G. J. CAVE.

Signal-Lantern.

No. 166,966. Patented Aug. 24, 1875.

Fig. 1

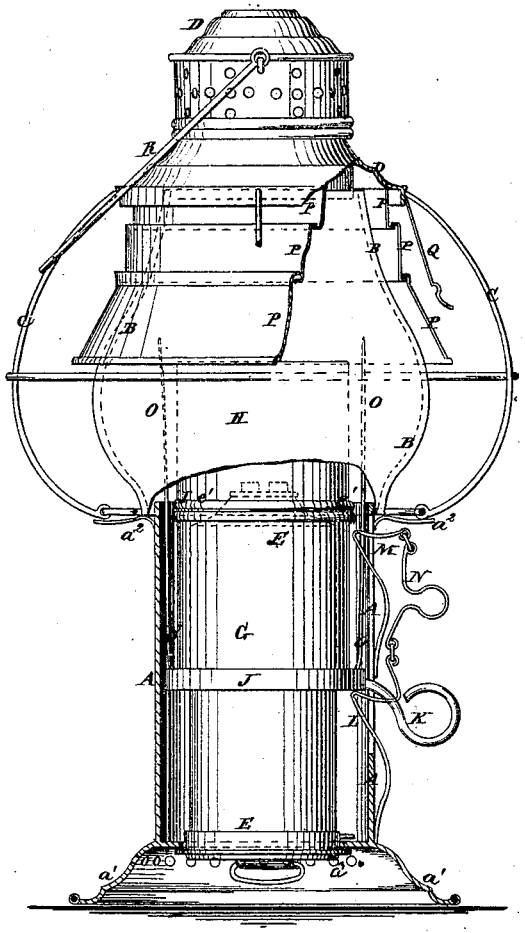
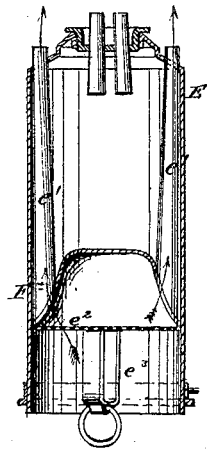


Fig. 2



WITNESSES:

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GEORGE J. CAVE, OF ELIZABETH, NEW JERSEY.

IMPROVEMENT IN SIGNAL-LANTERNS.

Specification forming part of Letters Patent No. **166,966**, dated August 24, 1875; application filed May 8, 1875.

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-Lantern, of which the following is a specification:

Figure 1 is a side view, partly in section, of my improved lantern. Fig. 2 is a vertical section of the lamp.

Similar letters of reference indicate corresponding parts.

The invention will first be described in connection with drawing, and then pointed out in claims.

A is the lower part of the lantern, which is made tubular in form, and has a flange, a^1, upon its lower end to serve as a base or foot for the lantern, and which has a number of holes formed through it to admit air to the lamp when the lantern is standing. Upon the upper end of the tubular case A is formed a flange, a^2, to serve as a seat for the globe B, and for the guards or wire frame C. To the base-wire of the guards C are attached two or more eyes, which pass through holes in the flange a^2, and have pins or keys passed through them below the said flange to secure the said parts firmly together. To the top of the guards C is securely attached the top or cap D of the lantern, into the interior of which the upper end of the globe B fits. E is the lamp, which is made cylindrical in form, and of a less diameter than the case A, so as to leave a space between them for the colored glass tubes. The bottom of the lamp E is placed a little above its lower end, so as to form an air-chamber, from which two tubes, e^1, lead up through the body of said lamp for the admission of air to support combustion. To the lower part of the lamp-shell E, a little below its bottom, is secured a wire-gauze screen, e^2, to prevent anything from getting into the tubes e^1, and preventing the free passage of air. To the lower part of the shell of the lamp E, below the wire-gauze e^2, is attached a cross-bar, e^3, to serve as a handle for detaching and attaching the lamp. The lamp E is secured in place by pins attached to the opposite sides of its lower end, which enter grooves in the inner side of the case A. G H are two glass tubes, made of different colors and of the same diameter. The two tubes G H are placed end to end, and are connected together and kept in place upon each other by a metallic ring, I, a little plaster-of-paris or other cement being used, if desired. The lower tube G is secured to a base-ring, J, to which is rigidly attached a handle, K. The handle K passes out through a vertical slot in the side of the case A, so that the glasses G H can be conveniently raised by grasping and raising the said handle. L is a spring-catch, which passes in through a slot in the case A, in such a position as to receive the base-ring J when the glass tubes G H have been raised sufficiently to display the upper tube H above the case A. M is a spring-catch, which passes in through a slot in the case A, in such a position as to receive the base-ring J when the glass tubes G H have been raised sufficiently to display the lower tube G. N is a connecting bar or handle, the lower end of which is pivoted to the lower spring-catch L, and its upper end is pivoted to the upper spring-catch M. By this construction, by operating the handle N, the upper catch M, or the lower catch L, may be drawn out, or both catches may be drawn out at the same time. To the base-ring J are attached three or more spring-rods, O, which pass up along the sides of the colored-glass tubes G H, and which, when the said glass tubes G H are fully raised, rest against the upper part of the globe B, and prevent the said glass tubes from shaking about. When the glass tubes are lowered the springs O rest against the inner surface of the case A, and prevent the said glass tubes from shaking around. P is a shade, made in parts or sections, sliding upon each other in the manner of a telescope, and which is made more or less flaring, according to the bulge of the globe B. The upper edge of the inner part or section of the shade P is secured to the upper part or cap D of the lantern. The shade P, when lowered, should extend downward so far as to cover the upper glass tube H when the tubes G H are fully raised, so as to prevent any light from shining through said upper tube H. The telescopic shade P is supported when raised by a spring-catch, Q, attached to the cap D. The lantern is provided with a bail-handle, R, in the usual way.

Having thus described my invention, I claim

as new and desire to secure by Letters Patent—

1. The intermediate handle N, flexibly connected with the two spring-catches L M, as and for the purpose specified.

2. The three wires O, passing up the sides of tubes G H, and resting against the globe, as and for the purpose described.

3. The spring-catch Q, pendent from cap D, and combined with the sliding sections of shade P, as and for the purpose set forth.

GEORGE J. CAVE.

Witnesses:
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