

C. C. WAKEFIELD.

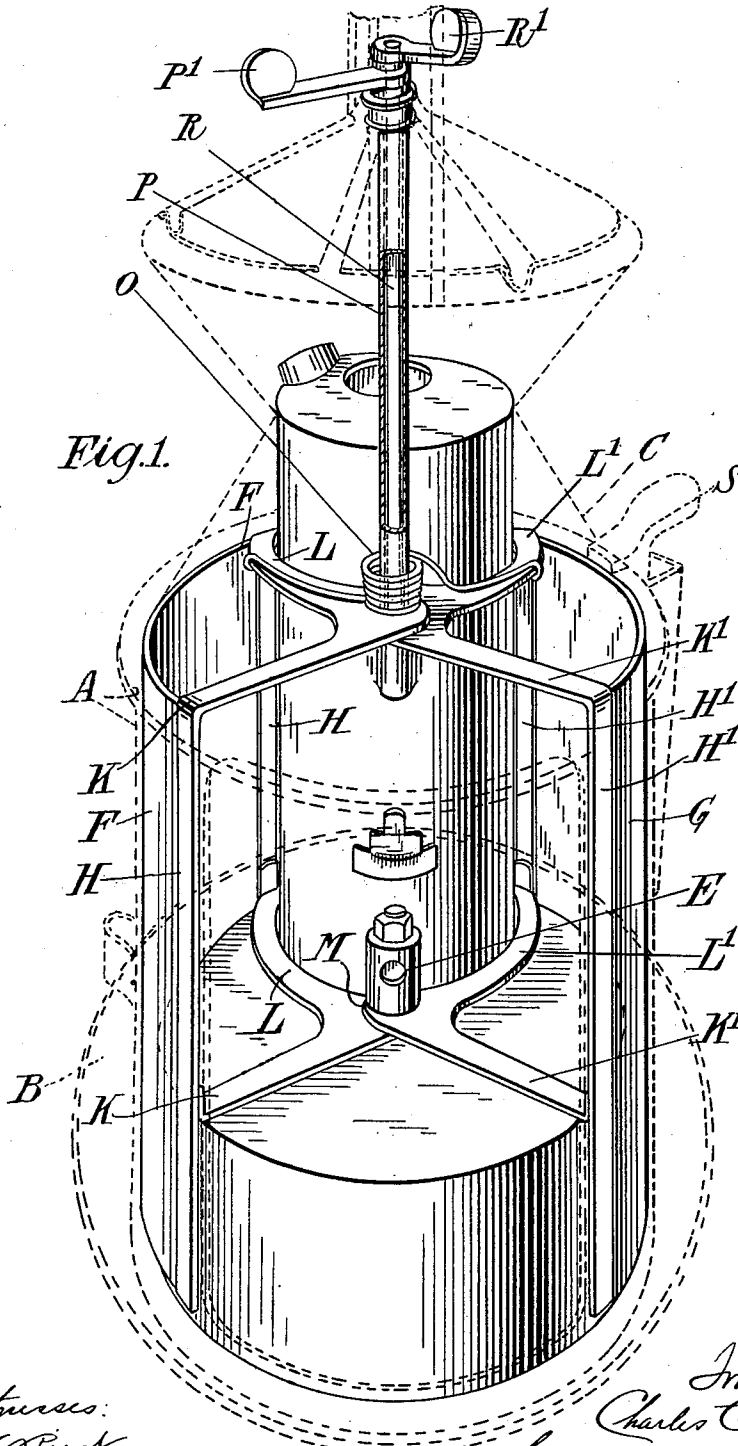
SIGNAL LANTERN.

APPLICATION FILED SEPT. 2, 1910.

999,921.

Patented Aug. 8, 1911.

3 SHEETS—SHEET 1.



Witnesses:
B. C. Rust
L. S. Hutchinson

Inventor:
Charles C. Wakefield
by J. F. Freeman, Walter & Cort
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C. C. WAKEFIELD.

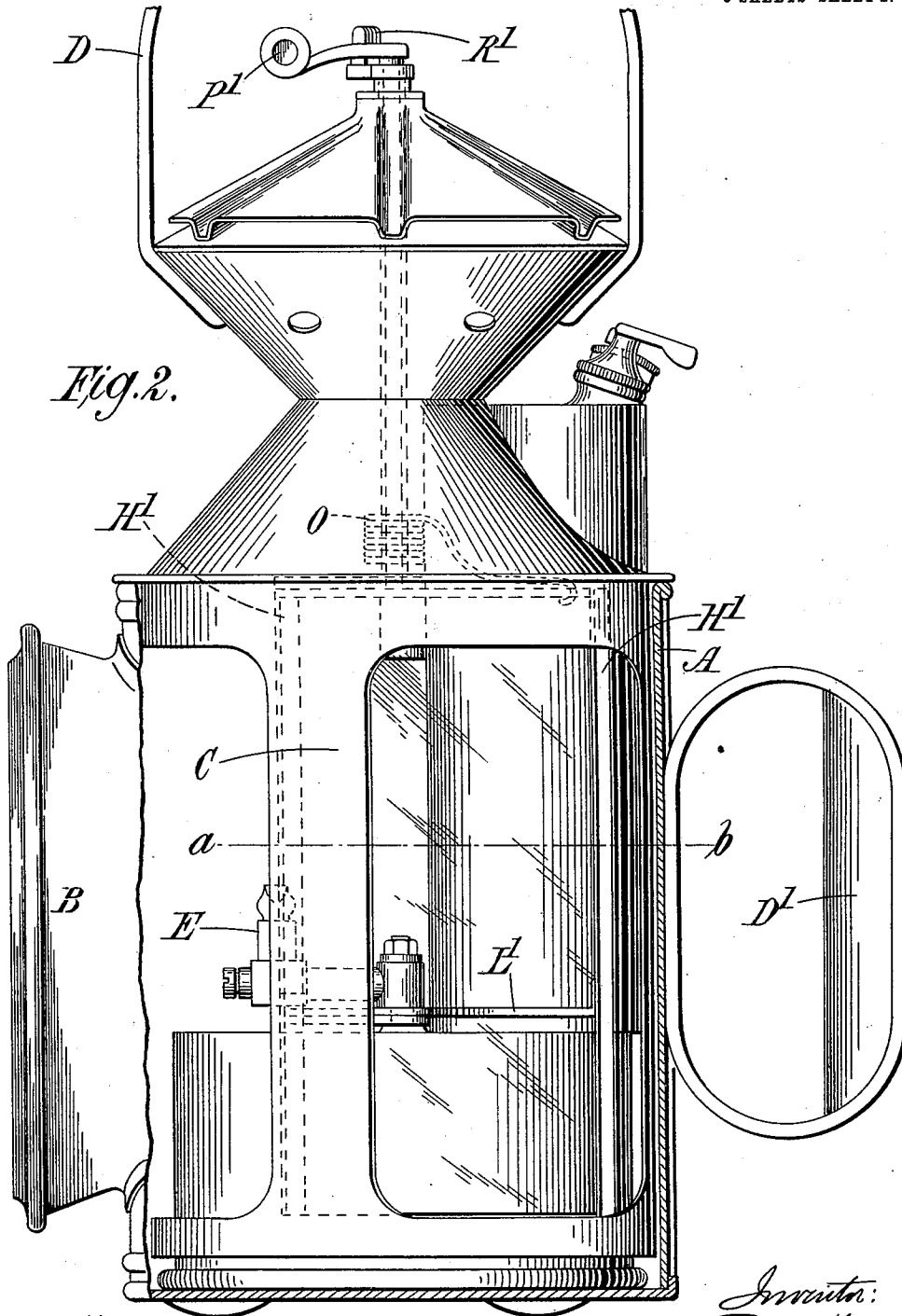
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3 SHEETS—SHEET 2.

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Witness:
J. C. Rust
L. S. Harrison

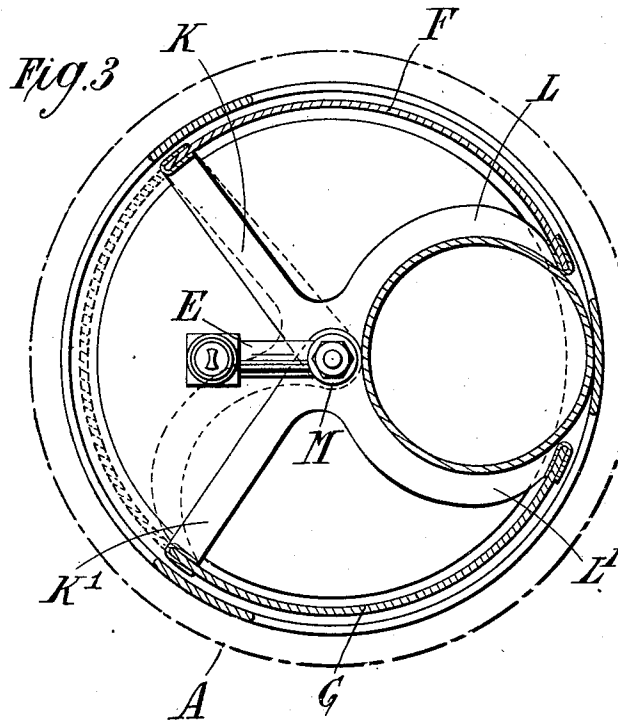
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3 SHEETS—SHEET 3.



Witnesses:
B. C. Rust
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UNITED STATES PATENT OFFICE.

CHARLES CHEERS WAKEFIELD, OF LONDON, ENGLAND.

SIGNAL-LANTERN.

999,921.

Specification of Letters Patent.

Patented Aug. 8, 1911.

Application filed September 2, 1910. Serial No. 580,170.

To all whom it may concern:

Be it known that I, CHARLES CHEERS WAKEFIELD, a subject of the King of England, residing in London, England, have invented certain new and useful Improvements in Signal-Lanterns, of which the following is a specification.

This invention relates to hand lamps for signaling or other purposes in which transparent colored screens are arranged to pass in front of the source of illumination; it is especially applicable to signaling on railways.

The hand lamp belongs to that class in which colored screens are arranged to be moved between the light and lantern orifice by means of finger levers situated close to the handle.

According to this invention the hand-lamp for signaling or like purposes has a transparent screen-holder adapted to be moved between the light and lantern orifice against the action of a spring or equivalent which serves to retain the holder normally in a retracted position. Preferably the lamp is provided with two separate screen-holders, each arranged to be moved between the light and lantern orifice against the action of a spring or equivalent by finger levers close to the handle, the spring serving to retain the holders normally in a retracted position.

In the accompanying drawings which illustrate one form of hand-lamp according to this invention:—Figure 1 is a perspective view in part section of the interior of the lamp, the lamp casing being shown in dotted lines; Fig. 2 is a side elevation of the lamp in part section, and Fig. 3 is a section along the lines *a—b* of Fig. 2.

Like letters indicate like parts throughout the drawings.

The invention is here shown as applied to an existing hand and signaling lamp for railways.

The lamp consists of two parts, an outer circular case A, which carries an ordinary plain glass lens B, and an inner case C which fits into the outer case but projects above it, the handle D being at the top. The outer case is provided with a second handle D' situated at the side. The part C carries the source of illumination E, which in this case is shown as being acetylene, and the transparent colored screens F and G.

The inner part C consists of a thin hollow metal cylinder having an orifice which allows the light inside the inner case to pass through the glass lens in the outer case. The transparent colored screens F and G—red and green in the case of a railway lamp—rotate about the vertical axis of the lamp and are arranged inside the inner case so that when required they can be brought into position between the source of illumination and the orifice so that the color of the light is changed. The screens F and G are carried in frames. These frames are of the shape of a curved rectangle, the curvature being approximately the same as that of the lamp casing. The colored screen F is carried by a frame which consists of two parallel strips of metal H H vertically disposed within the lamp. To these are attached radial arms K K and L L. The rear pair of arms L L are curved so as to conform to the shape of the lamps. The frame carrying the screen G is similarly constructed of vertical strips H' H' and radial arms K' K' and L' L'. The radial arms are pivoted at their angles M, and thus the complete frame can rotate about the axis of the lamp. The screens are normally kept out of register with the aperture by means of a spring O. Through the center of the upper portion of the lamp, below the handle D, two spindles P and R pass. The spindle P is hollow and spindle R works through it. At the lower end, these spindles are connected to the frame carrying the screens and at the upper end outside the lamp they are connected to two small levers P' and R' respectively, arranged below the handle D of the lamp, so that they are easily controlled by the thumb and fingers of the hand carrying the lamp. Fig. 3 shows a screen indicated in dotted lines turned in front of the light. The inner case C can be removed from the outer case A, a spring controlled catch S being provided for that purpose. By this means the light can be changed from white to red, white to green, green to red, or vice versa. When the levers are not being operated the white light only appears. In the case of new lamps it is not necessary to employ an inner lamp holder separate from the outer casing, but the colored screens may be fitted within the outer casing direct, *i. e.* between the light and the casing.

This invention is particularly applicable to acetylene lamps, although it may be used with any hand lamp in which it is desired to show different colors.

5 The actual details of construction may be varied if necessary without departing from the spirit of the invention. Thus the operating levers P' and R' could be situated close to the handle D' if desired, in which
10 case the operating mechanism would be slightly varied.

What I claim as my invention and desire to secure by Letters Patent is:—

15 1. The combination with a hand lamp, of a screen holding frame, a spring, and a spindle, the spindle being attached to the frame at one end and to a finger lever outside the lamp at the other, the spring surrounding the spindle and bearing against

part of the frame so as to normally hold it 20 in a retracted position.

2. In a hand lamp for signaling or like purposes the combination of a transparent screen-holder adapted to be moved between the light and lantern orifice, a spindle at- 25 tached to the frame at one end and to a finger lever outside the lamp at the other, and a spring surrounding the spindle and bearing against part of the frame so as to normally hold it in a retracted position. 30

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES CHEERS WAKEFIELD.

Witnesses:

HARRY B. BRIDGE,
PERCY H. RUNDELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."