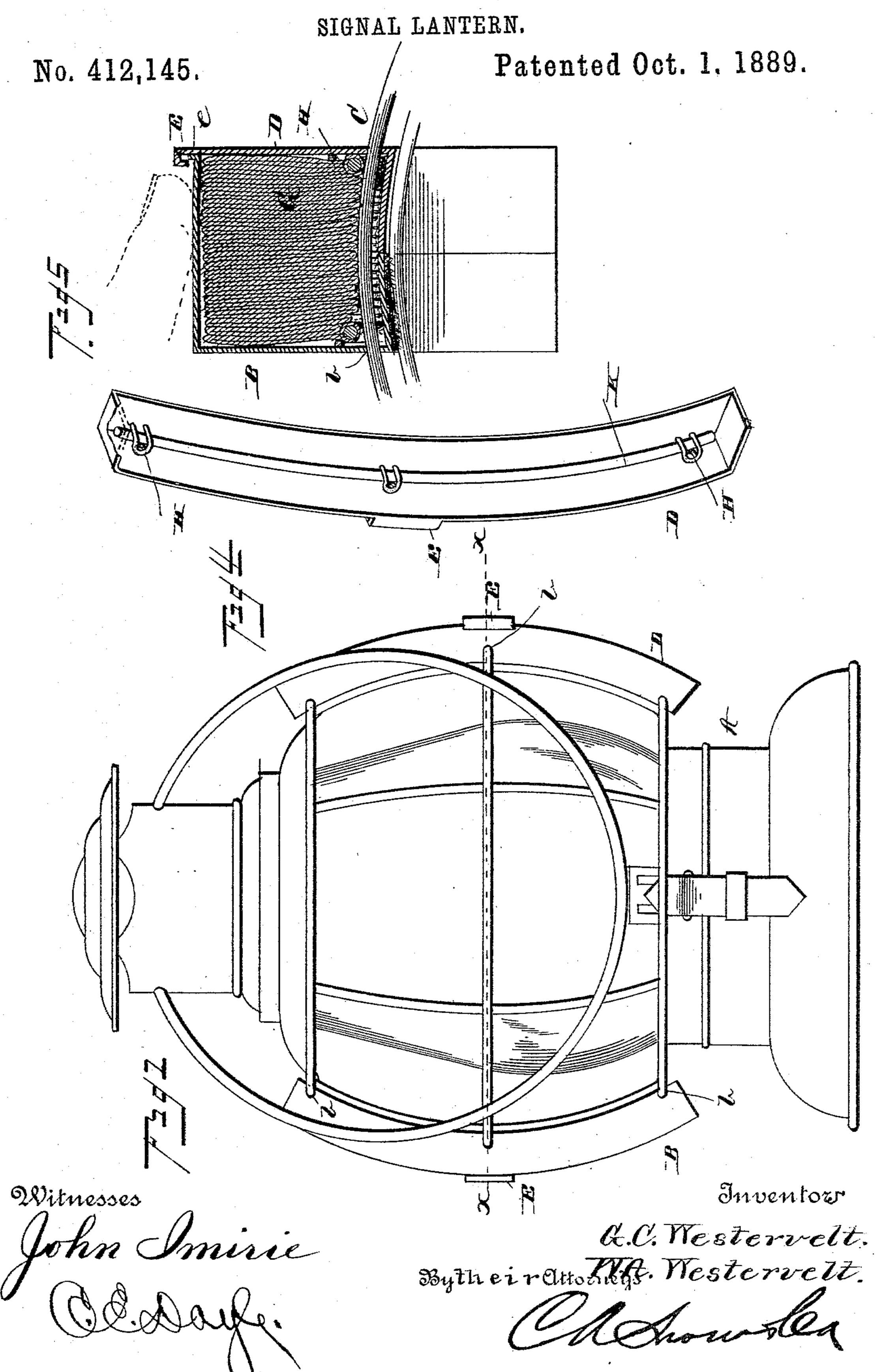
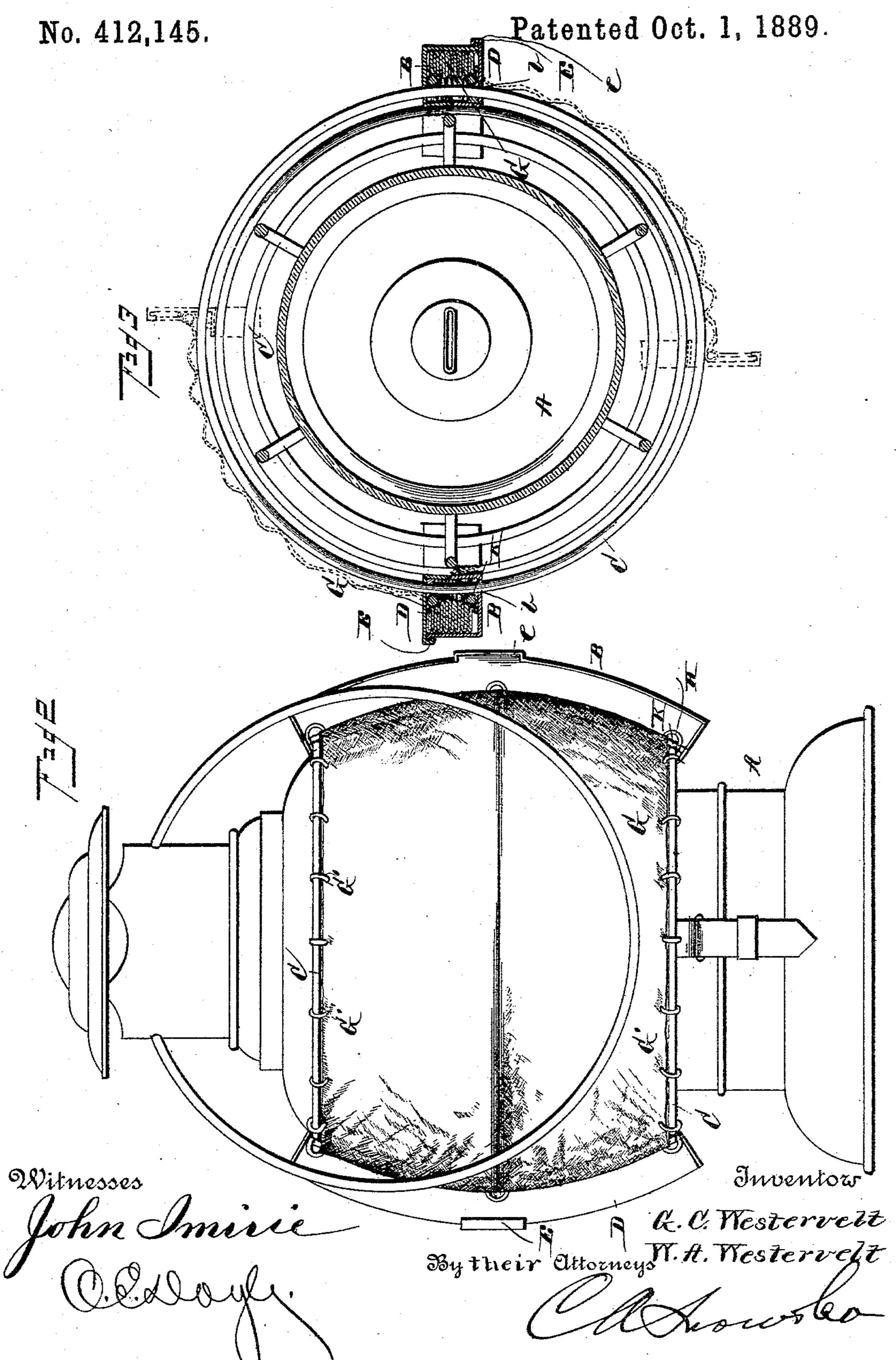
G. C. & W. A. WESTERVELT.



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SIGNAL LANTERN.



United States Patent Office.

GEORGE C. WESTERVELT AND WILLIAM A. WESTERVELT, OF OBERLIN, OHIO.

SIGNAL-LANTERN.

SPECIFICATION forming part of Letters Patent No. 412,145, dated October 1, 1889.

Application filed January 30, 1889. Serial No. 293, 113. (No model.)

To all whom it may concern:

Be it known that we, GEORGE C. WESTER-VELT and WILLIAM A. WESTERVELT, citizens of the United States, residing at Oberlin, in the county of Lorain and State of Ohio, have invented new and useful Improvements in Signal-Lanterns, of which the following is a specification.

The invention relates to improvements in signal-lanterns; and it consists in a certain novel construction and combination of devices, fully described hereinafter in connection with the accompanying drawings, and specifically pointed out in the appended

15 claims.

In the drawings, Figure 1 is a view of a lantern provided with the improvements, with the screen folded. Fig. 2 is a similar view with the screen extended in the operative position. Fig. 3 is a horizontal sectional view on the line x x of Fig. 1, showing in dotted lines the screen-frames partly drawn around. Fig. 4 is a perspective view of the cap for the case to show the loops for attaching the free end of the screen thereto. Fig. 5 is an en-

larged detail sectional view. Referring to the drawings by letter, A designates a lantern, of any ordinary form, to the opposite sides of which are attached the ver-30 tical casings B B, having guide-apertures b b at their upper and lower ends and at their centers; and C C represent sliding rings which surround the lantern and operate in the said guide-apertures. The casings are open at one 35 side, and D D represent caps which are attached to the rings C and are carried thereby and are adapted to close the said open sides of the casings. These caps are provided at their outer edges with spring-catches E, to 40 engage suitable flanges e on the outer side of the casings to hold the caps in position

when the casings are closed.

G designates the folding screen, of any preferred color, as red, green, &c., which is attached at one edge to the inner side of the casing and at the other edge to the inner side of the cap and slides freely on the rings, whereby when the cap is drawn away from the casing the screen is extended around the lantern to cause a colored light to be emit-

ted. It will be seen that when one cap is moved the other is moved also, owing to the fact that they are both affixed to one set of rings.

Small loops H H are attached to the rings 55 close to the inner sides of the caps, and are passed through the edges of the screen and bent toward the caps around the stiffeningrods K in the edge of the screen to hold the latter in place, and at the same time permit 60 it to be readily removed when desired.

From the above description it will be seen that when the flexible colored screen, which preferably consists of a textile fabric, is folded within the casing the lantern emits a 65 white light; but by a simple movement of the cap the screen is extended and a colored light is emitted. This screen may be formed in a single piece to pass entirely around the lantern; but we prefer to form it in two sections, 70 as shown in the drawings, and so connect them that both sections may be extended simultaneously by one operation. The screen is preferably provided at its edges with small rings G' G', through which the rings C C ex- 75 tend, and it will be evident that as the caps are moved toward the casings the screen will be gathered on the said rings CC, and thereby compactly folded within the casings.

We do not desire to limit ourselves to the 80 precise constructions herein described and shown, as various slight alterations may be made in the details thereof without departing from the spirit and intent of the invention.

Having thus described the invention, we 85

claim-

1. A lantern provided with the screens attached thereto at diametrically-opposite points and constructed to be simultaneously extended around the lantern, substantially as 90 described.

2. The combination of the lantern, the casings attached thereto at diametrically-opposite points, and the folding screens constructed to be simultaneously extended around the 95 lantern and folded within the casings, sub-

stantially as described.

3. In combination with a lantern, the rings surrounding the same and the flexible colored screen running on the rings and constructed 100

to be folded or extended around the lantern, substantially as specified.

4. The combination, with a lantern, of the casing attached thereto, the sliding rings sur-5 rounding the lantern, and the flexible screens attached to the rings and adapted to be folded within the casing, substantially as

specified.

5. The combination, with a lantern, of the ic open-sided casings arranged on opposite sides thereof, the sliding rings surrounding the lantern, the caps attached to the rings and carried thereby, and the flexible screens attached at one edge to the casings and at the 15 other edge to the caps, substantially as and

for the purpose specified.

6. The combination, with a lantern, of the open-sided casings attached thereto, the sliding rings surrounding the lantern, the caps 20 carried by the rings and adapted to close the open sides of the casings, and provided with spring-catches to engage the same, and the flexible screens arranged on the rings and adapted to be folded within the casings, sub-

25 stantially as specified.

7. The combination, with a lantern, of the casings attached thereto at diametrically-opposite points, the sliding rings operating in guide-apertures in the said casings and sur-30 rounding the lantern, and the flexible screen provided with small rings G', fitting on the said sliding rings and attached at one edge to the casings, substantially as specified.

8. The combination, with a lantern, of the sliding rings surrounding the same, the flexi- 35 ble screen sliding on the rings and adapted to be gathered thereon, and the small rings G'G' on the said sliding rings passing through the edge of the screen to secure the latter firmly to the rings, substantially as specified. 40

9. In a lantern, the two folding screens arranged at diametrically-opposite points and constructed to be simultaneously extended in opposite directions, each screen covering onehalf of the lantern proper, so that when both 45 the screens are extended the entire lantern is

covered, as set forth.

10. The combination, with a lantern, of the sliding rings surrounding the same, the flexible screen sliding on the rings and adapted to 50 be gathered thereon, the casings secured to the lantern and having openings that form bearings for the sliding rings, the caps secured to the latter, and loops HH, secured to the inner faces of the casings and caps and 55 bent around the stiffening-rods in the ends of the screen, substantially as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures

in presence of two witnesses.

GEORGE C. WESTERVELT. WILLIAM A. WESTERVELT.

Witnesses:

A. J. HADLEY, ALFRED GILLETT.