Dec. 27, 1938. H. ASMUSSEN ET AL 2,142,072

ELECTRIC INCANDESCENT LAMP

Filed Sept. 23, 1937

Fig.2.

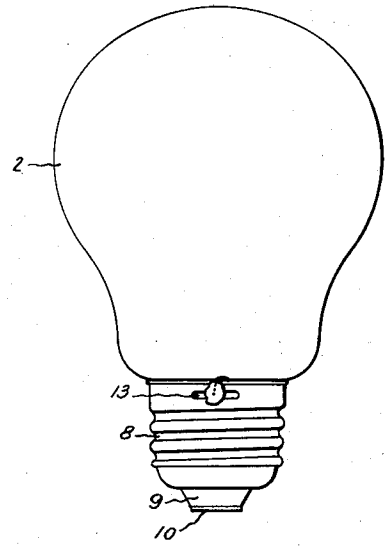


Fig.1.

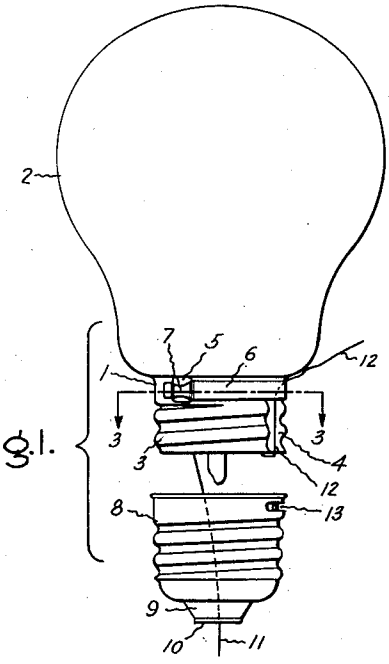
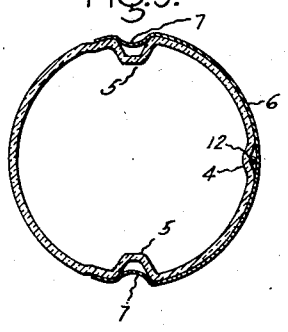


Fig.3.



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ELECTRIC INCANDESCENT LAMP

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Application September 23, 1937, Serial No. 165,406
In Germany October 26, 1936

3 Claims. (Cl. 176—32)

Our invention relates to electric incandescent lamps and similar devices comprising a bulb having an electrical energy translation element, such as a filament, sealed therein and a base mounted on said bulb. More particularly, our invention relates to bases for said devices and still more particularly to so-called mechanical bases in which the usual cement which unites the base to the glass bulb is eliminated.

An object of our invention is to provide an improved mechanical base construction for electric incandescent lamps in which the base is firmly secured to the bulb neck by mechanical means, and in which the side lead wire is positively connected or soldered to the base shell.

According to the invention, the one lead or current supply wire which is connected to the base shell is inserted in a longitudinal slot in the bulb neck, and is led under an inner semi-circular sheet metal strip mechanically secured to the bulb neck to the outside of the base, where it is then bent over the edge of the base shell so as to lie opposite an elongated circumferential slit formed in the base shell adjacent the edge thereof, said slit being so located on the shell with respect to the threads thereon as to position the slit opposite both the longitudinal slot in the bulb neck and the sheet metal strip when the base is screwed in place on the bulb neck. With the parts in such assembled position, it is readily possible to solder, in a visible manner, the base to the inserted semi-circular metal strip and also the lead wire to the base by means of a drop of solder applied externally to such parts at the aforesaid elongated slit in the base shell.

The invention will be better understood by reference to the following detailed description of a species thereof taken in connection with the accompanying drawing.

In the drawing, Fig. 1 is an elevation of the bulb and base portions of a lamp constructed in accordance with our invention, with the base shown in position preparatory to the application of the same to the bulb; Fig. 2 is an elevation of a completed lamp comprising our invention; and Fig. 3 is a sectional view on an enlarged scale taken on the line 3—3 of Fig. 1.

Referring to the drawing, the neck 1 of the glass bulb 2 is provided with a thread 3, a longitudinal slot 4, and two substantially diametrically opposite pan-shaped indentations 5, 5 located between the glass thread 3 and the bulbous portion of the bulb. A semi-circular strip of sheet metal 6, the ends of which are provided with pan-shaped protuberances 7, 7 corresponding to the indentations 5, 5 in the bulb neck, is secured around the bulb neck so as to partially surround the same by the interfitting engagement of the protuberances 7, 7 within the bulb neck indentations 5, 5. The said strip of sheet metal 6 is so applied to the bulb neck as to overlie the longitudinal slot 4 therein.

The base which is to be screwed onto the glass thread 3 comprises a screw threaded metal shell or sleeve 8, insulation 9, and a metal eyelet 10. The threads on the base shell 8 are so formed as to solidly screw onto the glass thread 3 on the bulb neck. The eyelet 10 and the shell 8 are electrically connected to the filament (not shown) of the lamp by leads 11 and 12 respectively. Lead 11 extends through a central hole in the insulation 9 and eyelet 10 and is either soldered or welded to said eyelet to thereby form the bottom or center contact. Lead 12 is bent over the end wall of the bulb neck into the longitudinal groove 4 therein, and extends under the sheet metal strip 6 (Fig. 3) to the edge or rim of the base shell 8 around which it is bent and then soldered or welded to the outer surface of said shell.

To positively insure the soldering of the lead 12 and metal strip 6 to the base, the shell 8 is provided with an elongated circumferential slit 13 adjacent the edge thereof, said slit being so located with respect to the thread on the shell as to lie opposite both the longitudinal slot 4 in the bulb neck and the metal strip 6 when the base is screwed in place on said bulb neck. Thus the free end of lead 12, when bent over the edge of the base shell 8, will extend over the slit 13 in said shell. By applying a drop of solder or other fusible material to the lead 12 at approximately the point where it passes across the slit 13 in the base shell, the said solder will then connect both the lead 12 and metal strip 6 to the base shell 8. It is therefore possible, with the above described construction, to solder in a visible manner the lead 12 and metal strip 6 to the base shell 8, thus insuring the positive connection of said parts.

The sheet metal strip 6, by reason of the interengagement of the protuberances 7, 7 thereof within the indentations 5, 5 in the bulb neck, prevents turning or rotational displacement of the base with respect to the bulb neck. For the same reason, the said metal strip 6 effectively prevents longitudinal displacement of the base with reference to the bulb neck, as does the interengagement of the screw threads formed on said bulb neck and the base shell 8. Since the

said threads are solidly screwed together, the base is firmly seated on the bulb neck, thereby preventing any wabbling of the base on said bulb neck.

What we claim as new and desire to secure by Letters Patent of the United States is:

1. An electrical device comprising a bulb having a threaded neck portion provided with a longitudinally extending groove, a lead wire extending through said groove, an inner base member secured against rotational displacement to said bulb neck and overlying said groove, an outer base comprising a threaded base shell screwed onto said bulb neck and provided with an elongated circumferentially extending slit disposed substantially opposite said groove and said inner base member, said lead wire extending over the edge of said shell and across the said slit therein, and said shell being electrically connected to said lead wire and to said inner base member by a quantity of fusible material disposed within and adjacent said slit.

2. An electrical device comprising a bulb having a threaded neck portion provided with a longitudinally extending groove and a depression, a lead wire extending through said groove, an inner base member consisting of a metal strip extending circumferentially of said bulb neck and overlying said groove and having a protuberance engaging with said bulb neck depression to prevent rotational movement thereof, an outer base comprising a threaded base shell screwed onto said bulb neck and provided with an elongated circumferentially extending slit disposed substantially opposite said groove and said metal strip, said lead wire extending over the edge of said shell and across the said slit therein, and said shell being electrically connected to said lead and firmly secured to said metal strip by a quantity of fusible material disposed within and adjacent said slit.

3. An electrical device comprising a bulb having a threaded neck portion provided with a longitudinally extending groove and a pair of diametrically opposed depressions, a lead wire extending through said groove, an inner base member consisting of a semi-circular metal strip extending circumferentially of said bulb neck and overlying said groove and having protuberances at its ends engaging with said bulb neck depressions to prevent rotational movement thereof, an outer base comprising a threaded base shell firmly screwed onto said bulb neck and provided with an elongated circumferentially extending slit so located with reference to the thread on said shell as to lie opposite said groove and said metal strip when said shell is screwed in place on said bulb neck, said lead wire extending over the edge of said shell and across the said slit therein, and said shell being electrically connected to said lead wire and firmly secured to said metal strip by a quantity of fusible material disposed within and adjacent said slit.

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