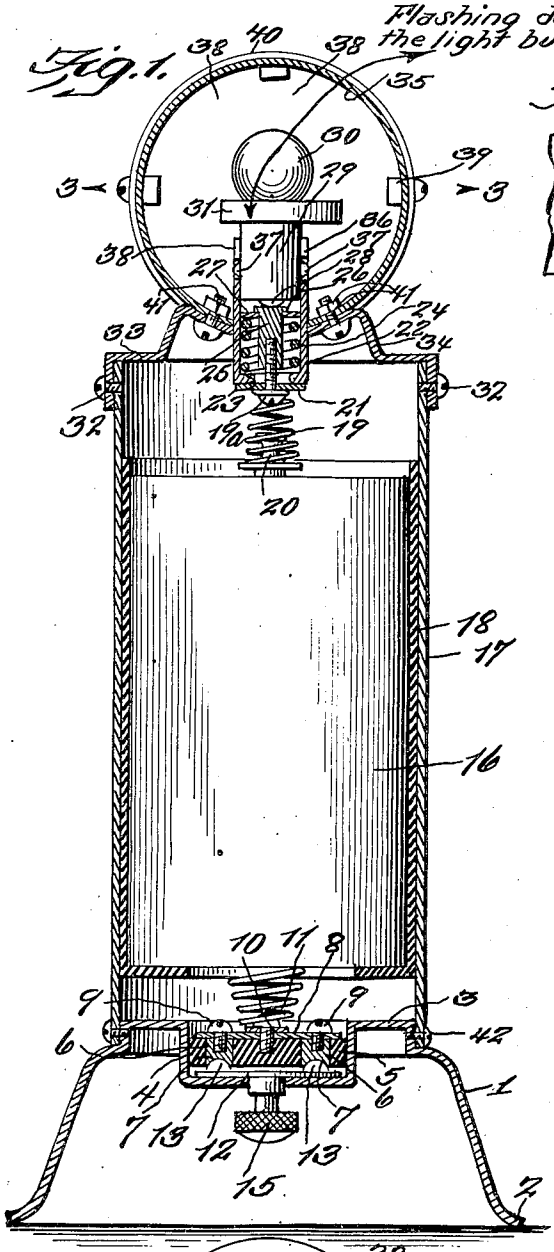
Aug. 17, 1937. J. R. HAINES 2,090,293

HIGHWAY ROAD FLARE

Filed Aug. 24, 1935

Fig. 1.



Flashing device for flashing the light bulb 30.

Fig. 4a

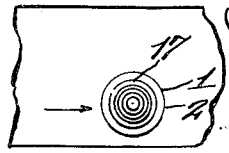


Fig. 4.

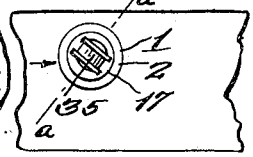


Fig. 2.

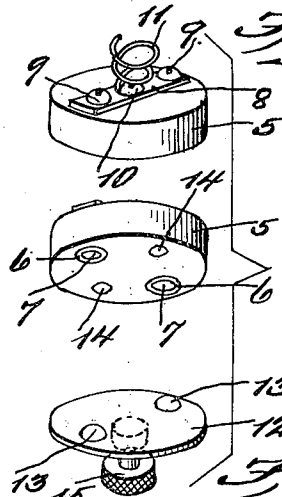


Fig. 5.

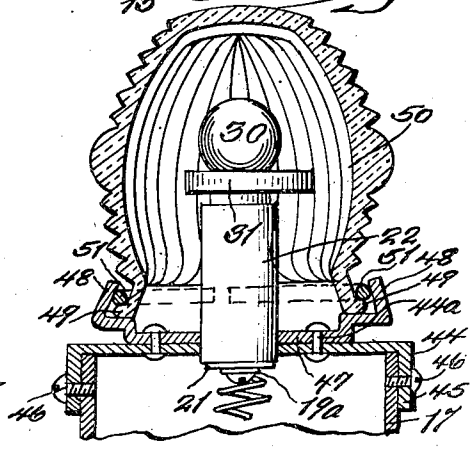
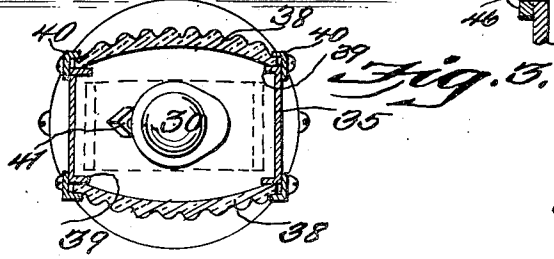


Fig. 3.



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2,090,293

UNITED STATES PATENT OFFICE

2,090,293

HIGHWAY ROAD FLARE

John Ralph Haines, Medford, N. J.

Application August 24, 1935, Serial No. 37,772

2 Claims. (Cl. 177—329)

This invention relates to an improved highway road flare, which can be mounted on the running board of a motor vehicle, and more especially on the roadway, indicating in both directions to various motor traversing vehicles that another motor vehicle is parked on the side of the road, and the main purpose of the invention is to provide a flare of this kind including a supported housing head enclosing a bulb, the head having opposite lenses, constructed and arranged whereby when the axis of the head is positioned to assume a substantial angle transversal of the roadway a substantial wide spread brilliancy may extend in both directions longitudinally of the roadway.

Another purpose of the invention insofar as structure is concerned is to provide a flashing flare consisting of a casing with a dry cell battery therein insulated from the casing, the casing including mounted thereon a housing enclosing suitable electrical illumination, such as a bulb having an electric flashing means associated therewith, and electrically associated with the battery, in combination with a base provided with switch means therein and in circuit with the electrical source of the battery for making and breaking said electrical energy.

It is to be understood that the particulars herein given are in no way limitative, and that while still keeping within the scope of the invention, any desired modification of details and proportions may be made in the construction of the appliance according to circumstances.

The invention comprises further features and combination of parts to be hereinafter set forth, shown in the drawing and claimed.

In the drawing:—

Figure 1 is a vertical sectional view through the highway road flare constructed in accordance with the invention.

Figure 2 discloses perspective views of the parts of the switch means, said parts being separated in order to show their construction and manner of assembling.

Figure 3 is a cross sectional view on line 3—3 of Figure 1.

Figure 4 is a diagrammatic view of a highway with a highway road flare positioned therein, showing the position of the lens housing.

Fig. 4*a* shows a highway and a flare with a globular transparent housing head.

Figure 5 is a detail sectional view of a modified form of lens housing where the same is globular in form.

Referring to the drawing 1 identifies a hollow base, the flared lower periphery 2 adapted to engage the surface of the roadway or the running board on the side of the motor vehicle for the purpose of supporting the highway road flare.

This base includes a top wall 3 provided with a countersunk portion 4 and arranged in the countersunk portion is a disc of insulating material 5. At diametrically opposite portions of the disc 5 knurled members 6 are fixed through the disc, the lower ends of which are provided with depressions 7. Secured on the disc is a conductor strip 8, the securing means, such as screws 9, passing through the conductor strip and into the knurled members 6, thereby holding the conductor strip in place. A conductor screw 10 is threaded into the disc further securing the conductor strip 8 in position, as well as holding the conductor spring 11 electrically in connection with the strip 8. Arranged in the countersunk portion 4 is a disc 12 provided with protrusions 13, which are designed to engage the depressions 7 in the knurled members 6, that is when the battery circuit is closed. However, the disc 5 has other depressions 14, with which the protrusions 13 engage when the battery circuit is open. A knob 15 is carrried by the disc or plate 12 for rotating the same in order to disengage the protrusions 13 from the knurled members 6 and engage them into the other depressions 14, thereby opening the battery circuit. The disc 5 is capable of sliding vertical movement against the action of the conductor spring 11, so that the protrusions 13 may disengage from the depressions 13 or the depressions 14, and conductor spring 11 contacts with the bottom of a dry cell battery 16, between which and an upstanding casing 17 a wall of insulation material 18 is interposed.

A conductor expansion spring 19 is fastened at 20 to the upper end of the dry cell battery 16, and in turn to a disc 21 as at 19*a*, adjacent the lower end of a socket 22. The lower end of the socket 22 has an internal shoulder 23, with which a coil spring 24 engages. The securing screw 19*a* is threaded into a conductor element 25, the upper end of which has a shoulder 26, with which a disc 27 engages. The conductor element 25 in turn engages with a contact 28 of the plug end 29 of a lamp bulb 30. At a point between the plug end 29 and the lamp bulb 30 a suitable electric flashing mechanism, not herein shown but disclosed in the U. S. Patent No. 1,979,349, may be housed in the casing 31.

Secured by screws 32 on the upper end of the casing 17 is a flanged cover 33 which has an elongated protrusion 34. The upper wall of this

protrusion is curved to conform to the cylindrical contour of a housing head 35, in which the lamp bulb and the casing 31 are located. The upper end of the socket 22 (which is secured in any well known manner in the housing head 35) has the usual slots 36 engaged by suitable nubs 37 carried by the plug end 29 of the lamp bulb, for holding the lamp bulb in place and putting the conductor spring 24 under tension.

The opposite faces of the housing head are provided with opposite lenses 38, which are held against the lugs 39 struck from the marginal edges of the housing head, by means of the flanged rings 40. The housing head is secured by screws and nuts 41 to the projection 34. Suitable screws 42 secure the lower end of the casing 17 to the base.

When the switch is operated in a position where the protrusions 13 engage into the depressions of the knurled members current will flow from the battery, through the conductor 8 and the knurled elements to the plate or disc 12, through the metal case of the base and the metal wall of the stand 17 to the cover 33 and the socket 22, through the lamp bulb and back to the battery causing illumination of the interior of the head.

Referring to Figure 5 the stand has a cover 44 which is flanged at 45 and secured by screws 46. Secured by rivets, screws or electrically welded at 44a to the cover is a flanged disc 47, the flange 48 of which overlies a flanged margin 49 of a globular lens 50, any point around the surface of the globular lens 50 at diametrical opposite points may act as lenses. A split spring ring 51 engages the flange 49 and expands against the marginal flange 48 of the flanged disc 47, thereby retaining the lens housing in position within the flange 48.

The invention having been set forth, what is claimed is:

1. A portable, emergency highway flare comprising: a housing structure including a hollow base, a hollow column supported thereon and secured thereto, and a cover plate for the column provided with an apertured seat for supporting a lamp structure thereon; a lamp structure supported by said cover plate, including an incandescent lamp mechanism, and a lens housing for the lamp mechanism, said lens housing being designed to cause a directional beam of light when said lamp mechanism is energized; a battery source of E. M. F. located within the column, and optionally closable circuit completing means for energizing a circuit including the lamp mechanism and the source of E. M. F.

2. In combination with the structure of claim 1, in which the circuit completing means includes a switch structure mounted within the hollow base, and in which resilient means are provided for positioning and supporting the battery source of E. M. F. between the lamp structure and the switch; said lens design and the portable nature of the unit being utilized for effecting a positionable, non-glare, signal light.

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