Feb. 21, 1933. R. E. SCHENSTED 1,898,143

HEAD LAMP

Filed Dec. 15, 1931 3 Sheets-Sheet 1

Fig. 1.

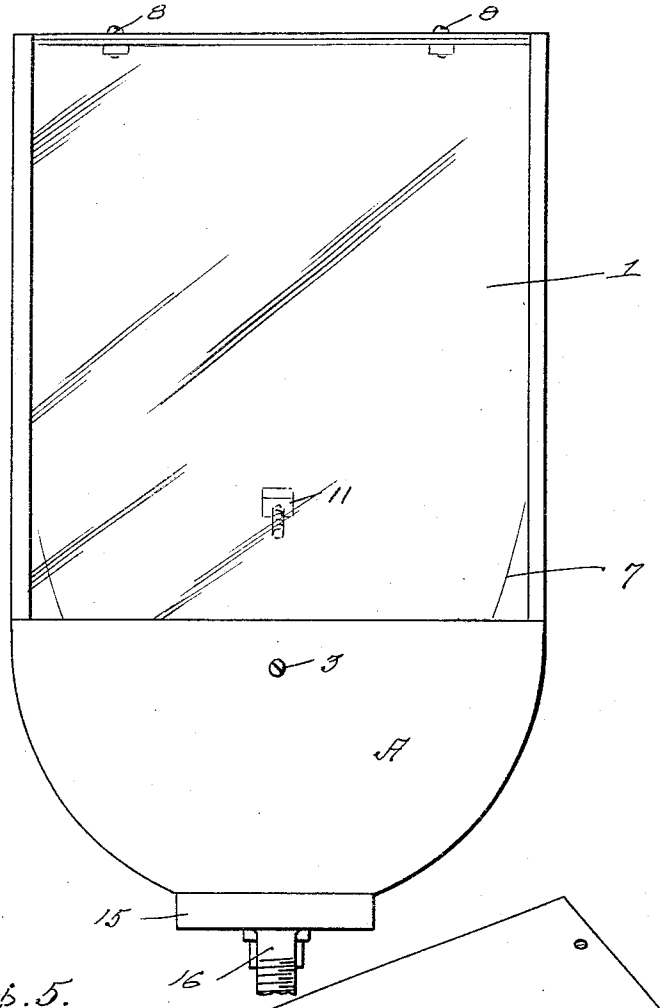
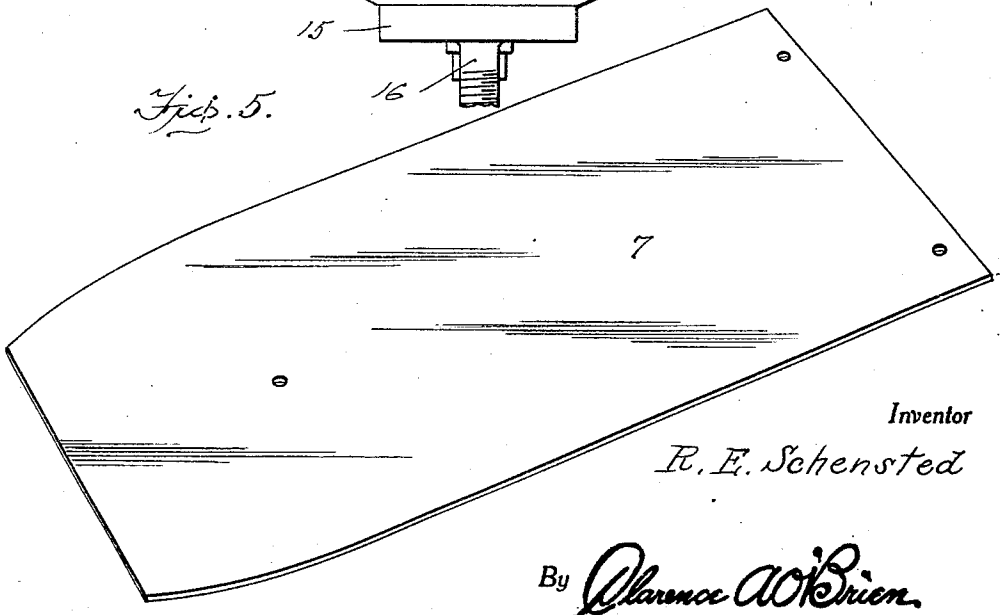


Fig. 5.



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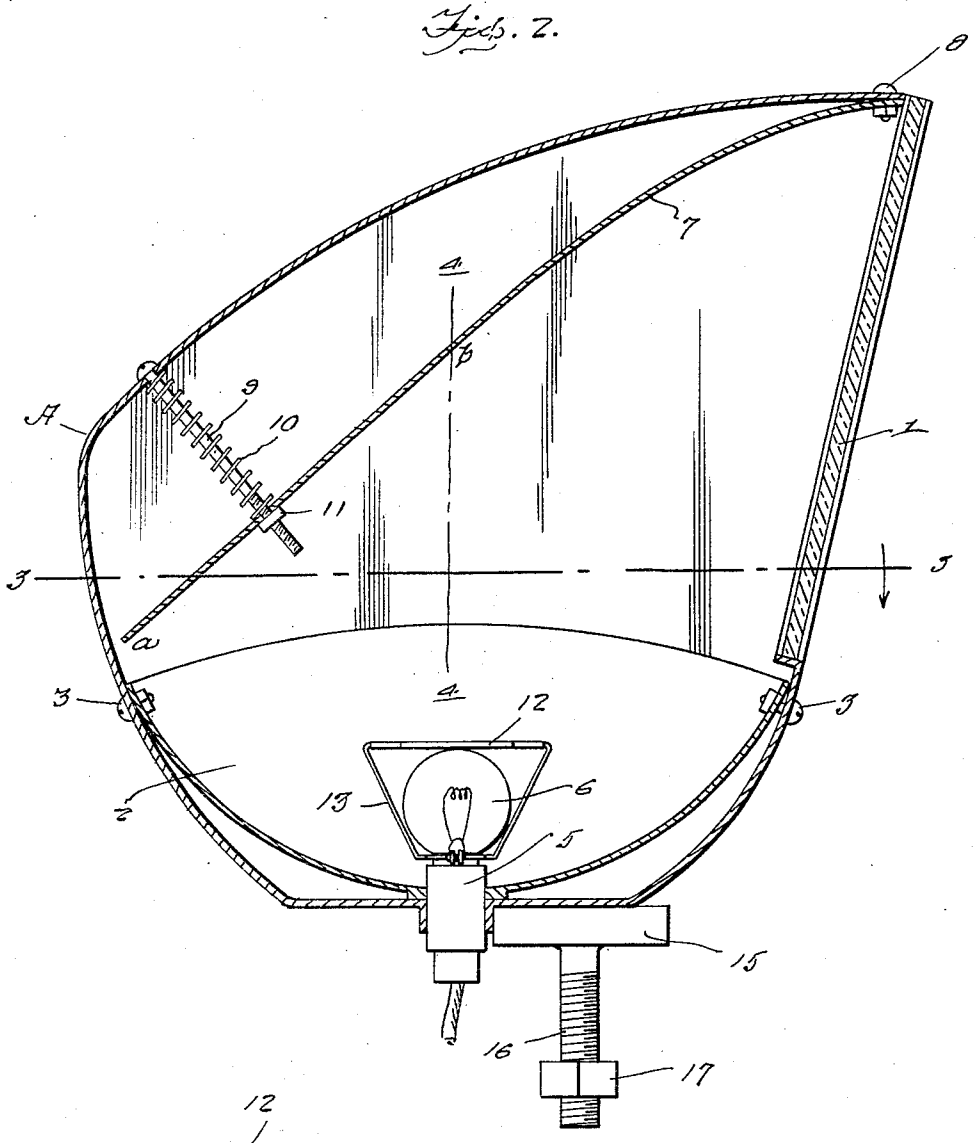
Attorney

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HEAD LAMP

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Fig. 2.



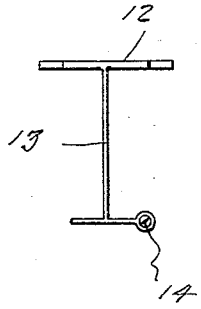


Fig. 6.

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HEAD LAMP

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Fig. 3.

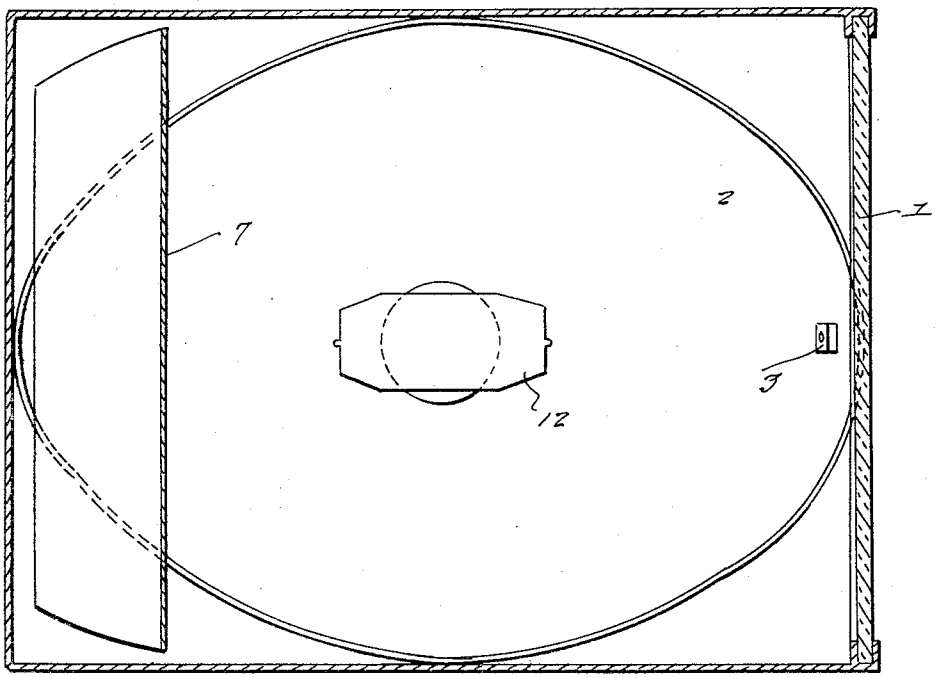
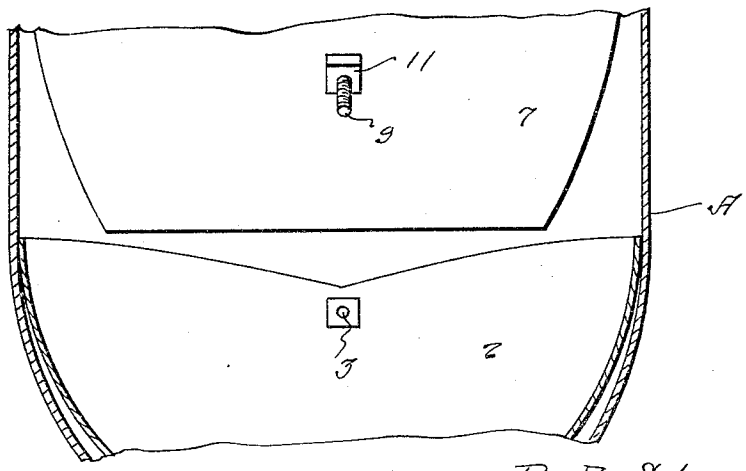


Fig. 4.



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Patented Feb. 21, 1933

1,898,143

UNITED STATES PATENT OFFICE

ROY E. SCHENSTED, OF BESSEMER, MICHIGAN

HEAD LAMP

Application filed December 15, 1931. Serial No. 581,211.

This invention relates to a headlamp the general object of the invention being to provide a lamp provided with two reflectors which cooperate with each other to produce light beams which are under control to eliminate glare and to utilize all the rays to illuminate the road.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a front view of the improved lamp.

Fig. 2 is a vertical sectional view through the lamp.

Fig. 3 is a section on line 3—3 of Fig. 2.

Fig. 4 is a vertical sectional view on line 4—4 of Fig. 2.

Fig. 5 is a view of the upper reflector.

Fig. 6 is a view of the device which is to be attached to the lamp bulb.

In these drawings, the letter A indicates the lamp housing which is preferably of the shape shown with the front sloping slightly downwardly and rearwardly with an opening in the upper part thereof which is closed by the transparent member 1. A substantially elliptical reflector 2 is located in the lower part of the housing and is removably held therein by bolts 3, the reflector facing upwardly and having the socket 5 passing through its bottom and through the bottom of the housing, so that the rays of light from the lamp bulb 6 are directed upwardly.

A substantially plate-like reflector 7 is arranged in the upper part of the housing and is attached at its front end to the top of the housing by the bolts 8 and the rear part of the reflector 7 is adjustably connected with the top of the housing by the long bolt 9 which passes through the top of the housing through a hole in the rear part of the reflector 7 and has a spring 10 thereon which presses the rear part of the reflector against a nut 11 threaded on the bolt. The nut can be held against turning movement by connecting it with the reflector 7 in any suitable manner. Thus by turning the bolt, the reflector 7 can be adjusted relative to the reflector 2 to regulate the reflection of the rays of light from the housing from the bulb 1.

The reflector 7 is substantially straight from the rear end *a* to the point *b*, and is slightly curved from the point *b* to the point where the reflector is connected by the bolts 8 to the housing.

A plate 12 is supported on the top of the bulb 6 by the frame 13 which is clamped around the lower part of the bulb or the top of the socket by a screw 14. The object of this plate is to prevent the rays of light from the bulb passing directly to the upper reflector. The housing can be attached or supported in any suitable manner. The drawing shows a bracket 15 attached to the bottom of the housing and having a threaded stem 16 which is connected to the supporting part by the nut 17.

The concaved reflector 2 is of substantially elliptical form to reflect the rays of light upwardly in the form of an elongated beam of light which is re-concentrated by the oblong slightly curved reflector 7, thus producing a beam of light, having at its superior level, a straight line of demarkation, with no rays of light extending across a given line, and, if properly adjusted, said rays do not exceed in height the light housing or lamp from which they are projected. Thus it will be seen that my invention includes the following features:—

The use of two reflectors in headlight construction each of which works harmoniously with the other, in combination and jointly contribute to produce light beams which are under control.

The control of light rays, projected from headlight, wherein the superior rays do not extend above a given straight line of demarkation. The elimination of glare to motorist or pedestrian meeting car equipped with said headlight when headlight is so adjusted that the rays do not rise above

a horizontal plane passing through the lamp centers parallel to the level road upon which the equipped car stands and not higher than said lamp centers.

Attention is called to the fact that the front of the elliptical bottom reflector is blunt, while the back of the same comes slightly but more to a point.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts provided that such changes fall within the scope of the appended claim.

Having thus described my invention, what I claim as new is:—

A lamp of the class described comprising a casing, having its front sloping downwardly and rearwardly, with a large substantially rectangular shaped opening in the upper part of said front, a transparent member in said opening, a vertically arranged concave substantially elliptical shaped reflector arranged in the bottom of the casing for directing rays of light upwardly, said reflector having upwardly bowed side edges with its rear end somewhat pointed and its front end blunt and located directly under the lower end of the opening, a vertically arranged lamp bulb, carried by the central part of the reflector, an elongated plate-like reflector having its front end connected to the top of the casing at the front thereof, said reflector extending downwardly and rearwardly to a point adjacent the rear of the casing, and having its front part slightly curved with its concavity facing downwardly, and the rear of the reflector being substantially straight, a bolt passing through the top of the casing and through the rear part of the plate like reflector, a nut on the bolt engaging the under face of said plate like reflector, and a spring on the bolt having one end bearing against the top of the casing and its lower end against the reflector.

In testimony whereof I affix my signature.

ROY E. SCHENSTED.