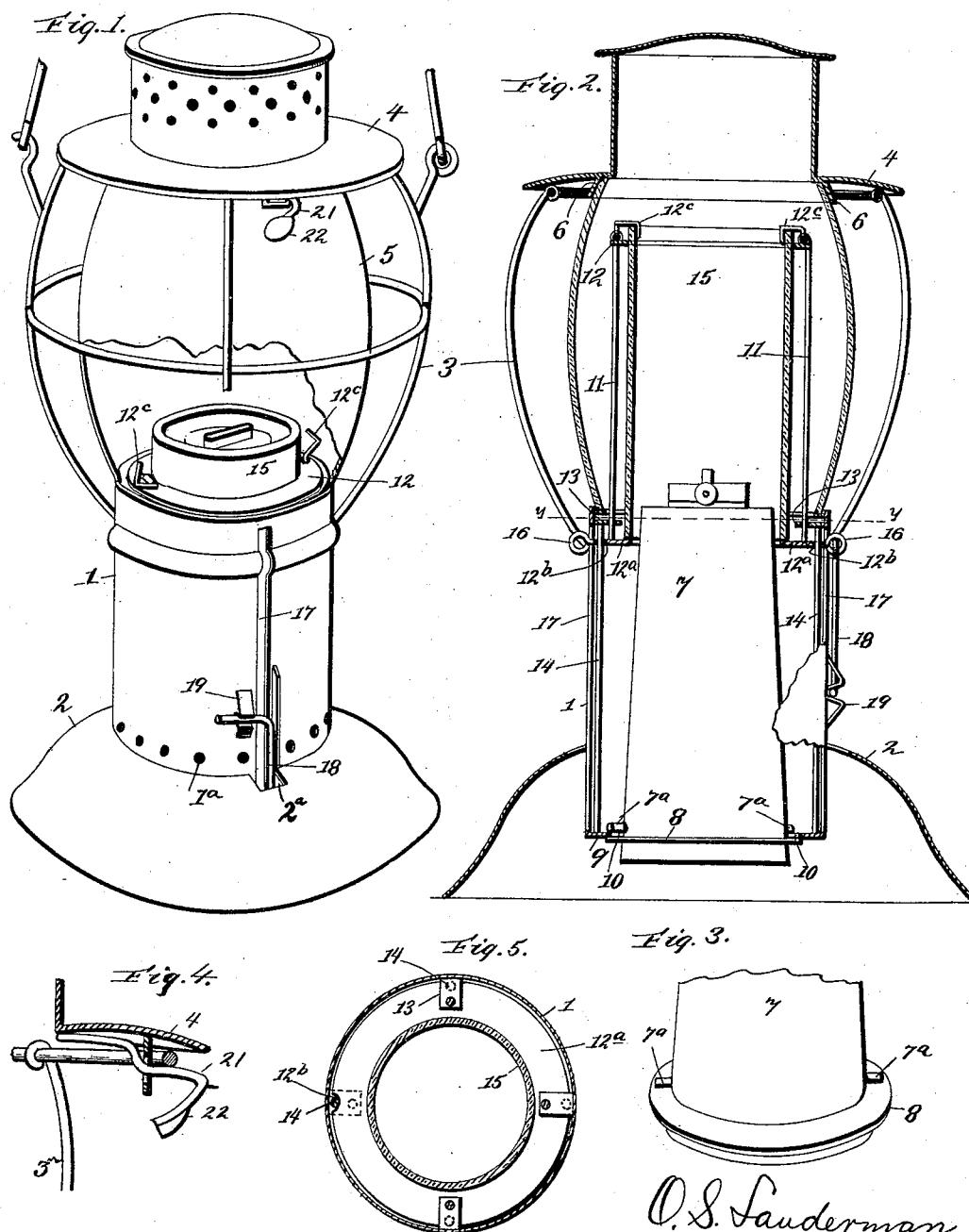


(No Model.)

O. S. LAUDERMAN.
SIGNAL LANTERN.

No. 467,011.

Patented Jan. 12, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

OLIVER S. LAUDERMAN, OF BOYD, KENTUCKY.

SIGNAL-LANTERN.

SPECIFICATION forming part of Letters Patent No. 467,011, dated January 12, 1892.

Application filed April 11, 1891. Serial No. 388,551. (No model.)

To all whom it may concern:

Be it known that I, OLIVER S. LAUDERMAN, a citizen of the United States, residing at Boyd, in the county of Harrison and State of Kentucky, have invented certain new and useful Improvements in Signal-Lanterns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to signal-lanterns for railroad use and the like; and it consists in the construction and novel combination of parts hereinafter fully described, and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a perspective view, partly in section, showing the lantern arranged to display a solid white light. Fig. 2 is a vertical sectional view showing the inner globe raised so that the lantern will display a solid red light. Fig. 3 illustrates in detail the construction of the lower end of the oil cup or receptacle. Fig. 4 illustrates in detail the spring-catch, which secures the top of the lantern in its closed position. Fig. 5 is a transverse sectional view taken on the line *y y* in Fig. 2.

The same numerals of reference indicate corresponding parts in all the figures.

Referring to the several parts by their designating-numerals, 1 indicates the cylindrical casing, usually of tin or other metal, which forms the lower part of the lantern-body. The lower part of this casing is secured in a curved base-piece 2.

3 indicates the usual wire frame-work of the lantern, which incloses and protects the glass globes, and to the top of which the cover 4 is hinged.

In the upper end of the cylindrical body 1 is formed a seat for the outer glass globe 5, which is held firmly in position by a flaring collar 6, secured on the under side of the cover 4 and fitting snugly around the upper end of the globe.

7 indicates the oil cup or receptacle, which is somewhat conical in form, tapering slightly from its lower to its upper end. Near its lower end the oil cup or receptacle is formed with the flange 8 and with the two opposite

lugs or pins 7^a. The lower end of the cylindrical casing 1 is formed with a flange 9, having the opposite recesses 10 formed in it. The oil-receptacle is secured in position in the lantern, by passing it up through the lower end of the cylindrical casing 1 until its locked pins 7^a pass through the opposite recesses 10 and then turning it to the right to engage the pins above the flange 9, when the lower flange 8 of the receptacle is pressed firmly against the flange 9 of the casing 1, the pins 7^a thus locking the lamp securely in position. To remove the oil-cup it is only necessary to turn it to the left until its lugs 7^a can be withdrawn through the recesses 10.

The cylindrical body 1 is formed above the curved base 2, with a series of apertures 1^a for the admission of air to the burner. The supporting-frame for the inner globe is formed of the vertical wires 11 and the rings 12 12^a, to which the ends of the wires are secured. The wires 11 pass down through the apertured guide-lugs 13, secured within the upper end of the casing 1, and within this cylindrical casing are secured the vertical guide-wires 14, which fit in recesses 12^b, formed in the edges of the lower ring 12^a. The cylindrical inner globe 15, which is usually of solid red, but may be of any desired color, according to the signal required, is slid down through the upper ring 12 until its lower end rests upon the lower ring 12^a, in which position it is held by turning the hooks 12^c on the upper ring 12 in over the upper end of the globe. The lower ring 12^a is provided with the opposite eyes 16, which extend through the long opposite vertical slots 17 in the sides of the cylindrical casing 1. In one of these eyes is hooked the upper end of a locking-hook 18.

In operation, by pushing down the projecting eyes 16 until they reach the opening 2^a in the curved base 2 and then pushing down upon the free end of the hook 18 the inner signal-globe 15 is slid down within the cylindrical casing 1 in the space around the oil-receptacle 7 until its upper end disappears below the upper end of the metal casing 1, and the "danger-signal" is thus entirely hidden from view, so that the light of the lamp can only shine through the solid white outer globe 5.

The inner globe is secured in this position by engaging the free end of the locking-hook in the spring-catch 19. When it is necessary to display the danger-signal, this can be instantly and readily done by freeing the upper end of the locking-hook from the spring-catch 19 and pulling up on the same, thus raising the crimson globe until the projecting eyes 16 come above the level of the base-piece 2, when, by taking hold of both the said eyes and pulling up on the same, the inner-globe casing will be prevented from binding and will be raised vertically until the eyes reach the upper ends of the slots 17, in which position the inner globe is secured by turning down the free end of the locking-hook 18, engaging it in the spring-catch 19. When thus secured, all the light from the lamp will shine through the crimson inner globe, and the lantern will thus be changed in an instant from a safety to a danger signal.

For locking the cover 4 in its closed position I employ a spring-catch consisting of a slightly-curved spring-wire secured at one end to the under side of the cover and bent at its free end to form the locking-hook 21, the lower end of which has an enlargement or head 22 for convenience in manipulating the hook. This hook 21, when the cover is closed, engages on the upper wire of the frame 3, securely locking the cover in its closed position, and by pushing on the head 22 the spring-catch is freed to enable the cover to be raised for the purpose of removing the globes. The inner globe can be removed by turning outward the hooks 12^c.

The conductor or other trainman will only have to be provided with or carry the one lantern, and this will display either a solid white light for the safety-signal or a solid

red light for the danger-signal, or, as before stated, the inner globe may be of any color desired.

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

1. The combination, in a signal-lantern, of the cylindrical casing 1, having the curved base-piece 2 secured to it, the outer white globe, the oil-receptacle 7, secured within the casing 1, the movable frame, consisting of the vertical wires 11, sliding through apertured lugs in the casing 1, and the rings 12 12^a, secured to the ends of said wires, and the inner colored globe mounted in said frame, substantially as set forth.

2. The combination of the cylindrical casing 1, having the apertured lugs 13 at its upper end, the vertical guide-wires 14, and formed with the opposite slots 17, the oil-receptacle 7, secured within the casing 1, the sliding frame 11 12 12^a, having the projecting eyes 16 at its lower end, the outer and inner globes, the locking-hook 18, hinged in one of the eyes 16, and the spring-catch 19, secured on the side of the body 1, substantially as set forth.

3. The combination, with a lantern having the outer globe and the lamp 7, of the adjustable frame contained within the outer globe, and provided at its upper end with the retaining-hooks 12^c, and the inner globe fitting in said frame, substantially as set forth.

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

OLIVER S. LAUDERMAN.

Witnesses:

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