

Aug. 27, 1929.

H. UPP

1,726,460

HEADLIGHT LENS

Filed April 19, 1928

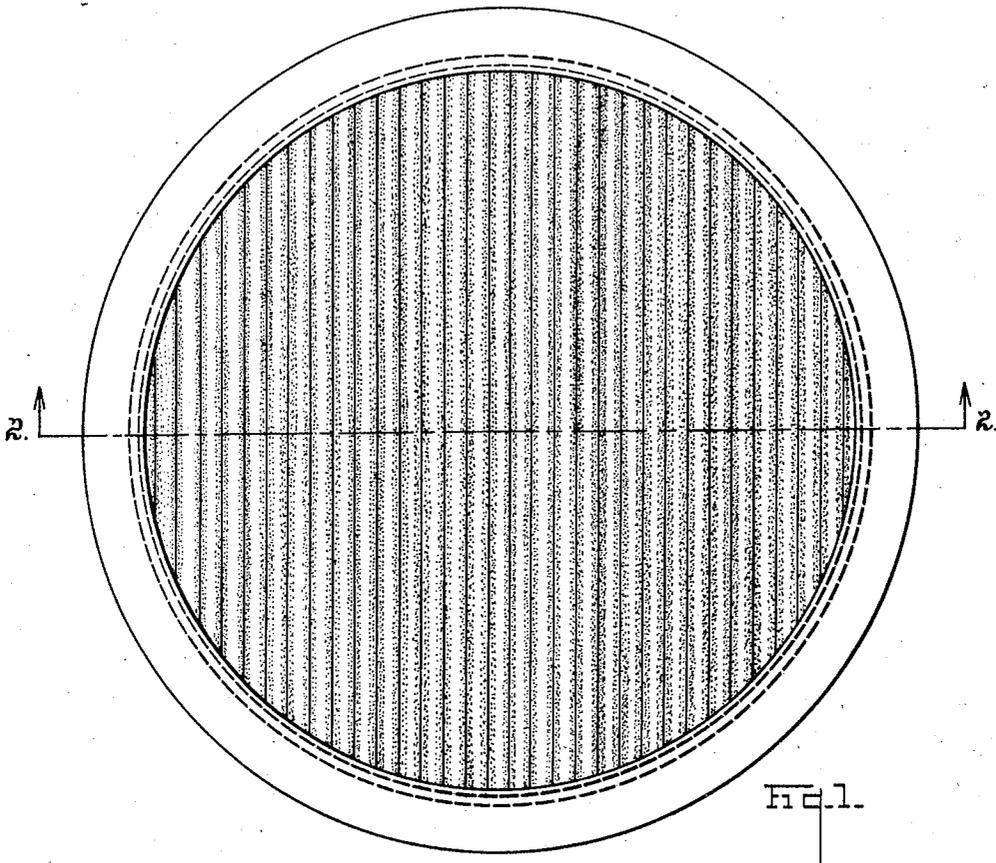


Fig. 1.

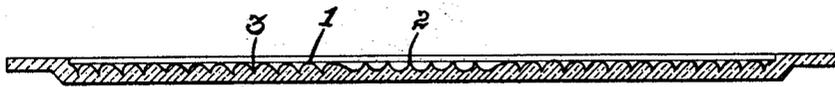


Fig. 2.

Inventor

Harry Upp

Owen + Owen

Attorneys

By

UNITED STATES PATENT OFFICE.

HARRY UPP, OF TOLEDO, OHIO.

HEADLIGHT LENS.

Application filed April 19, 1928. Serial No. 271,266.

This invention relates to lens, but more particularly to automobile headlight lamps, and an object of this invention is to provide simple and efficient cut-glass lens, which reduce the glare in headlights, but is adapted to produce a bright and satisfactory light for illuminating the road surface in front of and at the sides of the vehicle.

Other objects of the invention will hereinafter appear.

The invention is shown by way of illustration in the accompanying drawing, in which:

Fig. 1 is a front elevation of the lens; and Fig. 2 is a transverse sectional elevation on the line 2—2 of Fig. 1.

The illustrated embodiment of the invention comprises a lens having a pattern on the inside composed of two figures used in the cut-glass industry, namely, the rolled-over or rounded scallop 1, and beading cuts 2, there being two sets of rounded scallops, one on each side separated by a central area of beading cuts. The rounded scallops extend vertically of the lens in parallel relation to each other, and the beading cuts extend in a similar manner.

The scallops and beading cuts are preferably cut with stones having water running on them, and in this manner a peculiar translucent, soft grey finish is obtained, which is a perfect medium to soften and mellow the light thrown by the reflector, and yet permit the light to pass freely through the lens. It will be observed that on each side of the rounded scallops are relatively deep grooves 3, cut in the glass. The soft grey finish is secured on the sides of these grooves by means of the cutting stone above mentioned, and familiar to those skilled in the glass-cutting trade.

It is well known to every glass cutter that the deeper the cut, the whiter and more silver grey it appears when viewed from the opposite side. As the pattern on the lens is on the inside, the figures at the lens are cut sufficiently deep to produce the silver grey appearance when viewed from the opposite side. This is the result desired.

It has been found impractical to place the scallops and relatively deep cuts horizontally, because in that position the front side of each cut shows a bright band of light, which is undesirable, and would prevent illuminating the road surface at a proper distance in front of the vehicle.

As shown on the drawing, the rounded scallops 1 on opposite sides of the beading cuts 2, are inclined in opposite directions away from the beading cuts. This has been found advantageous, in that it greatly diffuses the light and directs it sharply to the sides of the vehicle, and produce a brighter light than directly in front of the vehicle. It is further to be observed that the rounded scallops 1 are inclined away from the central area increasingly so that they come to the outer edge to position the apices of the scallops and are disposed approximately at right angles to the curvature of the reflector.

The beading cuts 2 forming the central area of the lens narrow and confine the central light rays of the lens, and illuminate a central portion of the road surface far in advance of the vehicle. Another object in employing the rounded scallops, relatively deep grooves and beading cuts is, that they gather more light than a flat surface.

With this lens it has been found that the sharpness of the glare from the reflector is noticeably reduced if the outside of the lens is smoothed with a flat stone, and also the driving light is mellowed. It is to be understood that it is within the purview of this invention to smooth the face of the lens with a flat stone or other instrumentalities in front of the rounded scallops leaving the glass clear in front of the beading cuts in the central area, or vice versa, and cut and dull the entire outer surface as desired.

It is to be understood that numerous changes in details of construction and arrangement may be effected without departing from the spirit of the invention, especially as defined in the appended claim.

What I claim is:

A cut-glass lens comprising a glass plate, a plurality of beading cuts in the central portion of such plate, and vertical parallel scallops on opposite sides of said beading cuts, the scallops on one side of said beading cuts being inclined in one direction and the scallops on the other side being inclined in the opposite direction, and said plate having relatively deep grooves cut between adjacent scallops, said cuts being left unpolished for producing a soft grey finish.

In testimony whereof, I have hereunto signed my name to this specification.

HARRY UPP.