Nov. 25, 1930. J. A. SULLIVAN 1,782,551

AUTOMOBILE LAMP

Filed Nov. 26, 1928 2 Sheets-Sheet 1

Fig. 1.

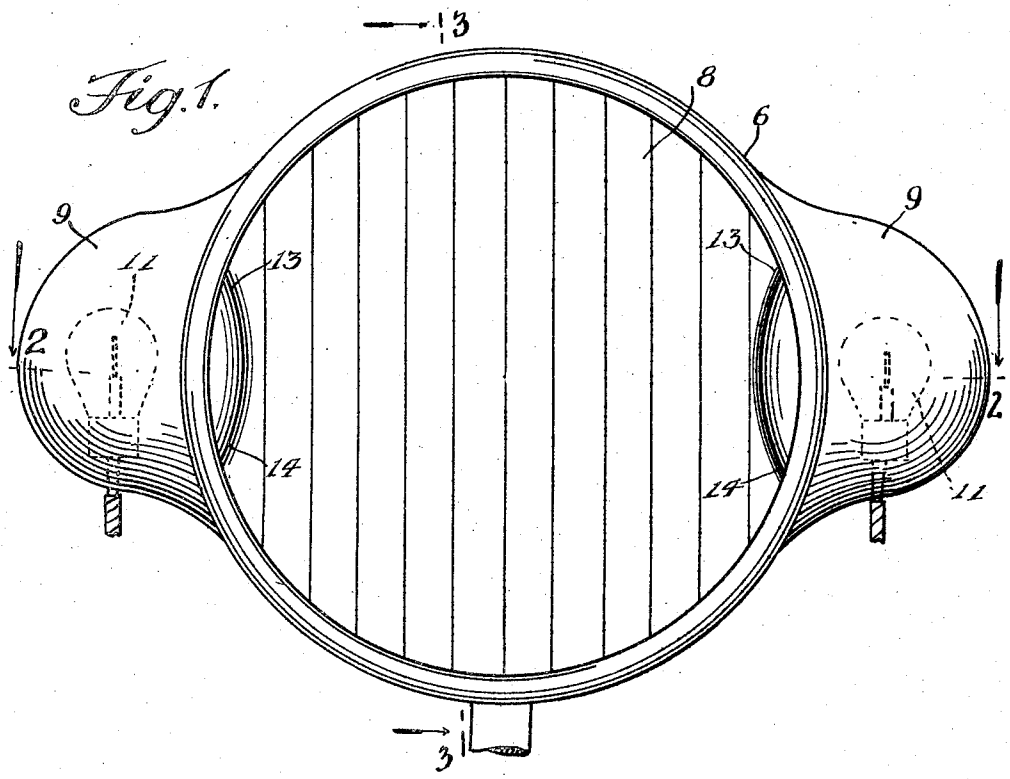
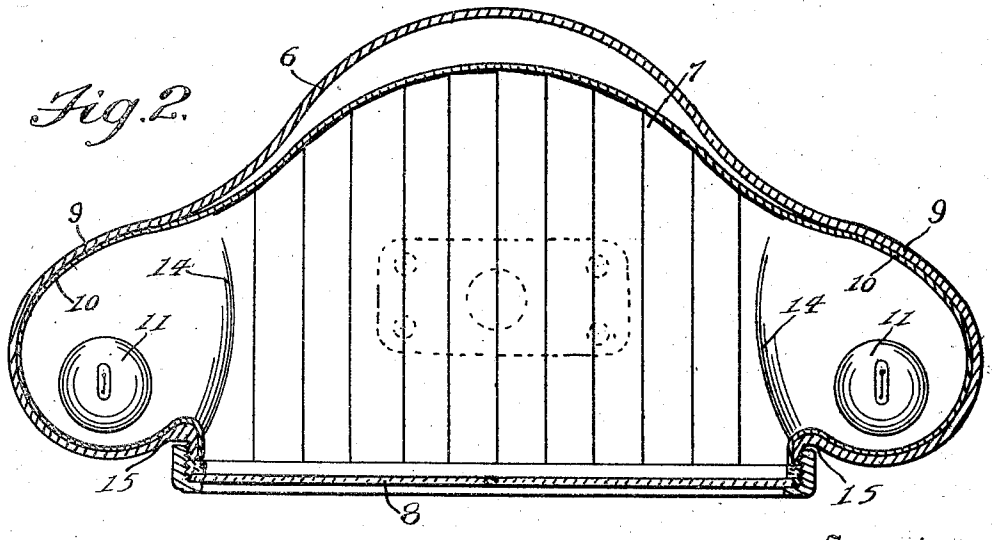


Fig. 2.



Inventor
James A. Sullivan,
By his Attorney
J. R. Bowen

Nov. 25, 1930. J. A. SULLIVAN 1,782,551

AUTOMOBILE LAMP

Filed Nov. 26, 1928 2 Sheets-Sheet 2

Fig. 4.

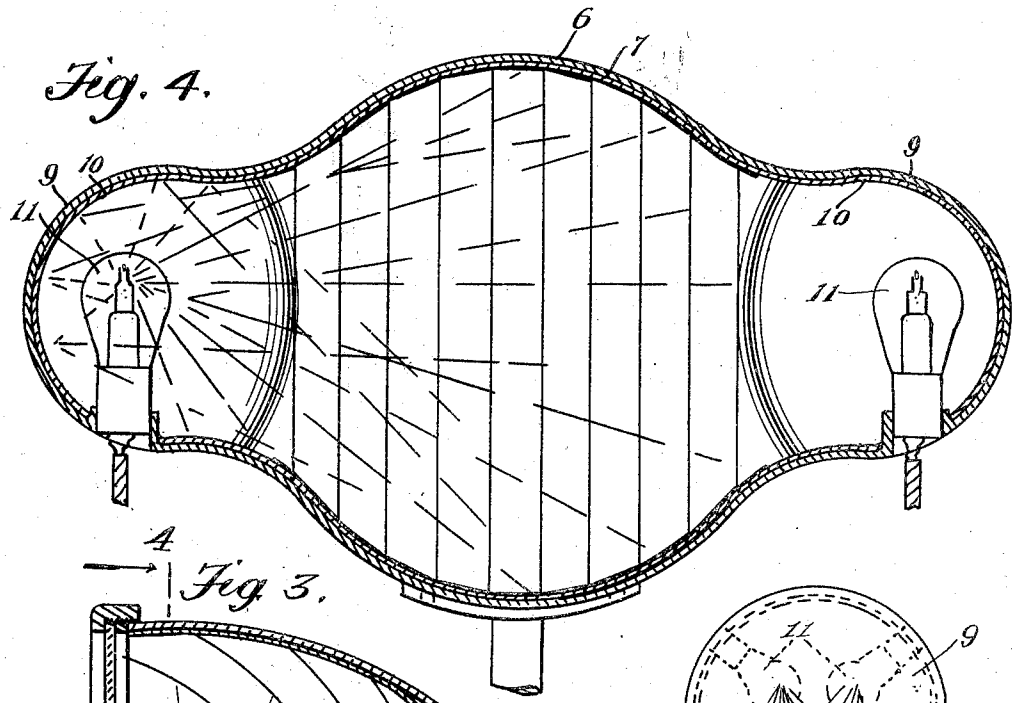
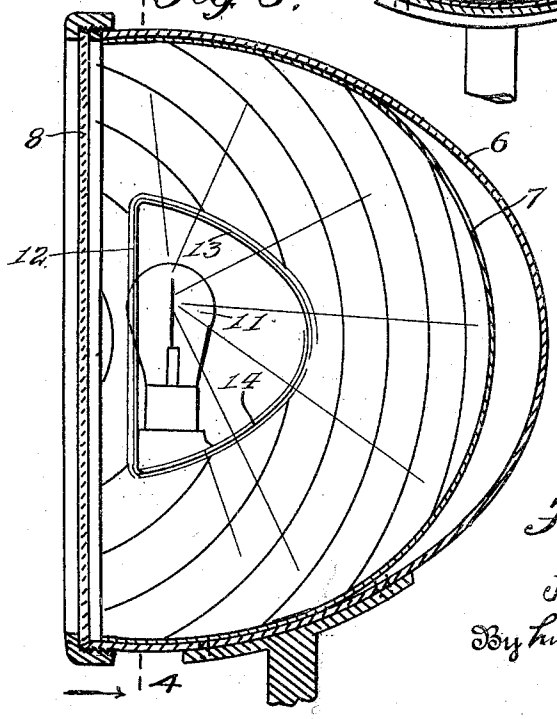


Fig. 3.



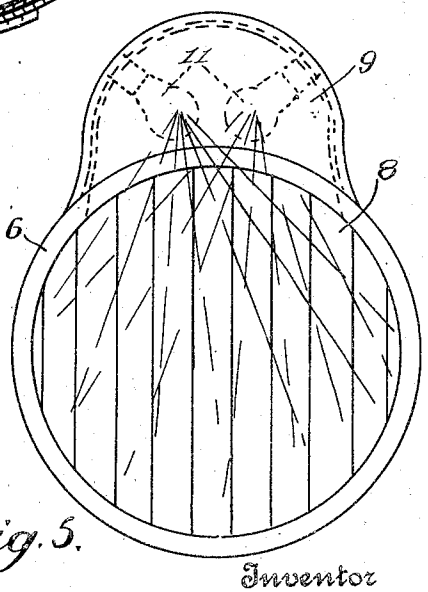


Fig. 5.

Inventor

James A. Sullivan,

By his Attorney

J. R. Bowen

Patented Nov. 25, 1930 1,782,551

UNITED STATES PATENT OFFICE

JAMES A. SULLIVAN, OF JERSEY CITY, NEW JERSEY

AUTOMOBILE LAMP

Application filed November 26, 1928. Serial No. 321,978.

The present invention relates to improvements in automobile lamps, and has for an object to provide an improved automobile lamp constructed and designed to afford ample illumination for the roadway in advance of the automobile to which such a lamp is attached, without, however, directing the rays of the light upwardly or into the eyes of drivers of approaching vehicles.

Another object of the invention is to produce an improved head lamp in which the dazzling glare so usually to be found in present constructions of head lamps is entirely avoided by the use of indirect illumination.

A further object is to provide a comparatively simple and inexpensive form of head lamp in which the offset housing for the source of illumination which produces the indirect lighting is incorporated with the lamp casing and structure in such a way as to permit of economical manufacture and attractive designing.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claim appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views,

Figure 1 is a front elevation of an improved head lamp constructed according to the present invention,

Figure 2 is a horizontal section taken on the line 2—2 in Figure 1,

Figure 3 is a vertical section taken on the line 3—3 in Figure 1,

Figure 4 is a vertical section taken on the line 4—4 in Figure 3, and

Figure 5 is a front view showing a modification.

Referring more particularly to the drawings, 6 designates the shell or casing of an automobile head lamp, and 7 represents a parabolic reflector mounted within the casing for directing the rays from the source of illumination out through the lens shown at 8.

In accordance with the invention, one or more offset lamp housings 9 are provided. In Figures 1 to 4, inclusive, two such lamp houses are shown in opposite sides of the lamp casing 6; while in Figure 5 a single lamp housing 9 is shown centrally above the casing.

Internally the lamp housings are provided with reflectors 10 which may be continuations of the parabolic reflector 7. Each lamp housing carries a source of illumination 11 and the electric lamps 11 shown are preferably offset forwardly and outwardly from the central portions of the housing 9. The housings and the reflectors communicate through openings, which, in Figure 3, are shown as preferably of a generally triangular form having straight vertical front walls 12 and upper and lower walls 13 and 14 mutually curved together and meeting in the rear portions of the openings at central apex portions. These walls 13 and 14 gradually cut off the light rays toward the rear portions of the openings to avoid all but the central rays issuing through the openings, as the rays at the upper and lower portions of the openings, each being reflected from the mirror surface or reflector 10, would be apt to rise to such a level as to encounter the eyes of occupants of approaching vehicles. Moreover, the straight front wall 12 in combination with the formation given the front part of the casing provides a light abutment 15 for preventing the direct illumination of the lens 8 by the lamps 11 and for preventing the direct rays from the lamp issuing out through the casing and being observable. The position of the lamps 11 in the housings is also effective to maintain the lamps behind the abutments 15. In Figure 4 the lamp housings are shown as above the bottom portion of the casing.

In the operation of the device, the rays of light from the lamps 11 will issue through the triangular openings as permitted by the formation of such openings and will impinge upon the reflector 7, being thereby directed outwardly through the lens 8 to illuminate the roadway. The reflectors 10 within the housings will, of course, reflect rays of light through the openings, and the light rays will strike the parabolic reflector and serve to provide ample illumination for the roadway. Owing to the fact that the lamp housings are

offset, the rays from the bulbs will be prevented from encountering the eyes of the driver of an approaching machine and dazzling him. Moreover, the abutments 15 and the walls 13 and 14 of the openings prevent the reflected light rays from becoming troublesome to such drivers.

In Figure 5 two lamps are shown as arranged in one housing, the same giving substantially the same amount of light as two lamps in opposite pockets or housings, as shown in Figure 4.

It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof.

What is claimed is:—

In combination with an automobile head lamp including a casing, reflector and lens, an offset lamp house forming a continuation of said casing, a reflector lining the inside of said lamp house, said lamp house and casing having a substantially triangular opening between the same with a substantially vertical front wall and with upper and lower walls rearwardly converging and meeting at a central apex in the rear portion of the opening, said front wall in combination with the front part of the casing providing a light abutment, and a source of illumination offset forwardly and outwardly from the central portion of the lamp house behind said abutment.

In testimony whereof I affix my signature.

JAMES A. SULLIVAN.