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W. A. BEDFORD, JR

2,616,944

LAMP SOCKET FOR SNAP FASTENER PANEL ENGAGEMENT

Filed April 13, 1950

FIG. 1.

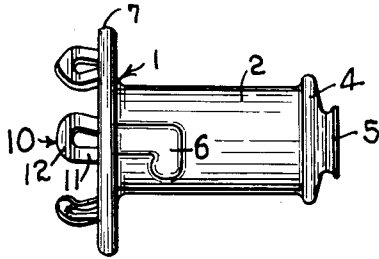


FIG. 2.

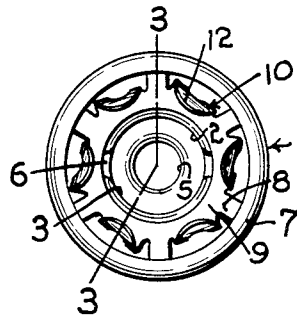


FIG. 3.

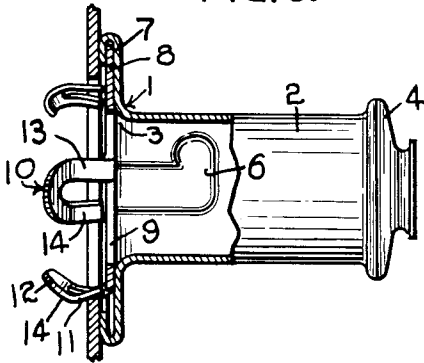


FIG. 4.

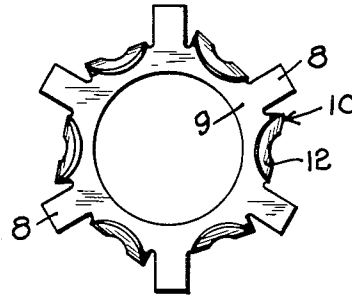


FIG. 5.

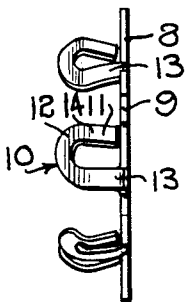
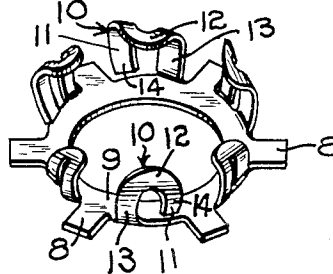


FIG. 6.



INVENTOR:
WILLIAM A. BEDFORD JR.
By *Philip E Parker*
ATTORNEY.

UNITED STATES PATENT OFFICE

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LAMP SOCKET FOR SNAP FASTENER PANEL
ENGAGEMENT

William A. Bedford, Jr., North Scituate, Mass.,
assignor to United-Carr Fastener Corporation,
Cambridge, Mass., a corporation of Massachu-
setts

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5 Claims. (Cl. 173-339)

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This invention relates to snap fastener assemblies adapted for snap fastener engagement with an apertured support, and aims generally to improve existing devices of this type.

A primary object of the invention is the provision of a snap fastener assembly of simple and economical construction having an improved snap fastener action with an apertured support.

A further object of the invention is the provision of an improved snap fastener means having an easier and lighter snap fastener action thereby facilitating assembly with an apertured support.

A still further object of the invention is the provision of a lamp socket or like device provided with snap fastener means having a combined torsional and bending snap fastener action whereby increased flexure of the snap fastener means is obtained and mounting of the device is facilitated.

Another object of the invention is the provision of a snap fastener type lamp socket or like assembly having greater tolerance for variations in size of support apertures.

These and other objects of the invention will be more apparent to persons skilled in the art from a consideration of the accompanying drawings and annexed specification illustrating and describing a preferred embodiment of the invention.

In the drawings—

Fig. 1 is a side view of the device of the invention;

Fig. 2 is an end view thereof;

Fig. 3 is a partial cross-sectional view of the device taken on the line 3—3 of Fig. 2, showing the device applied to a support;

Fig. 4 is an end view of the snap fastener attaching means;

Fig. 5 is a side view of the snap fastener attaching means; and

Fig. 6 is a perspective view of the snap fastener attaching means.

Referring to the drawing, the improved snap fastener means of the invention is shown as embodied in a lamp socket 1, preferably formed from sheet material, such as sheet metal, and comprising a tubular casing 2 having an open end 3 for the reception of a lamp base and a closed end 4 apertured as at 5 for the passage of suitable current conducting wires. Pressed-out slots or keyways 6 may be provided in the tubular body portion 2 for cooperation with pins or projections on a lamp base to lock it in position in the socket.

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At its open end the body portion 2 is provided with an outwardly extending annular flange 7, the peripheral edges of which are turned over and clinched around extensions 8 on an annular ring or base member 9 to secure it in assembled relation with the socket against a face of the annular flange 7.

The ring or base member 9 or the part corresponding thereto in other applications or uses carries a plurality of resilient support-engaging spring fingers or prongs 10 which extend outwardly therefrom and are provided with diverging converging portions 11 and 12 for snap fastener engagement with the edges of a support aperture.

In accordance with the invention the prongs 10 comprise inverted U-shaped members preferably formed from the material of the ring blank 9 by suitable cutting, stamping, bending or the like operations. One arm 13 of the U-shaped member is formed integral with the ring 9 and serves to resiliently mount the member on the ring body for bending movement about its connection therewith as a fulcrum. The other arm 14 of the U-shaped member is separated from the ring 9 by cutting or the like and is thus free to pivot inwardly or outwardly of the ring 9 about the arm 13 as a pivot. However, when the arm 14 is thus pivoted, torsional stresses are set up in the resilient arm 13 by the twisting or bending thereof which tend to resist such movement, and to restore the arm 14 to its original position. This torsional action plus the action caused by the bending movement of the U-shaped member about the point of connection of the arm 13 with the ring 9 as a fulcrum has a combined effect which results in greater resiliency and flex to the support-engaging prongs 10 and more effective snap fastener action, thereby facilitating application of the socket to an apertured support and providing greater tolerance for support-apertures of varying sizes.

In order to obtain maximum effectiveness from the torsional action above described, the legs 14 are permanently offset or pivoted outwardly slightly in a clockwise direction from the periphery of the ring 9 so that the prong 10 has a permanent inclination or offset outwardly from its point of connection with the ring 9. This provides an initial contact between the outwardly inclined or extended portion and the adjacent edges of a support aperture, resulting in a combined twisting and bending of the prongs as they are forced into a support aperture.

It will thus be seen that the invention provides

a simple and economical snap fastener assembly having a more effective snap fastener action characterized by greater resiliency, lighter action and greater tolerance for variations in size of support apertures.

Although I have illustrated and described the invention as embodied in a lamp socket assembly, I do not intend to be limited thereto as the novel snap fastener means is capable of application to and use in other devices such as plug buttons and the like. Nor do I intend to be limited to the specific details illustrated and described herein as the scope of the invention is best defined in the appended claims.

I claim:

1. A snap fastener assembly comprising a supporting base member, a plurality of support-engaging prongs extending outwardly from said base member, each of said prongs having a pair of spaced legs connected together at one end thereof, one of said legs being connected to the base member and the other of said legs being separate therefrom, said one legs of said prongs being connected to said base member on an outline conforming generally to an aperture in a support into which the assembly is to be installed, the free ends of said other legs of said prongs being disposed intermediate said one legs and displaced slightly outwardly of said outline, whereby said prong has a combined torsional and bending movement about said connected leg in response to a force applied thereto.

2. A snap fastener assembly comprising a plurality of support-engaging prongs, means mounting said prongs for snap fastener engagement with the edges of a support aperture, each of said prongs comprising a substantially U-shaped member having spaced leg portions and a connecting end portion, the free end of one of said legs being connected to said mounting means, and the free end of the other leg being separate therefrom, said one legs of said prongs being connected to said base member on an outline conforming generally to an aperture in a support into which the assembly is to be installed, the free ends of said other legs of said prongs being disposed intermediate said one legs and displaced slightly outwardly of said outline, whereby said prong may have a combined torsional and bending movement about said connected leg in response to a force applied thereto.

3. A snap fastener assembly comprising a plurality of support-engaging prongs, means mounting said prongs for snap fastener engagement with the edges of a support aperture, each of said prongs having spaced leg portions connected at adjacent ends thereof, the free end of one of said leg portions being connected to the mounting means and the free end of the other leg por-

tion being spaced from the mounting means, the free ends of said one leg portions defining an outline conforming generally to the edges of a support aperture into which the assembly may be inserted, and the free ends of said other leg portions being disposed intermediate said free ends of said one leg portions and displaced slightly outwardly of said outline, whereby said prong has a combined torsional and bending movement about said connected leg in response to a force applied thereto.

4. A lamp socket assembly comprising a lamp-receiving casing, a ring-like member mounted on said casing, a plurality of resilient support-engaging prongs mounted on said ring-like member, each of said prongs comprising a substantially U-shaped member having spaced leg portions and a connecting end portion, said U-shaped member being connected with said ring-like member by one of said leg portions at the end thereof opposite said connecting end portion, the other of said leg portions being disposed intermediate said one leg portion and an adjacent prong and disposed outwardly of an outline defined by the ends of said one leg portions connected to said base member, whereby said prongs may have a combined bending and twisting movement upon the assembly of socket assembly to an apertured support.

5. A snap fastener assembly comprising a ring-shaped member, a plurality of resilient support-engaging prongs mounted on said ring-like member and having diverging converging portions for snap fastener engagement with an apertured support, each of said prongs comprising substantially parallel spaced leg members connected at their outer ends, the inner end of one of said leg members extending to and being integrally connected with said ring-shaped member, the inner end of said other leg member stopping short of said ring-shaped member, the inner ends of said other leg members of said prongs being disposed intermediate the inner ends of said one leg members and displaced outwardly of an outline defined by the inner ends of said one leg members, whereby said prongs may have a combined bending and twisting movement about said connected leg member in response to a force applied thereto.

WILLIAM A. BEDFORD, JR.

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