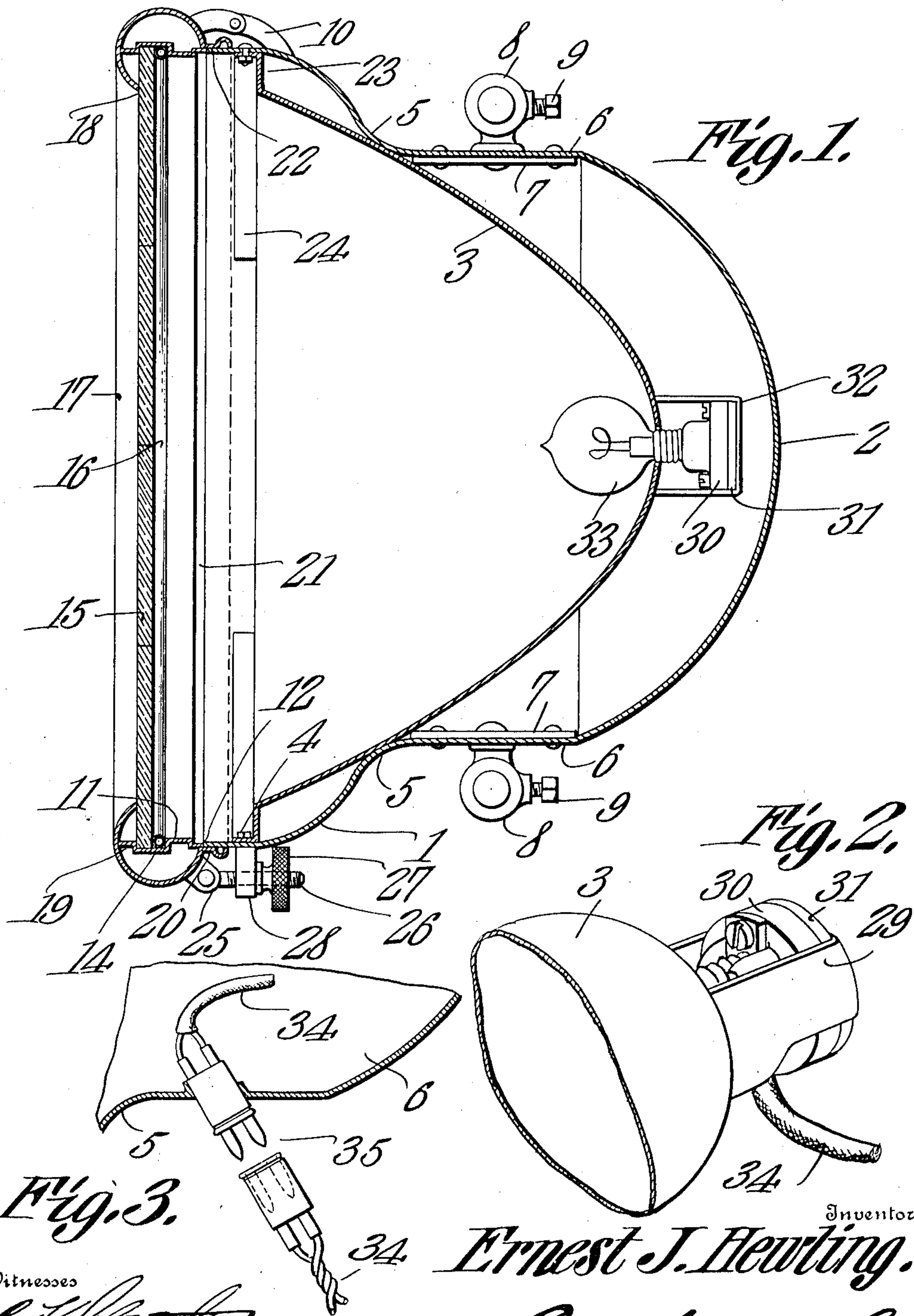


E. J. HEWLING.
 AUTO HEADLIGHT.
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984,480.

Patented Feb. 14, 1911.



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UNITED STATES PATENT OFFICE.

ERNEST J. HEWLING, OF DAVENPORT, IOWA.

AUTO-HEADLIGHT.

984,480.

Specification of Letters Patent.

Patented Feb. 14, 1911.

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To all whom it may concern:

Be it known that I, ERNEST J. HEWLING, a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented a new and useful Auto-Headlight, of which the following is a specification.

The objects of the invention are, generally, the provision in a merchantable form, of a device of the class above described, which shall be inexpensive to manufacture, facile in operation, and devoid of complicated parts; specifically, the provision of a housing of novel and improved construction; the provision of a reflector of novel and improved form adapted to be mounted within the housing; the provision of a door of novel and improved construction adapted to be assembled with the housing; other and further objects being made manifest hereinafter as the description of the invention progresses.

The invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawings, and particularly pointed out in that portion of this instrument wherein patentable novelty is claimed for certain distinctive and peculiar features of the device, it being understood, that, within the scope of what hereinafter thus is claimed, divers changes in the form, proportions, size, and minor details of the structure may be made, without departing from the spirit or sacrificing any of the advantages of the invention.

Similar numerals of reference are employed to denote corresponding parts through the several figures of the drawing.

In the accompanying drawings;—Figure 1 shows my invention in horizontal section; Fig. 2 is a detail perspective of the closed end of the reflector, showing the parts which are assembled therewith; and Fig. 3 is a detail perspective showing the means whereby the device is introduced into an electrical circuit.

In carrying out my invention I provide primarily, a tubular housing which, in the accompanying drawings, is denoted by the numeral 1. This housing is provided with a closed end 2 which is of less diameter than the forward, or open end of the housing. Mounted in the housing 1 is a reflector 3 preferably fashioned from brass, silver plat¹ to provide a brilliant reflecting sur-

face, the said reflector taking the form of a true parabola in longitudinal section. Adjacent its outer or open end, the reflector 3 is outbent to form a rim 23, the rim 23, in its turn, being forwardly bent to form a lip 24 disposed normal to the rim 23, the said lip 24 being assembled with the periphery of the housing 1 adjacent its forward or open end, by means of bolts, rivets, or other common means, as indicated by the numeral 4 in Fig. 1. Intermediate its open and its closed ends, the housing 1 is inbent to form a circumscribing shoulder 5 adapted to engage the reflector 3 intermediate its ends, throughout its circumference. This shoulder 5 serves as a means whereby the reflector may be rigidly held in place within the housing 1. To the rear of the shoulder 5 the housing 1 is bent to form a cylindrical wall 6, upon the inner face of which are mounted oppositely disposed plates 7, provided with support-engaging sockets 8 which extend through the side walls of the housing, the sockets being provided with set screws 9 or like elements, whereby a support may be engaged. There may be one or more of these sockets 8. In the present instance I have shown two of them disposed upon opposite sides of the device, so that the same may be mounted interchangeably upon the right and the left hand sides of the vehicle. At the forward edges, the plates 7 abut against the reflector 3, intermediate the point of contact between the shoulder 5 and the closed end of the reflector. These plates 7 through their abutment with the reflector, aid the circumscribing shoulder 5 in retaining the reflector in place within the housing.

The housing is provided with a door, united with the housing by means of a hinge 10. This door comprises an annular flange 11, the rear edge of which is adapted to abut against the forward edge of the housing, as denoted by the numeral 12 when the door is in closed position. Between its forward and its rearward edges, the annular flange 11 is outbent to form a seat 14 in which is mounted a series of glass plates 15, or any other transparent element. Mounted likewise in the seat 14, to the rear of the transparent element 15, and adapted to retain the same in place in the seat 14, is a resilient ring 16, preferably tubular in form. The door construction further includes an annular, trough-shaped member 17 which is rigidly assembled by soldering or otherwise,

with the flange 11, and arranged to inclose the same. The forward edge 18 of the member 17 is inbent to bear upon the outer face of the transparent element 15, the outer extremity 19 of the flange 11 serving at once as a fulcrum over which the portion 18 is bent, and as a means whereby the flange 11 is united at its forward extremity with the member 17. Adjacent the inner portion 21 of the flange 11 which abuts against the forward edge of the housing, the member 17 is bent to form a cylindrical rim 20 the forward portion of which is rigidly united with the portion 21 of the flange, the rear portion of the rim 20 being arranged to extend upon the housing 1, and to engage the same yieldingly, when the door is in closed position, it being understood that the trough-shaped member 17 is fashioned from resilient material. Along its rear edge the rim 20 is outbent to form a stiffening bead 22. This bead 22 causes the member 17 to be sufficiently strong to withstand the shocks incident to the closing of the door against the housing, without, however, impairing the resiliency of the rim 20. The hinge 10 is united with the trough-shaped member 17 and, opposite from the hinge 10 a stud 25 projects rearward from the member 17. Pivotaly mounted in this stud 25 is a rearwardly extending threaded arm 26 adapted to register in a lug 28 projecting from the housing 1 and terminally slotted to receive the arm 26, the said arm carrying a thumb-nut 27 adapted to engage the lug 28 when the arm 26 is swung into engagement therewith, to hold the door of the device in closed position.

The rear end of the reflector 3 is provided with a rearwardly extending cap 29, open at the sides, with the base 32 of which is assembled a forwardly projecting lamp-socket 30, a suitable insulating medium denoted by the numeral 31 being interposed between the lamp-socket 30 and the base 32 of the cap. This socket 30 is adapted to receive an incandescent lamp 33 extending forwardly into the reflector 3 through an opening provided in the closed end of the reflector. The lamp 33 may be connected with an accumulator of any approved type located within the vehicle upon which the device is mounted, by means of a conductor 34 passing through the bottom of the lamp through the cylindrical wall 6 thereof, as shown in Fig. 3, the said cylindrical portion 6 of the housing carrying a standard plug and socket 35 of any desired form, whereby the conductor 34 may be broken at will that the lamp may readily be removed for cleaning or repair.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:—

1. In a device of the class described, a dished reflector; a housing inclosing the reflector and rigidly assembled with the periphery of the same adjacent the open end thereof, the housing being bent intermediate its ends, to form a circumscribing shoulder to engage the reflector throughout its circumference, intermediate the open and closed ends of the reflector; oppositely disposed plates mounted upon the interior of the housing and contacting with the reflector intermediate the shoulder and the closed end of the reflector, the plates being provided with support engaging means extending through the side walls of the housing.

2. In a device of the class described, a parabolic reflector; a housing inclosing the reflector and rigidly assembled with the periphery of the same adjacent the open end thereof, the housing being inbent intermediate its ends to form a circumscribing shoulder to engage the reflector throughout its circumference, intermediate the open and the closed ends of the reflector; oppositely disposed plates mounted upon the interior of the housing and contacting with the reflector intermediate the shoulder and the closed end of the reflector, the plates being provided with support engaging sockets extending through the side walls of the housing.

3. In a device of the class described, a housing and a door hinged thereto, the door comprising a flange having its edge arranged to abut against the edge of the housing, the flange being outbent intermediate its edges to form a seat; a transparent element located in the seat; a resilient, annular member located in the seat to retain the transparent element therein; and a resilient, trough-shaped annular member inclosing the flange and rigidly assembled therewith, one edge of said member being arranged to bear upon the transparent element, and the other edge thereof being bent into substantial parallelism with the housing to form a rim to engage the housing yieldingly when the door is in closed position, the rim being outbent at its edge to form a trough-shaped stiffening bead.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ERNEST J. HEWLING.

Witnesses:

R. H. POSTEL,
I. C. SMITH.