Oct. 28, 1941. H. Z. BENTON 2,260,736

ROAD LIGHT

Filed Sept. 6, 1940

Fig. 1

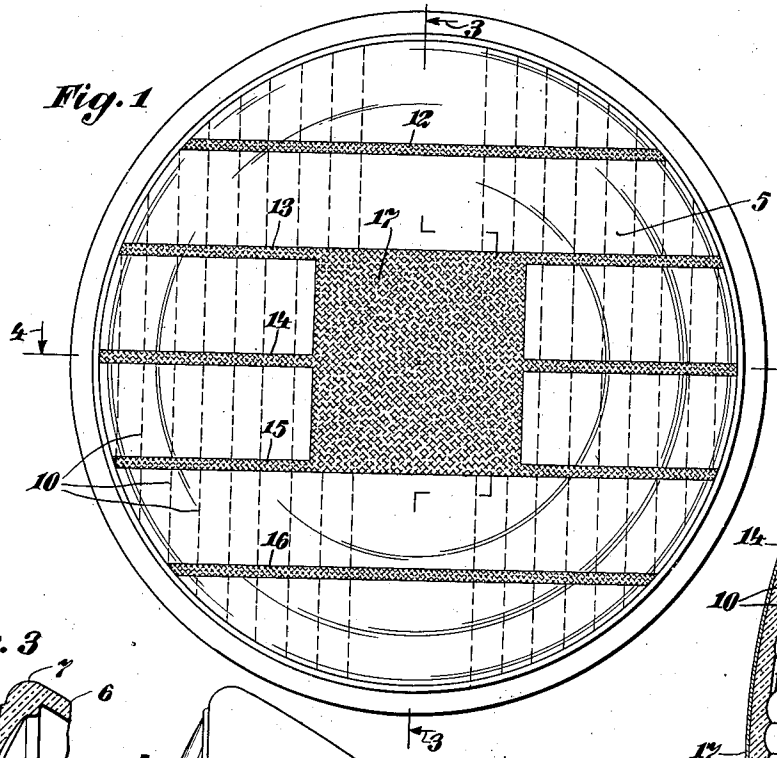


Fig. 4

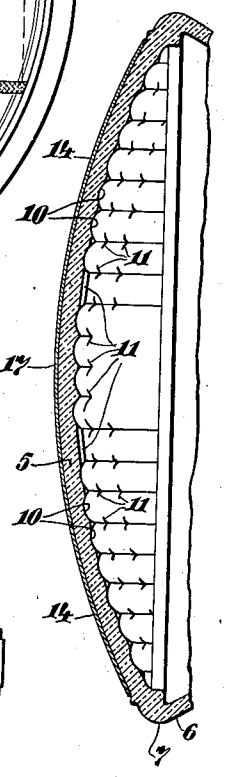


Fig. 3

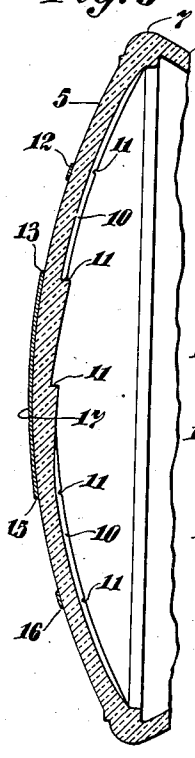
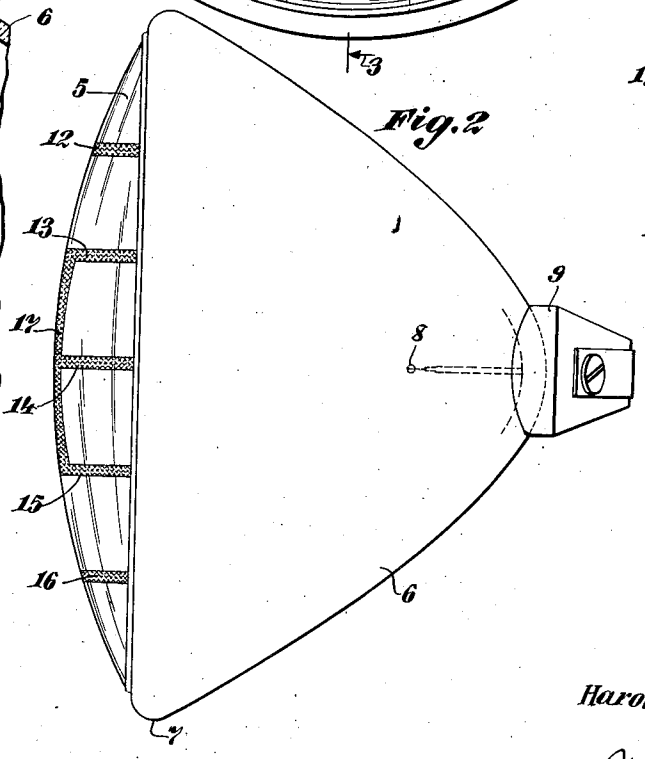


Fig. 2



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2,260,736

ROAD LIGHT

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1 Claim. (Cl. 240—41.4)

The invention here disclosed relates to road lights, particularly for driving, fog and passing purposes.

These lights as at present constructed, under certain conditions of fog, snow, rain and dust, can be very objectionable and even dangerous by creating blinding reflections which are thrown back into the eyes of the driver. Also, such lights create a certain amount of forward glare which is objectionable and dangerous to oncoming drivers.

The primary objects of the present invention are to overcome and prevent these objectionable and dangerous light conditions and to accomplish the same without impairing or sensibly reducing the effectiveness of the useful light.

Other desirable objects and the novel features of the invention by which the desired results are attained are set forth and will appear in the course of the following specification.

In the accompanying drawing there is shown one practical commercial embodiment of the invention. The structure, however, may be modified and changed as regards this disclosure, all within the true intent and broad scope of the invention as set forth in the following specification and claim.

Figure 1 is a front elevation of a lamp incorporating the features of the invention.

Figure 2 is a side elevation of the same.

Figure 3 is a vertical sectional view as on substantially the plane of line 3—3 of Figure 1.

Figure 4 is a horizontal sectional view as on substantially the plane of line 4—4 of Figure 1.

The invention involves the realization that both the objectionable forward glare and the backward reflection from snow, fog or the like are occasioned by upwardly directed light rays radiated from the upper ends of the lens prisms usually present in the front lens of the lamp and includes the provision of means for suppressing and preventing such vertical stray rays.

In the illustration, a lamp of the so-called "sealed beam" type is shown, for purposes of disclosure, having a front lens 5 and a reflector 6 integrally sealed together at the rim 7. The filament of the lamp is indicated at 8, Figure 2, and the terminal fitting is shown at 9.

The front of the lamp is composed largely of lens prisms 10, molded there in the course of manufacture, in the desired light dispersing and controlling formations and positions. Usually there are several horizontal rows of such prisms as indicated. The upper ends of these prisms present more or less horizontal prism faces 11, corresponding generally to the cross sectional shapes of the prisms. These end or top prisms 11 may be triangular, rectangular or other shapes, dependent on the character and purpose of the particular lens prisms.

The upwardly directed faces 11 at the upper ends of the lens prisms create or are largely responsible for the objectionable vertical stray rays mentioned. In manufacture, these end prisms may appear simply as slight horizontally extending grooves or depressions on the inner face of the lens front, substantially as indicated in Figure 3.

To overcome and eliminate the vertical rays created by the horizontally disposed rows of prisms described, there is provided, in the particular case illustrated, a light subduing cover in the form of narrow horizontal strips or lines 12, 13, 14, 15, 16 on the front of the lens, over the prism forming grooves or depressions at the inside of the lens.

These strips or bands may be simply an applied paint, enamel, lacquer, vitreous or metallic material, transparent, translucent or opaque, and the present preferred practice is for an orange or an amber color, the shades usually associated with and considered as effective for fog light purposes.

In addition to the narrow bands in line with the horizontal prisms, it has been found desirable to place a small cover 17 of the same light shielding material over the central filament portion of the lens. This central portion may be circular, oval or other shape but it is practical to make it substantially square, as shown in Figure 1, with the top and bottom formed by the horizontal strips 13, 15 and the sides formed by straight vertical connections between these strips and crossing and including the intermediate, centrally disposed horizontal strip 14.

The central block and the narrow horizontal strips, particularly in the amber color, prevent forwardly directed filament glare and stop the upwardly directed rays which produce the objectionable backward reflection, making for safe driving under conditions of rain, snow, fog, dust and the like. Only a comparatively small portion of the lens is covered with the amber so that lighting efficiency is not appreciably or objectionably reduced and because of the small area covered, there is a gradual gradation back to the white light which is highly desirable for driving during rain, snow, fog and the like.

While usually most practical to apply the covering strips to the front surface of the lens,

it should be understood that such material may be applied directly over the horizontal prisms at the inside of the lamp, on the back of the lens.

The invention, when used on driving lights, produces a colored or tinted light in the amber regions close to the car and relatively high above the road, while at the same time projecting a clear colorless light down on the road closely in front of the car.

What is claimed is:

In a driving lamp having a lens with vertically extending prisms on the inner face of the same and horizontally extending grooves separating said vertical prisms into horizontal rows of shorter prisms with upwardly faced facets at the points where said grooves intersect said long prisms to form the shorter prisms and narrow bands of translucent coloring medium extending horizontally on said lens over said grooved portions and positioned to intercept upwardly directed light rays radiated from said upwardly facing facets and a substantially square block of said coloring medium bounded and defined at the top and bottom by two of the spaced horizontal bands and at the sides on lines substantially parallel with the sides of spaced prisms in the centrally disposed area of the lens.

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