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(72) Inventor: **Nicolosi, Giovanni**
20070 Dresano (Milano) (IT)

(74) Representative: **Ferreccio, Rinaldo**
c/o Botti & Ferrari S.r.l.
Via Locatelli 5
20124 Milano (IT)

(71) Applicant: **Pellini, S.P.A.**
26845 Codogno (Lodi) (IT)

(54) **Curtain kit**

(57) The present invention concerns a curtain kit 1 that allows quick installation of a curtain 3, for example a Venetian blind, which essentially comprises a box-shaped rigid support 2 with which the curtain 3 is associated, a pair of pieces 6 suitable for being removably

associated substantially with the respective opposite side ends of the rigid support 2, a portion of adhesive 7 that is fixed or can be fixed to the outer wall 8 of each of the pieces 6 and a projection 9 formed in an inner wall 10 of each of the pieces 6 that constitutes an end support for the rigid support 2.

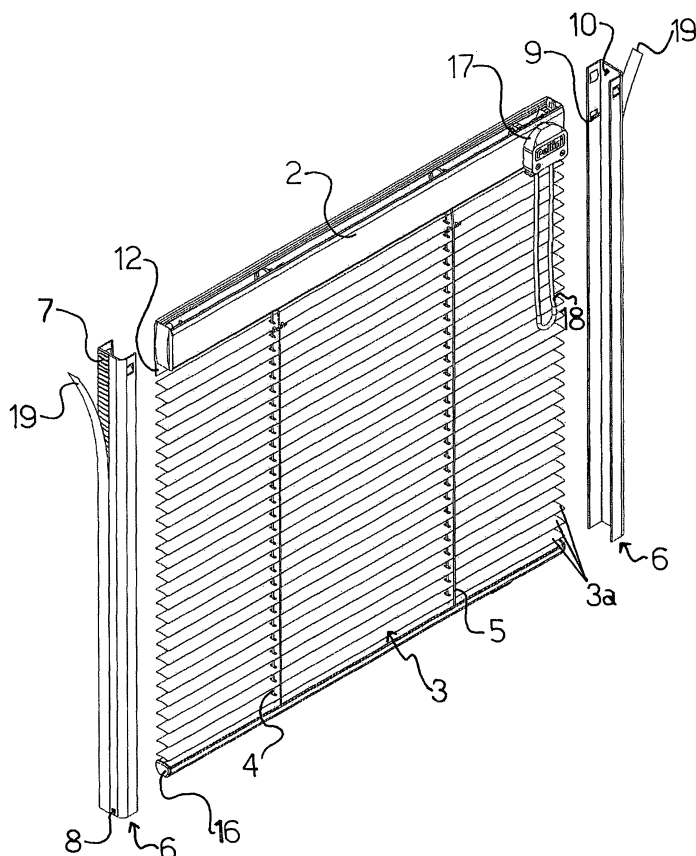


Fig.2

Description

Field of application

[0001] The present invention refers in its most general aspect to the field of curtains and their assembly and more specifically to a curtain kit for Roman shades, pleated shades, roller blinds, Venetian blinds, and the like and to its installation.

[0002] As known in the field of curtains and particularly those for indoor use intended to be associated with a window space where there is a window frame, there is a great need to have curtains that can be installed quickly and without causing any sort of damage, so that their removal does not leave signs of damage to the window space, or else to the frame of the window frame mounted in it.

[0003] To satisfy this requirement a solution provided by the prior art is described, for example, in US patent 4,782,882.

[0004] In particular, this document describes a device for supporting a Venetian blind in which a support shaft for the blind is fixed against the jambs of a window space through means that exert a pressure on such jambs, and that substantially act as tensioning means of the shaft that act coaxially to it.

[0005] The present invention is based upon the consideration of the aforementioned requirement and therefore a first object of the present invention is to provide a curtain kit suitable for being associated with a window space that can be installed without damaging the window space or a window (or door) frame mounted in it, and that is an alternative to the solutions provided by the prior art.

[0006] A second object of the present invention is to provide a curtain kit, the installation of which, as well as its removal, can be accomplished through quick and easy operations that do not require any special manual ability or long time periods to carry them out.

[0007] A further object of the present invention is to provide a curtain kit that is suitable for being associated with a window space internally, i.e. within the window space when located between its jambs, or with the window space externally, or else with the window frame that is mounted in the window space, as well as with the panels of the window frame, and furthermore substantially with the window-pane.

[0008] These and other objects are accomplished according to the invention by a curtain kit comprising a box-shaped rigid support, which is substantially parallelepiped in shape; a curtain associated with said rigid support; a pair of preferably identical pieces of rectilinear profile, said pieces being shaped and sized to be removably associated, to substantially act as a cap, with the respective opposite ends of said box-shaped rigid support; at least one portion of adhesive of predetermined length that is fixed or can be fixed to an outer wall of each of said pieces; at least one projection formed in an inner wall of said pieces at a predetermined distance from an end

thereof, said projection constituting and end support for said rigid support.

[0009] Preferably, the curtain kit according to the invention also comprises an edge protruding from said box-shaped rigid support, said protruding edge being suitable for cooperating with the aforementioned projections of the pieces of profile, which according to a preferred embodiment are substantially hook-shaped facing towards the aforementioned end of each of said pieces.

[0010] Advantageously, the protruding edge extends at a lower end of the rigid support and even more advantageously extends from a lower corner of the box-shaped rigid support, substantially as an extension of a wall thereof.

[0011] Preferably, the aforementioned protruding edge extends continuously for the entire length of the rigid support, i.e. along the entire lower corner of the box, making a sort of veil or lip of the box. This, however does not exclude the possibility of foreseeing a discontinuous protruding edge, i.e. many protruding edge sections, separated from each other, arranged at side end portions of the box.

[0012] The pieces of profile preferably have a substantially squared U-shaped cross section, in which the aforementioned projections are preferably foreseen at a wing of the piece defined by the corresponding wing of the U-shaped section.

[0013] As far as the aforementioned adhesive portion is concerned, it should be noted that, advantageously, it is a high-strength adhesive that is preferably in the form of a continuous strip of adhesive arranged on a base portion of each piece, defined by the corresponding base portion of the aforementioned U-shaped section.

[0014] Alternatively, and particularly in the case of installation directly on the window-pane of the curtain kit according to the invention, the adhesive can be arranged at a wing of the piece, as shall become clearer later on in the description.

[0015] It should also be noted that, advantageously, the curtain kit according to the present invention comprises guide and counteraction means of the rigid support associated with each piece of profile.

[0016] Advantageously, such guide and counteraction means, during the installation of the curtain kit according to the invention, direct the rigid support towards the aforementioned projections and, once installation is complete, counteract the box-shaped rigid support, avoiding any undesired clearance between each of the side ends of the box-shaped rigid support and the respective wings of a piece between which it is located.

[0017] Further characteristics and advantages of the present invention shall become clearer from the following detailed description of some preferred embodiments, provided just as an example, with reference to the attached drawings, in which:

- figure 1 schematically shows a perspective view of a curtain kit in accordance with the present invention,

associated with a window frame, in a configuration with the curtain lowered (curtain extended);

- figure 2 shows, with parts separated, the curtain kit of figure 1 before its installation;
- figure 3 shows an enlarged view of some details of the curtain kit of figure 2;
- figures 4a and 4b show the curtain kit of figure 2 in accordance with an alternative embodiment of the invention, in the double configuration of use, respectively with the curtain lowered (curtain extended) and with the curtain raised (curtain shut away).

[0018] With reference to the aforementioned figures, a curtain kit according to the present invention, suitable for being associated with a window space, is globally indicated with 1.

[0019] The curtain kit 1 comprises a box-shaped rigid support 2, which is substantially parallelepiped-shaped, with which a curtain 3 is associated, represented in the figures, as an example, as a Venetian blind.

[0020] The curtain kit 1 also comprises a rotary shaft arranged inside the box-shaped rigid support 2, and supported in it in a conventional way (not shown in the figures), on which a raising cord 4 for moving the curtain 3 is wound.

[0021] In particular, the curtain 3, which comprises a plurality of slats 3a, is associated in a *per se* known way with the rigid support 2 at a lower portion 2a thereof through the aforementioned raising cord 4 and through a further support ladder 5.

[0022] In accordance with the invention, the curtain kit 1 comprises a pair of preferably identical pieces 6 of rectilinear profile which are shaped and sized to be removably associated with the respective opposite ends of the rigid support 2, and a portion of adhesive 7 of predetermined length fixed to an outer wall 8 of each of such pieces 6 and also a projection 9 formed in an inner wall 10 of each of the pieces 6 at a predetermined distance from an end 11 thereof.

[0023] Advantageously, such a projection 9 constitutes an end support for the box-shaped rigid support 2.

[0024] In accordance with a further aspect of the invention, the curtain kit 1 comprises a protruding edge 12 that extends as a projection from the rigid support 2, and that advantageously is suitable for cooperating with the aforementioned projections 9 of the pieces 6 of profile, as shall become clearer in the rest of the description.

[0025] In particular, such a protruding edge 12 extends at the aforementioned lower portion 2a of the rigid support 2 and even more specifically extends from a lower corner of the box-shaped rigid support 2, substantially as an extension of a wall thereof.

[0026] The protruding edge 12, moreover, preferably extends for the entire length of the rigid support 2, in other words for the entire length of the aforementioned lower

corner, making a sort of veil or lip of the rigid support itself.

[0027] The aforementioned pieces 6 of profile preferably have a substantially U-shaped cross-section, in particular squared U-shaped, in which the projections 9 are foreseen, in the inner wall 10, at a wing 7a of the piece.

[0028] Preferably, the projections 9 are tooth or hook-shaped facing towards the aforementioned end 11 of each piece 6 of profile, in other words facing upwards in the condition of the curtain kit 1 in operation.

[0029] The portion of adhesive 7 is fixed onto the outer wall 8 of each piece 6, and in particular is a high-strength adhesive in the form of a continuous strip of adhesive of predetermined length preferably corresponding to the length of the respective piece 6. This, however does not exclude the possibility of foreseeing a different configuration of the portion of adhesive, for example a configuration in points.

[0030] In particular and as shown in the examples of the figures, the portion of adhesive 7 is arranged at a base portion 7b of each piece with U-shaped section.

[0031] In this case the curtain kit 1 according to the invention is particularly suitable for being associated with a window space, for example by attachment to the jambs of the window space, or else to the frame of a window frame mounted in the window space or to the shutters of the window frame, for example at the inner edges of the panel of a window as is shown with particular reference to figure 1 in which the frame of a window is indicated with 20.

[0032] On the other hand, in the case in which one wishes to install the curtain kit 1 directly on the window-pane, for example, of a window as well as outside of the window space, the portion of adhesive 7 can be foreseen, in accordance with the invention, on a wing of each piece 6, such an embodiment not being illustrated in the figures.

[0033] The curtain kit 1 also comprises a pair of peel-away films 19, each associated with a piece 6 for the protection of the respective portion of adhesive 7.

[0034] Regarding this, it should be noted that, in accordance with the invention, the adhesive can also be in the form of adhesive applicable to each of the pieces 6, i.e. as an adhesive to be applied at the assembly stage of the curtain kit, this embodiment not being illustrated in the figures.

[0035] In a preferred embodiment, the curtain kit 1 also comprises guide and counteraction means 14 of the box-shaped rigid support 2, associated with each piece 6 and arranged on the inner wall 10 thereof.

[0036] In particular, such guide and counteraction means are in the form of at least two shims 14 arranged one in front of the other at the wings 7a of a piece 6, a substantially equal predetermined distance from its end 11.

[0037] Even more specifically with reference to a shim 14 and to a projection 9 arranged on the same wing 7a of a piece 6, it should be noted that the distance between such a shim 14 and the projection 9 is about the same as, and preferably slightly less than the height of the box-

shaped rigid support 2.

[0038] Preferably, at least one of the shims 14 is made in the form of a projection having a free end.

[0039] The curtain kit according to the invention is completed by a substantially shaft-shaped bottom element 16 associated with the bottom of the curtain 3, which, with reference to the examples of the figures, has an upper profile closely following that of a slat 3a.

[0040] Such a bottom element 16 constitutes a weight for the raising cord 4 and for the curtain 3, so as to allow it to be manoeuvred, making it easier to correctly arrange the slats 3a in their sliding movement between the configuration with the curtain raised (curtain shut away) to that with the curtain lowered (curtain extended).

[0041] It should be stated that for such a movement of the curtain 3, the curtain kit 1 comprises a control group 17 acting on the aforementioned rotary shaft, in the examples of the figures a known manual control group that can be driven outside of the rigid support 2 through a respective manoeuvring cord 18.

[0042] Furthermore, it should be noted that it is possible to foresee a different control group, like for example a control group comprising an electric motor arranged inside the rigid support 2 or outside it, such an alternative not being illustrated in the examples of the figures.

[0043] With particular reference to figures 1 and 2, it should be noted that the aforementioned pieces 6 of profile have a length substantially corresponding to that of the curtain 3 in the condition with the curtain completely extended or lowered.

[0044] In this case the pieces 6 of profile, which according to the invention act as a bearing for the rigid support 2, also constitute a lateral guide for the curtain 3, containing and laterally protecting the curtain 3 for the entire length of its sliding movement.

[0045] In accordance with an alternative embodiment of the invention, the pieces 6 of profile can also be foreseen of limited predetermined length, for example a length equal to or slightly greater than the height of the rigid support 2, as illustrated in the example of figures 4a and 4b.

[0046] In such figures, the pieces 6 support the rigid support 2 and constitute lateral guides for the curtain 3 for a first limited length of the sliding movement of the curtain, in any case advantageously keeping on supporting the curtain.

[0047] Again with regard to the pieces 6, it should be stated that they are preferably pieces of metal profile, more preferably of aluminium obtained by extrusion, in which the aforementioned projections 9, just like the guide and counteraction means 14, are made by drawing and/or shearing.

[0048] In use, the curtain kit 1 according to the present invention can be quickly associated with a window space, both inside and outside of it, or associated with a window frame mounted in the window space, for example with the frame of the window frame or with its shutters as well as directly with the window-pane, and equally quickly re-

moved from it, through a small number of easy operations.

[0049] The installation of the curtain kit according to the invention firstly foresees the removal of the protective film coating the portion of adhesive, then the pieces of profile are fixed through the portion of adhesive, for example, to a window frame mounted in the window space.

[0050] Once the pieces of profile have been fixed, the box-shaped rigid support is associated with them, so that it is removable and substantially resting upon them, thanks to the projections foreseen in the pieces.

[0051] In particular, pieces of profile and rigid support are associated so that the protruding edge of the rigid support cooperates with the projections of the pieces, in other words so that such a protruding edge engages the hook-shaped projections of each piece.

[0052] The operation of associating rigid support and pieces of profile is made easier by the guide and counteraction means foreseen in the same pieces that in the installation operation of the curtain kit direct the projecting edge of the rigid support towards engagement with the aforementioned hook-shaped projections.

[0053] Moreover, once installation is complete, the guide and counteraction means counteract the rigid support, in particular at the upper portion of the box-shaped support, preventing each side end of the rigid support from being subjected to an undesired clearance between the wings of a piece fitted substantially as a cap onto it.

[0054] To remove the curtain kit it will be sufficient to carry out reverse operations to those above that will, if possible, be even easier to carry out.

[0055] The main advantage of the curtain kit according to the present invention consists of its speed of installation and of the equally quick speed of removal without causing any damage to the window space or to the window frame with which it is associated.

[0056] The attachment through adhesive of the pieces of profile and the absence of screws and similar attachment devices, indeed, avoids the need to make holes, for example, on the shutters of the window frame that, particularly, but not only, for high-quality window frames, are highly undesired.

[0057] However, it should be noted that the curtain kit according to the invention can be installed without exerting any potentially harmful stress on the window frame or the window space.

[0058] Moreover, as the rigid support is associated with the pieces of profile in such a way as to rest upon them, as described above, a quick and easy assembly between box-shaped rigid support and pieces themselves and consequently a quick installation of the curtain kit can be achieved.

[0059] The removal of the curtain kit according to the invention can, advantageously, be partial in the case in which one wishes to just temporarily remove the box-shaped rigid support, and thus the curtain associated with it, but not the pieces of profile that support the rigid support, for example to more easily clean the box-shaped

body, the curtain and/or the window frame and/or the window-pane underneath the curtain or to carry out repairs in the case of malfunction.

[0060] Advantageously, it should also be noted that after the installation on the shutters of a window frame, directly on the window-pane or on the frame of the shutters, the curtain kit according to the invention remains in almost direct contact with the window-pane, thus allowing more effective protection against light.

[0061] Protection against light is also even more ensured by the pieces of profile that act as lateral guides for the curtain, and that block the light that could filter past the side of the window, at the longitudinal edges of the window-pane portion of the window frame.

[0062] Again with regard to the protection against light radiation that the curtain kit according to the invention is able to give, it should be noted that it is almost total, in the condition with the curtain lowered, also thanks to the protruding edge of the box-shaped rigid support that, by making, as mentioned, a sort of veil or lip, blocks the light between the lower portion of the box-shaped rigid support and the first of the plurality of slats of the curtain.

[0063] What has been stated with reference to the protection against light can be repeated with regard to the visibility allowed through the curtain kit according to the present invention that can, therefore, be totally prevented, ensuring total privacy, where necessary, of the room in which the curtain kit is intended to be used.

[0064] A further advantage lies in the lateral protection that the pieces of profile give to the curtain that, being subject to repeated movement, can be subjected to even frequent breaking.

[0065] Advantageously, such a protection is ensured both with the curtain still, as a cover for the end portions of the curtain, and with the curtain in movement with the pieces of profile also acting as lateral containment guides during the sliding of the curtain.

[0066] Moreover, it is also ensured that the ends of the slats are protected from possible undesired deformations, like those that can accidentally result from a knock, for example of a person against the curtain.

[0067] A man skilled in the art can make numerous modifications to the curtain kit according to the invention described above and to its illustrated embodiments, in order to satisfy contingent and specific requirements, all of which are in any case covered by the scope of protection of the invention, as defined by the claims displayed hereafter.

Claims

1. Curtain kit (1) comprising a box-shaped rigid support (2), which is substantially parallelepiped in shape, a curtain (3) associated with said rigid support (2), a pair of preferably identical pieces (6) of rectilinear profile, said pieces (6) being shaped and sized to be removably associated, to substantially act as a cap,

with the respective opposite side ends of said rigid support (2), at least one portion of adhesive (7) of predetermined length that is fixed or can be fixed to an outer wall (8) of each of said pieces (6), at least one projection (9) formed in an inner wall (10) of each of said pieces (6) a predetermined distance from an end (11) thereof, said projection (9) constituting an end support for said rigid support (2).

2. Curtain kit according to claim 1, also comprising a protruding edge (12) projecting from said rigid support (2), said protruding edge (12) being suitable for cooperating with said projections (9) of said pieces (6).

3. Curtain kit according to claim 2, wherein said protruding edge (12) extends at a lower portion (2a) of said rigid support (2).

4. Curtain kit according to claim 2 or 3, wherein said protruding edge (12) extends from a lower corner of said rigid support (2).

5. Curtain kit according to any one of claims 2 to 4, wherein said protruding edge (12) extends substantially as an extension of a wall of said rigid support (2).

6. Curtain kit according to any one of claims 2 to 5, wherein said protruding edge (12) extends substantially for the entire length of said box-shaped rigid support (2).

7. Curtain kit according to any one of the previous claims, wherein said pieces (6) of profile have a substantially U-shaped cross section.

8. Curtain kit according to claim 7, wherein said projections (9) are foreseen at a wing (7a) of each of said pieces (6).

9. Curtain kit according to any one of the previous claims, wherein said projections (9) have a substantially hook-shaped configuration facing towards said end (11) of each piece (6).

10. Curtain kit according to any one of the previous claims, wherein said pieces (6) have a length substantially corresponding to said curtain (3) in the condition with the curtain lowered.

11. Curtain kit according to any one of claims 1 to 9, wherein said pieces (6) have a length equal to or slightly greater than the height of said rigid support (2).

12. Curtain kit according to claim 7, wherein said portion of adhesive (7) is a continuous strip of adhesive arranged at a base portion (7b) in each of said pieces

(6).

13. Curtain kit according to claim 7, wherein said portion of adhesive (7) is a continuous strip of adhesive arranged at a wing (7a) of each piece (6). 5
14. Curtain kit according to any one of claims 7 to 13, also comprising guide and counteraction means (14) of said rigid support (2) associated with each of said pieces (6) of profile at said inner wall (10) thereof, said guide and counteraction means acting as a guide for directing said rigid support (2) towards said projections (9) and as a counteraction of said side ends of said rigid support (2) arranged between the wings of each piece (6). 10
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15. Curtain kit according to claim 14, wherein said guide and counteraction means (14) consist of at least two shims arranged one in front of the other at said wings (7a) of each piece (6). 20
16. Curtain kit according to claim 15, wherein said shims are a predetermined equal distance from said end (11) of a piece (6). 25
17. Curtain kit according to claim 16, wherein in each of said pieces (6) the distance between a shim (14) arranged on the same wing (7a) as said projection (9) and the projection (9) itself is substantially equal to or slightly less than the height of said box-shaped rigid support (2). 30
18. Curtain kit according to any one of claims 15 to 17, wherein at least one of said shims is made in the form of a projection having a free end. 35
19. Curtain kit according to any one of the previous claims, also comprising at least one peel-away film (19) for protecting each of said portions of adhesive (7). 40
20. Curtain kit according to any one of the previous claims, wherein said pieces (6) of profile are aluminium profiles. 45
21. Curtain kit according to any one of the previous claims, also comprising a substantially shaft-shaped bottom element (16) associated with said curtain (3). 50
22. Curtain kit according to any one of the previous claims, wherein said curtain (3) is a Venetian blind. 55
23. Curtain kit according to any one of claims 1 to 21, wherein said curtain is a pleated or Roman shade. 55
24. Curtain kit according to any one of claims 1 to 21, wherein said curtain is a roller blind.

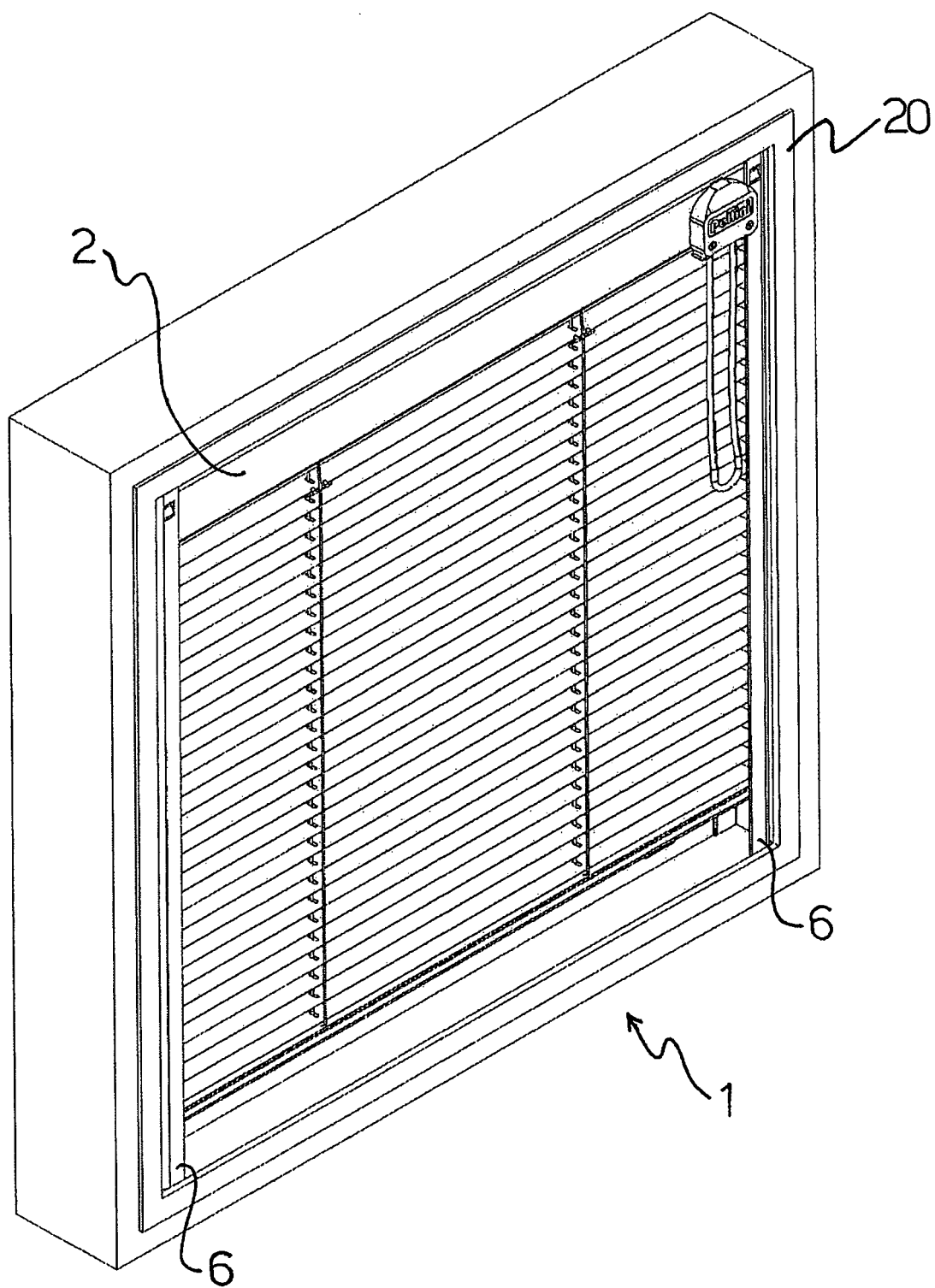


Fig.1

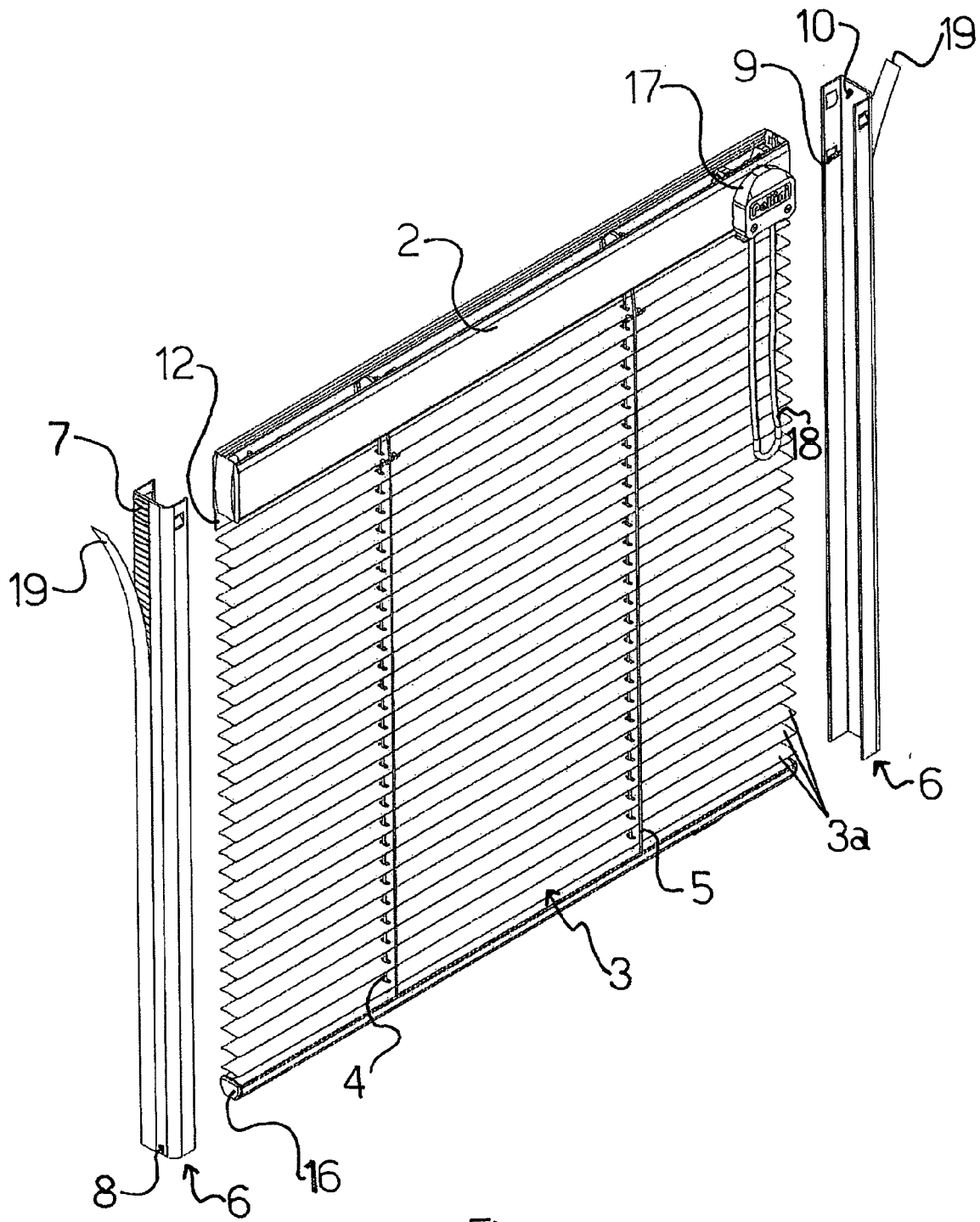


Fig.2

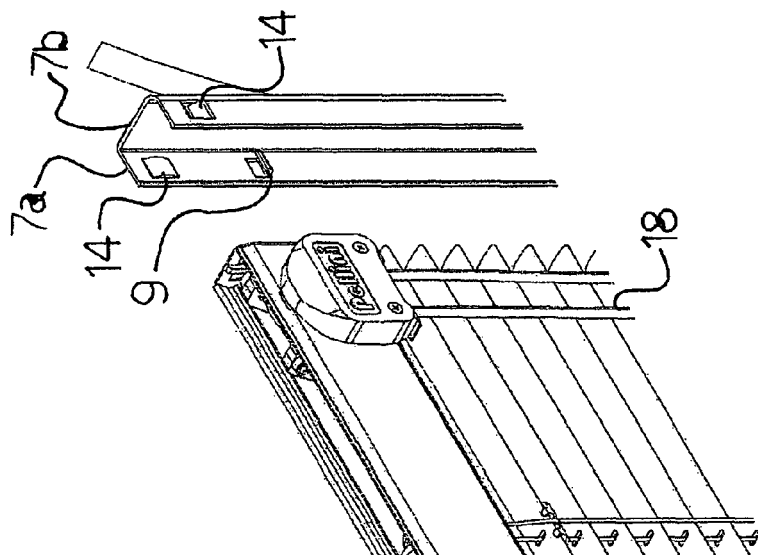
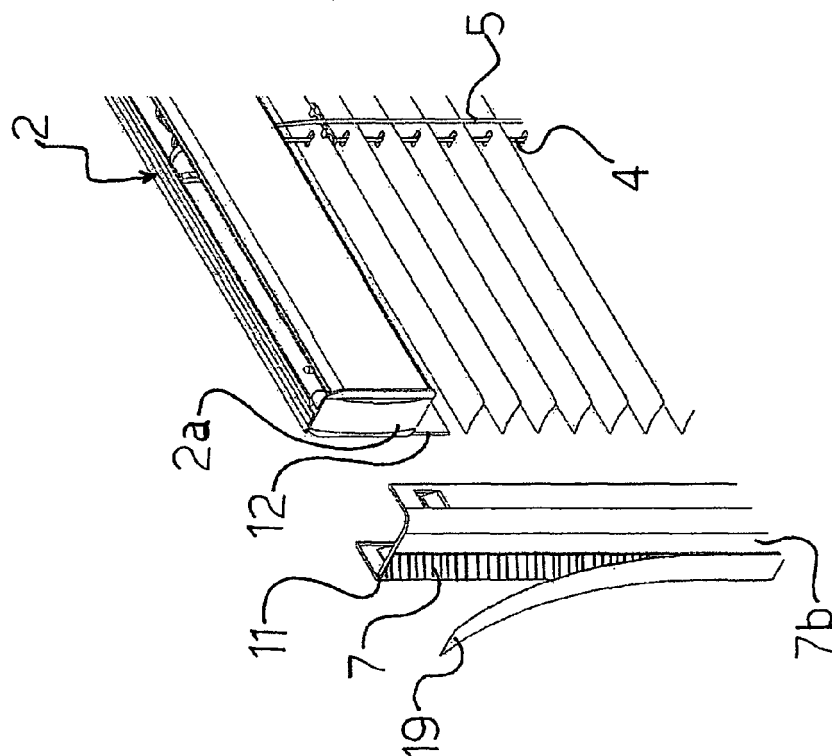
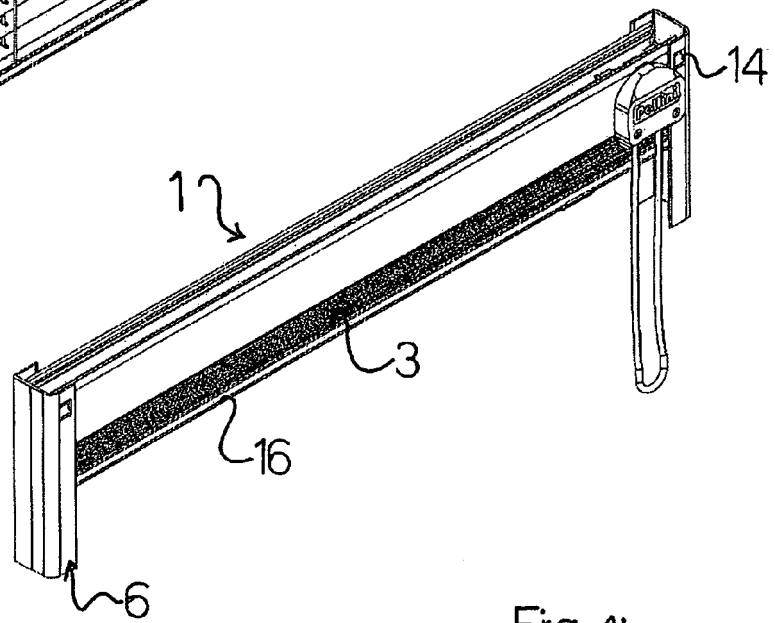
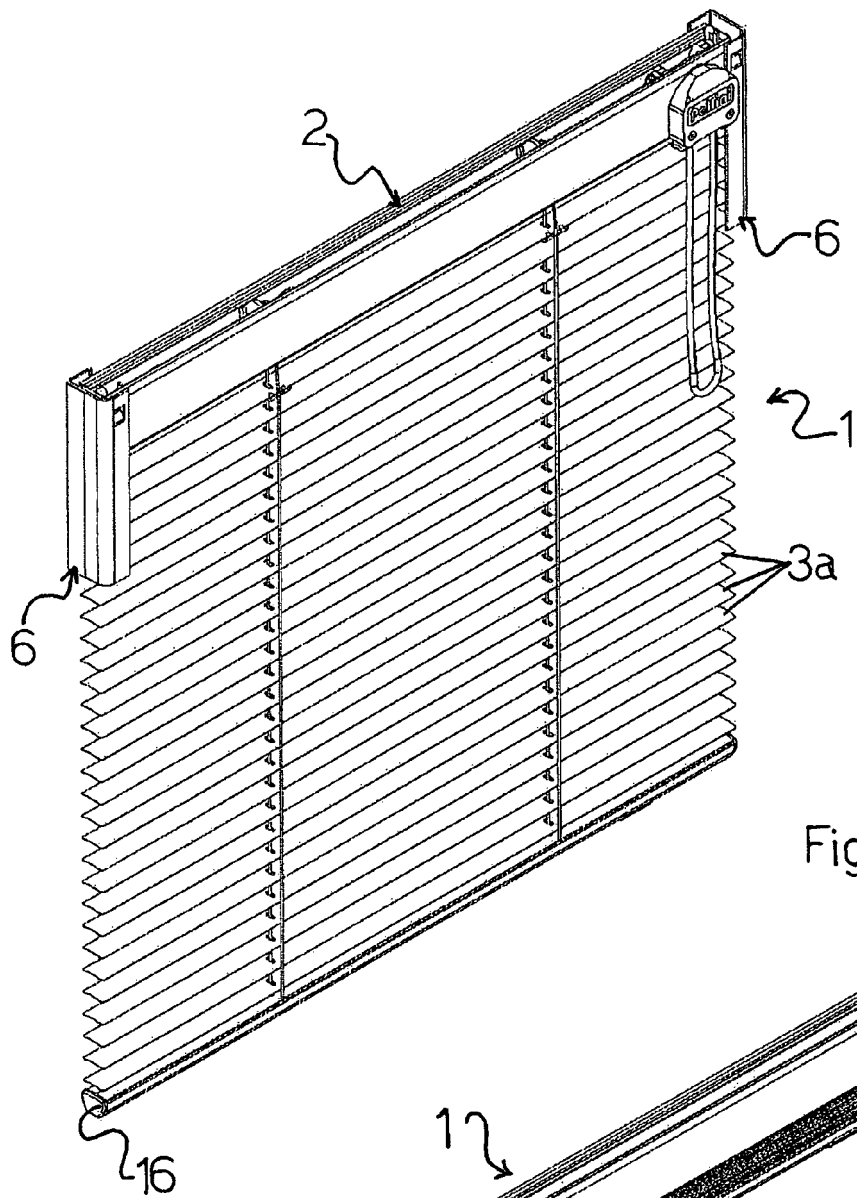


Fig.3







European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 06 42 5360

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2 501 029 A (CHATFIELD HENRY B) 21 March 1950 (1950-03-21) * column 3, line 19 - column 4, line 68; figures 1-9 *	1-5, 9-14, 19-24	INV. E06B9/323
X	EP 0 097 140 A2 (CHRISTOFFERSSON EVERT) 28 December 1983 (1983-12-28) * page 3, line 16 - page 5, line 15; figures 1-11 *	1,7,9, 10,12, 13,19-24	
A	US 4 418 739 A (WOOLNOUGH JAMES [US] ET AL) 6 December 1983 (1983-12-06) * figures 10-12 *	1	
A	US 2 454 550 A (BURNS FRED J) 23 November 1948 (1948-11-23) * figures 1-3 *	1	
A	US 4 193 245 A (JOHNSON LARRY K [US]) 18 March 1980 (1980-03-18) * figure 3 *	1	TECHNICAL FIELDS SEARCHED (IPC) E06B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 30 October 2006	Examiner Severens, Gert
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 06 42 5360

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30-10-2006

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2501029	A	21-03-1950	NONE	
EP 0097140	A2	28-12-1983	SE 454792 B	30-05-1988
US 4418739	A	06-12-1983	NONE	
US 2454550	A	23-11-1948	NONE	
US 4193245	A	18-03-1980	NONE	

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- US 4782882 A [0003]