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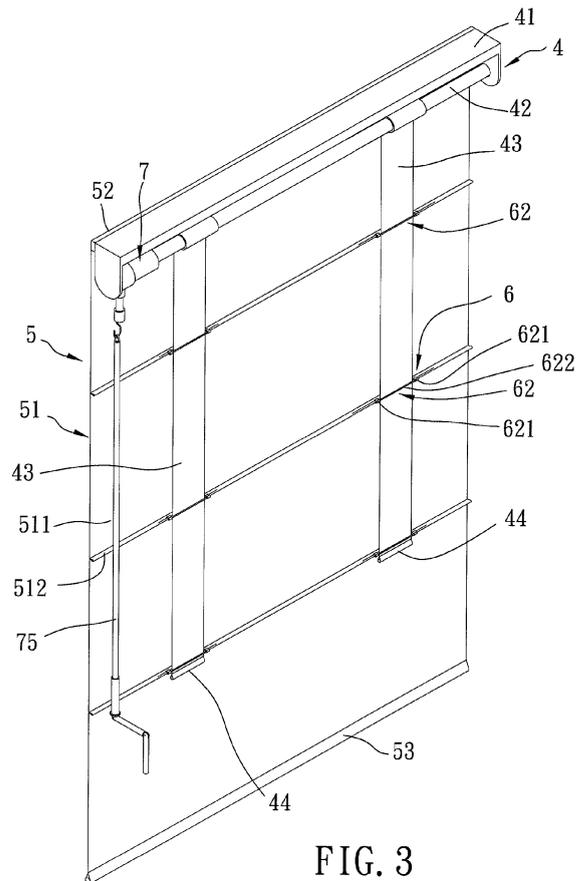
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(54) **Window blind assembly**

(57) A window blind assembly includes a roller blind unit (4), a curtain member unit (5), and a clamping unit (6). The roller blind unit (4) includes a roller rod (42) that extends horizontally and that is rotatably mounted at or in proximity to an upper edge portion of the window (3), and a roller blind piece (43) a top edge of which is connected to the roller rod (42) and which is able to be wound around and extended from the roller rod (42). The curtain member unit (5) includes a curtain member (51) having a sheltering portion (511) and a plurality of partitioning portions (512). The clamping unit (6) includes a plurality of connecting members (62) associated respectively with the partitioning portions (512). Each of the connecting members (62) has a confining portion (622), and two securing portions (621) connected to opposite ends of the confining portion (622) and that connect the confining portion (622) to a respective one of the partitioning portions (512).



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## Description

**[0001]** The present invention relates to a window blind assembly, more particularly to a window blind assembly that is safe, structurally simple, and easily taken apart for cleaning.

**[0002]** Figure 1 shows a conventional roman curtain which includes a curtain cloth 11, a plurality of guide rings 12, and a plurality of cords 13. The guide rings 12 are disposed on one side of the curtain cloth 11. The cords 13 are vertically disposed on said one side of the curtain cloth 11, and extend through the respective guide rings 12. Bottom portions of the cords 13 are connected to a lower portion of the curtain cloth 11 or to lowermost guide rings 12.

**[0003]** When the curtain is in use, the curtain cloth 11 may be extended downwardly or folded in a layer-by-layer manner by manipulation of the cord 13. However, the conventional roman curtain has a complicated structure and is high in cost. Moreover, the curtain cloth 11 of the conventional roman curtain is not easily removed for cleaning or replacement. In addition, strangling injury may occur between the cord 13 and the curtain cloth 11.

**[0004]** Therefore, the object of the present invention is to provide a window blind assembly which is safe, allows for convenient cleaning and replacement, and is low in cost.

**[0005]** Accordingly, a window blind assembly of the present invention is adapted for being mounted to a window. The window blind assembly comprises a roller blind unit, a curtain member unit, and a clamping unit.

**[0006]** The roller blind unit includes a roller rod that extends horizontally and that is rotatably mounted at or in proximity to an upper edge portion of the window, and a roller blind piece a top edge of which is connected to the roller rod and which is able to be wound around and extended from the roller rod.

**[0007]** The curtain member unit includes a curtain member. The curtain member has a sheltering portion a top edge of which is mounted at or around the upper edge of the window, and a plurality of partitioning portions that extend horizontally, are respectively connected to a rear surface of the sheltering portion, and are vertically spaced apart from each other.

**[0008]** The clamping unit includes a plurality of connecting members associated respectively with the partitioning portions. Each of the connecting members has a confining portion, and two securing portions connected to opposite ends of the confining portion and that connect the confining portion to a respective one of the partitioning portions. The confining portion, the securing portions, and the partitioning portion define a slot thereamong for extension of the roller blind piece therethrough.

**[0009]** When the roller blind unit is manipulated such that the roller blind piece is wound around the roller rod, the sheltering portion is displaced upwardly, thereby folding the sheltering portion.

**[0010]** Other features and advantages of the present

invention will become apparent in the following detailed description of the preferred embodiments with reference to the accompanying drawings, of which:

5 Figure 1 is a perspective view of a conventional roman curtain;

Figure 2 is a front perspective view of a window blind assembly according to a first preferred embodiment of the present invention;

10 Figure 3 is a rear perspective view of the window blind assembly of the first preferred embodiment;

Figure 4 is a side view of the window blind assembly of the first preferred embodiment;

15 Figure 5 is a fragmentary perspective view of the window blind assembly of the first preferred embodiment;

Figure 6 is a fragmentary exploded perspective view of the window blind assembly of the first preferred embodiment;

20 Figure 7 is an exploded perspective view of a driving unit of the window blind assembly of the first preferred embodiment;

Figure 8 is a fragmentary side view of the window blind assembly of the first preferred embodiment;

25 Figure 9 is a front perspective view of a window blind assembly according to a second preferred embodiment of the present invention;

Figure 10 is an exploded perspective view of the window blind assembly of the second preferred embodiment;

30 Figure 11 is a fragmentary perspective view of the window blind assembly of the second preferred embodiment;

35 Figure 12 is a fragmentary side view of the window blind assembly of the second preferred embodiment; and

Figure 13 is a fragmentary exploded perspective view of a window blind assembly according to a third preferred embodiment of the present invention.

40 **[0011]** Referring to Figures 2, 3 and 4, a first preferred embodiment of a window blind assembly of the present invention is adapted for being mounted to a window 3. The window blind assembly includes a roller blind unit 4, a curtain member unit 5, and a clamping unit 6.

**[0012]** The roller blind unit 4 includes a roller rod 42, two roller blind pieces 43, a horizontal frame 41, and two weighting rods 44.

45 **[0013]** The roller rod 42 extends horizontally and is rotatably mounted at or in proximity to an upper edge portion of the window 3. A top edge of each of the roller blind pieces 43 is connected to the roller rod 42, and each of the roller blind pieces 43 is able to be wound around and extended from the roller rod 42 by rotating the roller rod 42 about its axis. The horizontal frame 41 is mounted at least partially surrounding the roller rod 42, and the roller rod 42 is mounted to the horizontal frame 41. Each of the weighting rods 44 extends horizontally, and is connected

to a bottom portion of a respective one of the roller blind pieces 43. In this embodiment, the roller blind unit 4 has two roller blind pieces 43 that are horizontally spaced apart. The number of the roller blind pieces 43, which may be greater or less than two, depends on actual requirements.

**[0014]** The curtain member unit 5 includes a curtain member 51, a connector 52, and a flattening rod 53.

**[0015]** The curtain member 51 has a sheltering portion 511 and a plurality of partitioning portions 512. A top edge of the sheltering portion 511 is mounted at or around the upper edge of the window 3, and the sheltering portion 511 is in front of the roller blind pieces 43. The partitioning portions 512 extend horizontally, are respectively connected to a rear surface of the sheltering portion 511, and are vertically spaced apart from each other. Each of the partitioning portions 512 of the curtain member unit 5 is in the form of a cloth tube. The connector 52 interconnects a front edge of the horizontal frame 41 and the top edge of the sheltering portion 511 of the curtain member 51. The flattening rod 53 is connected horizontally to a bottom edge of the curtain member 51 (i.e., of the sheltering portion 511), and pulls down on the curtain member 51 to flatten the same by virtue of its weight.

**[0016]** Referring to Figures 3, 5, and 6, the clamping unit 6 includes two sets of a plurality of connecting members 62. The connecting members 62 of each set of the same is used for a respective one of the roller blind pieces 43, and are associated respectively with the partitioning portions 512 of the curtain member 51.

**[0017]** Each of the connecting members 62 has a confining portion 622 extending horizontally, and two securing portions 621 connected to opposite ends of the confining portion 622 and that connect the confining portion 622 to a respective one of the partitioning portions 512. The confining portion 622, the securing portions 621, and the partitioning portion 512 define a slot 640 thereamong for extension of a respective one of the roller blind pieces 43 therethrough.

**[0018]** Each of the connecting members 62 of each set of the same further has an inserting rod 61. The inserting rod 61 is inserted into a respective one of the partitioning portions 512. The inserting rod 61 is shared between two corresponding connecting members 62 respectively of the two sets of the same.

**[0019]** In this embodiment, each of the confining portions 622 is in the form of a rod. Moreover, each of the securing portions 621 of the connecting member 62 is in the form of a clamp and clamps onto the inserting rod 61 in a respective one of the partitioning portions 512.

**[0020]** When the roller blind unit 4 is manipulated such that the roller blind pieces 43 are wound around the roller rod 42, the sheltering portion 511 is displaced upwardly as a result of the weighting rods 44 abutting against the lowermost connecting members 62 and the lowermost inserting rod 61, such that the sheltering portion 511 is folded.

**[0021]** Referring to Figures 3, 4, and 7, the roller blind

unit 4 further includes a driving unit 7 that is mounted to an end portion of the frame 41 and drives the roller rod 42 of the roller blind unit 4 to rotate about its axis. The driving unit 7 includes a case 71, a driving axial portion 72, three toothed wheels 73, a wheel assembly 7476, and a driving member 75. The driving axial portion 72 is connected to and rotates the roller rod 42. The toothed wheels 73 are formed in the driving axial portion 72. The wheel assembly 7476 rotates the driving axial portion 72. The driving member 75 is operable to drive the wheel assembly 7476.

**[0022]** The drive wheel assembly 7476 includes a first rotating wheel 76 and a second rotating wheel 74. The first rotating wheel 76 is rotated by the driving member 75. The second rotating wheel 74 is engaged with the first rotating wheel 76 so as to be rotated thereby.

**[0023]** The case 71 of the driving unit 7 has internal gear teeth 711 engaged with the toothed wheels 73. The second rotating wheel 74 has a wheel portion 741 and a gear wheel 743. The wheel portion 741 engages the first rotating wheel 76. The gear wheel 743 extends from a center portion of the wheel portion 741 and engages the toothed wheels 73.

**[0024]** A periphery of an end portion of the first rotating wheel 76 is formed with a plurality of spherical portions 761. The wheel portion 741 of the second rotating wheel 74 is formed with a plurality of semi-spherical grooves 742. The spherical portions 761 of the rotating wheel 76 is engaged one at a time with a respective one of the grooves 742 of the wheel 74 when the first rotating wheel 76 is rotated.

**[0025]** In this embodiment, the driving member 75 is in the form of a rod. The driving member 75 is driven and rotated by a user, so as to drive the first rotating wheel 76 to rotate the second rotating wheel 74 about a center axis of the second rotating wheel 74. When the second rotating wheel 74 rotates, the gear wheel 743 of the second rotating wheel 74 drives the toothed wheels 73 such that the driving axial portion 72 can rotate, so as to drive and rotate the roller rod 42 for winding and unwinding the roller blind pieces 43.

**[0026]** Referring to Figures 3, 4, and 5, the roller blind pieces 43 of the roller blind unit 4 and the curtain member 51 of the curtain member unit 5 are respectively unwound and unfolded downwardly when the window 3 is covered. On the other hand, the roller blind pieces 43 of the roller blind unit 4 is wound upwardly by rotating the roller rod 42. When the roller blind pieces 43 are wound around the roller rod 42, the weighting rods 44 move upwardly to first push against the lowermost connecting members 62 and the lowermost inserting rod 61, and to subsequently displace the lowermost connecting members 62 in an upward direction. It is noted that the diameter of each of the weighting rods 44 is greater than a width of the slots 640. This process is repeated with the continued winding of the roller blind pieces 43, such that the roller blind pieces 43 are fully wound around the roller rod 42, and the sheltering portion 511 of the curtain member 51

is eventually folded upwardly as shown in Figure 8.

**[0027]** Referring to Figures 3, 4, and 5, by simply removing the connecting members 62 from the partitioning portions 512 of the curtain member 51, the curtain member 51 can be separated from the roller blind pieces 43. Subsequently, the connector 52 can be disconnected so that the curtain member 51 can be removed for cleaning, or for replacement with another curtain member of a different color and/or style. The roller blind pieces 43 may also be removed for cleaning or replacement. Hence, such removal of the curtain member 51 is very simple. Also, the overall structure of these elements is simple, ultimately resulting in a lower cost for the window blind assembly of the present invention.

**[0028]** Referring to Figures 3, 5, and 7, the toothed wheels 73 and the second rotating wheel 74 cooperate with the driving axial portion 72 to slow down a driving speed of the roller rod 42 and to enhance a torsional force of the roller rod 42 for winding the roller blind pieces 43, which can minimize the amount of force required to be exerted by the user. It is noted that the cooperation of the toothed wheels 73, the second rotating wheel 74, and the driving axial portion 72 can position the roller rod 42. That is to say, when roller blind pieces 43 are wound around the roller rod 42, gravity acting on the roller blind pieces 43 cannot result in rotation of the roller rod 42, thereby avoiding inadvertent extension of the curtain member 51.

**[0029]** Figures 9, 10, and 11 illustrate a second preferred embodiment of the window blind assembly according to the present invention. The second preferred embodiment differs from the first preferred embodiment in the following aspects.

**[0030]** The roller blind unit 4 further includes two auxiliary roller blind pieces 45 and two auxiliary weighting rods 46. A top edge of each of the auxiliary roller blind pieces 45 is connected to the roller rod 42, and each of the auxiliary roller blind pieces 45 is able to be wound around and extended from the roller rod 42 in a direction opposite to winding and extending of the roller blind pieces 43. Each of the auxiliary weighting rods 46 extends horizontally, and is connected to a bottom portion of a respective one of the auxiliary roller blind pieces 45.

**[0031]** The curtain member unit 5 further includes an auxiliary curtain member 54, an auxiliary connector 55, and an auxiliary flattening rod 56.

**[0032]** The auxiliary curtain member 54 has an auxiliary sheltering portion 541 and a plurality of auxiliary partitioning portions 542. A top edge of the auxiliary sheltering portion 541 is mounted at or around the upper edge of the window 3, and the auxiliary sheltering portion 541 is positioned rearwardly of the auxiliary roller blind pieces 45. The auxiliary partitioning portions 542 extend horizontally, are respectively connected to a front surface of the auxiliary sheltering portion 541, and are vertically spaced apart from each other. Each of the auxiliary partitioning portions 542 of the curtain member unit 5 is in the form of a tube. The auxiliary connector 55 intercon-

nects a rear edge of the horizontal frame 41 and the top edge of the auxiliary sheltering portion 541 of the auxiliary curtain member 54. The auxiliary flattening rod 56 is connected horizontally to a bottom edge of the auxiliary curtain member 54, and pulls down on the auxiliary curtain member 54 to flatten the same by virtue of its weight.

**[0033]** The clamping unit 6 further includes two sets of a plurality of auxiliary connecting members 63, the auxiliary connecting members 63 of each set thereof being associated with a respective one of the auxiliary blind pieces 45 and respectively with the auxiliary partitioning portions 542 of the auxiliary curtain member 54. Each of the auxiliary connecting members 63 has an auxiliary confining portion 632 extending horizontally, and two auxiliary securing portions 631 connected to opposite ends of the auxiliary confining portion 632 and that connect the auxiliary confining portion 632 to a respective one of the auxiliary partitioning portions 542. The auxiliary confining portion 632, the auxiliary securing portions 631, and the auxiliary partitioning portion 542 define a slot 640 thereamong for extension of a respective one of the auxiliary roller blind pieces 45 therethrough.

**[0034]** Each of the auxiliary connecting members 63 of each set of the same further has an auxiliary inserting rod 61' inserted into a respective one of the auxiliary partitioning portions 542. The auxiliary inserting rod 61' is shared between two corresponding auxiliary connecting members 63 respectively of the two sets of the same.

**[0035]** Each of the auxiliary confining portions 632 is in the form of a rod. Each of the auxiliary securing portions 631 of the auxiliary connecting member 63 is in the form of a clamp, and clamps onto the auxiliary inserting rod 61' in a respective one of the auxiliary partitioning portions 542.

**[0036]** Referring to Figure 12, when the sheltering portion 511 of the curtain member 51 is in an unfolded state, the auxiliary sheltering portion 541 of the auxiliary curtain member 54 is in a folded state. The sheltering portion 511 can be folded upwardly by rotation of the roller rod 42 which is driven by the driving member 75, and, at the same time, the auxiliary sheltering portion 541 can be unfolded downwardly as shown in Figure 9. That is to say, a moving direction of the auxiliary sheltering portion 541 is opposite that of the sheltering portion 511 when the roller blind unit 4 is manipulated.

**[0037]** Referring to Figures 9, 10, and 12, in some embodiments, the sheltering portion 511 of the curtain member 51 is thicker than the auxiliary sheltering portion 541 of the auxiliary curtain member 54 so that the light transmissivity of the sheltering portion 511 of the curtain member 51 is lower than that of the auxiliary sheltering portion 541 of the auxiliary curtain member 54. Hence, darker or lighter illumination indoors may be controlled by the user.

**[0038]** In addition, by simply removing the connecting members 62 and the auxiliary connecting member 63 respectively from the partitioning portions 512 and the auxiliary partitioning portions 542, the curtain member 51 and the auxiliary curtain member 54 can be separated

from the roller blind pieces 43 and the auxiliary roller blind pieces 45. Next, the connectors 52, 55 can be disconnected so that the curtain member 51 and the auxiliary curtain member 54 can be removed for cleaning, or for replacement with other curtain members of a different color and/or style. The roller blind pieces 43 and the auxiliary roller blind pieces 45 may also be removed for cleaning or replacement. Hence, such removal of the curtain members 51 and the auxiliary curtain members 54 is very simple. Also, the overall structure of these elements is simple, ultimately resulting in a lower cost for the window blind assembly of the present invention.

**[0039]** Figure 13 illustrates a third preferred embodiment of the window blind assembly according to the present invention. The third preferred embodiment differs from the first preferred embodiment in the following aspects.

**[0040]** The confining portion 622 of each of the connecting members 62 is in the form a cloth strip, and the securing portions 621 of each of the connecting members 62 includes a pair of one of hook fasteners and loop fasteners connected to opposite ends of the confining portion 622, and a pair of one of hook fasteners and loop fasteners connected to a respective one of the partitioning portions 512.

**[0041]** As an example, loop fasteners realized through a fabric material may be formed on the opposite ends of each of the confining portions 622, and hook fasteners may be disposed on the partitioning portions 512. Consequently, the hook fasteners may attach to the fabric material of the loop fasteners through a hook-and-loop engagement. That is, Velcro® fasteners may be used in this embodiment.

**[0042]** In other embodiments, the connecting members 62 may be realized using a structure of male and female fasteners. Hence, the present invention is not limited to the particular configuration used for the connecting members 62.

## Claims

1. A window blind assembly adapted for being mounted to a window (3), **characterized by:**

a roller blind unit (4) including a roller rod (42) that extends horizontally and that is rotatably mounted at or in proximity to an upper edge portion of the window (3), and a roller blind piece (43) a top edge of which is connected to said roller rod (42) and which is able to be wound around and extended from said roller rod (42); a curtain member unit (5) including a curtain member (51), said curtain member (51) having a sheltering portion (511) a top edge of which is mounted at or around the upper edge of the window (3), and a plurality of partitioning portions (512) that extend horizontally, are respectively

connected to a rear surface of said sheltering portion (511), and are vertically spaced apart from each other; and

a clamping unit (6) including a plurality of connecting members (62) associated respectively with said partitioning portions (512), each of said connecting members (62) having a confining portion (622), and two securing portions (621) connected to opposite ends of said confining portion (622) and that connect said confining portion (622) to a respective one of said partitioning portions (512), said confining portion (622), said securing portions (621), and said partitioning portion (512) defining a slot (640) thereamong for extension of said roller blind piece (43) therethrough;

when said roller blind unit (4) is manipulated such that said roller blind piece (43) is wound around said roller rod (42), said sheltering portion (511) is displaced upwardly, thereby folding said sheltering portion (511).

2. The window blind assembly as claimed in claim 1, **characterized in that** said roller blind unit (4) further includes a horizontal frame (41) that is mounted at least partially surrounding said roller rod (42) and to which said roller rod (42) is mounted.
3. The window blind assembly as claimed in claim 2, **characterized in that** said curtain member unit (5) further includes a connector (52) that interconnects said horizontal frame (41) and said top edge of said sheltering portion (511).
4. The window blind assembly as claimed in claim 2, **characterized in that** said roller blind unit (4) includes a driving unit (7) that is mounted to an end portion of said frame (41) and drives said roller rod (42) to rotate, said driving unit (7) including a case (71), a driving axial portion (72) that is connected to and rotates said roller rod (42), a wheel assembly (7476) that rotates said driving axial portion (72), and a driving member (75) that is operable to drive said wheel assembly (7476).
5. The window blind assembly as claimed in claim 4, **characterized in that** said drive wheel assembly (7476) includes a first rotating wheel (76) which is rotated by said driving member (75), and a second rotating wheel (74) engaged with said first rotating wheel (76) so as to be rotated thereby, said driving member (75) being in the form of a rod.
6. The window blind assembly as claimed in claim 5, **characterized in that** a periphery of an end portion of said first rotating wheel (76) is formed with a plurality of spherical portions (761), said second rotating wheel (74) being formed with a plurality of semi-

spherical grooves (742), said spherical portions (761) of said rotating wheel (76) being engaged one at a time with a respective one of said grooves (742) of said wheel (74) when said first rotating wheel (76) is rotated.

7. The window blind assembly as claimed in claim 5, **characterized in that** said case (71) of said driving unit (7) has internal gear teeth (711), said driving unit (7) including at least two toothed wheels (73) formed in said driving axial portion (72) and which engage said internal gear teeth (711), said second rotating wheel (74) having a wheel portion (741) that engages said first rotating wheel (76), and a gear wheel (743) that extends from a center portion of said wheel portion (741) and engages said toothed wheels (73).

8. The window blind assembly as claimed in claim 1, **characterized in that:**

said roller blind unit (4) further includes an auxiliary roller blind piece (45) a top edge of which is connected to said roller rod (42) and which is able to be wound around and extended from said roller rod (42) in a direction opposite to winding and extending of said roller blind piece (43);

said curtain member unit (5) further includes an auxiliary curtain member (54), said auxiliary curtain member (54) having an auxiliary sheltering portion (541) a top edge of which is mounted at or around the upper edge of the window (3), and a plurality of auxiliary partitioning portions (542) that extend horizontally, are respectively connected to a front surface of said auxiliary sheltering portion (541), and are vertically spaced apart from each other; and

said clamping unit (6) further includes a plurality of auxiliary connecting members (63) associated respectively with said auxiliary partitioning portions (542), each of said auxiliary connecting members (63) having an auxiliary confining portion (632), and two auxiliary securing portions (631) connected to opposite ends of said auxiliary confining portion (632) and that connect said auxiliary confining portion (632) to a respective one of said auxiliary partitioning portions (542), said auxiliary confining portion (632), said auxiliary securing portions (631), and said auxiliary partitioning portion (542) defining a slot (640) thereamong for extension of said auxiliary roller blind piece (45) therethrough;

when said roller blind unit (4) is manipulated, a moving direction of said auxiliary sheltering portion (541) is opposite to that of said sheltering portion (511).

9. The window blind assembly as claimed in claim 8, **characterized in that:**

each of said partitioning portions (512) and each of said auxiliary partitioning portions (542) of said curtain member unit (5) is in the form of a tube;

each of said connecting members (62) further has an inserting rod (61) inserted into a respective one of said partitioning portions (512); each of said auxiliary connecting members (63) further has an auxiliary inserting rod (61') inserted into a respective one of said auxiliary partitioning portions (542);

each of said confining portions (622) and said auxiliary confining portions (632) is in the form of a rod;

each of said securing portions (621) of said connecting member (62) and said auxiliary securing portions (631) of said auxiliary connecting member (63) is in the form of a clamp, and clamps onto said inserting rod (61) or said auxiliary inserting rod (61') in a respective one of said partitioning portions (512) or said auxiliary partitioning portions (542).

10. The window blind assembly as claimed in claim 8, **characterized in that** said roller blind unit (4) further includes a weighting rod (44) that extends horizontally and that is connected to a bottom portion of said roller blind piece (43), and an auxiliary weighting rod (46) that extends horizontally and that is connected to a bottom edge of said auxiliary roller blind piece (45).

11. The window blind assembly as claimed in claim 1, **characterized in that** said confining portion (622) of each of said connecting members (62) is in the form a cloth strip, and said securing portions (621) of each of said connecting members (62) includes a pair of one of hook fasteners and loop fasteners connected to opposite ends of said confining portion (622), and a pair of one of hook fasteners and loop fasteners connected to a respective one of said partitioning portions (512).

12. The window blind assembly as claimed in claim 1, **characterized in that** said roller blind unit (4) further includes a weighting rod (44) that extends horizontally and that is connected to a bottom portion of said roller blind piece (43).

13. The window blind assembly as claimed in claim 1, **characterized in that:**

each of said partitioning portions (512) is in the form of a tube;

each of said connecting members (62) further has an inserting rod (61) inserted into a respective one of said partitioning portions (512); each of said confining portions (622) is in the

form of a rod; and  
each of said securing portions (621) is in the  
form of a clamp and clamps onto said inserting  
rod (61) in a respective one of said partitioning  
portions (512).

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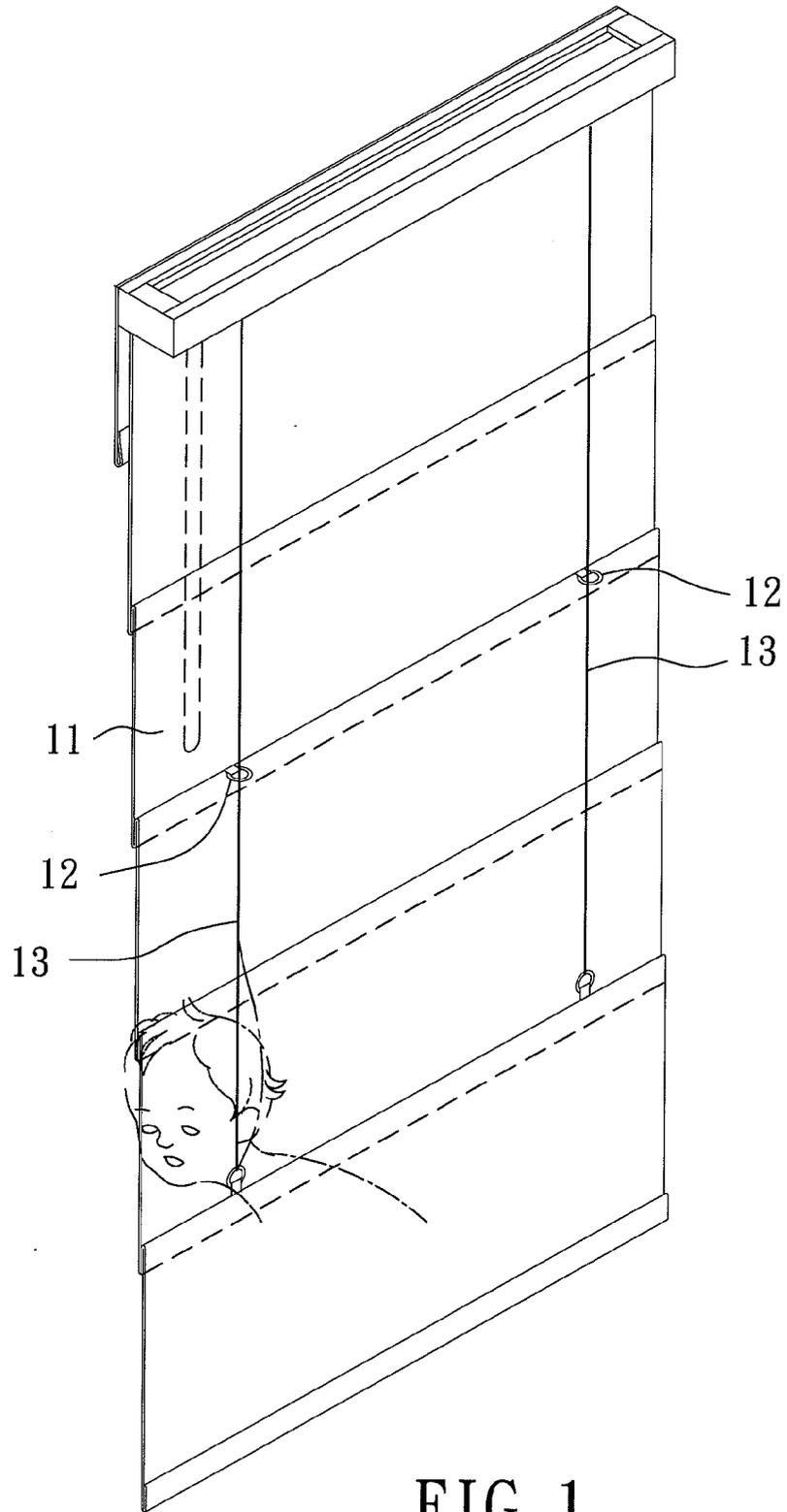
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**FIG. 1**  
PRIOR ART

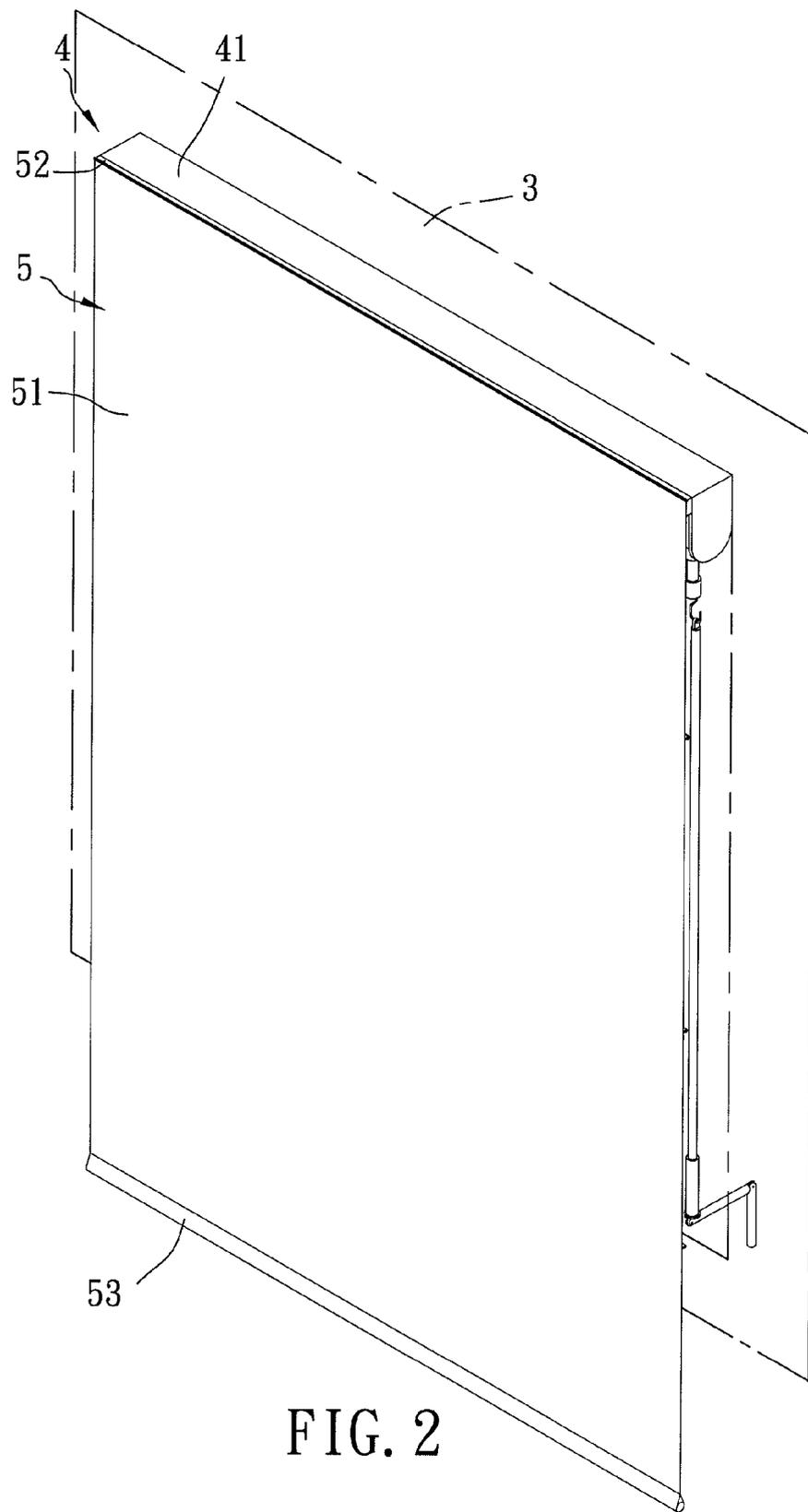
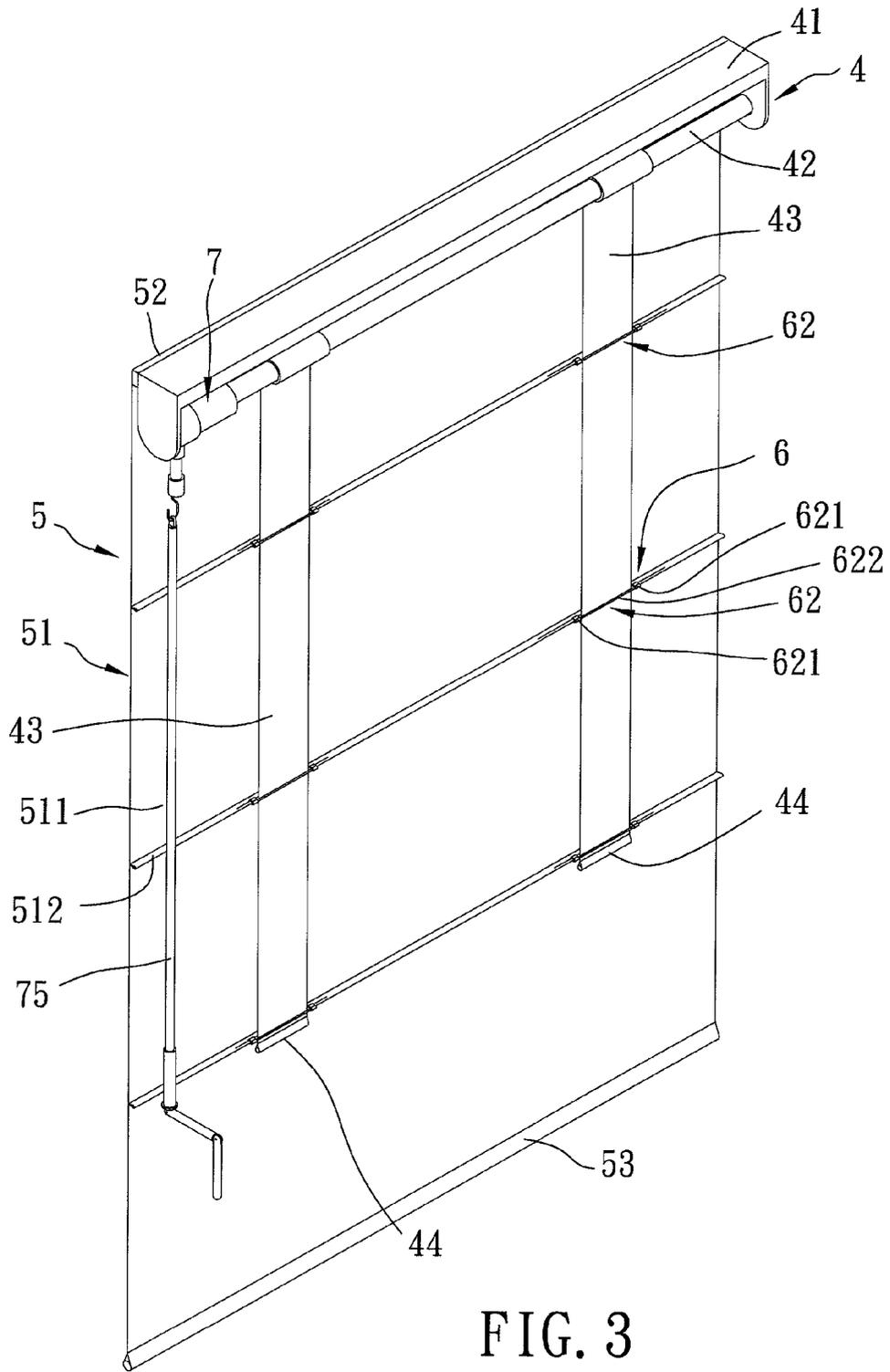


FIG. 2



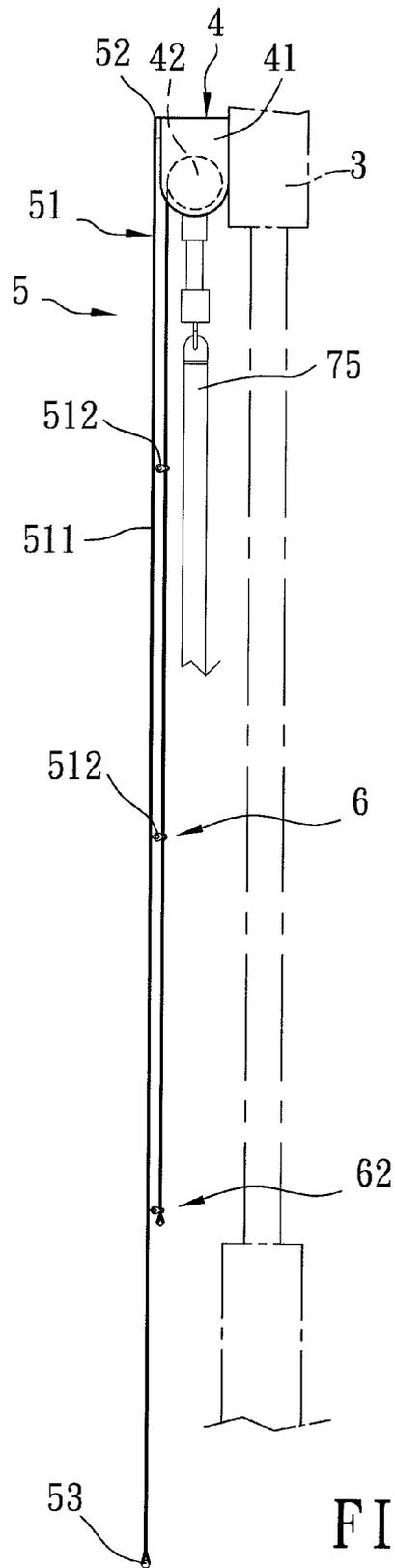


FIG. 4

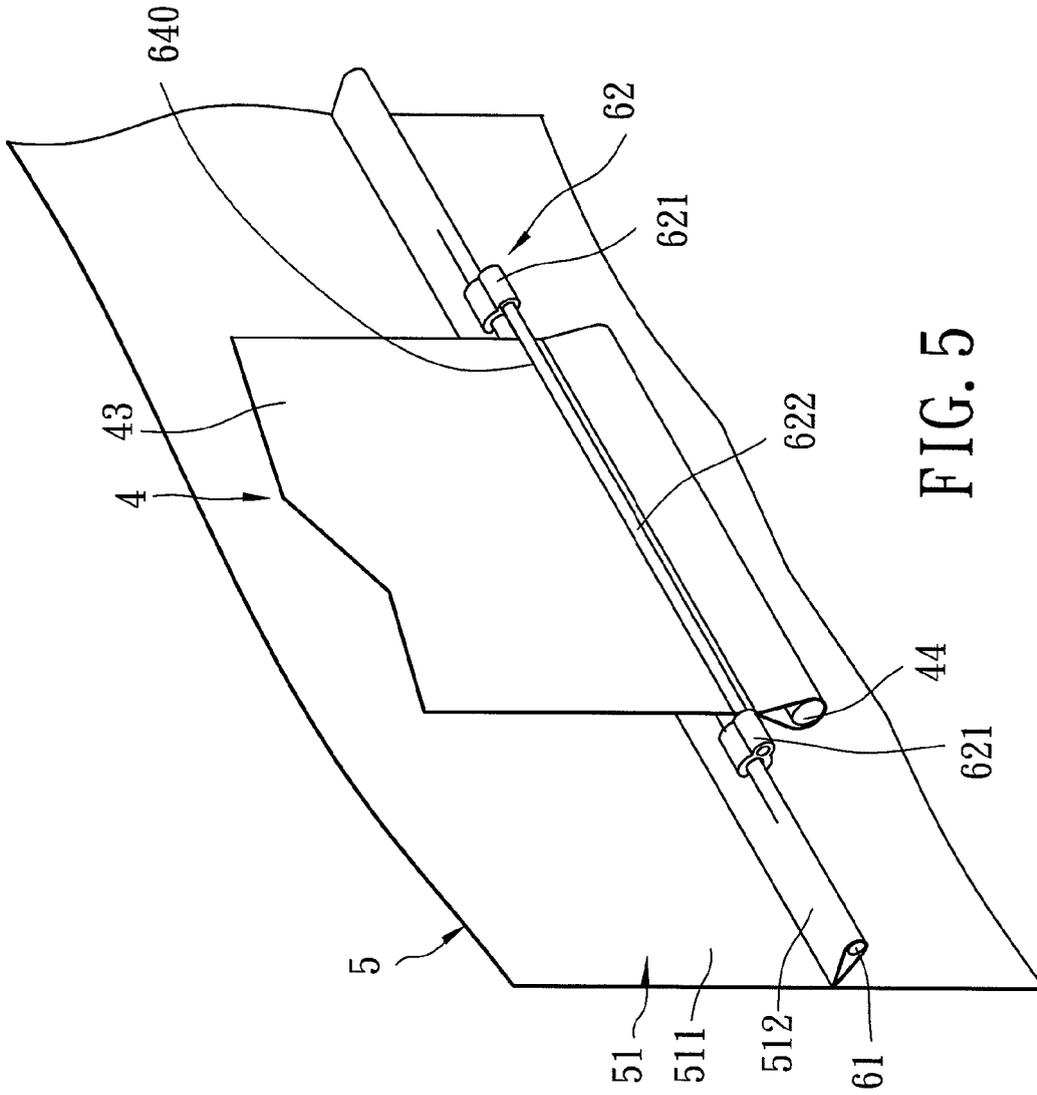


FIG. 5

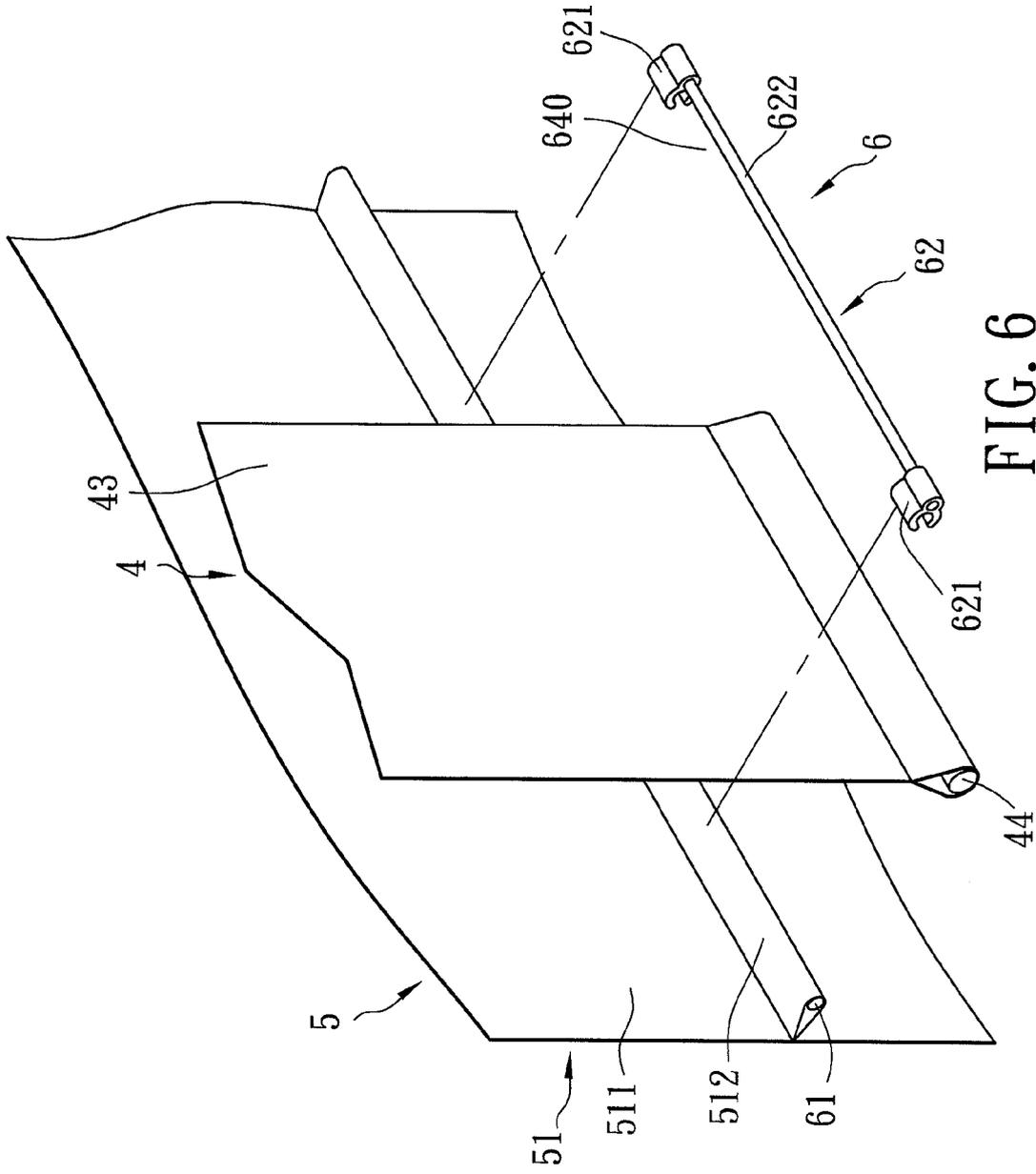


FIG. 6

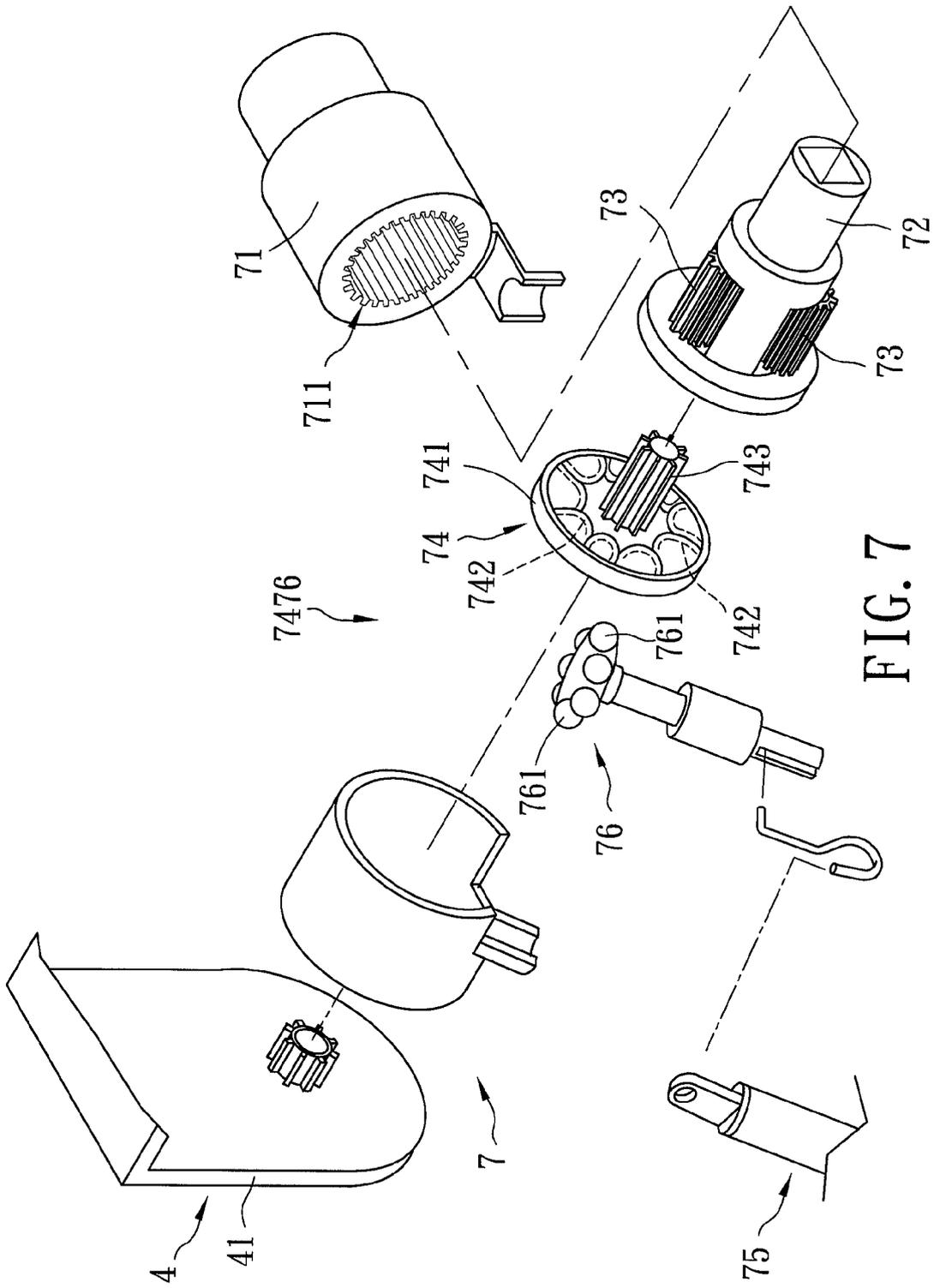


FIG. 7

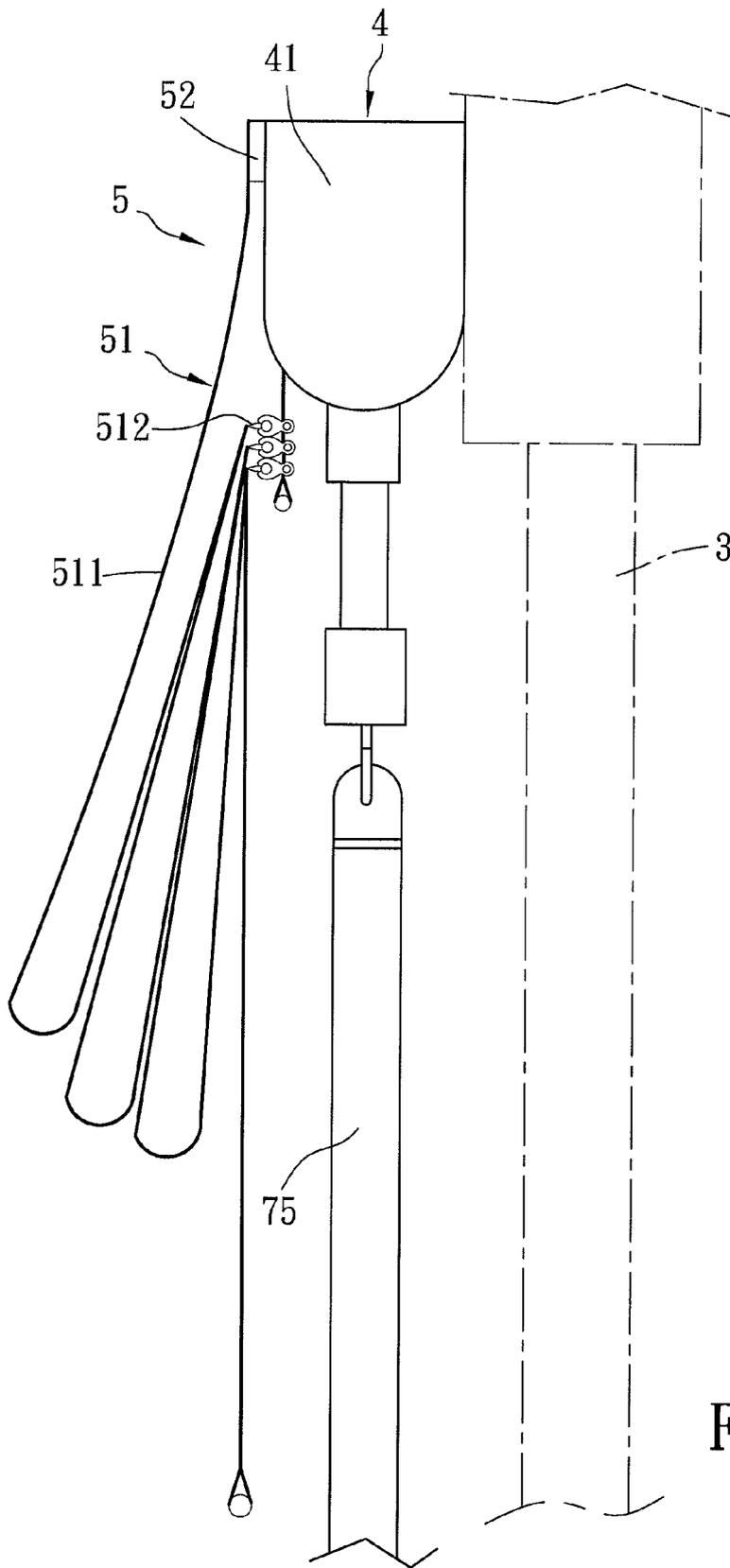
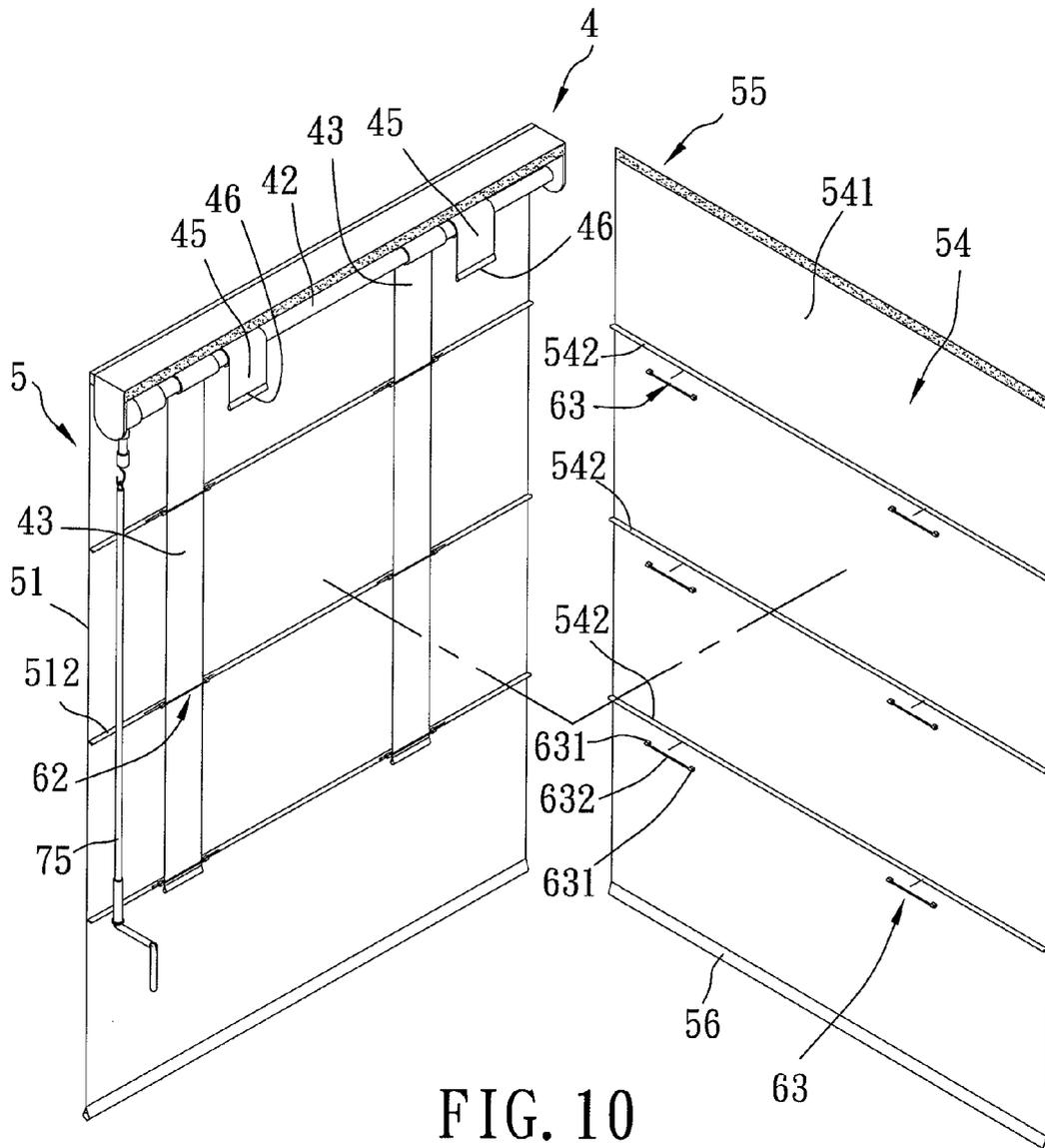


FIG. 8





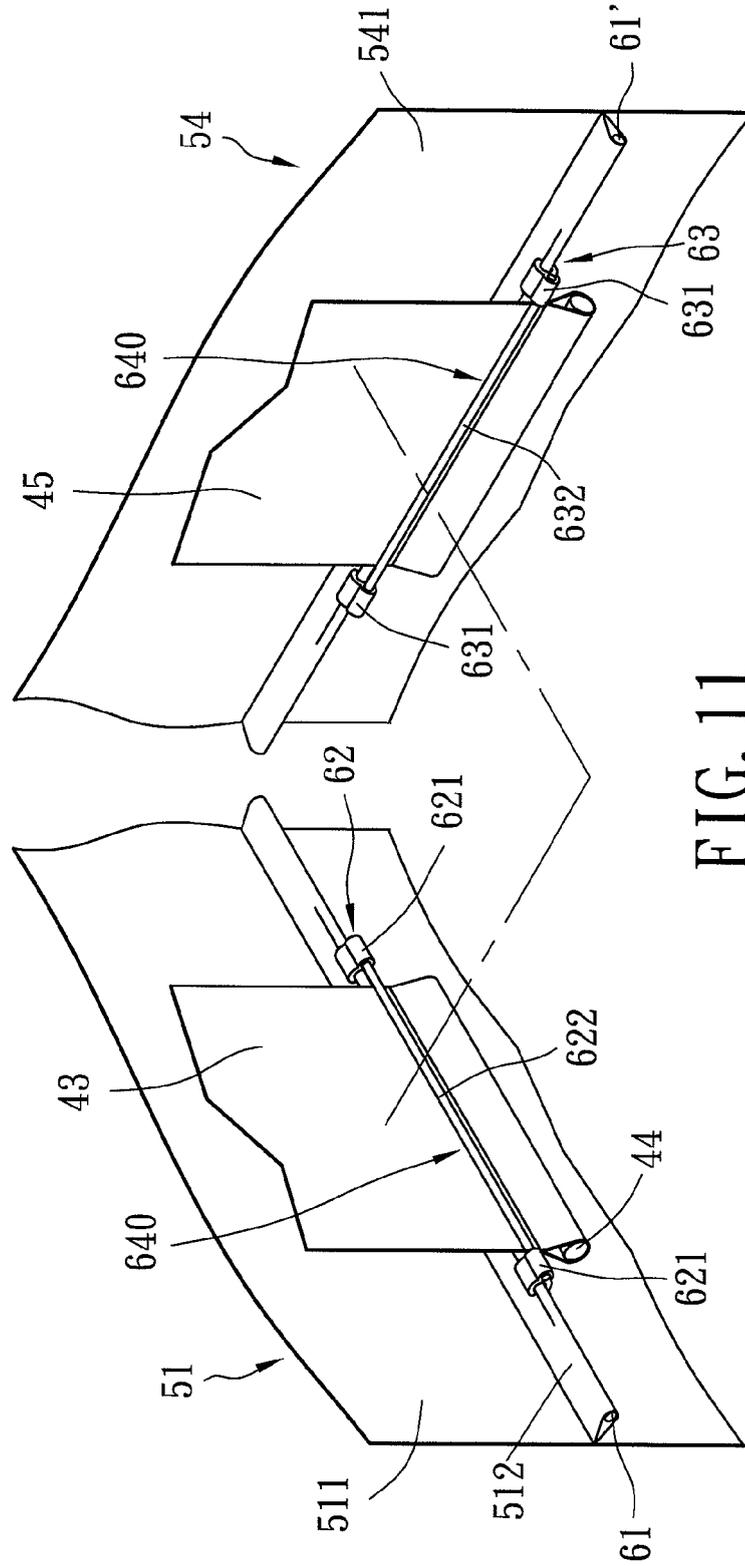


FIG. 11

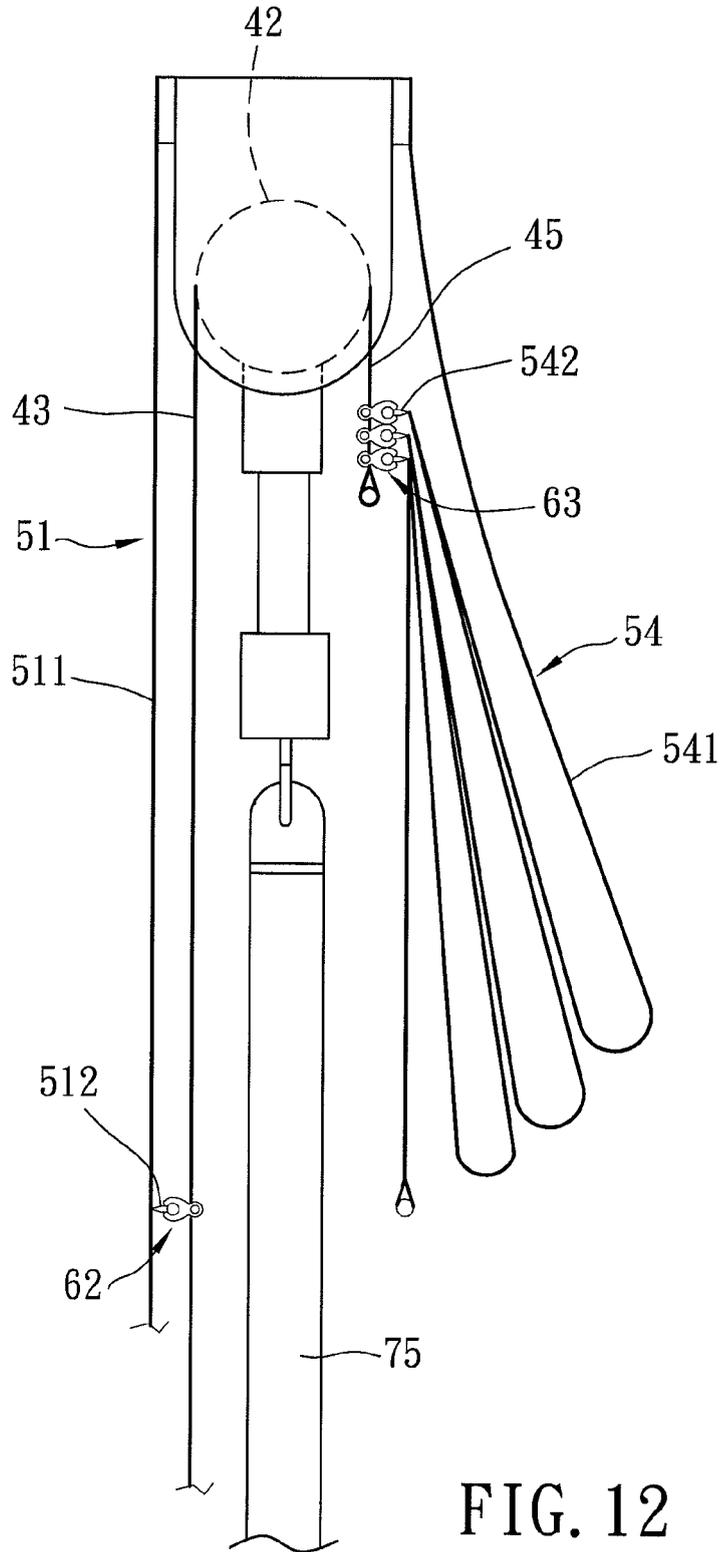


FIG. 12

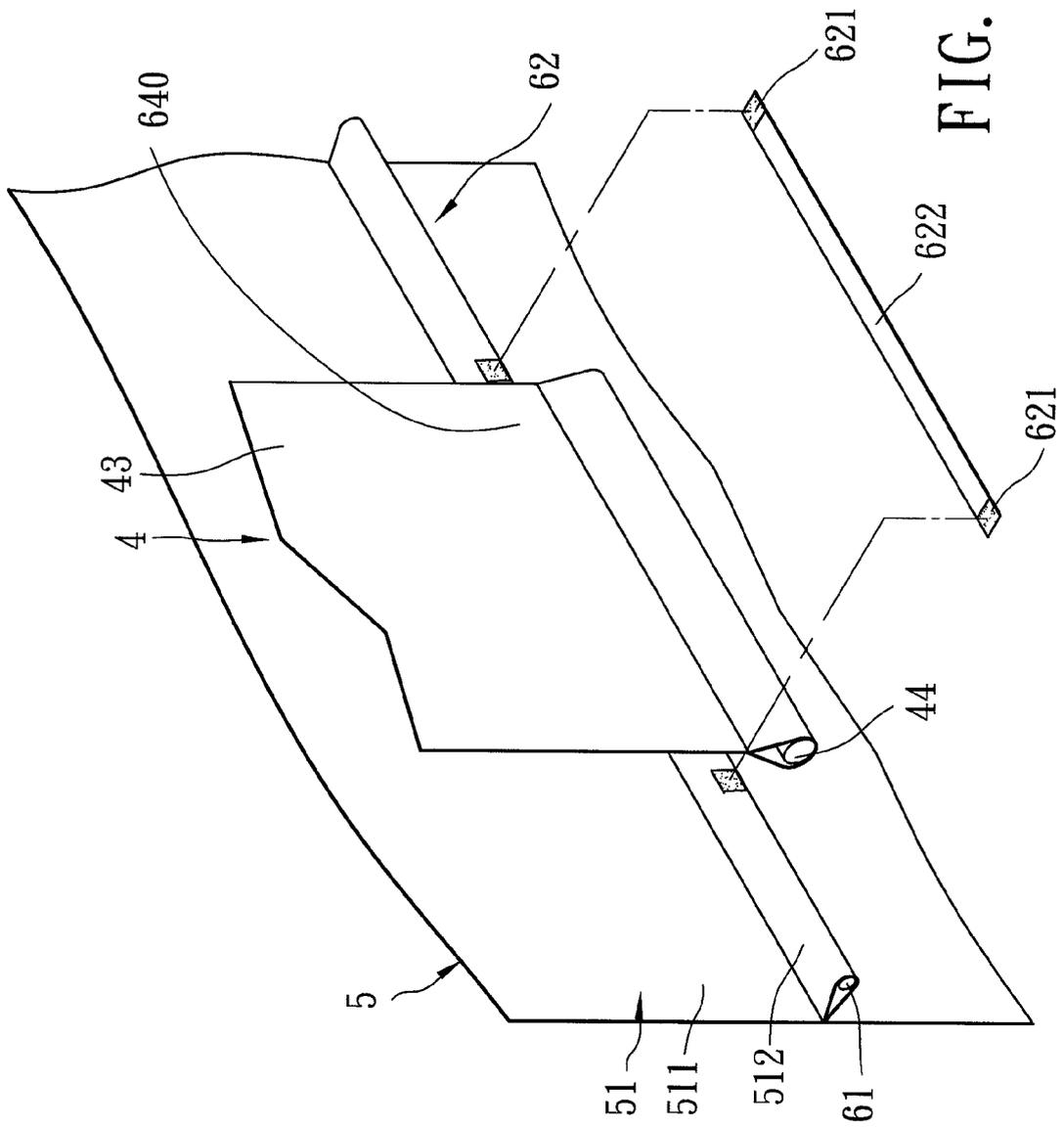


FIG. 13



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European  
Patent Office  
Office européen  
des brevets

## EUROPEAN SEARCH REPORT

Application Number  
EP 10 15 7927

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	FR 2 203 013 A1 (QUIOT ANDRE [FR]) 10 May 1974 (1974-05-10)	1-3, 11-13	INV. E06B9/262
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9 The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 17 May 2011	Examiner Cornu, Olivier
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EPO FORM 1503 03.82 (P04C01)



Application Number

EP 10 15 7927

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:
- The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number  
EP 10 15 7927

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-3, 11-13

Window blind assembly comprising one roller blind unit, one curtain unit, connecting members and a connector

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2. claims: 1, 2, 4-7

Window blind assembly comprising one drive unit

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3. claims: 1, 8-10

Window blind assembly comprising one roller blind unit, one curtain unit, one auxiliary roller blind unit and one auxiliary curtain unit

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ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

EP 10 15 7927

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.

17-05-2011

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