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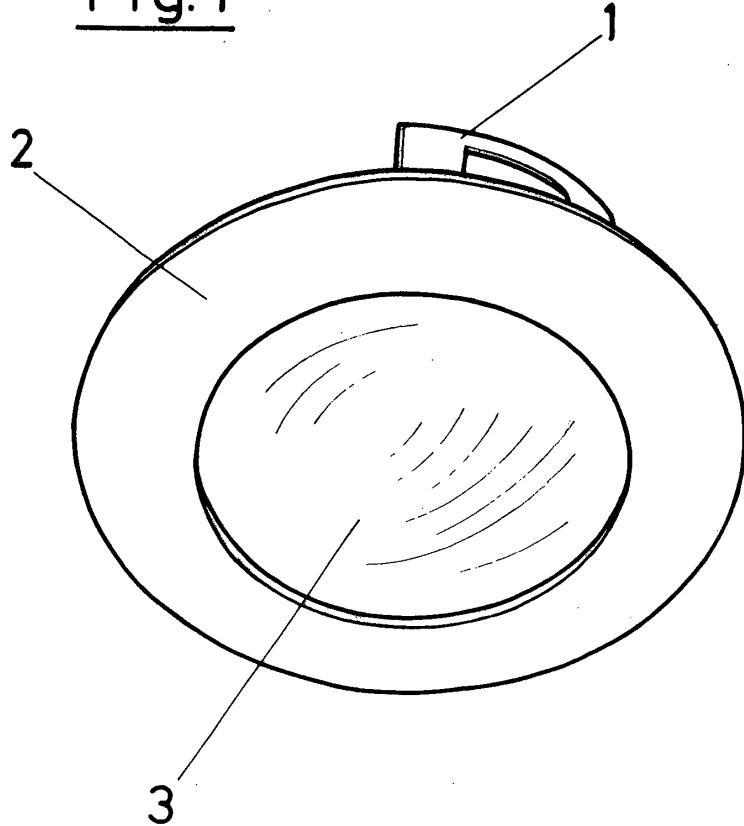
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(54) Flush fitting trim for a halogen or similar spotlight

(57) Flush fitting trim for a halogen or similar spotlight, being of the type intended for the fitting of the type of lamps (3) which includes a rear reflector for fitting into panels, false ceilings or similar constructions and made up of an internal tubular element (1) and an external tubular element (2) and which can be held together by a bayonet mechanism, by means of snubs (9) and L

shaped grooves (6). The internal element (1) has some means of fixing to the panel such as an external ring (7) and springs or similar supports (8), the external element (2) is made up of an external ring (5) for the concealment and an internal rim (4) for the concealment of the assembly of the edge of the bulb (3), said bulb (3) being easily accessible by turning the external element (2) in the inner element (1).

Fig. 1



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Description**OBJECT OF THE INVENTION**

[0001] The object of the present patent application is to register a flush fitting trim for halogen or similar spotlights whose construction has been improved in order to make the assembly and the disassembly easier and to present an improved final finish.

[0002] More specifically this is a support trim for halogen or similar lamps being of the type that include a reflector, said trim being made up of two elements in which one fits into the other, an internal element which is intended to be held to a panel or false ceiling into which said internal element is fitted and an external element that supports the lamp and which slots into the flush unit by means of a bayonet mechanism.

BACKGROUND TO THE INVENTION

[0003] Halogen lamps are usually used in lighting installations where the luminous point is fitted into a panel, false ceiling or similar situation. In order to do this the lamp holder is usually made up of a trim ring that is fixed to the panel at its rear by means of springs or tabs and the spotlight or bulb being seen only from the front.

[0004] In order to make the changing of the lamps easier some manufacturers arrange it so that the external trim ring leaves a certain margin around it so as to be able to insert the fingers and being able to grip only the lamp, leaving in the panel the lamp holder trim. This results in the aesthetic appearance not being as advantageous as might be hoped for.

[0005] Another solution adopted has been to arrange the lamp so that it is housed behind the lamp trim ring and so it becomes necessary to remove the entirety of the assembly and to handle it on the outside in order to change said lamp. With this solution, the appearance sought is achieved, however the changing of the lamp is made more awkward.

DESCRIPTION OF THE INVENTION

[0006] The flush fitting trim for halogen or similar spotlights of the new invention is made up of a set of two easily assembled and disassembled pieces to make the changing of the lamp easier, achieving an optimum aesthetic appearance of the entire assembly.

[0007] In effect, the trim is made up of two elements that fit together by means of a bayonet or similar fitting. An internal element is intended to fulfil the support function of the assembly and is made up of a tubular element with a lower surrounding ring suitable to be left on the external part of the panel in which the trim is to be fitted. In turn the rear part consists of support strips or other means of fixing the lamp holder to the lamp and the conventional means of fixing, such as springs or similar. In turn, the external decorative can be inserted into this

element. Said external element is made up of a hollow tubular element suitable for housing the halogen or similar lamp being of the type which has a reflecting surface integrated into its rear. This external element is made

5 up with a small surrounding internal protrusion on the external opening that acts as support for the front surface of the lamp and hides its surrounding edge, only the internal reflecting surface being visible. In turn, this peripheral opening extends towards the exterior into a visible trim ring, intended to cover the internal ring element.

[0008] The internal element has at least two snubs or protrusions on its internal cylindrical surface. These snubs hold the external element and the lamp by means 10 of being housed into some L shaped grooves provisioned in the rear opening of the external element. In order to fit the external element with the lamp it is only necessary to introduce the external element into the internal element and turn it a certain angle so that the

15 snubs are fixed into their respective L shaped grooves and thus fixing the assembly into place. In turn, in order to disassembly the assembly it is only necessary to turn the external element a certain angle in order to slide the snubs out of their fixing grooves.

[0009] In order to complement the description that has 20 been made and for the purpose of making the characteristics of the invention easier to understand, attached to this present document is a set of drawings in which, by way of being illustrative but not limiting, the most significant details have been represented.

BRIEF DESCRIPTION OF THE DRAWINGS**[0010]**

35 Figure 1. Shows a perspective view of the assembly fitted together and seen from the exterior.
Figure 2. Shows an exploded view of the trim assembly.
40 Figure 3. Shows a semi-section view of the assembly.

DESCRIPTION OF A PREFERRED EMBODIMENT

[0011] In view of the figures commented on, and in accordance with the numbering adopted, a preferred embodiment of the invention can be seen in same that is not by way of limitation. This consists of an internal flush fitting element (1) fitted into a panel or similar and 50 an external decorative element (2) behind which a halogen or similar lamp (3) is fitted. The internal element (1) consists of a hollow tubular body with a surrounding external ring (7) at its opening and two extensions (8) at its rear for the anchoring of the springs (not shown) so as to fix it to the panel and to retain the lamp holder (not shown) for the electrical connection of the halogen or similar lamp (3). The body of the internal element (1) has a series of snubs or similar protrusions (9) on the

inner surface. The external element (2) is made up of a tubular body with a diameter being less than that of the body element (1) and can be slotted into the latter. Said external element (2) has a series of L shaped grooves or slots (6) on its rear opening or similar which fit together with the snub elements (9) of the internal element (1). In turn, at its opening the external element (2) has a surrounding support and/or concealment rim (4) for the front edge of the bulb (3). Said opening of the external element (2) is extended by a visible trim ring (5) on the external surface so as to conceal the assembly.

Claims

1. Flush fitting trim for a halogen or similar spotlight, being of the type which is suitable for housing in panels, false ceilings or similar constructions with lamps (3) which include a rear reflector, characterised because it consists of an internal tubular element (1) and an external tubular element (2) where one (2) can be introduced into the other (2), held by a bayonet mechanism, by means of some protrusions (9) and some grooves (6) made in the shape of an L or similar. 15

2. Flush fitting trim for a halogen or similar spotlight, characterised because the internal element (1) has a front external surrounding fixing ring (7) at the exterior of the panel. 20

3. Flush fitting trim for a halogen or similar spotlight, according to claim 1, characterised because the internal element (1) is made up of some rear springs (not shown) or similar anchoring elements (8). 25

4. Flush fitting trim for a halogen or similar spotlight, according to claim 3, characterised because said internal elements (8) are made up with a means of fixing to the lamp holder (not shown). 30

5. Flush fitting trim for a halogen or similar spotlight, according to claim 1, characterised because the snubs (9) are arranged on the internal face of the internal element (1) and there are at least two. 35

6. Flush fitting trim for a halogen or similar spotlight, according to claim 1, characterised because the external element (2) consists of grooves (6) in the shape of an L or similar at the rear opening of the tubular body. 40

7. Flush fitting trim for a halogen or similar spotlight, according to claims 5 or 6, characterised because the grooves (6) have an equal amount or a multiple amount of the number of snubs (9). 45

8. Flush fitting trim for a halogen or similar spotlight, 50

according to claim 1, characterised because the external element (2) consists of an internal surrounding rim (4) at its external opening. 55

5 9. Flush fitting trim for a halogen or similar spotlight, according to claim 1, characterised because the external element (2) consists of a visible external surrounding ring (5), arranged in any decorative manner. 10

Fig. 1

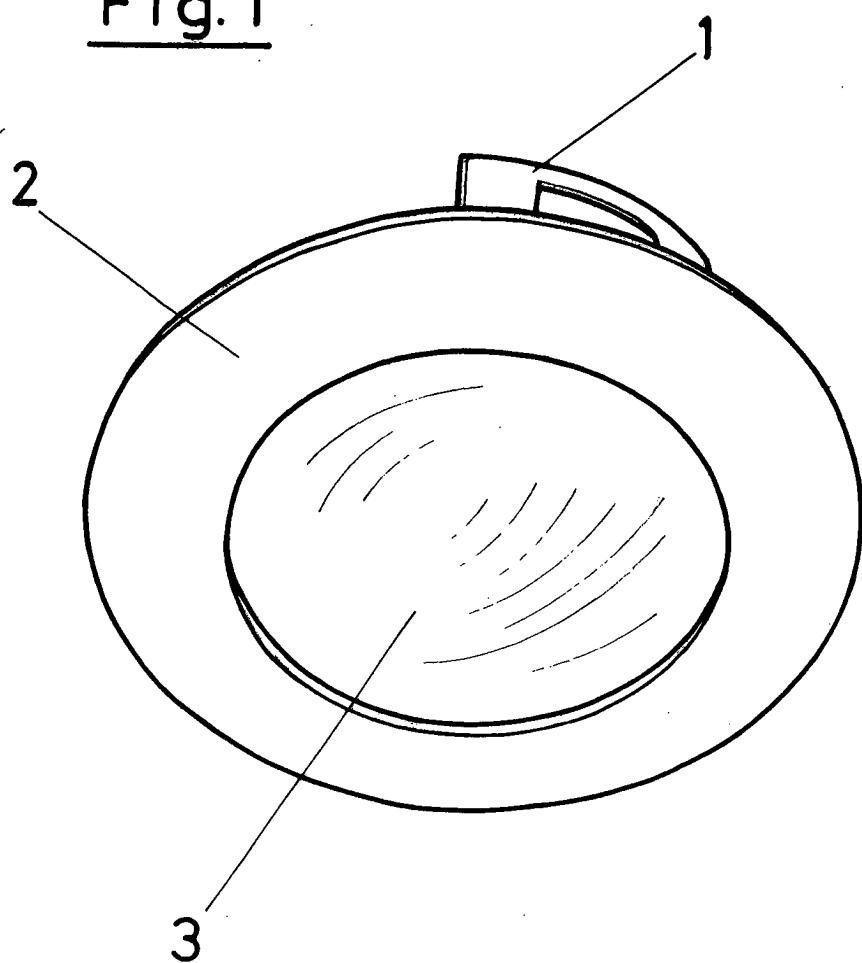


Fig. 2

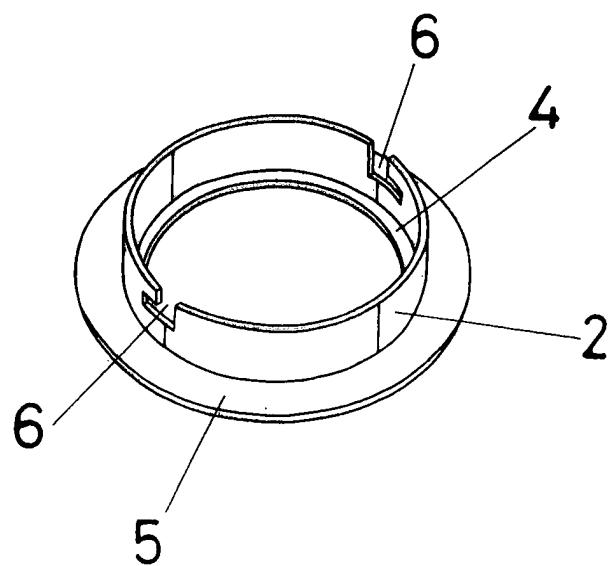
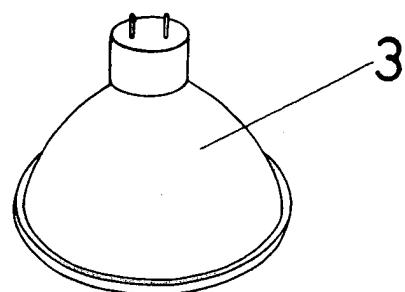
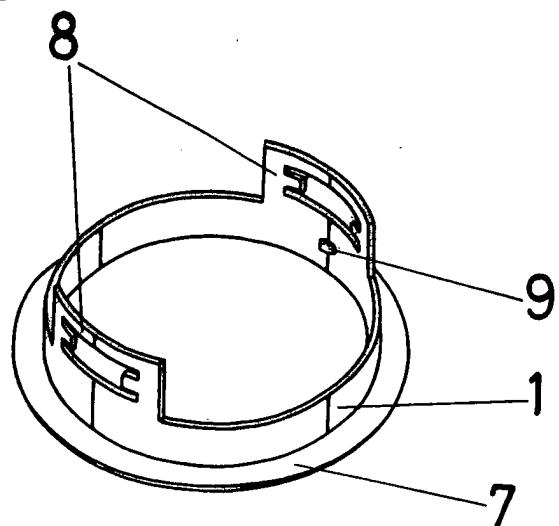
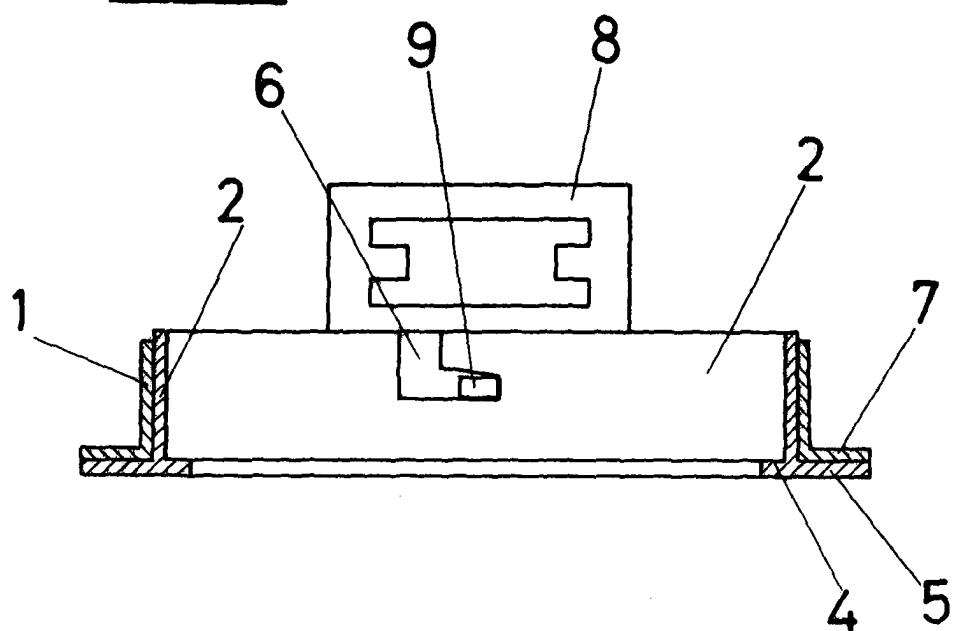


Fig. 3





| DOCUMENTS CONSIDERED TO BE RELEVANT | | | CLASSIFICATION OF THE APPLICATION (Int.Cl.7) |
|--|---|---|---|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | |
| X | DE 40 30 077 A (WILA LEUCHTEN GMBH) 26 March 1992 (1992-03-26) * column 1, line 12 - line 30 * * column 2, line 6 - column 3, line 3 * * figures 1-8 * --- | 1-9 | F21S8/02 F21V17/14 |
| X | AT 303 889 B (ZUMTOBEL KG) 11 December 1972 (1972-12-11) * page 3, line 10 - line 22 * * figure 1 * --- | 1-9 | |
| X | FR 2 638 815 A (MEGALIT) 11 May 1990 (1990-05-11) * page 2, line 27 - page 3, line 2 * * page 3, line 10 - line 12 * * page 4, line 2 - line 19 * * figures 1-3 * --- | 1-9 | |
| X | DE 92 11 011 U (ACR AUTOMATION IN CLEANROOM GMBH) 19 November 1992 (1992-11-19) * page 2, line 19 - page 4, line 23 * * figures 1-5 * --- | 1-9 | |
| A | DE 199 04 933 C (WILA LEUCHTEN AG) 13 April 2000 (2000-04-13) * column 2, line 31 - line 44 * * figures 1-4 * --- | 1,8 | TECHNICAL FIELDS SEARCHED (Int.Cl.7) F21S F21V |
| A | DE 42 02 295 C (HOFFMEISTER-LEUCHTEN GMBH &CO. KG) 15 July 1993 (1993-07-15) * column 4, line 2 - line 13 * * column 4, line 24 - line 30 * * figure 1 * ----- | 1,8 | |
| The present search report has been drawn up for all claims | | | |
| Place of search | Date of completion of the search | Examiner | |
| THE HAGUE | 7 May 2003 | De Mas, A | |
| CATEGORY OF CITED DOCUMENTS | | T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document | |
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ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 03 00 6623

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

07-05-2003

| Patent document cited in search report | | Publication date | | Patent family member(s) | | Publication date |
|--|---|------------------|----------------|--|--|--|
| DE 4030077 | A | 26-03-1992 | DE | 4030077 A1 | | 26-03-1992 |
| AT 303889 | B | 11-12-1972 | NONE | | | |
| FR 2638815 | A | 11-05-1990 | FR DE | 2638815 A1 8907132 U1 | | 11-05-1990 20-07-1989 |
| DE 9211011 | U | 19-11-1992 | DE | 9211011 U1 | | 19-11-1992 |
| DE 19904933 | C | 13-04-2000 | DE DE US | 19904933 C1 29923760 U1 6443592 B1 | | 13-04-2000 01-03-2001 03-09-2002 |
| DE 4202295 | C | 15-07-1993 | DE | 4202295 C1 | | 15-07-1993 |