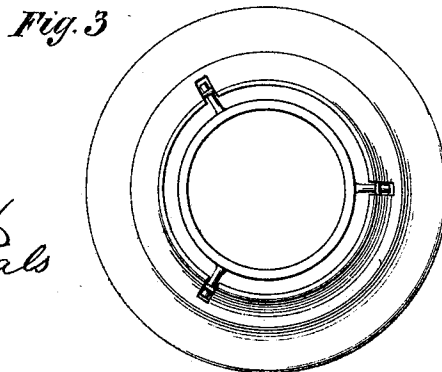
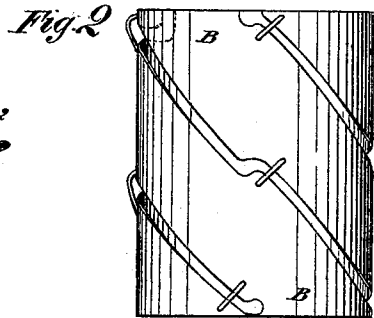
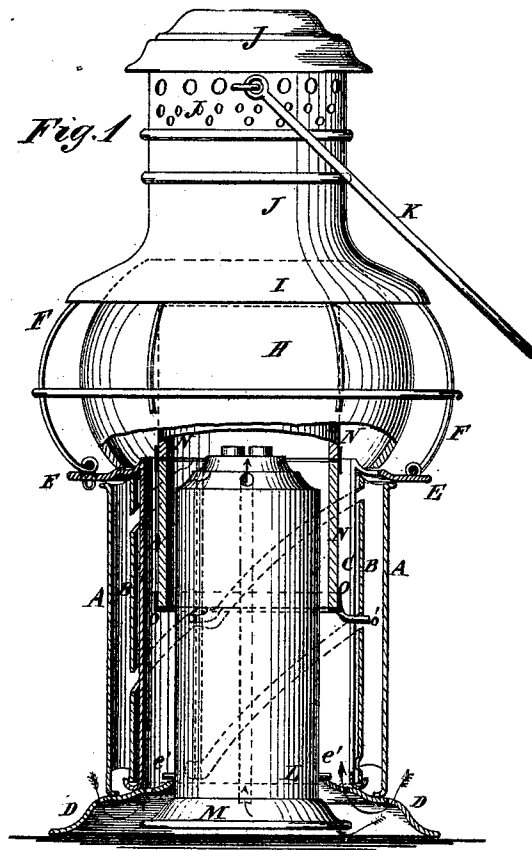


G. J. CAVE.
SIGNAL-LANTERN.

No. 175,335.

Patented March 28, 1876.



WITNESSES:

A. W. Almqvist
John Goethals

INVENTOR:

G. J. Cave
BY *mm*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE J. CAVE, OF ELIZABETH, NEW JERSEY.

IMPROVEMENT IN SIGNAL-LANTERNS.

Specification forming part of Letters Patent No. **175,335**, dated March 28, 1876; application filed February 28, 1876.

To all whom it may concern :

Be it known that I, GEORGE J. CAVE, of Elizabeth, in the county of Union and State of New Jersey, have invented a new and useful Improvement in Signal-Lanterns, of which the following is a specification :

Figure 1 is a side view of my improved lantern, partly in section to show the construction. Fig. 2 is a detail side view of the intermediate shell. Fig. 3 is a top view of the lower part of the lantern. Fig. 4 is a detail view of one of the fastening-pins.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved signal-lantern, neat and compact in appearance, simple in construction, and convenient in use, being readily and quickly adjusted, by a rotary movement, to display a white light, a red light, or a green, or other arrangement of colors, and which shall have no projecting arms, handles, or levers to be in the way.

The invention consists in the inner shell, provided with longitudinal slots and end flanges, the intermediate shell, provided with inclined slots, and the outer shell, the two latter being rigidly connected together and turning upon the inner shell, in combination with the lamp and the colored-glass tubes and their frame provided with the pins, and in the pins provided with the hooks and the thumb-pieces for securing the guards to the lower part of the lantern, as hereinafter fully described.

The lower part of the lantern is formed of three concentric tubular shells or cases, A B C, the inner two, B C, of which are close together and the outer two, A B, have a narrow ring-space between them, are rigidly connected together, and turn upon the inner shell C. To the lower end of the inner shell C is attached a flange, D, which serves as a base or foot for the lantern, and as a seat for the lower ends of the shells A B. Upon the upper edge of the inner shell C is formed a flange, E, which serves as a seat for the upper ends of the shells A B, and for the guards F. The guards F are hinged at one side to the flange E, and have eyes attached to them at the other

side to pass through holes in said flange to receive pins G. The pins G have hooks g^1 formed upon them which pass over the edge of the flange E and hook upon the lower wire of the guards F. The pins G are also provided with thumb-pieces g^2 , for convenience in unhooking them. H is the glass globe, which rests upon the flange E, and the top of which is covered by the flange I of the top J of the lantern. The top J of the lantern is made high, has holes in its upper part to permit the heated air to escape, and to it is hinged the bail K. L is the lamp, the height of which is equal to the height of the shells A B C, and to its lower end is attached a flange, M, to serve as a foot for said lamp when standing. To the sides of the lower part of the lamp L are attached pins e' , which enter slots in the inner edge of the flange D, to lock the said lamp in place. The lamp L has tubes passing up through it for the passage of air to support combustion, so as to introduce air within the colored-glass tubes. The lower ends of the air-tubes of the lamp L are covered with wire-gauze to prevent them from becoming clogged with dust or any other thing. The lamp L is made enough smaller than the inner shell C to afford space between it and the said shell to receive the colored-glass tubes N, which are made of the same size, are placed end to end, and are connected together and are held in place by a metallic cage or frame, O. To the lower band of the frame O are attached pins o' , which pass through vertical slots in the inner shell C, and enter inclined slots in the intermediate shell B. The inclined slots of the shell B are made with offsets at their ends and centers to receive the pins o' , when the glass tubes are lowered out of sight, when they are raised to show the upper tube, and when they are raised to show the lower tube. In the latter case the upper tube passes up into and is entirely covered by the top J.

By this construction, by turning the shells A B, the glass tube will be raised or lowered, the pins o' being moved up and down through the vertical slots of the case C by the action upon them of the inclined slots of the shell B.

In the flange D are formed holes to allow air to enter when the lantern is standing upon said flange. Holes are also formed in the inner part of said flange to allow air to pass up around the glass tubes N, to keep them cool.

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

1. The inner shell C, provided with longitudinal slots and end flanges D E, the intermediate shell B, provided with inclined slots, and outer shell A, the two latter being rigidly connected together and rotating upon the inner

shell C, in combination with the lamp L and the colored-glass tubes N and their frame O, provided with the pins *o'*, substantially as herein shown and described.

2. The pins G, provided with the hooks *g*¹ and thumb-pieces *g*², in combination with the guards F and the flange E, or lower part of the lantern, substantially as and for the purpose set forth.

GEORGE J. CAVE.

Witnesses:

JAMES T. GRAHAM,
T. B. MOSHER.