

G. W. ANDERS.
Railway-Switch Signal.

No. 196,619

Patented Oct. 30, 1877.

Fig. 1.

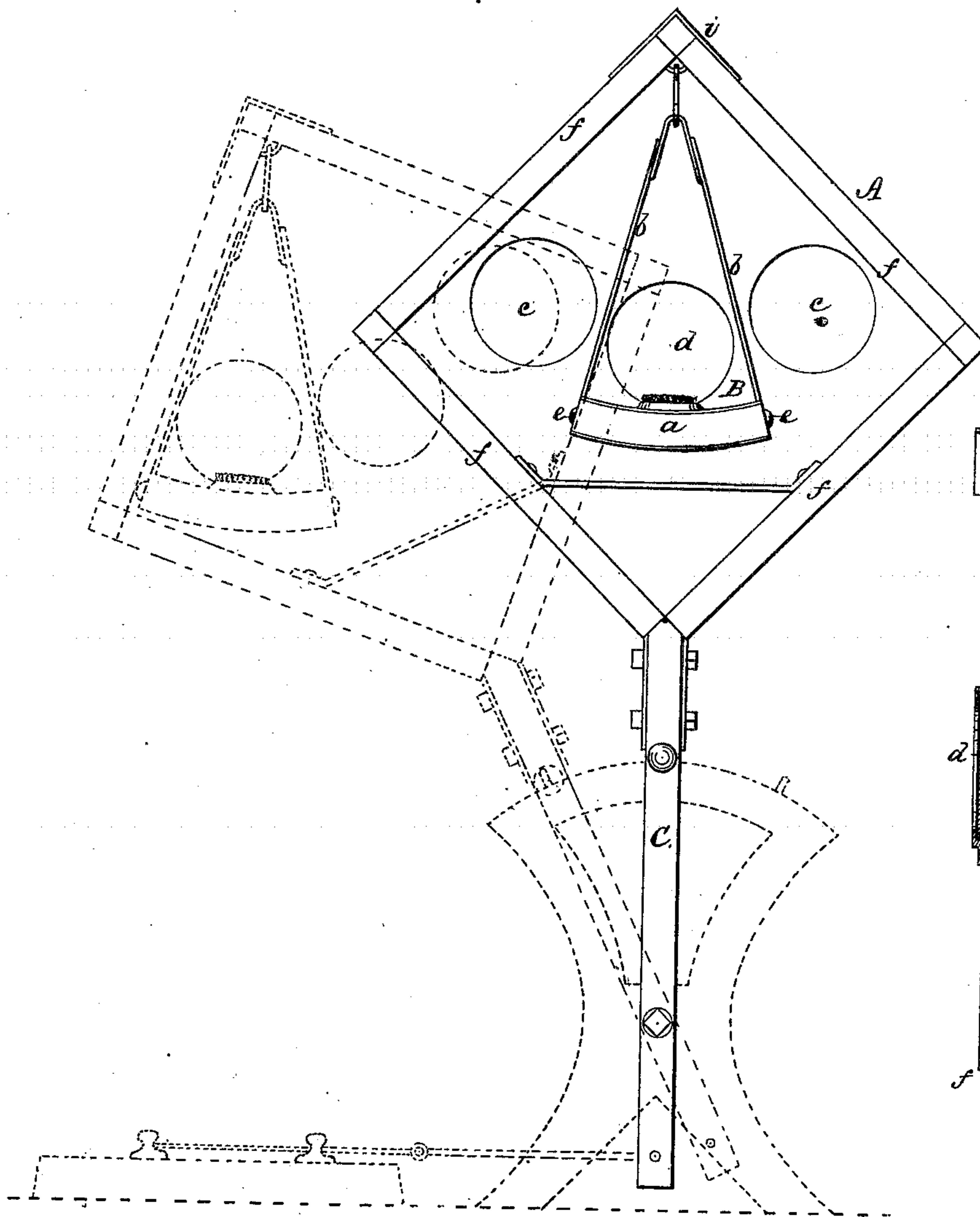
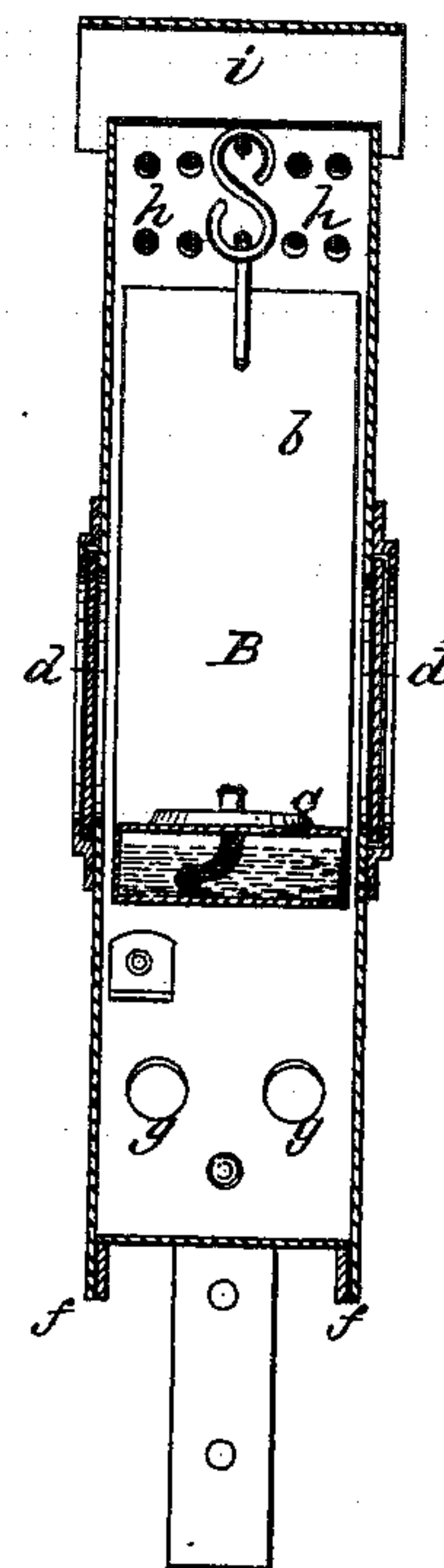


Fig. 2.



WITNESSES:

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IMPROVEMENT IN RAILWAY-SWITCH SIGNALS.

Specification forming part of Letters Patent No. **196,619**, dated October 30, 1877; application filed October 2, 1877.

To all whom it may concern:

Be it known that I, GEORGE W. ANDERS, of Woodsborough, in the county of Frederick and State of Maryland, have invented a new and Improved Railway-Switch Signal; and I do hereby declare that the following is a full, clear, and exact description of the same.

The object of my invention is to provide an improved signal to indicate the position of the movable rails of a switch in the night-time, for the purpose of informing the engineer of an approaching train that the switch is open or closed, as the case may be.

The invention consists in attaching to the switch-lever a lantern having differently-colored glass panes, and provided with a swinging lamp whose position in front of one or another of the colored panes indicates the position of the lever, and thereby of the switch-rails also.

The invention further consists in the particular construction of the lantern and swinging lamp.

In the accompanying drawings, forming part of this specification, Figure 1 is an elevation of my signal-lantern with the front side removed, and Fig. 2 a vertical central section thereof.

A indicates the lantern-case or lantern proper; B, the suspended swinging lamp; and C, the switch-lever, which is pivoted to a stand and connected with the movable rails of a switch in the usual way.

The case of the lantern is rectangular, and attached to the switch-lever at one corner. The lamp is suspended by a link or other suitable device from the upper opposite corner or angle. It is formed of an oil-receptacle, *a*, and inwardly-inclined side pieces *b*, the three parts having thus the relation of the three sides of an isosceles triangle.

The respective parts or broad sides of the case A are provided with colored panes *c c*, and a colorless pane, *d*, is located between them.

The three panes are arranged in the arc of a circle corresponding to that through which the lamp proper, *a*, moves when the switch-lever C is vibrated—that is to say, adjusted from one inclined position to the other; and since the light will then be emitted from a different pane than when the lever was in the first position, the condition of the switch may be readily discovered. For example, suppose the movable rails to be in apposition with the

rails of the main line when the switch-lever is vertical, as shown in the drawing; then the lamp *a* will be opposite the white or colorless central pane *d*, and the signal will be a white light. But if the lever C be thrown to the right or left of the center to bring the switch-rails in apposition with either siding, then the lamp will be opposite a colored pane, *c*, and the signal-light will be colored correspondingly. Thus the respective lights will indicate the position of the lantern, and that the switch is open or closed, thereby avoiding the danger of accident occurring in the night-time through ignorance or misinformation as to the condition of the switch.

The ends of the lamp *a* are provided with small lead projections *e*, to relieve the shock of contact with the sides of the case A, and prevent rebound, so far as practicable, when the lever C is shifted and the lamp swings to a new position.

The narrow sides of the said lantern-case A have parallel right-angular flanges *f* formed on their longer sides, and to these flanges the respective illuminated fronts are secured by rivets, bolts, or solder.

This construction makes a strong and cheap case.

Suitable air and vent holes *g h* are provided at bottom and top of the case, and the latter, *h*, are protected by a cover, *i*, to prevent ingress of water.

I do not claim a switch-signal lantern having a movable colored pane which assumes different positions corresponding to the positions of the switch-lever; but

What I claim is—

1. The combination, with the pivoted switch-lever, of a signal-lantern provided with the differently-colored immovable panes *c d c* and the freely-suspended swinging lamp, as shown and described, to operate as specified.

2. The lantern-case composed of the narrow sides having right-angular flanges *f*, the illuminated fronts attached thereto, and the cover for the vent-holes in the top, all as shown and described.

The above specification of my invention signed by me this 28th day of September, 1877.

GEO. W. ANDERS.

Witnesses:

SOLON C. KEMON,
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