E. H. FOOTE & E. L. GILMAN.

Signal-Lantern.

No. 161,021. Patented March 23, 1875.

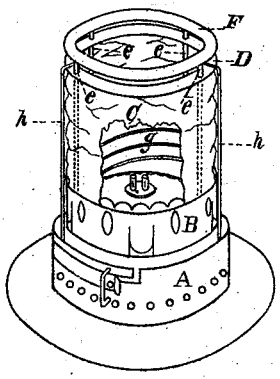

Fig. 1.

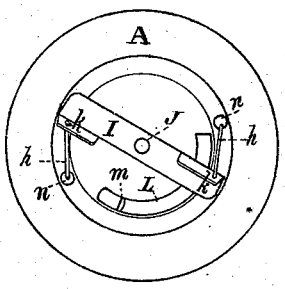

Fig. 2.

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UNITED STATES PATENT OFFICE.

EDWARD H. FOOTE AND EDWARD L. GILMAN, OF SOMERVILLE, MASS.

IMPROVEMENT IN SIGNAL-LANTERNS.

Specification forming part of Letters Patent No. **161,021**, dated March 23, 1875; application filed February 3, 1875.

To all whom it may concern:

Be it known that we, EDWARD H. FOOTE and EDWARD L. GILMAN, of Somerville, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Lanterns, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which our invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an isometrical perspective view, and Fig. 2 a plan of the bottom.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

Our invention relates to that class of lanterns which are employed in giving danger-signals on railways; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a simpler, cheaper, and more effective device of this character is produced than is now in ordinary use.

It is well known that it is frequently necessary, in order to avoid accidents on railways, to improvise a red light or danger-signal for the occasion, and also to use more signals of this kind than are usually at hand.

Our improvement is designed to obviate these difficulties, and to that end we so construct and arrange an ordinary lantern that it may be instantly converted into a red light or danger-signal without removing the lamp or the employment of extra glasses or colored lenses.

In the drawing, A represents an ordinary lamp, provided with means for attaching it to the lantern. B is a thin metallic base or hoop, having its lower edge cut in such a manner that it may be easily pushed on over the top of the lamp, and will then adhere thereto by friction. Rising from this hoop are four standards, *e e e e*, connected at their tops by the flat ring F, and within these standards there is a coiled spring, *g*. A flat metallic ring, D, is disposed beneath the ring F, and arranged to slide upon the standards *e e*, and to press upon the spring *g*. Around the standards *e e* and the spring *g*, and attached to the ring D and hoop B, there is a thin lace or cloth screen, C, of the proper color to produce a red light as the rays of the lamp pass through it, and preferably fire-proofed. Attached to the ring D there are also two cords, *h h*, which pass downwardly through holes *n n* in the base of the lamp, and are secured to the arms *k k* of the lever I, which is pivoted at J. A flat curved spring-catch, L, having a notch, (not shown,) is attached to the base by the rivet *m*, and so arranged that one arm of the lever I is beneath or outside of it, and falls into the notch when turned, as shown in Fig. 2.

From the foregoing it will be obvious to all conversant with such matters that when the lever I is turned on its pivot J, as shown in Fig. 2, the ring D will be drawn down, compressing the spring *g* and screen C, thus showing a white light; and that when the spring-catch L is depressed and the lever I released, the expansive action of the spring *g* will elevate the ring D and screen C, instantly producing a red light.

It will be obvious that a green light, or a light of any required color, may be produced by a proper change of the screen.

Having thus described our invention, what we claim is—

1. The lamp A, provided with the hoop B, standards *e*, ring D, spring *g*, and screen C, combined to operate substantially as and for the purpose specified.

2. The lever I, catch L, and cords *h h*, in combination with the screen C and spring *g*, substantially as and for the purpose specified.

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Witnesses:
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