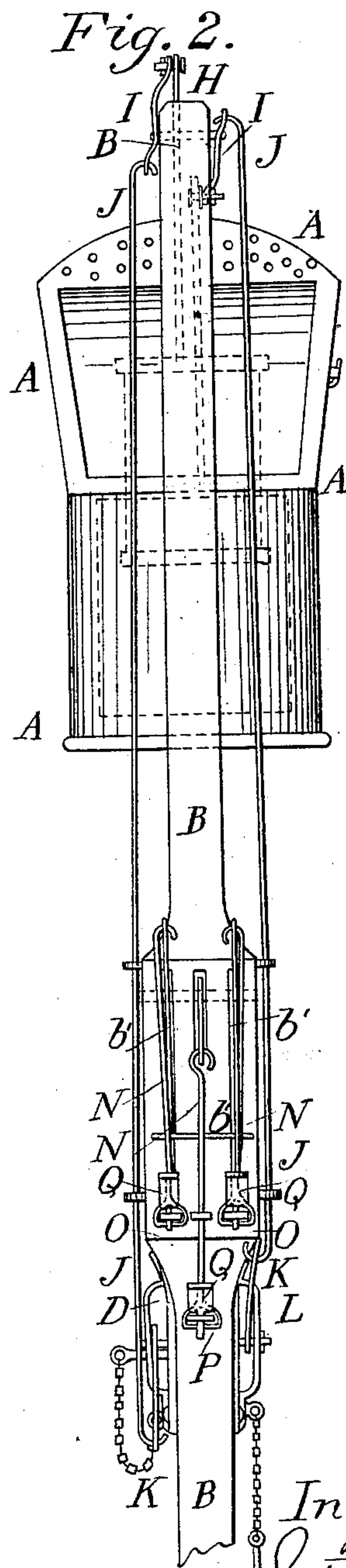
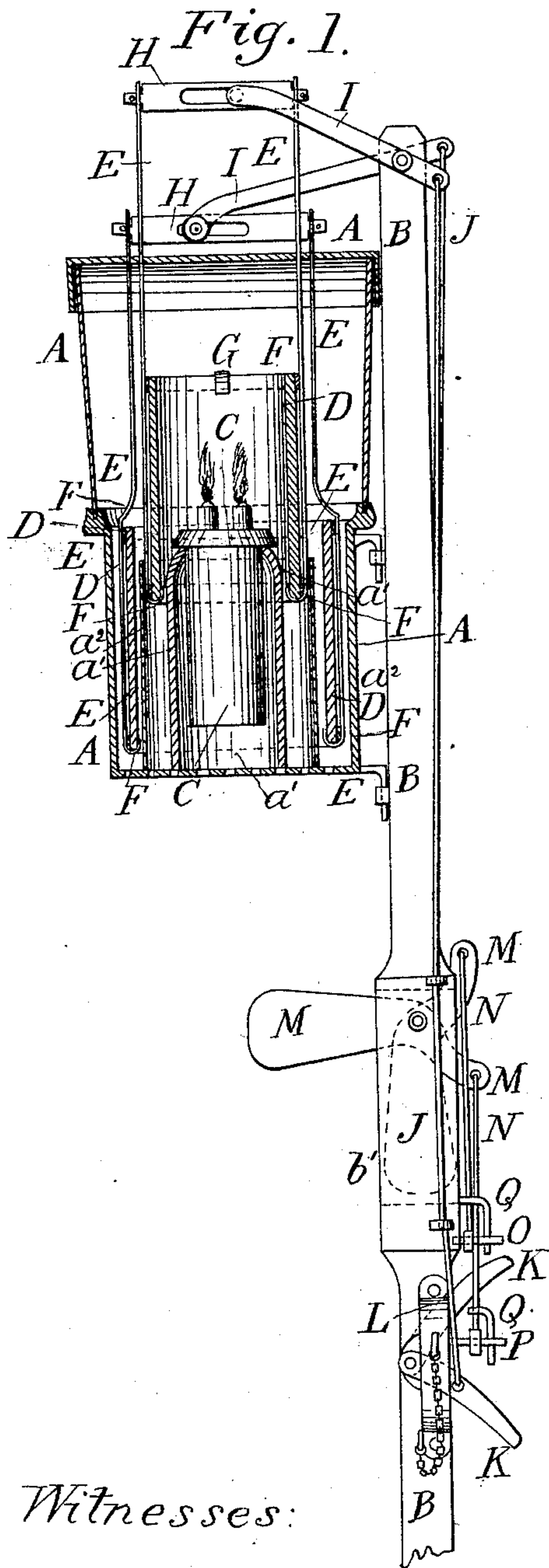


J. FOGARTY.  
Signal for Railroads.

No. 113,756.

Patented April 18, 1871.



Witnesses:  
*A. W. August*  
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# UNITED STATES PATENT OFFICE.

JOHN FOGARTY, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN SIGNALS FOR RAILROADS.

Specification forming part of Letters Patent No: **113,756**, dated April 18, 1871.

*To all whom it may concern:*

Be it known that I, JOHN FOGARTY, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Railway-Signal Apparatus; 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 make and use the same, reference being had to the accompanying drawing, forming part of this specification.

Figure 1 is a side view of my improved signaling apparatus, partly in section, to show the construction. Fig. 2 is a rear view of the same.

Similar letters of reference indicate corresponding parts.

My invention relates to devices for signaling on railroads; and my object is to introduce certain improvements on them, which will first be described in connection with all that is necessary to the full understanding thereof, and then be clearly pointed out in the claims.

A is the case or lantern, the upper part of which is made of glass to allow the light to pass through, and the lower part of which is designed to serve as a receptacle for the colored glass shades for the light, one, two, or three of which may be used, as desired, and which, when not in use, are lowered into the said receptacle.

The case A may be attached, detachably or permanently, to a post, B, or other support, as may be desired or convenient.

C is a lamp, which is placed in a receptacle,  $a^1$ , prepared for it in the lower part of the case A, and which may be replaced by a gas-burner or other light, as may be desired or convenient.

D are the colored glass shades, two, more or less, of which may be used, and which may be of any desired shape. For convenience I prefer to make them in the form of hollow cylinders, open at both ends. The shades D are so formed that they may shut down into each other around the lamps within the lower part of the case A, where they are separated from each other by one or more partitions,  $a^2$ , as shown in Fig. 1. The shades D should be made of such a length that when lowered out of sight their lower ends will not come in contact with the bottom of the case A, thus guarding the

said shades against being broken by coming in contact with the bottom of the said case A when lowered quickly.

E are rods, which extend down along the sides of the shades D, and the lower ends of which are bent inward to receive the lower edges of the shades D, and which are kept in their proper relative positions by the bands F, which pass around the shades D near their upper and lower ends, as shown in Fig. 1.

The shades D are kept from rising out of their seats upon the turned-up lower ends of the bars or rods E by hooks G, attached to the upper bands, F, and hooking over the upper edges of the said shades.

The rods E extend up through the top of the case A, and their upper ends are attached to the ends of the short cross-bars H, which cross-bars are slotted longitudinally to receive the pivoting-pin attached to the end of the lever I, so that the rods E and shades D may move up and down vertically, while the ends of the said levers move in the arc of a circle.

The levers I are pivoted to the post or support B, and to their other or outer ends are pivoted the upper ends of the rods J, which extend down along the post or support B, pass through guides or keepers attached to said support, and their lower ends are pivoted to the levers K, the ends of which are pivoted to the support B, and which pass through keepers L, attached to the said support B, by which keepers the movement of the said levers K is limited. The outer ends of the levers K project, so that they may be conveniently operated to raise and lower the shades D, as required. The levers K are secured in place when adjusted by pins passed through holes in the keepers L, and into holes in the support B, as shown in Figs. 1 and 2.

The parts of the apparatus thus described are designed for use in giving night-signals when a light is required.

For giving signals by day the boards or plates M are used, which are pivoted in recesses  $b'$  in the post B, so that when not required for use they may be dropped down into said recesses, and may be entirely out of sight and protected from the weather. The boards or plates M are painted of different colors, in the ordinary manner, and two or

more may be used, as may be required. To the rear ends of the boards or plates M are pivoted the upper ends of the rods N, the lower ends of which have eyes formed in them, so that they may be slipped over the upper catches, O, on the lower catch, P, according as the said signal-boards are extended or withdrawn into the recesses.

The rods N are secured upon the catches O and P by pins Q, sliding upon the said rods N, and the lower ends of which enter holes in the said catches, as shown in Figs. 1 and 2.

The rear ends of the signal-boards M are painted the same color as their forward ends, so that the operator can always see what signal he is displaying.

By this construction a simple, convenient, and compact signaling apparatus is produced, by which the signals may be given by day and night.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. Lifting-rods E, bent inwardly at their lower ends, combined with the ordinary shades D, as described, for the purpose of preventing fracture of the same by percussive contact with the bottom of the case.

2. The bands F and hooks G, combined, as described, with the ordinary shades D, to prevent the latter from rising out of their seats.

The above specification of my invention signed by me this 23d day of May, A. D. 1870.

JOHN FOGARTY.

Witnesses:

L. S. MABEE,  
JAMES T. GRAHAM.