

No. 720,271.

PATENTED FEB. 10, 1903.

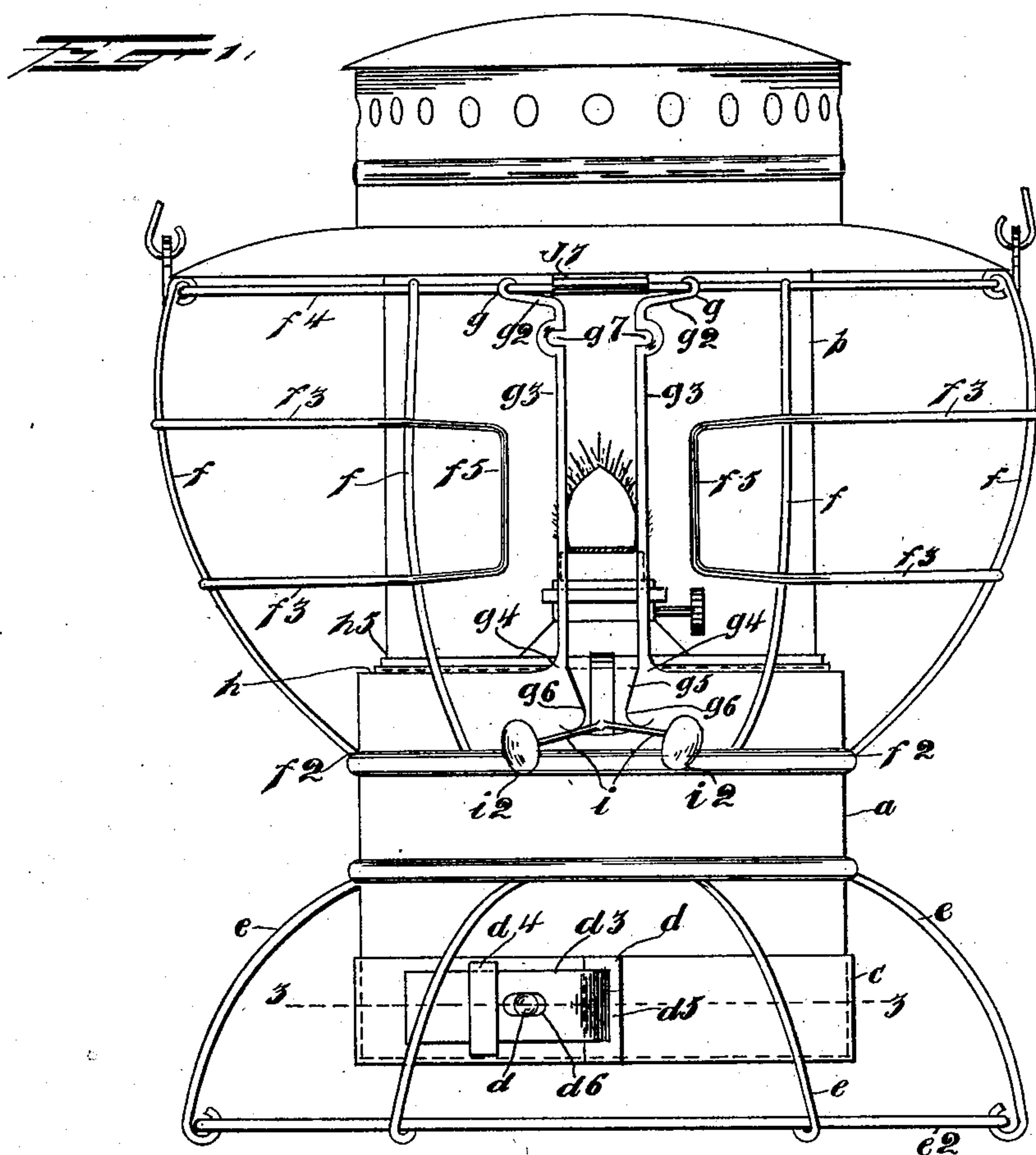
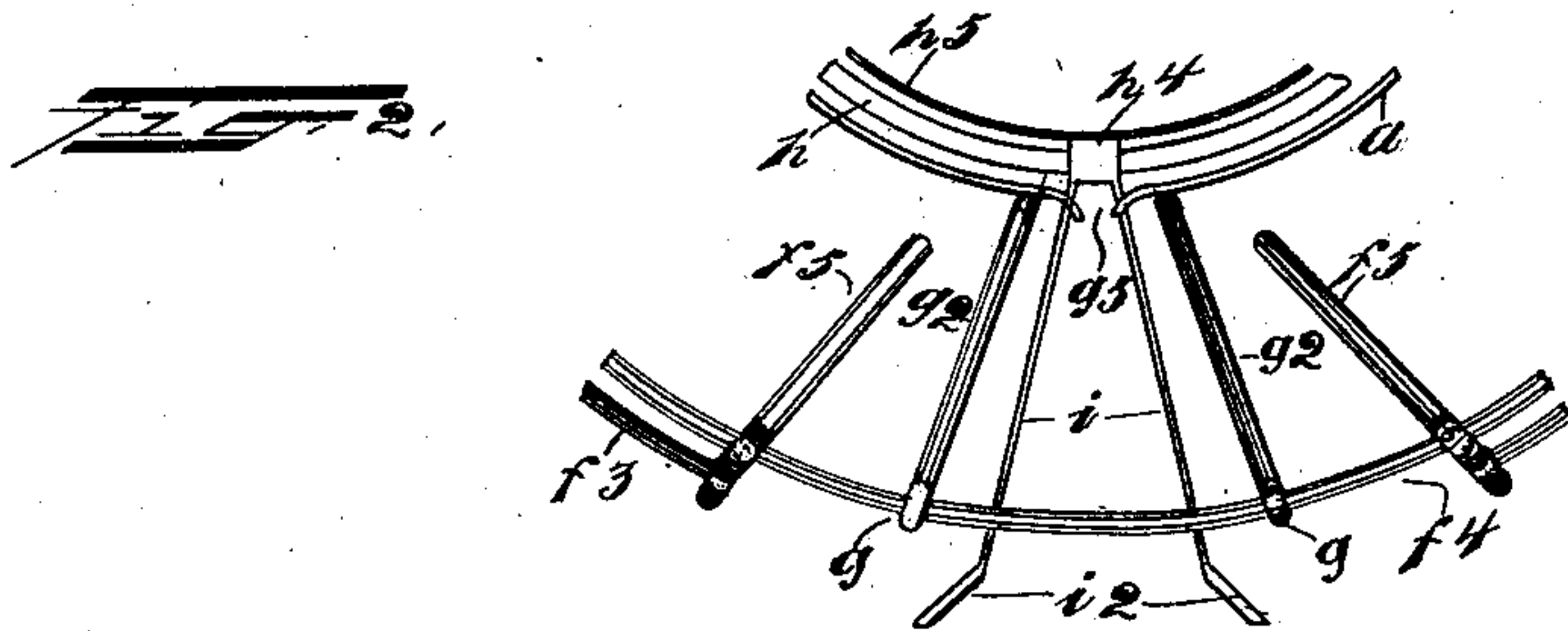
H. L. MOORE & J. E. LEWIS.

SIGNAL LANTERN.

APPLICATION FILED MAY 14, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES

J. E. Lensen
F. A. Stewart

BY

INVENTORS:

Herbert L. Moore
John E. Lewis

Edgar Sale
ATTORNEYS

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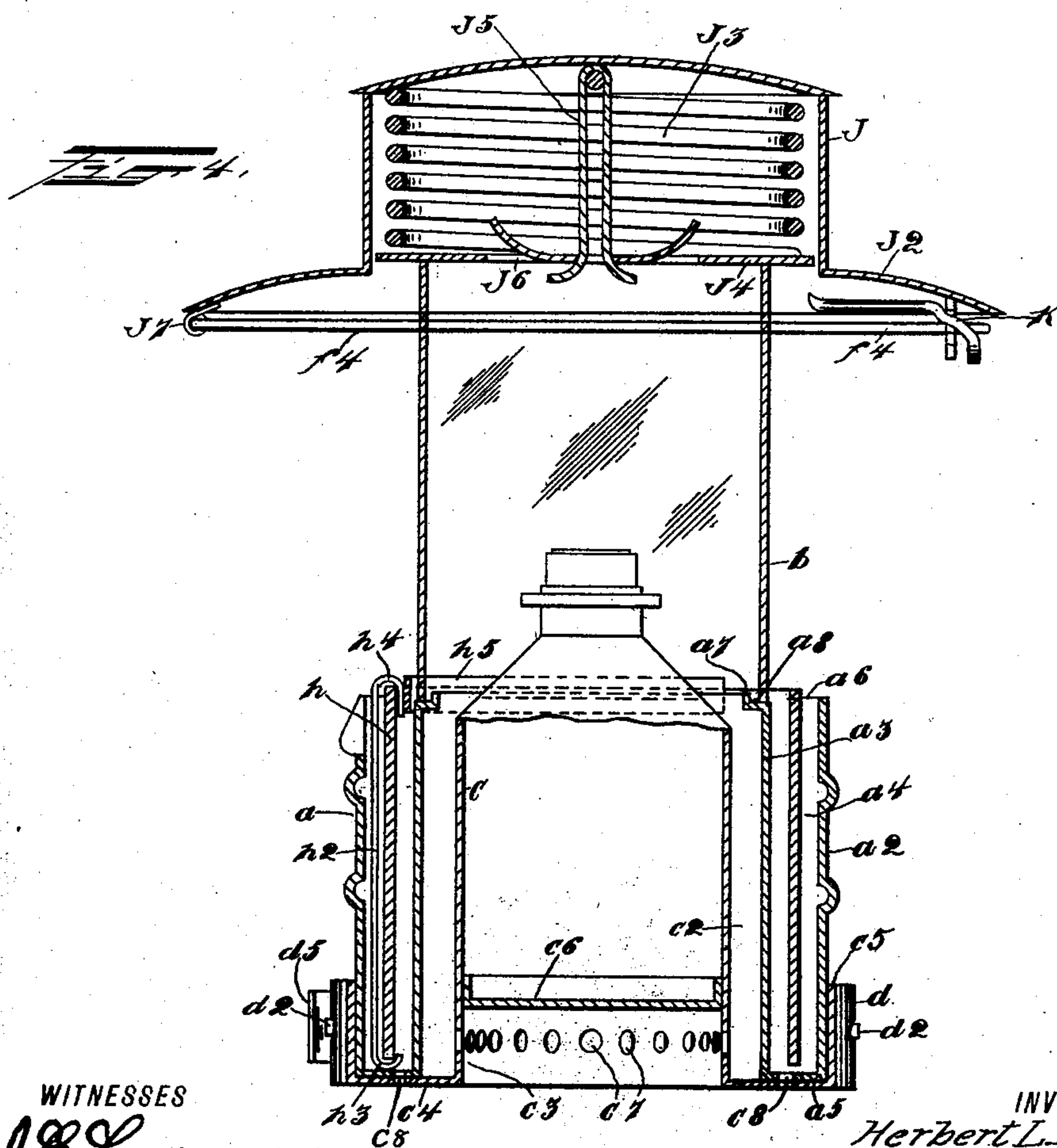
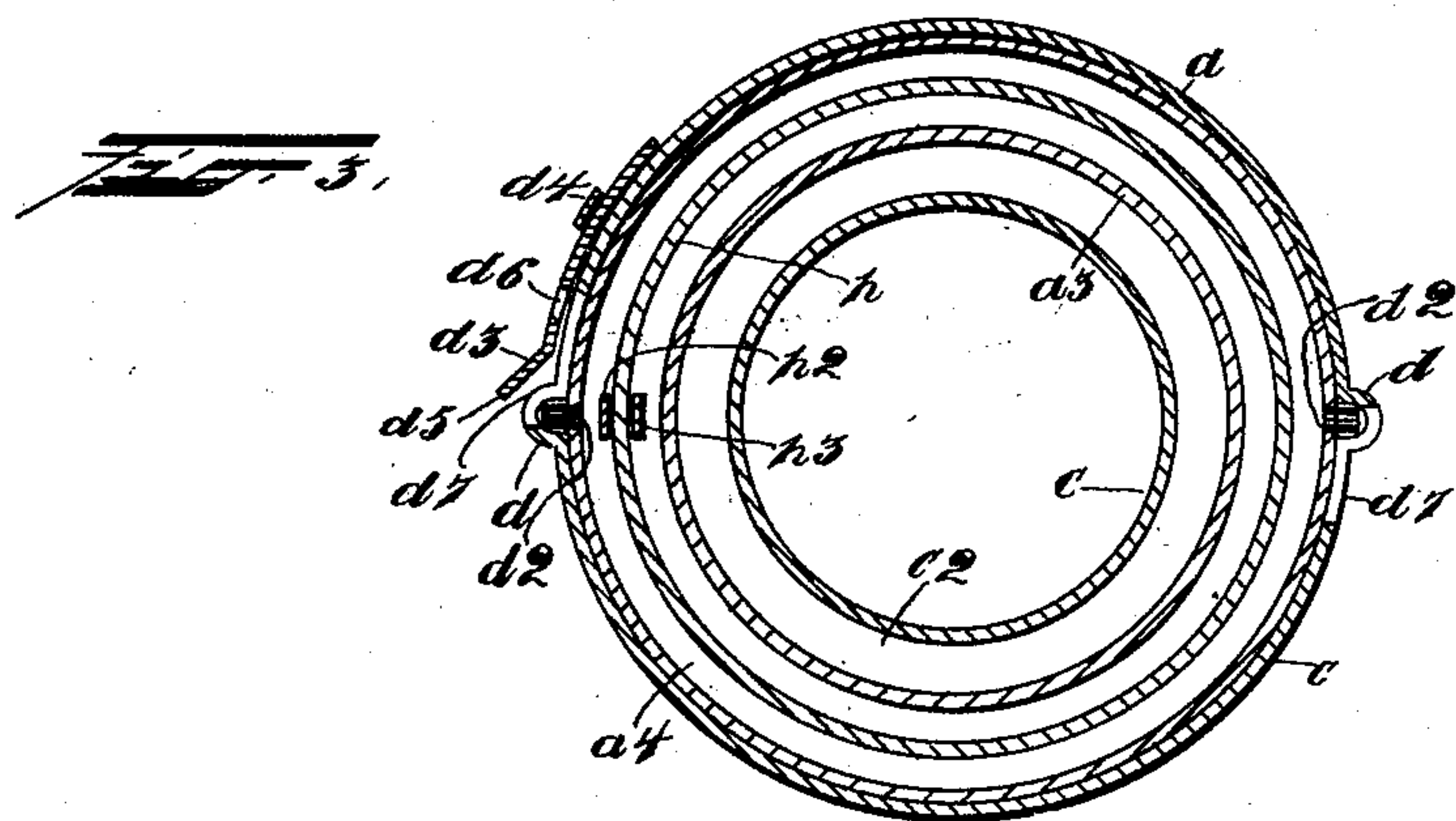
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UNITED STATES PATENT OFFICE.

HERBERT L. MOORE AND JOHN E. LEWIS, OF ELIZABETH, NEW JERSEY.

SIGNAL-LANTERN.

SPECIFICATION forming part of Letters Patent No. 720,271, dated February 10, 1903.

Application filed May 14, 1902. Serial No. 107,275. (No model.)

To all whom it may concern:

Be it known that we, HERBERT L. MOORE and JOHN E. LEWIS, citizens of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Signal-Lanterns, of which the following is a full and complete specification, such as will enable those skilled in the art to which it ap-
10 pertains to make and use the same.

The object of this invention is to provide an improved signal-lantern of the class which is usually employed on railways for signaling purposes; and with this and other objects in
15 view the invention consists in a signal-lantern constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of our improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a side elevation of a signal-lantern constructed according to our invention; Fig. 2, a plan view of a part of the top framework of the lantern-body; Fig. 3, a cross-section on the line 3 3 of Fig. 1, and Fig. 4 a sectional elevation of our improved lantern.

30 In the practice of our invention we provide a lantern-base a , which is cylindrical in form and composed of two concentric parts a^2 and a^3 , between which is an annular space a^4 , closed at the bottom, as shown at a^5 , and
35 open at the top, as shown at a^6 , and the inner member or casing a^3 of the base a is provided with an inwardly and upwardly directed annular member a^7 , forming a rabbet-groove a^8 , adapted to receive the usual globe
40 b , which rests thereon. We also provide a lamp-reservoir c , which is adapted to be inserted into the base a , and between which and the inner casing or member a^3 of said base is an annular space c^2 , and the bottom
45 of the reservoir a is provided with a downwardly-directed extension c^3 , having an outwardly-directed flange c^4 , provided with an upwardly-directed rim c^5 , and the downwardly-directed portion a^3 of the lamp-reser-
50 voir below the bottom c^6 of said reservoir is provided with annularly-arranged perforations c^7 , which communicate with the annular

space c^2 and which are designed to supply air to said annular space, from which it passes to the burner. The bottom flange of the
5 lamp-reservoir is also provided at c^8 with perforations which serve as water-outlets and which communicate with the annular space c^2 , and the rim c^5 is provided at the opposite
60 sides with vertically-arranged grooves d , formed by bending said rim outwardly, and said grooves are open at the top and adapted to receive pins d^2 , secured to the base a , and adjacent to one of said grooves d^2 and preferably at the left thereof is a spring d^3 , which
65 passes through a keeper d^4 and the free end of which is curved outwardly, as shown at d^5 , and this spring is provided with a hole d^6 , adapted to receive the corresponding pin d^2 , and in connecting the lamp-reservoir
70 with the base of the lantern the reservoir is passed upward into the bottom of said base in such manner that the pins d^2 enter the grooves d , and the said reservoir is then turned to the right and the pins d^2 pass into horizontal
75 slots d^7 , formed in the rim c^5 , and one of said pins passes through the hole d^6 in the spring d^3 , and the reservoir is then locked in the base of the lantern, and in order to remove said reservoir from the base of the lan-
80 tern the spring d^3 is pulled outwardly and the reservoir is turned to the right until the pins d^2 again enter the grooves d , when said reservoir may be pulled downwardly out of the base a . The base of the lantern is also
85 provided with a framework or support composed of wires e , which are secured thereto about midway thereof and which are curved downwardly and outwardly and connected with a ring e^2 , and this frame serves to hold
90 the base a and the reservoir c above the ground or floor or other support on which the lantern may be placed, so as to permit the air to circulate freely below the base a and into and through the holes or openings c^7 and
95 c^8 . The lantern is also provided with an open globe-frame which incloses the globe and which consists of vertically-arranged wires f , connected with the base a at a predetermined distance below the top thereof, as shown at
100 f^2 , and other wires f^3 , which are passed around the wires f midway thereof, and a top wire or ring f^4 , with which the upper ends of the wires f are connected, and at one side of

the globe-frame the wires f^3 are disconnected and bent inwardly or formed into or provided with inwardly-directed loops f^5 , thus forming a vertical open space in the globe-frame and
 5 connected with the top ring or wire f^4 over the space, as shown at g , wires g^2 , which are curved backwardly and inwardly to form arms having downwardly-directed and parallel members g^3 , which are secured at g^4 to
 10 the top of the base a , and between the wire members g^3 the top of said base a is provided with a vertically-arranged opening g^5 , having inwardly-directed lugs or projections g^6 , and the downwardly-directed members g^3 of the
 15 arms g^2 are also provided in the top thereof with notches or recesses g^7 , which open inwardly.

We also provide a signal-globe h , which is adapted to fit in the annular space a^4 between the parts a^2 and a^3 of the base a , and this globe may be colored red or any other preferred color and may be raised, so as to inclose the lantern-globe b when in use and may be lowered into the annular space a^4
 25 when not in use. The means for raising and lowering the signal-globe h consists of a vertically-arranged metal strip or holder h^2 , provided at the bottom with a hook h^3 , which is adapted to receive the lower end of said
 30 globe, and at the top with an inwardly and downwardly directed hook h^4 , into which the upper end of said globe is inserted, and said hook h^4 is provided with a flexible metal ring h^5 , which is secured thereto and adapted
 35 to fit within the globe h and to hold the same steady in the raising and lowering thereof, and this ring h^5 is open at one side or opposite the strip h^2 and may be expanded or contracted, as desired.

40 Secured to the metal strip h^2 at a predetermined distance from the upper end thereof are spring-arms i , which pass outwardly between the vertically-arranged members g^3 of the arms g^2 and are provided with knobs or
 45 handles i^2 , and when the globe h is in its lowest position, as shown in Figs. 1 and 4, the spring-arms i rest beneath the lugs or projections g^6 and lock said globe in such position.

50 When it is desired to raise the globe h so that it will inclose the lantern-globe b , the spring-arms i are forced together and are raised upwardly between the parallel members g^3 of the arms g^2 until said spring-arms
 55 i reach the recesses g^4 , when they are released and fly out into said recesses, and the signal-globe h is held in the raised position and ready for use.

The lantern is also provided with a cap j ,
 60 having a downwardly and outwardly curved base flange or rim j^2 , and within said cap j is placed a spiral spring j^3 , which is held in place by a bottom plate j^4 , which fits in the bottom of the cap j and is held in place by
 65 hangers j^5 , secured in the top of said cap, and said spring rests on the plate j^4 , and said plate is provided with central openings j^6 .

The cap j is hinged to the ring or wire f^4 of the lantern-globe frame at one side, as shown at j^7 , and the opposite side thereof is provided with a spring-hook fastening device k , which is adapted to engage said top ring or wire f^4 , and when the cap j is turned down and locked in position, as shown in Figs. 1 and 2, the plate j^4 rests on the top of the globe
 75 b and securely holds said globe in position.

Our invention is not limited to the means herein described for hinging the cap j at one side or securing it at the other, and any suitable hinge and fastening device may be provided for this purpose, and other changes in and modifications of our invention may be made without departing from the spirit of our invention or sacrificing its advantages.

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

1. In a signal-lantern, an annular base having an annular chamber open at the top, means for supporting a globe on said annular
 90 base, a signal-globe adapted to rest in said annular chamber and provided at one side with a vertically-arranged holder having hooks at its upper and lower ends adapted to grasp the upper and lower ends of said signal-globe, said
 95 holder being also provided with outwardly-directed spring-arms, the open globe-frame of the lantern being also provided at one side with a vertically-arranged open space and two vertically-arranged members between which said
 100 spring-arms are adapted to pass, said vertically-arranged members being provided at the top thereof with recesses adapted to receive said spring-arms, and the outer wall of said annular chamber being also provided in
 105 the top thereof with an opening having side recesses adapted to receive said spring-arms, substantially as shown and described.

2. In a signal-lantern, an annular base having an annular chamber open at the top and
 110 adapted to receive a signal-globe which is adapted to be raised so as to inclose the lantern-globe, a reservoir adapted to be inserted into said annular base and of less diameter than said annular base whereby an annular
 115 space is formed between said base and said reservoir, said reservoir being also provided with a raised bottom below which are perforations communicating with said space, and with an outwardly-directed flange or rim also
 120 provided with perforations communicating with said annular chamber, and means for connecting said reservoir with said base, substantially as shown and described.

In testimony that we claim the foregoing as
 125 our invention we have signed our names, in presence of the subscribing witnesses, this 13th day of May, 1902.

HERBERT L. MOORE.
 JOHN E. LEWIS.

Witnesses:

T. A. STEWART,
 J. C. LARSEN.