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E. RYDER

2,423,664

HEADLIGHT LENS

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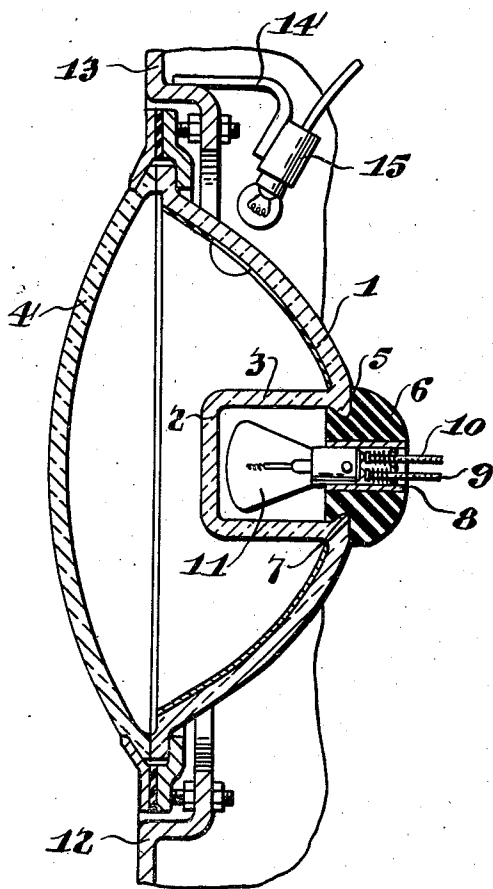


Fig. 1

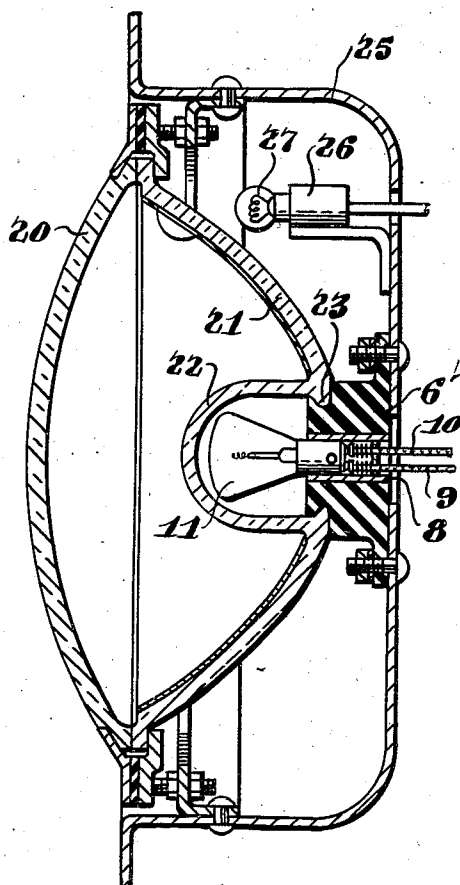


Fig. 2

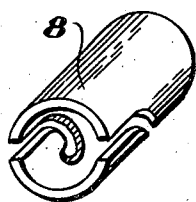


Fig. 3

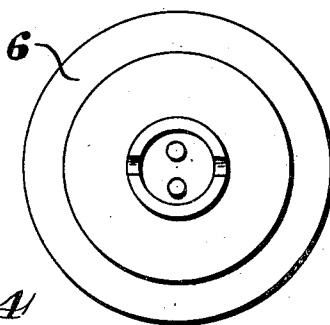


Fig. 4

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HEADLIGHT LENS

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1 Claim. (Cl. 240—41)

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Headlight lenses are now made with the lens and a parabolic reflector in the lamp all sealed together in one unit. If the lamp fails or wears out and the reflector and the lens are still good, the unit becomes worthless and must be discarded, because the lamp cannot be renewed in the unit. To provide for the replacement of the lamp without discarding the parabolic reflector and the lens I provide the reflector with an inwardly projecting pocket which pocket extends into the space between the reflector and the lens, which pocket is transparent, it being understood that the parabolic reflector and the pocket are all made of glass and are in one piece.

It will also be understood that the lamp is held in this pocket with its source of light at or near the focus of the mirror. The lamp is not in the space enclosed between the reflector and the lens. When the lamp goes out a new lamp can be inserted in its place and the reflector and the lens can still be used.

In the drawings: Figure 1 shows an assembly of lens, the reflector with its pocket and the lamp and the removable socket therefor.

Figure 2 shows the same assembly as shown in Figure 1 with a modified form of the cup that is made as a part of the reflector. It also shows the housing for the assembly of the lens, reflector and lamp and socket.

Figure 3 shows an enlarged perspective view of the lamp socket.

Figure 4 shows an end elevation of the socket and the plug for holding it in place, Figures 3 and 4 both being on a larger scale than the corresponding parts shown in Figures 1 and 2.

In the drawings like reference numerals indicate like parts.

Reference numeral 1 indicates the parabolic reflector having an inverted cup 3 therein with a flat bottom 2. All this is made of transparent glass. The parabolic reflector 1 is coated with a reflecting surface, but the cup-shaped recess 3 is not coated and is left transparent so that the light can shine through it.

In front of the parabolic reflector is the lens 4 such as is used in headlights having cylinders and prisms formed therein. This lens, however, constitutes no part of my invention. The lens and the parabolic mirror are sealed together so that air cannot circulate from the outside of the assembly to the inside thereof nor from the inside thereof to the outside thereof.

A ridge or flange 5 is formed around the edge of the cup 3 extending inwardly therefrom. Into the open end of this cup is forced a rubber plug 6 having an annular recess 7 formed therein which is adapted to engage with the annular

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flange formed on the rim of the cup. By this engagement between the rubber plug and the rim of the cup the plug is held in place.

In the plug is held a lamp socket 8 of a standard pattern having lead wires 9 and 10 engaged therewith. In the socket is carried an electric lamp 11, which furnishes light in the ordinary way as is done with electric lamps in the headlight. The rays of light from this lamp radiate in all directions and pass through the cup 3.

The rays that strike the headlight reflector 1 are thrown forward substantially as parallel rays as is customary where parabolic mirrors are used in connection with lamps having a small source of light placed at the focus of the mirror.

The assembly of the lens and mirror are held in any desired form of structural mounting such as is shown at 12, 13 from which it can be removed and a new assembly can be replaced therein. In this structural mounting is also provided a bracket 14, supporting a lamp socket 15, on which a parking light is carried. This however, constitutes no part of my invention.

In Figure 2 I have shown a similar assembly having a lens 20, a parabolic mirror 21, having a cup shaped recess 22 therein which recess has a spherical bottom. The rim of the cup has a flange 23 thereon projecting inwardly therefrom. In this cup is held a rubber plug 6' with a lamp socket and lamp therein similar to that shown in Figure 1. In Figure 2 is shown a housing 25 preferably of sheet metal in which is supported a lamp socket 26 with a parking light 27 therein.

I claim:

In a headlight lens the combination of a lens proper and a parabolic mirror fastened together on the edges and enclosing an open space between them, a transparent pocket extending centrally from the parabolic mirror into the open space, said pocket opening rearwardly and being integral with the mirror, an inwardly projecting flange surrounding the rim of the pocket, an elastic plug having an undercut at its forward end adapted to engage with said flange, and a lamp socket and lamp held centrally in said plug and said socket.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
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2,099,405	Langdon	Nov. 16, 1937