W. KELLEY.

Signal for Locomotive Head-Light.

No. 209,405. Patented Oct. 29, 1878.

Fig. 1.

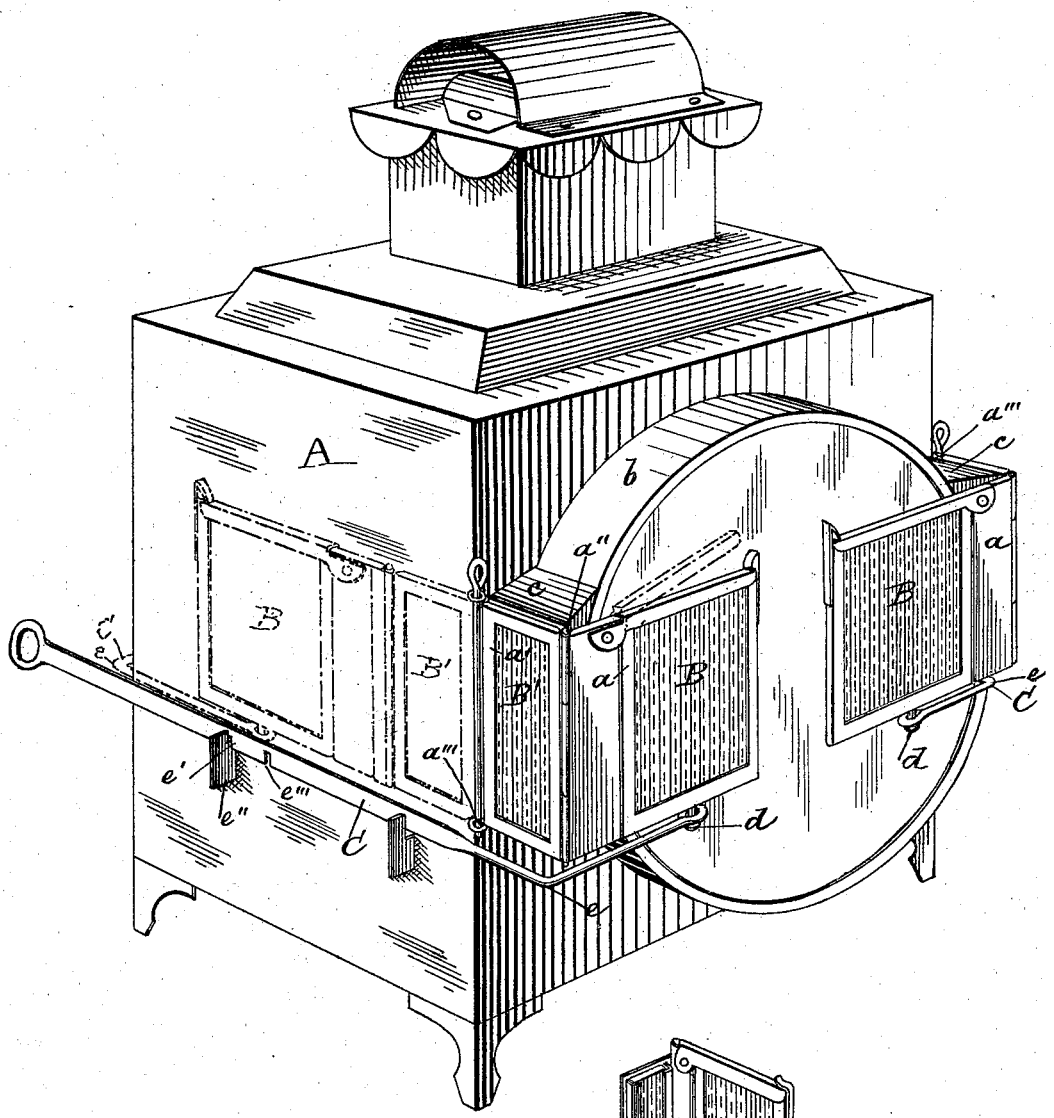
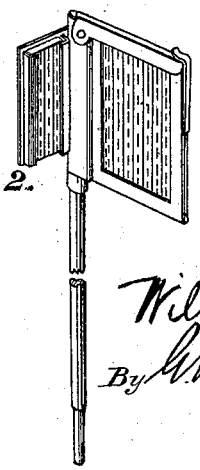


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM KELLEY, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN SIGNALS FOR LOCOMOTIVE HEAD-LIGHTS.

Specification forming part of Letters Patent No. **209,405**, dated October 29, 1878; application filed October 10, 1878.

To all whom it may concern:

Be it known that I, WILLIAM KELLEY, of the city of Baltimore and State of Maryland, have invented certain new and useful Improvements in Signals for Locomotive Head-Lights; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a signal which may be exhibited, as desired, in front of the head-light of a locomotive, to indicate that the train is immediately followed by another, or as a danger-signal, or for other purposes.

This invention is designed to be used as either a night or a day signal; and consists, first, in combining with the head-light lantern framed colored glass plates hinged together in pairs, each pair forming a front and a side signal, and being adapted to be placed at and removed from the face parts of the lantern. In order to carry out this part of my invention, the glass rim or projection frame or flange holding the glass of the lantern is provided with side openings or windows, over which the glass plates constituting the side signals are placed when the signal is in position as such.

The invention consists, secondly, in certain details of construction involved in the carrying out of the first part of my invention in its preferred form, as hereinafter particularly set forth.

In the accompanying drawings, Figure 1 is a perspective view of the invention, in which the framed colored glass plates forming the signals are shown in their two positions—viz., in front of the lantern and removed therefrom—the latter adjustment being shown in dotted lines, as will be readily understood. Fig. 2 is a perspective view of a detail of the invention, hereinafter described.

Similar letters of reference indicate similar parts in both the views.

A is the head-light lantern. B B′ are red-glass plates, inclosed in frames *a a′*. The frames *a a′* are hinged or leaved together at *a″*. The pair of frames are hinged to the lantern at *a‴*. The plates B form the front signals, standing when in position in front of the lantern-face, as shown in Fig. 1 by the full lines, the plates B′ forming at the same time the side signals, and occupying positions over windows cut, respectively, in the two sides of the rim or flange *b*. The said windows are surrounded by frames *c*, soldered to the rim or flange *b*, the frames *c* extending out to the sides of the lantern.

C are rods, loosely connected to the frames *a* by means of the pins *d*. The rods C are bent to right angles at *e*, and when the signal-plates B B′ are at the front parts of the lantern have the position shown in Fig. 1, being hooked at the notches *e′* over the stops *e″*. When, however, the signal-plates are moved to the position shown in the said figure by dotted lines, the notch *e‴* is fitted to a stop similar to *e″*, situated at the back of the lantern.

It will be understood that the hinge *a″* allows the plates B B′ in their frames to be brought flat against the sides of the lantern, as shown by the dotted lines in Fig. 1.

Fig. 2 shows a standard, provided with a front and a side signal-plate, secured thereto. This may be used by simply inserting the lower end of the standard in a socket formed in the base-board of the lantern. The construction shown in Fig. 1 is, however, that preferred by me, by reason of its greater convenience.

The upper sections of the frames receiving the glass plates are hinged, and the plates slipped into the frames, as shown, and as claimed as of my invention in my Letters Patent No. 207,284, dated August 20, 1878. The present invention is designed for application to such head-lights to which the invention described in said Letters Patent would be inapplicable, and also to furnish a side light not provided for in my said former invention.

In this invention, as in my said former one, the glass plates serve as a day or a night signal, the color of the frame-work being made to correspond with the color of the plates.

The chief advantage attending the use of this invention is in the great saving to the railroad company using it of lamps of different kinds

and the oil neccessary to supply them. For signals of different significations, glass plates of different colors may be used in accordance with the rules governing railroad signaling.

I claim as my invention—

1. A head-light lantern having its front projecting rim provided with side openings or windows, with frames around the same, combined with colored front and side glass plates, united or hinged together, and adapted to be placed in front of said lantern and over the side windows thereof, and removed therefrom, substantially as and for the purposes specified.

2. Combined with a head-light lantern having its front projecting rim provided with side openings or windows, colored front and side glass plates, hinged or leaved together, and adapted, when not in use, to be swung back against the side walls of the lantern by means substantially as herein specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WILLIAM KELLEY.

Witnesses:
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