



(11)

EP 4 825 266 A1

(12)

EUROPEAN PATENT APPLICATION
published in accordance with Art. 153(4) EPC

(43) Date of publication:
21.10.2026 Bulletin 2026/43

(51) International Patent Classification (IPC):
A47C 17/00 (2006.01)

(21) Application number: **24901992.8**

(52) Cooperative Patent Classification (CPC):
A47C 17/00

(22) Date of filing: **29.04.2024**

(86) International application number:
PCT/CN2024/090623

(87) International publication number:
WO 2025/123562 (19.06.2025 Gazette 2025/25)

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

(71) Applicant: **Man Wah Furniture Manufacturing
(Shenzhen)
Co., Ltd.
Shenzhen, Guangdong 518100 (CN)**

(72) Inventor: **CHEN, Weiming
Guangdong 516083 (CN)**

(74) Representative: **Cabinet Chaillot
16/20, avenue de l'Agent Sarre
B.P. 74
92703 Colombes Cedex (FR)**

(30) Priority: **14.12.2023 CN 202311735667
14.12.2023 CN 202323439200 U**

(54) **SOFA ASSEMBLY AND SOFA**

(57) The invention provides a plurality of sofa assemblies and a sofa comprising two or more sofa assemblies. A sofa assembly comprises a main structure, a first foot stand, a second foot stand (3), and a rear panel. a first stand and a second foot stands are arranged on both sides of the main structure , with the rear panel arranged between them. The first foot stand is provided with a first bracket, two first support legs,

and at least one first connection portion. The second foot stand is provided with a second bracket, two second support legs, and at least one second connection portion. The first and second connection portions are detachably connected, allowing quick connection and disassembly between adjoining sofa assemblies, thus improving production efficiency and reducing cost.

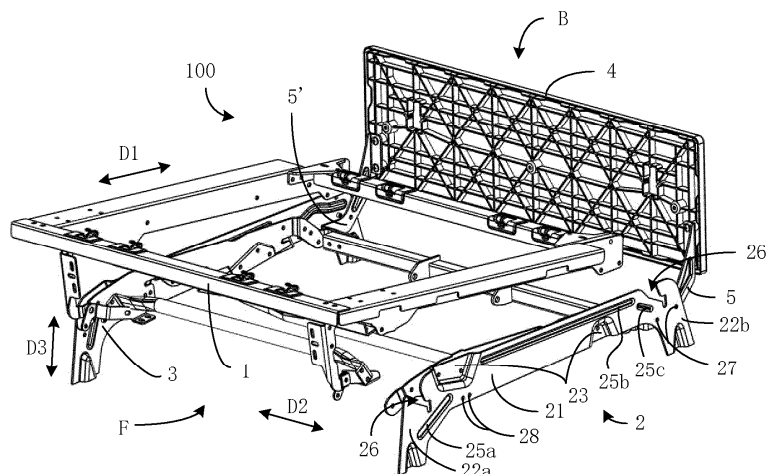


FIG.1

Description

Technical Field

[0001] The present invention relates to sofa assembly and sofa, and more particularly to sofa assembly for modular sofa or sectional sofa.

Background Technology

[0002] With the development of society, people's material living standards have been gradually improved. Therefore, as the sofa became an important part of furniture in daily life, people put forward higher requirements for it.

[0003] The traditional sofa usually uses a lot of wood material, especially the supporting frame of the conventional sofa, usually made of a plurality of boards. Multiple wooden boards often enclose to form a wooden supporting frame with an internal space, and the main structure of the sofa is fixedly installed in the internal space formed by the wooden supporting frame. However, when assembling the sofa, a large number of professionals are required to use nail guns to connect and secure multiple wooden boards to form a complete wooden support frame, which is then mounted with the main structure of the sofa. As a result, the assembly process is cumbersome and laborious, resulting in lower production efficiency, which in turn increases the required labor costs. Moreover, due to the fact that multiple wooden boards constituting the wooden support frame may have different shapes, it is necessary to complete the processing of each type of board based on separate drawing programming and layout when producing the boards. This reduces the processing efficiency of the board and increases the processing cost. In addition, for modular or sectional sofas, it is necessary to fix the two wooden support frames on an adjoining sofa assembly together, which typically must also be done by a professional and the installation process is cumbersome.

[0004] Therefore, traditional sofas need to be improved, particularly the wooden support frame, in order to simplify the structure of parts for supporting the sofa on the floor, thereby simplifying the assembly process of the sofa, improving the aesthetics of the sofa, and improving the production efficiency and reducing the production costs.

Summary of the Invention

[0005] The purpose of the present invention is to provide a sofa assembly to simplify the structure of components, improve the aesthetics of the sofa, and improve production efficiency and reduce production costs.

[0006] According to one aspect of the present invention, there is provided a sofa assembly comprising the

main structure, the first foot stand, the second foot stand and the rear panel, wherein the first foot stand and the second foot stand are arranged on both sides of the main structure along the width direction and are respectively connected with the main structure, and the rear panel is arranged between the first foot stand and the second foot stand and is respectively connected with the rear end of the first foot stand and the rear end of the second foot stand; the first foot stand is provided with a first bracket and two first support legs, the two first support legs are respectively arranged at both ends of the first bracket along the length direction, and the first foot stand is provided with at least one first connection portion; the second foot stand is supplied with a second bracket and two second support legs, the two second support legs are respectively arranged at both ends of the second bracket along the length direction, and the second foot stand is provided with at least one second connection portion.

[0007] According to the scheme, compared to the traditional wooden support frame, the sofa assembly has a smaller number of components, and the structure of the parts is simple, so that the assembly process is simplified, and the automatic assembly of the manipulator can be completed without professionals.

[0008] By setting the first and second connection portions on the first and second foot stands on both sides of the sofa assembly, the quick connection and disassembly between two adjoining sofa assemblies can be realized. Therefore, the assembly process of the sofa can be simplified, the production efficiency can be improved, and the cost can be reduced.

[0009] In one implementation, the first and second foot stands are selected from one or more metal parts, blow molded parts, injection molded parts, extruded molded parts and wood molded parts.

[0010] According to the scheme, the first and second foot stands can be industrialized and automatically produced through stamping, blow-molding, injection molding, extrusion molding or wood-plastic molding, which avoids the traditional wood board process, improves the aesthetics of the product, and ensures the high-quality rate.

[0011] The first and second foot stands can also be connected with the main structure into a whole through a riveting mode, allowing them to be used directly without the need for workers to assemble them, so that the production efficiency is further improved, and the labor cost is reduced.

[0012] In one implementation, at least one first connection portion is an opening.

[0013] In one implementation, the opening has a slide-in section and a locking section.

[0014] In one implementation, the opening also has a stopper portion.

[0015] In one implementation, at least one second connection portion can be detachably installed on the second foot stand.

[0016] In one implementation, at least one second connection portion is configured to be detachably connected to at least one first connection portion of an adjoining sofa assembly.

[0017] In one implementation, the first foot stand has at least one first fixing portion and the second foot stand has at least one second fixing portion.

[0018] According to the schemes, by setting detachably the first and second connection portion on the first foot stand and second foot stand on both sides of the sofa assembly, the quick connection and disassembly between two adjoining sofa assemblies can be realized. Therefore, it is very easy to connect between two adjoining sofa assemblies by sliding the second connection portion along the slide-in section of the first connection portion into the locking section. Furthermore, it can simplify the assembly process of the sofa, improve production efficiency and reduce costs.

[0019] Also, when the second connection portion has been connected in place, the stopper portion in the first connection portion may also prevent the second connection portion from accidentally detaching from the first connection portion, or restrict the upward movement of the second connection portion along the height direction.

[0020] According to another aspect of the present invention, there is also provided a first side sofa assembly comprising the main structure, the first foot stand, the second foot stand and the rear panel, wherein the first foot stand and the second foot stand are arranged on both sides of the main structure along the width direction and are respectively connected with the main structure, and the rear panel is arranged between the first foot stand and the second foot stand and is respectively connected with the rear end of the first foot stand and the rear end of the second foot stand; the first foot stand is provided with a first bracket and two first support legs, the two first support legs are respectively arranged at both ends of the first bracket along the length direction, and the first foot stand is also provided with at least one first connection portion; the second foot stand is supplied with a second bracket and two second support legs, and the two second support legs are respectively arranged at both ends of the second bracket along the length direction.

[0021] In one implementation, at least one first connection portion is an opening.

[0022] In one implementation, the opening has a slide-in section and a locking section.

[0023] In one implementation, the opening also has a stopper portion.

[0024] In one implementation, the first foot stand has at least one first fixing portion and the second foot stand has at least one second fixing portion.

[0025] In one implementation, at least one first connection portion is configured to be detachably connected to at least one second connection portion of an adjoining sofa assembly.

[0026] According to the above schemes, the quick connection and disassembly between the first and second connection portion on the adjoining sofa assembly can be realized by arranging the first connection portion on one side of the first side sofa assembly. Therefore, it is very easy to complete the connection between two adjoining sofa assemblies by sliding the second connection portion on the adjoining sofa assembly along the slide-in section of the first connection portion into the locking section. Furthermore, it can simplify the assembly process of the sofa, improve the production efficiency, and reduce the cost.

[0027] Also, when the second connection portion has been connected in place, the stopper portion in the first connection portion may also prevent the second connection portion from being accidentally detached from the first connection portion, or restrict the upward movement of the second connection portion along the height direction.

[0028] According to another aspect of the present invention, there is also provided a second side sofa assembly comprising the main structure, the first foot stand, the second foot stand and the rear panel, wherein the first and second foot stands are arranged on both sides of the main structure along the width direction and are respectively connected with the main structure, and the rear panel is arranged between the first and second foot stand and is respectively connected with the rear end of the first and second foot stand; the first foot stand is provided with a first bracket and two first supporting legs and the two first support legs are respectively arranged at both ends of the first bracket along the length direction; the second foot stand is provided with a second bracket and two second support legs, the two second support legs are respectively arranged at both ends of the second bracket along the length direction, and the second bracket is also provided with at least one second connection portion.

[0029] In one implementation, at least one second connection portion can be detachably installed on the second foot stand.

[0030] In one implementation, at least one second connection portion is configured to be detachably connected to at least one first connection portion of an adjoining sofa assembly.

[0031] In one implementation, the first foot stand has at least one first fixing portion and the second foot stand has at least one second fixing portion.

[0032] According to the above schemes, setting a second connection portion on one side of the second side sofa assembly makes it possible to achieve quick connection and disassembly between it and the first connection portion on the adjoining sofa assembly. Therefore, it is very easy to connect between two adjoining sofa assemblies by sliding the second connection portion along the slide-in section of the first connection portion on the adjoining sofa assembly into the locking section. Furthermore, it can simplify the assembly

bly process of the sofa, improve the production efficiency, and reduce the cost.

[0033] According to another aspect of the present invention, there is also provided a sofa comprising a first side and second side sofa assembly as described above; the first and second side sofa assembly are arranged side by side closely attached along the width direction, and the first connection portion of the first side sofa assembly is detachably connected with the second connection portion of the second side sofa assembly.

[0034] In one implementation, the sofa assembly mentioned above is further included between the first and second side sofa assembly; the first side sofa assembly, one or more sofa assemblies, and the second side sofa assembly are sequentially arranged side by side along the width direction, and the sofa assemblies are detachably connected to each other through a first connection portion and a second connection portion.

[0035] According to the above two solutions, the first or second connection portion on the side sofa assembly can enable it to be quickly connected with the adjoining sofa assembly, thereby completing the installation of the whole sofa. This can effectively simplify the data assembly process, improve production efficiency, and reduce the labor costs.

[0036] In addition, due to the provision of various sofa assemblies with different structures, the types and quantity of the sofa assembly can be selected according to different requirements, and multiple sofa assemblies are combined into the sofa with various lengths to meet different requirements.

Illustration of the Attached Drawing

[0037] For a better understanding of the above and other purposes, features, advantages, and functions of the present invention, reference may be made to the preferred embodiments illustrated in the accompanying drawings. The same reference symbols in the accompanying drawings refer to the same components. Technicians in this field should understand that the accompanying drawings are intended to illustrate the preferred embodiments of the present invention, do not limit the scope of the invention and that the various components in the drawings are not drawn to scale.

Figure 1 shows a left-side perspective view of a sofa assembly according to an exemplary embodiment of the present invention;

Figure 2 shows a right-side perspective view of a sofa assembly according to an exemplary embodiment of the present invention;

Figure 3 shows a left-side perspective view of a first foot stand according to an exemplary embodiment of the present invention;

Figure 4 shows a right-side perspective view of a first foot stand according to an exemplary embodi-

ment of the present invention;

Figure 5 shows a right-side perspective view of a second foot stand according to an exemplary embodiment of the present invention;

Figure 6 shows a left-side perspective view of a second foot stand according to an exemplary embodiment of the present invention;

Figure 7 shows a right-side perspective view of a second foot stand with a second connection portion according to an exemplary embodiment of the present invention;

Figure 8 shows a perspective view of a second connection portion of a second foot stand according to an exemplary embodiment of the present invention;

Figure 9 shows a front view of a rear panel fixing component according to an exemplary embodiment of the present invention;

Figure 10 shows a perspective view of a rear panel fixing component according to an exemplary embodiment of the present invention;

Figure 11 shows a left-side perspective view of a first side sofa assembly according to an exemplary embodiment of the present invention;

Figure 12 shows a right-side perspective view of a first side sofa assembly according to an exemplary embodiment of the present invention;

Figure 13 shows a front view of another rear panel fixing component according to an exemplary embodiment of the present invention;

Figure 14 shows a perspective view of another rear panel fixing component according to an exemplary embodiment of the present invention;

Figure 15 shows a front view of a decorative component according to an exemplary embodiment of the present invention;

Figure 16 shows a perspective view of a decorative component according to an exemplary embodiment of the present invention;

Figure 17 shows a left-side perspective view of a second side sofa assembly according to an exemplary embodiment of the present invention;

Figure 18 shows a right-side perspective view of a second side sofa assembly according to an exemplary embodiment of the present invention.

Description of reference symbols:

[0038]

- 100-Sofa assembly
- 200-First side sofa assembly
- 300-Second side sofa assembly
- 1-Main structure
- 2-First foot stand
- 21-First bracket
- 22a, 22b-First support leg
- 23-First fixing portion

23a-First upper fixing portion
 23b-First lower fixing portion
 24a-Upper edge of the first foot stand
 24b-Lower edge of the first foot stand
 25a, 25b, 25c-Reinforcing rib
 26-First connection portion
 261-Slide-in section
 262-Locking section
 263-Stopper portion
 27-Mounting hole
 28-Fixing hole
 3-Second foot stand
 31-Second bracket
 32a, 32b-Second support leg
 33-Second fixing portion
 33a-First upper fixing portion
 33b-First lower fixing portion
 34a-Upper edge of second foot stand
 34b-Lower edge of second foot stand
 35a, 35b, 35c-Reinforcing rib
 36-Second connection portion
 361-Head portion
 362-First rod body
 363-Second rod body
 364-Stepped portion
 37a, 37b, 37c -Mounting hole
 38-Fixing hole
 39-Fixing hole
 4- Rear panel
 5, 5'-Rear panel fixing component
 51-Intermediate portion
 511-Horizontal section
 512-Inclined section
 513-Foot mounting hole
 514-Reinforcing rib
 52-First bending section
 521-Main structure mounting hole
 53-Second bending section
 531- Rear panel mounting hole
 6, 6'- Rear panel fixing component
 61-Main body
 611-Vertical section
 512-Inclined section
 613-Foot mounting hole
 614-Reinforcing rib
 62-Bending section
 621- Rear panel mounting hole
 7, 7'-Decorative component
 71-Horizontal section
 72-Vertical section
 73-Foot mounting hole
 B-Rear of main structure
 F-Front of main structure
 D1-Length direction
 D2-Width direction
 D3-Height direction

Specific Implementations

[0039] Specific implementations of the present invention will now be described in detail with reference to the accompanying drawings. The description here is only based on the preferred embodiment of the present invention. Technicians in this field may think of other ways to implement the present invention based on the preferred embodiment, which also falls within the scope of the present invention.

[0040] It should be noted that the directional terms "up", "down", "left", "right", "front", "back", "top", "bottom", "forward", "backward", "front end", "rear end", "left side", "right side" used in here only refer to relative directions; and their purpose is to more clearly describe the various exemplary embodiments provided by the present invention and are not intended to limit or restrict the invention.

[0041] Figures 1 and 2 shows a perspective view of a sofa assembly 100 according to an exemplary embodiment of the present invention. The sofa assembly 100 includes a main structure 1, a first foot stand 2, a second foot stand 3, and a rear panel 4.

[0042] The first foot stand 2 and the second foot stand 3 can be selected from one or more metal parts, blow molded parts, injection molded parts, extruded molded parts and wood molded parts. When the first foot stand 2 and the second foot stand 3 are metal parts, they may be made of one or more metal materials of iron, aluminum, and alloys thereof through a stamping process. When the first foot stand 2 and the second foot stand 3 are non-metal parts, they can be made of one or more non-metal materials of thermoplastic materials such as polyethylene, polyvinyl chloride, polypropylene, polyester, and the like through blow-molded, injection molding, extrusion molding or wood plastic processes.

[0043] For the convenience of describing exemplary embodiments of the present invention, the length direction, width direction, and height direction of the sofa assembly 100 are now labeled as D1, D2, and D3, respectively. Moreover, the length direction of the main structure 1, the first foot stand 2, and the second foot stand 3 is parallel to the length direction D1 of the sofa assembly 100. The width direction of the main structure 1 is parallel to the width direction D2 of the sofa assembly 100, and the height direction of the main structure 1, the first foot stand 2, and the second foot stand 3 is parallel to the height direction D3 of the sofa assembly 100.

[0044] As shown, the main structure 1 has a substantially rectangular shape when viewed from above of the sofa assembly 100. The main structure 1 has a front F and a rear B along the length direction D1. The first foot stand 2 and the second foot stand 3 are respectively arranged on both sides of the main structure 1 along the width direction D2 and connected to the main structure 1. The rear panel 4 is positioned between the first

foot stand 2 and the second foot stand 3, at the rear B of the main structure 1, and is connected to the rear end of the first foot stand 2 and the rear end of the second foot stand 3, respectively. The front end of the first foot stand 2 and the front end of the second foot stand 3 are both close to the forward F of the main structure 1, while the rear end of the first foot stand 2 and the rear end of the second foot stand 3 are both close to the backward B of the main structure 1. The forward, backward, front end and rear end are all referred to as the orientation perceived by the user when sitting on the sofa assembly 100, and the same applies to the left side and right side mentioned in this manual.

[0045] Preferably, the first foot stand 2 and the second foot stand 3 may be integrally connected to the main structure 1 by riveting.

[0046] Compared with the traditional wooden support frame, the sofa assembly 100 provided by the present invention has a smaller number of components, and the structure of the components is simpler, so the assembly process is simplified, and the automatic assembly of the manipulator can be realized or the assembly can be completed without professionals. In addition, the first foot stand 2 and the second foot stand 3 can be industrialized and automatically produced through stamping, blow-molded, injection molding, extrusion molding or wood-plastic molds, which avoids the traditional wood board processing, and can also improve the aesthetics of the product and ensure a high-quality rate. Therefore, the cost is reduced, and the production efficiency and product quality are improved.

[0047] Meanwhile, the first foot stand 2 and the second foot stand 3 are connected with the main structure 1 by riveting, so that they can be used directly without the need for workers to assemble them, thus further improving production efficiency, and reducing labor costs.

[0048] Referring to Figures 3 and 4, the first foot stand 2 has a first bracket 21 and two first support legs 22a, 22b. The first bracket 21 and the two first support legs 22a, 22b are preferably integrally formed using a metal part. The first bracket 21 extends along the length direction D1. The two first support legs 22a, 22b are respectively located at the front end and the rear end of the first bracket 21 along the length direction D1. Along the height direction D3, the upper edge of the first bracket 21 and the upper edges of the two first support legs 22a, 22b are aligned, and the heights of the two first support legs 22a, 22b are equal to and greater than the height of the first bracket 21. Therefore, when the first foot stand 2 is placed vertically on the ground, the two first support legs 22a, 22b first contact with the ground, so that the first bracket 21 can be suspended above the ground.

[0049] The first foot stand 2 may also have at least one first fixing portion 23. The first fixing portion 23 is configured to be able to fix the first foot stand 2 to the main structure 1. In an exemplary embodiment of the

present invention, the first foot stand 2 has two first fixing portions 23 provided on the first bracket 21 at intervals along the length direction D1. The first fixing portion 23 is recessed from the outer side of the first foot stand 2 to the inner side thereof in the width direction D2, and a recess is formed on the outer side while a protrusion is formed on the inner side. The outer side of the first foot stand 2 refers to a side of the first foot stand 2 away from the main structure 1 along the width direction D2. The inner side of the first foot stand 2 refers to a side of the first foot stand 2 near the main structure 1 along the width direction D2. Preferably, the outline of the first fixing portion 23 may be rectangular.

[0050] As shown in the figure, the first upper fixing portion 23a is adjoined to the first support leg 22a and the first lower fixing portion 23b is adjoined to the first support leg 22b. Among them, the first upper fixing portion 23a intersects the upper edge 24a of the first foot stand 2, thus forming an opening at the upper edge 24a. Similarly, the first lower fixing portion 23b intersects the lower edge 24b of the first foot stand 2, and thus an opening is also formed at the lower edge 24b. The first upper fixing portion 23a and the first lower fixing portion 23b may also be provided with at least one through hole for fixing them to the main structure 1, respectively.

[0051] The first foot stand 2 may also be provided with at least one reinforcing rib. The reinforcing rib is recessed from the outer side of the first foot stand 2 to the inner side thereof in the width direction D2, and a recess is formed on the outer side while a protrusion is formed on the inner side. Also, the reinforcing rib may extend along the length direction D1, along the height direction D3, or along a direction at an angle to the length direction D1 over at least a portion of the first foot stand 2. The shape of the reinforcing rib may be rectilinear shape, bent shape, curved shape, triangular, rectangular, polygonal, or other shapes.

[0052] As shown, the first foot stand 2 has reinforcing ribs 25a, 25b and 25c. Among them, the reinforcing rib 25a is located at the junction of the first bracket 21 and the first support leg 22a, and extends from the first support leg 22a to the first bracket 21 at an angle to the length direction D1. The reinforcing rib 25b extends along the length direction D1 over a portion of the first bracket 21. Preferably, the reinforcing rib 25b extends from a position near the first upper fixing portion 23a to near the first support leg 22b. Further, the reinforcing rib 25b is located on the side of the first lower fixing portion 23b near the upper edge 24a. And the reinforcing rib 25c is located at the junction of the first bracket 21 and the first support leg 22b, and extends from the first support leg 22b to the first bracket 21 in a direction at an angle to the length direction D1.

[0053] Preferably, at least one of the two first support legs 22a, 22b may be provided with a reinforcing rib.

[0054] In addition, the first foot stand 2 may also have at least one first connection portion 26 detachably

connected to an adjoining foot stand. For example, as shown in the figure, the first foot stand 2 has two first connection portions 26 arranged at intervals along the length direction D1. Among them, one of the first connection portions 26 is located at the first support leg 22a, and the other first connection portion 26 is located at the first support leg 22b. The first connection portion 26 extends from the outer side to the inner side of the first foot stand 2, and also intersects with the upper edge 24a of the first foot stand 2 to form an opening at the upper edge 24a, so that the first connection portion 26 forms an opening through the first foot stand 2 in the width direction D2.

[0055] As an exemplary embodiment of the present invention, the first connection portion 26 may have a slide-in section 261 and a locking section 262. The slide-in section 261 extends along the direction at an angle relative to the height direction D3, from the opening at the upper edge 24a towards the interior of the first support leg 22a or first support leg 22b, and, after extending a distance, it continues to extend along the height direction D3, thereby forming a locking section 262 located below the slide-in section 261. The slide-in section 261 and the locking section 262 communicate with each other. In addition, the width of the opening formed by the slide-in section 261 can be larger than the width of the opening formed by the locking section 262, so that the part of the adjoining foot frame matched with the first connection portion 26 can easily enter the slide-in section 261.

[0056] Preferably, the first connection portion 26 may also have a stopper portion 263. The stopper portion 263 may be set in the transition region between the slide-in section 261 and the locking section 262. As shown, the stopper portion 263 may be a protrusion extending along the length direction D1 and configured to reduce the opening width of the transition region between the slide-in section 261 and the locking section 262.

[0057] Referring now to Figures 5 to 7, the second foot stand 3 has a second bracket 31 and two second support legs 32a, 32b. The second bracket 31 and the two second support legs 32a, 32b are preferably integrally formed using a metal part. The second bracket 31 extends along the length direction D1. The two second support legs 32a, 32b are respectively located at the front and rear end of the second bracket 31 along the length direction D1. In the height direction D3, the upper edge of the second bracket 31 and the upper edges of the two second support legs 32a, 32b are aligned, and the heights of the two second support legs 32a, 32b are equal to and greater than the height of the second bracket 31. Therefore, when the second foot stand 3 is placed vertically on the ground, the two second support legs 32a, 32b first contact the ground so that the second bracket 31 can be suspended above the ground.

[0058] Therefore, when the completed sofa assembly

100 is vertically placed on the ground, the two first support legs 22a, 22b of the first foot stand 2 and the two second support legs 32a, 32b of the second foot stand 3 will first contact the ground surface so that the main structure 1 can be suspended above it.

[0059] Continuing to refer to Figures 5-7, the second foot stand 3 may further have at least one second fixing portion 33. The second fixing portion 33 is configured to be able to fix the second foot stand 3 to the main structure 1. In an exemplary embodiment of the present invention, the second foot stand 3 has two second fixing portions 33 provided on the second bracket 31 at intervals along the length direction D1. The second fixing portion 33 is recessed along the width direction D2 from the outer side to the inner side of the second foot stand 3, and a recess is formed on the outer side while a protrusion is formed on the inner side. The outer side of the second foot stand 3 refers to a side of the second foot stand 3 away from the main structure 1 along the width direction D2. The inner side of the second foot stand 3 refers to a side of the second foot stand 3 that is close to the main structure 1 along the width direction D2. Preferably, the outline of the second fixing portion 33 may be rectangular.

[0060] Furthermore, the two second fixing portions 33 are respectively the second upper fixing portion 33a near the second support leg 32a and a second lower fixing portion 33b near the second support leg 32b. Wherein the second upper fixing portion 33a intersects with the upper edge 34a of the second foot stand 3, thus forming an opening at the upper edge 34a. Similarly, the second lower fixing portion 33b intersects the lower edge 34b of the second foot stand 3, and thus, an opening is also formed at the lower edge 34b. The second upper fixing portion 33a and the second lower fixing portion 33b may also be provided with at least one through hole for fixing them to the main structure 1, respectively.

[0061] Preferably, the second fixing portion 33 may be positioned opposite to the first fixing portion 23 in the width direction D2.

[0062] The second foot stand 3 may also be provided with at least one reinforcing rib. The reinforcing rib is recessed along the width direction D2 from the outer side to the inner side of the second foot stand 3, and a recess is formed on the outer side while a protrusion is formed on the inner side. Also, the reinforcing rib may extend along the length direction D1, along the height direction D3, or along a direction at an angle to the length direction D1 over at least a portion of the second foot stand 3. The shape of the reinforcing rib may be a rectilinear shape, bent shape, curved shape, triangular, rectangular, polygonal, or other shapes.

[0063] As shown, the second foot stand 3 has reinforcing rib 35a, 35b and 35c. Among them, the reinforcing rib 35a is located at the junction of the second bracket 31 and the second support leg 32a, and extends from the second support leg 32a to the second bracket 31 in

a direction at an angle to the length direction D1. The reinforcing rib 35b extends along the length direction D1 over a portion of the second bracket 31. Preferably, the reinforcing rib 35b extends from a position near the second upper fixing portion 33a to the vicinity of the second support leg 32b. Further, the reinforcing rib 35b is located on the side of the second lower fixing portion 33b near the upper edge 34a. The reinforcing rib 35c is located at the junction of the second bracket 31 and the second support leg 32b and extends substantially along the length direction D1 from the second support leg 32b to the second bracket 31.

[0064] Preferably, at least one of the two second support legs 32a and 32b may be provided with a reinforcing rib.

[0065] As shown in Figures 2 and 7, the second foot stand 3 may further have at least one second connection portion 36 disposed opposite the first connection portion 26 along the width direction D2. The first connection portion 26 and the second connection portion 36 may be configured to match in number and be detachably connectable.

[0066] For example, the second foot stand 3 may have two second connection portions 36 arranged at intervals along the length direction D1. Among them, one second connection portion 36, is located at the second support leg 32a, and the other second connection portion 36 is located at the second support leg 32b.

[0067] As shown in Figure 8, the second connection portion 36 has a head portion 361, a first rod body 362, and a second rod body 363 arranged in sequence along its own length direction. Among them, the head portion 361, the first rod body 362, and the second rod body 363 may all have a cylindrical shape. Further, the diameter of the head 361 is larger than that of the first rod body 362. The diameter of the first rod body 362 may also be larger than that of the second rod body 363, thereby forming a stepped portion 364 between the first rod body 362 and the second rod body 363. The second rod body 363 may be further provided with an external thread (not shown) to cooperate with the fixing hole 39 of the second foot stand 3, to mount the second connection portion 36 to the second foot stand 3. Preferably, the diameter of the head portion 361 of the second connection portion 36 is larger than the opening width of the locking section 262 of the first connection portion 26 to prevent the head portion 361 from passing through the locking section 262 along the width direction D2.

[0068] To facilitate understanding of the detachable connection between the first connection portion 26 and the second connection portion 36, a process of connecting the second connection portion 36 to the first connection portion 26 and a process of removing the second connection portion 36 from the first connection portion 26 will be described exemplarily below.

[0069] When connecting the second connection portion 36 to the first connection portion 26, the second

connection portion 36 is placed above the first connection portion 26. The first rod body 362 of the second connection portion 36 is aligned with the opening of the first connection portion 26, and the head portion 361 of the second connection portion 36 is located on the inner side of the first foot stand 2; then, the first rod body 362 enters the slide-in section 261 through the opening and slides obliquely downward along the slide-in section 261. Finally, the first rod body 362 is slid into the locking section 262, thereby completing the connection between the second connection portion 36 and the first connection portion 26.

[0070] The process of removing the second connection portion 36 from the first connection portion 26 is opposite to the above-described connection process and will not be described again.

[0071] By setting detachable the first connection portion 26 and the second connection portion 36 on the first foot stand 2 and the second foot stand 3 at both sides of the sofa assembly 100, the quick connection and disassembly between two adjoining sofa assemblies can be realized. Thus, the connection between two adjoining sofa assemblies can be accomplished easily by sliding the second connection portion 36 into the first connection portion 26. Furthermore, it can simplify the assembly process of the sofa, improve production efficiency, and reduce costs.

[0072] Moreover, when the second connection portion 36 has been connected in place, the stopper portion 263 in the first connection portion 26 may also prevent the second connection portion 36 from being accidentally separated from the first connection portion 26, or restrict the upward movement of second connection portion 36 along the height direction D3.

[0073] Meanwhile, when the first connection portion 26 and the second connection portion 36 are connected in place, the head portion 361 of the second connection portion 36 is located at the inner side of the first foot stand 2, and since the diameter of the head portion 361 is larger than the size of the locking section 262, the head portion 361 can also restrict the movement of the second connection portion 36 relative to the first connection portion 26 along the width direction D2. Therefore, a firm connection between two adjoining sofa assemblies can be ensured. In addition, the first foot stand 2 may further have at least one fixing hole 28, and the second foot stand 3 may further have at least one fixing hole 38 arranged opposite to at least one fixing hole 28 along the width direction D2. The fixing holes 28, 38 are used to connect the first foot stand 2 and the second foot stand 3, respectively, to the main structure 1. Preferably, the first foot stand 2 and the second foot stand 3 are connected to the anti-torsion tube of the main structure 1 through the fixing holes 28, 38, respectively, to prevent the sofa assembly 100 from being twisted.

[0074] Returning to Figures 1-6, the sofa assembly 100 may also include a pair of rear panel fixing compo-

nent 5, 5'. In which the rear panel fixing component 5 is fixed to the inside of the rear end of the first foot stand 2 through the mounting hole 27 provided in the first support leg 22b of the first foot stand 2, and the rear panel fixing component 5' is fixed to the inside of the rear end of the second foot stand 3 through the mounting hole 37a provided in the second support leg 32b of the second foot stand 3. Both ends of the rear panel 4 in the width direction D2 are connected to the pair of rear panels fixing component 5, 5';

[0075] As shown in Figures 9 and 10, the rear panel fixing component 5 has an intermediate portion 51, and a first bending section 52 and a second bending section 53 respectively located at both ends of the intermediate portion. The intermediate portion 51 is generally in the shape of "L". Specifically, the intermediate portion 51 has a horizontal section 511 and an inclined section 512. The horizontal section 511 may extend in the length direction D1 or in a direction at an angle to the length direction D1, and the inclined section 512 may extend in the height direction D3 or in a direction at an angle to the height direction D3. Wherein the inclined section 512 is located above or obliquely above the horizontal section 511. And one end of the inclined section 512 is connected to one end of the horizontal section 511 to form a shape of an "L". The first bending section 52 is located at the other end of the horizontal section 511 and extends a distance along the width direction D2 from the other end. The second bending section 53 is located at the other end of the inclined section 512 and extends a distance in the same direction as the first bending section 52 along the width direction D2 from the other end. In addition, the angle between the horizontal section 511 and the inclined section 512 of the intermediate portion 51 may be equal to or greater than 90 degrees. As shown in the figure, as an example, the horizontal section 511 extends along a direction that forms an acute angle with the length direction D1, and the inclined section 512 extends along a direction that forms an obtuse angle with the length direction D1, while the angle between the horizontal section 511 and the inclined section 512 is greater than 90 degrees.

[0076] The intermediate portion 51 is further provided with at least one foot mounting hole 513 for connecting the rear panel fixing component 5 to the first foot stand 2. The foot mounting hole 513 may correspond to the mounting hole 27 of the first foot stand 2. As shown in the figure, there are two foot mounting holes 513, and they are respectively located on the horizontal section 511 and the inclined section 512 of the intermediate portion 51.

[0077] The intermediate portion 51 may also be provided with at least one reinforcing rib 514. The reinforcing rib 514 is recessed from the outer side of the rear panel fixing component 5 to the inner side thereof in the width direction D2, and a recess is formed on the outer side while a protrusion is formed on the inner side.

Also, the reinforcing rib 514 may extend along the length direction D1, along the height direction D3, or along a direction at an angle to the length direction D1 on at least a portion of the intermediate portion 51. The shape of the reinforcing rib 514 may be a rectilinear shape, bent shape, curved shape, triangular, rectangular, polygonal, or other shapes. As shown in the figure, as an example, the intermediate portion 51 has a reinforcing rib 514 disposed on the inclined section 512. The reinforcing rib 514 has a triangular shape.

[0078] The rear panel fixing component 5 further has at least one main structure mounting hole 521 disposed in the first bending section 52 and at least one rear panel mounting hole 531 disposed of in the second bending section 53. The main structure mounting hole 521 connects the rear panel fixing component 5 to the main structure 1. And the rear panel mounting hole 531 is used to connect the rear panel fixing component 5 to the rear panel 4. Further, the rear panel fixing component 5 integrally connects the main structure 1, the first foot stand 2, and the rear panel 4. As shown in the figure, the number of main structure mounting holes 521 is one in an exemplary embodiment of the present invention. The number of the rear panel mounting hole 531 is two, and the rear panel mounting hole 531 is distributed on the second bending section 53 at intervals.

[0079] The rear panel fixing component 5' has a similar structure and shape to the rear panel fixing component 5, which are mirror images of each other in the width direction D2. The main structure 1, the second foot stand 3, and the rear panel 4 can be integrally connected by the rear panel fixing component 5'. It should be understood that all of the features described above with respect to the rear panel fixing component 5 and variations thereof may be applied to the rear panel fixing component 5'; therefore, this will not be repeated here.

[0080] The first side sofa assembly 200 and the second side sofa assembly 300 provided by the present invention will be exemplarily described below. Technicians in this field should understand that all the features and variations described in the exemplary embodiment of sofa assembly 100 described above thereof may be applied to the first side sofa assembly 200 and the second side sofa assembly 300, which will be described below. As shown in Figures 11 and 12, the present invention also provides a first side sofa assembly 200 including a main structure 1, the first foot stand 2, the second foot stand 3, and a rear panel 4. The first side sofa assembly 200 has a similar structure to the sofa assembly 100 described above, with the main difference being that the second connection portion 36 is not provided on the second foot stand 3 of the first side sofa assembly 200, as shown in Figures 5, 6, and 12.

[0081] Specifically, the first foot stand 2 and the second foot stand 3 are disposed of on both sides of the main structure 1 along the width direction D2 and con-

nected to the main structure 1, respectively. The rear panel 4 is disposed between the first foot stand 2 and the second foot stand at the rear B of the main structure 1, and is connected to the rear end of the first foot stand 2 and the rear end of the second foot stand 3, respectively.

[0082] Referring to Figures 3 to 6 together, the first foot stand 2 has a first bracket 21 extending along a length direction D1 and two first support legs 22a, 22b located at the front and rear ends of the first bracket 21, respectively, along the length direction D1. The first foot stand 2 also has two first fixing portions 23 spaced along the length direction D1 on the first bracket 21. Along the length direction D1, two first connection portions 26 are also provided on the first foot stand 2, which are designed to be detachably connected to the second connection portion 36 of the adjoining sofa assembly.

[0083] The second foot stand 3 has a second bracket 31 extending along the length direction D1, and two second support legs 32a, 32b located at the front and rear ends of the second bracket 31, respectively, along the length direction D1. The second foot stand 3 also has two second fixing portion 33 spaced along the length direction D1 on the second bracket 31.

[0084] The first foot stand 2 and the second foot stand 3 may also be provided with at least one reinforcing rib, respectively. The reinforcing rib is recessed from the outer side of the first foot stand 2 or the second foot stand 3 to the inner side thereof in the width direction D2, and a recess is formed on the outer side while a protrusion is formed on the inner side. Moreover, the reinforcing rib may extend along the length direction D1, along the height direction D3, or along a direction at an angle to the length direction D1 over at least a portion of the first foot stand 2 or the second foot stand 3. The shape of the reinforcing rib may be a rectilinear shape, bent shape, curved shape, triangular, rectangular, polygonal, or other shapes.

[0085] The first connection portion 26 has a slide-in section 261 and a locking section 262. The slide-in section 261 extends along the direction at an angle relative to the height direction D3, from the opening at the upper edge 24a towards the interior of the first support leg 22a or first support leg 22b, and, after extending a distance, continues to extend along the height direction D3, thereby forming a locking section 262 located below the slide-in section 261. The slide-in section 261 and the locking section 262 communicate with each other. Moreover, the width of the opening formed by the slide-in section 261 may be larger than that of the opening formed by the locking section 262, so that the second connection portion 36 of the adjoining sofa assembly can easily enter the slide-in section 261.

[0086] The first connection portion 26 may also have a stopper portion 263. The stopper portion 263 may be set in the transition region between the slide-in section 261 and the locking section 262. The stopper portion

263 may be a protrusion extending in the length direction D1, and is configured to reduce an opening width of a transition region between the slide-in section 261 and the locking section 262.

[0087] By setting the first connection portion 26 on one side of the first side sofa assembly 200, quick connection and detachment of the first connection portion 26 to the second connection portion 36 on an adjoining sofa assembly can be achieved. Therefore, the connection between two adjoining sofa assemblies can be accomplished very simply by sliding the second connection portion 36 on the adjoining sofa assembly into the locking section 262 along the slide-in section 261 of the first connection portion 26. Furthermore, it can simplify the assembly process of the sofa, improve production efficiency, and reduce costs.

[0088] Moreover, when the second connection portion 36 has been connected in place, the stopper portion 263 in the first connection portion 26 may also prevent the second connection portion 36 from being accidentally separated from the first connection portion 26, or restrict the upward movement of second connection portion 36 along the height direction D3.

[0089] The first side sofa assembly 200 may also include other rear panel fixing components that are different in shape from the rear panel fixing component 5, 5' described above.

[0090] For example, as shown in the figure, the first side sofa assembly 200 includes a rear panel fixing component 6 and a rear panel fixing component 5 as described in the exemplary embodiment of the sofa assembly 100. In which the rear panel fixing component 5 is fixed to the inside of the rear end of the first foot stand 2 through the mounting hole 27 provided in the first support leg 22b of the first foot stand 2, and the rear panel fixing component 6 is fixed to the outside of the rear end of the second foot stand 3 through the mounting hole 37a, 37b provided in the second support leg 32b of the second foot stand 3. Both ends of the rear panel 4 in the width direction D2 are connected to the rear panel fixing component 5 and the rear panel fixing component 6, respectively. The rear panel fixing component 6 can be used not only to attach the rear panel 4 but also to improve the aesthetics of the sofa when the sofa assembly is arranged on the outermost side of the entire sofa by 200.

[0091] As shown in Figures 13 and 14, the rear panel fixing component 6 has a main body 61 and a bending section 62. The main body 61 is flat, and the bending section 62 is connected to a portion of the outline of the main body 61 and extends along the width direction D2. The main body 61 has a vertical section 611 extending substantially along the height direction D3 and an section 612 that is inclined relative to the vertical section 611. One end of the vertical section 611 is connected to one end of the inclined section 612. The bending section 62 is located on at least a portion of the other end of the inclined section 612.

[0092] The main body 61 is further provided with at least one foot mounting hole 613 for connecting the rear panel fixing component 6 to the second foot stand 3. The foot mounting hole 613 may correspond to the mounting holes 37a, 37b of the second foot stand 3. The main body 61 may also be provided with at least one reinforcing rib 614. The reinforcing rib 614 is recessed from the outer side of the rear panel fixing component 6 to the inner side thereof in the width direction D2, and a recess is formed on the outer side while a protrusion is formed on the inner side. Also, the reinforcing rib 614 may extend over at least a portion of the main body 61 along the length direction D1, along the height direction D3, or along a direction at an angle to the length direction D1. The shape of the reinforcing rib 614 may be a rectilinear shape, bent shape, curved shape, triangular, rectangular, polygonal, or other shapes. As shown in the figure, as an example, one reinforcing rib 614 extends from the vertical section 611 of the main body 61 to the inclined section 612 in a direction at an angle to the height direction D3. The reinforcing rib 614 has a linear shape. Preferably, the direction of extension of the reinforcing rib 614 coincides with the direction of inclination of the inclined section 612 with respect to the vertical section 611.

[0093] The rear panel fixing component 6 also has at least one rear panel mounting hole 621 formed in the bending section 62. The rear panel mounting hole 621 is used to connect the rear panel fixing component 6 to the rear panel 4. Further, the second foot stand 3 and the rear panel 4 are integrally connected. As shown in the figure, the number of the rear panel mounting holes 621 is two, and the rear panel mounting holes 621 are distributed on the bending section 62 at intervals.

[0094] Returning to Figure 12, the first side sofa assembly 200 may include a decorative component 7 in addition to the rear panel fixing component 5 and the rear panel fixing component 6. The decorative component 7 is fixed to the outside of the front end of the second foot stand 3 through mounting hole 37c provided in the second support leg 32a of the second foot stand 3. The decorative component 7 can be used to shield the fixing hole 39 when the second foot stand 3 is not provided with the second connection portion 36, thereby improving the aesthetic appearance of the sofa assembly.

[0095] Referring now to Figures 15 and 16, the decorative component 7 has a flat plate shape and has a substantially "L" shaped shape. The decorative component 7 has a horizontal section 71 extending in the length direction D1 and a vertical section 72 extending substantially in the height direction D3 or at an angle to the height direction D3. The angle between horizontal section 71 and vertical section 72 may be less than, equal to, or greater than 90 degrees. Preferably, the angle between the horizontal section 71 and the vertical section 72 is less than 90 degrees.

[0096] The decorative component 7 is provided with

at least one foot mounting hole 73 for connecting the decorative component 7 to the second foot stand 3. As shown in the figure, the decorative component 7 has three foot mounting holes 73 that can correspond to the mounting hole 37c of the second foot stand 3.

[0097] As shown in Figures 17 and 18, the present invention also provides a second side sofa assembly 300, including main structure 1, first foot stand 2, second foot stand 3, and a rear panel 4. The second side sofa assembly 300 has a similar structure to the sofa assembly 100 described above, with the main difference being that the first connection portion 26 is not provided on the first foot stand 2 of the second side sofa assembly 300.

[0098] Specifically, the first foot stand 2 and the second foot stand 3 are disposed on both sides of the main structure 1 along the width direction D2 and connected to the main structure 1, respectively. The rear panel 4 is positioned between the first foot stand 2 and the second foot stand 3, at the rear B of the main structure 1, and is connected to the rear end of the first foot stand 2 and the rear end of the second foot stand 3, respectively.

[0099] Referring to Figures 3 to 7 together, the first foot stand 2 has a first bracket 21 extending along a length direction D1 and two first support legs 22a, 22b located at the front and rear ends of the first bracket 21, respectively, along the length direction D1. The first foot stand 2 also has two first fixing portions 23 spaced along the length direction D1 on the first bracket 21. The second foot stand 3 has a second bracket 31 extending along the length direction D1, and two second support legs 32a, 32b located at the front and rear ends of the second bracket 31, respectively, along the length direction D1. The second foot stand 3 also has two second fixing portions 33 spaced along the length direction D1 on the second bracket 31.

[0100] The first foot stand 2 and the second foot stand 3 may also be provided with at least one reinforcing rib, respectively. The reinforcing rib is recessed from the outer side of the first foot stand 2 or the second foot stand 3 to the inner side thereof in the width direction D2, and a recess is formed on the outer side while a protrusion is formed on the inner side. Moreover, the reinforcing rib may extend along the length direction D1, along the height direction D3, or along a direction at an angle to the length direction D1 over at least a portion of the first foot stand 2 or the second foot stand 3. The shape of the reinforcing rib may be rectilinear shape, bent shape, curved shape, triangular, rectangular, polygonal, or other shapes.

[0101] Preferably, the first foot stand 2 may have a similar structure and shape as the second foot stand 3. For example, the first foot stand 2 is symmetrical to each other or mirror images of each other with respect to the second foot stand 3 in the width direction D2.

[0102] Along the length direction D1, two second connection portions 36 configured to be detachably con-

nectable with the first connection portion 26 of the adjoining sofa assembly are also provided on the second foot stand 3. As shown in Figure 8, the second connection portion 36 has a head portion 361, a first rod body 362, and a second rod body 363 arranged in a sequence along its own length direction. Among them, the head portion 361, the first rod body 362, and the second rod body 363 may all have a cylindrical shape. Further, the diameter of the head 361 is larger than that of the first rod body 362. The diameter of the first rod body 362 may also be larger than that of the second rod body 363, thereby forming a stepped portion 364 between the first rod body 362 and the second rod body 363. The second rod body 363 may be further provided with an external thread to be engaged with the fixing hole 39 of the second foot stand 3, to mount the second connection portion 36 to the second foot stand 3. The diameter of the head portion 361 of the second connection portion 36 is larger than the opening width of the locking section 262 of the first connection portion 26 to prevent the head portion 361 from passing through the locking section 262 along the width direction D2. The second side sofa assembly 300 may further include a rear panel fixing component 5' as described in the exemplary embodiment of the sofa assembly 100, which is provided on the second support leg 32b of the second foot stand 3 for connecting the main structure 1 and the rear panel 4.

[0103] The second side sofa assembly 300 may further include a rear panel fixing component 6' and a decorative component 7'. The rear panel fixing component 6' and the decorative component 7' may have similar structures and shapes, respectively, to the rear panel fixing component 6 and the decorative component 7 described in the exemplary embodiment of the first side sofa assembly 200. The main difference is that the rear panel fixing component 6' and the rear panel fixing component 6 are symmetrical or mirror images of each other in the width direction D2, and the decorative component 7' and the decorative component 7 are symmetrical or mirror images of each other in the width direction D2.

[0104] By providing the second connection portion 36 on one side of the second side sofa assembly 300, quick connection and detachment between the second connection portion 36 and the first connection portion 26 on the adjoining sofa assembly can be achieved. Therefore, the connection between two adjoining sofa assemblies can be accomplished very simply by sliding the second connection portion 36 into the locking section 262 along the slide-in section 261 of the first connection portion 26 on the adjoining sofa assembly. Furthermore, it can simplify the assembly process of the sofa, improve production efficiency and reduce costs.

[0105] In addition, the present invention provides a sofa comprising a first side sofa assembly 200 and a second side sofa assembly 300.

[0106] The first side sofa assembly 200 and the second side sofa assembly 300 are arranged side by side and closely in the width direction D2. Wherein the first connection portion 26 of the first side sofa assembly 200 is detachably connected with the second connection portion 36 of the second side sofa assembly 300 to mount the first side sofa assembly 200 and the second side sofa assembly 300 together.

[0107] Preferably, the sofa may also include at least one sofa assembly 100.

[0108] The first side sofa assembly 200, at least one sofa assembly 100, and the second side sofa assembly 300 are arranged side by side and snugly in this order along the width direction D2. Among them, the first connection portion 26 of the first side sofa assembly 200 is detachably connected with the second connection portion 36 of the sofa assembly 100, and the second connection portion 36 of the second side sofa assembly 300 is detachably connected with the first connection portion 26 of the sofa assembly 100. Thus, the first side sofa assembly 200, at least one sofa assembly 100, and the second side sofa assembly 300 are mounted together in the width direction D2.

[0109] When the sofa includes a plurality of sofa assembly 100, the plurality of sofa assembly 100 is sequentially connected side by side and disposed between the first side sofa assembly 200 and the second side sofa assembly 300. Among them, in two adjoining sofa assemblies 100, the first connection portion 26 of one sofa assembly 100 is detachably connected to the second connection portion 36 of the other sofa assembly 100.

[0110] By providing the first connection portion 26 or the second connection portion 36 on the side sofa assembly, the sofa assembly 100 in the middle position can be connected to form a complete sofa. The first connection portion 26 or the second connection portion 36 on the first side sofa assembly 200 or the second side sofa assembly 300 may enable them to be quickly connected with the adjoining sofa assembly 100, thereby completing the installation of the entire sofa. This can effectively simplify the assembly process of data, improve production efficiency, and reduce labor costs.

[0111] In addition, due to the provision of various sofa assemblies with different structures, the types and the quantities of the sofa assemblies can be selected according to different requirements, and multiple sofa assemblies are combined into the sofa with different lengths to meet different requirements.

[0112] The above description of various embodiments of the present invention is provided to an ordinary technician in this field for the purposes of description. The original intention is to exclude or limit the invention to the single disclosed embodiment. As mentioned above, ordinary technicians in this field taught above will understand various alternatives and modifications of the present invention. Thus, although some alternative embodiments have been described in detail,

ordinary technicians in this field will understand or relatively easily develop other embodiments. The present invention is intended to include all alternatives, modifications and variations of the invention described herein, as well as other embodiments falling within the spirit and scope of the invention described above.

Claims

1. A sofa assembly, comprising:

a main structure, a first foot stand, a second foot stand and a rear panel, wherein the first foot stand and the second foot stand are arranged on both sides of the main structure along the width direction and are respectively connected with the main structure, and the rear panel is arranged between the first foot stand and the second foot stand and is respectively connected with the rear end of the first foot stand and the rear end of the second foot stand;

wherein the first foot stand is provided with a first bracket and two first support legs, wherein the two first support legs are respectively arranged at both ends of the first bracket along the length direction, and the first foot stand is provided with at least one first connection portion;

herein the second foot stand is provided with a second bracket and two second support legs, the two second support legs are respectively arranged at both ends of the second bracket along the length direction, and the second foot stand is provided with at least one second connection portion.

2. The sofa assembly of claim 1, wherein the first foot stand and the second foot stand are selected from one or more of metal parts, blow-molded parts, injection-molded parts, extruded-molded parts and wood-molded parts.

3. The sofa assembly of claim 1, wherein at least one first connection portion is an opening.

4. The sofa assembly of claim 3, wherein the opening has a slide-in section and a locking section.

5. The sofa assembly of claim 4, wherein the opening further comprises a stopper portion.

6. Sofa assembly, of claim 1, wherein at least one second connection portion is detachably mounted to the second foot stand.

7. The sofa assembly of claim 6, wherein at least one second connection portion is configured to be de-

tachably connectable with at least one first connection portion of an adjoining sofa assembly.

8. The sofa assembly of claim 1, wherein the first foot stand has at least one first fixing portion and the second foot stand has at least one second fixing portion.

9. A first side sofa assembly comprising a main structure, a first foot stand, a second foot stand, and a rear panel, wherein the first foot stand and the second foot stand are arranged on both sides of the main structure along the width direction and are respectively connected with the main structure, and the rear panel is arranged between the first foot stand and the second foot stand and is respectively connected with the rear end of the first foot stand and the rear end of the second foot stand;

wherein the first foot stand is provided with a first bracket and two first support legs, wherein the two first support legs are respectively arranged at both ends of the first bracket along the length direction, and the first foot stand is also provided with at least one first connection portion;

wherein the second foot stand has the second bracket and two second support legs, and the two second support legs are respectively arranged at both ends of the second bracket along the length direction.

10. The first side sofa assembly of claim 9, wherein at least one first connection portion is an opening.

11. The first side sofa assembly of claim 10, wherein the opening has a slide-in section and a locking section.

12. The first side sofa assembly of claim 11, wherein the opening further comprises a stopper portion.

13. The first side sofa assembly of claim 9, wherein the first foot stand has at least one first fixing portion and the second foot stand has at least one second fixing portion.

14. The first side sofa assembly of claim 9, wherein at least one first connection portion is configured to be detachably connectable with at least one second connection portion of an adjoining sofa assembly.

15. A second side sofa assembly comprising a main structure, a first foot stand, a second foot stand, and a rear panel, wherein the first foot stand and the second foot stand are arranged on both sides of the main structure along a width direction and

are respectively connected with the main structure, and the rear panel is arranged between the first foot stand and the second foot stand and is respectively connected with the rear end of the first foot stand and the rear end of the second foot stand; 5

wherein the first foot stand is provided with a first bracket and two first support legs, wherein the two first support legs are respectively arranged at both ends of the first bracket along the length direction; 10

wherein the second foot stand is provided with a second bracket and two second support legs, wherein the two second support legs are respectively arranged at both ends of the second bracket along the length direction, and the second bracket is also provided with at least one second connection portion. 15

16. The second side sofa assembly of claim 15, wherein at least one second connection portion is detachably mounted to the second foot stand. 20

17. The second side sofa assembly of claim 15, wherein at least one second connection portion is configured to be detachably connectable with at least one first connection portion of an adjoining sofa assembly. 25

18. The second side sofa assembly of claim 15, wherein the first foot stand has at least one first fixing portion and the second foot stand has at least one second fixing portion. 30

19. A sofa comprising a first side sofa assembly and a second side sofa assembly, wherein the first side sofa assembly and the second side sofa assembly are arranged side by side in a width direction and tightly, and a first connection portion of the sofa assembly is detachably connected with a second connection portion of the second side sofa assembly. 35 40

20. The sofa of claim 19, wherein the first side sofa assembly, the second side sofa assembly and one or more of the sofa assemblies are sequentially arranged side by side along the width direction, and the sofa assemblies are detachably connected through a first connection portion and a second connection portion. 45 50

55

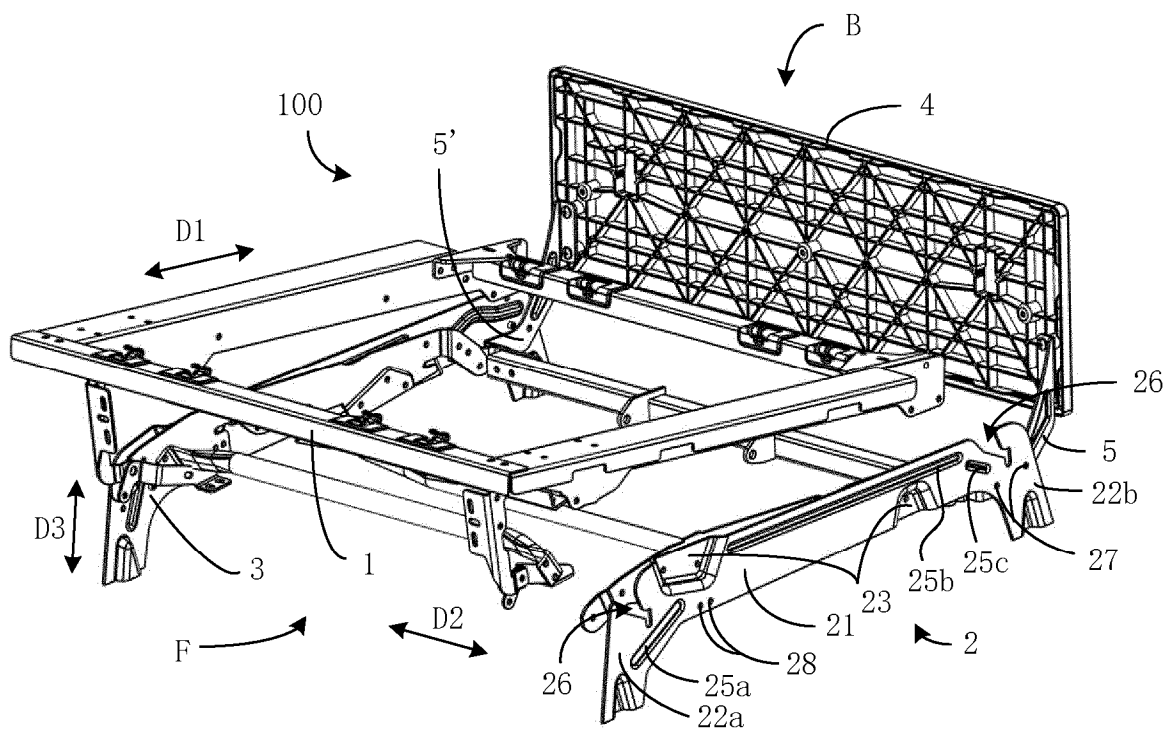


FIG.1

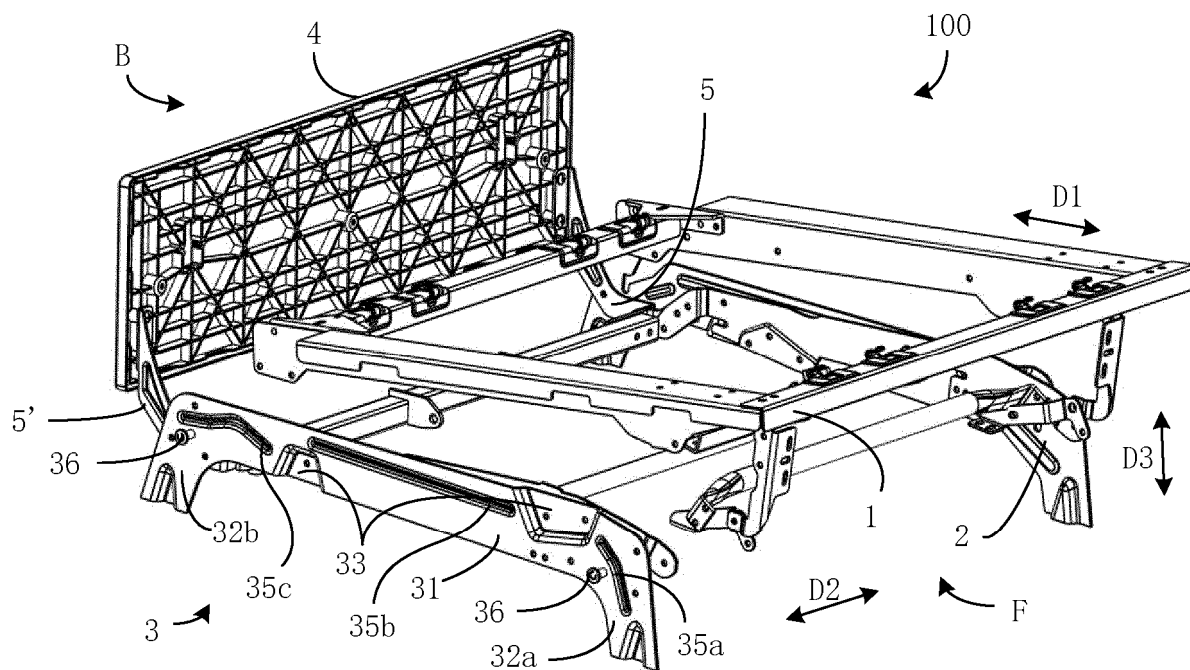


FIG. 2

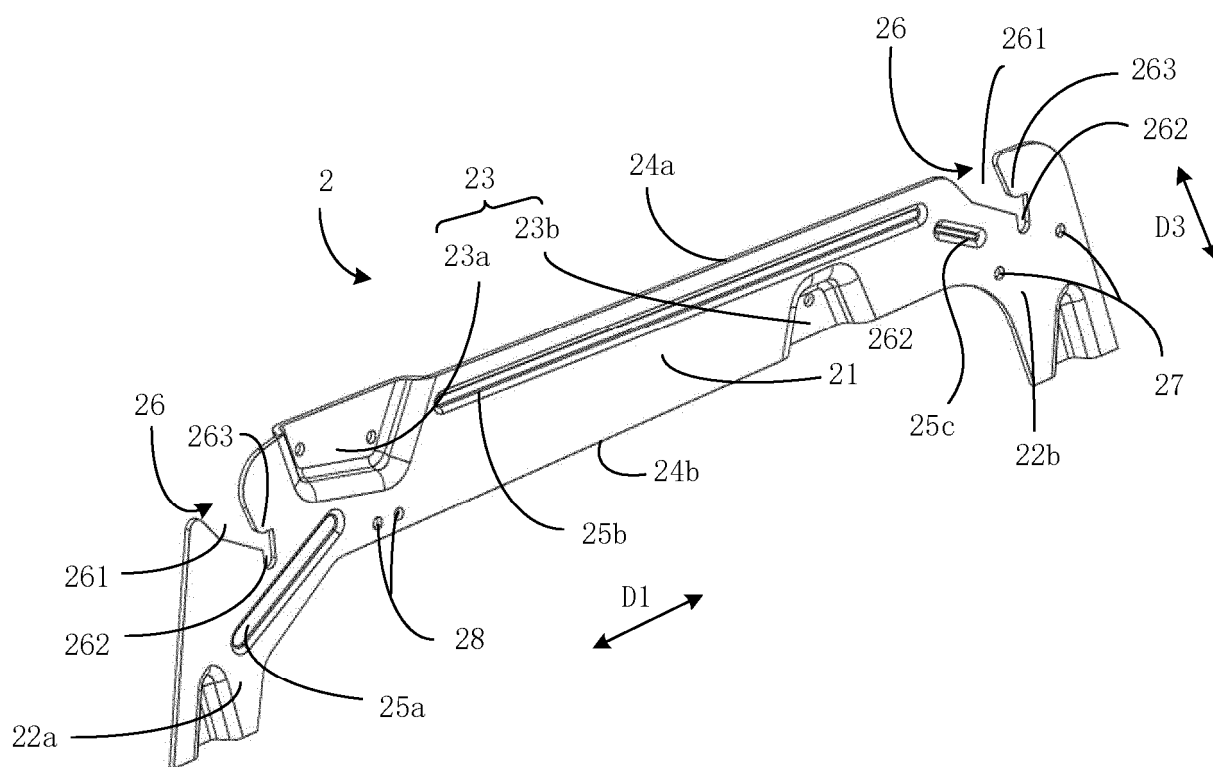


FIG. 3

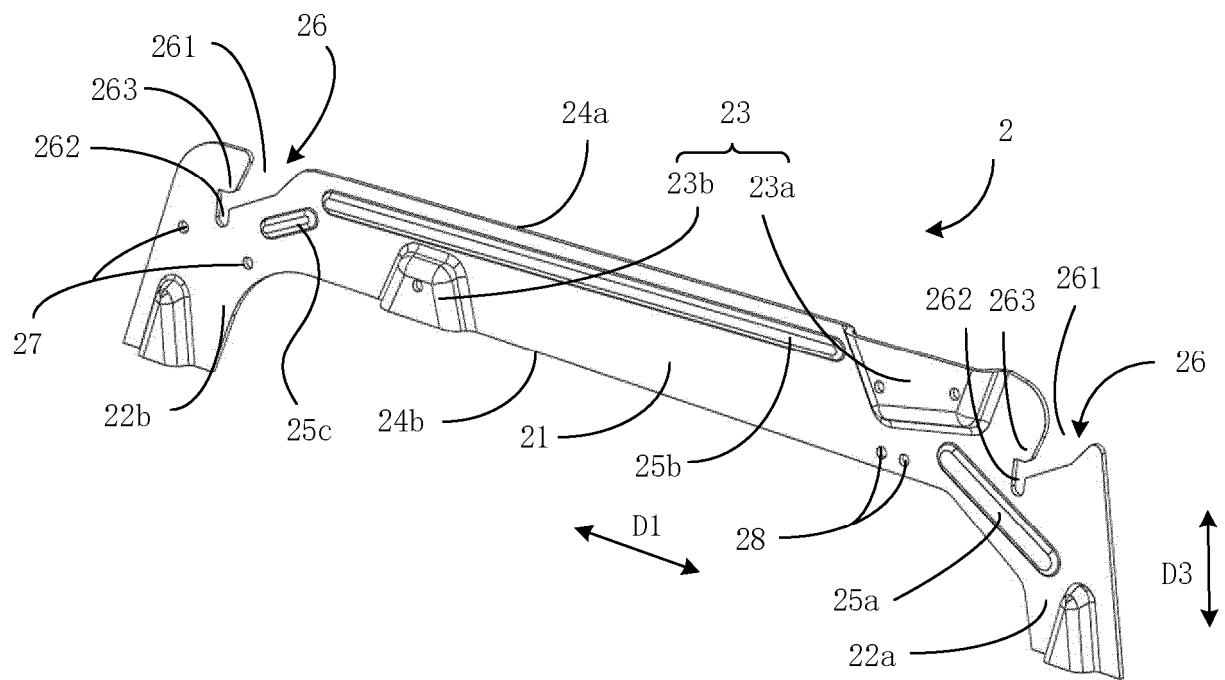


FIG. 4

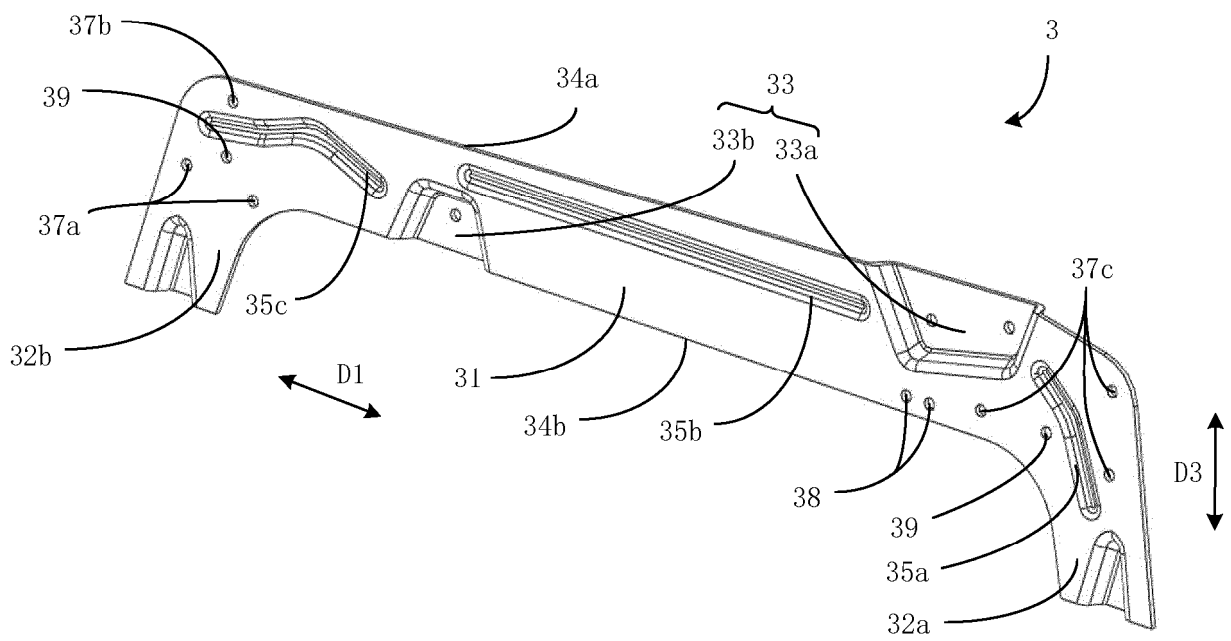


FIG. 5

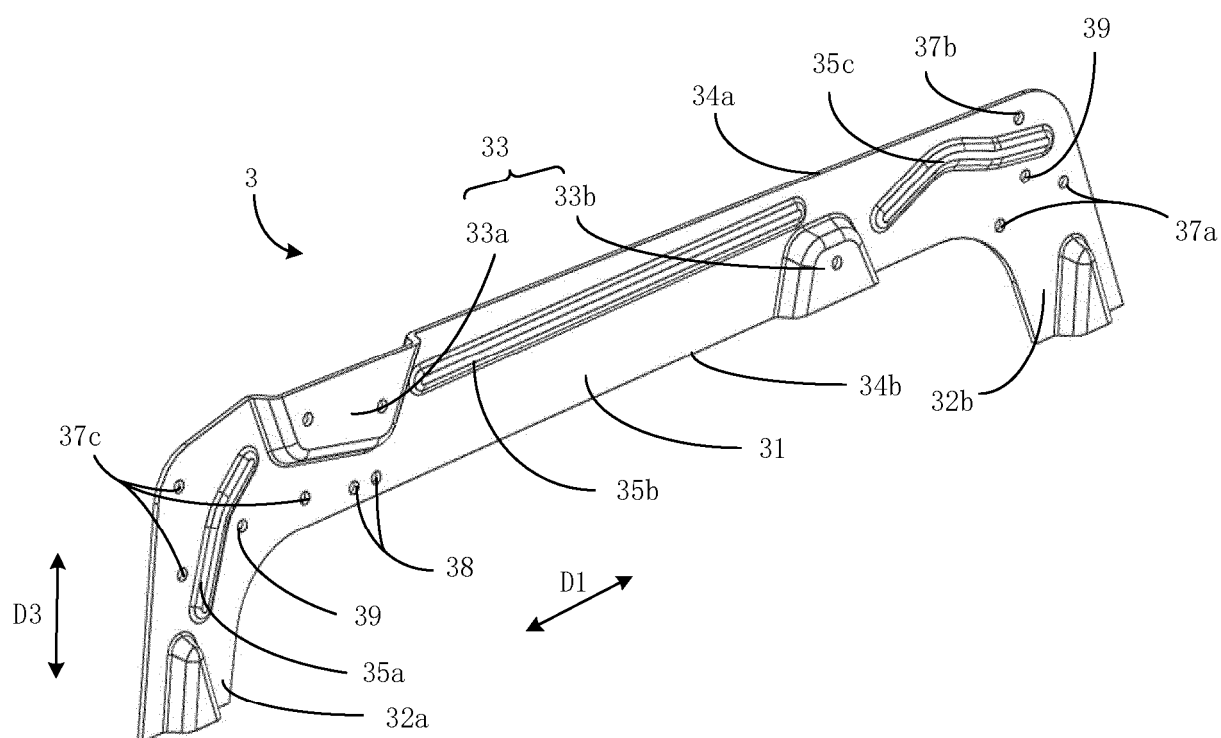


FIG. 6

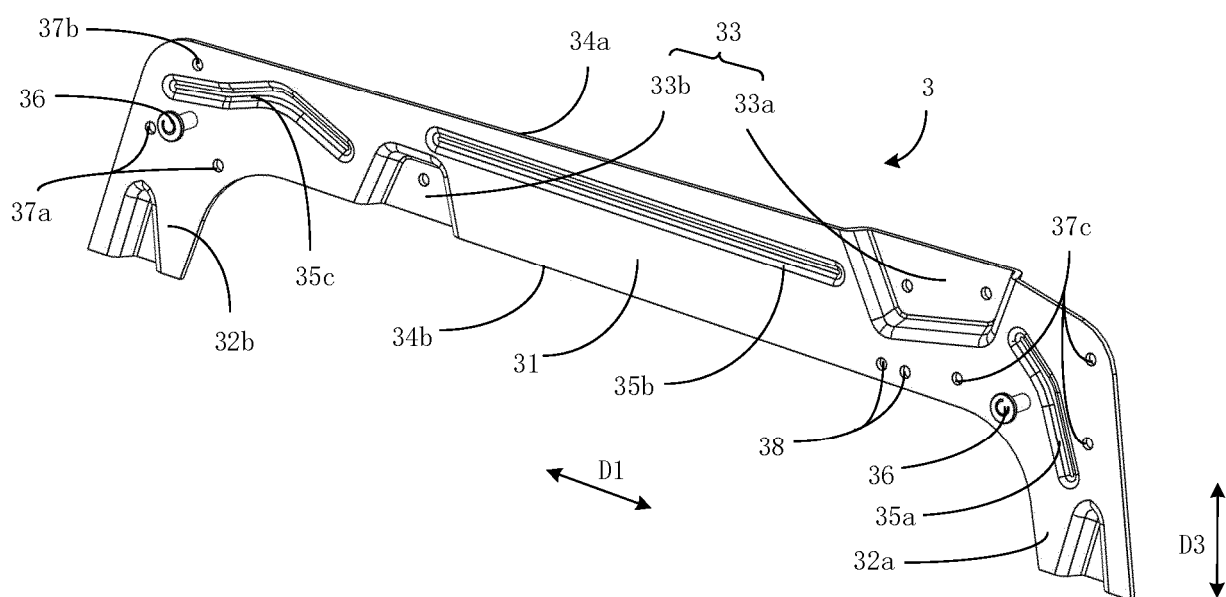


FIG. 7

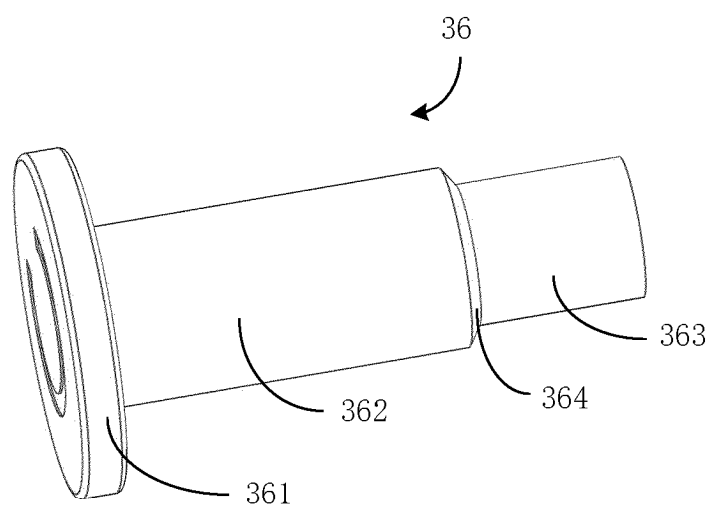


FIG. 8

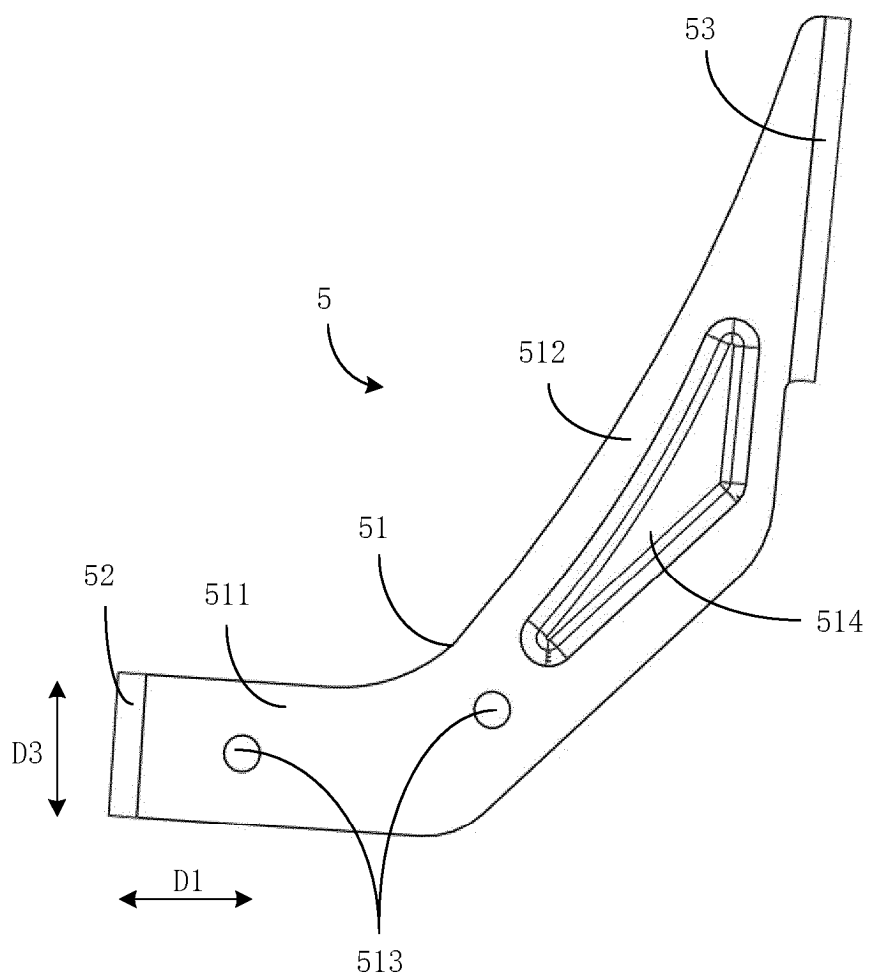


FIG. 9

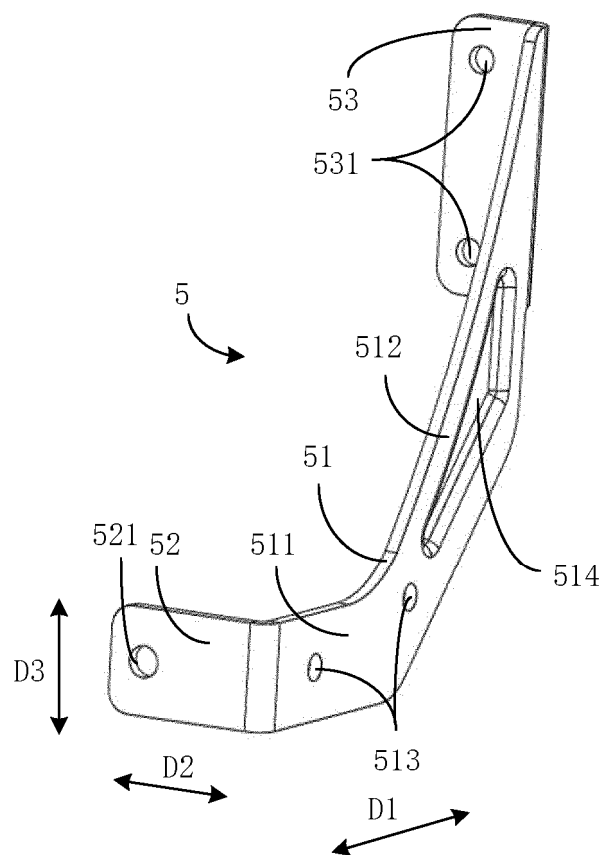


FIG. 10

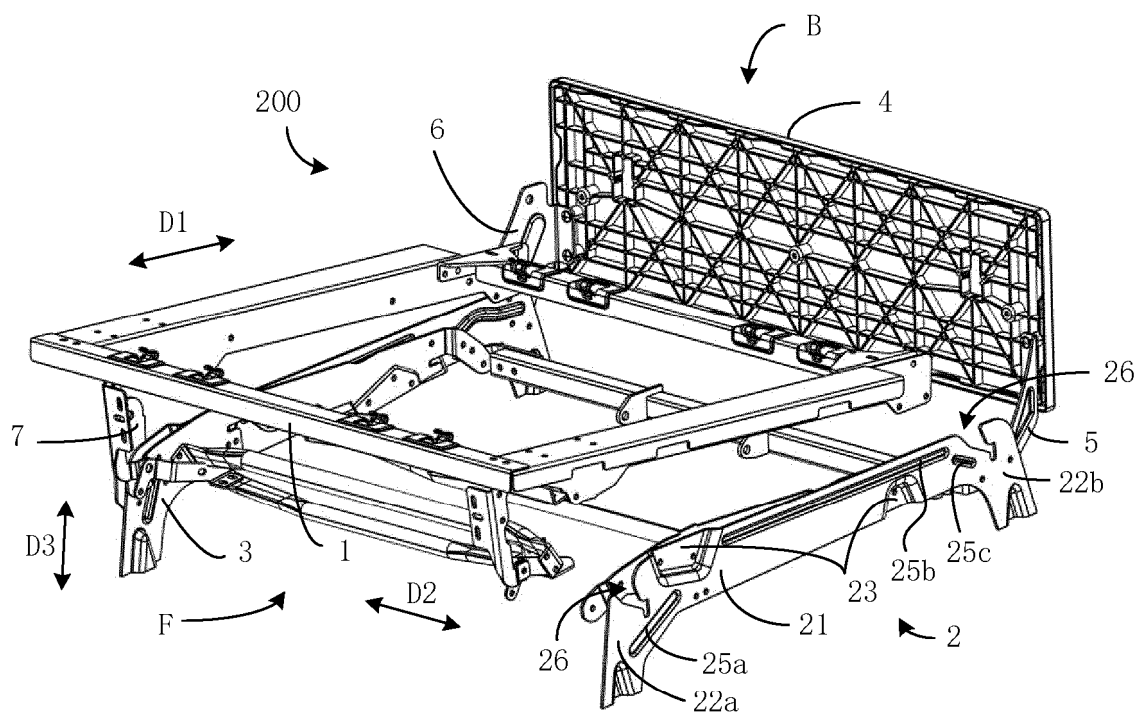


FIG. 11

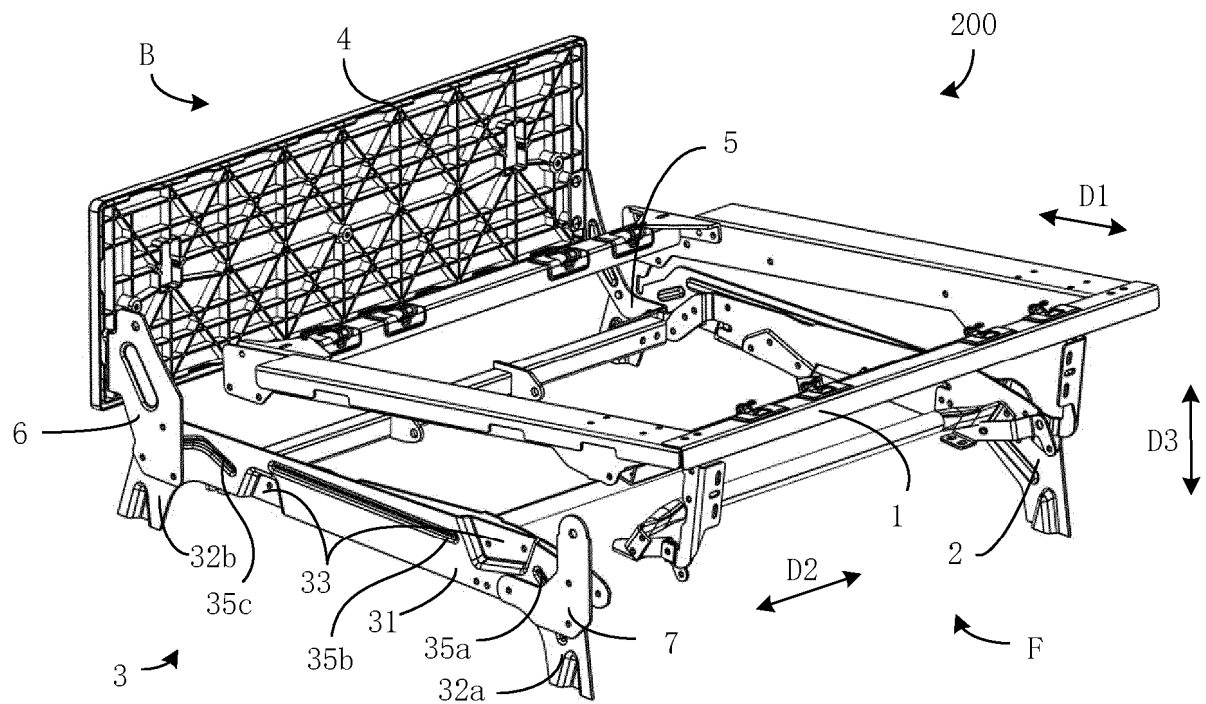


FIG. 12

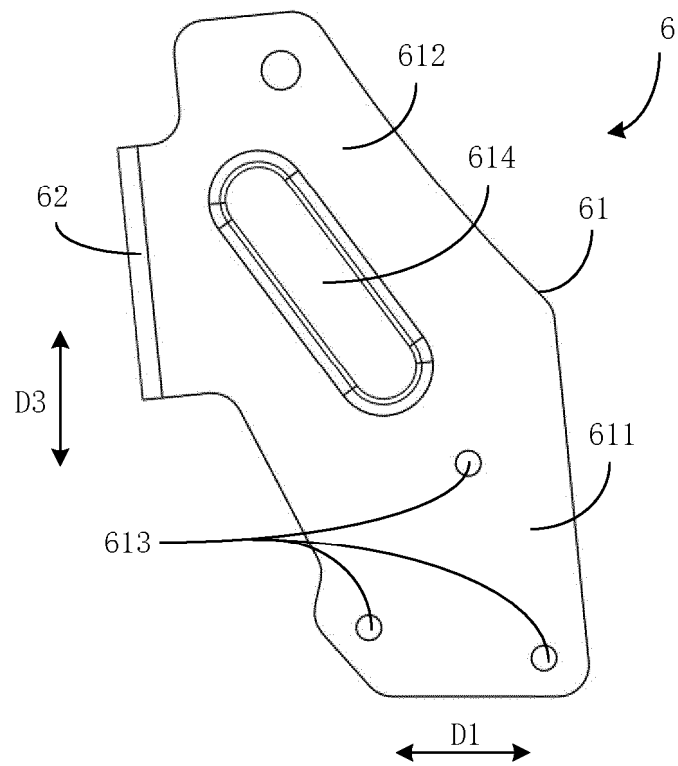


FIG. 13

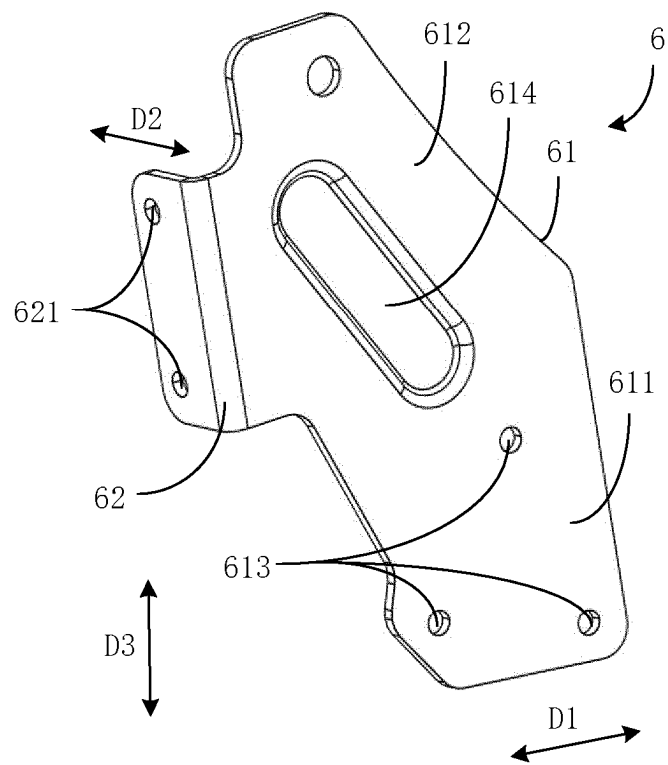


FIG. 14

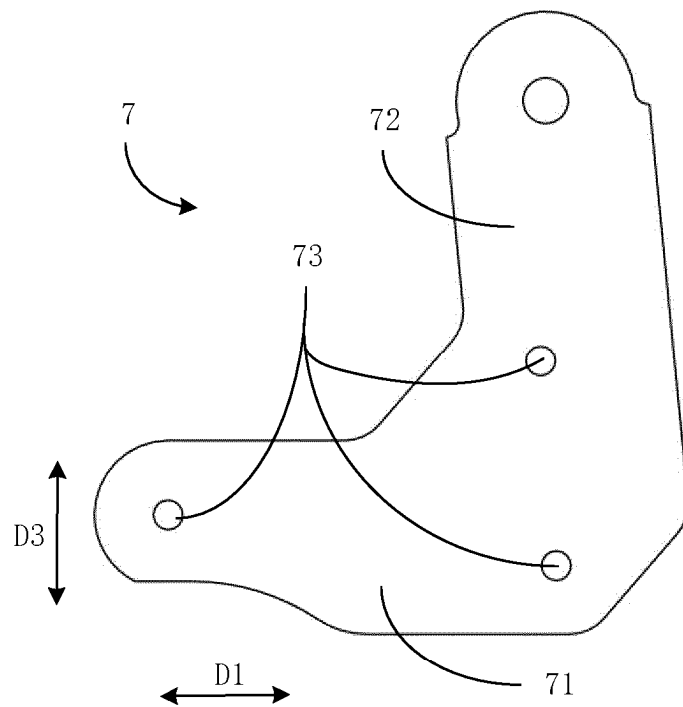


FIG. 15

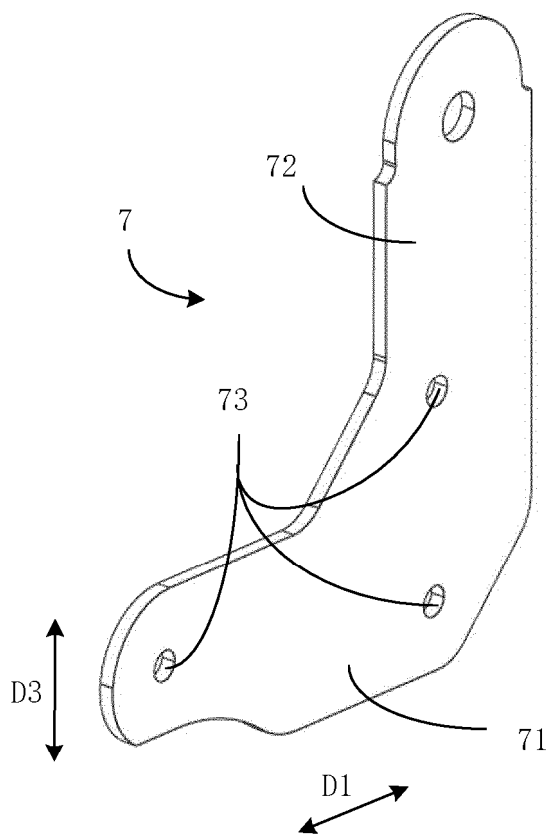


FIG. 16

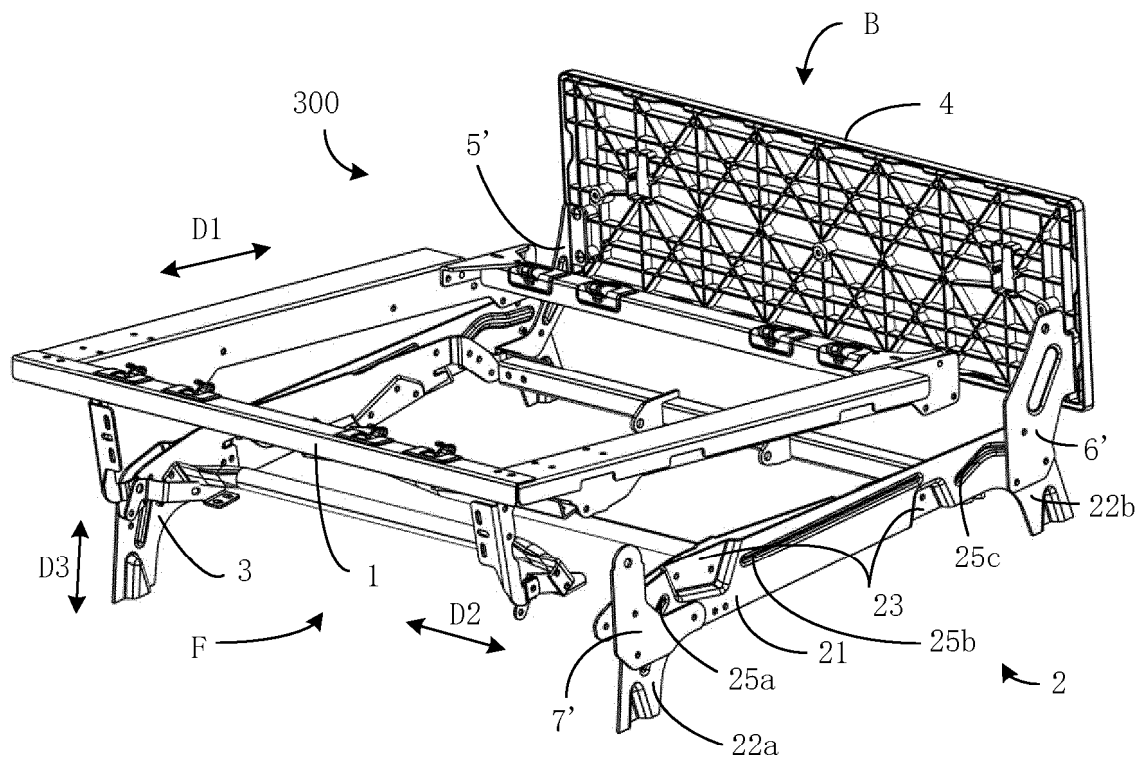


FIG. 17

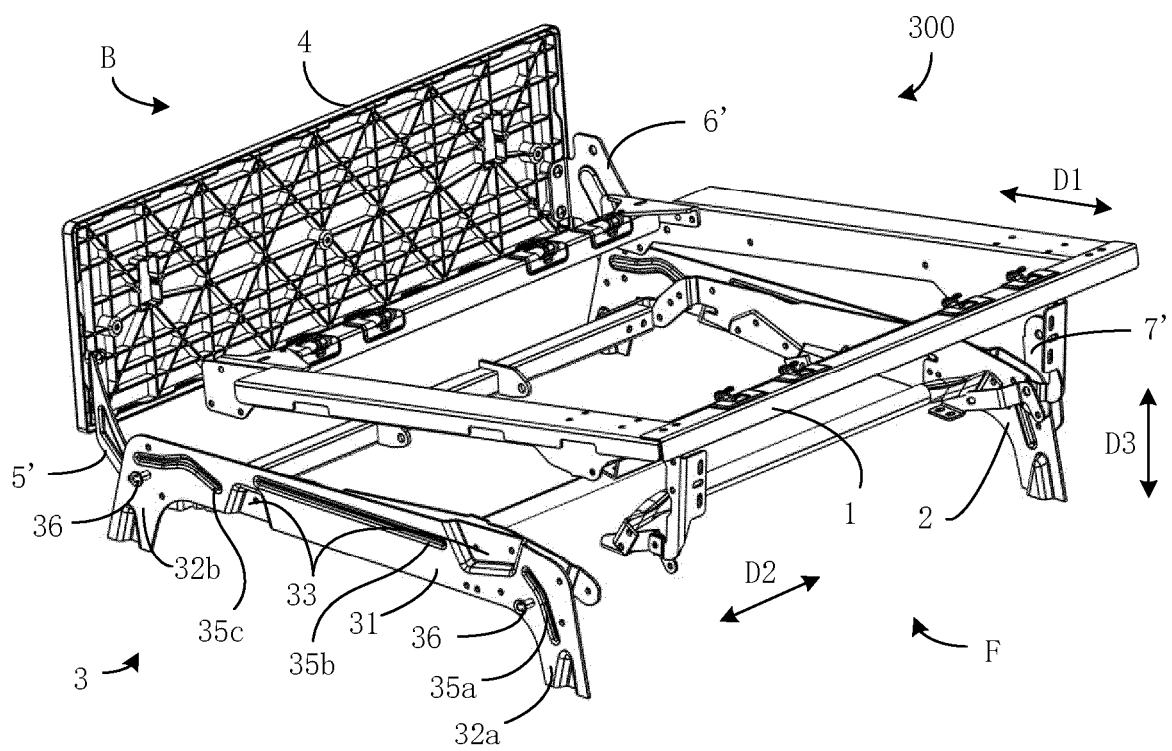


FIG. 18

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2024/090623

A. CLASSIFICATION OF SUBJECT MATTER

A47C 17/00(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: A47C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CNABS, VEN, ENTXT, CNTXT, CNKI, IEEE, 万方, WANFANG, 读秀, DUXIU: 沙发, 椅, 坐具, 塑, 组合, 联排, 并排, 相邻, 组合, 组装, 安装, 拼接, 插接, 锁定, 孔, 凹, 槽, 开口, sofa, chair, sitting, plastic, assembly, row, side-by-side, adjacent, mounting, stitching, plugging, locking, hole

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN 113616023 A (REMACRO MACHINERY & TECHNOLOGY(WUJIANG) CO., LTD.) 09 November 2021 (2021-11-09) description, paragraphs 37-61, and figures 1-10	1-6, 8
Y	CN 113616023 A (REMACRO MACHINERY & TECHNOLOGY(WUJIANG) CO., LTD.) 09 November 2021 (2021-11-09) description, paragraphs 37-61, and figures 1-10	7, 9-20
Y	US 2022354261 A1 (COZEY INC.) 10 November 2022 (2022-11-10) description, paragraphs 35-81, and figures 1-9	7, 9-20
Y	CN 216124138 U (HAINING JIUZHOU FURNITURE CO., LTD.) 25 March 2022 (2022-03-25) description, paragraphs 27-38, and figures 1-10	1-20
Y	CN 112512377 A (ASHLEY FURNITURE INDUSTRIES, INC.) 16 March 2021 (2021-03-16) description, paragraphs 72-101, and figures 17-18	1-20

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"D" document cited by the applicant in the international application	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"E" earlier application or patent but published on or after the international filing date	"&" document member of the same patent family
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

22 August 2024

Date of mailing of the international search report

04 September 2024

Name and mailing address of the ISA/CN

China National Intellectual Property Administration (ISA/
CN)
China No. 6, Xitucheng Road, Jimenqiao, Haidian District,
Beijing 100088

Authorized officer

Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CN2024/090623

5

10

15

20

25

30

35

40

45

50

55

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	CN 218791416 U (CHANGZHOU YUFENG FURNITURE CO., LTD.) 07 April 2023 (2023-04-07) entire document	1-20
A	CN 112545237 A (MANWAH FURNITURE MANUFACTURING (HUIZHOU) CO., LTD.) 26 March 2021 (2021-03-26) entire document	1-20
A	CN 203662351 U (HOME TASTE CO., LTD.) 25 June 2014 (2014-06-25) entire document	1-20
A	CN 217161511 U (DONGGUAN NIKATUO TECHNOLOGY CO., LTD.) 12 August 2022 (2022-08-12) entire document	1-20
A	CN 218009023 U (JIANGXI AOKI HOUSEHOLD TECHNOLOGY CO., LTD.) 13 December 2022 (2022-12-13) entire document	1-20
A	CN 219920677 U (KUKA HOME CO., LTD.) 31 October 2023 (2023-10-31) entire document	1-20
A	US 2018213943 A1 (BURROW INC.) 02 August 2018 (2018-08-02) entire document	1-20

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/CN2024/090623

5

10

15

20

25

30

35

40

45

50

55

Patent document cited in search report	Publication date (day/month/year)	Patent family member(s)	Publication date (day/month/year)
CN 113616023 A	09 November 2021	None	
US 2022354261 A1	10 November 2022	US 11647841 B2	16 May 2023
CN 216124138 U	25 March 2022	None	
CN 112512377 A	16 March 2021	None	
CN 218791416 U	07 April 2023	None	
CN 112545237 A	26 March 2021	None	
CN 203662351 U	25 June 2014	JP 3185571 U	22 August 2013
CN 217161511 U	12 August 2022	None	
CN 218009023 U	13 December 2022	None	
CN 219920677 U	31 October 2023	None	
US 2018213943 A1	02 August 2018	EP 3573500 A1	04 December 2019
		EP 3573500 A4	12 February 2020
		EP 3573500 B1	16 February 2022
		ES 2908315 T3	28 April 2022
		CA 3185323 A1	02 August 2018
		WO 2018140582 A1	02 August 2018
		US 2020107643 A1	09 April 2020
		US 10932580 B2	02 March 2021
		DK 3573500 T3	04 April 2022
		PL 3573500 T3	30 May 2022
		CA 3135410 A1	02 August 2018
		CA 3135410 C	07 February 2023
		US 10433648 B1	08 October 2019
		US 10182659 B2	22 January 2019
		EP 4026457 A1	13 July 2022
		CA 3052144 A1	02 August 2018
		CA 3052144 C	15 February 2022

Form PCT/ISA/210 (patent family annex) (July 2022)