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(54) **SCREEN INSTALLATION STRUCTURE AND TENT**

TUCHINSTALLATIONSSTRUKTUR UND ZELT

STRUCTURE D'INSTALLATION D'UNE TOILE ET TENTE

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Description

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates to the tent element field, more particularly, relates to a screen installation structure and a tent.

Description of the Related Art

[0002] As a well performance of screen in shielding sun and wind, numerous applications of it appear in daily life. The traditional tent can't reach a sufficient comfort and privacy in using as limited by its structure and functions, and functions of screen can well compensate for this defect of the tent. However, the traditional screen cooperatively using with a tent is expensive, inconvenient, and occupies larger space while the two can't coexist well with each other.

[0003] DE 296 00 710 UI describes a window covering which comprises a first mounting element in which a shutter can be mounted rotatably. The window covering can be moved by means of a pull device, wherein the movement of the shutter is supported by profile rails. When the shutter is in use, it is not anchored to a "connecting support".

[0004] In DE 91 05 693 UI, a windscreen is disclosed which comprises a first mounting element in which a spring shaft is arranged, and a second mounting element. The windscreen comprises a connecting hook and a connecting hook support corresponding to the connecting hook. When the screen is in use, the connecting hook is arranged in the connecting hook support such that the screen is stretched between the first and the second mounting element.

[0005] EP 2 345 781 A2 discloses a tensioning device which comprises a first and a second pole. A pull rod can be arranged at a screen and the screen can be arranged on a roll that can be mounted rotatably on the first pole. The second pole comprises support devices that are configured such that the pull rod can be arranged at these support devices when the screen is arranged between the first and the second pole. To stretch the screen between both poles, the roll is turned back.

BRIEF SUMMARY OF THE INVENTION

[0006] The objective of the present invention is to solve the above problem by providing a screen installation structure and a tent, and the screen installation structure can mount a screen on a tent properly with simple structure and convenience.

[0007] To achieve the above object, the present invention provides a screen installation structure configured to mount a screen to a tent, the screen installation structure being built according to claim 1. The screen instal-

lation structure includes a first mounting element, a first retractable component, a second retractable component, and a second mounting element. The first mounting element is mounted to the tent or is a part of the tent. The first retractable component is mounted in the first mounting element, and the first retractable component includes a rotatable first through-cloth tube configured to connect with one end of the screen. The second retractable component is configured to connect with other end of the screen for opening or collapsing the screen. The second mounting element is configured to fit with the second retractable component. The second mounting element is mounted to the tent or is a part of the tent. When the screen is opened, the second retractable component is anchored to the second mounting element, and when the screen is collapsed, the second retractable component abuts against one side of the first mounting element.

[0008] The second retractable component includes a second through-cloth tube and a handle component. The second through-cloth tube is configured to connect with the screen, the handle component is disposed at the through-cloth tube, the second mounting element includes a second tube part and a handle disposing part, the handle disposing part is disposed at the second tube part, and the handle disposing part is configured to be anchored by the handle component.

[0009] The second mounting element further includes a tube disposing part disposed at the second tube part, and the tube disposing part has a tube receiving groove configured to fit with the second through-cloth tube.

[0010] In one embodiment of the present invention, the first retractable component may further include a torsional spring, a first connecting part and a bearing. The torsional spring may be disposed in the first through-cloth tube and connected with the first through-cloth tube, the first connecting part may be connected with the torsional spring and the first mounting element, and the bearing may be connected with the first through-cloth tube and the first mounting element.

[0011] In one embodiment of the present invention, the first mounting element may include a first tube part, a first mounting part and a second mounting part. The first mounting part and the second mounting part may be disposed at two ends of the first tube part, respectively, the first mounting part may be connected with the first connecting part, the second mounting part may be connected with the bearing, and the first tube part may have a through hole for the screen to pass through.

[0012] In one embodiment of the present invention, the first mounting part may have a connecting hole and a connecting groove, the connecting hole may be connected with the first tube part, and the connecting groove may be connected with the first connecting part.

[0013] In one embodiment of the present invention, the handle component may include a handle housing fixedly disposed at the second through-cloth tube, the handle housing may have an arm part, the handle disposing part may have a handle receiving groove, and the handle re-

ceiving groove may be configured to fit with the arm part.

[0014] In one embodiment of the present invention, the handle component may further include a grip, a spring and a locking element. The grip may be rotatably mounted at the handle housing, the spring may be connected with the grip and the handle housing, the locking element may be connected with the grip, the locking element and the spring may be located at two ends of the grip, respectively. The arm may have a fixing hole, the locking element may be corresponding to the fixing hole, and the handle disposing part may have a locking hole configured to fit with the locking element.

[0015] In one embodiment of the present invention, an inner side of the grip may be wave-shaped.

[0016] The present invention further provides a tent, and the tent includes the screen installation structure according to any one of the above embodiments.

[0017] Compared with the prior art, the present invention has the following beneficial effects:

[0018] In the screen installation structure and the tent of the present invention, it is a simple structure and convenient that the screen can be mounted on the tent only by connecting one end of the screen with the first through-cloth tube and the other end with the second retractable component. The screen can be opened by anchoring the second retractable component to the second mounting element through drawing the second retractable component, which is very convenient for shielding wind and light. Removing the second retractable component from the second mounting element, rotating the first through-cloth tube allows the screen to scroll around the first through-cloth tube and the second retractable component to abut well against one side of the first mounting element, and then the screen can be collapsed, as the screen installation structure occupies very small space when the screen is collapsed, the screen can be used well in combination with the tent, so that low comfort and privacy of the tent may be compensated and it is ready to promote for using widely.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019]

FIG. 1 is a structural schematic illustration of a screen installation structure according to one embodiment of the present invention, wherein a screen is mounted at the screen installation structure and the screen is opened;

FIG. 2 is a schematic illustration of the screen being collapsed according to the embodiment shown in FIG. 1;

FIG. 3 is a structural schematic illustration of a first mounting element according to one embodiment of the screen installation structure of the present invention;

FIG. 4 is a structural schematic illustration of a first mounting part of the first mounting element according to one embodiment of the screen installation structure of the present invention;

FIG. 5 is a structural schematic illustration of a first retractable component according to one embodiment of the screen installation structure of the present invention;

FIG. 6 is a structural schematic illustration of a second retractable component according to one embodiment of the screen installation structure of the present invention;

FIG. 7 is a cross-section illustration of a handle component according to one embodiment of the screen installation structure of the present invention;

FIG. 8 is a structural schematic illustration of a second tube part of a second mounting element according to one embodiment of the screen installation structure of the present invention;

FIG. 9 is a structural schematic illustration of a handle disposing part of the second mounting element according to one embodiment of the screen installation structure of the present invention;

FIG. 10 is a structural schematic illustration of a tube disposing part of the second mounting element according to one embodiment of the screen installation structure in the present invention;

FIG. 11 is a view illustrating a state when inserting an arm of a handle housing into the handle receiving groove according to one embodiment of the screen installation structure of the present invention;

FIG. 12 is a view illustrating a state when extracting the arm of the handle housing from the handle receiving groove according to the screen installation structure of the present invention;

FIG. 13 is a view illustrating a state when inserting a second through-cloth tube into a tube receiving groove according to one embodiment of the screen installation structure of the present invention; and

FIG. 14 is a structural schematic illustration of a tent according to one embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0020] The present invention is clearly and completely described below with reference to the accompanying drawings through embodiments.

[0021] With reference to FIG. 1, FIG. 2 and FIG. 5, the present invention provides a screen installation structure 80 configured to mount a screen 5 to a tent 90. The screen 5 required to be mounted is a screen that is ready to be winded, such as cloth screen. The screen installation structure 80 includes a first mounting element 1, a first retractable component 3, a second retractable component 4, and a second mounting element 2.

[0022] The first mounting element 1 is mounted to the tent 90 or is a part of the tent 90. As shown in FIG. 14, the first mounting element 1 is a part of the tent 90. The first retractable component 3 is mounted in the first mounting element 1. The first retractable component 3 includes a rotatable first through-cloth tube 31 configured to connect with one end of the screen 5. The second retractable component 4 is configured to connect with other end of the screen 5 for opening or collapsing the screen 5. The second mounting element 2 is configured to fit with the second retractable component 4, and the second mounting element 2 is mounted to the tent 90 or is a part of the tent 90. When the screen 5 is opened, the second retractable component 4 is anchored to the second mounting element 2, and when the screen 5 is collapsed, the second retractable component 4 abuts against one side of the first mounting element 1.

[0023] In the screen installation structure 80 of the present invention, it is a simple structure and convenient that the screen 5 can be mounted on the tent 90 only by connecting one end of the screen 5 with the first through-cloth tube 31 and the other end with the second retractable component 4. The screen 5 can be opened by anchoring the second retractable component 4 to the second mounting element 2 through drawing the second retractable component 4, which is very convenient for shielding wind and light. Removing the second retractable component 4 from the second mounting element 2, rotating the first through-cloth tube 31 allows the screen 5 to scroll around the first through-cloth tube 31 and the second retractable component 4 to abut against one side of the first mounting element 1, and then the screen 5 can be collapsed, as the screen installation structure 80 occupies very small space when the screen 5 is collapsed, the screen 5 can be used well in combination with the tent 90, so that low comfort and privacy of the tent 10 may be compensated and it is ready to promote for using widely.

[0024] In one embodiment, both the first mounting element 1 and second mounting element 2 are foot poles of the tent 90, the invention is not limited thereto, both the first mounting element 1 and second mounting element 2 may be mounted independently from elements of the tent 90 at the foot poles of the tent 90 by screws. After the screen 5 is collapsed, the screen 5 may be retractably within 360°, i.e. the first mounting element 1 and second mounting element 2 are not limited to positions in FIG. 1 and FIG. 14 as long as the first mounting element 1 and the second mounting element 2 are two parallel pillars.

[0025] With reference to FIG. 5, in one embodiment, the first retractable component 3 further includes a torsional spring 32, a first connecting part 33 and a bearing 34. The torsional spring 32 is disposed in the first through-cloth tube 31 and connected with the first through-cloth tube 31 to allow the torsional spring 32 and the first through-cloth tube 31 to rotate simultaneously. The first connecting part 33 connects with the torsional spring 32 and the first mounting element 1. The bearing 34 connects the first through-cloth tube 31 and the first mounting element 1, the arrangement of the bearing 34 may allow the first through-cloth tube 31 to rotate more smoothly. The elasticity and torsion of the torsional spring 32 ensure that a force F opposing the rotating direction of the first through-cloth tube 31 may exist when the first through-cloth tube 31 is driven to rotate by pulling the screen 5. Force F generated by the torsional spring 32 upon exerting a force F1 that pulls the screen 5 onto the second retractable component 4 may allow the opened screen 5 to be tightened. Opposing force F generated by the torsional spring 32 upon cancelling F1 that pulls the screen 5 may drive the first through-cloth tube 31 to rotate in a direction opposing to the pulling direction of the screen 5, and then the opened screen 5 is collapsed automatically, this makes an extreme convenience.

[0026] With reference to FIGs. 2-4, the first mounting 1 includes a first tube part 11, a first mounting part 12 and a second mounting part 13. The first mounting part 12 and the second mounting part 13 are disposed at two ends of the first tube part 11, respectively. The first mounting part 12 is connected with the first connecting part 33. The first mounting part 12 has a connecting hole 121 and a connecting groove 122, the connecting hole 121 is connected with the first tube part 11 by screws, and the connecting groove 122 is connected with the first connecting part 33. The first mounting part 12 has a simple configuration and firm component. The second mounting part 13 is connected with the bearing 34. The bearing 34 has an outer ring rotatably correspondingly with an inner ring, the second mounting part 13 is connected with the outer ring of the bearing 34, the first through-cloth tube 31 is connected with the inner ring of the bearing 34, the rolling connection between the outer ring and the inner ring by a ball may reduce the frictional resistance, allow the relative rotation between the outer ring and the inner ring to be more smooth, so that the first through-cloth tube 31 may rotate smoothly. Suitable bearing is known in the art. The first tube part 11 has a through hole 111 for the screen 5 to pass through, so that the screen 5 may be winded to be received into the first tube part 11, and may protrude the first tube part 11 through the through hole 111.

[0027] With reference to FIG. 6, the second retractable component 4 includes a second through-cloth tube 41 and a handle component 42, the second through-cloth tube 41 is configured to connect with the screen 5, the handle component 42 is disposed at the through-cloth tube to be held by hands. A size of the second through-

cloth tube 41 is larger than a size of the through hole 111 of the first tube part 11, this makes sure that the second through-cloth tube 41 may not be pulled into the first tube part 11 due to the force when the first through-cloth tube 31 is driven by the force F generated by the torsional spring 32 to rotate in a direction opposing to the pulling direction of the screen 5, as shown in FIG. 2, the second through-cloth tube 41 abuts against one side of the first tube part 11.

[0028] With reference to FIG. 1, FIG. 8, and FIG. 9, the second mounting element 2 includes a second tube part 21 and a handle disposing part 22. The handle disposing part 22 is disposed at the second tube part 21, and the handle disposing part 22 is configured to be anchored by the handle component 42. When the screen 5 needs to be used, the screen 5 may be opened and fixed by holding the handle component 42 and anchoring the handle component 42 to the handle disposing part 22. In the present embodiment, the handle disposing part 22 and the second tube part 21 are respectively provided with cooperative mounting holes, the handle disposing part 22 is mounted to the second tube part 21 by screws.

[0029] With reference to FIG. 1, FIG. 8, and FIG. 10, the second mounting element 2 further includes a tube disposing part 23 disposed at the second tube part 21, and the tube disposing part 23 has a tube receiving groove 231 configured to fit with the second through-cloth tube 41. When the screen 5 is opened, inserting a bottom end of the second through-cloth tube 41 into the tube receiving groove 231 may properly anchor the second retractable component 4 to the second mounting element 2. In the present embodiment, the handle disposing part 23 and the second tube part 21 are respectively provided with cooperative mounting holes, the handle disposing part 23 is mounted to the second tube part 21 by screws.

[0030] With reference to FIG. 7 and FIG. 9, the handle component 42 includes a handle housing 421, and the handle housing 421 is fixedly disposed at the second through-cloth tube 41. The handle housing 421 has an arm part 422. The handle disposing part 22 has a handle receiving groove 221 configured to fit with the arm part 422. When in use, it is very convenient for anchoring the second retractable component 4 to the second mounting element 2 only by inserting the arm part 422 into the handle receiving groove 221.

[0031] The handle component 42 further includes a grip 423, a spring 424 and a locking element 425. The grip 423 is rotatably mounted at the handle housing 421. The spring 424 is connected with the grip 423 and the handle housing 421. The locking element 425 is connected with the grip 423. The locking element 425 and spring 424 are located at two ends of the grip 423, respectively. The arm part 422 has a fixing hole 402, and the locking element 425 is corresponding to the fixing hole 402. The locking element 425 is protruded from the fixing hole 402 when no force is exerted onto the grip 423. Pressing the grip 423, the grip 423 rotating around a pivot point drives the locking element 425 to retract into the fixing hole 402.

The handle disposing part 22 has a locking hole 202, the locking hole 202 is configured to fit with the locking element 425 for properly securing the handle component 42. An inner side of the grip 423 is wave-shaped to be ready to hold.

[0032] When the screen 5 is needed to use, pulling the grip 423 to the second mounting element 2 by exerting a force horizontally, placing the arm part 422 of the handle housing 421 and the second through-cloth tube 41 into the handle receiving groove 221 and the tube receiving groove 231, as shown in FIG. 11 and FIG. 13. The locking element 425 snapping into the locking hole 202 achieves the goal in securing completely the arm part 422 of the handle housing 421. The pulling force generated by the first retractable component 3 on the screen 5 allows the screen 5 to be hang smoothly between the first mounting element 1 and the second mounting element 2, as shown in FIG. 1. With reference to FIG. 1 and FIG. 12, when the opened screen 5 needs to be collapsed, firstly a force F2 in FIG. 12 is desirable to be exerted on the grip 423 to drive the locking element 425 away from the locking hole 202 for releasing the arm part 422 from being locked, and then a force F3 is exerted upward to drive the arm part 422 and the second through-cloth tube 41 away from the hand receiving groove 221 and the tube receiving groove 231.

[0033] Moreover, the present invention further provides a tent 90 including the above screen installation structure 80, as shown in FIG. 14, the screen 5 can be well used in combination with the tent 90 through the screen installation structure 80 for solving the problems of the tent in low comfort, low privacy and low wind- and light-shielding capability.

[0034] Although the present invention has been described in considerable detail with reference to certain preferred embodiments thereof, the disclosure is not for limiting the scope of the invention. Persons having ordinary skill in the art may make various modifications and changes without departing from the scope of the appended claims.

Claims

1. A screen installation structure (80), configured to mount a screen (5) to a tent (90), the screen installation structure (80) comprising:

a first mounting element (1), suitable to be mounted to the tent (90);

a first retractable component (3), mounted in the first mounting element (1), the first retractable component (3) comprising a rotatable first through-cloth tube (31) configured to connect with one end of the screen (5);

a second retractable component (4), configured to connect with other end of the screen (5) for opening or collapsing the screen (5); and

a second mounting element (2), configured to fit with the second retractable component (4), wherein the second mounting element (2) is suitable to be mounted to the tent (90) when the screen (5) is opened, the second retractable component (4) is anchored to the second mounting element (2), and when the screen (5) is collapsed, the second retractable component (4) abuts against one side of the first mounting element (1)

characterised in that

the second retractable component (4) comprises a second through-cloth tube (41) and a handle component (42), the second through-cloth tube (41) is configured to connect with the screen (5), the handle component (42) is disposed at the through-cloth tube, the second mounting element (2) comprises a second tube part (21) and a handle disposing part (23), the handle disposing part (23) is disposed at the second tube part (21), and the handle disposing part (23) is configured to be anchored by the handle component (42), and

the second mounting element (2) further comprises a tube disposing part (23) disposed at the second tube part (21), and the tube disposing part (23) has a tube receiving groove (231) configured to fit with the second through-cloth tube (41).

2. The screen installation structure (80) according to claim 1, wherein the first retractable component (3) further comprises a torsional spring (32), a first connecting part (33) and a bearing (34), the torsional spring (32) is disposed in the first through-cloth tube (31) and connected with the first through-cloth tube (31), the first connecting part (33) is connected with the torsional spring (32) and the first mounting element (1), and the bearing (34) is connected with the first through-cloth tube (31) and the first mounting element (1).
3. The screen installation structure (80) according to claim 2, wherein the first mounting element (1) comprises a first tube part (11), a first mounting part (12) and a second mounting part (13), the first mounting part (12) and the second mounting part (13) are disposed at two ends of the first tube part (11), respectively, the first mounting part (12) is connected with the first connecting part (33), the second mounting part (13) is connected with the bearing (34), and the first tube part (11) has a through hole (111) for the screen (5) to pass through.
4. The screen installation structure (80) according to claim 3, wherein the first mounting part (12) has a connecting hole (121) and a connecting groove (122), the connecting hole (121) is connected with

the first tube part (11), and the connecting groove (122) is connected with the first connecting part (33).

5. The screen installation structure (80) according to claim 1, wherein the handle component (42) comprises a handle housing (421) fixedly disposed at the second through-cloth tube (41), the handle housing (421) has an arm part (422), the handle disposing part (22) has a handle receiving groove (221), and the handle receiving groove (221) is configured to fit with the arm part (422).
6. The screen installation structure (80) according to claim 5, wherein the handle component (42) further comprises a grip (423), a spring (424) and a locking element (425), the grip (423) is rotatably mounted at the handle housing (421), the spring (424) is connected with the grip (423) and the handle housing (421), the locking element (425) is connected with the grip (423), the locking element (425) and the spring (424) are located at two ends of the grip (423), respectively, the arm part (422) has a fixing hole (402), the locking element (425) is corresponding to the fixing hole (402), and the handle disposing part (22) has a locking hole (202) configured to fit with the locking element (425).
7. The screen installation structure (80) according to claim 6, wherein an inner side of the grip (423) is wave-shaped.
8. A tent (90) comprising the screen installation structure (80) according to claim 1.

Patentansprüche

1. Abschirmungsinstallationsstruktur (80), die so ausgestaltet ist, dass sie eine Abschirmung (5) an einem Zelt (90) befestigt, wobei die Abschirmungsinstallationsstruktur (80) Folgendes umfasst:

ein erstes Befestigungselement (1), das dazu geeignet ist, an dem Zelt (90) befestigt zu werden;

ein erstes einziehbares Bauteil (3), das in dem ersten Befestigungselement (1) befestigt ist, wobei das erste einziehbare Bauteil (3) ein drehbares erstes durch den Stoff hindurchgehendes Rohr (31) umfasst, das so ausgestaltet ist, dass es sich mit einem Ende der Abschirmung (5) verbindet;

ein zweites einziehbares Bauteil (4), das so ausgestaltet ist, dass es sich zum Öffnen oder Zusammenfallen der Abschirmung (5) mit dem anderen Ende der Abschirmung (5) verbindet; und ein zweites Befestigungselement (2), das so ausgestaltet ist, dass es zu dem zweiten ein-

- ziehbaren Bauteil (4) passt, wobei das zweite Befestigungselement (2) dazu geeignet ist, an dem Zelt (90) befestigt zu werden, wenn die Abschirmung (5) geöffnet wird, das zweite einziehbare Bauteil (4) in dem zweiten Befestigungselement (2) verankert wird, und wenn die Abschirmung (5) zusammengeklappt wird, das zweite einziehbare Bauteil (4) gegen eine Seite des ersten Befestigungselementes (1) stößt, **dadurch gekennzeichnet, dass** das zweite einziehbare Bauteil (4) ein zweites durch den Stoff hindurchgehendes Rohr (41) und ein Griffbauteil (42) umfasst, das zweite durch den Stoff hindurchgehende Rohr (41) so ausgestaltet ist, dass es sich mit der Abschirmung (5) verbindet, das Griffbauteil (42) an dem durch den Stoff hindurchgehenden Rohr angeordnet ist, das zweite Befestigungselement (2) ein zweites Rohrteil (21) und ein Griffanordnungsteil (23) umfasst, das Griffanordnungsteil (23) an dem zweiten Rohrteil (21) angeordnet ist und das Griffanordnungsteil (23) dafür ausgestaltet ist, durch das Griffbauteil (42) verankert zu werden, und das zweite Befestigungselement (2) ferner ein Rohranordnungsteil (23) umfasst, das an dem zweiten Rohrteil (21) angeordnet ist, und das Rohranordnungsteil (23) eine Rohraufnahmenut (231) aufweist, die so ausgestaltet ist, dass sie zu dem zweiten durch den Stoff hindurchgehenden Rohr (41) passt.
2. Abschirmungsinstallationsstruktur (80) nach Anspruch 1, wobei das erste einziehbare Bauteil (3) ferner eine Verdrehungsfeder (32), ein erstes Verbindungsteil (33) und ein Lager (34) umfasst, die Verdrehungsfeder (32) in dem ersten durch den Stoff hindurchgehenden Rohr (31) angeordnet ist und mit dem ersten durch den Stoff hindurchgehenden Rohr (31) verbunden ist, das erste Verbindungsteil (33) mit der Verdrehungsfeder (32) und dem ersten Befestigungselement (1) verbunden ist und das Lager (34) mit dem ersten durch den Stoff hindurchgehenden Rohr (31) und dem ersten Befestigungselement (1) verbunden ist.
3. Abschirmungsinstallationsstruktur (80) nach Anspruch 2, wobei das erste Befestigungselement (1) ein erstes Rohrteil (11), ein erstes Befestigungsteil (12) und ein zweites Befestigungsteil (13) umfasst, das erste Befestigungsteil (12) und das zweite Befestigungsteil (13) an dem einen bzw. dem anderen Ende des ersten Rohrteiles (11) angeordnet sind, das erste Befestigungsteil (12) mit dem ersten Verbindungsteil (33) verbunden ist, das zweite Befestigungsteil (13) mit dem Lager (34) verbunden ist und das erste Rohrteil (11) ein Durchgangsloch (111) aufweist, durch das die Abschirmung (5) hindurch-
- gehen kann.
4. Abschirmungsinstallationsstruktur (80) nach Anspruch 3, wobei das erste Befestigungsteil (12) ein Verbindungsloch (121) und eine Verbindungsnut (122) aufweist, das Verbindungsloch (121) mit dem ersten Rohrteil (11) verbunden ist und die Verbindungsnut (122) mit dem ersten Verbindungsteil (33) verbunden ist.
5. Abschirmungsinstallationsstruktur (80) nach Anspruch 1, wobei das Griffbauteil (42) ein Griffgehäuse (421) umfasst, das fest an dem zweiten durch den Stoff hindurchgehenden Rohr (41) angeordnet ist, das Griffgehäuse (421) ein Armteil (422) aufweist, das Griffanordnungsteil (22) eine Griffaufnahmenut (221) aufweist und die Griffaufnahmenut (221) so ausgestaltet ist, dass sie zu dem Armteil (422) passt.
6. Abschirmungsinstallationsstruktur (80) nach Anspruch 5, wobei das Griffbauteil (42) ferner einen Handgriff (423), eine Feder (424) und ein Arretierelement (425) umfasst, der Handgriff (423) drehbar an dem Griffgehäuse (421) befestigt ist, die Feder (424) mit dem Handgriff (423) und dem Griffgehäuse (421) verbunden ist, das Arretierelement (425) mit dem Handgriff (423) verbunden ist, das Arretierelement (425) und die Feder (424) sich an dem einen bzw. dem anderen Ende des Handgriffes (423) befinden, das Armteil (422) ein Befestigungsloch (402) aufweist, das Arretierelement (425) dem Befestigungsloch (402) entspricht und das Griffanordnungsteil (22) ein Arretierloch (202) aufweist, das so ausgestaltet ist, dass es zu dem Arretierelement (425) passt.
7. Abschirmungsinstallationsstruktur (80) nach Anspruch 6, wobei eine Innenseite des Handgriffes (423) wellenförmig ist.
8. Zelt (90), umfassend die Abschirmungsinstallationsstruktur (80) nach Anspruch 1.

45 Revendications

1. Structure de montage d'écran (80), prévue pour monter un écran (5) sur un barnum (90), ladite structure de montage d'écran (80) comprenant :
- un premier élément de montage (1), adapté pour être monté sur le barnum (90) ;
- un premier composant rétractable (3), monté dans le premier élément de montage (1), ledit premier composant rétractable (3) comprenant un premier tube rotatif de traversée de toile (31) prévu pour être raccordé à une extrémité de l'écran (5) ;

un deuxième composant rétractable (4), prévu pour être raccordé à l'autre extrémité de l'écran (5) pour déployer ou enrouler l'écran (5) ; et un deuxième élément de montage (2), prévu pour être ajusté avec le deuxième composant rétractable (4), ledit deuxième élément de montage (2) étant adapté pour être monté sur le barnum (90) quand l'écran (5) est déployé, le deuxième composant rétractable (4) étant fixé sur le deuxième élément de montage (2), et, si l'écran (5) est enroulé, le deuxième composant rétractable (4) bute contre un côté du premier élément de montage (1),

caractérisée en ce que

le deuxième composant rétractable (4) comprend un deuxième tube à traversée de toile (41) et un composant de poignée (42), le deuxième tube à traversée de toile (41) est prévu pour être raccordé à l'écran (5), le composant de poignée (42) est disposé sur le tube à traversée de toile, le deuxième élément de montage (2) comprend une deuxième partie de tube (21) et une partie de placement de poignée (23), la partie de placement de poignée (23) est disposée sur la deuxième partie de tube (21), et la partie de placement de poignée (23) est prévue pour être fixée par le composant de poignée (42), et le deuxième élément de montage (2) comprend en outre une partie de placement de tube (23) disposée sur la deuxième partie de tube (21), et la partie de placement de tube (23) comporte une gouttière de réception de tube (231) prévue pour l'ajustement du deuxième tube à traversée de toile (41).

2. Structure de montage d'écran (80) selon la revendication 1, où le premier composant rétractable (3) comprend en outre un ressort de torsion (32), une première partie de connexion (33) et un palier (34), le ressort de torsion (32) est disposé dans le premier tube à traversée de toile (31) et est raccordé au premier tube à traversée de toile (31), la première partie de connexion (33) est raccordée au ressort de torsion (32) et au premier élément de montage (1), et le palier (34) est raccordé au premier tube à traversée de toile (31) et au premier élément de montage (1).
3. Structure de montage d'écran (80) selon la revendication 2, où le premier élément de montage (1) comprend une première partie de tube (11), une première partie de montage (12) et une deuxième partie de montage (13), la première partie de montage (12) et la deuxième partie de montage (13) sont disposées à deux extrémités respectives de la première partie de tube (11), la première partie de montage (12) est raccordée à la première partie de connexion (33), la deuxième partie de montage (13) est raccordée au

palier (34), et la première partie de tube (11) présente un trou traversant (111) pour le passage de l'écran (5).

4. Structure de montage d'écran (80) selon la revendication 3, où la première partie de montage (12) présente un trou de connexion (121) et une gouttière de connexion (122), le trou de connexion (121) est raccordé à la première partie de tube (11), et la gouttière de connexion (122) est raccordée à la première partie de connexion (33).
5. Structure de montage d'écran (80) selon la revendication 1, où le composant de poignée (42) comprend un boîtier de poignée (421) disposé de manière fixe sur le deuxième tube à traversée de toile (41), le boîtier de poignée (421) présente une partie de bras (422), la partie de placement de poignée (22) présente une gouttière de réception de poignée (221), et la gouttière de réception de poignée (221) est prévue pour l'ajustement de la partie de bras (422).
6. Structure de montage d'écran (80) selon la revendication 5, où le composant de poignée (42) comprend en outre une surface de préhension (423), un ressort (424) et un élément de verrouillage (425), la surface de préhension (423) est montée de manière rotative sur le boîtier de poignée (421), le ressort (424) est raccordé à la surface de préhension (423) et au boîtier de poignée (421), l'élément de verrouillage (425) est raccordé à la surface de préhension (423), l'élément de verrouillage (425) et le ressort (424) sont situés à deux extrémités respectives de la surface de préhension (423), la partie de bras (422) présente un trou de fixation (402), l'élément de verrouillage (425) correspond au trou de fixation (402), et la partie de placement de poignée (22) présente un trou de verrouillage (202) prévu pour l'ajustement de l'élément de verrouillage (425).
7. Structure de montage d'écran (80) selon la revendication 6, où une face intérieure de la surface de préhension (423) est ondulée.
8. Barnum (90), comprenant la structure de montage d'écran (80) selon la revendication 1.

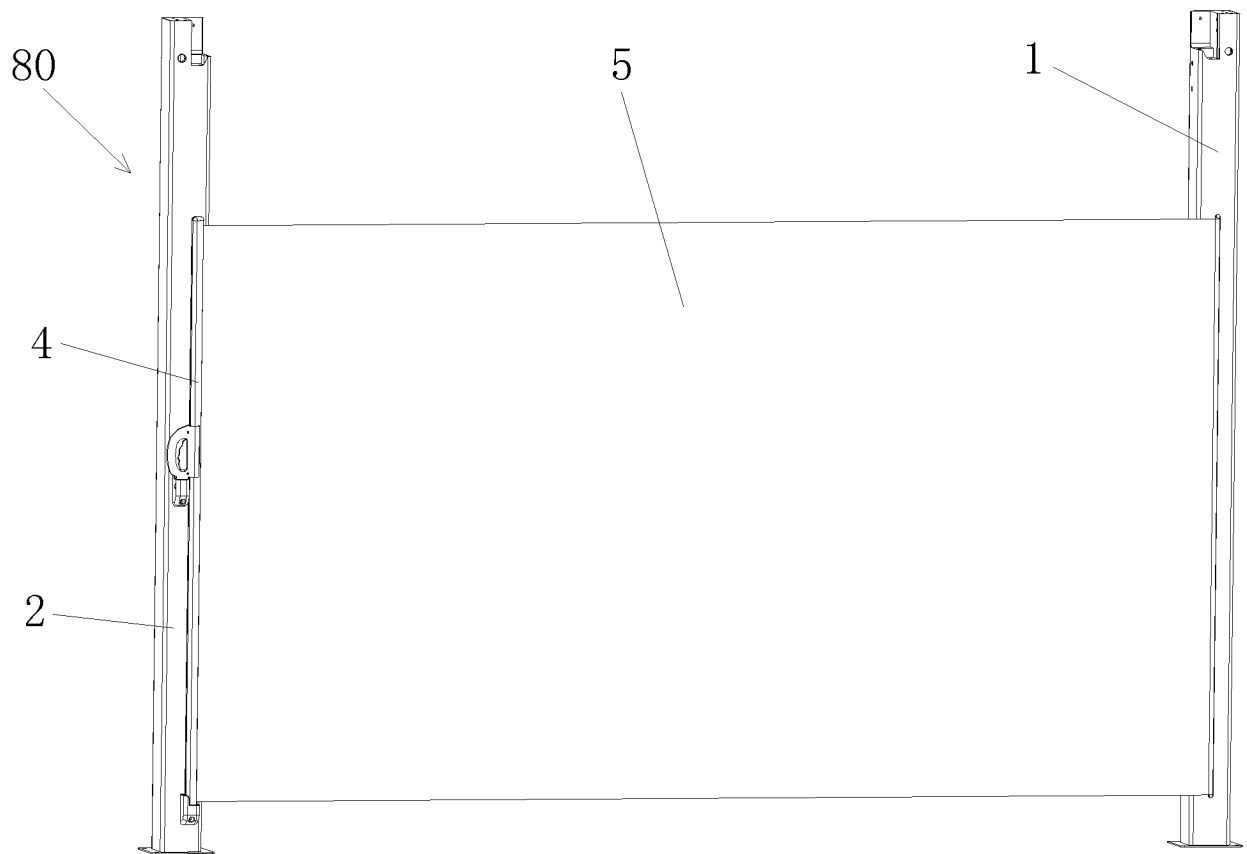


FIG. 1

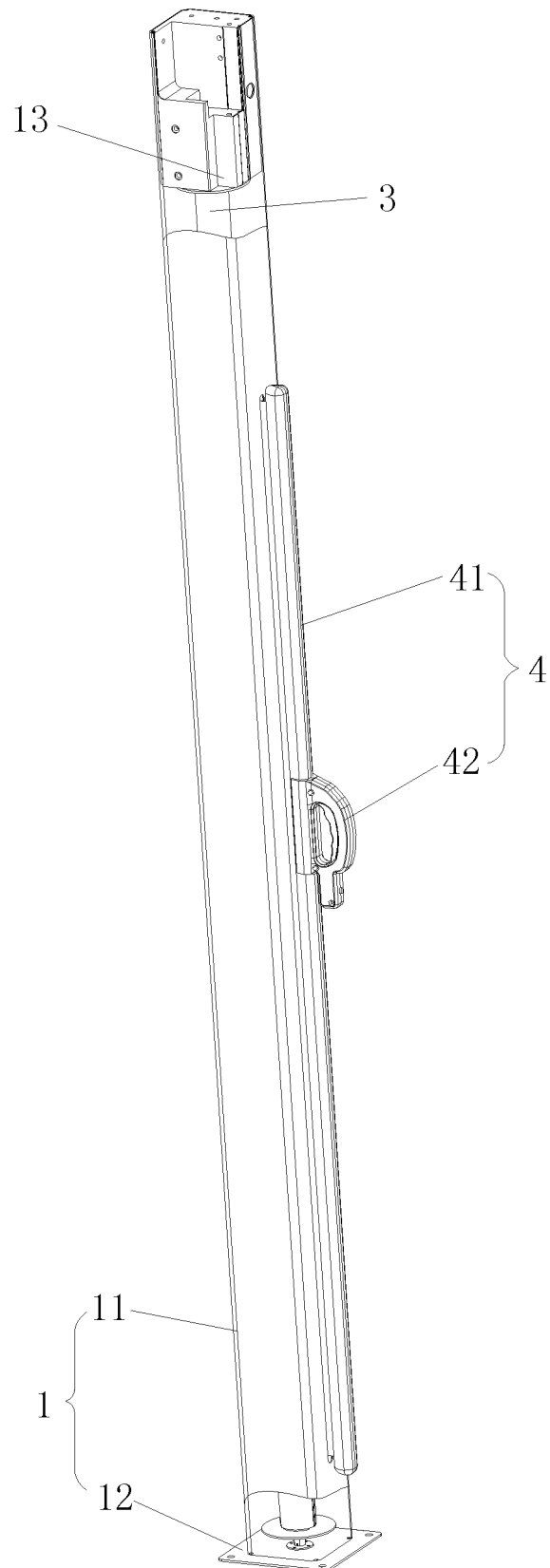


FIG. 2

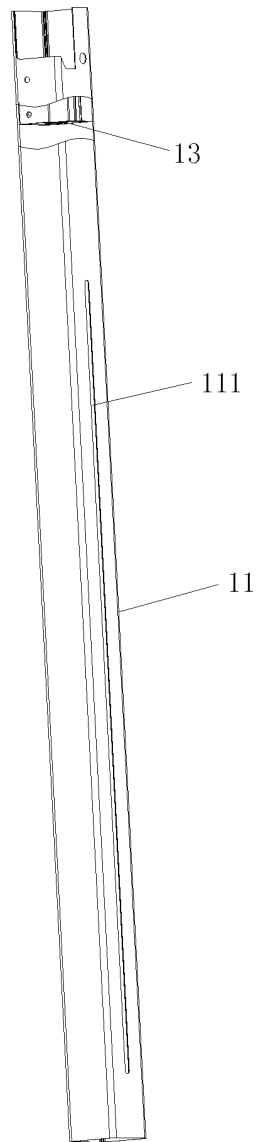


FIG. 3

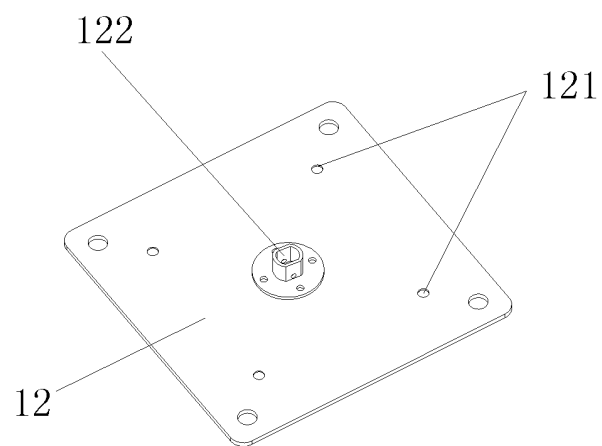


FIG. 4

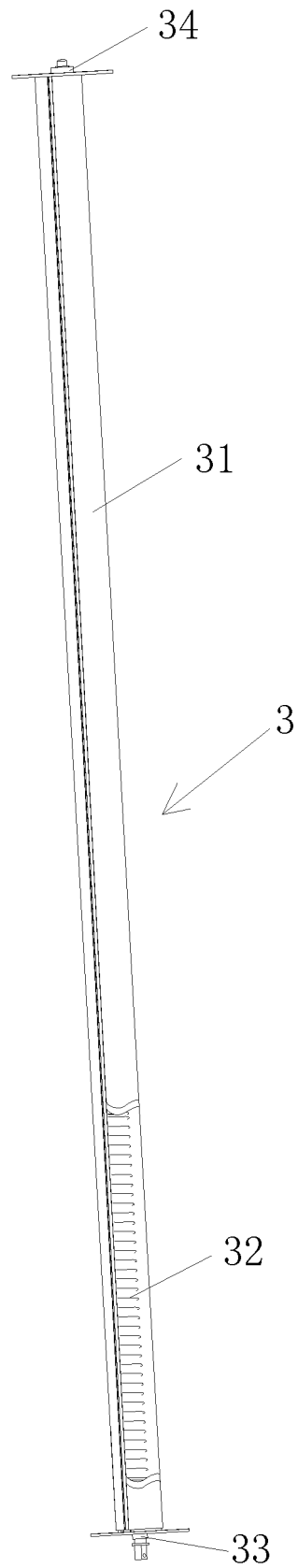


FIG. 5

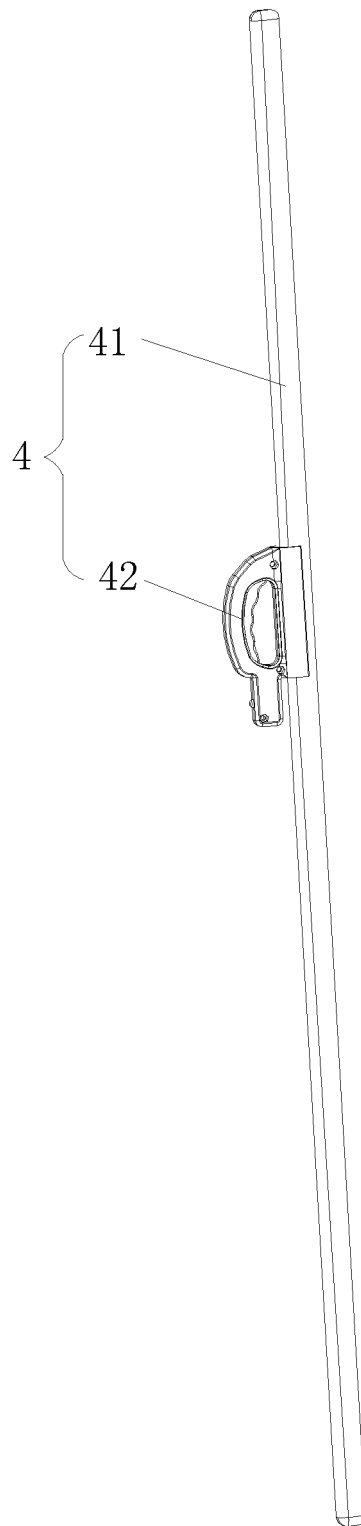


FIG. 6

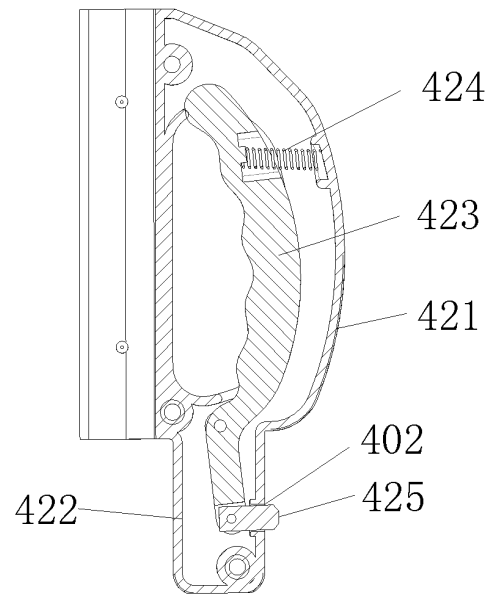


FIG. 7

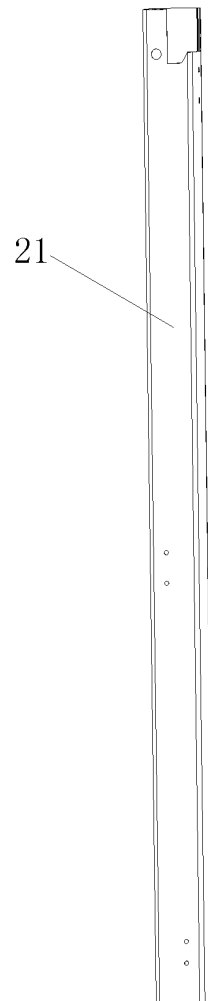


FIG. 8

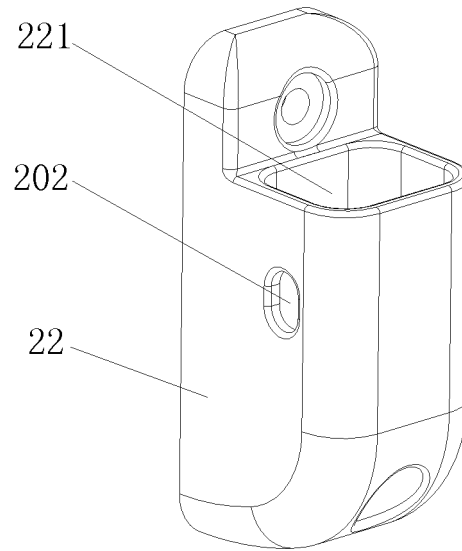


FIG. 9

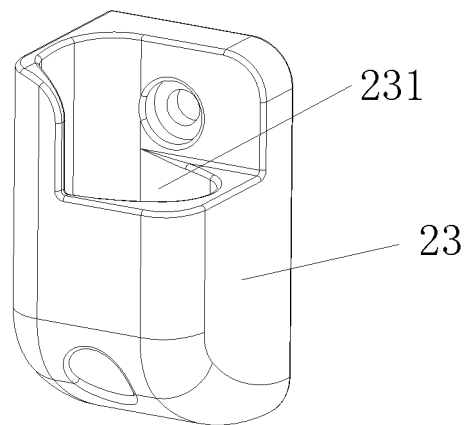


FIG. 10

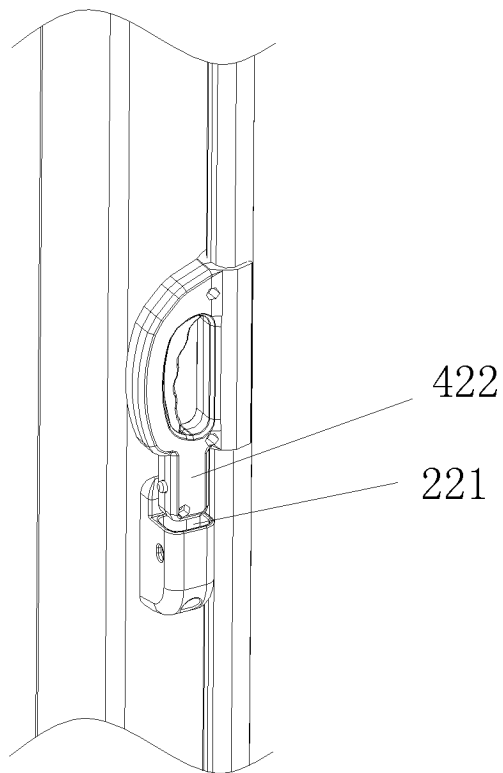


FIG. 11

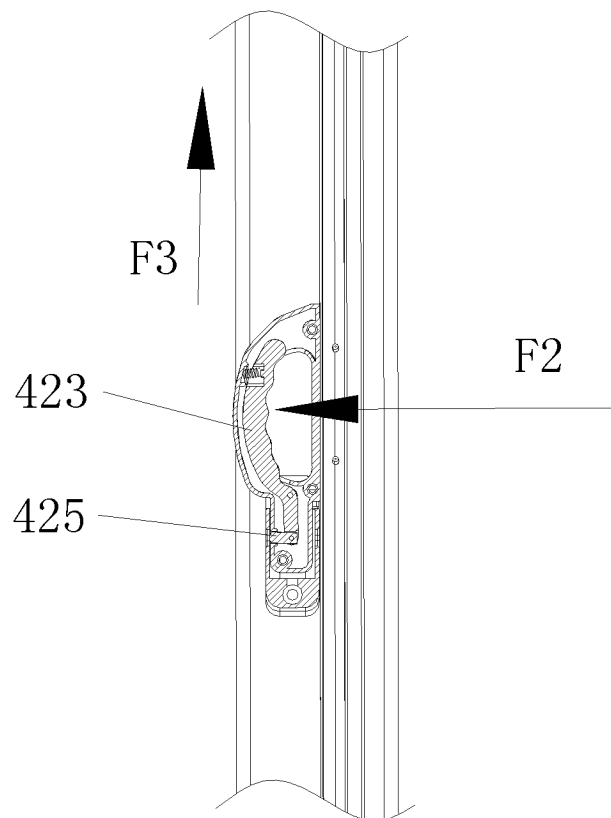


FIG. 12

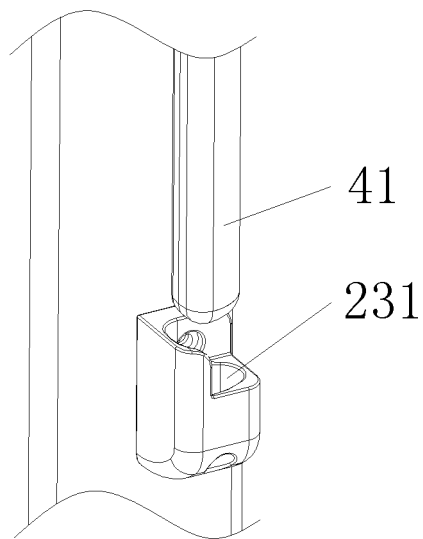


FIG. 13

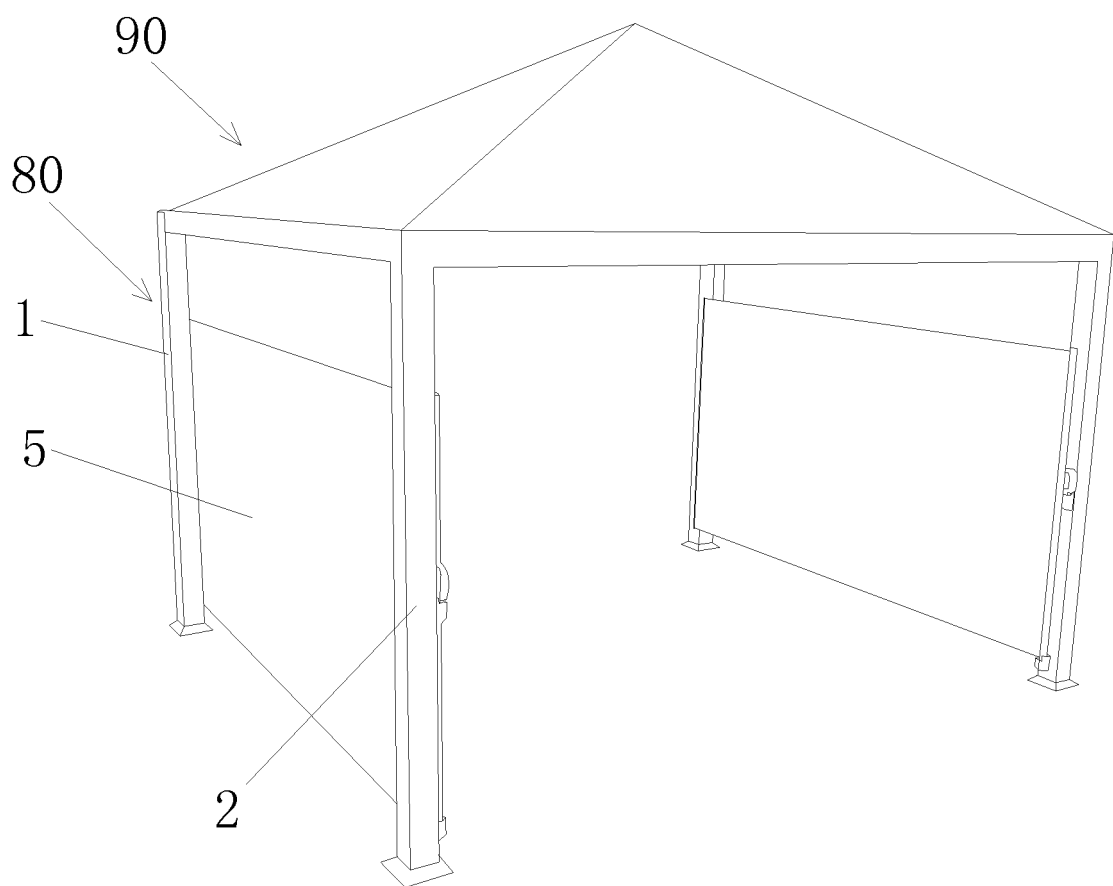


FIG. 14

REFERENCES CITED IN THE DESCRIPTION

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