April 14, 1970 J. F. TIRONE 3,505,709

QUICK RELEASE CLIP

Filed July 12, 1968

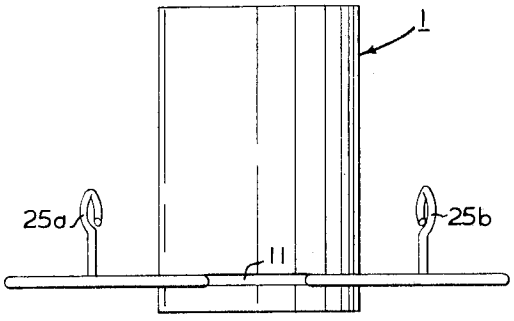


FIG. 1

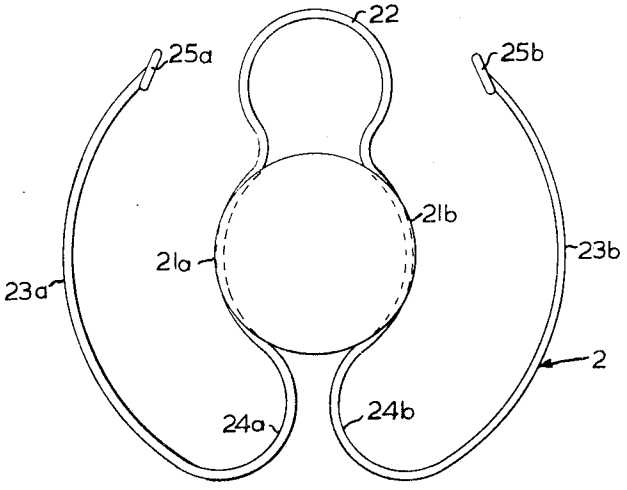


FIG. 2

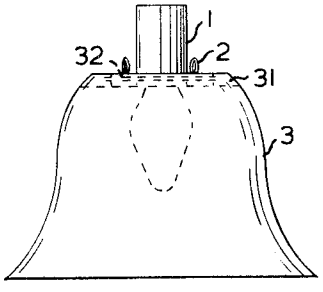


FIG. 3

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QUICK RELEASE CLIP

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ABSTRACT OF THE DISCLOSURE

There is provided a simple one-piece clip for attaching lamp shades and the like to electronic fixtures such as lamp-holders. The clip has a configuration that permits it to resiliently engage the exterior surface of a lampholder and the interior surface of an associated lamp shade. Removal of the lamp shade may be effected conveniently without disengagement of the clip from the lamp-holder.

This invention relates to a clip for spacing and joining the exterior surface of a body with the interior surface of a surrounding body. The invention has particular, but not exclusive, utility in the attachment of light shades and the like, to lamp holders.

It has become common practice to surround electric lamp bulbs with ornamental shades, coloured or otherwise, not only for protective purposes but for festive occasions, such as Christmas, or for advertising. Further, the availability of permanent parallel circuits, known in trade as striplights, encourage the removal of shades and lamps when not required. In the present invention there is contemplated a simple clip, which may be manufactured at a very low price, for quickly attaching lamp shades to lamp holders, or other pairs of similar devices.

It is an object of one aspect of the invention to provide a one-piece clip for use between an exterior surface of a first body and the interior surface of a second body surrounding the first.

In accordance with the foregoing object, the clip comprises a pair of first portions for partially embracing said first body, said first pair of portions being urged towards each other by a first spring portion connected therebetween, a pair of second portions for partially engaging the said interior surface, said second pair of portions being urged away from each other by a pair of second spring portions one each of which is connected to an associated one of said first pair of portions, all said portions being disposed in a common plane.

It is an object of another feature of the invention to provide a one-piece clip for use between a pair of substantially coaxial, coextensive and concentric bodies.

In accordance with the foregoing object the clip comprises a pair of inner arcuate portions which together substantially define arcs of a first common circle, one pair of adjacent ends of said inner arcuate portions being joined together by a resilient loop, a pair of outer arcuate portions which together substantially define arcs of a second common circle which is larger in size than said first common circle, one pair of adjacent ends of said outer arcuate portions being joined to the other pair of adjacent ends of said inner arcuate portions by a pair of resilient portions which together define a mouth at least the inner and outer arcuate portions and said mouth being disposed in a common plane .

A preferred embodiment of the invention will now be described with reference to the accompanying drawings, in which:

FIG. 1 is a simplified side view of a lamp socket to which is attached a novel clip forming the essence of the present invention,

FIG. 2 is a plan view of the novel clip shown in FIG. 1,

FIG. 3 is a side view of the lamp socket of FIG. 1, with the clip, shown in more detail in FIG. 2, applied to the fastening of an ornamental light shade.

Referring to FIG. 1 there is shown, and generally indicated at **1**, a lamp or light socket. The precise details of the socket form no part of the present invention excepting that for convenience, but not essentially, the socket may include a groove **11**.

Referring to both FIG. 1 and FIG. 2 there is shown a clip, generally indicated at **2**. The clip **2** comprises a pair of first portions **21***a*, **21***b* for embracing the exterior surface of a body, for example, the light socket **1**. The portions **21***a* and **21***b* are joined together by a spring portion **22** which urges both portions **21***a* and **21***b* inwardly towards the socket **1**.

The free ends of the pair of first portions are individually joined to a pair of second portions **23***a*, **23***b*, in a pair of further spring portions **24***a*, **24***b*, which serve to outwardly urge to the portions **23***a*, **23***b* into contact with the interior of a surrounding body. It will be noted that portions **24***a*, **24***b* define a mouth through which the socket **1** may be forced. Portions **21***a*, **21***b*, **22**, **23***a*, **23***b*, **24***a*, and **24***b* are substantially co-planar. The free ends of portions **23***a*, **23***b* may include digital grippers **25***a*, **25***b* extending out of the aforementioned plane.

Referring to FIG. 3 there is shown a lamp socket **1**, a lamp or light shade **3** which has been fastened to the socket by means of the novel clip **2**. The lampshade **3** includes an annular top member **31** the inner surface of which is grooved as at **32** to receive the clip.

While the preferred embodiment has been described with reference to a particular configuration, it is obvious that the clip may be shaped to embrace the exterior surface of any body providing the body is suitably grooved or has a frictional surface thereon. Similarly, the clip may be shaped to engage the inner surface, grooved or frictional, of a hollow member surrounding the inner body.

Whereas the novel clip disclosed shows the use of portions which need not necessarily be resilient, it is obvious that the clip as a whole may be formed from a single piece of resilient material such as wire, plastic, hard rubber and the like.

Other applications and embodiments, falling within the terms of the appended claims, will occur to those skilled in the art.

I claim:

1. A one-piece clip for use between an exterior surface of a first body and an interior surface of a second body surrounding said first body, said clip comprising a pair of first portions for partially embracing said first body, said first pair of portions being urged towards each other by a first spring portion connected therebetween, a pair of second portions for partially engaging the said interior surface, said second pair of portions being urged away from each other by a pair of second spring portions one each of which is connected to an associated one of said first pair of portions, all said portions being disposed in a common plane.

2. A one-piece clip comprising a pair of inner arcuate portions which together substantially define arcs of a first common circle, one pair of adjacent ends of said inner arcuate portions being joined together by a resilient loop, a pair of outer arcuate portions which together substantially define arcs of a second common circle which is larger in size than said first common circle, one pair of adjacent ends of said outer arcuate portions being joined to the other pair of adjacent ends of said inner arcuate portions by a pair of resilient portions, which together define a mouth at least the inner and outer arcuate portions and said mouth being disposed in a common plane.

3. A one-piece clip as defined in claim 2 wherein the whole clip is formed of a single piece of resilient material.

4. A one-piece clip as defined in claim 3 wherein said material is wire stock.

5. A one-piece clip as defined in claim 2 wherein each of said second pair of portions further includes an extension disposed to extend out of said plane.

6. A clip as defined in claim 2 further including a pair of tabs each one being defined by an extension of a respective one of the other pair of adjacent ends of said outer arcuate portions and wherein both of said tabs extend outside said common plane, said tabs forming digital grips for resiliently deforming said outer arcuate portions inwardly towards said first common circle.

References Cited

UNITED STATES PATENTS

88,430	3/1869	Alexander	240—139
342,012	5/1886	Hohenstein	240—139
1,249,364	12/1917	Finizio	240—138
2,150,378	3/1939	Keller	240—139

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