Sept. 2, 1941. B. S. FLORADAY 2,254,518

LAMP ASSEMBLY

Filed July 27, 1938

FIG. 1.

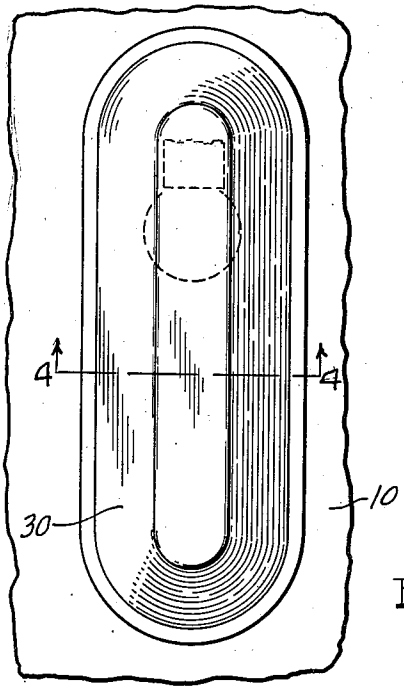


FIG. 6.

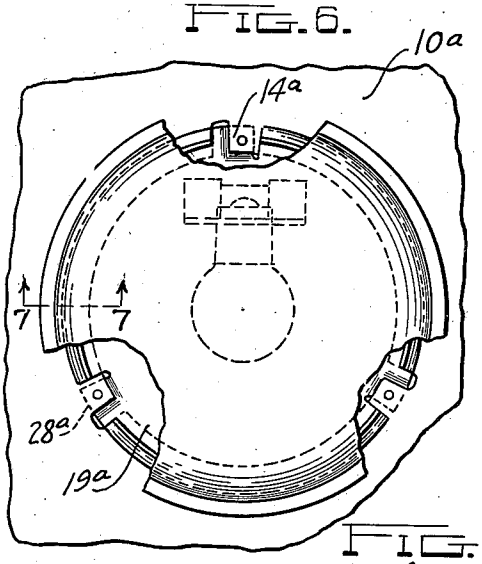


FIG. 8.

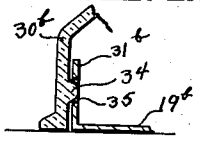


FIG. 7.

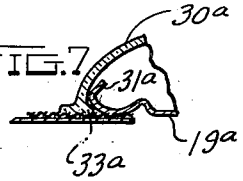


FIG. 2.

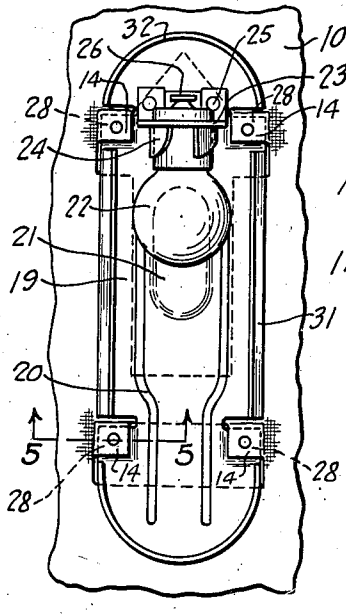


FIG. 3.

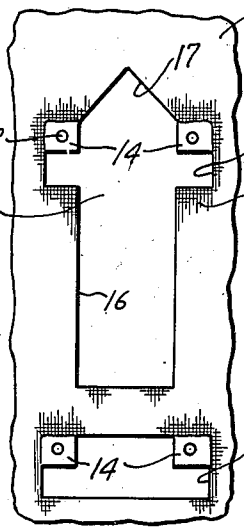


FIG. 4.

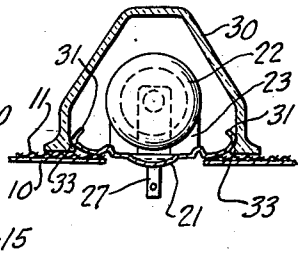
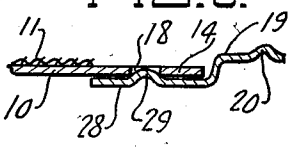


FIG. 5.



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LAMP ASSEMBLY

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Application July 27, 1938, Serial No. 221,481

3 Claims. (Cl. 240—7.35)

This invention relates to lamp assemblies but more particularly to dome light mountings or assemblies for use on the inside of vehicles such as automobiles.

An object is to produce a new and improved lamp mounting by which the lamp may be readily and conveniently mounted without the use of bolts, screws or other connecting devices and greatly facilitating the assembly of the parts.

Another object is to enable the lens to be mounted on its bracket by a snap action, thus eliminating the use of connecting devices such as screws.

A further object is to produce an exceedingly simple and inexpensive lamp assembly having the novel features of construction and arrangement hereinafter described.

For purposes of illustration but not of limitation, embodiments of the invention are shown on the accompanying drawing in which

Figure 1 is a top plan view of a lamp assembly mounted on a panel such as the inside panel of a vehicle body;

Figure 2 is a plan view of the structure shown in Figure 1 with the lens removed;

Figure 3 is a plan view of a portion of the inside panel to which the lamp bracket plate is applied;

Figure 4 is a transverse sectional elevation on the line 4—4 of Figure 1;

Figure 5 is an enlarged sectional view on the line 5—5 of Figure 2;

Figure 6 is a plan view of a lamp assembly with a portion of the lens broken away in which the bracket plate is connected by a turning movement;

Figure 7 is an enlarged sectional view substantially on the line 7—7 of Figure 6, and

Figure 8 is an enlarged fragmentary sectional view showing an alternate means of securing the lens and bracket plate.

The illustrated embodiment of the invention shown in Figures 1 to 5 comprises a mounting plate 10 which may be a separate plate disposed in the inside of the vehicle body or may constitute an integral body panel. As shown, the plate 10 is covered by textile covering 11. As shown in Figure 3, the mounting plate 10 is formed with openings or apertures 12 and 13 and integral with the plate and extending into these openings are laterally spaced tongue or tab engaging projections 14. The projections 14 are arranged in pairs spaced longitudinally of each other. As shown, a space 15 is provided directly in rear of each of the projections 14 to admit the tongues or tabs as will hereinafter be described. The aperture 12 includes a longitudinally extending opening 16 and a V-shaped opening or cut-out 17 in advance of the adjacent projections 14. Formed in each of the projections 14 is a relatively small hole 18 for a purpose which will hereinafter appear.

The lamp bracket plate comprises a sheet metal strip 19 formed with strengthening ribs 20, and a depressed or cupped portion 21 which projects rearwardly and is adapted to be disposed within the aperture 16 of the mounting plate. The cup-portion 21 is disposed in rear of the lamp bulb 22 which is carried by an upstanding bracket 23 having laterally extending ears 24 to engage the bulb. The bracket 23 is held to the bracket plate 19 by rivets 25 and a spring contact finger 26 suitably insulated from the bracket plate 19 is engaged by a depending tube 27 which extends through the bracket plate into the V-shaped opening 17 of the mounting plate. It will be understood that the leads are suitably clamped to the tube 27.

The bracket plate 19 is secured to the mounting plate 10 without the use of any screws, bolts or other similar connecting devices but on the other hand is adapted to be connected to the mounting plate by a relative shifting movement between the plates whereby the parts are securely held in engagement in a rigid manner although the same may be disconnected quickly. As shown, the bracket plate 19 is formed with four tabs or tongues 28, one being provided for each of the projections 14 on the mounting plate. It will be apparent that the tongues 28 are arranged in pairs, the tongues of each pair being spaced laterally from each other and one pair being spaced longitudinally from the other. The tongues are stamped from the body of the bracket plate and are disposed in planes substantially parallel with the body of the plate. In applying the bracket plate to the mounting plate, the tongues 28 are inserted in the spaces 15 provided in rear of the projections 14 and thereafter the bracket plate is slid rectilinearly forwardly or upwardly to dispose the tongues 28 in overlapping relation to the projections 14 on the side thereof opposite to the bracket plate. It will be understood that the tongues 28 are spaced from the body of the bracket plate a distance substantially equal to the thickness of the mounting plate thereby to provide an intimate engagement between the parts. Formed on each of the tongues 28 is an upwardly pressed nubbin or tit 29 which is adapted to snap into the hole

18 thereby positively to secure the parts together and effectively resist any tendency of the parts to rattle or to become accidentally disengaged. It will be apparent that the tongues 28 are sufficiently resilient or yieldable so that the bracket plate may be slid rectilinearly to clear the tongues from the projections 14 and enable the parts to become disengaged.

Fitting over the bracket plate 19 and conforming to the shape thereof is a lens 30 which, in this instance, is formed of molded plastic material such as Plaskon. For holding the lens in place the bracket plate is formed with integral inwardly curved flanges 31 on opposite sides, the flanges 31 extending longitudinally of the bracket plate between the tongues 28. Opposite ends of the bracket plate are formed with upstanding flanges 32 adapted to be disposed inside of the lens 30. Extending inwardly from opposite sides of the lens 30 are longitudinal flanges 33 which are adapted to snap over the bracket flanges 31 thereby to hold the lens in place substantially as shown in Figure 4.

In the form shown in Figures 6 and 7, the mounting plate 10*a* is formed with three projections 14*a* which are equi-distant radially. The bracket plate 19*a* is formed with three tongues 28*a* which are adapted to frictionally engage the projections 14*a* by a turning movement of the bracket plate 19*a* as will be readily understood. In other words the bracket plate is connected in the form shown in these figures by a turning movement instead of a rectilinear sliding movement as in the above described form. In this form the lens 30*a* is also formed with a flange 33*a* which is adapted to snap over an inwardly curved flange 31*a* on the bracket plate 19*a*.

From the above description, it will be apparent that the bracket plate 19 or 19*a* can be readily applied to the mounting plate by relative shifting movement between the plates, in the one case a rectilinear sliding movement and in the other case, a turning movement. When in place the frictional contact between the tongues and projections supplemented by the cooperative action of the nubbins 29 entering the holes 18, serve to securely retain the parts in assembled relation but enable these parts to be disconnected when desired. The lens which abuts against the mounting plate providing an attractive finished appearance, can be readily mounted or detached, the snap action between the flanges on the lens and bracket plate facilitating assembly and providing a satisfactory and efficient means for holding these parts together.

As shown in Figure 8, the lens 30*b* has an integral inwardly extending nubbin 34 which is adapted to snap into an aperture 35 formed on the flange 31*b* of the bracket plate 19*b*. Sufficient resiliency is provided in the parts to enable the lens to be forced into position so that one or more nubbins 34 may enter into the apertures 35 and thereby hold the parts in assembled relation.

It is to be understood that numerous changes in details of construction, arrangement and operation may be effected without departing from the spirit of the invention especially as defined in the appended claims.

What I claim is:

1. A lamp mounting comprising a mounting plate, a lamp unit including a sheet metal bracket plate, a plurality of spaced inwardly inclined flanges on said bracket plate, a lens having flange means adapted to cooperate with said bracket flanges for enabling the lens to be engaged by a snap action, a plurality of spaced tongues on said bracket plate stamped therefrom and disposed in a plane substantially parallel to the body of the bracket plate and spaced therefrom substantially the thickness of said mounting plate, said mounting plate having cut-outs to receive said tongues whereby upon relative shifting movement between said plates the tongues overlap and frictionally engage the mounting plate side opposite from the bracket plate, and nubbins pressed from said tongues and engaging in apertures formed in said mounting plate.

2. A lamp mounting comprising a mounting plate, a lamp unit including a sheet metal bracket plate, an inwardly inclined flange on opposite sides of said bracket plate, a lens having a flange on opposite sides adapted to cooperate with said bracket flanges for enabling the lens to be engaged by a snap action, a pair of laterally spaced tongues at opposite ends of said bracket plate stamped therefrom and disposed in a plane substantially parallel to the body of the bracket plate and spaced therefrom substantially the thickness of said mounting plate, said mounting plate having cut-outs to receive said tongues whereby upon relative shifting movement between said plates the tongues overlap and frictionally engage the mounting plate side opposite from the bracket plate, and nubbins pressed from said tongues and engaging in apertures formed in said mounting plate.

3. A lamp mounting comprising a mounting plate, a lamp unit including a sheet metal bracket plate, an inwardly inclined flange on opposite sides of said bracket plate, a lens having a flange on opposite side adapted to cooperate with said bracket flanges for enabling the lens to be engaged by a snap action, a pair of laterally spaced tongues at opposite ends of said bracket plate stamped therefrom and disposed in a plane substantially parallel to the body of the bracket plate and spaced therefrom substantially the thickness of said mounting plate, said mounting plate having cut-outs to receive said tongues whereby upon relative shifting movement between said plates the tongues overlap and frictionally engage the mounting plate side opposite from the bracket plate.

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