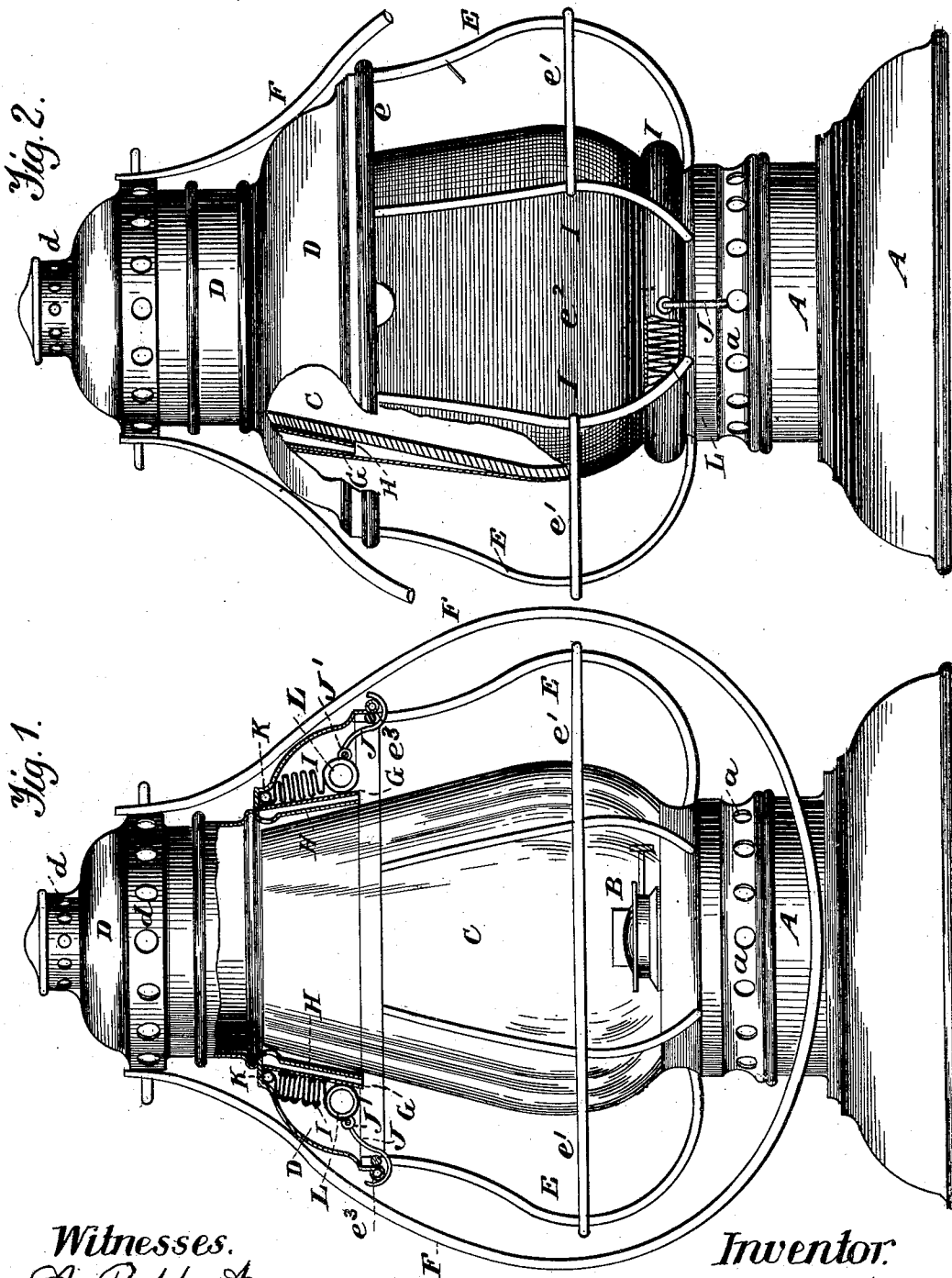


(No Model.)

E. F. HOPKINS.  
SIGNAL LANTERN.

No. 408,803.

Patented Aug. 13, 1889.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

EDWIN FAY HOPKINS, OF OBERLIN, OHIO, ASSIGNOR OF THREE-FOURTHS  
TO THAD. H. ROWLAND AND F. E. BRONSON, OF SAME PLACE.

## SIGNAL-LANTERN.

SPECIFICATION forming part of Letters Patent No. 408,803, dated August 13, 1889.

Application filed January 17, 1889. Serial No. 296,608. (No model.)

### *To all whom it may concern:*

Be it known that I, EDWIN FAY HOPKINS, a citizen of the United States, residing at Oberlin, in the county of Lorain and State of Ohio, have invented certain new and useful Improvements in Signal-Lanterns; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 and figures of reference marked thereon, which form a part of this specification.

The invention relates to globe-lanterns used by railroad-men and provided with means by which they may show red or other colored light as a signal. It will first be described in connection with the drawings, and then pointed out in the claims.

Figure 1 of the drawings is a side elevation partly in section, and Fig. 2 a similar elevation from a different point of view.

In the drawings, A represents a lantern-base with air-holes *a*, B the lamp, C the glass globe, D the hinged cover with holes *d* for the escape of the products of combustion, and F the pivoted handle, all now in use and well known.

E is the metallic frame which surrounds the glass globe and on whose top ring fastens the cover D by means of the usual spring-latch.

Instead of having the usual lower ring in the frame, I use two non-meeting curved rods *e' e'*, between whose ends are the intervening spaces *e<sup>2</sup> e<sup>2</sup>* on the opposite sides of the lantern, for the purpose hereinafter specified.

To the neck G of the cover I attach a downwardly-diverging conical tube H, open at the bottom and provided with holes at the top, so as to produce a continual circulation of cold air, and thus prevent the fabric I from burning. This tube H, being made of thin elastic metal, forms a tight joint with the globe, so as to firmly hold it in its central position and prevent the air from entering the inside of the cover and there supporting combustion. The fabric I is tubular, open at

both ends, made of flexible fabric, and provided at each end with an endless spring. The top spring K serves to clasp the fabric on the tube H; but it may be fastened thereto in any suitable manner. The bottom spring L clamps the lower end of globe, as shown in Fig. 2 of the drawings, and may readily be pulled up or down on the globe by hand-power. The endless spring I clasps the tube H, and thus serves to hold up the fabric or screen until a signal is needed.

In order to facilitate the raising or lowering of the fabric, I attach the hooks J to rings J', and these to the endless spring L. The hooks J catch on the horizontal rod *e<sup>3</sup>* at the top, so as always to hold the fabric in its desired position, and so that the fingers can quickly seize said hooks and pull the fabric up or down on the globe. The frame, with the intervening spaces *e<sup>2</sup> e<sup>2</sup>* between the curved bars *e' e'*, allows free play up and down for the hands in manipulating the fabric.

I am aware that it is not new to use colored fabrics or other transparent colored media for movement up and down on a lantern-globe so as to make a signal; but

What I do claim as new, and desire to protect by Letters Patent, is—

1. In a signal-lantern, an open-ended tubular fabric made fast at the top to the inside of the lantern-cover and provided with an endless spring in its lower edge, whereby said fabric may be held up under the cover until a signal is needed.

2. The combination, with the tubular signal-fabric having an endless spring in the upper edge, of a lantern-cover having on the inside a downwardly-diverging tube H, around which the spring will hold said fabric, as set forth.

3. A lantern-cover having the downwardly-diverging tube H, open at bottom and perforated at top to cause a circulation of cold air through said tube and protect the fabric or screen from the heat, as specified.

4. In a signal-lantern, the hooks J, secured directly or indirectly to the spring L of the tubular fabric, in combination with a lan-

tern-frame having the opposite curved non-meeting rods  $e' e'$ , separated by spaces  $e^2 e^2$ , as and for the purpose set forth.

5     5. The combination, with the fabric I and horizontal rod  $e^3$ , of the hooks J, rings J', and springs L, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

EDWIN FAY HOPKINS.

Witnesses:

W. B. BEDERTHA,  
S. A. BALDWIN.