June 3, 1930. L. O. PARKER 1,761,022

ELECTRIC LAMP

Filed Oct. 31, 1927

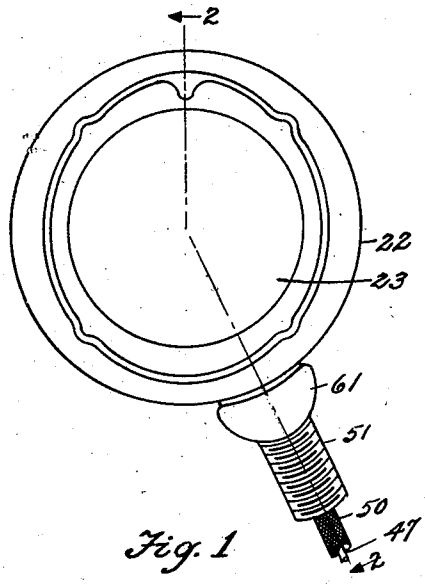


Fig. 1

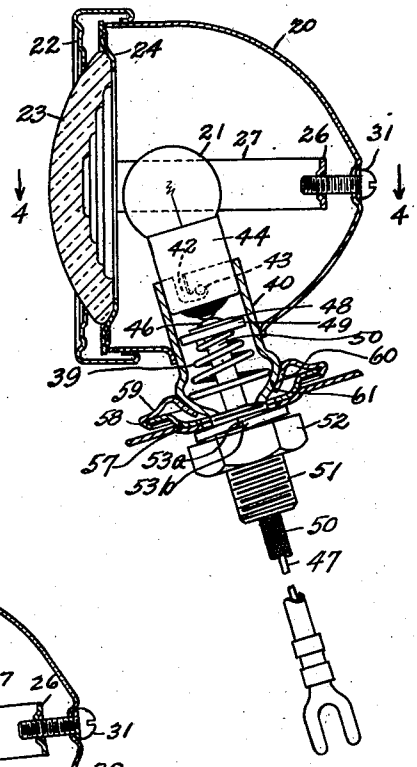


Fig. 2

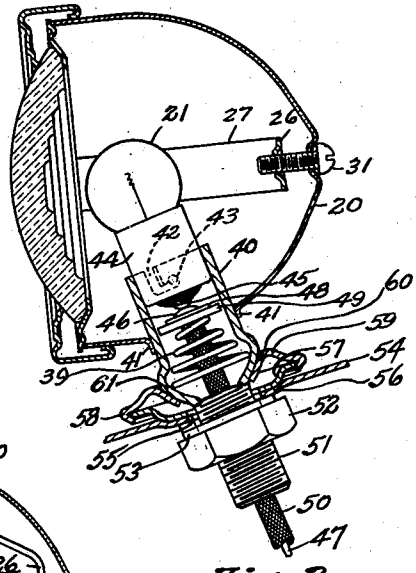


Fig. 3

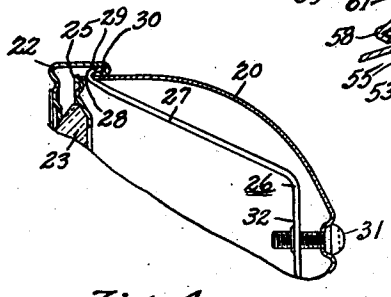


Fig. 4

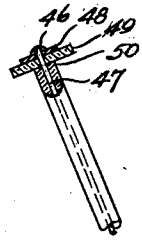


Fig. 5

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UNITED STATES PATENT OFFICE

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ELECTRIC LAMP

Application filed October 31, 1927. Serial No. 229,839.

This invention relates to the manufacture of electric lamps especially for automotive vehicles and to means for securing the lamp to the vehicle in various positions of adjustment.

The objects of the invention include such improvements in construction of lamps and method of mounting that the construction may be simplified and the cost of manufacture reduced.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawings, wherein a preferred form of embodiment of the present invention is clearly shown.

In the drawings:

Fig. 1 is a front elevation of a lamp constructed in accordance with the present invention;

Figs. 2 and 3 are sectional views on the lines 2—2 of Fig. 1 showing the lamp in two positions of adjustment relative to the supporting structure such as the cowl of the vehicle;

Fig. 4 is a fragmentary sectional view on the line 4—4 of Fig. 2; and

Fig. 5 is a fragmentary view of the connector wire end.

Referring to the drawings, the lamp housing or shell 20 which encloses the incandescent bulb 21, is adapted to receive a door comprising a bezel ring 22, a lens 23 and a lens clamping ring 24 having a flange 25 adapted to engage the edge of the shell 20. The ring 22 fits around the shell 20 and is secured in position by a clamping member 26 having arms 27 which extend through diametrically opposite notches 28 adjacent the edge of the shell 20 and which terminate in hooks 29 which engage a flange 30 with which the ring 22 is provided. The member 26 is retained in position by screw 31 passing through a plane hole in the back of the shell 20 and through a tapped hole in the yoke portion 32 of the clamping member 26.

The shell 20 is provided with an opening for receiving a lamp socket 40 which is formed preferably by drawing from sheet metal. The socket 40 passes through an opening of the shell 20, which opening is surrounded by an external annular flange 41 to which the socket 40 is secured by spot welding in several places. Adjacent its upper end the socket 40 is provided with diametrically opposite bayonet slots one of which is shown at 42 for receiving a metallic lamp base 44. The base 44 carries a center contact 45 insulated from the metallic part of the base 44 which is in contact with the sleeve 40. The contact 45 is resiliently engaged by a contact 46 which is formed by soldering the bared end of a conductor wire 47 against a metal washer 48 which in turn is located against a non-conducting washer 49 which surrounds the bared end of the conductor 47 and abuts the end 50 of the insulation of the conductor. A spring 39 located within the socket 40 presses at one end against a portion of the socket and at the other against the non-conducting washer 49 in order to urge the conductor end 46 against the center contact 45.

The conductor 47 passes through the threaded tubular end 51 of the socket member 40, said threaded end 51 cooperating with a nut 52 and a lock washer 53 to clamp the lamp to a supporting structure such as the cowl 54 of an automobile. The cowl housing 54 which is made preferably of sheet metal is provided with a hole 55 for receiving the threaded sleeve 51, and the material of the cowl adjacent the hole 55 is dished slightly at 56 to provide a recess for receiving a dished member 57 which is joined by a seam 58 to a seat member 59 having a somewhat spherical portion 60 for receiving a corresponding spherical portion 61 with which the lamp socket 40 is provided.

The construction is such that the lamp is secured to the cowl 54 in various positions of adjustment. As shown in Fig. 2, the lamp is secured to the cowl in such a manner that the lens and door is substantially vertical. It will be noted that the lock washer 53 is located substantially symmetrical with respect to the sleeve 51 and nut 52 as viewed in the drawings, that is, the ends 53^a and 53^b of the split washer are located adjacent the center line of the sleeve 51 as viewed in Fig. 2. If it is desired to secure the lamp to the

cowl 54 in such manner that the lamp will be located in the position shown in Fig. 3, the lamp is held in the desired location while the nut 53 is being tightened. Since the nut is located relative to the cowl so that the part thereof which is to the right of the center line of the sleeve 51 as viewed in Fig. 3 is closer to the cowl 54 than that portion of the nut 52 which lies to the left of the center line of the sleeve 51, the lock washer will naturally turn to a position shown in Fig. 3 in which its ends 53^a and 53^b will occupy the widest space between the nut 52 and the cowl 54, while the part of the washer diametrically opposite to its ends 53^a and 53^b will occupy the narrowest part of the space between the nut 52 and the cowl 54. As the nut is tightened, the ends 53^a and 53^b of the lock washer will be bent beyond normal condition so that these ends will frictionally engage the nut and cowl respectively to prevent turning of the nut. Thus the nut cooperates with the threaded sleeve 51 to clamp the spherical portion 59 of the lamp socket member against the spherical portion of the socket washer 59 while at the same time clamping the dished washer 57 against the dished portion 56 of the cowl 54.

Within certain limits of adjustment the lamp may be secured to the cowl in various positions of adjustment simply by loosening the nut 52, turning or tilting the lamp housing 20 into the desired position and then tightening the nut 52 as explained before. During the operation of tightening nut 52, the lock washer will adjust itself or turn with the nut so that it will be located in such manner as to act as a wedge shaped member which will permit location of the nut in clamping position in one portion of the nut closer to the cowl than the diametrically opposite portion.

As the manner of securing the lamp door to the lamp shell is described and claimed in Persons Patent #1,531,307 further detailed description is unnecessary.

While the form of embodiment of the present invention as herein disclosed, constitutes a preferred form, it is to be understood that other forms might be adopted, all coming within the scope of the claims which follow.

What is claimed is as follows:

1. An electric lamp having a shell and a threaded supporting stem provided externally with a spherical portion, a seat member having a corresponding spherical recess for receiving said spherical portion of the stem and having a central aperture for loosely receiving the threaded portion of the stem, a dished member secured to said seat member and apertured to receive said stem, a nut threaded on the stem for clamping the spherical portion of the stem against the spherical portion of the recess, and a washer member located between the nut and the seat member, said washer member being so constructed that one portion thereof will occupy a greater space between the nut and the socket member than a portion diametrically opposite whereby the angular relation of the washer to the stem will determine the inclination of the stem to the seat member when the nut is tightened on the stem to clamp the stem to the seat member, said seat member, dished member and washer providing a yieldable support for said lamp.

2. An electric lamp according to claim 1 in which the washer is a split-ring lock washer having its prongs substantially offset for the purposes specified.

3. An electric lamp having a shell and a threaded supporting stem provided externally with a spherical portion integrally connecting a lamp socket with said threaded stem, an apertured seat member having a corresponding spherical recess for receiving said spherical portion of the stem, a dished member secured to said seat member adapted to be received by a depression in the auto body, and means cooperating with said stem for maintaining said lamp socket and stem in predetermined angular relation with said seat and dished members and said auto body.

In testimony whereof I hereto affix my signature.

LESLIE O. PARKER.