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(54) **LAMP ASSEMBLY**

EINBAULEUCHTE

ENSEMBLE LAMPE

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Description

Description of the invention

[0001] This invention relates to a combination of a lamp assembly and a mounting member.

[0002] The invention has been devised in relation to the mounting of lamp assemblies each comprising a lamp and a reflector therefor, such a lamp assembly being hereafter referred to as a lamp assembly of the kind specified, and in particular the invention has been devised in relation to a lamp assembly of the kind specified in which the lamp is a miniature low voltage metal filament halogen lamp. Such a lamp assembly is commonly referred to as a dichroic lamp because the reflector reflects light but does not reflect heat from the lamp. It is to be appreciated, however, that the invention would be equally applicable to lamp assemblies of the kind specified wherein the lamp is of type other than a miniature low voltage metal filament halogen lamp, for example a lamp in which the light source is an electrical discharge rather than a heated filament.

[0003] Light fittings for receiving dichroic lamps are known wherein the lamp is held in a lamp-receiving part by engagement between the lamp-receiving part and a flange portion which characteristically is provided at the front periphery of the dichroic reflector. For example, the flange might abut an annular seating in the lamp-receiving part and a spring device such as a circlip engage the flange and lamp-receiving part to retain them in engagement. Alternatively, a spring device might engage the reflector adjacent the flange to retain it. It is then necessary to provide for co-operation between the lamp-receiving part and the remainder of the light fitting and in many fittings such engagement must accommodate tilting and/or swivelling of the lamp-receiving part relative to the rest of the fitting in order to enable the light emitted from the lamp to be directed as required. This renders the light fitting complex and expensive.

[0004] French patent applications 2,617,946 and 2,562,638 each disclose a combination of a lamp assembly and a mounting member, the lamp assembly comprising a lamp and a reflector, the mounting member having a portion with which the lamp assembly is resiliently held, and a separate portion adapted to resiliently engage a light fitting into which the lamp assembly is to be mounted. In these documents, the "light fitting" comprises an aperture which has been formed in a ceiling panel to receive the lamp assembly.

[0005] According to a first aspect of the invention there is provided a combination of a lamp assembly and a mounting member as defined in the preceding paragraph, characterised by a heat shield member which is also held by the mounting member. The provision of a heat shield member improves the fire rating of the lamp assembly when mounted in a fitting.

[0006] Preferably the mounting member is a one-piece member of resilient material. Conveniently it may

be of metal, formed to the required shape by appropriate pressing and bending operations. To give it the necessary resilience it may be of spring steel.

[0007] Preferably the portion of the mounting member with which the lamp assembly is resiliently held comprises opposed formations extending towards one another and engageable with oppositely outwardly facing grooves or recesses on a rear portion of the lamp assembly. Such formations of the mounting member may be engaged with the lamp assembly by displacing them away from one another against the resilience of the mounting member and then, when the lamp assembly is appropriately positioned, allowing them to move towards one another into engagement therewith.

[0008] According to a further aspect of the invention there is provided a light fitting fitted with a combination as herein defined, the mounting member holding the lamp assembly and the heat shield member, and engaging the light fitting.

[0009] The light fitting may have a pair of appropriately configured opposed recesses in which formations at the free ends of arms of the mounting member are engaged, in which case the lamp assembly is capable only of pivotal movement relative to the light fitting about said axis.

[0010] Alternatively, the light fitting may be provided with an inwardly facing annular recess with which the formations are engaged, in which case the lamp assembly and mounting member are able to move rotationally relative to the light fitting with said formations of the mounting member moving around said recess. Such movement is additional to the pivotal movement, enabling the lamp assembly to undergo universal pivotal movement to face in any required direction relative to the light fitting (subject of course to limitations on such movement imposed by the dimensions of the light fitting, the ability to have electrical connections to the lamp assembly made by suitable cables, and so on).

[0011] According to another aspect of the invention there is provided a suspended ceiling structure having a light fitting as herein defined combined with a retaining member fitted into a panel of a ceiling, in which limbs of the retaining member rest on support members for the panel.

[0012] Preferred features of each aspect of the invention are the subject of the dependent claims.

[0013] These and other features of invention will now be described by way of example with reference to the accompanying drawings, of which:-

FIGURES 1 and 2 are respectively side and end elevations of a light fitting in which a lamp assembly is mounted which are not embodiments of the invention but useful for understanding the invention. FIGURES 3, 4 and 5 are respectively side and end elevations and a plan view of light fitting in which a combination in accordance with the invention is mounted, having the feature of a heat shield;

FIGURE 6 is an elevation of a further embodiment of a combination in accordance with the invention; FIGURES 7, 8 and 9 are respectively side and end elevations and a plan view of a mounting member. FIGURE 10 is an elevation of a further embodiment of light fitting in which a combination is mounted in accordance with the invention.

FIGURE 11 is an exploded perspective view of the light fitting of Figure 10.

[0014] Referring firstly to Figures 1 and 2 of the drawings, these show a light fitting which in plan view is of circular configuration and comprises a flange 10 which forms the front of the fitting, visible when it is installed as described hereafter, and a rearwardly extending body portion indicated generally at 11. The body portion 11 adjacent the flange 10 has a portion 12 which affords an annular recess whose base 13 may be of generally part spherical configuration or of shallower curvature. Behind the portion 12 the body 11 of the light fitting has a generally cylindrical portion 14 of reduced diameter compared with that of the base 13 of the recess portion 12.

[0015] The flange 10 on the light fitting enables it to be mounted in an aperture in a panel 41 such as, for example, a panel in a suspended ceiling. The flange 10 abuts the front face of such panel, with the fitting being retained to the panel by a pair of spring clips 42 engaging the portion 14 of the light fitting body and pressing against the rear face of the panel 41.

[0016] The light fitting receives a lamp and reflector assembly indicated generally at 15 and which is of the type usually referred to as a dichroic lamp. It comprises a reflector 16 which may be of parabolic or generally parabolic form to produce a beam of light, which light emerges through a transparent screen or lens 17. Within the reflector there is supported a low voltage metal filament-halogen lamp and electrical conductors leading to such lamp extend through a rear portion 18 of the lamp assembly 15. Such electrical conductors terminate in connection pins indicated at 19 and electrical connection with such pins is established by way of a ceramic connector block 20. Flexible electrical conductors lead to the connector block 20 by way of electrical and heat insulating sleeves 21 behind the connector block.

[0017] The lamp assembly 15 is supported in the light fitting by a mounting member whose principal constructional features are shown in Figures 7 to 9 (although the mounting member shown in Figures 7 to 9 is actually that used in the light fittings shown in Figures 3 to 6; its dimensions differ slightly from that used in Figures 1 and 2). The mounting member, indicated generally at 22 in Figures 1 and 2 is a one-piece component made of a resilient material such as spring steel by appropriate stamping, pressing, folding, etc operations. It comprises a body portion 23 with two spaced wall portions 24. At the front end of the wall portions 24, there are oppositely inwardly extending folded formations 25 from which re-

spective arms 26 extend forwardly and outwardly. Rearwardly of the wall portions 24 there are base portions 27 which extend towards one another, and these are joined by a rearwardly extending U-shaped portion 28. Approximately mid-way between the formations 25 and the base portions 27 the walls 24 have relatively small opposed inwardly extending formations 29.

[0018] Adjacent the ends of the arms 26 they have oppositely outwardly extending pivot formations 30. These formations, which may as illustrated be pressed into the arms 26 or possibly alternatively be provided by additional elements secured thereto, are part-circular in configuration and have slightly domed base portions as indicated at 31 to substantially conform to the curvature of the base 13 of the annular recess portion 12 of the light fitting. The free ends of the arms 26 beyond the formations 30 have tabs 32.

[0019] The body portion 23 of the mounting member holds the lamp assembly 15. The formations 25 of the mounting member resiliently engage oppositely facing recess formations 33 in the rear portion 18 of the lamp assembly adjacent the reflector 16. The ceramic connector block 20 is held in the body portion 23 by the formations 29 therein, abutting the base portions 27. The connector sleeves 21 lie within the U-shaped portion 28 of the mounting member. The formations 30 of the mounting member engage the base 13 of the annular recess portion 12 of the light fitting, and the engagement is such that the mounting member and lamp assembly held thereby is able to pivot about a transverse axis extending between the formations 30. Such axis is indicated at 34 in Figure 7. The formations 30 are also able to move rotationally around the annular recessed part 12 of the light fitting, so that within limits (defined by contact between the lamp assembly and the rear part 14 of the light fitting) universal movement of the lamp assembly relative to the light fitting is possible.

[0020] The portion 28 of the mounting member prevents contact of any potentially flammable material that might lie behind the light fitting with hot parts of the lamp assembly and its associated components.

[0021] Referring now to Figures 3, 4 and 5 of the drawings, these show a further embodiment in accordance with the invention whose principal features are the same as above described in relation to Figures 1 and 2. In Figures 3, 4 and 5, however, there is additionally provided a somewhat cup-shaped heat shield member 36. The heat shield member 36 is conveniently a metal pressing, and has a front rim portion 37 which terminates adjacent the forward-most part of the reflector of the lamp assembly, and a rear base portion 38 which is held by the mounting member in the region of its formations 35. The body portion 11 of the light fitting is the same as above described but because of the presence of the heat shield member 36 the lamp assembly is carried relative to the light fitting at a position wherein the lamp assembly protrudes slightly forwardly of the flange 10 of the light fitting. The rear of the heat shield 36 ad-

jacent the base portion thereof engages the light fitting adjacent the portion 14 of the latter, to provide a frictional resistance to movement of the lamp assembly relative to the light fitting. The engagement of formations 30 with the annular recess in the light fitting is such that the lamp assembly is urged rearwardly so that such engagement occurs. This provision may be advantageous in, for example, environments where there is vibration. The rear of the heat shield may be non-smooth, to improve the ability of the lamp assembly to retain a set position.

[0022] The embodiment shown in Figures 3, 4 and 5 of the drawings further is distinguished from that of Figures 1 and 2 in that the mounting member does not have tabs 32. Such tabs could be provided as in Figures 1 and 2 to enable the mounting member to be squeezed by the fingers to displace its formations 30 towards one another to enable it to be fitted into and removed from the light fitting, but in practice such removal and fitting is possible by appropriately applying pressure to the lamp assembly if the tabs are not present.

[0023] The heat shield 36 prevents temperatures measurable behind the light fitting from exceeding a predetermined value, enabling the light fitting to be used in certain environments where such requirements exist.

[0024] Referring now to Figure 6 of the drawings, this shows a further embodiment of light fitting in accordance with the invention, whose principal features are the same as those shown in Figures 3 to 5, but with the difference that the light fitting, instead of having a flange 10, has a relatively small annular lip 40. This enables mounting of a number of such light fittings in close proximity to one another in a luminaire.

[0025] Referring now to Figures 10 and 11 of the drawings, these show a further embodiment of light fitting which, as for the fittings previously described, is circular in plan view. It comprises a frontal flange 110 from which a body portion 111 extends rearwardly, the body portion 111 affording an annular recess 112 with a base 113. Behind the portion 112, the body 111 has a portion 109 which extends inwardly followed by an annular rearwardly and outwardly extending portion 108 which defines a radially outwardly facing annular groove 107. The groove 107 provides for mounting of the light fitting in, for example, a panel in a suspended ceiling in the manner described hereafter.

[0026] The light fitting receives a dichroic lamp assembly indicated generally at 115. The lamp assembly 115 is supported in the light fitting by a mounting member 122 whose principal features of its configuration are as above described with reference to Figures 7-9 of the drawings. Thus the mounting member has forwardly and outwardly oppositely extending arms 126 provided at its ends with respective formations 130 (without the tabs 32 shown in Figures 7-9). The mounting member 122 further holds the lamp assembly 115, and a ceramic connector block 120 by which an electrical connection is established with the lamp assembly 115. Electrical cables 105 extend rearwardly from the connector block

120.

[0027] The assembly further comprises a cup shaped heat shield member 136. The heat shield member has a front rim portion 137 and a rear portion 138 defining an aperture through which the lamp and mounting member assembly extends. The rear portion 138 includes two opposed part-cylindrical formations which partly embrace the ceramic connector block 120 when the light fitting is assembled.

[0028] The heat shield member 136 has two oppositely disposed openings 139 through which the end parts of the arms 126, with the pivot formations 130 thereon, extend. The assembled condition of the light fitting, as shown in Figure 10 is reached by firstly fitting the mounting member and a lamp assembly to a heat shield member, and then fitting such sub-assembly rearwardly into the light fitting, resiliently deforming the arms 126 towards one another until their pivot formations 130 are able to snap into engagement with the base 113 of the recess 112 of the light fitting. Normally one of the pivot formations 130 would be thus engaged, followed by the other formation. The dimensions of the parts are such that when such assembly has been carried out, the rear surface of the heat shield member 136 has contact with the light fitting in a substantially uninterrupted line in the annular region between the parts 109, 108 of the light fitting. By virtue of this, there is no or virtually no clear passage between the front and rear of the light fitting. The light fitting thus achieves a high fire safety rating for use in suspended ceilings or the like.

[0029] The assembly of lamp and heat shield is able to tilt and rotate in the light fitting in the manner above described. Rotation through an angle of more than 180° may be prevented by providing pressed indentations 140 in the base 113 of the recess 112 in the light fitting, to be contacted by the formations 130 on arms 126. The front rim portion 137 of the heat shield member may be able to pass just beneath the edge of the flange 110 of the light fitting as shown in Figure 10, to provide a detent so that such a position of maximum tilting can be held in a vibration-resistant manner.

[0030] When the light fitting is to be installed in, for example, a suspended ceiling, an insulating washer as shown at 104 would be interposed between the flange 110 and a panel of such ceiling. The light fitting may be retained in such a panel by a retaining member 143 which as shown in Figure 11 may take the form of an elongate length of thick metal wire with a part-circular portion 144 which is able to be snap engaged, by resilient deformation, with the groove 107. The ends of the piece of wire may take the form of limbs long enough to extend to rest upon the panel supports of the suspended ceiling, so that the weight of the light fitting is borne by the supports rather than the panel. A transformer or other low voltage electrical power supply for the halogen lamp assembly or an electrical connector block, may be carried by an end of the retaining member 143.

[0031] Alternatively a spring clip or clips as the clips

42 may be used to retain the light fitting in a ceiling panel. One such clip may be used in conjunction with a retaining member having one limb only extending from a part-circular portion engaging groove 107. Even if not required for retaining the light fitting in a panel, e.g. if two spring clips as 42 are used, a retaining member engaging the groove 107 may be used to carry a transformer or a connector block.

[0032] The heat-insulating washer 104 could if desired be shaped to extend from the region of the flange 100 to overlie additionally the portions 111, 108 of the light fitting. If this is done, a further improvement in the fire safety rating of the light fitting is obtained, by preventing high temperatures being reached behind the fitting.

[0033] The invention thus provides a means of mounting a lamp assembly which is simple and economical in manufacture and convenient in use. The mounting member may, when suitable tooling has been established, be mass-produced at competitive cost. Removal and fitting of the lamp assembly, including the mounting means, from and to the light fitting can readily be effected. In the case where the light fitting is retained in a panel of a suspended ceiling by a retaining member 143 whose limbs rest on the panel supports of the ceiling it will be appreciated that not only is the weight of the light fitting borne by the supports rather than the panel but also the light fitting will, in the event of fire, help support such panel in the region thereof above the flange of the light fitting.

[0034] The features disclosed in the foregoing description, or the accompanying drawing, expressed in their specific forms or in terms of a means for performing the disclosed function, or a method or process for attaining the disclosed result, may, separately or in any combination of such features, be utilised for realising the invention in diverse forms thereof.

Claims

1. A combination of a lamp assembly (15) and a mounting member (22), the lamp assembly comprising a lamp and a reflector (16), the mounting member (22) having a portion (23) with which the lamp assembly is resiliently held, and a separate portion (30) adapted in use to resiliently engage a light fitting into which the lamp assembly is mounted, **characterised by** further comprising a heat shield member (36) which is also held by the mounting member the heat shield member improving the fire rating of the lamp assembly when mounted in a light fitting.
2. The combination according to claim 1 in which the heat shield member is held by the portion (23) of the mounting member which holds the lamp assembly.
3. The combination according to claim 1 in which said portion (23) of the mounting member (22) for holding the lamp assembly comprises opposed formations (25) facing one another and engageable with oppositely outwardly facing grooves or recesses (33) on a rear portion of the lamp assembly (15), and in which the heat shield member is held by the mounting member in the region of the formations.
4. The combination according to any of claims 1-3 in which the mounting member (22) comprises a one-piece member of resilient material.
5. The combination according to claim 4 in which the mounting member is of metal.
6. The combination according to claim 5 in which the mounting member is of spring steel.
7. The combination according to any of claims 1-6 in which the mounting member (22) has a pair of arm portions (26) extending from the portion (23) of the mounting member which holds the lamp assembly, said arm portions being provided, at or adjacent their free ends, with formations (30) engagable with a light fitting.
8. The combination according to claim 7 in which said formations (30) are adapted, when engaged with a light fitting, to provide for pivotal movement of the mounting member (22), and thus of the lamp assembly held thereby, about an axis extending between said formations.
9. The combination according to any of claims 1-8 in which the mounting member (22) has a portion for holding an electrical connector member for establishing an electrical connection to the lamp.
10. The combination according to claim 9 in which the mounting member (22) further has a portion (28) adapted to receive end parts of electrical cables extending to the electrical connector member.
11. A light fitting having a combination according to any of claims 1-10 fitted therein, the mounting member (22) holding the lamp assembly (15) and the heat shield member (36), and engaging the light fitting.
12. light fitting according to claim 11 in which the mounting member (22) has a pair of arm portions (26) extending from the portion (23) of the mounting member which holds the lamp assembly, said arm portions being provided, at or adjacent their free ends, with formations (30) which engage with a pair of opposed recesses (12) formed in the light fitting.
13. A light fitting according to claim 11 in which the

mounting member (22) has a pair of arm portions (26) extending from the portion (23) of the mounting member which holds the lamp assembly, said arm portions being provided, at or adjacent their free ends, with formations (30) which engage an inwardly facing annular recess (12) formed in the light fitting, the mounting member (22) and lamp assembly (15) being able to move rotationally relative to the light fitting.

14. A light fitting according to claim 12 or 13, wherein said heat shield member (36) engages the light fitting frictionally to restrain movement of the lamp assembly relative to the light fitting.
15. A light fitting according to claim 12 or 13 in which said heat shield member (36) is engageable with the light fitting as a detent to hold a set position of the lamp assembly relative to the light fitting.
16. A light fitting according to any of claims 11-15 in which said heat shield member (36) cooperates with the light fitting to provide no or substantially no clear passage between front and rear of the fitting.
17. A light fitting according to any of claims 11-16 having a portion (108) defining a formation generally in the form of an annular groove (107) for engagement by a retaining member (143).
18. A suspended ceiling structure having a combined light fitting according to claim 17 and a retaining member (143), fitted into a panel (41) of a ceiling and in which limbs of the retaining member rest on support members for the panel.

Patentansprüche

1. Kombination einer Lampenbaugruppe (15) und eines Befestigungselements (22), wobei die Lampenbaugruppe eine Lampe und einen Reflektor (16) aufweist, wobei das Befestigungselement (22) einen Teil (23), mit dem die Lampenbaugruppe federnd gehalten wird, und einen separaten Teil (30) hat, der ausgeführt ist, um in Gebrauch eine Leuchtenarmatur, in welche die Lampenbaugruppe montiert wird, federnd in Eingriff zu nehmen, **dadurch gekennzeichnet, dass** sie ferner ein Hitzeschildelement (36) aufweist, das ebenfalls von dem Befestigungselement gehalten wird, wobei das Hitzeschildelement die Feuerwiderstandsklassifizierung der Lampenbaugruppe, wenn sie in einer Leuchtenarmatur montiert ist, verbessert.
2. Kombination nach Anspruch 1, bei der das Hitzeschildelement von dem Teil (23) des Befestigungselements gehalten wird, der die Lampenbaugruppe

hält.

3. Kombination nach Anspruch 1, bei der der genannte Teil (23) des Befestigungselements (22) zum Halten der Lampenbaugruppe entgegengesetzte Gebilde (25) aufweist, die einander gegenüberliegen und in gegenüberliegend nach außen weisenden Nuten oder Ausnehmungen (33) an einem hinteren Teil der Lampenbaugruppe (15) einrastbar sind, und bei der das Hitzeschildelement von dem Befestigungselement im Bereich der Gebilde gehalten wird.
4. Kombination nach einem der Ansprüche 1 bis 3, bei der das Befestigungselement (22) ein einteiliges Element aus federndem Material umfasst.
5. Kombination nach Anspruch 4, bei der das Befestigungselement aus Metall ist.
6. Kombination nach Anspruch 5, bei der das Befestigungselement aus Federstahl ist.
7. Kombination nach einem der Ansprüche 1 bis 6, bei der das Befestigungselement (22) ein Paar Armteile (26) hat, die sich von dem Teil (23) des Befestigungselements, der die Lampenbaugruppe hält, aberstrecken, wobei die genannten Armteile an ihren freien Enden oder daran angrenzend mit Gebilden (30) versehen sind, die mit einer Leuchtenarmatur in Eingriff bringbar sind.
8. Kombination nach Anspruch 7, bei der die genannten Gebilde (30) ausgeführt sind, um, wenn sie mit einer Leuchtenarmatur in Eingriff sind, Drehbewegungen des Befestigungselements (22) und somit der von ihm gehaltenen Lampenbaugruppe um eine Achse, die sich zwischen den genannten Gebilden erstreckt, zuzulassen.
9. Kombination nach einem der Ansprüche 1 bis 8, bei der das Befestigungselement (22) einen Teil zum Halten einer elektrischen Steckervorrichtung zum Herstellen einer elektrischen Verbindung zur Lampe hat.
10. Kombination nach Anspruch 9, bei der das Befestigungselement (22) ferner einen Teil (28) zum Aufnehmen von Endteilen elektrischer Kabel hat, die zur elektrischen Steckervorrichtung verlaufen.
11. Leuchtenarmatur mit einer in sie eingebauten Kombination nach einem der Ansprüche 1 bis 10, wobei das Befestigungselement (22) die Lampenbaugruppe (15) und das Hitzeschildelement (36) hält und die Leuchtenarmatur in Eingriff nimmt.
12. Leuchtenarmatur nach Anspruch 11, bei der das

Befestigungselement (22) ein Paar Armteile (26) hat, die sich von dem Teil (23) des Befestigungselements, der die Lampenbaugruppe hält, aberstrecken, wobei die genannten Armteile an ihren freien Enden oder daran angrenzend mit Gebilden (30) versehen sind, die in ein Paar einander entgegengesetzter, in der Leuchtenarmatur gebildeter Ausnehmungen (12) eingreifen.

13. Leuchtenarmatur nach Anspruch 11, bei der das Befestigungselement (22) ein Paar Armteile (26) hat, die sich von dem Teil (23) des Befestigungselements, der die Lampenbaugruppe hält, aberstrecken, wobei die genannten Armteile an ihren freien Enden oder daran angrenzend mit Gebilden (30) versehen sind, die in eine nach innen weisende ringförmige Ausnehmung (12) eingreifen, die in der Leuchtenarmatur gebildet ist, wobei das Befestigungselement (22) und die Lampenbaugruppe (15) sich relativ zur Leuchtenarmatur rotierend bewegen können.
14. Leuchtenarmatur nach Anspruch 12 oder Anspruch 13, bei der das genannte Hitzeschildelement (36) die Leuchtenarmatur reibschlüssig in Eingriff nimmt, um die Bewegung der Lampenbaugruppe relativ zur Leuchtenarmatur zu hindern.
15. Leuchtenarmatur nach Anspruch 12 oder Anspruch 13, bei der das genannte Hitzeschildelement (36) mit der Leuchtenarmatur als eine Feststellvorrichtung in Eingriff bringbar ist, um eine eingestellte Position der Lampenbaugruppe relativ zur Leuchtenarmatur zu halten.
16. Leuchtenarmatur nach einem der Ansprüche 11 bis 15, bei der das genannte Hitzeschildelement (36) mit der Leuchtenarmatur zusammenwirkt, um keinen oder im Wesentlichen keinen freien Durchgang zwischen Vorder- und Rückseite der Armatur bereitzustellen.
17. Leuchtenarmatur nach einem der Ansprüche 11 bis 16 mit einem Teil (108), der ein Gebilde allgemein in der Form einer ringförmigen Nut (107) zum Einrasten eines Halteelements (143) definiert.
18. Hängedeckenstruktur mit einer kombinierten Leuchtenarmatur nach Anspruch 17 und einem Halteelement (143), die in eine Platte (41) einer Decke eingebaut ist und bei der Glieder des Halteelements auf Tragelementen für die Platte ruhen.

Revendications

1. Combinaison d'un ensemble lampe (15) et d'un élément de montage (22), l'ensemble lampe compre-

nant une lampe et un réflecteur (16), l'élément de montage (22) possédant une section (23) avec laquelle l'ensemble lampe est retenu de façon élastique, et une section séparée (30) qui est adaptée, lors de l'utilisation, en vue d'un engagement élastique avec un appareil d'éclairage dans lequel l'ensemble lampe est monté, **caractérisée en ce qu'elle** comprend en outre un élément écran thermique (36) qui est également retenu par l'élément de montage, l'élément écran thermique améliorant le degré de résistance au feu de l'ensemble lampe lorsqu'il est monté dans un appareil d'éclairage.

2. Combinaison, selon la revendication 1, dans laquelle l'élément écran thermique est retenu par la section (23) de l'élément de montage qui retient l'ensemble lampe.
3. Combinaison, selon la revendication 1, dans laquelle ladite section (23) de l'élément de montage (22) destiné à retenir l'ensemble lampe comprend des formations opposées (25) qui se font face l'une à l'autre, et capables de s'engager avec des rainures ou des évidements (33) opposés dirigés vers l'extérieur situés sur la face arrière de l'ensemble lampe (15), et dans laquelle l'élément écran thermique est retenu par l'élément de montage dans la zone où se trouvent les formations.
4. Combinaison, selon l'une quelconque des revendications 1-3, dans laquelle l'élément de montage (22) comprend un élément monobloc en matériau élastique.
5. Combinaison, selon la revendication 4, dans laquelle l'élément de montage est en métal.
6. Combinaison, selon la revendication 5, dans laquelle l'élément de montage est en acier à ressort.
7. Combinaison, selon l'une quelconque des revendications 1-6, dans laquelle l'élément de montage (22) possède une paire de sections bras (26) s'étendant à partir de la partie (23) de l'élément de montage qui retient l'ensemble lampe, lesdites sections bras étant munies de formations (30) au niveau de leurs extrémités libres, ou adjacentes à ces dernières, pouvant s'engager avec un appareil d'éclairage.
8. Combinaison, selon la revendication 7, dans laquelle lesdites formations (30) sont adaptées, quand elles sont engagées avec un appareil d'éclairage, de façon à offrir un mouvement de pivotement de l'élément de montage (22), et par conséquent de l'ensemble lampe retenu par celui-ci, autour d'un axe s'étendant entre lesdites formations.

9. Combinaison, selon l'une quelconque des revendications 1-8, dans laquelle l'élément de montage (22) possède une section permettant de retenir un élément connecteur électrique destiné à établir une connexion électrique pour la lampe. 5
10. Combinaison, selon la revendication 9, dans laquelle l'élément de montage (22) possède en outre une section (28) qui est adaptée pour recevoir les parties terminales des câbles électriques se rendant à l'élément connecteur électrique. 10
11. Appareil d'éclairage possédant une combinaison selon l'une quelconque des revendications 1-10 et qui est installée à l'intérieur de celui-ci, l'élément de montage (22) retenant l'ensemble lampe (15) et l'élément écran thermique (36) et s'engageant avec l'appareil d'éclairage. 15
12. Appareil d'éclairage, selon la revendication 11, dans lequel l'élément de montage (22) possède une paire de sections bras (26) s'étendant à partir de la partie (23) de l'élément de montage qui retient l'ensemble lampe, lesdites sections bras étant munies de formations (30) au niveau de leurs extrémités libres, ou adjacentes à ces dernières, et qui s'engagent avec une paire d'évidements (22) opposés formés dans l'appareil d'éclairage. 20 25
13. Appareil d'éclairage, selon la revendication 11, dans lequel l'élément de montage (22) possède une paire de sections bras (26) s'étendant à partir de la partie (23) de l'élément de montage qui retient l'ensemble lampe, lesdites sections bras étant munies de formations (30) au niveau de leurs extrémités libres, ou adjacentes à ces dernières, et qui s'engagent avec un évidement annulaire (12) dirigé vers l'intérieur, formé dans l'appareil d'éclairage, l'élément de montage (22) et l'ensemble lampe (15) étant capables d'effectuer un mouvement de rotation par rapport à l'appareil d'éclairage. 30 35 40
14. Appareil d'éclairage, selon la revendication 12 ou 13, dans lequel ledit élément écran thermique (36) s'engage par frottement avec l'appareil d'éclairage afin de restreindre le mouvement de l'ensemble lampe par rapport à l'appareil d'éclairage. 45
15. Appareil d'éclairage, selon la revendication 12 ou 13, dans lequel ledit élément écran thermique (36) peut s'engager avec l'appareil d'éclairage à titre de détente afin de maintenir une position déterminée de l'ensemble lampe par rapport à l'appareil d'éclairage. 50 55
16. Appareil d'éclairage, selon l'une quelconque des revendications 11-15, dans lequel ledit élément écran thermique (36) est en interaction avec l'appareil d'éclairage de façon à ce qu'il n'y ait aucun passage évident, ou essentiellement pas de passage évident entre la face avant et la face arrière de l'appareillage.
17. Appareil d'éclairage, selon l'une quelconque des revendications 11-16, possédant une partie (108) qui définit une formation se présentant généralement sous la forme d'une rainure annulaire (107) dans laquelle un élément de retenue (143) peut s'engager.
18. Structure de faux-plafond possédant un appareil d'éclairage combiné, selon la revendication 17, et un élément de retenue (143) montés dans un panneau (41) de plafond, et dans lequel les pattes de l'élément de retenue reposent sur des éléments de support pour le panneau.

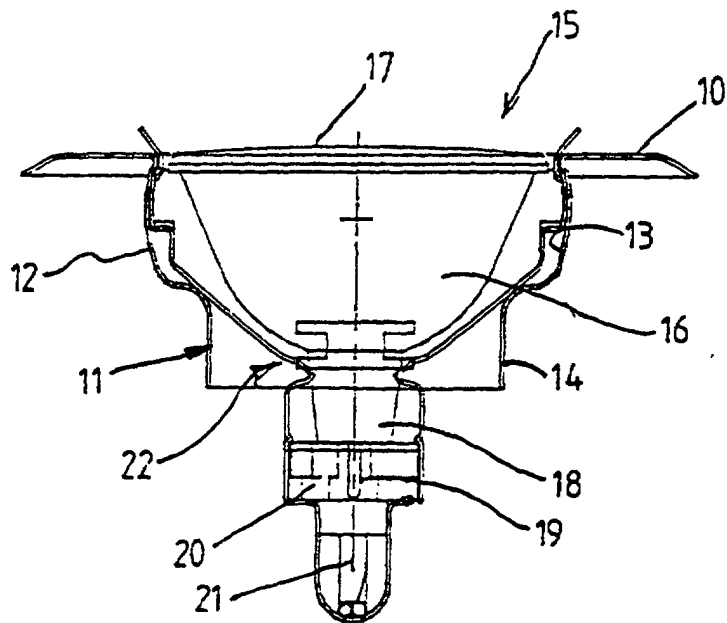


FIG 1

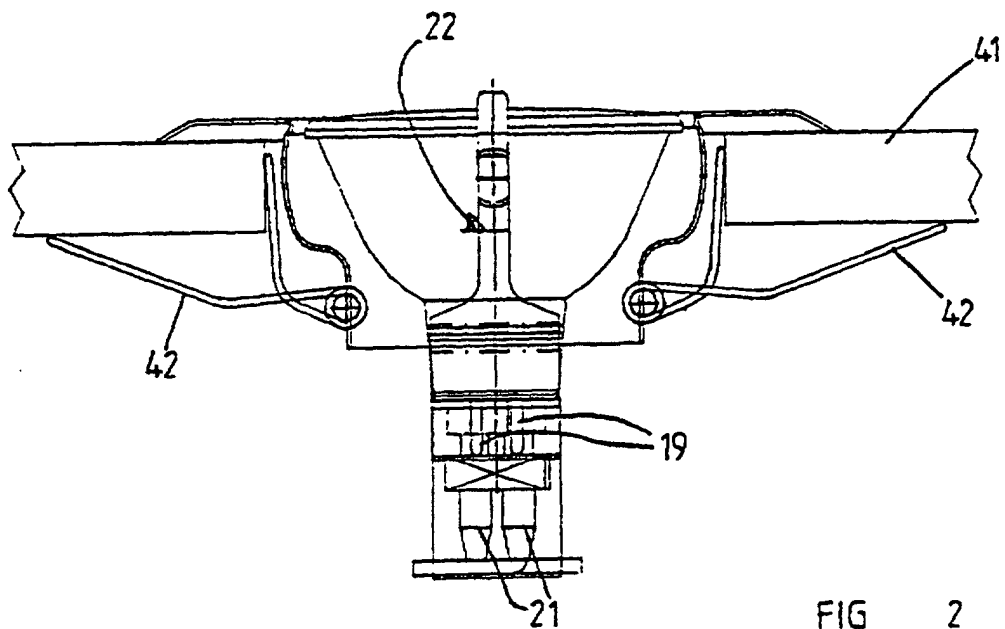


FIG 2

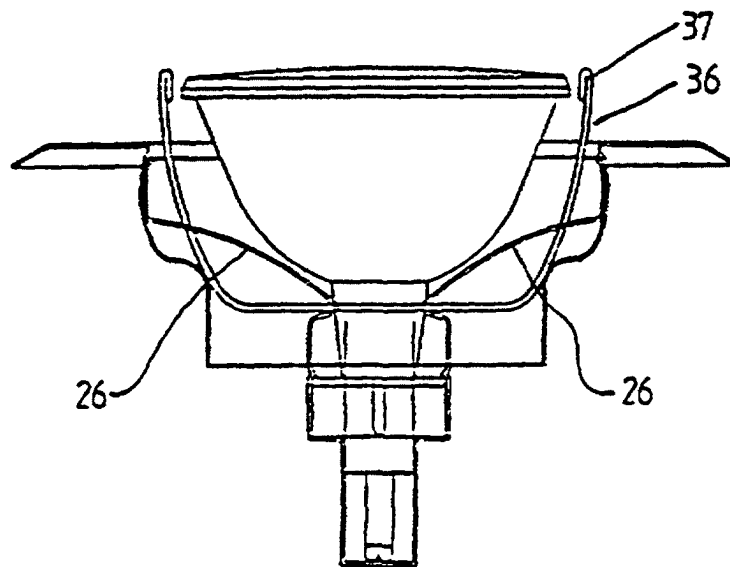


FIG 3

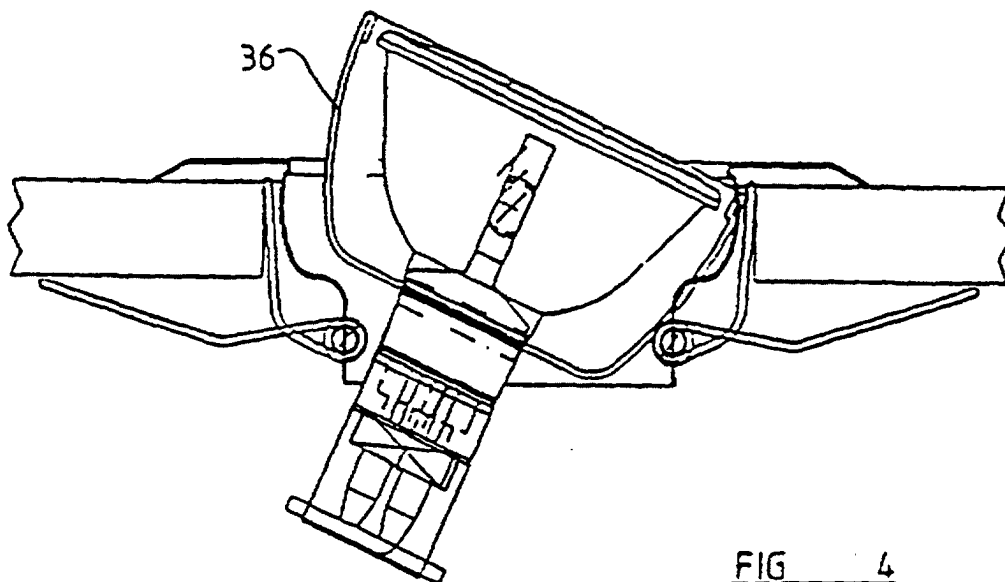


FIG 4

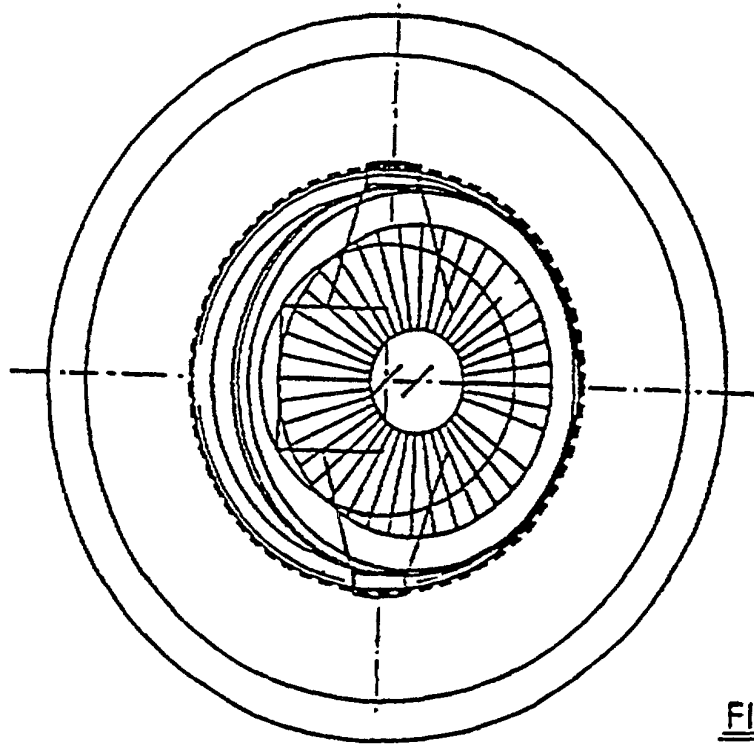


FIG 5

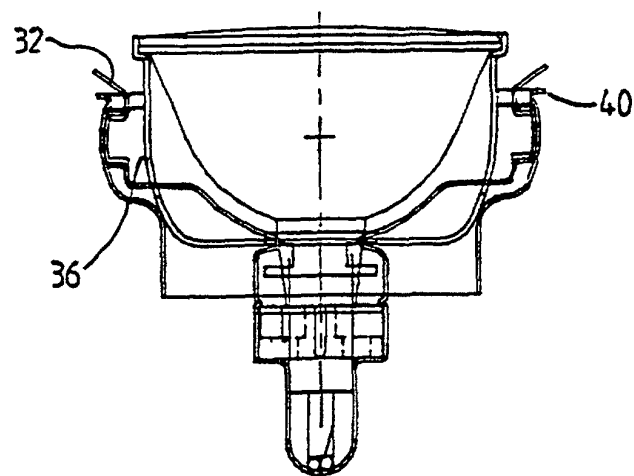
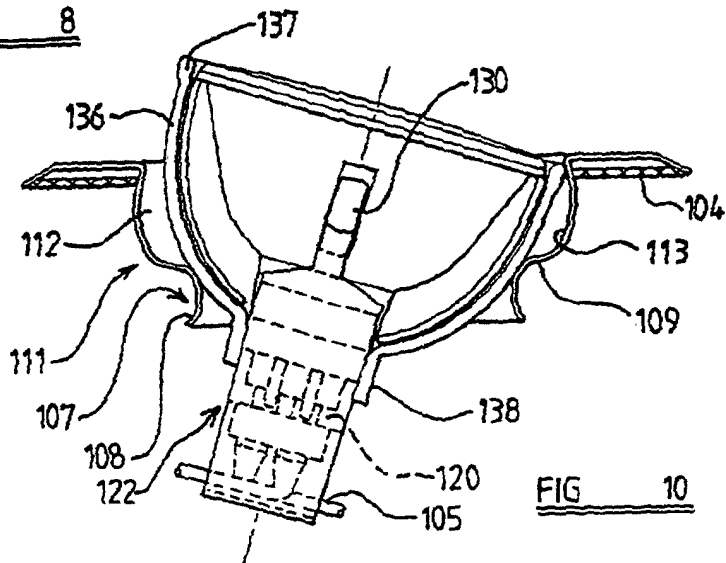
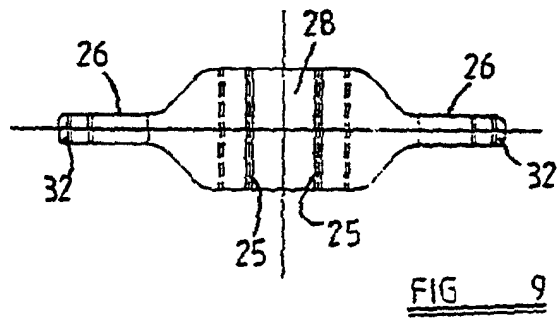
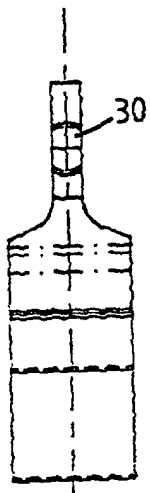
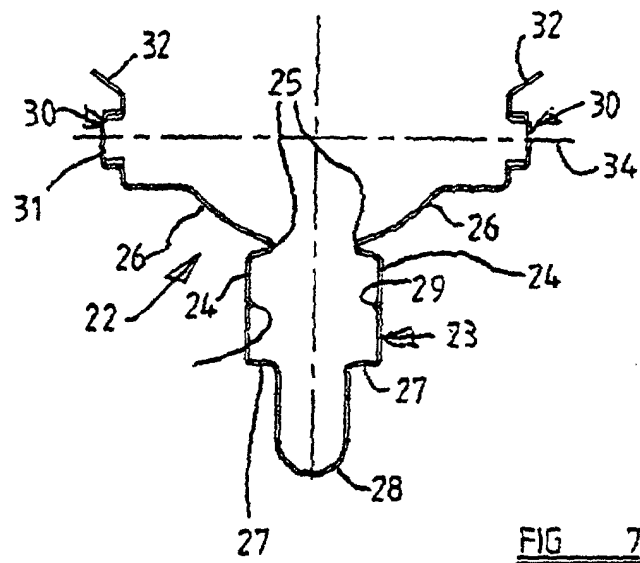


FIG 6



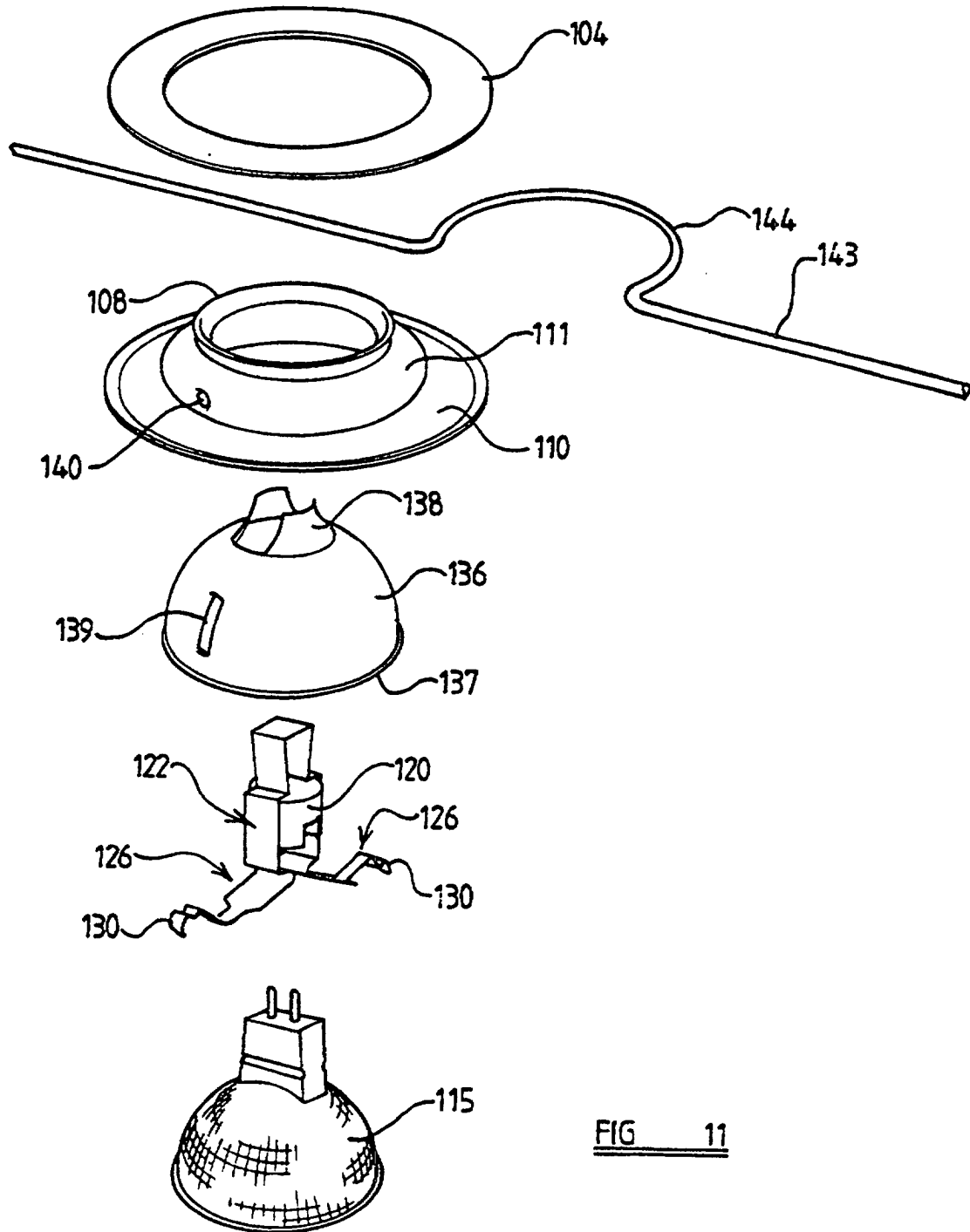


FIG 11