Sept. 23, 1924. 1,509,481

E. I. PETOW

NONGLARE STRUCTURE

Filed Oct. 4, 1923

FIG. 1

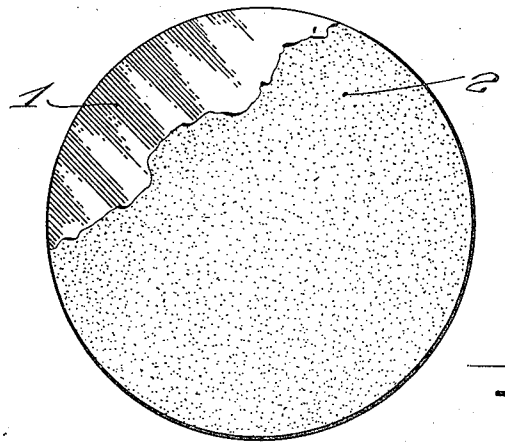



FIG. 3

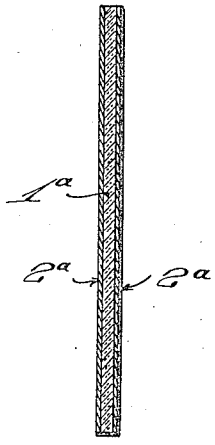



FIG. 4

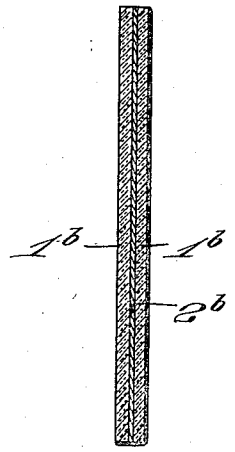
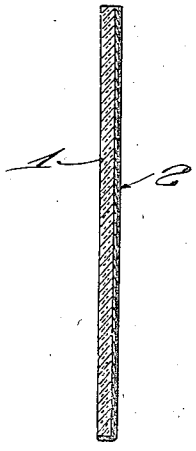



FIG. 2




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Witness

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Patented Sept. 23, 1924. 1,509,481

# UNITED STATES PATENT OFFICE.

EDWARD I. PETOW, OF HYANNIS, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO NEW ENGLAND GLASS WORKS, OF PROVIDENCE, RHODE ISLAND, A PARTNERSHIP COMPOSED OF ALBERT WEINER, ISAAC L. RICE, AND ALEXANDER WEINER.

## NONGLARE STRUCTURE.

Application filed October 4, 1923. Serial No. 666,623.

*To all whom it may concern:*

Be it known that I, EDWARD I. PETOW, a citizen of the United States, residing at Hyannis, in the county of Barnstable and State of Massachusetts, have invented certain new and useful Improvements in Nonglare Structures; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to light transmitting bodies such as headlight lenses, glass or other transparent coverings for casings inclosing intense light that is injurious to the eyes, etc., and more particularly to a body or structure of this character which will prevent the injurious glare of such lights without diminishing the amount of light radiated from the bulb, burner, torch or the like and any reflector which may be associated therewith.

The principal object of my invention is to provide a simple, practical and highly effective non-glare structure of this character, which may be used as a headlight lens or for various other purposes.

The above and other objects are accomplished as hereinafter described and in the accompanying drawing I have illustrated several forms of practicing the invention. In the drawing:—

Fig. 1 is a face view of headlight lens embodying the invention;

Fig. 2 is a vertical cross-sectional view; and

Figs. 3 and 4 are sectional views through modified forms.

I have discovered that a substance known usually as essence d'orient or oriental pearl essence when applied to a transparent support such as a sheet of glass or sheet of celluloid will cause intense and glaring rays of light when transmitted through such treated sheet to lose the intense glare without diminishing the volume of light. While this essence d'orient, which is made from scales of certain fish, has been used in the manufacture of artificial pearls, it is my discovery that when applied to a transparent plate or sheet that the light transmitted through the same will be so subdued that the eyes will not be injured or blinded and at the same time there will be no loss of effectiveness of the light. My invention is, therefore, particularly adapted for use in connection with headlight lenses or coverings of automobiles and in the drawings I have illustrated in Figs. 1 and 2 the ordinary circular headlight lens 1 consisting of a transparent glass plate having the coating 2 applied to one face of the same. This coating may be applied by dipping, spraying or otherwise and one or more coats may be employed. If desired, the coating or coatings may be applied to both faces of the transparent sheet $1^a$ as indicated at $2^a$ in Fig. 3 or as shown in Fig. 4 the coating $2^b$ may be in the form of a separate film or sheet $2^b$ arranged between two transparent sheets of glass, celluloid or the like $1^b$. Obviously, the coating may be applied directly to one face of the glass sheet as in Fig. 2 and a backing or cover sheet of glass may be placed against this coating as suggested in Fig. 4.

While the essence d'orient may be applied to the transparent support in any suitable manner I prefer to apply it in the vehicle such as varnish, shellac, cotton laquer or the like and I preferably, but not necessarily, use the following proportions, that is, 10 cu. cm. of essence d'orient to 12 fluid oz. of suitable vehicle. As indicated above, one or more coats may be applied to obtain varying thicknesses for the coating, depending upon whether or not it is desired to reduce the volume of light which will pass through the structure. However, I have found that where a very thin coating is used there will be no loss of light when it passes through the structure and that the blinding glare of an intense light will be entirely eliminated.

I claim:

1. A non-glare structure comprising a transparent sheet and a film associated therewith and including essence d'orient.

2. A non-glare structure comprising a transparent support and a coating thereon comprising essence d'orient and a vehicle.

3. A non-glare structure comprising a sheet of transparent material and a film associated therewith and made from a compound consisting of a mixture of 10 cu. cm. of essence d'orient and 12 fluid oz. of a vehicle such as cotton lacquer.

In testimony whereof I have hereunto affixed my signature.

EDWARD I. PETOW.