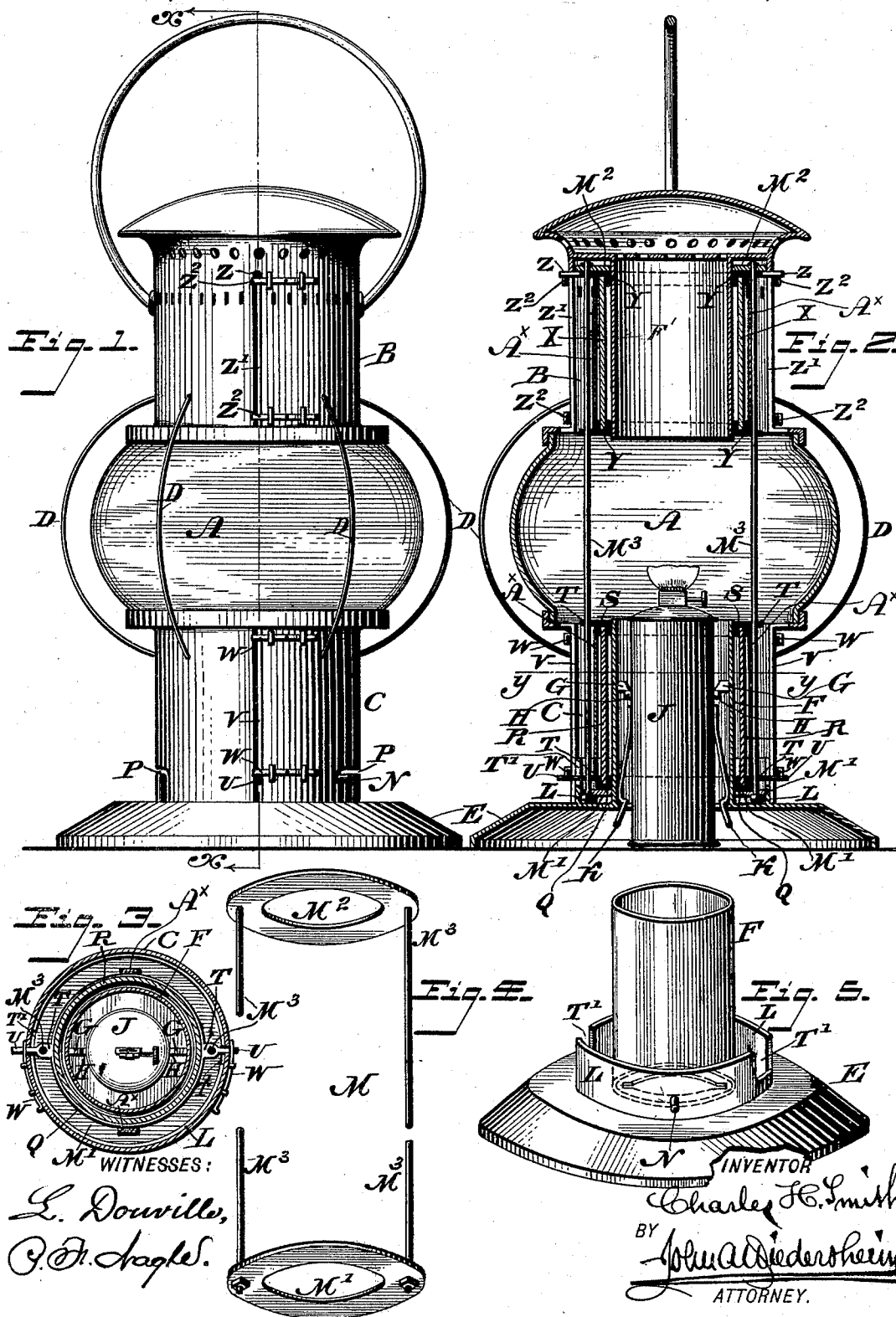


(No Model.)

C. H. SMITH.
SIGNAL LANTERN.

No. 509,696.

Patented Nov. 28, 1893.



UNITED STATES PATENT OFFICE.

CHARLES H. SMITH, OF PHILADELPHIA, PENNSYLVANIA.

SIGNAL-LANTERN.

SPECIFICATION forming part of Letters Patent No. 509,696, dated November 28, 1893.

Application filed November 23, 1892. Serial No. 452,922. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SMITH, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Signal-Lanterns, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a lantern having means for displaying different colors, the same being constructed and operating as hereinafter fully set forth and definitely claimed.

Figure 1 represents a side elevation of a signal lantern embodying my invention. Fig. 2 represents a vertical section thereof on line *x, x*, Fig. 1. Fig. 3 represents a horizontal section on line *y, y*, Fig. 2. Fig. 4 represents a perspective view of an inner frame of the lantern. Fig. 5 represents a perspective view of the base of the lantern and connected parts thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings: A designates the transparent globe of a lantern, the same being connected with upper and lower collars B and C, to which latter are attached the guards D for said globe.

E designates the base of the lantern, rising from which is a cylinder F, whose interior is provided with lugs G, with which about the lugs H of the lamp J, the latter being passed through an opening in the base E, and provided with spring catches K, whereby it may be supported on said base E, and retained within said cylinder F, and thus prevented from improper upward movement, owing to the lugs G and H.

Encircling the lower portion of the cylinder F and secured to the base E, is a sleeve L between which and the cylinder F is supported the frame M consisting of the annulus M', which is sustained on the top of the base E, the annulus M² which is within the upper part of the collar B and the vertical rods M³ which are secured to said annuli M', M², and provided with tightening and adjusting nuts. Projecting from the sleeve L are pins N which are adapted to enter angular slots P in the collar C, forming bayonet joints for removably connecting the base with said collar.

Resting on the annulus M' is a grooved ring

Q, on which is seated a cylinder R of colored glass, the top of said cylinder being fitted in a grooved ring S, each of said rings Q and S having ears T, which are fitted on the rods M³ of the frame M, so that said cylinder R may be readily raised and lowered and guided on said rods.

Projecting from the ears T of the lower ring are pins U, which pass through vertical slots T' in the sleeve L, and slots V in the collar C. On said collar at the upper and lower portions are bolts W, which are adapted to engage with the pins U, as will be hereinafter more fully set forth.

In the upper collar B is a cylinder X of colored glass the same being connected with rings Y, each ring being provided with ears which are fitted on the rods M³, similar to the ears T, and the upper ring Y has projecting therefrom the pins Z, which enter vertical slots Z' in the collar B, the latter being provided with sliding bolts Z² which are adapted to engage with said pins Z. The colors of the cylinders X and R are different, say, green and red, while the color of the globe A is white, by which provision the lantern may display different colored lights for signaling purposes.

When the upper bolts Z² are drawn back, the cylinder X may be lowered and rest on the top ring S of the cylinder R, after which the lower bolts Z² are shot across the slots Z'; thus engaging with the pins Z and holding the cylinder X in its lowered position, it being evident that said cylinder is illuminated by the flame of the lamp J, and reflects its color through the globe A. Said cylinder may be restored to its normal position by means of the pins Z, when it may be controlled by the upper bolts Z², and thus prevented from dropping. The lower cylinder R may be released from the holding action of the lower bolts W, and raised within the globe by the pins U, so as to reflect its colored light there-through, it being held in elevated position by the upper bolts W. The cylinder R may be lowered and its pins U engaged by the lower bolts W, so that said cylinder is held steadily in place. When the two cylinders X and R are in their normal positions, the lantern will show a white light, as will be apparent on reference to Figs. 1 and 2.

The rings Q, S and Y Y which carry the cylinders R and X respectively are connected by vertical strips or bands A^x to brace the same.

Within the upper cylinder X is a cylinder
 5 F' which is similar to the cylinder F, but secured to the cap of the lantern, both cylinders F and F' being formed of metal or other material which prevents illumination of the cylinders R and X when the latter are in
 10 their normal positions.

When the base E and connected parts are removed, the frame M may also be removed in order to cleanse the interior of the lantern, and for other purposes, and the parts of said
 15 frame may be separated by unscrewing the nuts on the rods thereof.

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

20 1. A signal lantern consisting of a transparent globe with upper and lower collars connected therewith, a base with a cylinder rising therefrom and having lugs on its interior surface, a lamp with lugs abutting against the
 25 lugs on said cylinder, and provided with spring catches resting on said base, a sleeve secured to said base and encircling the lower portion of said cylinder, a frame consisting of upper and lower annuli with connecting rods, pins
 30 on the said sleeve working in angular slots in

the lower collar, a grooved ring resting on the lower annulus, a cylinder seated in said ring and having a grooved ring at its top, said rings having ears fitted on the rods of said frames, pins secured to the ears of the lower
 35 ring working in slots in the said sleeve, and locking bolts for said pins, said parts being combined substantially as described.

2. A signal lantern having a transparent globe with upper and lower collars connected
 40 therewith, a base detachably connected with said lower collar, a lamp detachably secured within said base, a frame having connecting rods with annuli in said collars, a cylinder
 45 movable on said rods, and means substantially as described for locking said movable cylinder in place, said parts being combined substantially as described.

3. A signal lantern having a transparent globe with upper and lower collars secured
 50 thereto, a base, a frame resting on said base, a rising and falling cylinder movable on said frame, and a cylinder secured to said base within said movable cylinder, said parts being combined substantially as described.

CHARLES H. SMITH.

Witnesses:

JOHN A. WIEDERSHEIM,
 A. P. JENNINGS.