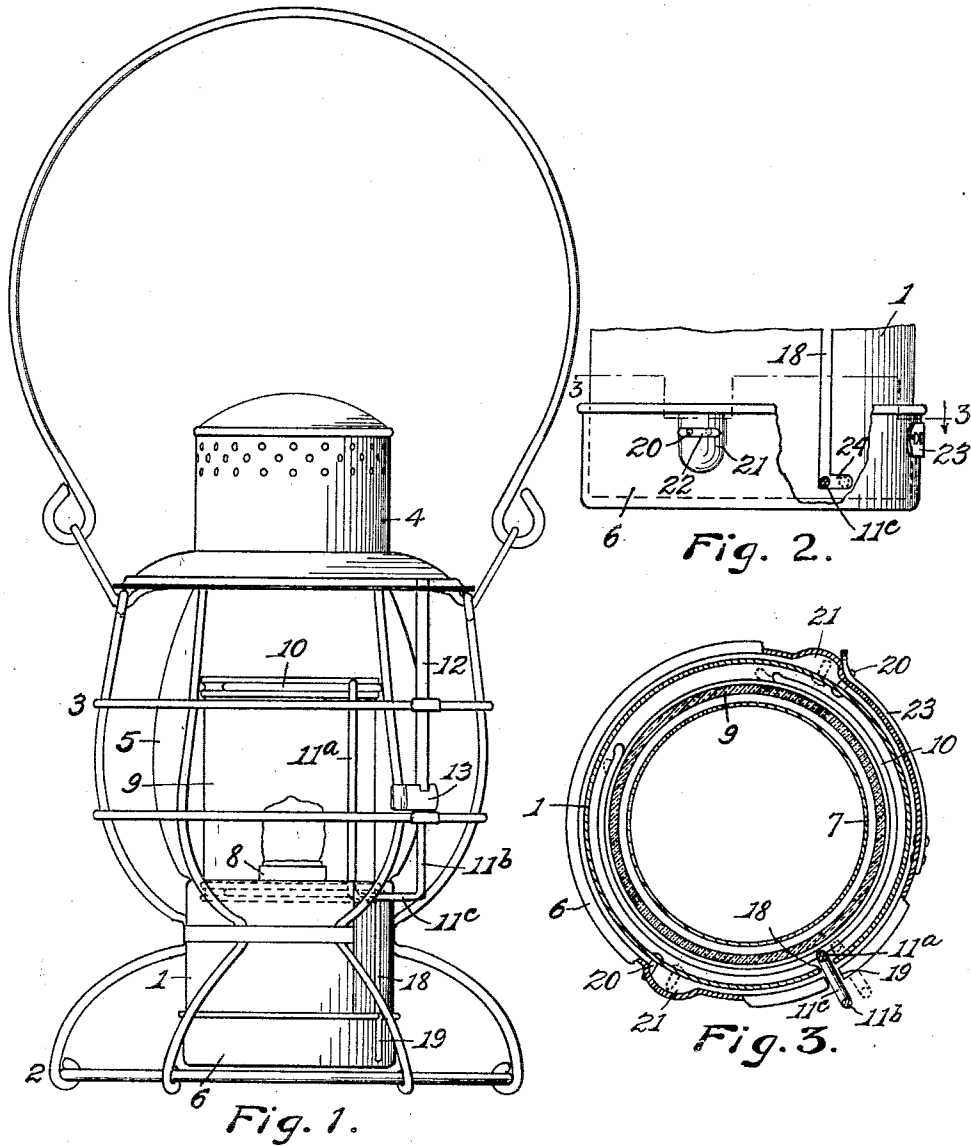


T. M. RICHARDS.
SIGNAL LANTERN.
APPLICATION FILED FEB. 10, 1919.

1,309,155.

Patented July 8, 1919.
2 SHEETS—SHEET 1.

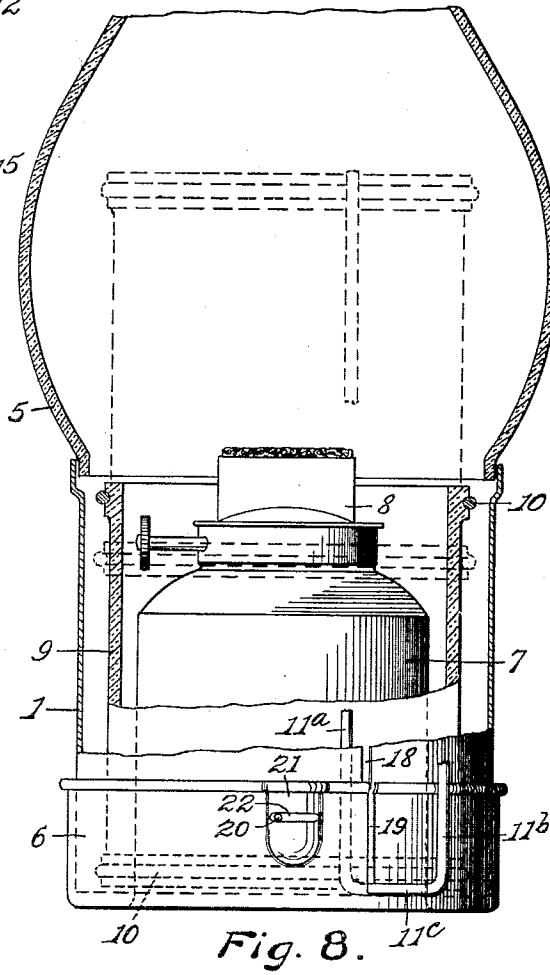
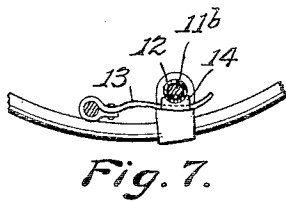
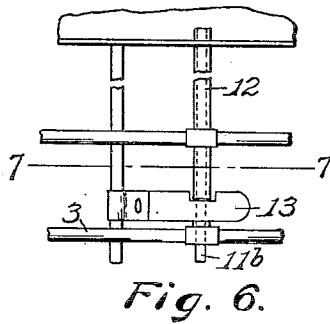
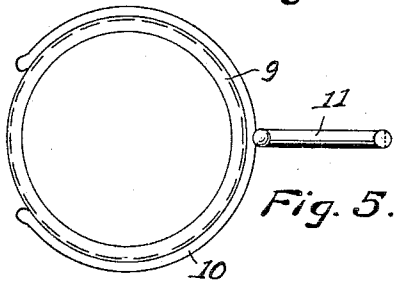
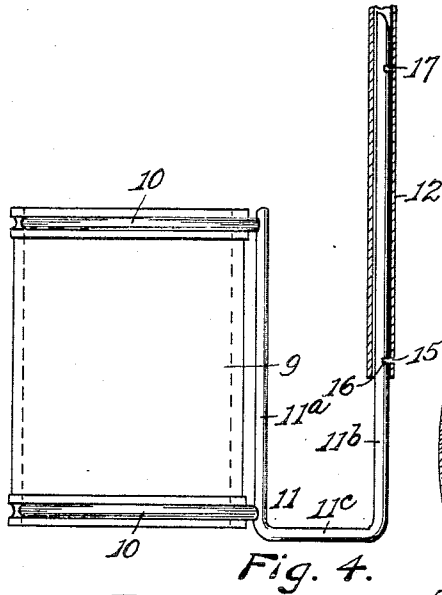


INVENTOR.
T. M. Richards.
BY *A. E. Develaf.*
ATTORNEY.

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INVENTOR.
T. M. Richards.
BY *H. E. Dunlap*
ATTORNEY.

UNITED STATES PATENT OFFICE.

THOMAS M. RICHARDS, OF NEW PHILADELPHIA, OHIO.

SIGNAL-LANTERN.

1,309,155.

Specification of Letters Patent.

Patented July 8, 1919.

Application filed February 10, 1919. Serial No. 276,021.

To all whom it may concern:

Be it known that I, THOMAS M. RICHARDS, a citizen of the United States of America, and resident of New Philadelphia, county of Tuscarawas, and State of Ohio, have invented certain new and useful Improvements in Signal-Lanterns, of which the following is a specification.

This invention relates broadly to lanterns, and more specifically to a lantern of the type commonly termed railway signal lanterns.

The primary object of the invention is to provide a signal lantern which may be employed interchangeably as a "clear track" and "danger" signal, as occasion may require.

A further object is to provide a lantern embodying a colored glass light inclosure having simple and efficient means whereby said inclosure may be shifted to and from its operative position and whereby it is positively maintained against chance displacement in either of said positions.

With these and other objects in view, the invention resides in the features of construction, arrangement of parts and combinations of elements which will hereinafter be exemplified, reference being herein had to the accompanying drawings, in which—

Figure 1 is a side elevation of a signal lantern embodying my invention;

Fig. 2 is a partly broken side elevation of the lower portion of the lamp, illustrating part of the bottom attaching means;

Fig. 3 is a section on line 3—3, Fig. 2;

Fig. 4 is an enlarged side elevation of the colored glass cylinder and the support therefor;

Fig. 5 is a top plan view of the same;

Fig. 6 is a view of a fragmentary portion of the guard frame showing in front elevation the resilient holder for the cylinder support;

Fig. 7 is a section on line 7—7, Fig. 6, and

Fig. 8 is an enlarged view of the body of the lantern, partly in section and partly in side elevation.

Referring to said drawings, in which like designating characters distinguish like parts throughout the several views—

1 indicates a cylindrical casing, open at both ends, which is preferably supported by a guard frame composed of heavy wire, as

shown, said frame comprising a base 2 and a globe-inclosing portion 3, the latter being surmounted by a sheet metal top or canopy 4. The upper end of said casing 1 serves as a support for the usual globe 5 which, in the present invention, is composed of clear white glass.

Removably attached to the lower end of the casing 1 is a bottom 6 of shallow cup-like form having rigidly mounted therein in a central position a lamp bowl or oil container 7 carrying a wick-burner 8. Disposed in inclosing relation to said bowl and in a position concentric with respect to said bowl and to the walls of the bottom 6 is a cylinder 9 of colored glass. Said cylinder normally occupies a lowered position wholly within the inclosure constituted by the casing 1, as shown, in which position it is functionless, permitting the lantern to be used for displaying a clear white light. Said cylinder is capable, however, of being elevated to a position in which it incloses the light emanating from the flaming wick, as shown in full lines in Fig. 1 and in dotted lines in Fig. 8, so that a light in the color of said cylinder may be displayed.

In the embodiment of the invention herein shown, the glass cylinder is embracingly engaged adjacent to its upper and lower ends by resilient clamps 10 which readily yield to expansion of the cylinder produced when it is carried into proximity to the flame of the lamp. Said clamps are rigidly carried by an upright member 11^a of a vertically movable cylinder support 11 composed of heavy resilient wire and which is of substantially U-shape, having an upright member 11^b located outside the casing 1 and a horizontal member 11^c joining said members 11^a and 11^b. The upper end of said member 11^b is disposed normally within the lower end of a vertical guide-tube 12 and is elevatable within the latter with elevating movement of the cylinder. Said guide tube is suitably mounted upon the wires of the globe inclosing portion 3 of the guard frame, as shown in Figs. 1, 6 and 7.

Fixed upon one of the substantially upright wires of the guard frame adjacent to the lower end of the guide tube 12 is a horizontally disposed resilient latch 13 having at a point intermediate its ends a laterally extending tongue 14 which projects through a kerf-like opening 15 located in

said tube adjacent to the lower end of the latter and which is designed to seat in one or the other of two relatively spaced notches 16 and 17 formed in the member 11^b of the cylinder support according as said member is lowered or its elevated position. Said latch 13 consequently serves to lock the cylinder 9 carried by the support 11 against chance displacement either from its lowered inoperative position or from its elevated operative position. The free end of the latch constitutes a finger piece by means of which the latter may be grasped for withdrawing the tongue to allow free adjusting movement of the support-member 11^b.

The horizontal member 11^c of the cylinder support extends through and is vertically movable in a slot 18 of suitable length provided in the casing 1, and, in its lowered position, is also disposed in a registering slot 19 provided in a side of the removable bottom 6.

Rigidly mounted in the lower part of the casing 1 at diametrically opposite points are outwardly projecting pins or studs 20, and similarly located in the walls of the bottom 6 are pockets 21 formed by bulging said walls outward to the extent that, when said pockets and said pins occupy registering positions, the bottom may be slipped over said pins to and from seating position without hindrance. A horizontal slot 22 is disposed in or adjacent to the walls of each pocket for the reception of the adjacent pin for supporting the bottom 6 when the latter is forced upward to a seating position and is then given a slight partial rotation, as is best indicated in Fig. 3. Suitable means, as a spring member 23 carried by the bottom 6, is employed for maintaining said bottom against chance rearward rotation from its locked position, the free end of said spring member having therein a hole (not shown) adapted to be entered by one of said pins 20 when the bottom 6 occupies said locked position.

As is obvious from the foregoing description, the bottom 6 with the bowl 7 may be attached and detached without interference from the cylinder 9 or from the cylinder support 11 and without removal of the last mentioned parts therewith. To permit of the slight rotative movement required in removing and attaching the bottom 6, a short horizontal slot 24 is provided in the casing 1 at the lower end of the vertical slot 18, into which the horizontal member 11^c of the support may be moved by a slight lateral springing of the support 11.

As is apparent, the tongue 14 of latch 13 remains seated in the notch 16 of the upright member 11^b when the cylinder 9 occupies its lowered position, and serves to lock the latter against chance upward movement. When it is desired to elevate said cylinder

to operative position, the free end of the latch is drawn outward to withdraw said tongue 14 from said notch, whereupon, holding the cylinder support by the member 11^c thereof, said support is raised until said tongue engages and seats in the notch 17. Such engagement will be maintained until the support is manually released by drawing the latch 13 outward.

What is claimed is—

1. A lantern comprising a cylindrical casing having a vertical slot therein, a clear glass globe supported by said casing, a wire frame inclosing said globe, a bottom detachably mounted on said casing, a lamp bowl having a burner carried centrally on said bottom, a colored glass cylinder interposed between said bowl and said casing, said cylinder being vertically movable to and from inclosing relation to said burner, a U-shaped support for said cylinder having one of the parallel members thereof located inside and the other outside the casing with their connecting member disposed in said slot, a vertical guide tube carried by the frame and having the upper end of the outer member of the cylinder support received therein, said outer member having relatively spaced notches therein, and a spring latch adapted to engage with said notches at the opposite limits of vertical adjustment of the cylinder.

2. A lantern comprising a cylindrical casing having a vertical slot therein, a clear glass globe supported by said casing, a wire frame inclosing said globe, a bottom detachably mounted on said casing, a lamp bowl having a burner disposed centrally in fixed position on said bottom, a colored glass cylinder interposed between said bowl and said casing, said cylinder being vertically movable to and from inclosing relation to said burner, a U-shaped support for said cylinder having one member thereof disposed vertically outside the casing and connected to the other member by a horizontal portion located within said slot, a vertical guide tube carried by the frame and having the outer member of said cylinder support vertically movable therein, said tube having an opening in the side thereof, a yieldable member having a portion normally projected inward through said opening, and said outer member of the cylinder support having relatively spaced notches therein adapted when brought into register with said opening to have the projecting portion of said yielding member seat therein for locking said cylinder support in adjusted position.

3. A lantern comprising a cylindrical casing having a vertical slot therein, a clear glass globe supported by said casing, a bottom detachably mounted on said casing, a lamp bowl disposed on said bottom and carrying a burner, a colored glass cylinder interposed between said bowl and said casing,

said cylinder being vertically movable to
and from inclosing relation to said burner,
a support for said cylinder comprising an
outwardly projecting member lying in said
5 slot and a vertical member located outside
said casing, a stationary vertical guide tube
in which said vertical member of the sup-
port is vertically movable, and means co-
operating with said vertical member for

holding the latter at either of the limits of 10
adjustment of the cylinder.

In testimony whereof I affix my signature
in presence of two subscribing witnesses.

THOMAS M. RICHARDS.

Witnesses:

JOS. H. EBRIGHT,
J. R. HILL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."