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(54) **Recessed spotlight**

Einbaustrahler

Spot à encastrer

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(73) Proprietor: **Belfiore s.r.l.**
36055 Nove (VI) (IT)

(72) Inventor: **Cinel, Gianfranco**
36022 Cassola (VI) (IT)

(74) Representative: **Bettello, Pietro**
Via Col d'Echele, 25
36100 Vicenza (IT)

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Description

[0001] The present finding concerns a recessed spotlight, according to the general part of claim 1.

[0002] Among the different types of "light fittings" it is common to use so called "recessed spotlights", defined in such a way due to the fact that it is partially or totally inserted inside a supporting structure, which generally consists of slabs made from plasterboard, which have a covering function like double walls and/or false ceilings. Operatively, the wall made from plasterboard must be positioned away from the wall/ceiling behind it so as to create a gap which makes it possible to contain the body of the spotlight and that, at the state of the art, can be as little as around 15 mm; such a value makes the mounting operations of normal recessed spotlights a problem, due to their bulk.

[0003] In practice, with a gap width of 15 mm, the operations of insertion of the spotlight through the slot performed on the slab and its subsequent arrangement are difficult, even when using a spotlight having small thickness, such as an LED recessed spotlight (as an example it is worth mentioning the one described in the Italian patent document n. VI2011U000022).

[0004] In the document WO 2011/123905 A2 is described a recessed spotlight, to be applied on slabs, made up of two separate parts, which are assembled to one another duly assembly on the supporting wall. However, this recessed spotlight has the same drawback of the already cited devices of the state of the art.

[0005] The purpose of the present finding is to make a recessed spotlight that does not have the drawbacks encountered by similar products of the known type.

[0006] Specifically, the purpose of the finding is to make a recessed spotlight that is simple and rapid to assemble.

[0007] Such a purpose is obtained by making a recessed spotlight according to the characterising portion of claim 1.

[0008] Constructively, one part consists of a thin sheet-like plate on which the LED light group is applied and that, fitted in the gap, through a slot that is performed on the slab, is positioned and held, by means of two lateral fins, against the inner wall of said slab.

[0009] The second part is made up of a body, with the function of protecting the LED and of closing the slot, which is applied and kept on the aforementioned plate, in a removable manner, through external screws.

[0010] In its preferred embodiment the plate is made from a material that is capable of rapidly letting off the heat generated by the LED (metal or other type of material that is suitable for the purpose), whereas the body is made from plaster, so as to facilitate the external shaving operation with the slab made from plasterboard.

[0011] The finding shall be defined more clearly with the description of a possible embodiment thereof, which is given as a non-limiting example, with the help of the attached drawing tables, in which:

- fig. 1 (Tab. I) represents a cross-section view of the assembled spotlight according to the finding;
- fig. 2 represents an exploded view of the spotlight according to fig. 1;
- figs. 3-4 represent sectioned views according to the lines III-III and IV-IV of fig. 2;
- figs. 5-6-7 (Tab. II) represent the mounting steps of the spotlight according to fig. 1.

[0012] As visible in figs. 1-4, the spotlight according to the finding, which is wholly indicated with reference numeral 10, is mounted on a wall made from plasterboard "K" which, with the existing wall "M", defines a gap "I", all in a *per se* known manner.

[0013] As visible in figs. 1-4, the spotlight 10, which in the example is of the LED type, does not consist of a single block enclosing the light group that is provided with supporting lateral bars, like in spotlights of the known type, but rather, it is made up of two distinct and separate parts 1 and 2, in this case consisting of an upper band-like plate and a lower body, which are held together with screws 3.

[0014] The upper part 1 comprises a central portion 4, for supporting the underlying part 2 and where the LED light group 5 is centrally applied; it is foreseen for there to be two lateral fins 6 for anchoring inside the wall made from plasterboard "K".

[0015] The lower part 2 foresees a central light space 7, which is closed by a sliding glass piece 8.

[0016] In order to better understand the operation advantage achieved by the finding we shall describe the mounting steps of the spotlight 10 in figs. 5-6.

[0017] The first mounting step foresees the insertion of the part 1 consisting of a sheet-like plate inside the gap "I", through the slot "F", performed on the plasterboard. Subsequently, the plate is positioned on the inner part of the wall made from plasterboard and it is blocked through external screws "V", that hold lateral tabs 6. Again after, the lower body (part 2) is applied on the sheet-like plate, which is fitted on the slot "F" and is held through external screws 3.

[0018] As can be understood, in particular, by observing fig. 5, with the constructive solution according to the finding it is possible to insert the spotlights, also of the "totally recessed" type, like those represented, also on walls that have a small gap width "h" since, in said gap, only the upper plate, which has minimal bulk thickness "s" is inserted and not the entire body, which has a considerably greater thickness "S".

[0019] Of course, the shape and the dimensions of the finding, as well as the materials and its constructive details can be the most disparate, as long as all these belong to the inventive concept defined by the following claims.

Claims

1. RECESSED SPOTLIGHT, to be applied on slabs,

- constituting double walls and/or false ceilings, of the type consisting of a block containing a light group and provided with lateral fins for connecting to the inner part of the aforementioned slab, wherein said recessed spotlight (10) is made up of two separate parts (1, 2), which are assembled to one another during assembly on the supporting wall, such as a slab made from plasterboard (K), which defines a gap (I), wherein the first part (1), to be disposed in the inner portion of the slab, consists of a thin sheet-like plate, **characterised in that** the light group is applied on the thin sheet like plate and that, fitted inside the gap (1), through a slot (F), performed on the slab (K), is positioned and kept, by means of two lateral fins, against the inner wall of said slab, the second part (2), to be applied to the sheet-like plate, is made up of a body, with the function of protecting one or more LEDs and of closing the slot (F), which is applied and kept on the aforementioned plate (1) in a removable manner.
2. RECESSED SPOTLIGHT, according to claim 1, mounted on a wall made from plasterboard (K) which, with the existing wall (M), defines a gap (I), **characterised in that** the two distinct and separate parts (1, 2) are held to one another by means of external screws (3).
 3. RECESSED SPOTLIGHT, according to claims 1 or 2, **characterised in that** the first part (1) comprises a central portion (4), where the LED light group (5) is applied, having the function of supporting the underlying part (2) and two lateral fins (6), which are intended for anchoring inside the wall made from plasterboard (K).
 4. RECESSED SPOTLIGHT, according to one or more of the previous claims, **characterised in that** the first part (1) is made with a material that is capable of letting off the heat generated by the light group (5)
 5. RECESSED SPOTLIGHT, according to one or more of the previous claims, **characterised in that** the second part (2) foresees a light space (7), closed with a sliding glass piece (8).
 6. MOUNTING OF THE RECESSED SPOTLIGHT, according to one or more of the previous claims, **characterised in that** it provides the insertion of the first sheet-like part (1) in the gap (I), through the slot (F) performed on the supporting wall (K); the blocking through external screws (V), which restrain the lateral tabs (6); finally, the application of the second part (2) is applied on said sheet-like part (1), said second part being fitted on the slot (F) and restrained through external screws (3).

Patentansprüche

1. Einbaustrahler zum Aufbringen auf Platten, welche Doppelwände und/oder abgehängte Decken des Typs bilden, der aus einem Block mit einer Beleuchtungsgruppe besteht und mit seitlichen Rippen zum Verbinden mit der Innenseite der Platte versehen ist, wobei der Einbaustrahler (10) aus zwei getrennten Teilen (1, 2) hergestellt ist, die während der Montage der Trägerwand, beispielsweise eine Platte aus Gipskarton (K), miteinander verbunden werden, welche einen Spalt (I) definiert, wobei der erste Teil (1), der auf der Innenseite der Platte angeordnet ist, aus einer dünnen, folienartigen Platte besteht, **dadurch gekennzeichnet, dass** die Beleuchtungsgruppe auf der dünnen, folienartigen Platte aufgebracht wird und in dem Spalt (I), durch einen Schlitz (F), der auf der Platte (K) ausgeführt wird, mittels zweier seitlicher Rippen positioniert und gegen die innere Wand der Platte gehalten wird; der zweite Teil (2), der auf der folienartigen Platte aufzubringen ist, ist aus einem Körper hergestellt, der dazu dient, eine oder mehrere LEDs zu schützen und den Schlitz (F) zu schließen, welcher auf der Platte (1) angebracht und auf entfernbarer Weise gehalten wird.
2. Einbauleuchte nach Anspruch 1, die auf einer Wand aus Gipskarton (K) befestigt wird, die zusammen mit der bestehenden Wand (M) einen Spalt (I) bildet, **dadurch gekennzeichnet, dass** die beiden unterschiedlichen und getrennten Teile (1, 2) mittels äußerer Schrauben (3) zusammengehalten werden.
3. Einbauleuchte nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** der erste Teil (1) einen mittleren Abschnitt (4) umfasst, in dem die LED-Beleuchtungsgruppe (5) angebracht wird, die dazu dient, den darunterliegenden Teil (2) und die beiden seitlichen Rippen (6) zu stützen, die zur Verankerung innerhalb der Wand aus Gipskarton (K) bestimmt sind.
4. Einbauleuchte nach einem oder mehreren der vorstehenden Ansprüche, **dadurch gekennzeichnet, dass** der erste Teil (1) aus einem Material hergestellt ist, das in der Lage ist, die durch die Beleuchtungsgruppe (5) erzeugte Wärme abzuleiten.
5. Einbauleuchte nach einem oder mehreren der vorstehenden Ansprüche, **dadurch gekennzeichnet, dass** der zweite Teil (2) einen Lichtraum (7) vorsieht, der mit einem verschiebbaren Glasteil (8) verschlossen ist.
6. Fassung für die Einbauleuchte nach einem oder mehreren der vorstehenden Ansprüche, **dadurch gekennzeichnet, dass** sie das Einfügen des ersten folienartigen Teils (1) in den Spalt (I) durch den

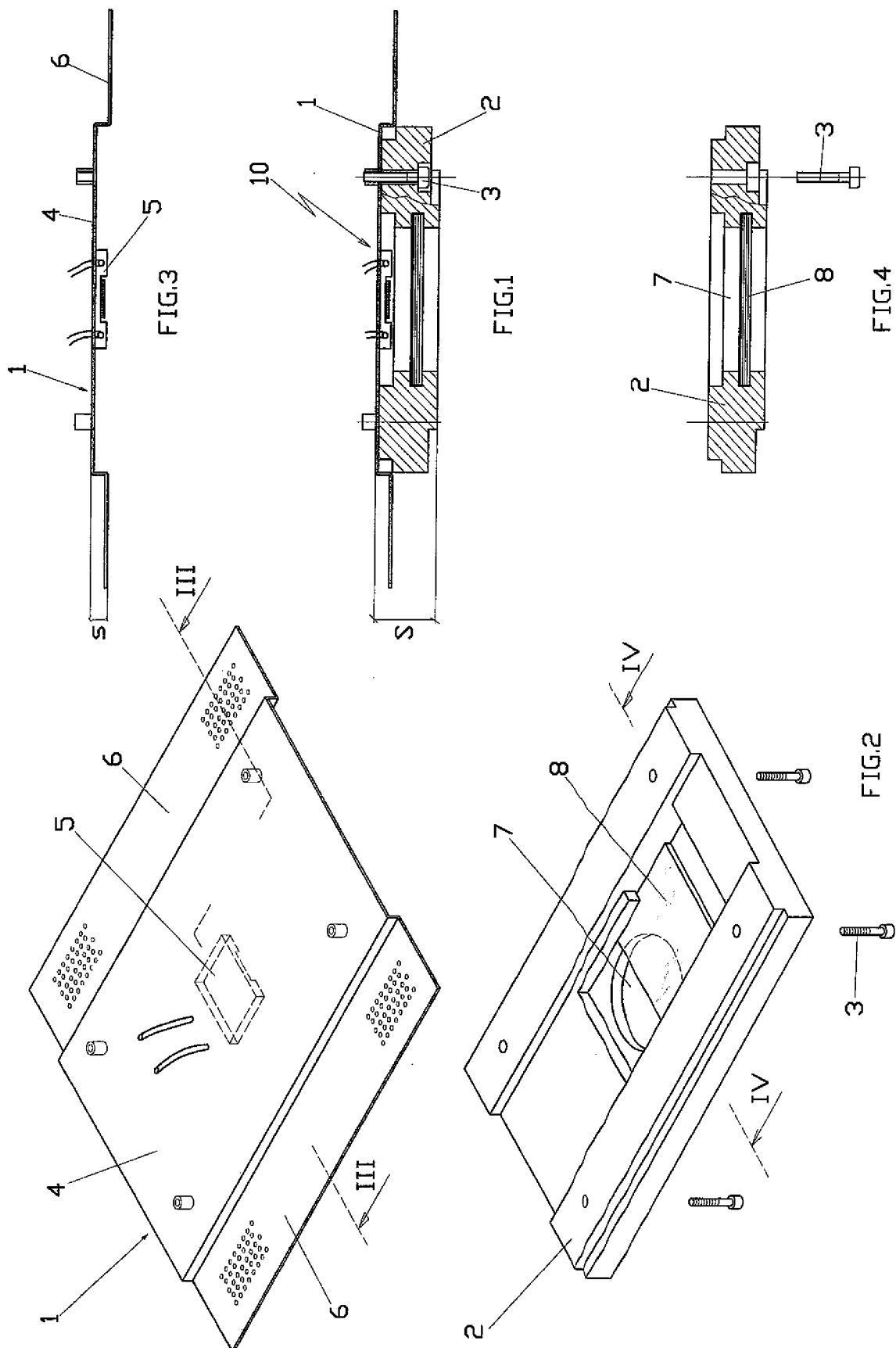
Schlitz (F) vorsieht, der auf der Trägerwand (K) ausgeführt ist; das Blockieren durch äußere Schrauben (V), die die seitlichen Streifen (6) halten; und zum Schluss das Anbringen des zweiten Teils (2) auf dem folienartigen Teil (1), wobei der zweite Teil auf den Schlitz (F) angepasst und mit äußeren Schrauben (3) gehalten wird.

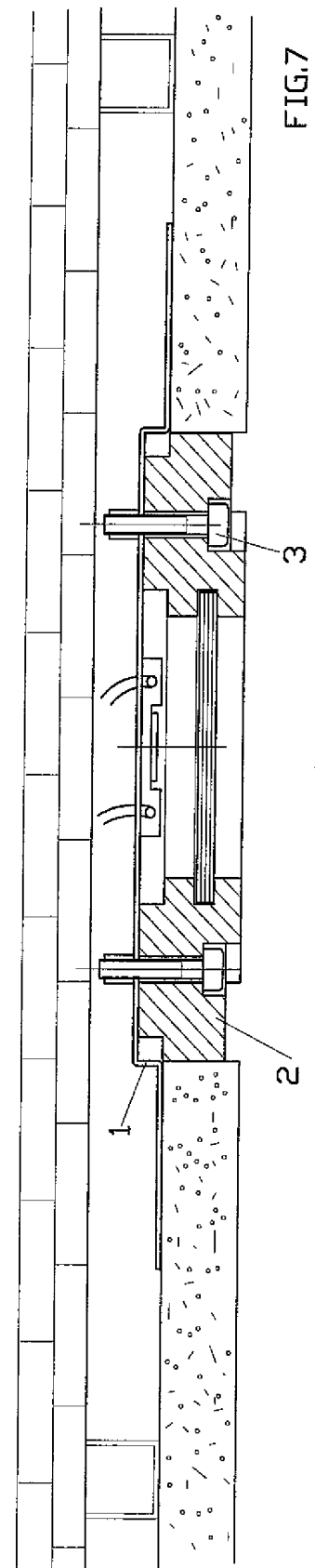
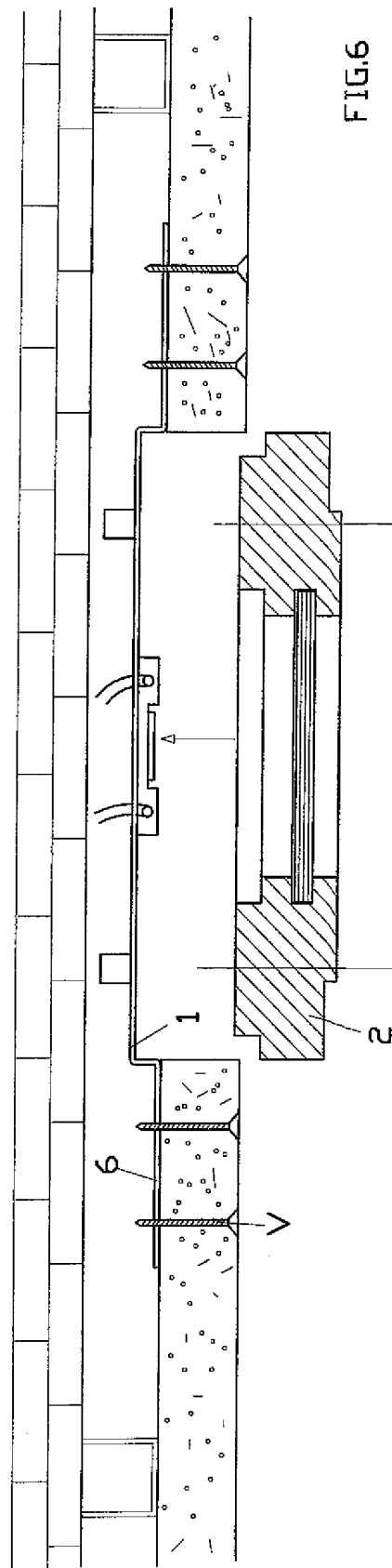
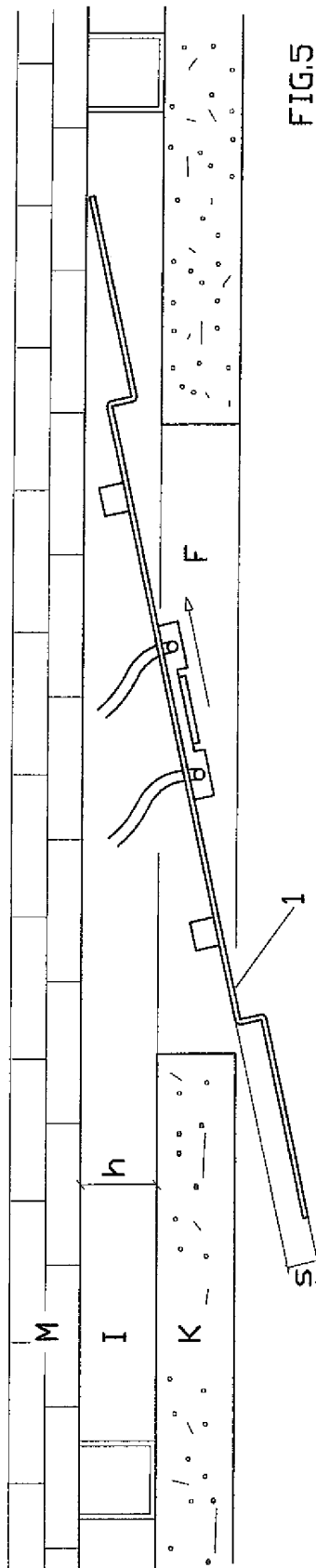
Revendications

1. Spot à encastrer destiné à être appliqué sur des plaques, constituant des doubles parois et/ou des faux plafonds, du type comprenant un bloc contenant un groupe d'éclairage et pourvu d'aillettes latérales pour la connexion à la partie intérieure de la plaque précitée, dans lequel ledit spot à encastrer (10) est constitué de deux parties séparées (1, 2), qui sont assemblées entre elles durant l'assemblage sur la paroi de support, telle qu'une plaque réalisée en placoplâtre (K), qui définit un espace intermédiaire (I), dans lequel la première partie (1), destinée à être disposée dans la portion intérieure de la plaque, consiste en une plaque mince en forme de feuille, **caractérisé en ce que** le groupe d'éclairage est appliqué sur la plaque mince en forme de feuille et **en ce que**, inséré dans l'espace intermédiaire (I), à travers une fente (F), réalisée sur la plaque (K), est positionné et maintenu, au moyen de deux ailettes latérales, contre la paroi intérieure de ladite plaque, la deuxième partie (2), destinée à être appliquée à la plaque en forme de feuille, est constituée d'un corps, avec pour fonction de protéger une ou plusieurs LED et de fermer la fente (F), qui est appliqué et maintenu sur la plaque précitée (1) d'une manière amovible.
2. Spot à encastrer selon la revendication 1, monté sur une paroi réalisée en placoplâtre (K) qui, avec le mur existant (M), définit un espace intermédiaire (I), **caractérisé en ce que** les deux parties distinctes et séparées (1, 2) sont maintenues l'une avec l'autre au moyen de vis externes (3).
3. Spot à encastrer selon les revendications 1 ou 2, **caractérisé en ce que** la première partie (1) comprend une portion centrale (4), où le groupe d'éclairage à LED (5) est appliqué, ayant pour fonction de supporter la partie sous-jacente (2) et deux ailettes latérales (6), qui sont destinés à l'ancrage à l'intérieur de la paroi réalisée en placoplâtre (K).
4. Spot à encastrer selon une ou plusieurs des revendications précédentes, **caractérisé en ce que** la première partie (1) est réalisée avec un matériau qui est capable de laisser partir la chaleur générée par le groupe d'éclairage (5).
5. Spot à encastrer selon une ou plusieurs des reven-

dications précédentes, **caractérisé en ce que** la deuxième partie (2) présente un espace d'éclairage (7), fermé avec un élément en verre coulissant (8).

6. Montage du spot à encastrer selon une ou plusieurs des revendications précédentes, **caractérisé en ce qu'il** comporte l'insertion de la première partie en forme de feuille (1) dans l'espace intermédiaire (I), à travers la fente (F) réalisée sur la paroi de support (K); le blocage au moyen de vis externes (V), qui retiennent des languettes latérales (6); enfin, l'application de la deuxième partie (2) qui est appliquée sur ladite partie en forme de feuille (1), ladite deuxième partie étant installée sur la fente (F) et retenue au moyen de vis externes (3).





REFERENCES CITED IN THE DESCRIPTION

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