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LAMP BRACKET ASSEMBLY

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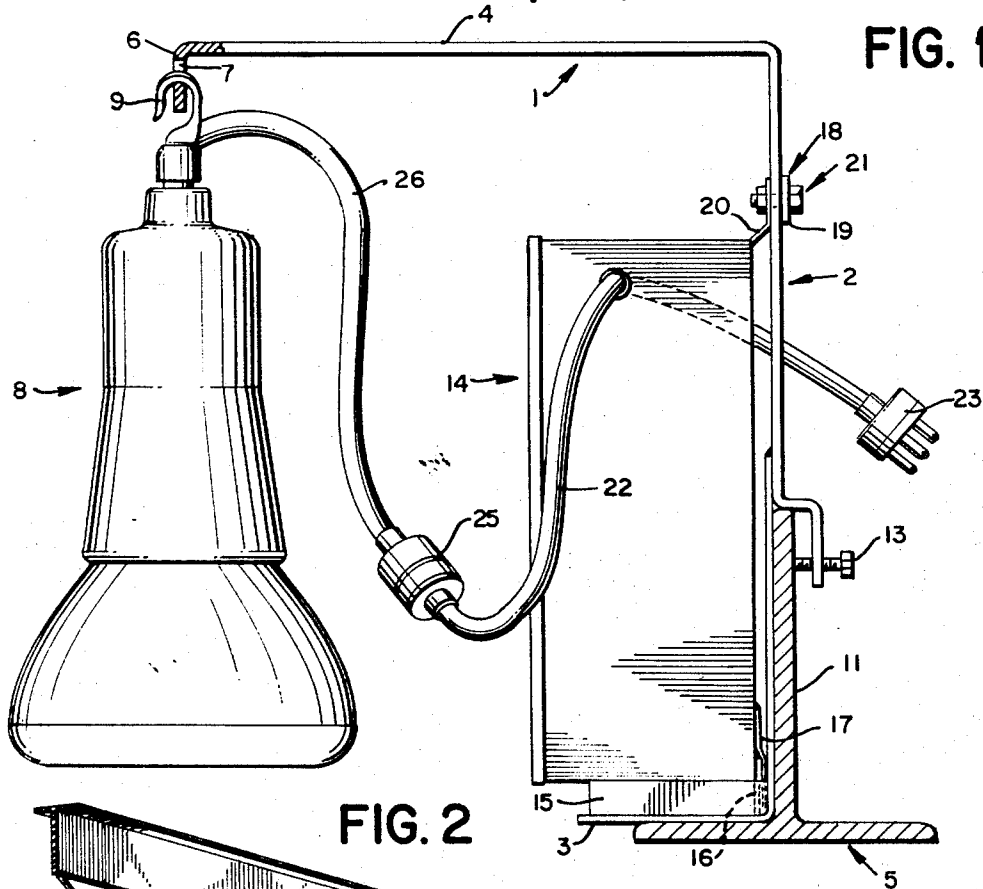


FIG. 1

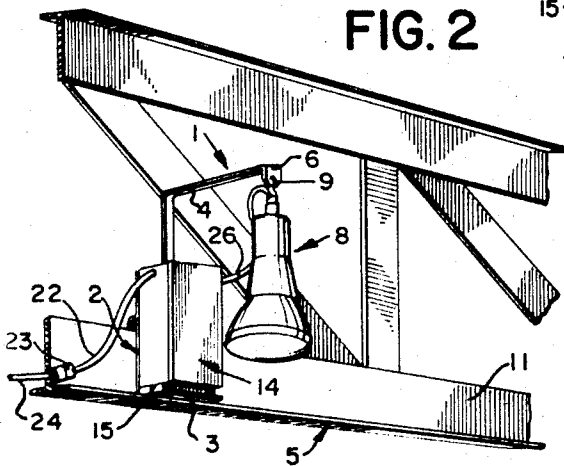


FIG. 2

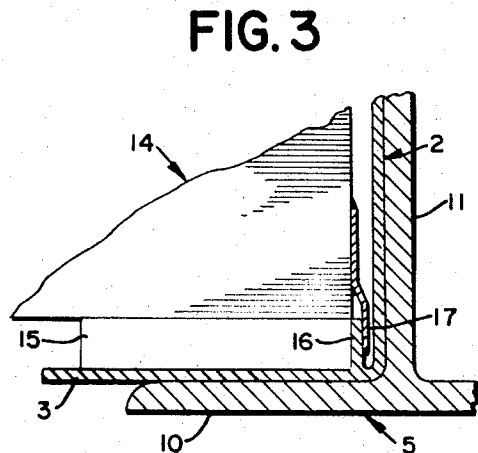


FIG. 3

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**LAMP BRACKET ASSEMBLY**

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**ABSTRACT OF THE DISCLOSURE**

A lamp bracket assembly for supporting a lamp on a structural member, the bracket being C-shaped with the lower leg thereof resting on the structural member and the upper leg extending beyond the lower leg for hanging a lamp unit thereon at its outer end. The assembly includes a ballast weight positioned on the lower leg for stabilizing the assembly, and is provided with a releasable clamp for removably connecting the assembly to the structural member.

**BACKGROUND OF THE INVENTION**

*Field of the invention*

This invention pertains to lamp supports and more particularly to a lamp bracket assembly for removably holding a lamp in a protected and stabilized manner.

*Description of the prior art*

In conventionally constructed lamp brackets, the lamp unit is typically fixed to the bracket in a more or less permanent fashion as, for example, by welding. Also, when installing the conventional lamp bracket onto a support, the construction is such as to require a connection to the support which is not readily detachable. With bracket constructions of this type, repair or replacement of the lamp unit becomes difficult since detachment from the bracket requires breaking of the welded joints. In addition, installation of the bracket onto the support often entails drilling of holes in the support so that the bracket may be bolted thereto. This not only requires some amount of time; but also necessitates the use of tools and additional connector members of one sort or another. This may not be too disadvantageous where the lamp is to be permanently installed at one location on the support; but it is inconvenient in the type of situation where it is desired to move the lamp from place to place.

With presently available lamp brackets designed for supporting the lamp from an overhead beam as, for example, found in a building where the lamp is to be used, the lamp unit is often connected to the bracket to hang below the supporting beam and in some cases, the entire bracket together with the lamp is connected to the beam in a hanging manner. With this type of bracket construction and installation, the lamp is vulnerable to being damaged or broken. This is especially true where the lamp is to be used in factories or other places where cranes or similar equipment is operated.

**SUMMARY OF THE INVENTION**

In accordance with the teachings of the present invention, the lamp bracket assembly is constructed for quick attachment to a support such as an overhead inverted T-beam. Also, the bracket assembly is constructed so that the lamp unit to be used therewith can be readily attached in a protected and stable fashion and removed as a separate unit when, for example, replacement is desired.

Generally, the bracket includes a body member and two extending legs which together form a generally C-shape structure. The bottom leg of the C forms an extension foot which is adapted to seat on the cross member

of an inverted T-beam. The upper leg of the C, on the other hand, is longer than the extension foot and defines an overhanging arm on the free end of which the lamp unit is adapted to be hung by way of a hook or the like. For removably securing the bracket to the inverted T-beam, the body member is provided with a downwardly facing bracket hook for reception over the upwardly extending leg of the T-beam. Also, a lock screw is threaded through this hook for engaging against the leg of the T-beam to lock the bracket onto the beam.

In order to protect the lamp from damage as might be caused by the operation of cranes or similar equipment where the lamp is supported inside a building on an overhead roof beam, the bracket is constructed with the overhanging arm spaced vertically above the extension foot by a distance which is greater than the overall length of the lamp unit hanging from the arm. Accordingly, the lowermost part of the lamp will be located above the structural roof beam to which the bracket is connected; and thus, the beam itself will act to protect the lamp against being struck by equipment operating below.

With the lamp unit being hung from the free end of the overhanging arm of the bracket, the weight of the lamp tends to unbalance the assembly. To counteract this and to provide a stabilized structure, a ballast member is positioned on the extension foot and secured in place by clamping to the body member of the bracket. The weight of this ballast member is sufficient to offset the unbalancing forces created by the hanging lamp unit and as such produces a completely stabilized assembly.

**BRIEF DESCRIPTION OF THE DRAWINGS**

FIG. 1 is a side elevation of the bracket assembly shown secured to an inverted T-beam;

FIG. 2 is a perspective of the bracket assembly showing a typical installation on a roof supporting girder of a building; and

FIG. 3 is a sectional view of the lower portion of the bracket assembly showing the positioning of the ballast member thereon.

**DESCRIPTION OF THE PREFERRED EMBODIMENT**

Referring to the drawings, the bracket assembly generally designated at **1** and which is constructed of steel comprises a vertically extending body member **2** and outwardly extending legs **3** and **4** at either end thereof giving the bracket a C-shaped configuration. The lower leg, designated **3** in the drawings, defines an extension foot while the upper leg designated **4** defines an overhanging arm which extends beyond the extension foot.

The bracket is adapted to be secured to a structural support member such as an inverted T-beam **5** forming part of the roof supporting girders of a building. On the free end of the overhanging arm **4** there is provided a downwardly turned portion **6** having a hole **7** therein. Through this hole, the lamp unit shown at **8** is adapted to be hung as by means of a suitable hook **9**.

As most clearly shown in FIG. 1, the bracket assembly is adapted to seat on one side of the cross member **10** of the T-beam and securely held thereon by attachment to the upstanding rib portion or leg **11** of the beam. For this latter purpose, the body member of the bracket assembly is provided with a downwardly facing bracket hook **12**. This hook is formed as an integral part of the upper portion of the body member with the lower portion of the body member being welded thereto as shown in FIG. 1. In location, this hook is spaced vertically from the extension foot **3** by a distance equal to the height of the rib portion **11** of the T-beam and is adapted to be received thereover to stop the bracket from tipping in a forward

direction off the T-beam. In addition, a lock screw 13 is threadably received in the bracket hook with its forward end facing the rib portion of the T-beam. By screwing the lock screw into engagement with the rib of the T-beam, the bracket assembly is easily and quickly secured to the T-beam.

Due to the overhanging construction of the arm 4 of the bracket, the lamp unit when hung on the free end thereof tends to tip the bracket. To avoid this and stabilize the entire assembly when the lamp unit is in position, a ballast member 14 is provided as part of the assembly. This ballast member comprises a mercury vapor transformer where a mercury lamp unit is used and it rests on the extension foot 3 which is constructed with a raised support 15 therefor, and has its center of gravity located inwardly of the cross member 10 of the T-beam. The support 15 is positioned outwardly of a raised rib 16 formed on the extension foot at a location spaced from the body member 2 of the bracket. The rib 16 is part of the structure for securing the ballast portion of the assembly onto the bracket portion. Cooperating with this rib is a downwardly facing bracket hook 17 welded or similarly fixed to the ballast, as shown in FIG. 3. In addition, a bar clamp mechanism 18 is provided at the upper end of the ballast. This clamp mechanism includes a removable bar 19 adapted to be attached to an upstanding clamping plate 20 on the ballast member by means of a pair of nuts and bolts 21.

On assembly of the ballast portion of the assembly, the ballast hook 17 is positioned over the rib 16 of the extension foot and the clamp bar 19 is then secured to the body member of the bracket in opposed relation relative to the body member 2 of the bracket as shown in FIG. 1. This securely and at the same time removably fixes the ballast member to the bracket and provides the counterbalancing weight necessary to stabilize the assembly.

To permit quick attachment or removal of the lamp unit from the bracket and to also facilitate its connection to electrical line carrying the current to the lamp, the bracket assembly is provided with its own electrical cord 22. This cord is connected to the ballast member and has one terminal connector 23 for connecting to the electrical line 24 leading to the conventional source of electrical power and a second terminal connector 25 at its other end for connecting to the lamp through the lamp cord 26.

With the construction of applicant's bracket assembly as described above, installation merely requires the placing of the bracket assembly onto the cross member 10 of the T-beam with the bracket hook 12 overlying the rib 11 of the beam, tightening of the clamp screw 13, and plugging into any convenient line outlet 24. The assembly may be left in position as a permanent installation or relocated with ease since no modification to the beam or separate tools are required for making the installation. The lamp assembly as a separate unit is removably attached in a position protected by the beam and may easily be removed by disconnecting the cord 26 from the terminal connector 25 and slipping the lamp hook 9 out from the hole 7 in the overhanging arm. In addition, the ballast member 14, due to its positioning on the extension foot, holds the assembly against tipping and thus provides a well stabilized structure.

The above description of the present invention has been made with reference to the presently preferred embodiment; however, it is to be understood that various changes may be made thereto without departing from the scope of the invention as set forth in the following claims.

I claim:

1. A lamp bracket assembly for supporting a lamp on a structural member having a horizontal portion and a

vertically extending rib portion of predetermined height comprising:

- (a) a main rigid body member;
- (b) an extension foot at one end of said main body member extending at right angles from one side thereof for seating on the horizontal portion of said structural member with the main body member extending in an upward direction beyond said rib portion;
- (c) an overhanging arm at the other end of the main body member extending from said one side thereof beyond both the free end of said extension foot and the horizontal portion of said structural member;
- (d) means at the free end of said overhanging arm for hanging a lamp thereon;
- (e) a downwardly facing bracket hook on the other side of the body members, said bracket hook being spaced from said extension foot by a distance equal to the predetermined height of the rib portion of said structural member for hooking over said rib portion when said extension foot is resting on the horizontal portion thereof; and
- (f) a ballast member positioned on said extension foot, said ballast member having a sufficient weight relative to the weight of the lamp hanging from said overhanging arm to stabilize said bracket on the structural member.

2. A lamp bracket assembly according to claim 1 for supporting said lamp on a structural member comprising an inverted T-beam with the leg of the beam defining said rib portion and the cross member on one side of the leg defining said horizontal portion wherein:

- (a) the vertical distance between the cross member of the T-beam and the overhanging arm is greater than the vertical dimension of the hanging lamp.

3. A lamp bracket assembly according to claim 2 further comprising:

- (a) a lock screw threadably received through the bracket hook for engagement against the leg of the T-beam to removably secure said bracket to said T-beam.

4. A lamp bracket according to claim 3 further comprising:

- (a) a vertically extending rib on said extension foot at a location spaced from said body member;
- (b) a downwardly facing ballast hook on the side of the ballast member facing said body member for reception over said last-mentioned rib; and
- (c) clamp means at the upper end of said ballast member for removably securing said ballast member to the body member of said bracket.

5. A lamp bracket assembly according to claim 4 further comprising:

- (a) an electrical cord connected to said ballast member and having a first terminal connector at one end thereof for connecting to a source of electrical power and a second terminal connector at the other end thereof for connecting to said lamp.

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