

H. F. MAYNES.
LANTERN.
APPLICATION FILED MAR. 8, 1910.

973,529.

Patented Oct. 25, 1910.

Fig. 2,

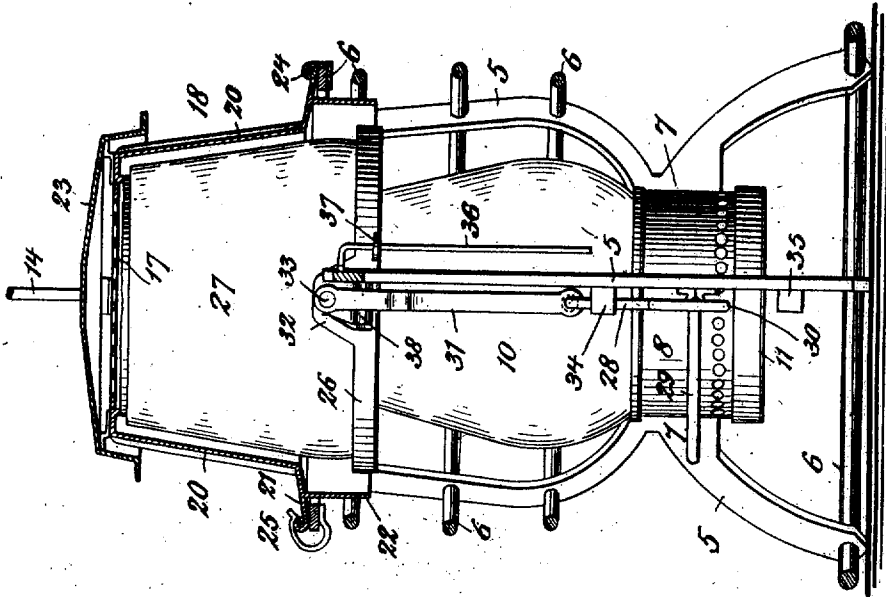
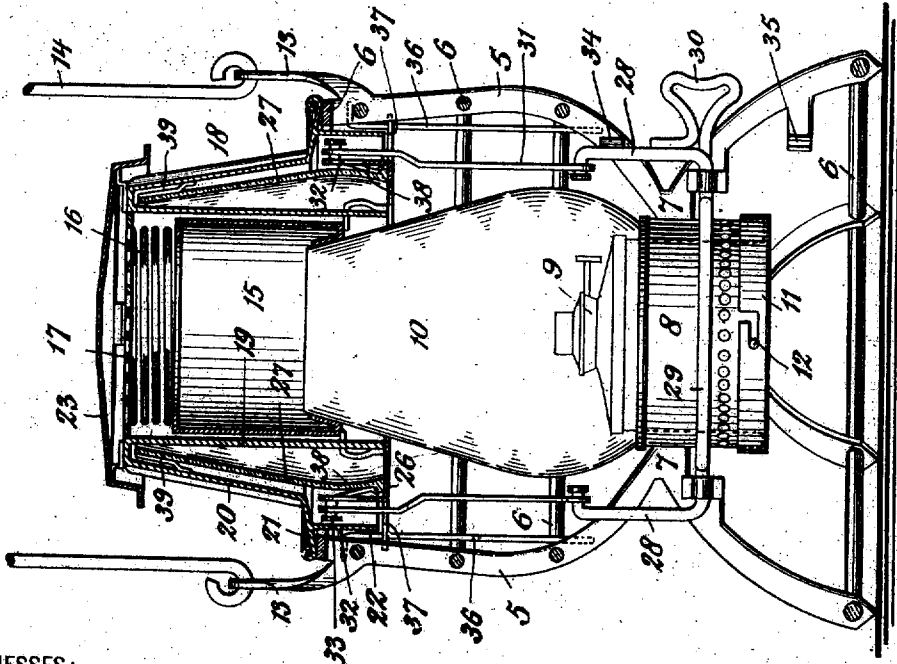


Fig. 1,



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LANTERN.

973,529.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed March 8, 1910. Serial No. 548,017.

To all whom it may concern:

Be it known that I, Hyla F. Maynes, a citizen of the United States of America, and a resident of Gaines, county of Tioga, and State of Pennsylvania, have invented certain new and useful Improvements in Lanterns, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to improvements in lanterns, and particularly to lanterns employed for signaling purposes.

My invention consists in a novel form of lantern adapted to show two different lights at will, thereby doing away with the necessity of employing two different lanterns for such purpose and preventing the mistaking of the lantern not in use at the time for the lantern being used. In railroad signaling work, for instance, it is common for the signalman to carry two lanterns,—one having a ruby light and the other a white light,—and to hold the one stationary while swinging the other, the latter being the one employed at such time for imparting the signal. Mistakes have sometimes occurred in the past owing to the fact that a white light is more easily seen at a distance than a red light, and a red light if swung in the direction of the person to whom the signal is being given appears to be almost, if not quite stationary. The danger of thus misreading a signal is entirely obviated where a single lantern arranged to impart either one color signal or the other is employed.

My invention consists in certain novel details of construction and combinations of parts such as will be fully pointed out hereinafter, and in order that my invention may be thoroughly understood I will now proceed to describe an embodiment thereof having reference to the accompanying drawings illustrating the same, and will then point out the novel features in claims.

In the drawings: Figure 1 is a view in central vertical section through a lantern constructed in accordance with my invention. Fig. 2 is a view in part side elevation and part central vertical section, the point of view thereof being at right angles to the point of view of Fig. 1.

The lantern frame comprises a plurality of vertical ribs 5 disposed about a common center, and a plurality of rings 6 connecting them. Two of the ribs 5 are upwardly extended as at 13, and a bail 14 is connected

with these extensions by which the lantern may be carried. Intermediate their ends the vertical ribs project inward as at 7 to form a support for a cylindrical element 8. This cylindrical element 8 in turn forms the support for a burner 9 and a lamp chimney 10. The burner 9 is conveniently inserted into place from below the lantern, being provided with a flanged base 11 fitted to the lower end of the cylindrical element 8 and secured thereto by means of a bayonet joint 12.

So far the elements described constitute a simple form of lantern capable of showing a light determined by the color of the chimney 10; this lamp chimney may conveniently be the ordinary white transparent lamp chimney so that the lantern so far will give what is known as a "white light". In order to retain the lamp chimney 10 in place, as, for instance, when the lantern is being swung for signaling purposes, I have provided at the upper end thereof a follower 15, the lower portion of which engages the upper extremity of the lamp chimney 10, and the upper portion of which is engaged by a light compression spring 16. This compression spring bears at its upper end against a horizontal perforated plate 17 formed as a part of a cover 18. The cover 18 comprises an inner tubular member 19 for receiving and guiding the follower 15, the same being conveniently provided with spring stops at the lower end thereof for limiting the downward movement of the follower 15, an outer tubular member 20 constituting a shield, a flanged portion 21 at the base thereof, and a dependent cylindrical extension 22 also constituting a part of the shield. The perforated plate 17 is also a part of this cover, and the said cover further includes a wind shield or guard 23 arranged over the plate 17 and the upper ends of the tubular members 19 and 20. The cover 18, as a whole, is conveniently pivoted to the top ring 6 of the frame as appears at 24 in Fig. 2, and may be provided at its opposite side with a catch 25 for securing it in place.

Surrounding the chimney 10, being shown as positioned near the upper end thereof in the drawings, is an annular element 26 arranged as a carrier and support for a globe 27. The globe and carrier 26 are of such size that they may surround the chimney 10. In the position in which they are shown in Figs. 1 and 2 the globe 27 is received within the cover 18, the shield 20—21—22 com-

pletely surrounding the globe 27 and hiding it from view. The carrier and globe, however, are adapted to be moved downward to a position wherein the globe 27 will completely surround and inclose the exposed portion of the chimney 10, the carrier and chimney being made of a diameter sufficiently large to pass freely over the said chimney. The globe 27 may be of colored glass,—ruby, for instance,—so that when it is in its lowermost position the lantern will act as a colored one,—a danger signal, for example. In order to thus adjust the carrier and globe I have provided means consisting of cranks 28 pivoted at suitable points in the lantern frame, a connecting element 29 for connecting the cranks together, a handle 30 for operating the cranks, and links 31 for connecting the cranks with the carrier. The carrier is provided with lugs 32 having wrist pins 33 for receiving the upper ends of the said links. The cranks 28, connecting element 29, and handle 30 may conveniently be formed of bent wire as is shown in the drawings, the connecting element 29 being arranged to surround the cylindrical element 8 and to clear the same in its movements. To lower the red globe the handle 30 and cranks 28 are moved through an angle of 180°, the connecting element 29 being arranged to swing around and beneath the cylindrical element 8 and the burner, up to the opposite side thereof from which it is shown in Figs. 1 and 2, the stroke of the cranks being such as to adjust the carrier to a proper position wherein the red globe will completely surround the exposed portion of the lamp chimney 10 so that in its lowermost position no portion of the lamp chimney 10 will be seen. Spring clips 34—35 suitably disposed upon the frame are arranged for engagement with one of the cranks 28 to hold the parts in the position to which they are adjusted.

I have provided guide rods 36 in engagement with lugs 37 upon the carrier 26 for vertically guiding the carrier. Any number of these guide rods may be used, or other means may be employed for guiding the car-

rier as may be found necessary or desirable. The carrier may be provided with clips 38, conveniently struck up from the metal forming the lugs 32, to steady the globe 27 in place, and the cover 18 may also be provided with tongues 39 for engagement with the upper end of the globe 27 when it is in its upward position.

It will be seen that the foregoing structure constitutes an efficient lantern for signaling purposes, quickly adjustable to show two different lights, that when either light is showing the chimney or globe representing the other light is entirely hidden from view, and that the device is a simple and inexpensive one to manufacture, has but few moving parts, will stand rough usage, and is not likely to get out of order.

What I claim is:

1. In a lantern, the combination with a chimney and a globe for surrounding the same, of a shield for receiving the globe and located in a position substantially unobstructive of the chimney, and means for moving the globe from a point within the shield to a position substantially level with, and inclosing the chimney, the said means comprising an annular carrier, cranks arranged upon either side thereof, and connecting rods connecting the opposite sides of the said carrier with the said crank.

2. In a lantern, the combination with a framework, a stationary burner, and a stationary lamp chimney therefor, of a vertically movable carrier concentrically surrounding the chimney, a globe carried thereby and of larger diameter than the said chimney, cranks mounted upon opposite sides of the burner, a connecting element for connecting the cranks around the said burner, links for connecting the said cranks with the carrier upon opposite sides thereof, and means by which the cranks may be rotated.

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Witnesses:

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