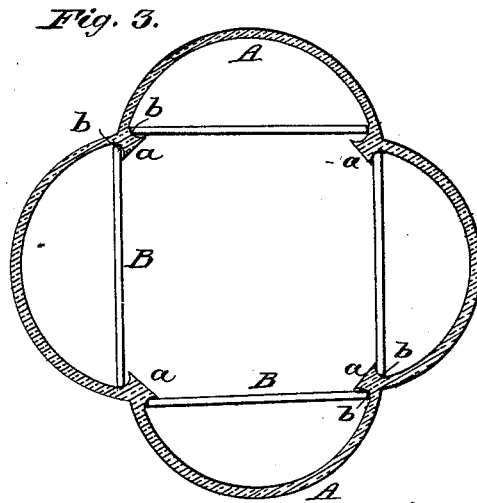
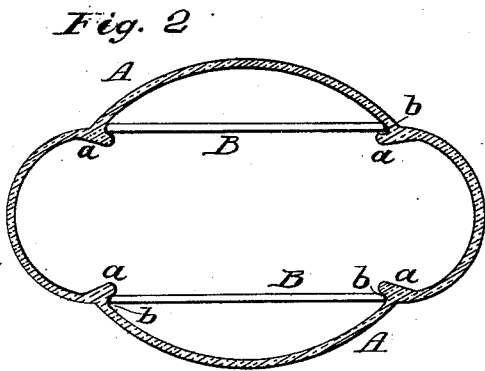
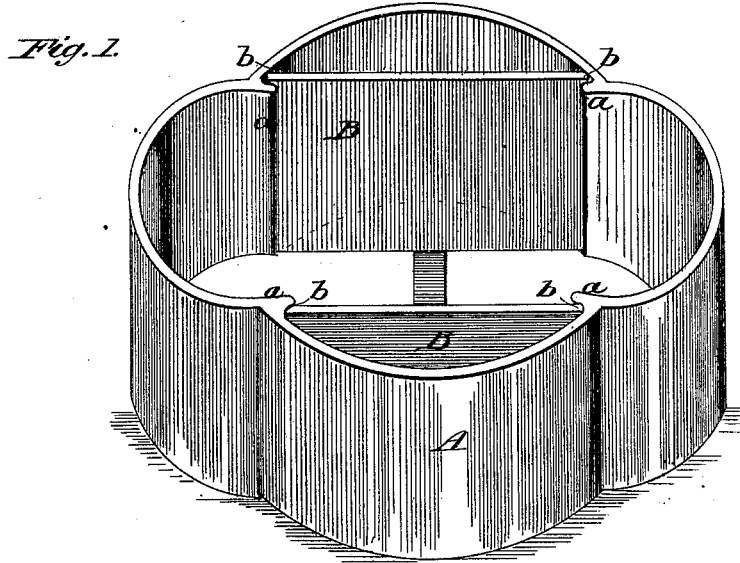


J. H. EWING & E. L. BILL.  
Signal-Lantern.

No. 205,846.

Patented July 9, 1878.



Witnesses  
*Edw. G. Sietz*  
*Augustus P. ...*

Inventors  
*John H. Ewing*  
*Edward L. Bill*  
 by *Louis Ragner & Co.*  
*Pat. Attys.*

# UNITED STATES PATENT OFFICE.

JOHN H. EWING AND EDWARD L. BILL, OF WHEELING, WEST VIRGINIA.

## IMPROVEMENT IN SIGNAL-LANTERNS.

Specification forming part of Letters Patent No. **205,846**, dated July 9, 1878; application filed June 7, 1878.

*To all whom it may concern:*

Be it known that we, JOHN H. EWING and EDWARD L. BILL, of Wheeling, in the county of Ohio and State of West Virginia, have invented certain new and useful Improvements in Lamps and Lanterns; and we 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, which form a part of this specification, and in which—

Figure 1 is a perspective view, and Figs. 2 and 3 are top views.

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

Our invention relates to improvements in lamps or lanterns for signaling or other purposes; and it consists in the combination of a globe or chimney provided with vertical grooves with removable and interchangeable lenses or reflectors, substantially as and for the purpose hereinafter more fully described.

In the drawing, A is the globe or chimney, made of glass, blown, molded, or pressed, of any desired size or shape, and made in one or more pieces. In the process of making, this globe or chimney is provided with a series of projections, *a*, which are formed by crimping the glass, as shown, or the exterior face of the globe or chimney may be left without any indentations. The vertical projections or flanges *a* thus formed on the inner side of the globe or chimney are curved to form grooves *b*, as shown in Figs. 1 and 2; or they may be made of a dovetail shape, as represented in Fig. 3, to form double grooves *b b*, one on each side.

Into these grooves, which run from the top to the bottom of the globe or chimney, are inserted one or more glass slides, denoted by B,

of a different color from that of the glass of which the globe or chimney itself is made. For example, one of the glass slides or lenses B may be red, and the opposite slide or lens green, (the globe or chimney itself being white,) which would show a red light on one side, a green light on the opposite side, and a white light straight ahead. If preferred, a reflector may be substituted for one of the colored lenses.

The flanges *a*, being of glass, will not obstruct the light, as in the case of the ordinary metal-frame lanterns generally employed by vessels and railroads for signaling and other purposes, and will not prevent the lamp or lantern from being used where it is desired to show a white or plain light only. If desired, the flanges which form the grooves for the insertion of the slides may be made on the outside of the globe or chimney, in which case, of course, the lenses are placed outside of this instead of on the inner side, as in the drawing.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

The combination, with the globe or chimney A, having a series of vertical projecting flanges, *a*, whereby a series of vertical grooves or recesses, *b*, are formed, with removable and interchangeable slides or lenses B, of different color, substantially as and for the purpose herein shown and described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

JOHN H. EWING,  
EDWD. L. BILL.

Witnesses:

W. P. ADAMS,  
THOS. J. WEST.