Aug. 21, 1928.

1,681,909

R. A. RUSSELL, JR

AUTOMOBILE HEADLIGHT

Filed Feb. 24, 1927

Fig. 1.

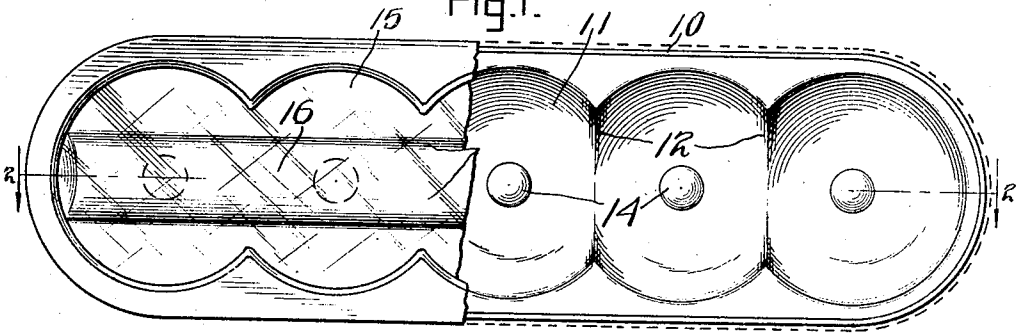


Fig. 2.

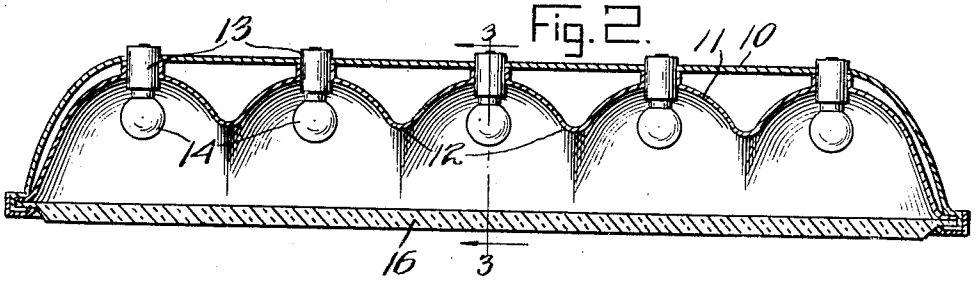


Fig. 3.

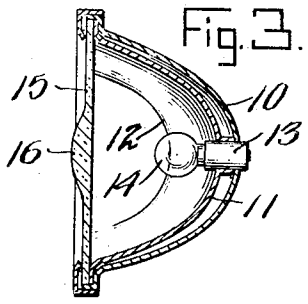


Fig. 4.



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UNITED STATES PATENT OFFICE.

RUFUS A. RUSSELL, JR., OF SAN DIEGO, CALIFORNIA.

AUTOMOBILE HEADLIGHT.

Application filed February 24, 1927. Serial No. 170,588.

My present invention consists in further developments of my invention as shown in my former Patents No. 1,595,025, granted August 3, 1926, and No. 1,618,108, granted February 15, 1927, whereby the general character of the headlight, which is designed to provide a light extending across the front of the vehicle and one that will spread a flow of light entirely across the roadway, is maintained, but wherein the rays of light from each lamp are so deflected as to cross and recross each other in a manner to break up and diffuse said rays so as to effectually destroy or prevent the usual glare and insure a soft non-glaring light but one which will be penetrating and effective and cover the full width of the roadway being traversed by the automobile, all as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings which are made a part hereof and on which similar reference characters indicate similar parts,

Figure 1 is a front elevation of one of my headlights with part of the lens and frame broken away,

Figure 2, a longitudinal section on the dotted line 2—2 in Figure 1,

Figure 3, a transverse section on the dotted line 3—3 in Figure 2, and

Figure 4, a central longitudinal section showing a somewhat modified construction.

In the drawings reference character 10 indicates an elongated casing which may be supported across the front of a vehicle in any appropriate manner but adapted to maintain a horizontal position and at substantially the same height as the usual headlights. The casing 10 is usually of a length sufficient to reach across the front of an automobile and support a light at each end of the same in substantially the same relative position as the usual automobile headlight. The elongated casing 10 preferably has its ends rounded or curved, as shown, and a reflector 11 is mounted therein. Said reflector is preferably formed by stamping a sheet of metal to fit at its ends within casing 10 and of a form substantially like a series of parabolic reflectors which have their contiguous sides cut away with edges joined so that the rays of light are reflected in a horizontal plane in a manner to break up and diffuse the rays and prevent a blinding glare. The ends of the reflector have curved outer walls as in a conventional parabolic reflector, which curved outer wall is adapted to reflect light diagonally across the path of the other lights for illuminating the roadway at the sides.

By this form of reflector which consists in effect of a plurality of small reflectors arranged in a horizontal line and side by side I obtain a light of sufficient brilliancy to thoroughly illuminate the area in front of or to the sides of an automobile, but the cross angular reflections of the sides of the reflectors so break and diffuse the rays that glare is eliminated.

I preferably form my reflector from a single piece of sheet metal and stamp the same in the form best shown in Figure 2, each individual reflecting unit being formed integrally with the others a rounded surface 12 being formed at the junction between adjacent units. At the center of each section of the reflector I preferably provide a lamp socket 13 for supporting a lamp 14.

An elongated lens 15 corresponding to casing 10 is mounted in said casing. Said lens is preferably formed with a central longitudinally extending "bulls eye" section 16 outwardly curved, or convex in cross section, which is adapted to overlie the series of lamps. Said lens is formed with plain upper and lower portions on each side of said central convex portion. This type of lens is the same as shown in my aforementioned patent No. 1,618,108 and is particularly suitable for my lamp since the thickened rounded portion of the lens substantially corresponds outwardly with the central portion of the parabolic reflector section, the purpose being to project the full force of the light a maximum distance ahead through the central thickened portion which forms a lens magnifier.

It will be obvious to those skilled in the art that various changes may be made in my device without departing from the spirit of my invention and I, therefore, do not limit myself to what is shown in the drawings and described in the specification but only as set forth in the appended claims.

The modified construction shown in Fig. 4 is not materially different from that shown in the principal views, but is intended to illustrate how the reflector may be formed by cutting off opposite sides of a series of

parabolic reflectors and joining said edges together. The result is substantially the same except that the curved partitions between the lights come nearer to the lens and are sharper at the dividing point.

Having thus fully described my said invention, what I claim as new and desire to secure by Letters Patent, is:

An automobile headlight comprising a horizontal elongated casing, an elongated reflector in said casing formed of a sheet metal body stamped to provide a series of integrally connected parabolic reflectors connected to each other by curved reflecting surfaces, the reflectors at each end of the series having their sides which form the ends of the reflector extending outwardly and joining the ends of the casing, and lamps in the reflectors mounted in a plane behind the extremities of the reflecting surfaces of the end reflectors and in a plane coinciding with the plane of the curved connecting surfaces, substantially as set forth.

In witness whereof I have hereunto set my hand and seal at Washington, District of Columbia, this twenty-third day of February, A. D. nineteen hundred and twenty-seven.

RUFUS A. RUSSELL, JR.