United States Patent [19]

Siilats

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[54] **COMBINED LIGHT SOCKET AND MOUNTING BRACKET**

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[52] **U.S. Cl.** ..... **248/223,** 240/10 R

[51] **Int. Cl.** **A47g 33/16,** F21p 1/42

[58] **Field of Search** ..... 248/223, 224, 225, 205 R, 248/309, 215, 300; 240/52 R, 10 R, 10 T, 2 B, 2 R

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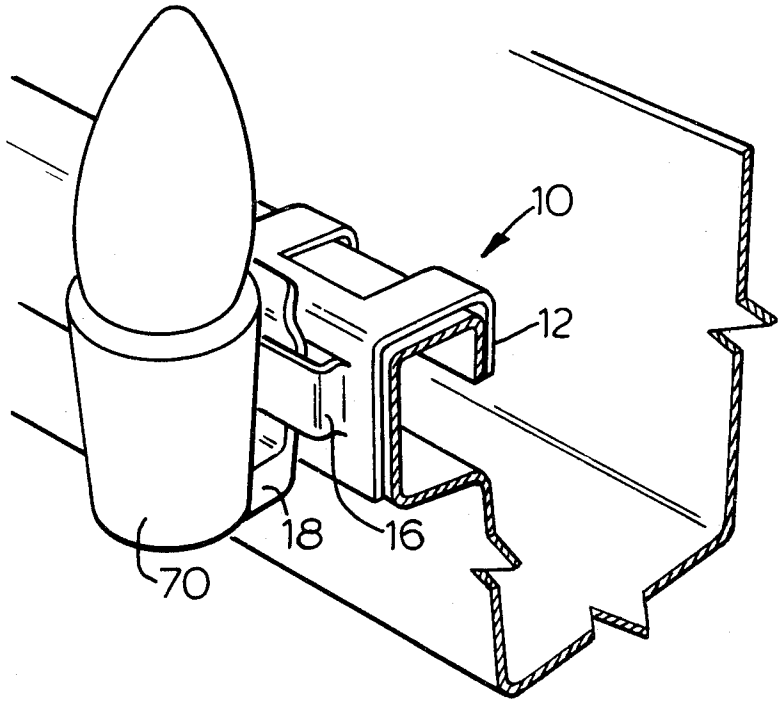
Primary Examiner—J. Franklin Foss

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[57] **ABSTRACT**

A light socket and mounting fixture combination provides a bracket particularly suited for permanent installation, with light sockets that may be clipped thereto for one-handed attachment and detachment. The combination is of particular value for use with decorative strings of lights, such as Christmas lights, wherein the brackets are readily installed and quite unobtrusive, while permitting clipping attachment of light sockets thereto.

4 Claims, 7 Drawing Figures



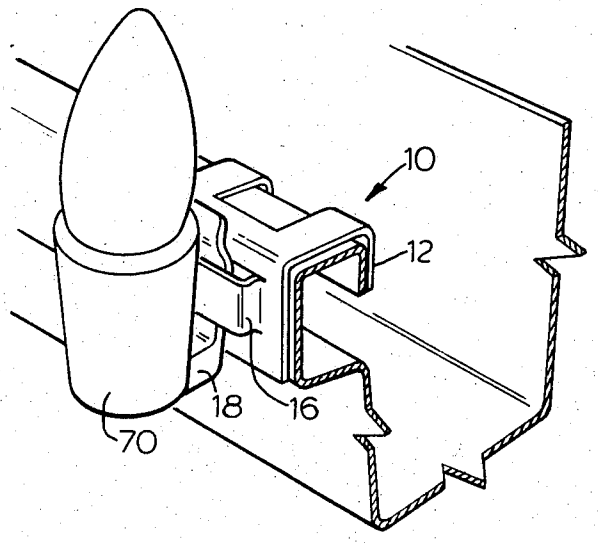


FIG. 1

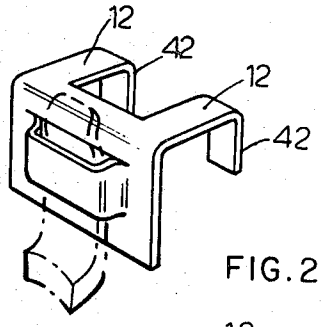


FIG. 2

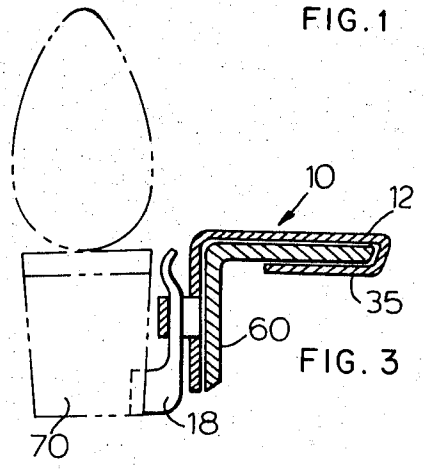


FIG. 3

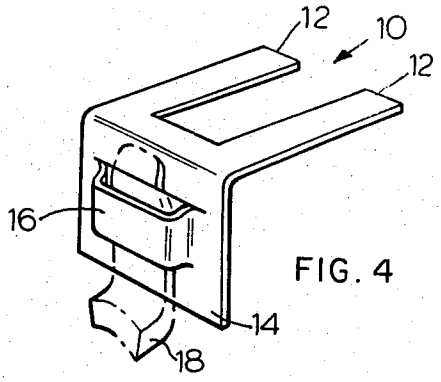


FIG. 4

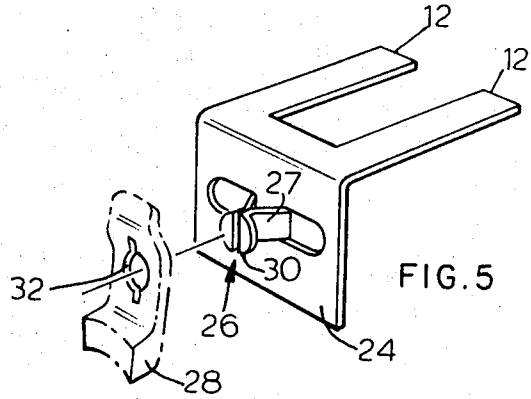


FIG. 5

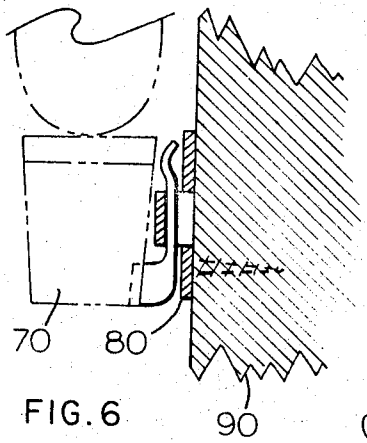


FIG. 6

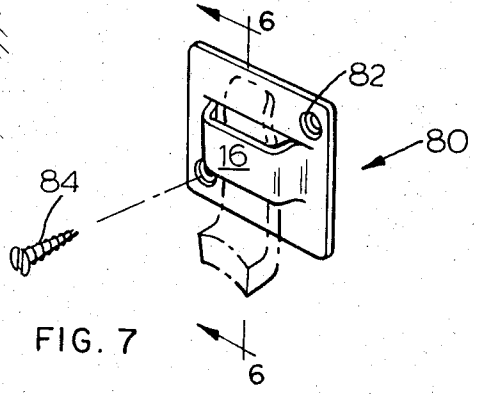


FIG. 7

COMBINED LIGHT SOCKET AND MOUNTING BRACKET

BACKGROUND OF THE INVENTION

This invention is directed to a light socket and mounting bracket combination, and in particular to mounting brackets suited for permanent installation with which the light sockets may be readily attached or detached in mounting or dismounting relation.

Previous arrangements for mounting decorative lighting such as Christmas lights, by way of fixtures that are permanent installations have included a number of types of bracket fixtures suited for permanent installation, to which the connecting electrical service wires are hooked. The primary disadvantages of this type of arrangement are the hazard to the wires, and the inability to automatically orienting the facing positions of the lamps.

An alternate approach has provided somewhat complex brackets to which the light socket fixtures may be clipped. One such arrangement comprises a complex base socket to receive the rimmed portion of the lamp socket therein. This type of base socket is susceptible to corrosion and dirt inclusion making the base unserviceable. A further lamp bracket type has included a bracket for permanent installation having an outstanding circlip to engage the barrel portion of the lamp socket. The primary disadvantage of this type is the need to remove the glass lamp bulb from its socket in order to enter the socket within the circlip or alternately to maneuvre the connecting wires of the fitting through a clearance portion of the clip, to permit installation of the lamp socket in a base first direction.

The present invention provides a low cost socket and bracket combination in which the combination may be initially installed in an assembled condition as a light string, wherein the interconnecting electrical conductors can serve as built-in spacers for giving desired intervals of attachment of the brackets. The brackets, which are of clip-on or screw-in type, may be installed more or less permanently without the need to remove the respective sockets from attached engagement therewith, and without the need or removing the light bulbs from the sockets during installation.

The present invention further provides simple bracket fixtures that may be stamped from flat stock, with sockets having a simple resilient clip permitting one-handed installation and detachment of the socket with the bracket, while providing positive orientation of the lamp.

SUMMARY OF THE INVENTION

The present invention thus provides a mounting bracket means for use in combination with a lamp socket means for detachably mounting a lamp socket in a desired display position, comprising a unitary bracket member for attaching the bracket means in a desired location; clip means extending from a face portion of the bracket means; resilient tongue means secured to the socket means and extending therefrom in predetermined positioned relation, the clip means and the tongue means being resiliently engageable one with the other on movement of the socket means to slide the tongue means in a first bracket engaging direction, to detachably mount the socket means in a predetermined orientated relation with the bracket means.

Certain embodiments of the present invention are described, reference being made to the accompanying drawings, wherein:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a general view showing a lamp with a socket and bracket according to the present invention installed on an eavestrough.

FIG. 2 is a view of a portion of the combination of FIG. 1 showing the socket tongue in engaged relation with the bracket clip.

FIG. 3 is a side view in part-section of the arrangement of FIG. 1.

FIG. 4 is a view similar to FIG. 2, showing a bracket having straight attachment lips.

FIG. 5 is a view similar to FIG. 4, with a bracket having recesses for screwing attachment of the bracket.

FIG. 6 is a view similar to FIG. 3, showing the installation of a bracket as illustrated in FIG. 5, in screwed relation with a facing board, and

FIG. 7 is an exploded general view of a bracket having an outstanding resilient clip portion to engage a recess in the socket tongue.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring first to FIGS. 4 and 7, these show two versions of a unitary bracket, in combination with the tongue means, shown in phantom, of a lamp socket.

In FIG. 4 the bracket **10** has a pair of extending lip portions **12** projecting rearwardly from the bracket face portion **14.** A clip portion **16** of u-section being struck out from the face portion **14** extends forwardly therefrom, and defines with the forward surfaces of face portion **14** a vertical recess into which a tongue member **18** of a socket (not shown) may be pressed in resilient engagement.

In the FIG. 5 embodiment the clip **26** comprises a pair of shaped members **27** struck out from the face portion **24,** having outer flange ends in spaced resilient relation to form a generally circular head **30** supported on adjacent neck portions. The illustrated socket tongue member **28** has passage walls **32** extending therethrough to define an aperture to receive the flange ends of the head **30** therethrough. The walls **32** also provide a pair of key ways into which the neck portions of the shaped members **27** can fit, to provide positive locking engagement of the tongue **28** in oriented relation with the clip **26.** The provision of opposed keyways permits the tongue **28** and its associated socket to be installed in a facing-up, or a facing-down orientation.

In both FIGS. **4** and **7,** the lip portions **12** are hooked at the ends **42** for use with an eavestrough, illustrated in installed relation therewith in FIG. **1.** It will be understood that while FIG. **1** shows a bracket **10** of the type illustrated in detail in FIG. **4,** it could as readily be of the type illustrated in FIG. **7.**

Selection of a suitable guage and stiffness of the material of lip portions **12** makes possible the provision of a bracket **10** that can be rapidly installed and the lips thereof bent into conforming relation with an eavestrough **50** without the need to use tools.

In the embodiment illustrated in FIG. **3** the bracket is shown mounted on a structure **60** of angle section, the end portions **36** of the lips **12** being bent thereabout to securely engage the bracket **10** therewith.

It will be understood that the socket **70** of FIGS. **1** and **3** could be installed in an inverted position, with the lamp extending downward. A further alternative is a reversal of the tongues **18** and **28** in relation to the body of the socket **70,** permitting downward insertion of the tongue **18** or **28** with the lamp portion in an upward facing direction.

In FIG. **5** there is shown a bracket **80** having a clip **16** of similar formulation to that of FIGS. **1** to **4,** but being provided with apertures **82** through which screws **84** may be inserted in screwing relation therewith. The bracket **80** is shown in installed relation in a facia board **90.** Such installation may be performed without disassembling the socket and tongue from the bracket.

With the exception of the FIGS. **5** and **7,** all other bracket embodiments may be readily fitted without use of hand tools, and in most instances a string of lights with brackets of the subject type may be readily and safely inserted by an individual without assistance.

After installation, removal and remounting of the light sockets is a single-handed operation for all embodiments, without recourse to removing the lamps from the sockets.

In addition to the foregoing enumerated advantages of the subject combination, the brackets thereof are particularly advantageous in being self-storing and unobtrusive, and provide substantially no hindrance to performing maintenance work on eavestroughs, etc.

What is claimed is:

1. A mounting bracket means for use in combination with a lamp socket, to permit one-handed securing of the bracket means in substantially permanent attached relation to a support structure such as a roof guttering having a projecting rib portion, and providing a stable mount to receive a said lamp socket in one-handed mounted relation thereon, comprising:

a bracket body portion having an inward facing surface to fit in abutting relation against a said support structure:

at least one deformable lip portion extending from said body portion for deforming into gripping relation with said support rib portion by unassisted manual deformation, to secure said inner surface in said abutting relation to said support structure; and

clip means of struck-out section projecting outwardly from an intermediate portion of said body portion, having outer surfaces of said body portion in adjacent bounding relation therewith, and offset from said clip means to provide a socket stabilizing surface on each side of said clip means, said clip means receiving a tongue portion of a said lamp socket in inserted relation therein to secure said tongue portion in resiliently secured relation against said body portion outer surfaces, to permit one-handed secured attachment thereto.

2. The bracket means as claimed in claim **1** wherein said lip means is bifurcated, having a pair of spaced portions to increase stability of attachment of the bracket means and to diminish force required in deforming the lip means.

3. The bracket means as claimed in claim **1** in combination with said lamp socket said socket tongue portion being of curved form to enhance locking engagement with said clip means and said adjacent bracket surfaces.

4. The bracket means as claimed in claim **1** wherein said struck-out clip means comprises a pair of shaped members in back-to-back relation forming a shaped head to engage a said socket.

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