J. L. WAGER.

Signal Lantern.

No. 22,992. Patented Feb. 15, 1859.

Fig. 2

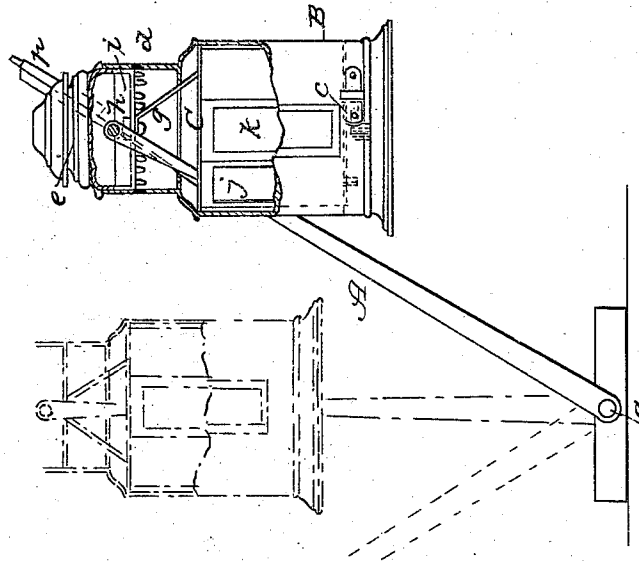


Fig. 3

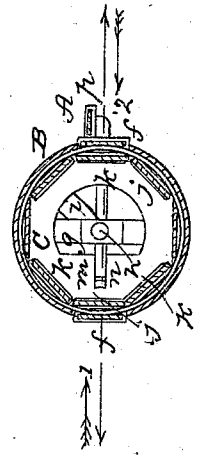
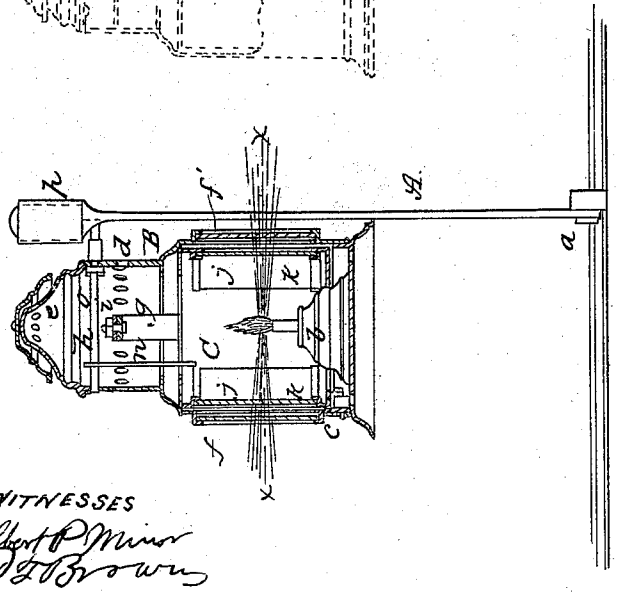


Fig. 1



WITNESSES

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RAILROAD SIGNAL-LANTERN.

Specification of Letters Patent No. 22,992, dated February 15, 1859.

To all whom it may concern:

Be it known that I, JOHN L. WAGER, of Deposit, in the county of Broome and State of New York, have invented a new and Improved Signal-Lantern for Railroad-Switches; and I do hereby declare that the following is a full, clear and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a vertical central section of my invention applied to a switch bar or lever. Fig. 2, is an external view of ditto, with a portion broken away. Fig. 3, is a detached and inverted horizontal section of ditto, taken in the line *x*, *x*, Fig. 1.

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

This invention consists in constructing a lantern and attaching it to a switch bar or lever in such a manner as hereinafter fully shown and described, that by operating the switch the working parts of the lantern will be adjusted automatically so that a different colored light will be shown or emitted for each position of the switch and the lantern at the same time always allowed to remain in a vertical position irrespective of the position of the switch bar or lever.

The object of the invention is to obtain a simple automatic switch lantern that will be free from the objection attending all those hitherto devised with which I am acquainted to wit, the burning out of the lantern in consequence of the inclined position given them by the movement or adjustment of the switch bar or lever.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents a switch bar or lever which is connected with a switch in the usual way the switch being operated by moving the lever back and forth on its point of attachment *a*, with the switch connecting rod. These parts being arranged as usual do not require a minute description.

B, represents the case of the lantern which is of cylindrical form and has a lamp *b*, fitted in its bottom and secured therein by any suitable catch or fastening *c*. The case B, is provided with a perforated top piece *d*, and a cap *e*, which is removable. At two opposite sides of the case B, a plate of colorless glass is inserted. See *f*, *f'*, Figs. 1 and 3.

Within the case B, a revolving frame C, is placed. This frame has a bail *g*, attached to its upper end and this bail is secured by a bolt or rivet *h*, to a traverse bar *i*, in the upper part of the case B. The frame C, therefore is suspended from the bar *i*, and is allowed to rotate freely in the case B. In the frame C, six colored plates of glass are placed, three at each side, one red and two green ones on one side, the red plate *j*, being between the two green ones *k*, *k*, as shown clearly in Fig. 3, and two red plates and one green one at the opposite side, the green plate being between the two red ones. The frame C, is open at its bottom so that the top of the lamp *b*, may extend up within it and the flame *k*, be about at its center, as shown clearly in Fig. 1. The upper end of the frame C, is also open, or has a circular opening *l*, made in it and also a radial slot *m*, in which the lower end of a rod *n* is fitted. The upper end of the rod *n*, is secured to a rod or shaft *o*, which passes loosely through the upper part of the case B, so that the case B, may swing freely thereon. To the outer end of the rod or shaft *o*, a socket *p*, is attached and this socket is fitted on the upper end of the switch bar or lever A.

From the above description it will be seen that by turning or moving the lever A, the frame C, will be rotated within the case B, the rotation of said frame being due to its connection with the rod or shaft *o*, by the arm *n*. The lever A, as shown in the drawings is connected with a double acting switch, that is, one that communicates with a main and two side tracks, one at each side of the main track. Hence three colored glass plates are required in the frame C, as will be seen by referring to Fig. 3, in which the one red glass plate *j*, and two green plates *k*, *k*, are shown facing the main track that connects with the side tracks. A train of cars going in the direction indicated by the arrow 1, and intending to pass on to either side track would be warned not to approach the switch as a red light would be shown, the red plate *j*, being in register with the plate *f*, in the case B, the switch being in line with the main track. At the opposite side of the switch however a train going in the reverse direction indicated by arrow 2, would have a green light presented to it signifying all is right, as cars going in this latter direction do not pass on any side

track. When the switch is in line with the main track the lever A, is in a vertical position as shown in red Fig. 2, when in line with a side track it is in an inclined position and the movement of the lever A, is sufficient to rotate the frame C, far enough to bring a green glass *k*, opposite the plate *f*, while a red glass *j*, will be opposite the plate *f'*, indicating danger or that all is not right at one side of the switch and that all is correct at the other, in order to pass on the side track. As the case B, swings loosely on the rod or arm, it will always remain in a vertical position, and hence the glass cannot be cracked or any parts of the lantern injured by heat, a contingency which would occur were the case and lamp *b*, inclined.

I am aware that switch lanterns have been previously devised in which colored glass plates have been operated or certain parts so adjusted by the movement of the switch bar or lever that different colored lights are shown to indicate the position of the switch. I therefore do not claim broadly an automatic switch lamp; but,

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

The lantern case B, provided with the colorless glass plates *f*, *f'*, and loosely attached or suspended to the rod or shaft *o*, which is connected with the switch bar or lever A, the case being provided with the oscillating or partially rotating frame C', containing colored glass plates and connected with the rod or shaft *o*, by means of the arm *n*, the whole being arranged substantially as and for the purpose set forth.

JOHN L. WAGER.

Witnesses:
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