W. R. LAWSON & J. HOWE.

RAILWAY LANTERN.

APPLICATION FILED APR. 26, 1909.

951,422. Patented Mar. 8, 1910.

FIG. 1.

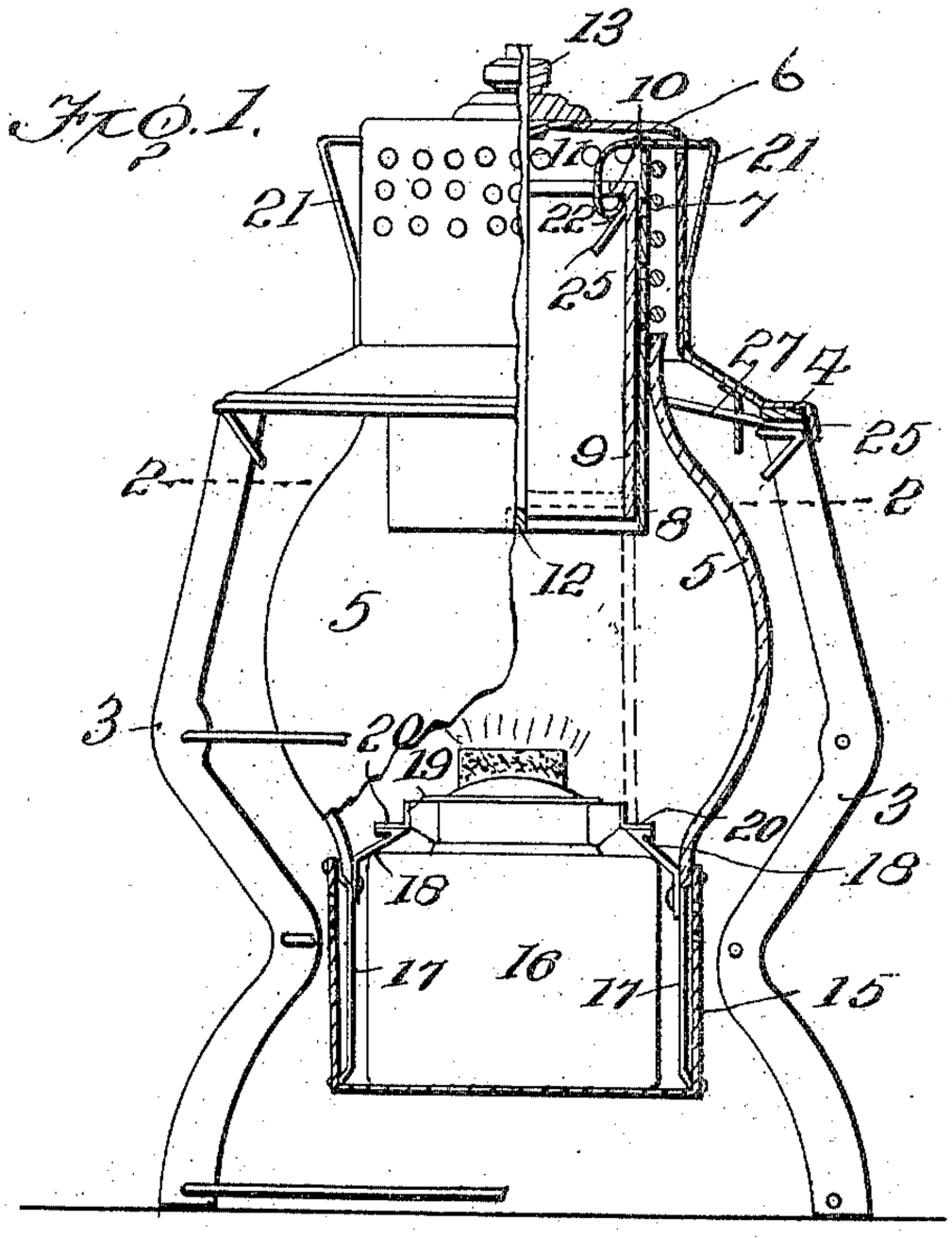


FIG. 2.

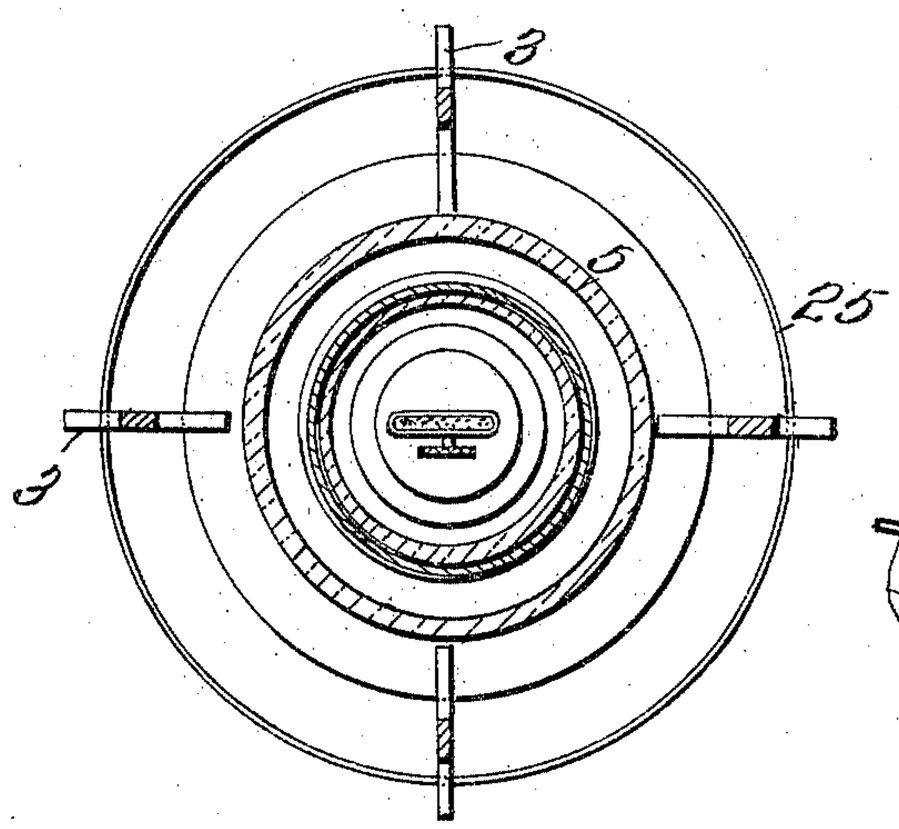


FIG. 3.

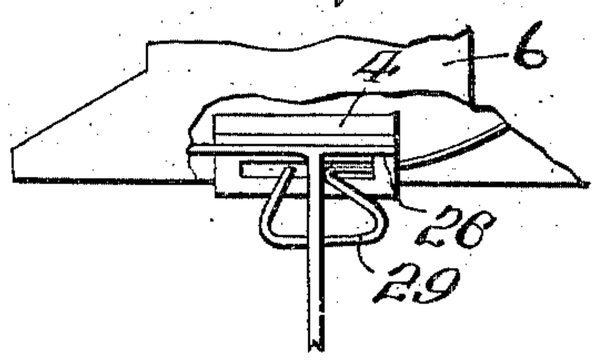
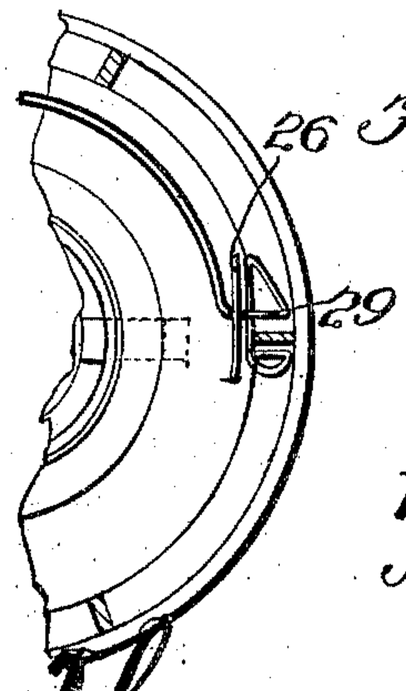


FIG. 4.



Witnesses
W. A. Woodson
J. McFallin

Inventors
W. R. Lawson.
J. Howe.

By Thos. A. Lacey. Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM R. LAWSON AND JONATHAN HOWE, OF HARRIMAN, TENNESSEE.

RAILWAY-LANTERN.

951,422. Specification of Letters Patent. Patented Mar. 8, 1910.

Application filed April 26, 1909. Serial No. 492,235.

To all whom it may concern:

Be it known that we, WILLIAM R. LAWSON and JONATHAN HOWE, citizens of the United States, both residing at Harriman, in the county of Roane and State of Tennessee, have invented certain new and useful Improvements in Railway-Lanterns, of which the following is a specification.

Our invention relates to railway signal lanterns, and particularly contemplates an improved lantern designed to be operated by the user so as to cause the lantern to emit either a colored or white light when desired, and which is thus particularly adapted for signaling purposes or the like.

The invention consists in the arrangement of parts and details of construction set forth in the following specification and illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation, partly in section; Fig. 2 is a section on the line 2—2 of Fig. 1; Fig. 3 is an enlarged detail fragmentary elevation; and, Fig. 4 is an enlarged detail section, showing the attaching means for the cap.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

In the drawings, is shown a lantern of any usual construction, having the skeletonic side bars 3 which are designed at their upper ends to support the crown, the upper end of the side bars being attached to or formed in part with a ring 4. The burner-supporting portion of the lantern and the burner are made in any usual or desired manner, the burner being surrounded by an ordinary lantern chimney 5, the upper end of which is held in place within the crown 6 by a spiral spring 7 which extends from the upper end of the crown downward and bears against the upper end of the chimney 5. Mounted within the crown 6, interiorly of the spring 7, is the metallic sleeve 8 which extends down below the crown and is attached at its upper end to the top of the crown.

Fitting within the sleeve 8, and shiftable vertically therein, is the screen 9 of colored glass or other translucent material. The upper end of this screen is inwardly turned or flanged, as at 10. The screen is of such length as to be contained wholly within the sleeve 8 when the screen is in its uppermost position. Projecting through the center of the crown 6 is a rod 11 whose lower end is provided with a cross bar 12. This cross bar at its extremities, is adapted to engage under the inwardly turned flange 10. The upper end of the rod 11 is provided with a knob 13 which also forms a stop. By pulling the rod 11 upwardly, the screen is raised, and by lowering the rod, the screen may be lowered. The rod 11 fits the opening in the crown sufficiently snugly to permit the easy raising of the rod and screen. The rod, it will be seen, is independently movable from the screen, so that after the screen is raised, the rod may be depressed again to the position shown in Fig. 1.

The lower end of the lantern is formed with a circular wall 15 which surrounds the burner and oil reservoir 16, this wall being perforated for the entrance of air, and having strips 17 attached to its inside face, the ends of the strips being bent at an angle to the main portion of the strip, so as to support the strips away from the inside face of the wall 15. Attached to the upper ends of the strips 17 are the upwardly and inwardly projecting legs 18 which at their upper ends carry a seating ring 19 having an outwardly projecting annular flange 20. The screen 9, in its lowered position, surrounds the ring 19 and sits upon the flange 20 so that the screen is suitably supported when in its lowest position.

In order to hold the screen in its raised position, I provide the opposed springs 21. These are each attached at one end to the exterior of the crown 6. They each extend upwardly to the upper portion of the crown, are then bent inwardly, and pass through perforations in the crown, then extend inwardly to a point above the screen 9, and are then bent downwardly. The extremities of

the spring are then bent outwardly, as at 22, to form catches adapted to engage with the inwardly turned flange 10 of the screen. The terminal end of the spring 21, after it is formed into the catch 22, is downwardly and inwardly extended. The purpose of this extension 25 is to permit the screen as it rises, to contact with the extension and force the spring inwardly, thus permitting the screen to pass upward above the catch 22. Inasmuch as both of these springs 21 are precisely alike, the description above will apply to either one of them. As a means of holding the crown of the lamp to the vertical bars 3, we provide the crown with an outer downwardly extending flange 25ª, and at intervals on the inside face of the crown, with the downwardly extending ears 26, each of which is slotted. There are as many of these ears 26 as there are bars 3. Attached to the interior of the crown, are two or more springs 27. Each of these, as shown in Fig. 4, extends partly around the lower portion of the crown, and is then bent directly outward and projects through the slot in the ear 26. The extended end of the wire or spring is then bent or looped upon itself, as at 29, to form a bifurcated portion which will engage on either side of the bar 3. It will be obvious that this bifurcated projecting portion on the wire will engage beneath the ring plate 4, and the bifurcations will engage on either side of the bars 3. Thus the cap or crown will be held in position upon the supporting bars 3 and at the same time held from any rotation. By this means, our screen and the cap for operating it may be applied to lanterns as usually constructed, without any material alteration in these lanterns.

The operation of our device is obvious. When it is desired to use the lantern as a white-light lantern, the screen is drawn upward, in which position the springs 21 will engage the screen and hold it in place. When, however, it is desired to use it as a red-light lantern, the springs 21 are pressed inward, thereby releasing the screen, which may be allowed to descend downward until it sits upon the bottom of the lantern, as before described.

Our invention is simple, easily applied, and can not readily get out of order.

Having thus described the invention, what is claimed as new is:—

1. In a lantern of the character described, a burner, a chimney thereon, a crown cap supporting the upper end of the chimney, a tubular sleeve depending within the crown cap, a screen of colored glass slidably arranged within the tubular sleeve, a bar passing downward through the crown cap, having a cross bar at its lower end engaging with the tubular screen, and springs engaging the tubular screen for holding it in raised position.

2. In a lantern of the character described, a supporting frame, a chimney, a crown cap supporting the upper end of the chimney, a coil spring carried within the crown and bearing against the upper end of the chimney, a tubular sleeve located within the coil spring and attached to the crown, a tubular colored screen shiftable within the sleeve, springs attached to the outer face of the crown, extended into the top thereof and having downwardly and outwardly bent ends engaging with the screen to hold it in its raised position, a rod engaging with the screen to raise or lower it, said rod passing through the crown, and a flanged seat supported around the burner upon which the lower end of the screen rests when the screen is lowered.

3. In a lantern of the character described, a supporting frame, a chimney, a crown supported on the frame, a tubular depending metallic sleeve within the crown, a coil spring surrounding the sleeve and bearing against the upper end of the chimney, a tubular screen having an inwardly turned flange at its upper end, a rod passing through the top of the crown and having a cross bar engaging with the inwardly turned flange, and springs attached to the exterior of the crown having their free ends passing through perforations in the upper part of the crown, then downwardly bent, then outwardly bent and then inwardly bent at an incline and adapted to thereby form catches engageable with the flange of the screen to hold it in its raised position.

4. In a lantern of the class described, a plurality of vertical frame bars, a ring connecting the upper ends of the frame bars, a crown forming the upper end of the lantern and having an exterior flange engageable with said ring, ears depending from the crown and spaced inward from the exterior flange and springs extending through said ears, the ends of the springs being bent to form opposed loops engageable on either side of said supporting bars.

5. In a lantern of the class described, a plurality of vertical supporting frame bars, a burner supported within the frame bars, a burner reservoir, a chimney supported on the reservoir, a ring connecting the upper ends of the frame bars, a cap having an outwardly extending lower end formed with a depending annular flange engageable over the ring, a spiral spring located within the cap and engageable with the upper end of the chimney, a depending sleeve attached to

the cap and located interiorly of the spiral spring, a screen of colored material movable within said sleeve, an operating bar for said screen, springs attached to the circumference of the crown and extending inward and having their ends engageable with the screen when in its uppermost position, ears projecting from the lower face of the crown and opposed to the depending outer flange of the crown, and springs passing through said ears, each spring being bent to form outwardly projecting opposed loops adapted to engage one of the frame bars between the said loops.

In testimony whereof we affix our signatures in presence of witnesses.

WILLIAM R. LAWSON. [L. S.]
JONATHAN HOWE. [L. S.]

Witnesses:
C. G. BAKER,
THEODORE W. DIEGEL,
E. H. NIRDLINGER,
OWEN K. KIMBEL.