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F. HITCHINER

1,963,201

AUTO HEADLIGHT SHIELD

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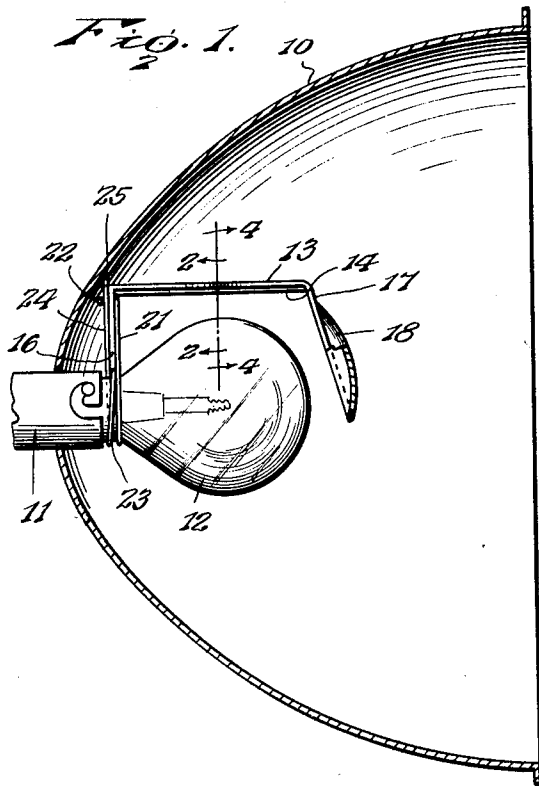


Fig. 2.

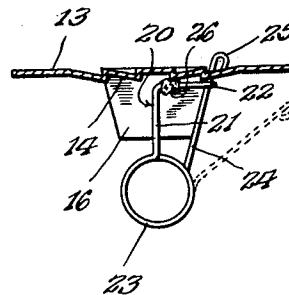
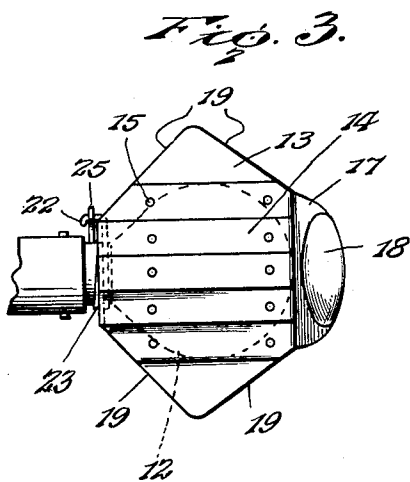
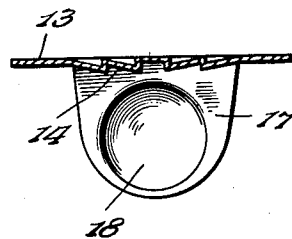


Fig. 4.



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AUTO HEADLIGHT SHIELD

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3 Claims. (Cl. 240—48.6)

This invention relates to lamp shields especially designed for use in connection with motor vehicle headlights and has for an object to provide a shield which may be easily positioned and supported on the lamp bulb, the shield including a fluted body portion which reflects light to the sides of the headlight reflector, the body portion being cut away at the sides of the rear end to allow the reflecting rays to reach higher on the sides of the headlight reflector than usual so that the efficiency of the lamp is in no way interfered with, while harmful glare is obviated.

A further object is to provide a shield which is provided at the front with a convexo-concave reflector which reflects direct forward rays from the lamp downwardly and rearwardly to the headlight reflector, while at the same time cutting off all rays passing directly forward through the headlight lens, thereby eliminating glare.

A further object is to provide novel means for holding the shield in place on the lamp bulb.

A still further object is to provide a shield which may be constructed of sheet metal by a single stamping operation so as to materially reduce the cost of production.

With the above and other objects in view the invention consists in certain novel details of construction and combinations of parts hereinafter fully described and claimed it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a sectional view through a headlight reflector, showing the shield applied thereto,

Figure 2 is a cross section taken on the line 2—2 of Figure 1,

Figure 3 is a plan view of the shield, and

Figure 4 is a cross section taken on the line 4—4 of Figure 1.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates an auto headlight reflector, 11 a socket and 12 an electric bulb, these parts being of the usual and well known construction.

The shield is preferably formed from sheet metal by a single stamping operation and comprises a body portion 13 which is adapted to be located directly above the bulb and is provided with longitudinal flutings 14, and is also provided

with minute perforations 15, which latter prevent overheating of the reflector with consequent burning out of the bulb. The body portion is provided at the rear end with a downwardly extending flange 16 and at the front portion is provided with a downwardly and forwardly extending flange 17 which is centrally dished to provide a convexo-concave reflector 18.

In practice, the shield may be formed of bright metal so as to produce a reflector in which case the top surface of the body portion and the outer surface of the flange 17 and also the rear surface of the back flange 16 may be painted, or otherwise treated to prevent reflection of light rays from these surfaces.

The body portion 13 of the reflector is cut away obliquely at the side edges, as shown at 19 in Figure 3. The purpose of this is to permit the rays from the bulb reaching higher on the sides of the headlight reflector 10 than is ordinarily the case with shields or shades of this type so that the efficiency of the headlight is in no way interfered with, and a longer wider driving light is produced than hitherto possible with shields of ordinary construction.

For attaching the shield to the lamp bulb a resilient holder 20 is soldered or otherwise rigidly secured to the back flange 16 and comprises a substantially right angular shank 21 terminating in a hook 22 and having at the bottom a spiral coil 23 which is of sufficient size to snugly encircle the lamp base, the coil terminating in a divergent arm 24 which is received in the hook 22 and is looped at the extreme end, as shown at 25 to be easily manipulated by the operator's fingers. Solder 26 or other medium may be used to secure the right angular arm 21 of the holder to the flange 16.

By simply pressing the looped end 25 of the free arm 24 out of the hook 22 the arm will be moved by the coil to the dotted line position shown in Figure 2 so that the coil is expanded to permit renewal of a burned out bulb. The new bulb may be inserted through the expanded coil 23 whereupon the free arm 24 may be again pressed into the hook 22 to firmly attach the shield to the bulb.

By referring to Figure 4 it will be seen that the flutings 14 are angular in outlines and that the bottoms of the flutings incline outwardly and upwardly from the vertical axis of the shield. These flutings, by virtue of this construction, reflect the light rays from the bulb downwardly toward the lower part of the headlight reflector thereby causing a spreading of the rays so that

a wider driving light is produced than is the case with ordinary shields having a reflecting surface in a single plane.

5 The convexo-concave reflector 18, it will be noted, cuts off direct forward rays from the lamp bulb so that harmful glare is prevented while at the same time the inner reflecting surface will reflect the rays rearwardly and downwardly so that the efficiency of the lamp is not appreciably
10 diminished.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

15 What is claimed is:

1. A headlight shield including a longitudinally fluted metal body portion adapted to be disposed above the headlight bulb and provided with perforations to prevent overheating of the body portion, a reflector extending downwardly and forwardly from the front of the body portion, a flange extending downwardly from the rear of the body portion, a holder carried by said flange including an arm fixed to the flange and terminating beyond the side edge of the flange in a hook, a
25 helical coil integral with the arm and adapted to engage the lamp bulb, and a free arm integral with the coil and adapted to be engaged in said

hook and hold said coil contracted upon the lamp.

2. A headlight shield including a longitudinally fluted body portion adapted to be disposed above a headlight bulb, the flutings of the body portion being angular in contour and the bottoms thereof inclining outwardly and upwardly from the vertical axis of the body portion, there being perforations in said fluted body portion to prevent overheating thereof, a downwardly and forwardly extending convexo-concave reflector disposed on
80 the front end of the body portion and integral therewith, a downwardly extending flange integral with the rear end of the body portion, and a resilient holder carried by said flange adapted to engage a lamp bulb and position the body portion above the bulb and position the convexo-concave reflector in front of the bulb. 85

3. A headlight shield including a body portion and having a convexo-concave front portion adapted to extend downwardly from said body portion, a flange formed on the body portion integral therewith, and a holder carried on the flange and having a hook, said holder including a coil terminating in an arm adapted to engage the hook, the coil and arm cooperating for retaining the device in position above the lamp bulb. 90 95 100

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