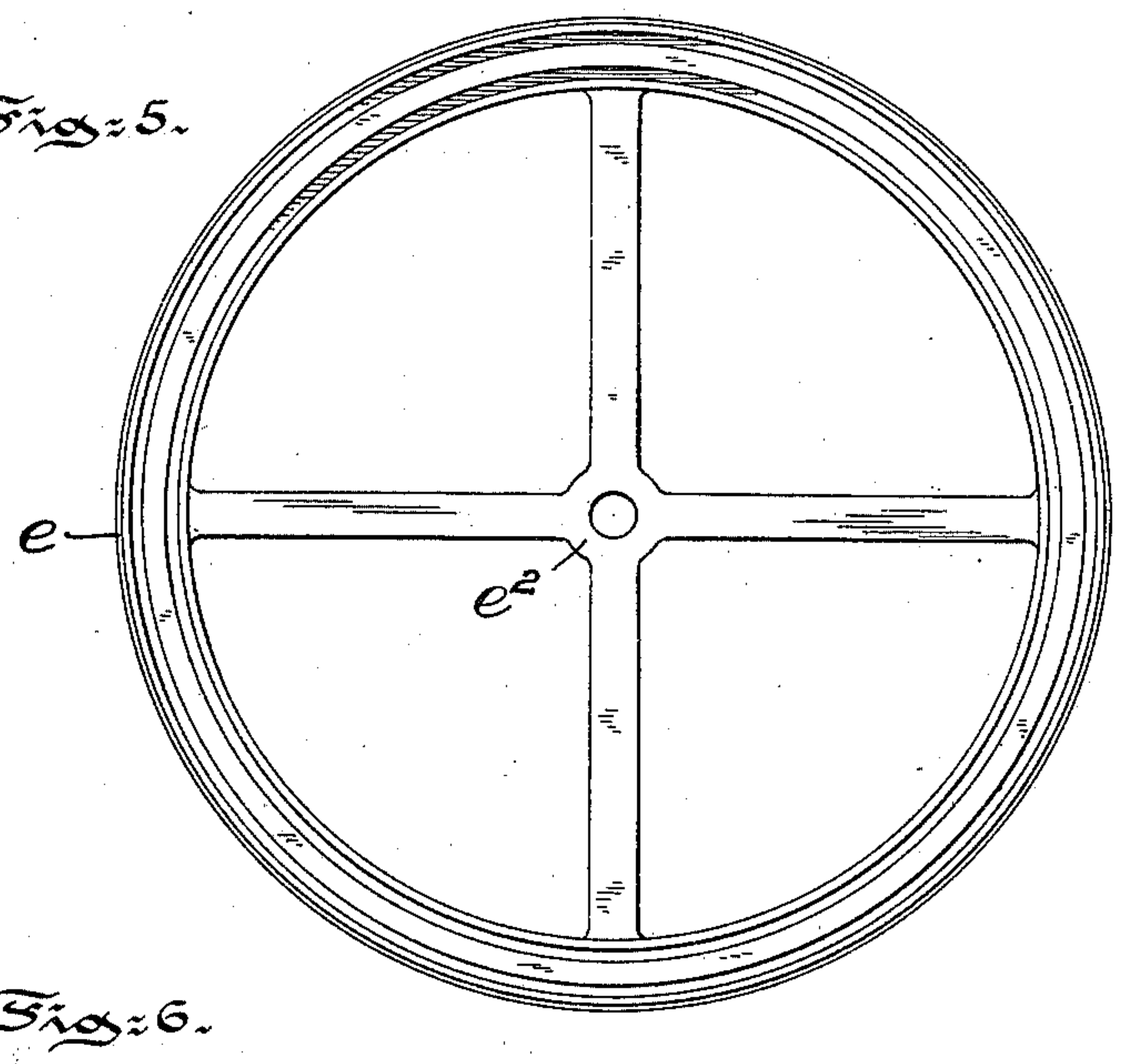
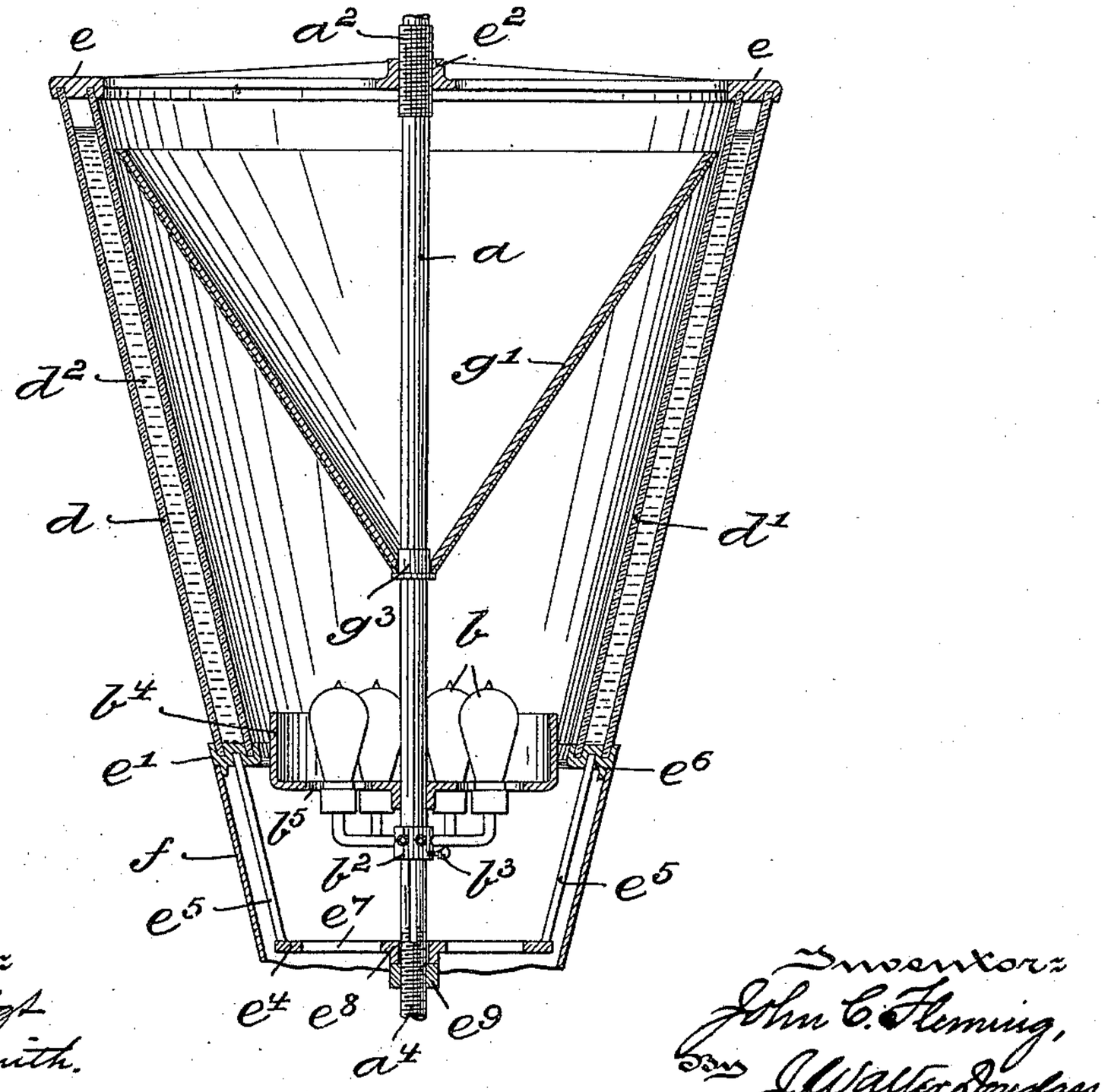


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN C. FLEMING, OF SUMMIT, NEW JERSEY.

LANTERN FOR ELECTRIC OR OTHER LIGHTS.

SPECIFICATION forming part of Letters Patent No. 687,738, dated December 3, 1901.

Application filed December 8, 1900. Serial No. 39,146. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. FLEMING, a citizen of the United States, residing at Summit, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Lanterns for Electric or other Lights, of which the following is a specification.

My invention has relation to a lantern for incandescent and other lights, and in such connection it relates to the construction and arrangement of parts constituting the lantern and fixtures therefor.

The principal objects of my invention are, first, to provide a lantern for electric or other lights comprising a plurality of transparent or translucent devices in the shape of shells, a tube or standard traversing the inner device, a series of lights adjustably supported on said tube or standard at or near the base of said inner device, an upper grooved plate and a lower grooved bracket between which the transparent or translucent devices or shells are adapted to be clamped, and means for removably securing the plate and bracket to the tube or standard; second, to provide in conjunction with such a lantern a reflector adapted to reflect the light through the transparent or translucent devices, and, third, to provide a means whereby the lights within the inner device or shell may be withdrawn without disturbing the main parts of the lantern and for the purpose of repairing or replacing the lights.

The nature and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a vertical central sectional view of a lantern embodying the main features of my invention. Fig. 2 is a perspective view of the cage or bracket adapted to support the lower end of the devices. Fig. 3 is an underneath plan view of the lower grooved ring in which the ends of the devices or shells are located. Fig. 4 is a horizontal sectional view taken on the line $x\,x$ of Fig. 1. Fig. 5 is an underneath plan view of the upper circular plate, and Fig. 6 is a vertical central sectional view of the lantern with a modified form of reflector.

Referring to the drawings, a represents the tube or standard forming the conduit for the wires leading to a series of incandescent electric lights b, grouped around the standard near its lower end. The exposed portion of the tube a is coated or covered with white enamel to prevent absorption of the rays from the lamps b. The upper end of the standard or tube a is fitted in a suitable support or socket a', fixed to the ceiling or other horizontal support. Below the support or socket a' the standard or tube a is screw-threaded, as at a^2, for a purpose to be hereinafter described. The tube a traverses the inner of two concentric shells d and d', preferably of conical form, the upper edges or rims of which fit in the grooves of a circular plate e. The lower edges of the shells d and d' also fit in a similarly-grooved ring e'. The shells d and d' are formed of glass or similar transparent or translucent material, and the space between their contiguous walls is adapted to be filled with a translucent liquid d^2 of any suitable color or consistency. The upper plate e has a central eye or bush e^2, adapted to slide on the tube a, over the screw-threaded end a^2 of said tube, and when in position is locked against upward movement by a jam-nut e^3, adapted to bear against the bush e^2 when advanced on the screw-threaded portion a^2 of the tube a. The lower ring e' is supported in position by a basket or cage e^4, consisting of a plurality of vertically-disposed arms e^5, the upper ends of which enter suitable grooves or sockets e^6 in the under face of the ring e'. These arms e^5 project at a slight angle upward from a skeleton plate e^7, having a central boss e^8, fitting around the tube a. The plate e^7 and its arms are adapted to be locked to the standard a against downward movement thereon by a jam-nut e^9, bearing against the boss e^8.

In assembling the shells and the two clamping-supports together the shells d and d' are first fitted into the grooves of the plate e and then the lower ring e' is fitted against the lower rims of the shells d and d' and the basket or cage e^4 advanced on the tube a until it fits against the ring e', when it is clamped by the nut e^9. The upper plate e is now clamped down upon the upper edges or rims of the shells d and d' by advancing the jam-nut e^3

on the tube or standard *a*. When thus locked together, the interior lower portion of the two shells may be readily reached by inserting the hands through the openings between the arms e^5. The lights *b*, as illustrated in the drawings, are preferably incandescent electric lights, although other kinds may be employed, and the bulbs are inserted in a series of sockets *b'*, radially projecting from a collar b^2. This collar b^2 is adapted to be slid up or down upon the tube *a* and when in proper position may be locked to said tube by a set-screw b^3 or other suitable means. To prevent the light from the lamps *b* radiating downward through the base of the lantern, there is preferably supported upon the tube *a* above the collar b^2 a dish-shaped reflector-plate b^4, the interior of which is coated with white enamel or other suitable material. The plate or dish b^4 surrounds the bulbs of the lamps, as clearly illustrated in Fig. 1, and its base is perforated, as at b^5, to permit the lamps to be drawn downward through the base of said dish b^4. To prevent the entrance of air, dust, or moisture into the interior of the lantern through the cage e^4, a protecting-hood *f*, adapted to surround the ring *e'* and basket or cage e^4, is provided. This hood *f* projects upward from a cap-piece *f'*, having a screw-threaded socket f^2, adapted to receive the screw-threaded end a^4 of the tube or standard *a*. Whenever it is necessary to have access to the lamps *b*, the hood *f* and cap *f'* are first removed from the tube *a* and the hand of the operator inserted through the cage e^4 to reach the set-screw b^3 and to loosen the same. The collar b^2, sockets *b'*, and lamps *b* may then be drawn down into the cage e^4, the bulbs of the lamps readily passing through the apertures b^5 in the base of the dish b^4. The lamps *b* may then be unscrewed from their sockets and replaced. The collar b^2 is then elevated and locked in its proper position. The hood *f* and cap *f'* are then locked to the tube *a*, and the lantern is in condition for use. To properly reflect the rays of light through the shells *d* and *d'*, a concave reflector *g* may be used, as illustrated in Fig. 1, or in lieu thereof a conical inverted reflector *g'*, as illustrated in Fig. 6, may be substituted. When the concave reflector *g* is used, it is provided with a central screw-threaded opening or bush g^2, adapted to engage the screw-threaded portion a^2 of the tube or standard *a* slightly below the plate *e*. When the conical reflector *g'* is used, its apex is formed with a collar or bush g^3, adapted to be secured to the tube or standard *a* in any suitable manner at a point adjacent to the lamps *b*.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the character described, a plurality of shells, between the walls of which is provided a space forming a chamber, a standard traversing the region inclosed by said shells, a source of light supported by said standard in said region, a removable device constituting a closure for the bottom of said shells, said device being supported by said standard, a reflector located in the region inclosed by said shells and supported by said standard, and a plate engaging the upper ends of the walls of said shells.

2. In a device of the character described, an upper circular plate, a lower ring, a plurality of shells between the walls of which is provided a space forming a chamber, a standard traversing said plate, ring and region inclosed by said shells, a source of light located in said region and supported from said standard, means for removably securing the plate and ring to said standard, and a reflector supported from said standard above said source of light and in the region inclosed by said shells and adapted to throw the light through said shells.

3. In a device of the character described, a plurality of transparent or translucent concentric shells, a ring adapted to support the lower rims of said shells, a cage or basket consisting of a plate provided with projecting arms adapted to enter the ring to support the same, and a tube or standard removably secured to the plate of said cage or basket and supporting a source of light within the inner shell.

4. In a device of the character described, a plurality of transparent or translucent shells, a ring adapted to support the lower rims of said shells, a cage or basket consisting of a plate provided with projecting arms adapted to enter the ring to support the same, a tube or standard removably secured to the plate of said cage or basket, a collar adapted to slide up and down on said tube or standard within the cage or basket, and a source of light supported by said collar.

5. In a device of the character described, a plurality of transparent or translucent shells, a ring adapted to support the lower rims of said shells, a cage or basket consisting of a plate provided with projecting arms adapted to engage the ring to support the same, a tube or standard removably secured to the plate and supporting a source of light within the inner shell, a hood adapted to inclose the ring and cage, and a cap-piece adapted to be secured to the standard and to support said hood.

6. In a device of the character described, transparent or translucent shells, a standard traversing the inner shell, means for supporting said shells on said standard, a collar adapted to be secured to said standard, a series of lights supported by said collar and located within the inner shell, a dish-shaped reflector arranged around said lights and adapted to throw the light upward, and a reflector supported on said standard above the lights and adapted to throw the light through the shells.

7. In a device of the character described, an

upper plate, a lower ring, a shell located between said plate and ring, a standard traversing said plate, ring and shell, a source of light located within said shell and supported from said standard and adapted to throw the light upward and a reflector supported on said standard above said source of light and located in the interior of said shell and adapted to throw the light through said shell.

8. In a device of the character described, a shell, a standard traversing said shell, a source of light located within said shell, a ring adapted to fit against the lower rim of said shell, means for supporting said ring, said means removably secured to said standard, a reflector arranged within the shell and supported by said standard above the source of light, and a top plate fitting the upper rim of said shell.

9. In a device of the character described, a plurality of shells formed of transparent or translucent material, a tube or standard traversing the interior of the innermost shell, a source of light supported by said standard, within the inner shell, a ring adapted to fit against the lower rims of the shells, a cage or basket adapted to support said ring and removably secured to the standard, an upper plate resting against the upper rims of the shells, and means for clamping said plate down upon the shells.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

JOHN C. FLEMING.

Witnesses:
J. WALTER DOUGLASS,
THOMAS M. SMITH.