

(19)



(11)

EP 2 749 709 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:
05.10.2016 Bulletin 2016/40

(51) Int Cl.:
E04F 10/06 (2006.01)

(21) Application number: **12008631.9**

(22) Date of filing: **27.12.2012**

(54) **Awning with light strip**

Markise mit Lichtstreifen

Auvent avec une bande lumineuse

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

(43) Date of publication of application:
02.07.2014 Bulletin 2014/27

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(56) References cited:
**EP-A2- 2 199 484 DE-U1-202008 011 460
DE-U1-202011 051 105 FR-A1- 2 823 238**

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Description

[0001] The present invention concerns an improved awning for protection against the sun, rain, or other environmental influences, for example for covering the area of a porch, balcony or the like.

[0002] It is known that such awnings comprise a housing which is to be fixed with its backside against a wall or support and which is open to the front; a front lath to close the front opening of the housing when the awning is stored.

[0003] The front lath is supported on the housing by means of two or more articulated arms that tend to push the front lath away from the housing by means of springs that tend to open the articulated arms into their stretched position.

[0004] A roll-up shaft is rotatably supported in the housing by means of bearings, supporting the shaft at its extremities in the housing and on which a cloth is wound that is fixed with one edge to the front lath.

[0005] The shaft can be operated automatically by a motor or manually by a suitable drive mechanism.

[0006] When the shaft is operated in the unwinding direction of the cloth, the cloth is permanently kept in a stretched position by the spring operated articulated arms.

[0007] While the cloth is being unwound, the front lath moves away from the housing, pulling the cloth out of the housing and keeping it stretched all the time.

[0008] When the shaft is operated in the opposite direction, the cloth is wound up again on the shaft and the front lath is pulled in against the force of the springs until the front lath is stopped by the housing in a position covering the front opening of the housing.

[0009] Such an awning is for example disclosed in EP 2.199.484.

[0010] A disadvantage of such an awning is that the front opening of the housing is not completely closed up by the front lath, allowing moisture and dust to enter the housing, which can lead to the cloth and drive mechanism becoming dirty or damaged.

[0011] Another disadvantage is that when storing the awning, the contact between the front lath and the housing can give an unpleasantly loud bang.

[0012] Still another disadvantage is that generally an extra lighting must be provided when the awning is used in the dark or on cloudy days.

[0013] A disadvantage of such lighting is that it takes up some space on the porch or balcony, forming an obstacle for people passing under the awning or leading to risky situations as bumping into the lighting or tripping over an electrical wire of the like.

[0014] Usually, the extra lighting is a spot lighting, as is known from EP 2.199.484 wherein halogen spots are used which are fixed to the bottom of the fixed housing. Such lighting does not allow for ideal uniform lighting conditions and usually gives spots of intense light surrounded by dark areas.

[0015] Moreover, it is usually not possible to put the extra lighting in a position for optimal light dispersal of the covered area because of the presence of a table or other furniture.

5 [0016] The present invention aims to remedy one or several of the above-mentioned and other disadvantages.

[0017] To this end, the invention concerns an awning with a housing with a front opening and a front lath for covering the front opening in a closed position of the awning, whereby the awning is provided with a lighting and whereby the lighting comprises a light strip that is provided between the housing and the awning and extending in the longitudinal direction of the awning, the strip being fixed either to the housing or to the front lath and being visible at least partly when the awning is in its closed position and whereby *the light strip is made as a sealing and/or abutment between the housing and the front lath.*

[0018] An advantage of an awning according to the invention is that the light strip is very small and is mounted in an elevated position where it does not form an obstacle or risk of injuries by bumping into or tripping or the like. The light strip is moreover always in a position to give an evenly distributed lighting over the area covered by the awning.

[0019] Another advantage is that the light strip can also be used when the awning is stored in its closed position for lighting the area in the vicinity of the awning.

[0020] According to a preferred embodiment, the light strip is made of a flexible material and is provided with a plurality of LEDs distributed over the length of the strip, improving that way the uniform light distribution, with sufficient light intensity and allowing to design the strip as a very slim strip that does not disturb the general appearance of the awning in its classic form.

[0021] Such light strip with LEDs is also advantageous with respect to energy consumption.

[0022] The light strip can be used as an abutment for the closing movement of the front lath when closing the awning and can also be used as a sealing between the housing and the front lath to keep out dirt and moisture when the awning is stored.

[0023] The strip can advantageously be made of rubber or silicones with the LEDs imbedded in the material of the strip.

[0024] An additional light strip of the same kind can be provided on the inside of the housing to generate indirect lighting for the area covered by the awning when deployed.

50 [0025] In order to better explain the characteristics of the invention, the following preferred embodiment of an awning and a light strip according to the invention is described by way of example only without being limitative in any way, with reference to the accompanying drawings, in which:

figure 1 schematically represents a perspective view of an awning according to the invention in its open

position;

figure 2 represents a cross-section according to line II-II in figure 1 but with the awning in its closed position; and,

figure 3 represents the cross-section of figure 2 but with the awning in the open position.

[0026] The awning 1 represented in figure 1 mainly consists of a housing 2 to be fixed with its backside 3 to a wall or other support which is not represented.

[0027] The housing 2 has an opening 4 at the front from which two articulated arms 5 extend, supporting a front lath 6 which can cover the opening 4 when the awning 1 is not in use.

[0028] The arms 5 are provided with internal springs which are not shown and which tend to open the arms as in the situation shown in figure 1 and which therefore tend to push the front lath 6 away from the housing 2 in the direction illustrated with arrow A.

[0029] As represented in figure 2, the housing 1 comprises a rollup shaft 7 that is supported rotatably in the housing 1 by means of bearings (not shown) mounted in an end cap 8 on each extremity of the housing 1.

[0030] On the shaft 7 is wound a cloth 9 of which an edge 10 is fixed to the front lath 6.

[0031] According to the invention, the awning 1 is provided with a light strip 11 extending in the longitudinal direction of the awning, which strip 11 is fixed in this case to a lower longitudinal edge 12 of the housing 2 at a lower level than the cloth 9.

[0032] The light strip 11 is mounted in such a manner that the light strip 11 is visible, at least partly, not only when the awning 1 is opened as represented in figures 1 and 3, but also when the awning is closed as in figure 2.

[0033] The light strip 11 is preferably made of rubber or silicones or other flexible transparent material and comprises a plurality of LEDs 13 that are embedded in the material of the strip 11 and that are evenly distributed over the length of the strip 11.

[0034] In the example shown, the light strip 11 is profiled in such a way that it can be clipped on or slid over the lower longitudinal edge 12 of the housing 2.

[0035] For that matter the lower edge 12 of the housing 2 is formed as a profile with a u-shaped part, view in cross-section, with a bottom 14 and two legs 15 pointing down, one leg 15 having an edge being bent over laterally to form a first protruding rib 16 extending more or less horizontally, the other leg 15 forming a second protruding rib 17 extending more or less at right angles with respect to the first protruding part 16 in a more or less vertical direction.

[0036] The light strip 11 is provided with two longitudinal hook-shaped flexible parts 18 and 19 respectively, that respectively fit over said longitudinal ribs 16 and 17.

[0037] The strip 11 comprises a central body 20 comprising the embedded LEDs and joining the hook-shaped parts 18 and 19.

[0038] The body 20 fits into the space defined by the

U-shaped lower edge 12 of the housing 2.

[0039] Thanks to the particular corresponding profiling of the lower edge 12 and of the light strip 11, said light strip 11 can be easily clipped on or slid on said lower edge 12.

[0040] In the example of the drawings an additional light strip 11 of the same kind is provided on the inside of the front lath 6, in particular in a cavity 21 in a bottom part 22 of the front lath 6 into which the light strip 11 is pressed.

[0041] As can be seen from figures 1 and 3, the light strips 11 can be lit to give an evenly spread lighting of the area covered by the awning, the strip 11 on the housing 2 being positioned to give direct light, whilst the strip 11 on the lath 6 is positioned to give indirect light being reflected on the lower surface of the cloth 9, giving an extra touch and sphere to the lighting.

[0042] The additional lighting on the lath 6 is of course only optional.

[0043] The awning 1 and the light strip 11 on the housing 2 can be designed in such a way that said light strip 11 functions as a resilient abutment for the front lath 6 when the awning is closed by winding the cloth 9 on the shaft 7 and moving the front lath 6 towards the housing 2 until the front lath 7 makes contact with the light strip 11 as illustrated by figure 2.

[0044] The light strip 11 therefore can function as a kind of shock absorber for the closing movement of the front lath 6.

[0045] The light strip can also function as a sealing between the housing and the front lath.

[0046] Instead of fixing the light strip 11 on the lower edge 12 of the housing, the same strip 11 can be arranged on the inner edge 23 of the lath 6 in a way that the strip 11 is visible also when the awning 1 is closed and that it can function as an abutment and/or sealing.

[0047] It shall be appreciated that the presence of the lighting strip 11 does not alter much the general appearance of the awning 1 and that the strip can even add a touch of artistic detail.

[0048] The present invention is by no means restricted to the embodiment described by way of example and represented in the accompanying drawings; on the contrary, an awning and light strip according to the invention can be made in all sorts of shapes and dimensions while still remaining within the scope of the invention as defined by the appended claims.

Claims

1. Awning with a housing (2) with a front opening (4) and a front lath (6) for covering the front opening (4) in a closed position of the awning (1), whereby the awning is provided with a lighting, **characterized in that** the lighting comprises a light strip (11) that is provided between the housing (1) and the front lath (6) and extending in the longitudinal direction of the

- awning (1), the light strip (11) being fixed either to the housing (2) or to the front lath (6) and being visible at least partly when the awning (1) is in its closed position and that the light strip (11) is made as a sealing and/or abutment between the housing (2) and the front lath (6).
2. Awning according to claim 1, **characterized in that** the light strip (11) is provided with a plurality of LEDs (13) distributed over the length of the light strip (11).
 3. Awning according to claim 1 or 2, **characterized in that** the light strip (11) is made as an abutment for the closing movement of the front lath (6) when closing the awning (1).
 4. Awning according to any of the preceding claims, **characterized in that** the light strip (11) is made in a flexible transparent material.
 5. Awning according to claim 4, **characterized in that** the light strip (11) is made of rubber or silicones.
 6. Awning according to any of the claims 2 to 5, **characterized in that** the LEDs (13) are imbedded in the material of the light strip (11).
 7. Awning according to any of the claims 2 to 5, **characterized in that** the light strip (11) is mounted on a longitudinal edge (12-23) of the housing (2) or of the front lath (6) and that the light strip (11) is profiled in such a way that it can be clipped on or slid on said longitudinal edge (12-23) of the housing (2) or front lath (6).
 8. Awning according to claim 7, **characterized in that** the edge (12) of the housing (2) on which the light strip (11) is mounted is formed as a profile with two protruding longitudinal ribs (16-17) and that the light strip (11) is provided with two longitudinal hook-shaped parts (18-19) that fit over said longitudinal ribs (16-17).
 9. Awning according to claim 8, **characterized in that** the ribs (16-17) of the edge (12) of the housing (2) on which the light strip (11) is mounted are oriented more or less at right angles.
 10. Awning according to claim 8 or 9, **characterized in that** one rib (16) is erected more or less horizontally while the other rib (17) is erected more or less vertically.
 11. Awning according to any of the claims 8 to 10, **characterized in that** the light strip (11) is provided with a central body (20) joining the hook-shaped parts (18-19) and comprising the LEDs (13) embedded in the light strip (11).

12. Awning according to any of the preceding claims, **characterized in that** the light strip (11) is mounted at a lower level than the cloth (9).

13. Awning according to any of the preceding claims, **characterized in that** the housing (2) is provided with an additional light strip (11) on the inside of the housing (2) or front lath (6) to generate indirect light.

Patentansprüche

1. Markise mit einem Gehäuse (2) mit einer vorderen Öffnung (4) und einer Frontleiste (6) zum Abdecken der vorderen Öffnung (4) in einer geschlossenen Position der Markise (1), wobei die Markise mit einer Beleuchtung versehen ist, **dadurch gekennzeichnet, dass** die Beleuchtung eine Lichtleiste (11) umfasst, die zwischen dem Gehäuse (1) und der Frontleiste (6) angebracht ist und sich in der Längsrichtung der Markise (1) erstreckt, wobei die Lichtleiste (11) entweder an dem Gehäuse (2) oder an der Frontleiste (6) befestigt ist und mindestens teilweise sichtbar ist, wenn die Markise (1) sich in ihrer geschlossenen Position befindet, und dass die Lichtleiste (11) als Dichtung und/oder Anschlag zwischen dem Gehäuse (2) und der Frontleiste (6) ausgeführt ist.
2. Markise nach Anspruch 1, **dadurch gekennzeichnet, dass** die Lichtleiste (11) mit einer Vielzahl von LEDs (13) versehen ist, welche über die Länge der Lichtleiste (11) verteilt sind.
3. Markise nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** die Lichtleiste (11) als Anschlag für die Schließbewegung der Frontleiste (6) beim Schließen der Markise (1) ausgeführt ist.
4. Markise nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Lichtleiste (11) aus einem flexiblen transparenten Material hergestellt ist.
5. Markise nach Anspruch 4, **dadurch gekennzeichnet, dass** die Lichtleiste (11) aus Gummi oder Silikon hergestellt ist.
6. Markise nach einem der Ansprüche 2 bis 5, **dadurch gekennzeichnet, dass** die LEDs (13) in das Material der Lichtleiste (11) eingebettet sind.
7. Markise nach einem der Ansprüche 2 bis 5, **dadurch gekennzeichnet, dass** die Lichtleiste (11) an einem Längsrand (12-23) des Gehäuses (2) oder der Frontleiste (6) montiert ist und dass die Lichtleiste (11) derart mit einem Profil versehen ist, dass sie auf besagten Längsrand (12-23) des Gehäuses (2) oder

der Frontleiste (6) aufgesteckt oder daraufgeschoben werden kann.

8. Markise nach Anspruch 7, **dadurch gekennzeichnet, dass** der Rand (12) des Gehäuses (2), woran die Lichtleiste (11) montiert ist, als ein Profil mit zwei vorragenden Längsrippen (16-17) geformt ist und dass die Lichtleiste (11) mit zwei sich in Längsrichtung erstreckenden hakenförmigen Teilen (18-19) versehen ist, die über besagte Längsrippen (16-17) passen. 5
9. Markise nach Anspruch 8, **dadurch gekennzeichnet, dass** die Rippen (16-17) des Randes (12) des Gehäuses (2), woran die Lichtleiste (11) montiert ist, mehr oder weniger rechtwinklig orientiert sind. 10
10. Markise nach Anspruch 8 oder 9, **dadurch gekennzeichnet, dass** eine Rippe (16) mehr oder weniger horizontal angeordnet ist, während die andere Rippe (17) mehr oder weniger vertikal angeordnet ist. 15
11. Markise nach einem der Ansprüche 8 bis 10, **dadurch gekennzeichnet, dass** die Lichtleiste (11) mit einem zentralen Körper (20) versehen ist, der an die hakenförmigen Teile (18-19) anschließt und die in der Lichtleiste (11) eingebetteten LEDs (13) umfasst. 20
12. Markise nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Lichtleiste (11) auf einer niedrigeren Höhe montiert ist als das Tuch (9). 25
13. Markise nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** das Gehäuse (2) mit einer zusätzlichen Lichtleiste (11) an der Innenseite des Gehäuses (2) oder der Frontleiste (6) versehen ist, um indirektes Licht zu erzeugen. 30

Revendications

1. Auvent comprenant un logement (2) qui comporte une ouverture frontale (4) et une latte frontale (6) pour recouvrir l'ouverture frontale (4) dans une position fermée de l'auvent (1), l'auvent étant muni d'un éclairage, **caractérisé en ce que** l'éclairage comprend une bande lumineuse (11) qui est prévue entre le logement (1) et la latte frontale (6) et qui s'étend dans la direction longitudinale de l'auvent (1), la bande lumineuse (11) étant fixée soit au logement (2), soit à la latte frontale (6), et étant visible au moins en partie lorsque l'auvent (1) se trouve dans sa position fermée, et **en ce que** la bande lumineuse (11) est réalisée sous la forme d'un joint d'étanchéité et/ou d'une butée entre le logement (2) et la latte frontale (6). 45
2. Auvent selon la revendication 1, **caractérisé en ce que** la bande lumineuse (11) est équipée de plusieurs diodes électroluminescentes (13) distribuées sur la longueur de la bande lumineuse (11). 50
3. Auvent selon la revendication 1 ou 2, **caractérisé en ce que** la bande lumineuse (11) est réalisée sous la forme d'une butée pour le mouvement de fermeture de la latte frontale (6) au cours de la fermeture de l'auvent (1). 55
4. Auvent selon l'une quelconque des revendications précédentes, **caractérisé en ce que** la bande lumineuse (11) est réalisée à partir d'une matière flexible transparente.
5. Auvent selon la revendication 4, **caractérisé en ce que** la bande lumineuse (11) est constituée de caoutchouc ou de silicones.
6. Auvent selon l'une quelconque des revendications 2 à 5, **caractérisé en ce que** les diodes électroluminescentes (13) sont encastrées dans la matière de la bande lumineuse (11).
7. Auvent selon l'une quelconque des revendications 2 à 5, **caractérisé en ce que** la bande lumineuse (11) est montée sur un bord longitudinal (12-23) du logement (2) ou de la latte frontale (6) et **en ce que** la bande lumineuse (11) est profilée d'une manière telle qu'elle peut venir se disposer sur ledit bord longitudinal (12-23) du logement (2) ou de la latte frontale (6) par pincement ou par glissement.
8. Auvent selon la revendication 7, **caractérisé en ce que** le bord (12) du logement (2) sur lequel la bande lumineuse (11) est montée est réalisé sous la forme d'un profilé comportant deux nervures longitudinales faisant saillie (16-17), et **en ce que** la bande lumineuse (11) est munie de deux parties longitudinales (18-19) en forme de crochets qui viennent s'appliquer par-dessus lesdites nervures longitudinales (16-17). 40
9. Auvent selon la revendication 8, **caractérisé en ce que** les nervures (16-17) du bord (12) du logement (2) sur lequel la bande lumineuse (11) est montée sont orientées en formant plus ou moins des angles droits. 45
10. Auvent selon la revendication 8 ou 9, **caractérisé en ce qu'une** nervure (16) est conçue plus ou moins en direction horizontale tandis que l'autre nervure (17) est conçue plus au moins en direction verticale. 50
11. Auvent selon l'une quelconque des revendications 8 à 10, **caractérisé en ce que** la bande lumineuse (11) est munie d'un corps central (20) qui joint les 55

parties (18-19) en forme de crochets et qui comprend les diodes électroluminescentes (13) à l'état encasté dans la bande lumineuse (11).

12. Auvent selon l'une quelconque des revendications précédentes, **caractérisé en ce que** la bande lumineuse (11) est montée à un niveau inférieur à celui de la toile (9).

13. Auvent selon l'une quelconque des revendications précédentes, **caractérisé en ce que** le logement (2) est muni d'une bande lumineuse supplémentaire (11) à l'intérieur du logement (2) ou de la latte frontale (6) afin de générer une lumière indirecte.

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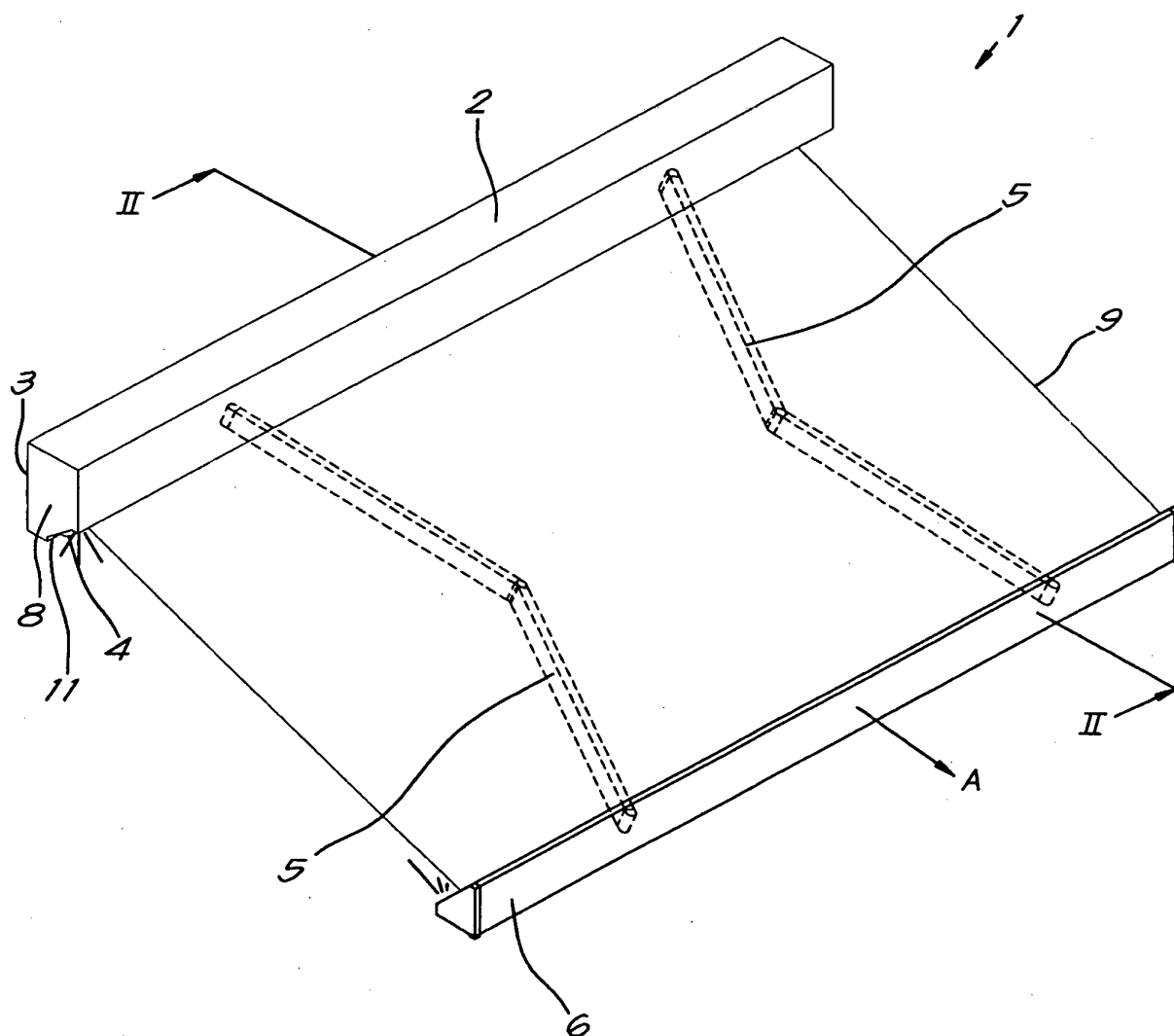


Fig. 1

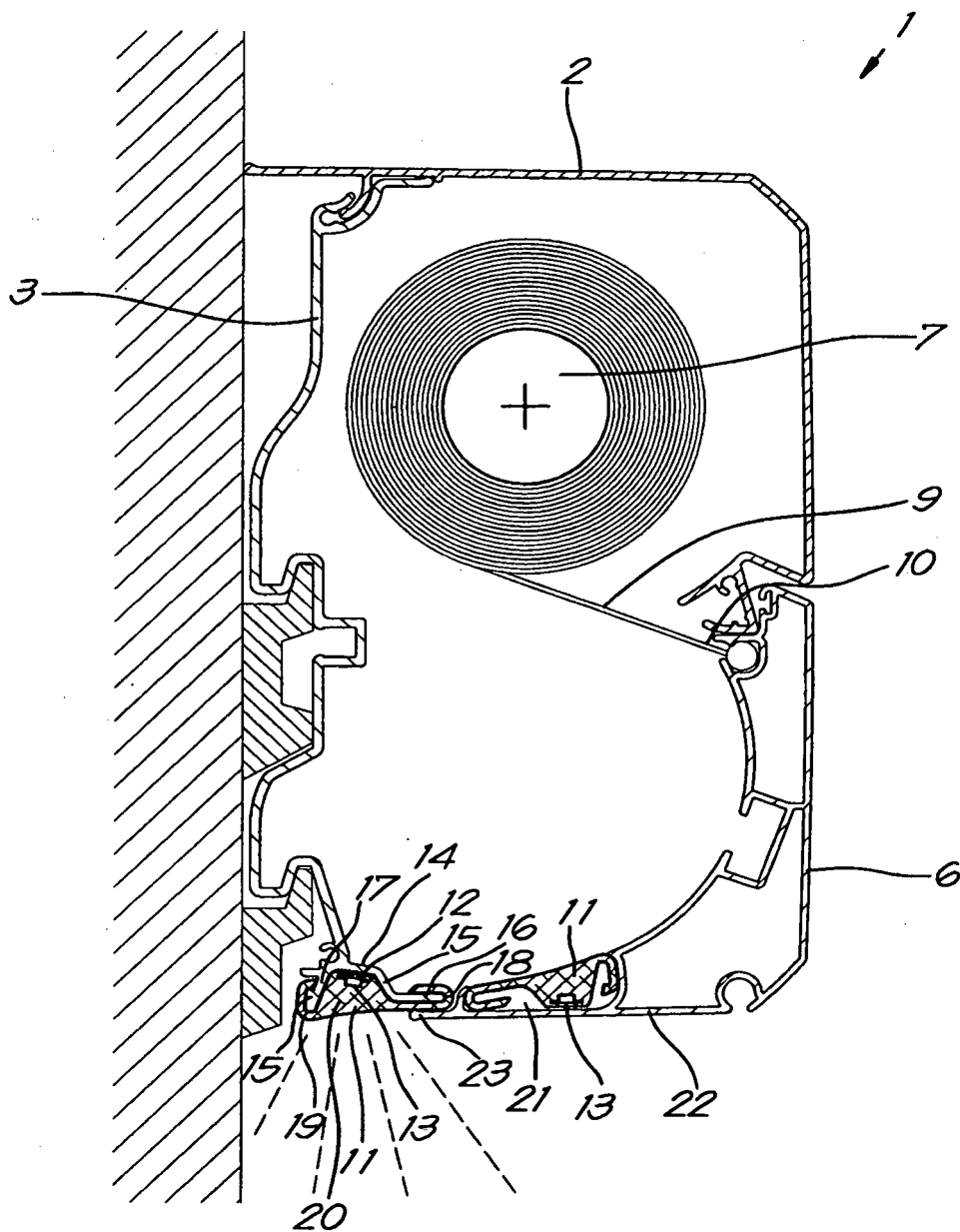


Fig. 2

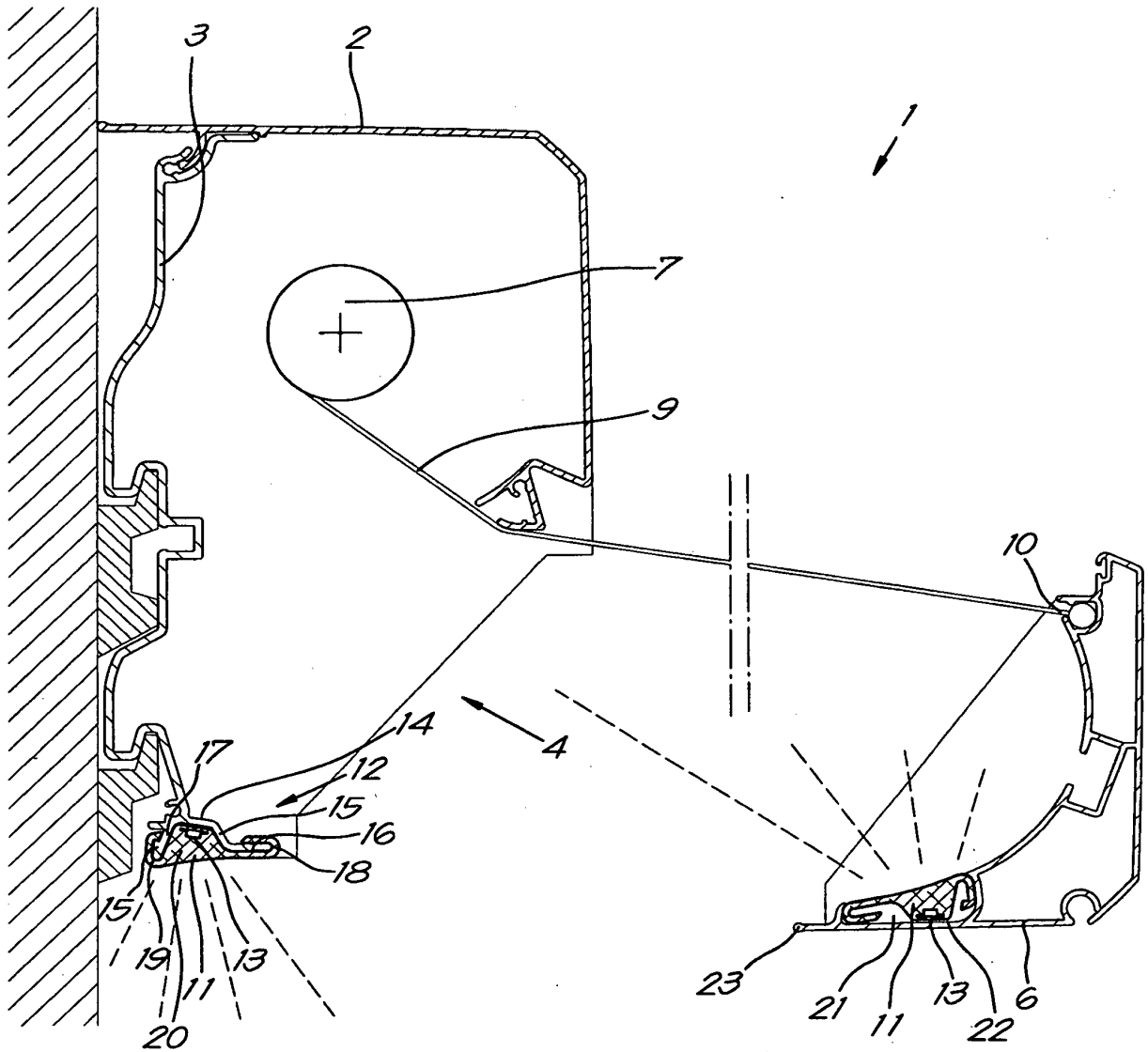


Fig.3

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- EP 2199484 A [0009] [0014]