(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 2 216 483 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
11.08.2010 Bulletin 2010/32

(51) Int Cl.:
E06B 9/262 *(2006.01)* ***A47H 13/00*** *(2006.01)*

(21) Application number: **10152936.0**

(22) Date of filing: **08.02.2010**

(84) Designated Contracting States:
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 SE SI SK SM TR

(30) Priority: **09.02.2009 NL 2002507**

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(54) Assembly of elongate suspension body and a fabric to be suspended from this suspension body

(57) Assembly of an elongate suspension body, extending horizontally under normal conditions of use, for a fabric, and a fabric to be suspended from this suspension body, wherein the fabric is provided along its upper edge with an elongate strip of a flexible material, wherein a thickened portion extending parallel to the upper edge is provided on a free edge zone of this strip, and the suspension body is provided with a receiving channel extending in longitudinal direction for receiving the thickened portion therein.

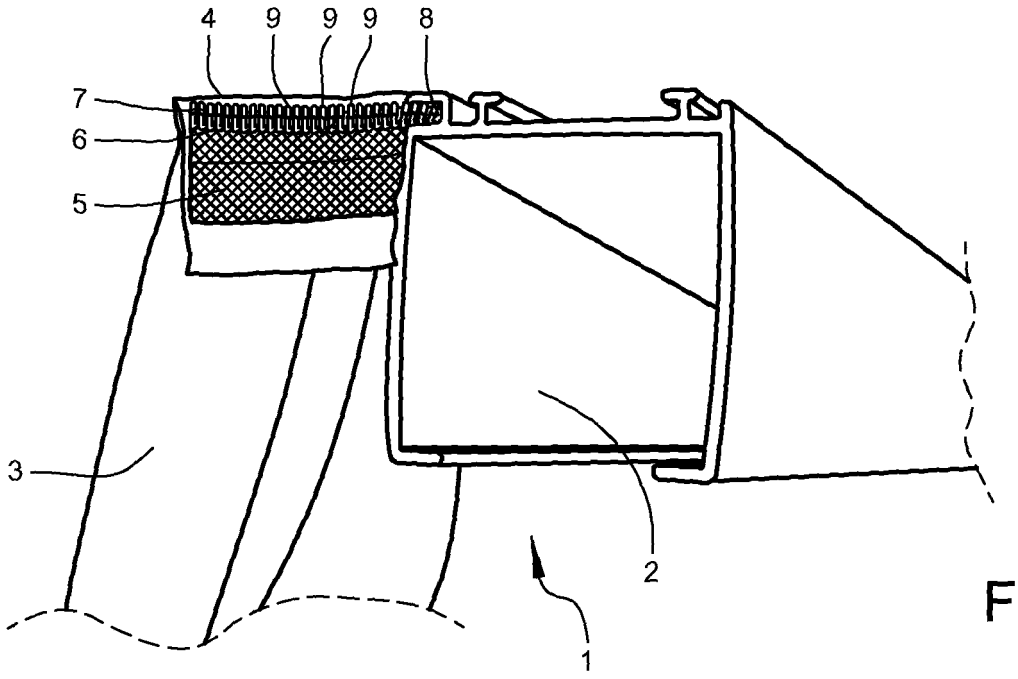

Fig. 1

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Description

[0001] The invention relates to an assembly of an elongate suspension body, extending horizontally under normal conditions of use, for a fabric, and a fabric to be suspended from this suspension body.

[0002] Such an assembly is known for a so-called folding curtain which is suspended from a housing for a roller mechanism in a window opening. At least two cords connected to the usually weighted underside of the curtain fabric protrude from the housing. The cords can be unwound from or wound onto a roller received in the housing using the roller mechanism, which is operated for instance with a drive chain or an electric motor, wherein the curtain descends or is pulled upward, wherein it is folded up in a zigzag pattern.

[0003] In the known assembly the curtain fabric is attached on its top side against the outer side of the housing for the roller mechanism using co-acting strips of hook and loop fastening tape, a first part of which is adhered with its back side against the housing and the co-acting second part of which is sewn with its back side against the rear side of the upper edge of the curtain fabric.

[0004] Attaching a curtain fabric using hook and loop fastening tape has the drawback that it is sometimes difficult to arrange the upper edge of the fabric exactly horizontal against the housing. As a result this upper edge has a somewhat uneven progression, wherein the hook and loop fastening tape on the housing becomes visible or the fabric butts against the inner side of a window frame. Another drawback is that dimensional changes occurring in the curtain fabric in the course of time, for instance as a result of washing or other types of cleaning, may result in differences in effective lengths of the co-acting hook and loop fastening tapes, as a result of which the curtain fabric protrudes outside the housing of the roller mechanism, or the housing remains visible on one or both sides of the fabric. The arranging of hook and loop fastening tape against a metal or plastic housing and subsequently arranging a curtain fabric against this housing are moreover relatively labour-intensive, and thereby relatively expensive.

[0005] It is an object of the invention to provide an assembly of a suspension body and a fabric in which use need not be made of hook and loop fastening tape.

[0006] It must be possible with such an assembly to attach a fabric releasably to the suspension body in simple and rapid manner and to remove an attached fabric in rapid and simple manner, and normal dimensional changes occurring over time should not affect the attachment of the fabric to the suspension body.

[0007] These objects are achieved, and other advantages gained, with an assembly of the type stated in the preamble, wherein according to the invention the fabric is provided on its top side with an elongate strip of a flexible material, wherein a thickened portion extending parallel to the top side is provided on a free edge zone of this strip, and the suspension body is provided with a receiving channel extending in longitudinal direction for receiving the thickened portion therein.

[0008] In such an assembly the upper edge of the fabric extends parallel to the suspension body, and so also runs horizontally in the case of a horizontally extending suspension body. If the strip of flexible material is arranged with the thickened portion against the fabric in correct manner, the suspension body, for instance a housing for a roller mechanism, remains completely hidden from view, while the fabric cannot butt at any position at all against the inner side of a window frame. Dimensional changes occurring in the fabric in the course of time, when of course the dimensions of the suspension body remain the same, are not significant from a visual viewpoint.

[0009] In an embodiment of an assembly according to the invention the thickened portion on the edge zone of the flexible material has a continuous progression in longitudinal direction. The thickened portion consists here for instance of a cable received in a hem on the edge zone.

[0010] In a subsequent embodiment the thickened portion is assembled from a succession of individual thickening elements in longitudinal direction.

[0011] The elongate strip is for instance provided here by a longitudinal part for a zip fastening, wherein the thickened portion is formed by the plates or teeth of this zip fastening which extend from a free edge zone.

[0012] In an embodiment of an assembly according to the invention the elongate strip is manufactured from a first material, for instance a natural fibre material, and the thickened portion is manufactured from a second material, for instance a plastic material.

[0013] In yet another embodiment the elongate strip is manufactured from plastic and the thickened portion is moulded onto the free edge zone.

[0014] The receiving channel in the suspension body is for instance provided by an undercut longitudinal groove.

[0015] In an advantageous embodiment the receiving channel comprises a widening over a determined distance for the purpose of inserting therein a thickened portion to be received in the receiving channel.

[0016] This embodiment is particularly advantageous in situations where a curtain is hung within a window frame or within the walls adjacently of this frame, wherein the suspension body extends between this frame or these walls, and it is not possible to slide the thickened portion into the receiving channel from one of the outer ends of the suspension body.

[0017] The suspension body in an assembly according to the invention is for instance manufactured from a suitable plastic material, from wood or from a metal, for instance aluminium.

[0018] In an alternative embodiment the receiving channel is adapted to receive the thickened portion and to release a received thickened portion by subjecting this thickened portion to a tilting movement round an axis

parallel to the receiving channel.

[0019] This embodiment provides the advantage that a fabric for hanging, for instance a curtain, need not be folded in order to be received in the receiving channel. This embodiment is particularly suitable for hanging a curtain from the head of a window frame, wherein the suspension body and thereby the receiving channel are bounded on their outer ends by the walls enclosing the frame.

[0020] A receiving channel is preferably provided with a longitudinal edge for locking a received thickened portion when the fabric is subjected to a force in downward direction.

[0021] In another embodiment the receiving channel is provided at its outer ends with locking means for locking a received thickened portion against displacement in its longitudinal direction.

[0022] The locking means comprise for instance a pin which is coupled displaceably to the receiving body and which, using a rotating or sliding movement, can be placed between the plates or teeth of a zip part received in the receiving channel, whereby the movement of the zip part is blocked in longitudinal direction.

[0023] In a practically advantageous embodiment the zip fastening is a spiral zip fastening.

[0024] A plastic spiral zip fastening with teeth provides the advantage over a metal or plastic zip fastening with plate that the teeth can easily be deformed elastically, this being conducive to performing a tilting movement in a receiving channel.

[0025] In a practically advantageous embodiment the assembly according to the invention is provided with a rod-like auxiliary means, which is flexibly coupled to the suspension body and fits into the receiving channel, for releasing a thickened portion received in the receiving channel.

[0026] This embodiment is particularly advantageous when a hung curtain is removed by an unpracticed person, who can have the auxiliary means at his/her disposal and cannot then lose it.

[0027] The auxiliary means is for instance integrated into the weighted pulley of an operating cable of a roller blind.

[0028] The invention will be elucidated hereinbelow on the basis of exemplary embodiments, with reference to the drawings.

[0029] In the drawings

Fig. 1 shows a perspective view of an embodiment of an assembly according to the invention in a first situation,

Fig. 2 shows a cross-section of a part of the assembly of fig. 1 in a second situation, and

Fig. 3 shows a front view of an embodiment of a receiving channel in a suspension body for an assembly according to the invention.

[0030] Corresponding components are designated in the figures with the same reference numerals.

[0031] Fig. 1 shows an assembly 1 of a hollow square housing 2 for a roller mechanism (not shown) and a (part of a) curtain fabric 3 in a situation where the curtain fabric is suspended substantially wholly from housing 2. For attachment purposes fabric 3 is provided along its upper edge 4 with a part of a zip 5, on a free edge zone 6 of which a thickened portion 7 formed by a series of plates 9 of zip 5 extends parallel to upper edge 4. In the shown situation thickened portion 7 is for the greater part received in an undercut longitudinal groove 8 which is moulded onto housing 2. Other than in a known assembly, wherein the curtain fabric is attached to the housing using hook and loop fastening tape by pressing onto the housing a fabric which is to be tightened to some extent, the attachment is realized in the shown assembly simply by sliding thickened portion 7 of zip 5 into longitudinal groove 8 or by performing a tilting movement as according to curved arrow 12 (shown in fig. 2), wherein erroneous operation resulting in folding and a partially uncovered housing, is precluded.

[0032] Fig. 2 shows the assembly 1 of fig. 1 in a situation where curtain fabric 3 is wholly suspended from housing 2. The figure illustrates clearly how housing 2 is fully concealed from view by fabric 3, wherein upper edge 4 just protrudes a predetermined height above housing 2. A longitudinal edge 11 secures the received plates or teeth when fabric 3 is subjected to a force (represented by arrow 13) in downward direction.

[0033] Fig. 3 shows a front view of a housing 2 with a receiving channel 8, in which a widened recess 10 is formed for lateral insertion of a thickened portion 7 into receiving channel 8.

[0034] It is noted that, where in the foregoing reference is made to the hanging of a so-called folding curtain, the above described assembly according to the invention can be applied for hanging different types of curtain, such as for instance panel curtains and pleated curtains

Claims

1. Assembly (1) of an elongate suspension body (2), extending horizontally under normal conditions of use, for a fabric (3), and a fabric (3) to be suspended from this suspension body (2) **characterized in that** the fabric (3) is provided along its upper edge (4) with an elongate strip (5) of a flexible material, wherein a thickened portion (7) extending parallel to the upper edge (4) is provided on a free edge zone (6) of this strip (5), and the suspension body (2) is provided with a receiving channel (8) extending in longitudinal direction for receiving the thickened portion (7) therein.

2. Assembly as claimed in claim 1, **characterized in that** the thickened portion has a continuous progression in longitudinal direction.

3. Assembly (1) as claimed in claim 1, **characterized in that** the thickened portion (7) is assembled from a succession of individual thickening elements (9) in longitudinal direction.

4. Assembly (1) as claimed in claim 3, **characterized in that** the elongate strip (5) is provided by a longitudinal part for a zip fastening, wherein the thickened portion (7) is formed by the plates (9) or teeth of this zip fastening which extend from a free edge zone (6).

5. Assembly (1) as claimed in any of the claims 1-4, **characterized in that** the elongate strip (5) is manufactured from a first material and the thickened portion (7) is manufactured from a second material.

6. Assembly (1) as claimed in any of the claims 1-4, **characterized in that** the elongate strip is manufactured from plastic and the thickened portion is moulded onto the free edge zone.

7. Assembly (1) as claimed in any of the claims 1-6, **characterized in that** the receiving channel in the suspension body (2) is provided by an undercut longitudinal groove (8).

8. Assembly (1) as claimed in any of the claims 1-7, **characterized in that** the receiving channel (8) comprises a widening (10) over a determined distance for the purpose of inserting therein a thickened portion (7) to be received in the receiving channel (8).

9. Assembly (1) as claimed in any of the claims 1-8, **characterized in that** the suspension body (2) is manufactured from a material from the group of plastic, wood and metal.

10. Assembly (1) as claimed in claim 9, **characterized in that** the suspension body (2) is manufactured from aluminium.

11. Assembly (1) as claimed in any of the claims 1-10, **characterized in that** the receiving channel (8) is adapted to receive the thickened portion (7) and to release a received thickened portion (7) by subjecting this thickened portion (7) to a tilting movement (12) round an axis parallel to the receiving channel (8).

12. Assembly (1) as claimed in any of the claims 1-11, **characterized in that** the receiving channel (8) is provided with a longitudinal edge (11) for locking a received thickened portion (7) when the fabric (3) is subjected to a force (13) in downward direction.

13. Assembly (1) as claimed in any of the claims 1-12, **characterized in that** the receiving channel (8) is provided at its outer ends with locking means for locking a received thickened portion against displacement in its longitudinal direction.

14. Assembly (1) as claimed in any of the claims 4-13, **characterized in that** the zip fastening is a spiral zip fastening.

15. Assembly (1) as claimed in any of the claims 11-14, **characterized in that** it is provided with a rod-like auxiliary means, which is flexibly coupled to the suspension body (2) and fits into the receiving channel (8), for releasing a thickened portion (7) received in the receiving channel (8).

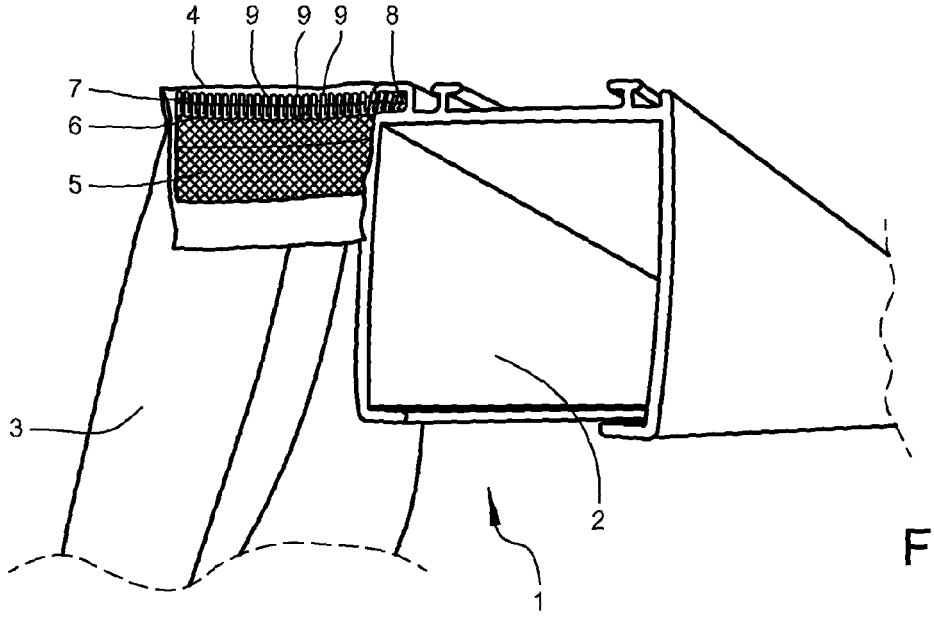

Fig. 1

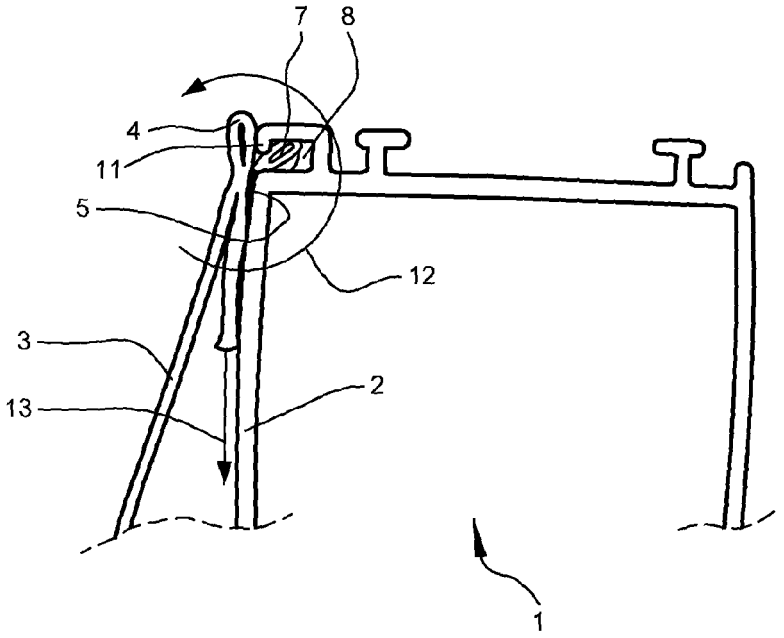

Fig. 2

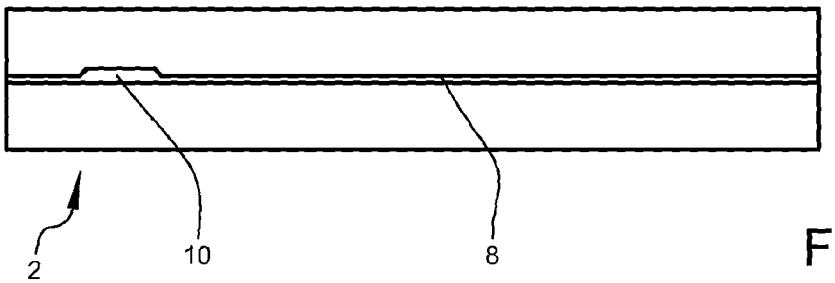

Fig. 3