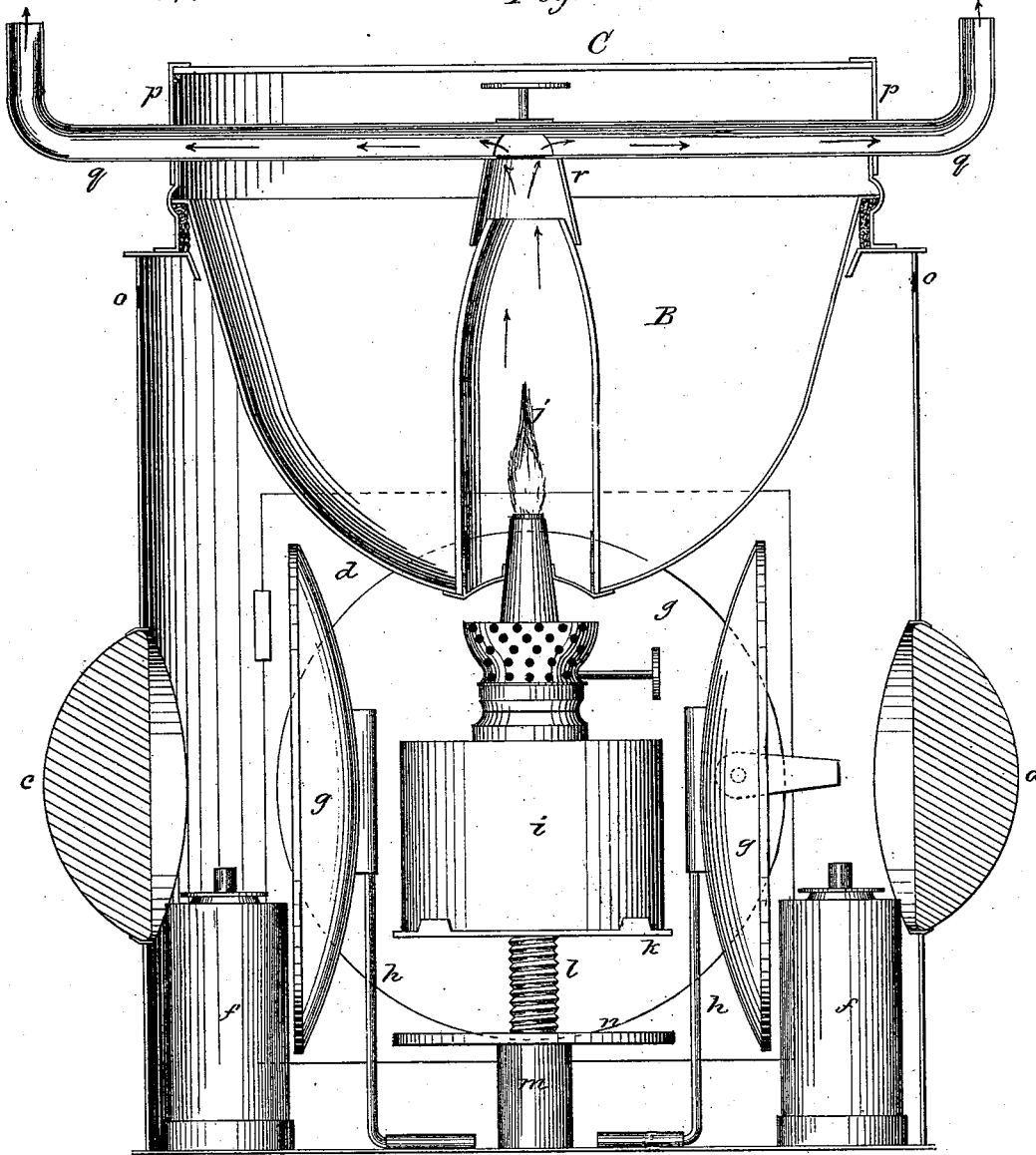


R. J. HAMILTON.
SIGNAL LANTERN.

No. 187,376.

Fig. 1, Patented Feb. 13, 1877.



WITNESSES

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Robert J. Hamilton,
per *Chas. H. Fowler,*
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Fig. 2.

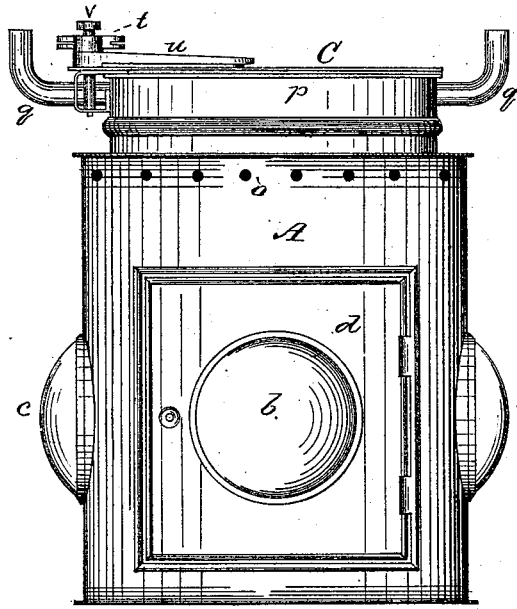
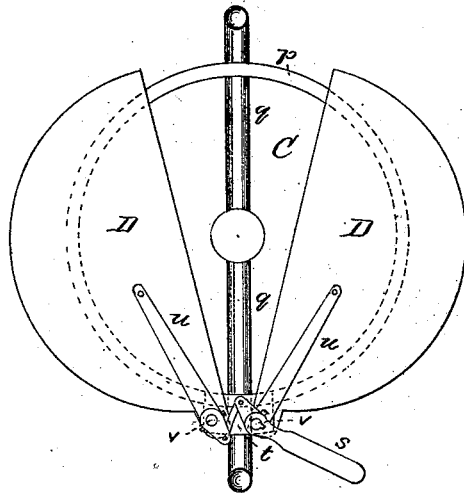


Fig. 3



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UNITED STATES PATENT OFFICE.

ROBERT J. HAMILTON, OF FORT WAYNE, INDIANA, ASSIGNOR OF TWO-THIRDS HIS RIGHT TO FREDERICK R. HAMILTON AND ROBERT J. HAMILTON, JR., OF SAME PLACE.

IMPROVEMENT IN SIGNAL-LANTERNS.

Specification forming part of Letters Patent No. **187,376**, dated February 13, 1877; application filed December 18, 1876.

To all whom it may concern:

Be it known that I, ROBERT J. HAMILTON, of Fort Wayne, in the county of Allen and State of Indiana, have invented a new and valuable Improvement in Signal-Lights; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a sectional elevation of my invention. Fig. 2 is a side elevation. Fig. 3 is a top plan view of the same.

This invention has relation to signal lanterns or lamps for railroads, vessels, and for other purposes for which it may be used; and consists in combining, in one lantern, three lights of different colors; also, in providing the lantern at its top with a reflector that will throw a light vertically, as will be hereinafter described and subsequently pointed out in the claims.

In the accompanying drawing, A represents the lantern, having three convex glasses, *a b c*, of red, green, and white colors, and suitably-hinged doors *d*, to admit of ready access to the interior of said lantern. Suitable lamps *f* are placed in the rear of the glasses, and back of them are reflectors *g*, secured upon the ends of vertical rods *h* in a manner that will admit of their ready removal or adjustment when required.

Secured within the top of the lantern is a concave reflector, B, up through the center of which passes the burner of a suitable lamp, *i*, the same being provided with a glass chimney, *j*. A stand, *k*, is secured to a screw-rod, *l*, for the lamp *i* to rest upon, the lower end of said rod passing into a screw-sleeve, *m*, secured to the bottom of the lantern, the stand *k* being lowered to remove the lamp by a hand-wheel, *n*, operating the screw-rod.

It will be seen that the addition of an upright light is advantageous in many respects to prevent collisions, as the rays of light being thrown in an upward direction, one train can be seen by the other at a great distance when passing over bluffs or around curves, and also in swamp-fogs, as the train can be seen coming through the fog with comparatively little difficulty by the other trains.

The upright light is equally applicable to all kinds of sea-going vessels, as well as to light-houses.

Near the top of the lantern A are suitable openings *o*, to allow the free escape of the smoke from the lamps *f*, and a glass cover, C, formed with an annular flange, *p*, fits over the top of the lantern, and is provided with smoke-tubes *q*, branching out from a centrally-located hood, *r*, each end of the tube or tubes passing through the flange *p*, and taking an upward direction above the glass cover C, thereby allowing the smoke to escape from the lamp *i*, and, at the same time, protecting the reflector B from becoming tarnished or otherwise injured by the weather.

To the cover C are pivoted blinds D, which are operated to shut off or open the upright light by the lever *s*, toggle-joint *t*, and arms *u*, one of the ends of said arms being rigidly connected to the pivots *v*, while the other ends are connected to the blinds near their center, thus making a very simple, as well as effective means for operating them when required.

From the above description of my invention, it is evident that every requisite of a signal-lantern is combined in a single device, and one that can be readily handled, and is effective in all of its purposes.

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

1. A signal-lantern provided with a side light or lights, and having arranged at or near its top a reflector for throwing the rays of light in an upward direction, substantially as specified.

2. The glass cover C, provided with hinged or pivoted blinds D, substantially as and for the purpose set forth.

3. The lamp rest or support *k*, connected to the screw-rod *l*, and the sleeve *m*, and hand-wheel *n*, combined to operate as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ROBERT J. HAMILTON.

Witnesses:

JULIUS NATHAN,
JAMES E. GRAHAM.