

(No Model.)

W. G. MINK & E. N. ALLING.

LANTERN.

No. 264,956

Patented Sept. 26, 1882.

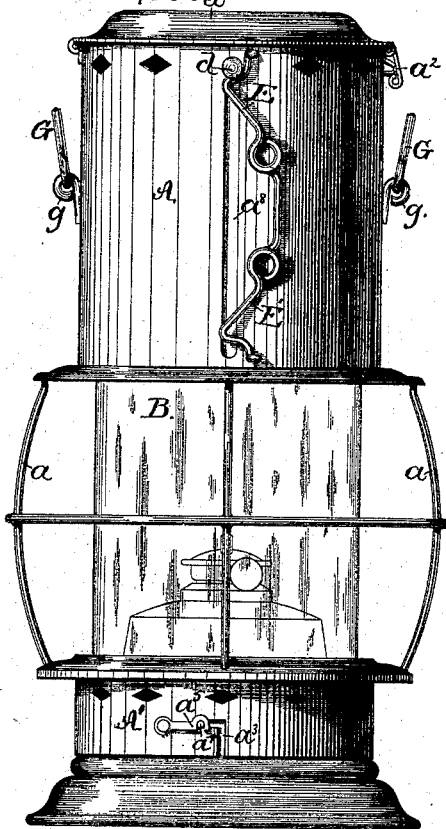


Fig. 1.

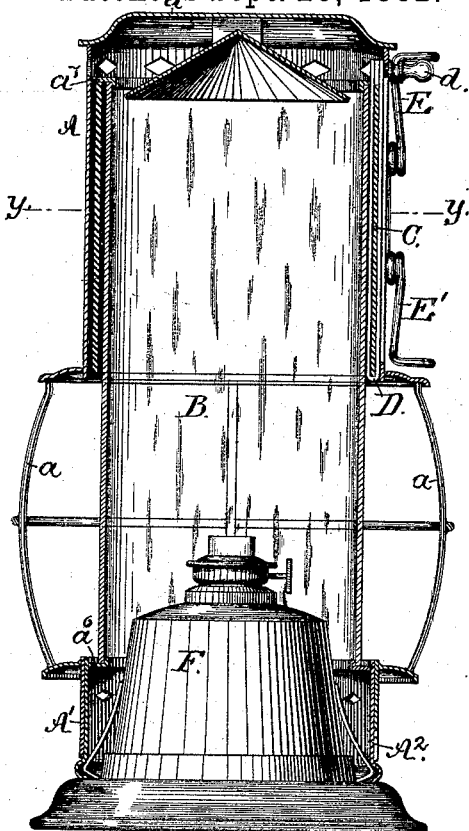


Fig. 2.

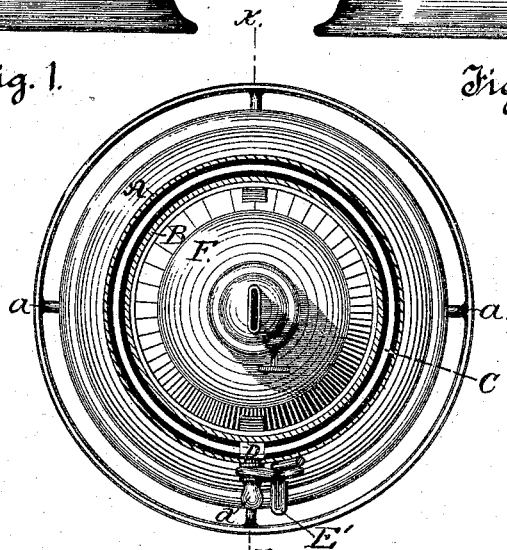


Fig. 3.

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# UNITED STATES PATENT OFFICE.

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## LANTERN.

SPECIFICATION forming part of Letters Patent No. 264,956, dated September 26, 1882.

Application filed March 13, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM G. MINK and EUGENE N. ALLING, both of Bath-on-the-Hudson, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Lanterns, of which the following is a full and exact description, reference being had to the accompanying drawings, which form part of this specification, and in which—

Figure 1 is a side elevation of a hand-lantern containing our improvements; Fig. 2, a vertical section of the same at the line *x x*, and Fig. 3 a horizontal section at the line *y y*.

Our invention relates to improvements in lanterns; and it consists in constructing each lantern in such manner that it will contain at the same time two glasses of different colors; one of said glasses being adapted to slide telescopically over the other, as hereinafter described; and it also consists in constructing the casing of the lantern in such manner that the lighting of the lamp therein may be effected without removing said lamp from the lantern and while the latter is exposed to strong currents of wind.

The object of our improvements is to combine in one device a "safety" and a "danger" signal for railway purposes, or for any purpose where signals are made by means of lanterns of different colors; and this object we attain by means of the construction herein shown and described.

As illustrated in the drawings, the metallic casing of the lantern is composed of the upper section, A, and lower section, A', that are connected together by means of the guard-wires *a*. The upper section, A, is provided with a cover, *a'*, which we preferably hinge thereto, and provide it with a catch, *a''*, for securing it in a closed position; but when preferred the said cover may be made removable to effect the object hereinafter described. The lower section, A', is provided with an inside detachable cylinder, A<sup>2</sup>, and the two are secured together by means of the interlocking slots *a<sup>3</sup>* and pins *a<sup>4</sup>*, to which additional security may be given by means of the catch *a<sup>5</sup>*, a spring, or any other suitable fastening device that will engage with the pin *a<sup>4</sup>* to prevent the parts from unlocking. The inner cylinder, A<sup>2</sup>, is

provided at its upper end with an inwardly-projecting annular flange, *a<sup>6</sup>*, that serves as a seat for holding the inside glass cylinder, B, and the latter extends upward inside of the upper section, A, and near to the top thereof, and the upper end of said cylinder is held by the annular flange *a<sup>7</sup>*, secured to the inner side of the upper section, A. The cylinder B is usually made of clear or uncolored glass, so as to show a clear light from the lamp inside of the lantern, and the said cylinder is so secured in place by the flanges *a<sup>6</sup>* and *a<sup>7</sup>* that the lantern may be swung around in a vertical plane without danger of displacing the said cylinder.

Surrounding the cylinder B there is another cylinder, C, made of any desired tint of colored glass or other suitable transparent material. The said outer cylinder, C, is about one-half of the height of the cylinder B, and of sufficient diameter to pass freely over the latter, and it is adapted to slide upward into an annular chamber formed between the upper portion of the cylinder B and upper section, A, of the metallic casing. The said outer cylinder, C, is carried in a stirrup, D, formed of a strip of metal bent at its middle to receive the lower edge of the cylinder C, and so that the two parts will extend upwardly—one on the outside and the other on the inside of said cylinder—with their ends extending above the upper edge of said cylinder C, adapted to receive a handle or knob, *d*, which is screwed thereinto, so as to bind the two upper ends of said stirrup together. Said knob projects outward through a vertical slot, *a<sup>8</sup>*, formed in the upper section of the casing, and by means of said knob the cylinder C can be moved from the outside of the lantern to slide telescopically over the cylinder B. The spring-catches E and E', secured to the casing at one side of the slot *a<sup>8</sup>*, constitute fastening devices for engaging with the knob *d* to hold the outer cylinder, C, either in its raised or lowered position, so securely that the said cylinder cannot be displaced when the lantern is violently swung around for the purpose of signaling.

By making the cover *a'* removable, or so as to swing on a hinge, access can be obtained to the interior of the lantern for the purpose of lighting the lamp F while the lantern is ex-

posed to a high wind, and for the purpose of cleaning the cylinder B on its inner side without taking the lantern apart.

Our lantern is provided with a swinging bail, G, (shown as broken in Fig. 1,) made in the usual bowed form, and attached to the casing by the eyes g.

While the outer cylinder, C, is drawn up to its highest position, as shown in Figs. 1 and 2, the lantern will show a clear uncolored light from the lamp inside, and it can then be used as a safety-signal; but when occasion requires the upper spring-catch, E, can be thrown back from under the knob d to release the cylinder C, and the said cylinder may then be moved downward until the knob d engages underneath the lower spring-catch, E', whereby the outer cylinder, C, will be locked in position to inclose that portion of the cylinder B that is used for the transmission of light, and under such conditions the lantern will show a distinct and well-defined colored light that is not mixed with any other tint or color to produce confusion or doubt in the mind of an observer, and it may then be used as a danger-signal.

By removing the inner cylinder, A<sup>2</sup>, of the casing and the knob d from the stirrup the glass cylinders B and C may be drawn out from the casing of the lantern whenever such an act may be required.

The upper portion of the cylinder B, or that part of it that is inclosed in the upper section, A, of the casing, may be blackened or otherwise deadened to the transmission of light, or, when preferred, the said upper portion of the cylinder B may be dispensed with, and a light metallic cylinder of an equal length may be substituted therefor, suitable provision being made at the lower end of the substituted cylinder for holding the upper end of the shortened glass cylinder, and by this modification of the construction a material reduction in the weight of the lantern may be effected without affecting in the least its operation.

The upper and lower sections of the casing are provided with the usual openings for the ingress and egress of air required to support combustion within the lantern, and the

lamp F is fastened in the casing of the lantern by the usual and well-known means.

It is obvious that our invention is not limited to a lantern having a cylindrical form, and that it can be readily adapted without further invention to any form of lantern wherein one hollow form of glass can be arranged to slide telescopically over another for the purpose of changing the color of the light thrown from the lantern.

We claim as our invention—

1. In a lantern, the combination, with a transparent inner cylinder, B, secured by means of the annular flanges a<sup>6</sup> and a<sup>7</sup> in a fixed position in the casing of said lantern so as to form an annular chamber between the upper end of said cylinder B and the upper section, A, of the casing, and a colored transparent outer cylinder, C, adapted to slide telescopically upward into the aforesaid annular chamber, as herein set forth, of the spring-catches E and E', adapted to engage with the knob d for the purpose of securing the cylinder C at each extremity of the movement of said cylinder, the whole being so constructed and arranged to operate that a light of only one color can be emitted from the lantern at any one time, as herein specified.

2. In a lantern whose casing is composed of an upper section, A, provided with an annular flange, a<sup>7</sup>, as herein described, a lower section, A', connected to said upper section by means of guard-wires a, and a detachable inner cylinder, A<sup>2</sup>, provided with the annular flange a<sup>6</sup> and secured to the lower section, A', as herein set forth, the combination, with a transparent cylinder, B, held in fixed position by the flanges a<sup>6</sup> and a<sup>7</sup>, of the sliding transparent colored cylinder C, carried in the stirrup D, provided with a knob, d, and the spring-catches E and E', all of said parts being constructed and adapted to operate as herein specified.

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