F. J. DOLE.

NONGLARING DEVICE FOR LAMPS.

APPLICATION FILED NOV. 15, 1917.

1,429,067. Patented Sept. 12, 1922.

2 SHEETS—SHEET 1.

Fig. 1.

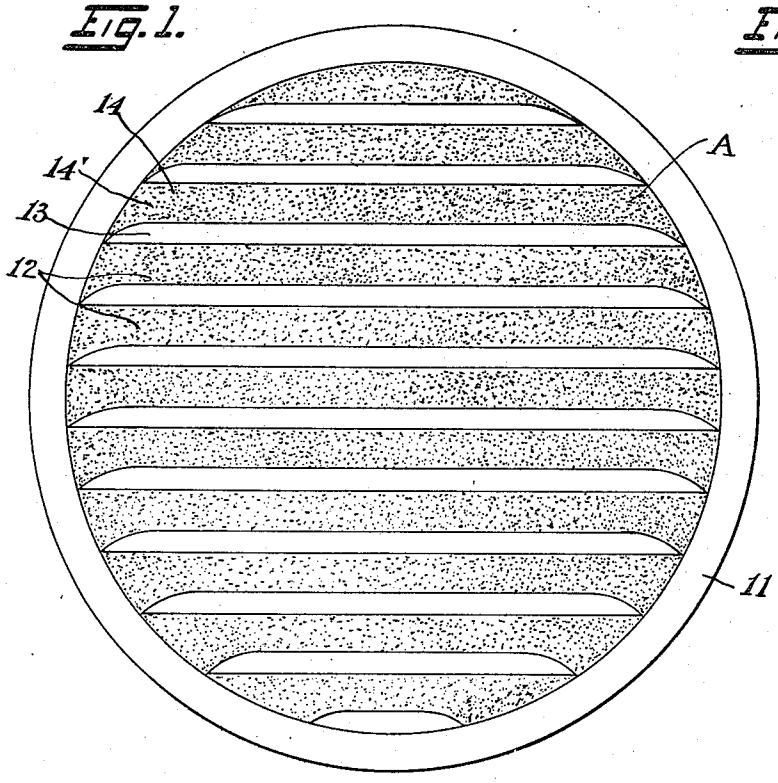


Fig. 2.

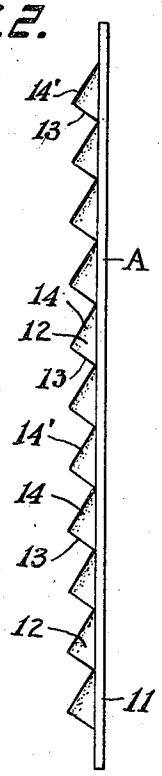
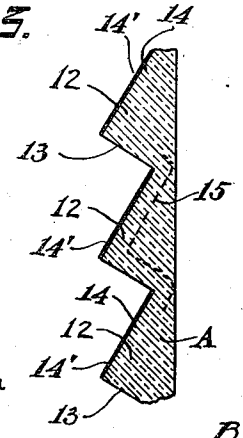


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 3.

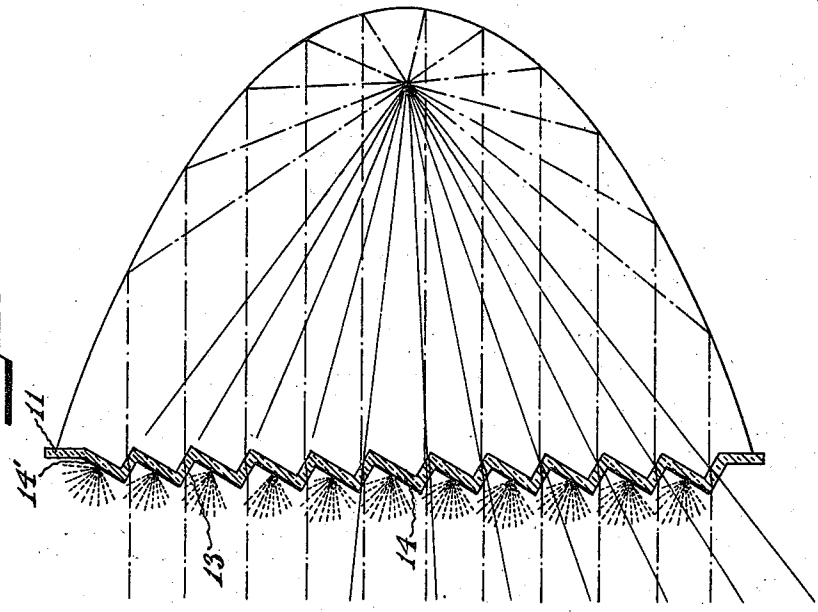
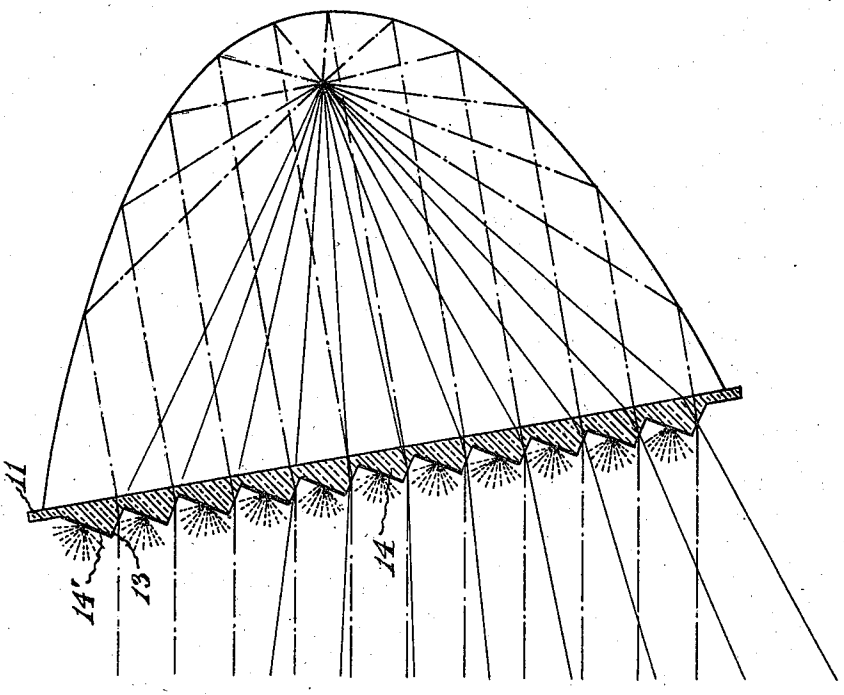


Fig. 4.



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UNITED STATES PATENT OFFICE.

FREDERICK J. DOLE, OF NEW YORK, N. Y.

NONGLARING DEVICE FOR LAMPS.

Application filed November 15, 1917. Serial No. 202,119.

To all whom it may concern:

Be it known that I, FREDERICK J. DOLE, a citizen of the United States, residing in New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Nonglaring Devices for Lamps, of which the following is a specification.

This invention relates to an improved lamp-shade particularly adapted for use in automobile head or search-lights, to intercept and direct the light rays, in such manner that while illuminating the road-surface close to the vehicle there will be no transmission of glaring rays, liable to dazzle or bewilder other drivers or persons approaching; which shade is of cheap cost, and high efficiency, and may be quickly and easily cut to proper size to fit lamps of widely variant diameters of aperture.

My said improved non-glaring lamp-shade is shown described and claimed in the following specification, of which the accompanying drawing forms a part, wherein similar letters or numerals of reference, designate like or equivalent parts, wherever found throughout the several views, and in which:—

Figure 1 is a front view in perspective of my improved lamp-shade; and Fig. 2, is a side-view thereof looking toward the left of Fig. 1. Figure 3 is a side view in vertical section on an enlarged scale of a portion of the shade showing three (3) of the louvers; and Figs. 4 and 5 are central vertical sectional views showing two forms of my invention each provided with a parabolic mirror containing a lamp, having my improved shade in position thereon; the various kinds of rays transmitted being indicated by the different forms of the several ray indicating lines.

My improved lamp-shade is usually and preferably formed of pressed glass, but other transparent material may be used with equal effect.

My said improved lamp-shade comprises a circular disk A, having the outer plain circumferential securing-ring portion 11, which may be of any width and may be cut to proper size to fit various sizes of lamps.

Formed on what is to be the face or outer or front side of the shade-disk A, are a plurality of prismatic louvers 12, usually and preferably arranged horizontally as shown, the two faces of which are usually and preferably at an angle of ninety degrees (90°) one to the other; the lower faces 13, being inclined outwardly and the upper faces 14 inwardly upward, the base of the prisms of the louvers being inclined to the horizontal line of the louvers.

For the sake of cheapness of construction my improved form of lamp-shade is usually formed of glass-pressed into form in a suitable mold; and while the rear face may be plane surfaced as shown in Fig. 4 and in full lines in Fig. 3, the louver-prisms may be longitudinally triangularly hollowed at the back, as indicated in Fig. 5 and by the right-angled dotted-lines at 15 of Fig. 3.

In any event and of whatever form of construction, while the main-body portion of the shade is formed of highly transparent glass, the upwardly inwardly inclined faces 14 of each of the louvers 12, are dimmed so as to prevent transmission of glaring light-rays to a distance, while the inwardly and downwardly inclined surfaces 13 of such louvers are left transparent to allow of the transmission of bright divergent ground rays downward upon the roadway immediately in front of the machine, as indicated by the full lines in Figs. 4 and 5, the dimmed glow rays being therein indicated by the short or round dotted-lines; and the parallel undimmed distance rays being shown by the dash or elongated dotted-lines.

The outer annular plane surfaced peripheral securing-ring 11, like the faces 14 of the louvers is dimmed in any suitable manner, among which may be covering the same with white or other enamel or translucent glass of yellow or other color, in or out of the original mold; by sand-blasting, etching with hydrofluoric acid; or stippling or roughing any portions of the disk, (inner or outer), which will dim the light-rays transmitted through the prism-faces 14; and any suitable light dimming surface 14^1, may be used for such purpose.

It is evident that many modifications, in the construction, combination and arrangement of the various parts, comprising my improved lamp-shade other than those set forth, may be made without departing from the spirit of my invention, or exceeding the scope of the claims.

If desired the head-light as illustrated in

Fig. 4 may be tilted slightly forward to hold the distance rays parallel with the ground.

I claim:

1. A non-glaring device comprising a plurality of horizontal louvres arranged one above the other and each provided with an outwardly and downwardly inclined dimmed upper face, and an upwardly and outwardly inclined freely transparent lower face disposed at an angle of about 60 degrees to the plane of the device.

2. A non-glaring device comprising a plurality of horizontal louvres arranged one above the other and each provided with an outwardly and downwardly inclined dimmed upper face, and an upwardly and outwardly inclined freely transparent lower face disposed at an angle of about 60 degrees to the plane of the device, whereby said lower face permits the egress of substantially undimmed horizontal distance rays, and the egrees of substantially undimmed ground downwardly and forwardly directed rays.

3. A non-glaring device comprising a plurality of horizontal louvres arranged one above the other and each provided with an outwardly and downwardly inclined dimmed upper face, and an upwardly and outwardly inclined freely transparent lower face disposed at an angle of about 60 degrees to the plane of the device, whereby said lower face permits the egress of substantially undimmed distance rays in forward beams of a vertical thickness as great as half of the width of said lower face, and the egress of substantially undimmed ground rays directed downwardly and forwardly in beams as thick as said lower face is wide.

4. A non-glaring device comprising a plurality of horizontal prismatic louvres arranged adjacent one above the other and each provided with an outwardly and downwardly inclined dimmed upper face disposed at an angle of about 30 degrees to the plane of said device, and an upwardly and outwardly inclined freely transparent lower face joining the adjacent upper faces at approximately right angles and disposed at an angle of about 60 degrees to said plane, whereby said lower face permits the egress of substantially undimmed light rays in forward beams of a vertical thickness as great as half the width of said lower face, and the egress of substantially undimmed rays directed downwardly and forwardly in beams as thick as said lower face is wide.

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