No. 679,663. Patented July 30, 1901.

A. E. APPLETON.

HAND SIGNALING LAMP.

(Application filed Oct. 14, 1899.)

(No Model.)

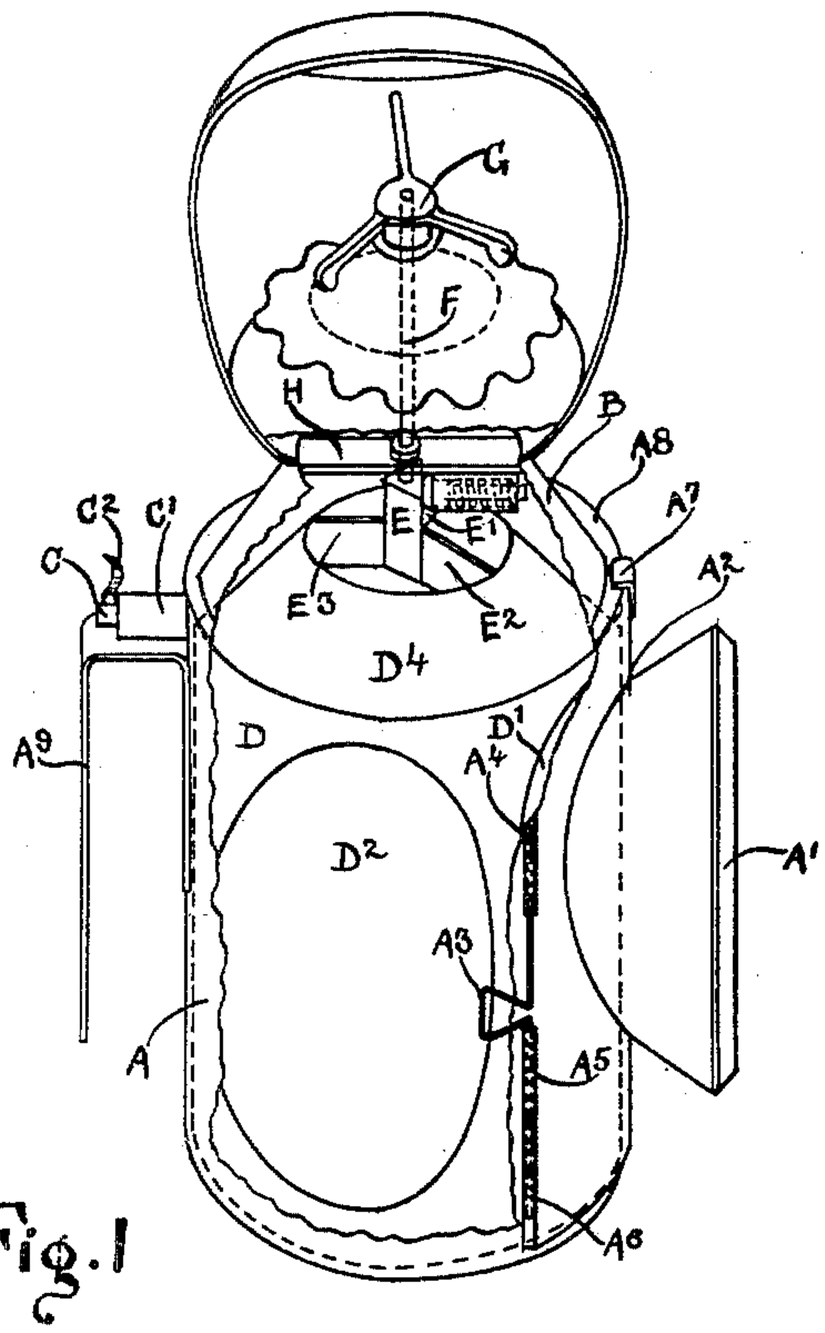

Fig. 1

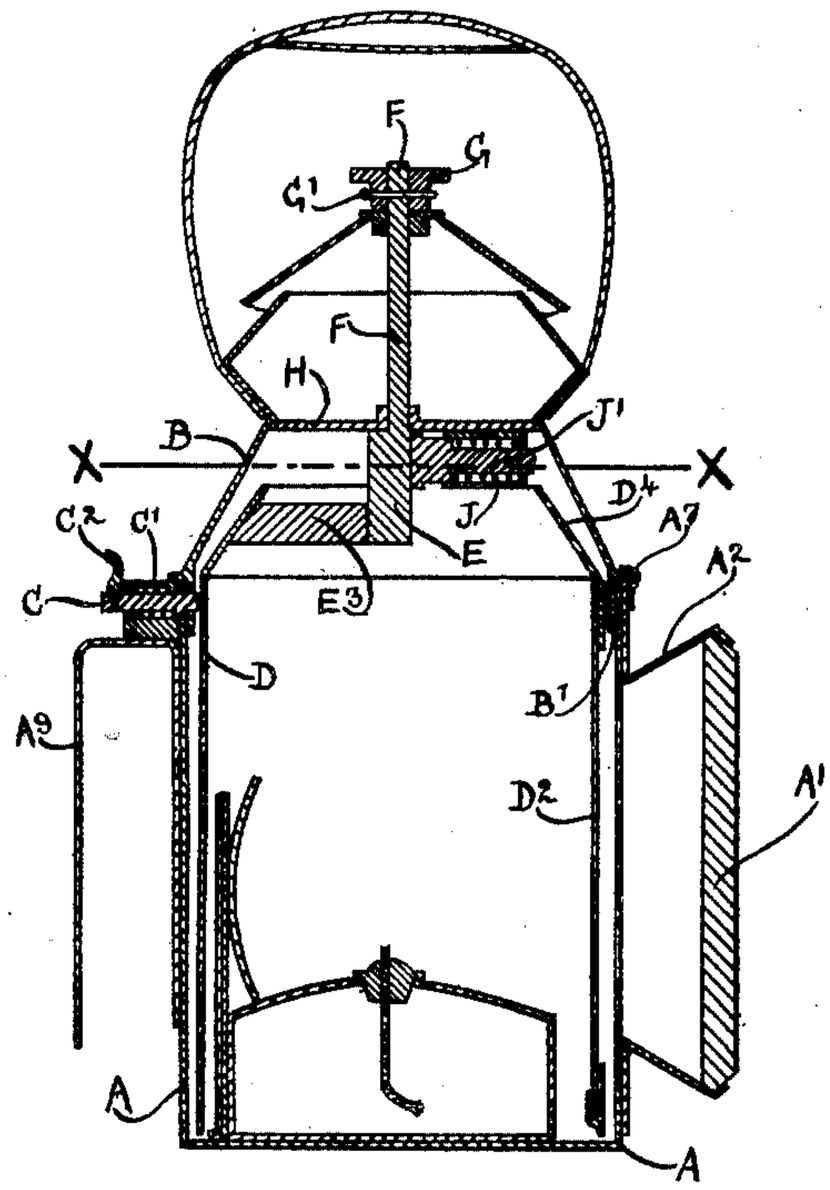

Fig. 2

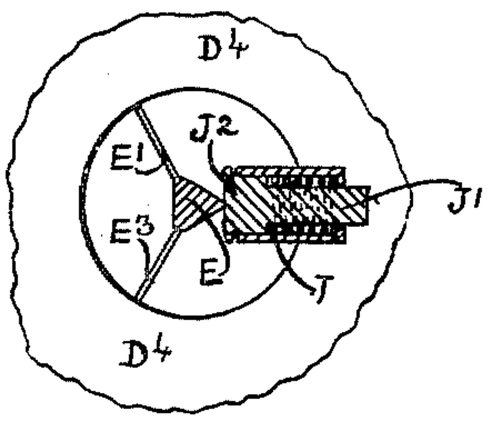

Fig. 3

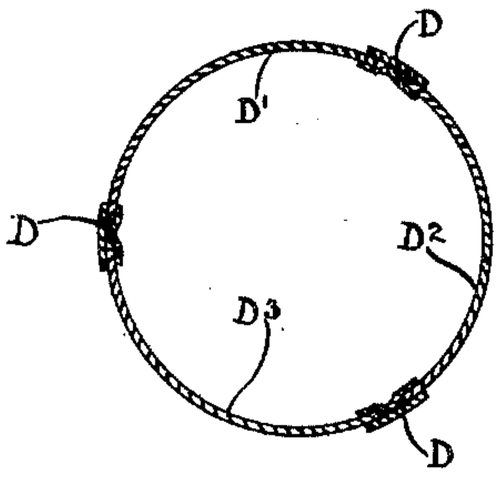

Fig. 5

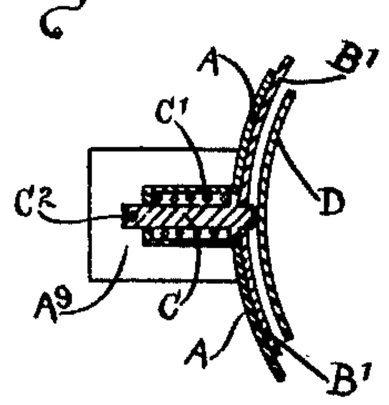

Fig. 4

Witnesses:
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UNITED STATES PATENT OFFICE.

ALFRED EDWARD APPLETON, OF OLDBURY, ENGLAND.

HAND SIGNALING-LAMP.

SPECIFICATION forming part of Letters Patent No. 679,663, dated July 30, 1901.

Application filed October 14, 1899. Serial No. 733,615. (No model.)

To all whom it may concern:

Be it known that I, ALFRED EDWARD APPLETON, builder, a subject of the Queen of Great Britain, and a resident of Oldbury, Tewkesbury, in the county of Gloucester, England, have invented certain new and useful Improvements in Hand Signaling-Lamps, (for which Letters Patent have been applied for in Great Britain, application No. 5,629, dated March 15, 1899,) of which the following is a specification.

This invention relates to hand lamps or lanterns such as are used on railways for signaling purposes; and the object of the invention is to construct a lamp or lantern (hereinafter referred to as a "lamp") for the purpose named in such a manner that the differently-colored glasses can be placed before the light of the lamp by the same hand which holds the lamp, thereby leaving free the other hand of the individual for other purposes, which is an important desideratum, as in the case of railway guards, who frequently have the other hand full of despatches or letters, and shunters, who carry also a rod or bar for uncoupling cars.

The invention will be fully understood from the following further description in reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a hand signaling-lamp constructed in accordance with this invention and having a portion of the body or casing and chimney broken away. Fig. 2 is a central vertical section of Fig. 1. Fig. 3 is a horizontal plan, partly in section, on the line X X of Fig. 2, but showing the spring-controlled locking-bolt in contact with one of the angles of the cam instead of with the flat face thereof, as in Fig. 2. Fig. 4 is a detail view in section of the spring-governed bolt which locks together the chimney and body-casing of the lamp. Fig. 5 is a section taken on a horizontal line through the center of the rotating screen.

A represents the body or casing of the lamp, which in the present instance is circular or tubular shaped, having the lens A′ fitted in the door A^2, which is hinged to the front part of the body and is fastened in its closed position by a pin A^3, which is free to slide up and down in tubular sockets A^4 A^5 on the free edge of the door and into a similar socket A^6 on the body.

The chimney B of the lamp is of conical form and has around its bottom edge a flange B′, which fits into the upper part of the body. The chimney and body-casing are fastened together by a lip A^7, formed on the upper edge of the door and bearing with slight pressure upon the outwardly-turned edge A^8 of the chimney, and also by a spring-controlled bolt C passing through both the upper end of the body and the chimney-flange B′. The bolt is located in a casing C′, formed on the top of the hooked arm A^9, and is provided with a tongue C^2, by which it can be withdrawn to allow the chimney to be removed. So far the lamp is of the ordinary construction, and no claim is made to anything hereinbefore described.

For the purpose of the present invention there is fitted within the body or casing a rotatable tubular screen or framing D, provided with three openings D′ D^2 D^3, in each of which a differently-colored glass may be fitted.

For signaling on railways two differently-colored glasses are used, as will be understood. One of these openings is therefore fitted with a red glass, the other with a green glass, and the third or remaining opening may be fitted with a plain glass or the latter omitted, so that the ordinary light of the lamp would show. The rotating screen has preferably a truncated-cone-shaped top D^4, through which the products of combustion pass into the chimney of the lamp, and across the opening in the said truncated-cone top there are fixed three radial arms E′ E^2 E^3, carrying centrally a three-sided block or cam E, from which there rises a vertical rod F, passing upward through the chimney of the lamp and terminating in a three-winged knob or disk G, which may be substituted by a milled-edge knob, disk, or equivalent when desired and by which the rotation of the screen is effected. The knob G is detachably connected to the rod F by a pin G′ passing through the boss of the former and through the rod, as shown in Fig. 2. A bar H, perforated centrally to allow the rod F to pass through it, is soldered or otherwise fixed at each end inside and to the chimney of the

lamp and carries on its under surface a casing J, in which is contained a spring-governed bolt J′, the head J² of which is normally pressed forward against one of the flats or faces on the cam E.

The screen-actuating device, consisting of the three-winged knob G, is located under the handle by which the lamp is carried, so that it can be rotated by the thumb and forefinger of the hand which holds the lamp.

The action of the lamp is as follows: Upon the individual partly rotating the knob G by either his forefinger or his thumb pressing against one of the wings thereon the screen D is also partly rotated through the medium of the rod F, and the simultaneous rotation of the cam E forces the spring-governed bolt J′ into its casing, where it remains until one of the angles of the cam has passed out of contact with the bolt, when the latter under the influence of its spring is pushed forward and abuts against the succeeding flat face of the cam, by which time the screen will have made one-third of a revolution and one of its colored glasses will have been interposed between the lamp-flame and the ordinary lens A′ of the lamp. The spring-bolt J′ when bearing against a flat on the cam E will hold the rotating screen in position with one of its colored glasses before the lamp-flame until it is actually again rotated by the individual pressing his finger or thumb against one of the wings on the knob G.

The number of faces on the cam is regulated by the number of different glasses to be employed in the screen, and the relative positions of the bolt J′ and the cam E are such that when the said bolt is abutting against a flat on the cam one of the glasses in the screen is at the back of the lens—*i. e.*, interposed between the latter and the flame of the lamp.

The invention is not limited to the precise details of construction hereinbefore described, as various alterations may be made without departing from the spirit of the invention. For example, the three arms E′ E² E³ may be dispensed with and the cam E fitted in the apex of the conical roof of the rotatable screen D, in which case openings would be made in the said roof to allow the products of combustion to ascend into the chimney of the lamp. Further, although the cam E is most suitable for its purpose, yet this might be substituted by a disk or equivalent with recesses in its circumferential edge to receive the end of the spring-controlled bolt J′, said recesses being equivalent in number to the number of colored glasses in the screen.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. The combination with a casing of a hand-lamp and a chimney for said casing, of a frame fitted with differently-colored glasses and rotatably arranged within the casing of the lamp, an upwardly-extending operating-rod secured to the rotatable frame and adapted to be operated at its upper end from the outside of the body of the lamp, a spring-actuated bolt, a casing therefor carried by a bar secured to the chimney, a cam device on and rotatable with the operating-rod, the inner end of the spring-actuated bolt normally bearing against the cam device, whereby said bolt acts to hold the rotatable frame in different positions with one of the glasses intermediate the flame of the lamp and the lens of the latter.

2. The combination with a hand-lamp, of a frame fitted with differently-colored glasses and rotatably arranged within the casing of the lamp, an operating-rod secured to the rotatable frame and extending exteriorly and adapted to be operated from the outside of the body of the lamp, a bolt-casing, a spring-actuated bolt therein, a cam E having flat faces, secured to the rod at a point opposite the bolt and adapted to be normally engaged and held by the latter.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ALFRED EDWARD APPLETON.

Witnesses:

E. N. LEWIS,

GEO. H. BLAKESLEY.