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G. J. SEISS

1,983,818

ELECTRIC LAMP BULB CONNECTER

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Fig. 1

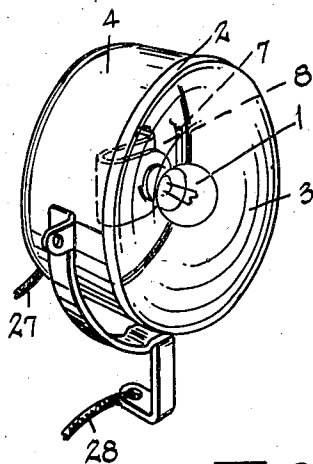


Fig. 3

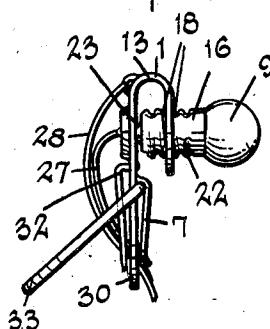


Fig. 4

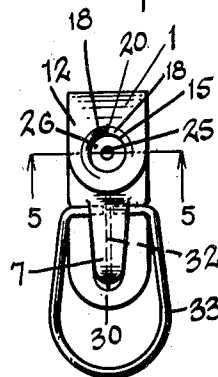


Fig. 2

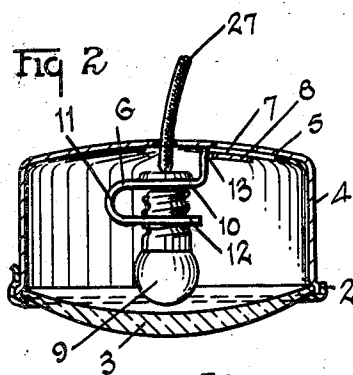


Fig. 5

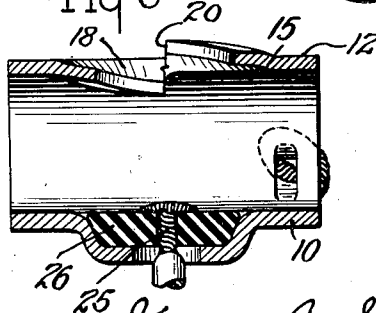
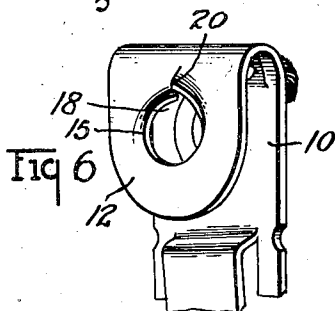


Fig. 6



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ELECTRIC LAMP BULB CONNECTER

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1 Claim. (Cl. 173—358)

My invention has for its object to provide an electric bulb support and connector that will securely hold the bulb in position and maintain an elastically electric connection and one that is so constructed that it may be made at low cost. The invention particularly provides a simple means for engaging and electrically connecting the threaded base part of the electric bulb and elastically pressing the central contact of the bulb against a terminal to connect the bulb with a source of current.

The invention is particularly adapted for use in connection with bulbs of smaller size commonly lighted by a small current, such as is producible by dry batteries. Thus the invention may be used on bicycles and in toy constructions of different forms.

The invention may be contained in structures of different forms and such structures may be varied in their details without departing from the spirit of the invention. To illustrate a practical application of the invention, I have selected a toy lamp and modifications thereof as illustrative of the various embodiments of my invention and shall describe them hereinafter. The lamp and its modifications are shown in the accompanying drawing.

Fig. 1 illustrates a perspective view of the lamp. Fig. 2 illustrates a view of a section of the lamp shown in Fig. 1. Fig. 3 illustrates a side view of an electric bulb secured in a modified form of a holder. Fig. 4 is a front view of the holder shown in Fig. 3. Fig. 5 is a view of a section taken on the plane of the line 5—5 indicated in Fig. 4. Fig. 6 is a perspective view of a portion of the holder shown in Figure 3.

In the form of constructions illustrated in Figs. 1 and 2, the electric lamp 1 is located within the shell 2 having a suitable transparent lens part 3 secured to the edge of a metal body part 4 of the shell. The lamp 1 is supported on the rear wall 5 of the shell part 4 by means of its electric connector 6.

The connector 6 may be connected to a supporting member by any suitable means. In the form shown in the drawing it is provided with a tongue 7 and the rear wall 5 is provided with a depressed portion 8 that may be cut along the side edges from the wall 5 and displaced from the surface of the wall 5 to form a recessed portion shaped to receive and fit the tongue 7 and securely hold the tongue 7 between the inner and outer surfaces of the rear wall 5 of the shell and the depressed portion 8, and thus securely mount the holder 6 in the shell 2 and locate the bulb 9

of the lamp in a desired position with reference to the lens 3.

The support and connector 6 is formed of elastic sheet metal strip and is curvedly bent, as at 11, to form the portions 10 and 12 and locate them substantially parallel to each other. The part 11 of the support 6 constitutes an elastically bowed portion having at one end a means for engaging the base of the bulb and at the other end means for electrically completing the circuit of the filament of the bulb.

The portion 12 is provided with an opening 15 having a diameter substantially the same as the smaller diameter of the corrugated or threaded base 16 of the lamp bulb 9. The edge portion 18 of the opening 15 is split, as at 20, and parts of the edge portion located on opposite sides of the split are bent spirally to conform to the spirulated corrugation, or channel, produced by the thread formation of the base 16 of the bulb. Thus portions on opposite sides of the split 20 are bent so as to be inclined away, one from one side of the part 12 and the other from the other side of the part 12, and when the base of the bulb is rotatively placed within the opening 15, the edges of the opening will register with the channel of the thread of the base and receive the bulb base and hold it in position such that its axis will be located at right angles to the portion 12 of the holder. The bulb may be thus rotated until the end of the base engages with the portion 10 of the support 11 to press the portion 12 outward, which is elastically reseated by the bowed portion 11. This operates to bind the bulb against reverse rotation and securely hold the bulb in position.

As is well known in connection with bulbs of the type illustrated in the drawing, a spirally corrugated sheet metal part, located exteriorly on the base of the lamp bulb, forms an electric contact 22 which is connected to one end of the filament of the lamp, and also a centrally disposed metal pin that protrudes from the end of the base of the bulb that forms the other contact of the filament. In order to connect the bulb with a source of electrical supply, an insulatingly supported terminal 25 is positioned in the holder 6 to make contact with the contact 23 when the bulb 9 is screwed into the opening 15. The battery may be grounded to a metal supporting body, such as the shell 4, or to a bracket or to the strip 6, the circuit from the lamp through the strip or bracket or shell being completed to a battery through the line 28 and the line 27 that connects the contact 25 with the battery. Thus

the circuit may be closed when the lamp bulb is rotated so as to produce contact between its central contact 23 and the contact 25. Thus the portion 10 of the holder has extending there-
 5 through a terminal 25 located in a bushing 26 of insulating material and is connected by means of a suitable line 27 to the source of supply of current. Consequently, when it is desired to
 10 cause flow of current through the filament, the bulb may be rotated to cause the contact 23 to engage the terminal 25, and by continued rotation, to cause the contact 23 to be elastically
 15 pressed against the terminal 25 by the bowed portion 11, which will securely hold the lamp in position and maintain it elastically in connection with the source of supply. The light of the
 20 lamp may be turned off by reverse rotation of the bulb 17 to separate the contact 23 from the terminal 25.

If desired, a suitable switch may be provided either within the shell 2 or mounted exterior to the shell. If desired, it may be mounted on the wall of the shell for convenient manipulation to open and close a circuit.

25 In the form of construction shown in Figs. 3 and 4, the lamp is provided with various means for conveniently connecting it to materials or structures of various kinds. The support 13 as shown in Figs. 3 and 4 is provided with not
 30 only the tongue 7 but also with an extension 30 from which the tongue 7 may be struck up. The tongue 7 may be sloped toward the extension 30 to form a clip whereby the holder 13 may be
 35 secured to the edge of a thin body, such as a page or a cover of a book or the edge of a pocket formed in the clothes worn by the user, by the elastic pressure of the tongue 7 that will cause the sides of the tongue 7 and the exten-

sion 30 to engage frictionally the sides of the thin body. Also, the holder 13 may be provided with a pin 32 whereby the holder may be secured to cloth or any material that may be penetrated by the pin, such as in the tie of the user or lapel of a coat. Also the holder 13 may be provided with a ring 33 whereby it may be placed upon the finger of the user, the lamp being positioned on the back of the finger to correspond to a jewel. As before, the lamp may be connected to a suitable dry battery that may be carried in the pocket of the user, or otherwise, and the circuit of the lamp may be controlled by a switch that may be likewise located at the battery or in the pocket of the user and lighted as desired. Or the lamp may be connected by rotation of the bulb to locate the contact 23 in contact with the terminal 25 and disconnected by reverse rotation of the bulb.

I claim:

20 An electric lamp bulb support comprising an elastic sheet metal strip having a bowed portion and parallel disposed portions, one of the portions having an opening, the edge of the opening
 25 formed spirally, the other of the parallel portions depressed to form a recess, an electric terminal and an insulating washer surrounding the terminal, the terminal and the washer located in the recess, the washer insulatingly separating the terminal from the metallic strip and the said
 30 terminal adapted to be engaged by the central terminal of the bulb when the base of the bulb is screwed into the opening, the said strip operating to elastically press the contact and the terminal together to maintain the bulb securely
 35 in its connected position.

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