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(71) Applicant: **Yotrio Group Co., Ltd**
Zhejiang Province 317004 (CH)

(72) Inventor: **XIE, Jianqiang**
Linhai City
Zhejiang 317004 (CN)

(74) Representative: **Schulz Junghans**
Patentanwälte PartGmbB
Großbeerenstraße 71
10963 Berlin (DE)

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(54) **HEIGHT ADJUSTABLE FURNITURE**

(57) A piece of height adjustable furniture includes a bearing surface (1), a support assembly (2), a pneumatic damper (5) fixed to the bearing surface (1), a switch (3) disposed at the support assembly (2), at least one positioning assembly (6) and at least one adjustment wire (4). The support assembly (2) is disposed at one side of the bearing surface (1) to support the bearing surface (1). The positioning assembly (6) comprises a first positioning element (61) and a second positioning element

(62) capable of engaging with each other, and the first positioning element (61) is located at the support assembly (2). One end of the adjustment wire (4) is connected with the switch (3) and the other end is connected with the second positioning element (62). When the switch (3) is pressed, the adjustment wire (4) pulls the second positioning element (62) away from an engaging position with the first positioning element (61), and the pneumatic damper (5) pushes the bearing surface (1) to rise.

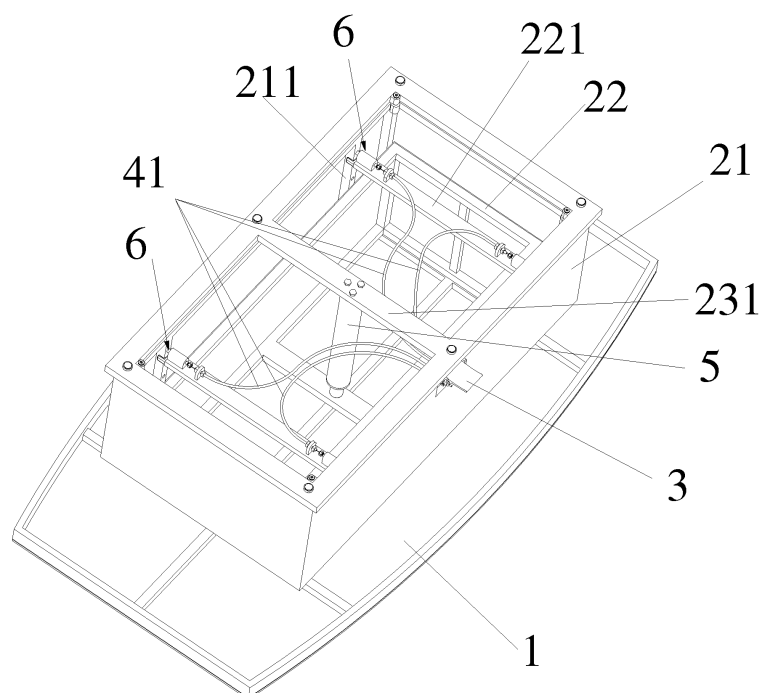


FIG. 1

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Description

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates to a kind of furniture, and more particularly, to a piece of height adjustable furniture.

Description of the Related Art

[0002] Common furniture includes tables and chairs. In view of the differences in habits, locations and users, tables and chairs with a variety of heights are usually needed. Taking a dining table and a tea table as examples, they have a great difference in height because of various heights users may sit at, though they both belong to tables. As another example, at a buffet or an outdoor barbecue, a table for placing foods shall have a height suitable for users to stand and take foods easily, while a dining table shall have a height suitable for users to sit. Similarly, different users have different heights as well as different leg lengths, so the heights of chairs most suitable for each person to sit on also vary. A high chair may keep the feet of a short user suspended, greatly reducing the user experience and the degree of comfort; a short chair cannot help a tall user effectively relax and rest when the user sits for a long time, because the thighs cannot be effectively supported by the seat.

[0003] However, conventional tables and chairs usually have only a fixed height, so the function is single. To meet different demands, it is common that tables and chairs with a variety of heights are purchased and placed in homes and public places. This occupies a very large space and increases costs, and also makes it difficult to achieve uniformity in appearance and style.

BRIEF SUMMARY OF THE INVENTION

[0004] The present invention provides a piece of height adjustable furniture to overcome at least one shortcoming of the prior art.

[0005] To achieve the above objective, the present invention provides a piece of height adjustable furniture, comprising a bearing surface, a support assembly, a pneumatic damper, a switch, at least one positioning assembly, and at least one adjustment wire. The support assembly is disposed at one side of the bearing surface to support the bearing surface. One end of the pneumatic damper is fixed to the bearing surface. The switch is disposed at the support assembly. The positioning assembly comprises a first positioning element and a second positioning element capable of engaging with each other, and the first positioning element is located at the support assembly. One end of the adjustment wire is connected with the switch and the other end is connected with the second positioning element. When the switch is pressed,

the adjustment wire pulls the second positioning element away from an engaging position with the first positioning element, and the pneumatic damper pushes the bearing surface to rise.

[0006] In one embodiment of the present invention, the first positioning element may be a positioning hole or a positioning groove, and the second positioning element may be a positioning pin.

[0007] In one embodiment of the present invention, the positioning hole may be a slotted hole.

[0008] In one embodiment of the present invention, the adjustment wire may comprise a wire sleeve, and the positioning assembly may further comprise a clamping element disposed corresponding to the second positioning element and clamping the wire sleeve.

[0009] In one embodiment of the present invention, the positioning assembly may further comprise a conduit, and the second positioning element may be disposed through the conduit.

[0010] In one embodiment of the present invention, the positioning assembly may further comprise an elastic element disposed at one end of the second positioning element.

[0011] In one embodiment of the present invention, the positioning assembly may further comprise a stop element located at one side of the elastic element.

[0012] In one embodiment of the present invention, each positioning assembly may comprise three first positioning elements and one second positioning element, and the second positioning element can respectively engage with each of the three first positioning elements.

[0013] In one embodiment of the present invention, the three first positioning elements may be distributed along a height direction of the support assembly.

[0014] In one embodiment of the present invention, the support assembly may comprise a first support element and a second support element, the first support element may be sleeved on the second support element, and the second support element may be fixed to the bearing surface.

[0015] In one embodiment of the present invention, the support assembly may comprise a first fixing element and a second fixing element, the first positioning element may be disposed at the first fixing element, and the second positioning element may be disposed at the second fixing element.

[0016] In one embodiment of the present invention, the support assembly may further comprise a third fixing element, and the other end of the pneumatic damper may be fixed to the third fixing element.

[0017] In one embodiment of the present invention, the support assembly may further comprise a snap joint fixed to the second fixing element.

[0018] In one embodiment of the present invention, the adjustment wire may be a steel wire.

[0019] In one embodiment of the present invention, the switch may be a pedal switch.

[0020] In one embodiment of the present invention, the

bearing surface may be made of boards, glass or rattan.

[0021] In one embodiment of the present invention, the number of the positioning assemblies and adjustment wires may be four, respectively.

[0022] In the embodiment of the present invention, the switch may have four engaging grooves for engaging four adjustment wires respectively.

[0023] To sum up, the furniture of the present invention provided with the positioning assembly can be designed to have different adjustable heights according to actual demands. By the pneumatic damper, the furniture height can be increased or reduced without a power supply. Being simple, easy to assemble and not restricted by sites, the furniture enjoys a wide application. The furniture with a variety of adjustable heights in the invention can be used for different users and occasions to realize multi-function of products and can reduce costs and space as it can be used as a dining table and as a tea table.

[0024] These and other features, aspects, and advantages of the present invention will become better understood with regard to the following description, appended claims, and accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0025]

FIG. 1 is an interior schematic diagram of a piece of height adjustable furniture according to one embodiment of the present invention;

FIG. 2 is a partially enlarged diagram of FIG. 1;

FIG. 3 is a schematic diagram of a first fixing element according to one embodiment of the present invention;

FIG. 4 is a schematic diagram of a second fixing element according to one embodiment of the present invention;

FIG. 5 is a sectional view of a first positioning element and a second positioning element in an engaging position according to one embodiment of the present invention;

FIG. 6 is a sectional view of a switch according to one embodiment of the present invention;

FIG. 7A-7C are schematic diagrams of the height adjustable furniture at a variety of heights according to the embodiment of the present invention; and

FIG. 8A-8C are sketch perspective diagrams of the height adjustable furniture at a variety of heights according to the embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0026] The present invention provides a piece of height adjustable furniture, comprising a bearing surface 1, a support assembly 2, a switch 3, at least one adjustment wire 4, a pneumatic damper 5, and at least one positioning assembly 6. In this embodiment, the height adjustable furniture shown in the figure is a table. However, the invention is not limited thereto. In other embodiments, the height adjustable furniture may be a chair.

[0027] In this embodiment, the bearing surface 1 can be made of boards, glass or rattan. If the bearing surface 1 is made of rattan, the bearing surface 1 will be firm, light, tough and pliable in texture, soft to the touch, delicate in appearance and capable of taking a variety of shapes. The use of rattan retains the original color of the rattan, greatly reducing the environmental pollution caused by chemical fiber, plastics, paints, coatings, adhesives and other chemicals, so that the furniture is more environmentally friendly. However, the invention is not limited thereto. The height adjustable furniture provided by the present invention is suitable for furniture made of any materials. In this embodiment, the bearing surface 1 is a table top. In case the furniture of the present invention is a chair, the bearing surface 1 is a surface of the seat. The seat made of rattan has better permeability than that made of boards and glass, so it makes users feel cooler in summer.

[0028] In this embodiment, the support assembly 2 is disposed at one side of the bearing surface 1 to support the bearing surface 1. Specifically, when the height adjustable furniture is in use, the support assembly 2 is disposed under the bearing surface 1. In actual application, the support assembly 2 can form a circle to surround the adjustment wire 4, the pneumatic damper 5 and the positioning assembly 6, thereby bringing a finer appearance and also protecting the internal structure by preventing foreign objects from entering or causing accidental damage to the internal structure.

[0029] In this embodiment, the support assembly 2 includes a first support element 21 and a second support element 22. The first support element 21 is sleeved on the second support element 22, and the second support element 22 is fixed to the bearing surface 1. When the bearing surface 1 rises, the second support element 22 rises along with the bearing surface 1 relative to the first support element 21. Through this arrangement, the internal structure inside is always surrounded by the support assembly 2 regardless of the height at which the furniture is, thereby ensuring an aesthetic appearance and protecting the internal structure from any accidental damage caused by external objects. However, the invention is not limited thereto. In other embodiments, the support assembly 2 may only include a first support element 21, and when the bearing surface 1 rises, the bearing surface 1 can separate from the first support element 21 to rise. In another embodiment, the support assembly 2 can only include a second support element 22, and when

the bearing surface 1 rises, the bearing surface 1 rises along with the second support element 22. In this case, the support assembly 2 can also be disposed to have a support frame so as to support the raised bearing surface 1 and the second support element 22.

[0030] In actual application, both the first support element 21 and the second support element 22 can be made of rattan, so as to provide a variety of shapes, make the support assembly 2 firm and light, and also bring a finer appearance.

[0031] In this embodiment, the support assembly 2 can further include a first fixing element 211 and a second fixing element 221. The first fixing element 211 is disposed in the first support element 21, and the second fixing element 221 is disposed in the second support element 22. In this embodiment, the first fixing element 211 and the second fixing element 221 are rectangular fixing frames. However, the invention is not limited thereto. In case the furniture provided in the present invention application is a round table, the first fixing element 211 and the second fixing element 221 can be round fixing frames. By the first fixing element 211 and the second fixing element 221, the relative position of the first support element 21 and the second support element 22 can be accurately designed, regardless of the shape of the first support element 21 and the second support element 22, which facilitates the manufacture and maintenance. Meanwhile, in case the first support element 21 and the second support element 22 are made of rattan, the rattan can surround the first fixing element 211 and the second fixing element 221 for fixing.

[0032] A switch 3 is disposed at the support assembly 2. In this embodiment, the first support element 21 is made with a hole through which the switch 3 is disposed. In this embodiment, the switch 3 is a pedal switch which is convenient for users to operate and enables users to easily apply sufficient force to disengage a second positioning element 62 away from the engaging position with a first positioning element 61. However, the invention is not limited thereto. In other embodiments, the switch 3 may be a hand-press switch.

[0033] One end of the adjustment wire 4 is connected with the switch 3, and the other end is connected with the second positioning element 62 of the positioning assembly 6. In this embodiment, the adjustment wire 4 may be a steel wire. However, the invention is not limited thereto, and the adjustment wire 4 can be made of any materials capable of bearing a certain pulling force. When the switch 3 is pressed, the adjustment wire 4 will be pulled. In this embodiment, both the number of the positioning assemblies and the number of the adjustment wires are four. By the four adjustment wires 4 and four sets of positioning assembly 6, four corners of the furniture can be positioned, thereby making the positioning firmer and more reliable. Correspondingly, the switch 3 may have four engaging grooves 31 for engaging the four adjustment wires 4 respectively, so that the four adjustment wires 4 are driven as the switch 3 is pressed.

[0034] One end of the pneumatic damper 5 is fixed to the bearing surface 1. Specifically, the pneumatic damper 5 is disposed under the bearing surface 1, and the other end of the pneumatic damper 5 is fixed to the bottom of the furniture. When the furniture is in the lowest position, gas inside the pneumatic damper 5 is in a compressed state, and when the second positioning element 62 is disengaged away from the engaging position with the first positioning element 61, the gas inside the pneumatic damper 5 pushes a pneumatic rod to rise thus to push the bearing surface 1 to rise. By use of the pneumatic damper, the furniture provided by the present invention can be raised and lowered without any motors. That is, there is no need for any power supply. Being energy-saving and environmentally-friendly, and the furniture can be used anywhere in the outdoors.

[0035] The present invention is not intended to limit the position and number of the pneumatic damper 5. In this embodiment, the pneumatic damper 5 is disposed at the center of the bearing surface 1, so that the entire bearing surface 1 remains as horizontal as possible as the bearing surface 1 rises. When the bearing surface 1 is large, a pneumatic damper 5 can be disposed in two symmetrical positions respectively to realize a stable rise of the bearing surface 1.

[0036] In this embodiment, the support assembly 2 can further include a third fixing element 231 fixed to the bottom of the first support element 21, and one end of the pneumatic damper 5 is fixed under the bearing surface 1, with the other end fixed to the third fixing element 231.

[0037] The positioning assembly 6 includes the first positioning element 61 and the second positioning element 62 capable of engaging with each other, and the first positioning element 61 is located at the support assembly 2. In this embodiment, the first positioning element 61 is a positioning hole or a positioning groove, and the second positioning element 62 is a positioning pin. When the positioning pin is inserted into the positioning hole or embedded into the positioning groove, the first positioning element 61 and the second positioning element 62 are fixedly engaged. However, the invention is not limited thereto. In other embodiments, the first positioning element may be a positioning pin, and the second positioning element may be a positioning hole or a positioning groove. That is, the positions of the two structures can be exchanged. Furthermore, the present invention is not intended to limit the specific structures of the first positioning element and the second positioning element. Any two structures which can match with each other to realize the positioning can constitute the positioning assembly 6 of the present invention.

[0038] Specifically, in this embodiment, the positioning hole may be a slotted hole, which can appropriately reduce the accuracy requirements of the engaging positions in the horizontal direction, thereby reducing the design and manufacturing costs and avoiding the non-engagement between the first positioning element 61 and the second positioning element 62 resulting from a slight

relative movement of the first support element 21 and the second support element 22 in the horizontal direction. Specifically, in case the ground is not completely flat, the slotted hole can also be vertically made, which can also appropriately reduce the accuracy requirements of the engaging positions in the vertical direction, thereby greatly improving the applicability of the furniture to various occasions.

[0039] In this embodiment, the height adjustable furniture includes four positioning assemblies 6, wherein each positioning assembly 6 includes three first positioning elements 61 and one second positioning element 62, and the second positioning element 62 can respectively engage with each of the three first positioning elements 61. In this embodiment, the three first positioning elements 61 are distributed along the height direction of the support assembly 2, that is, they are successively disposed from top to bottom in the vertical direction. The three first positioning elements 61 are positioned corresponding to three heights which the furniture can be adjusted. In other embodiments, in case the height of the furniture needs to be adjusted obliquely, three first positioning elements may be disposed in the vertical direction in a tilted state.

[0040] In other embodiments, the positioning assembly 6 may only include one first positioning element and one second positioning element. In that case, the engagement between the first positioning element and the second positioning element makes the first furniture height, and the non-engagement between the first positioning element and the second positioning element makes the maximum height to which the pneumatic damper 5 can raise the furniture at the second furniture height.

[0041] In this embodiment, the three first positioning elements 61 can be located on the first fixing element 211, and the second positioning element 62 can be fixed to the second fixing element 221. By the first fixing element 211 and the second fixing element 221, the engaging positions of the first positioning elements 61 and the second positioning element 62 can be accurately designed and laid out. Furthermore, in case the first support element 21 and the second support element 22 are made of rattan, it is not easy to open a positioning hole on the rattan. By provision of the additional fixing elements, it is possible to simplify the mounting structure and facilitate the maintenance, realizing the fixing function as well. However, the invention is not limited thereto. In other embodiments, if the furniture is made of boards, holes can be directly drilled in the boards to form the positioning holes.

[0042] In this embodiment, when the second positioning element 62 is inserted into the first positioning element 61, the engaging structure formed by the two elements limits the movement of the second support element 22 relative to the first support element 21 in the height direction, so that the furniture height is unchangeably fixed. When users want to adjust the furniture height, they can pull the second positioning element 62 out of

the first positioning element 61 through the adjustment wire 4, enabling the movement of the second support element 22 relative to the first support element 21 in the height direction. At that time, the height can be adjusted under the force of the pneumatic damper 5.

[0043] Particularly, in this embodiment, the support assembly 2 further includes a snap joint 241 which is fixed to the second fixing element 221. The snap joint 241 movably matches with the first fixing element 211. That is, the first fixing element 211 is not fixed to the snap joint 241, so that the snap joint 241 can slide on the surface of the first fixing element 211 as the second fixing element 221 rises. By the snap joint 241, the relative movement path of the first fixing element 211 and the second fixing element 221 can be limited, so that during the rise, the second positioning element 62 will definitely rise along the vertical distribution path of the first positioning elements 61 thus to realize an accurate engagement every time. Meanwhile, the snap joint 241 also limits the relative movement of the first support element 21 and the second support element 22 in the horizontal direction.

[0044] In this embodiment, the adjustment wire 4 includes a wire sleeve 41 and the positioning assembly 6 further includes a clamping element 63 which is disposed corresponding to the second positioning element 62 and clamps the wire sleeve 41. Since the adjustment wire 4 is not necessarily linearly distributed inside the furniture, the wire sleeve 41 can fix the movement path of the adjustment wire 4 so as to facilitate calculating the movement travel of the adjustment wire 4 when the switch 3 is pressed, thereby ensuring that the movement travel of the adjustment wire 4 is sufficient to release the engagement between the first positioning element 61 and the second positioning element 62. Meanwhile, the wire sleeve 41 also protects the adjustment wire 4 from wear resulting from the friction with the external during wiring. However, the invention is not limited thereto. In other embodiments, the adjustment wire 4 may not include the wire sleeve 41, and a winding post can be disposed inside the furniture to realize the arrangement of the adjustment wire 4 instead.

[0045] In this embodiment, the positioning assembly 6 further includes a conduit 64, and the second positioning element 62 is disposed through the conduit 64. The conduit 64 can be fixed to the second fixing element 221 to limit the movement direction of the second positioning element 62, making the second positioning element 62 move in only two directions which are away from and toward the first positioning element 61.

[0046] In this embodiment, the positioning assembly 6 may further include an elastic element 65 disposed at one end of the second positioning element 62. The elastic element 65 may be a spring sleeved on one end of the second positioning element 62. When the second positioning element 62 is pulled in the direction away from the first positioning element 61, the elastic element 65 is compressed. When the external pulling force is removed, the elastic element 65 pushes the second positioning el-

element 62 to move toward the first positioning element 61. By the elastic element 65, the first positioning element 61 and the second positioning element 62 can be repeatedly engaged and disengaged, so as to realize automatic locking of the furniture at multiple heights as well as automatic locking of the furniture rising and lowering.

[0047] However, the invention is not limited thereto. In other embodiments, the elastic element 65 may not be provided. When the second positioning element 62 is pulled in the direction away from the first positioning element 61, the bearing surface 1 rises under the pushing force of the pneumatic damper 5. Due to lack of the elastic element 65, the second positioning element 62 will not return to the original place and remain away from the first positioning element 61 all the time, and the bearing surface 1 will not stop rising until the pneumatic damper 5 reaches the maximum height. Alternatively, the maximum height can be fixed by additionally disposing fixing elements. If users want to reduce the furniture height, they can press the bearing surface 1 with hands so as to lower the bearing surface 1 against the resistance of the pneumatic damper 5. Due to lack of the elastic element 65, the second positioning element 62 still cannot re-engage with the first positioning element 61. In that case, the reduced height of table can be fixed by disposing external fixing elements.

[0048] In this embodiment, the positioning assembly 6 may further include a stop element 66 disposed on one side of the elastic element 65. Specifically, the first positioning element 61 is a positioning pin with both ends having different diameters, wherein the larger-diameter end faces the first positioning element 61. The interior diameter of the elastic element 65 is between the diameters of the two ends of the second positioning element 62. Both the elastic element 65 and the stop element 66 are sleeved on the smaller-diameter end, and the elastic element 65 is located between the larger-diameter end and the stop element 66. When the second positioning element 62 is pulled away from the first positioning element 61 via the adjustment wire 4, the second positioning element 62, the elastic element 65 and the stop element 66 move rightward, as shown in FIG. 5, until the stop element 66 reaches the clamp part 63. At that time, the stop element 66 does not move, and the elastic element 65 is compressed. When the pulling force is removed from the adjustment wire 4, the elastic element 65 pushes the second positioning element 62 to move toward the first positioning element 61. In actual application, one end of the second positioning element 62 may be threaded, the stop element 66 may be a nut, and the stop element 66 is connected to the threaded end of the second positioning element 62.

[0049] The way of adjusting the height of the furniture provided in this embodiment is described in detail hereinafter. As shown in FIG. 7A and FIG. 8A, when the furniture is in the lowest position, the second positioning element 62 engages with the lowermost first positioning element 61. At that time, the gas inside the pneumatic

damper 5 is in a compressed state. Then, a user presses the switch 3 with his or her foot. The switch 3 is pressed to pull the adjustment wire 4 at one end. The other end of the adjustment wire 4 pulls the second positioning element 62 away from the engaging position with the lowermost first positioning element 61, causing the elastic element 65 to be compressed and store energy. Under the condition of lack of external resistance, the gas inside the pneumatic damper 5 pushes the pneumatic rod to move upward. At that time, the second support element 22 and the bearing surface 1 rise, and the second positioning element 62 located on the second support element 22 rises as well. When the user moves his or her foot away from the switch 3, the elastic element 65 pushes the second positioning element 62 to move toward the first positioning element 61, until the second positioning element 62 rises to touch the first positioning part 61 and the first positioning element 61 located in the middle in the vertical direction re-engages with the second positioning element 62. At that time, the furniture is at the second height, as shown in FIG. 7B and FIG. 8B.

[0050] If the user wants to further increase the furniture height, he or she can continue to press the switch 3 with his or her foot, so that the switch 3 is pressed to pull the adjustment wire 4 at one end. The other end of the adjustment wire 4 pulls the second positioning element 62 away from the engaging position with the middle first positioning element 61, causing the elastic element 65 to be compressed and store energy. Under the condition of lack of external resistance, the gas inside the pneumatic damper 5 pushes the pneumatic rod to move upward. At that time, the second support element 22 and the bearing surface 1 rise, and the second positioning element 62 located on the second support element 22 rises as well. When the user moves his or her foot away from the switch 3, the elastic element 65 pushes the second positioning element 62 to move toward the first positioning element 61, until the second positioning element 62 rises to touch the first positioning part 61 and the first positioning element 61 located uppermost in the vertical direction re-engages with the second positioning element 62. At that time, the furniture is at the third height, as shown in FIG. 7C and FIG. 8C.

[0051] If the user wants to reduce the furniture height, he or she can keep stepping on the switch 3 and press the bearing surface 1 with hands against the pressure of the pneumatic damper 5, until the second positioning element 62 engages with the first positioning element 61. In other embodiments, the three first positioning elements 61 can be located on the second support element 22, and the second positioning element 62 can be fixed to the first support element 21, so as to realize the engagement of the two elements and the height adjustment of the furniture.

[0052] To sum up, the furniture of the present invention provided with the positioning assembly can be designed to have different adjustable heights according to actual demands. By the pneumatic damper, the furniture height

can be increased or reduced without a power supply. Being simple, easy to assemble and not restricted by sites, the furniture enjoys a wide application. The furniture with a variety of adjustable heights in the invention can be used for different users and occasions to realize multi-function of products and can reduce costs and space as it can be used as a dining table and as a tea table.

[0053] 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 and spirit of the invention. Therefore, the scope of the appended claims should not be limited to the description of the preferred embodiments described above.

Claims

1. A piece of height adjustable furniture, comprising:

a bearing surface;
a support assembly disposed at one side of the bearing surface to support the bearing surface;
a pneumatic damper with one end fixed to the bearing surface;
a switch disposed at the support assembly;
at least one positioning assembly, comprising a first positioning element and a second positioning element capable of engaging with each other, and the first positioning element located at the support assembly; and
at least one adjustment wire, one end connected with the switch and the other end connected with the second positioning element;
wherein when the switch is pressed, the adjustment wire pulls the second positioning element away from an engaging position with the first positioning element, and the pneumatic damper pushes the bearing surface to rise.

2. The height adjustable furniture as claimed in claim 1, wherein the first positioning element is a positioning hole or a positioning groove, and the second positioning element is a positioning pin.

3. The height adjustable furniture as claimed in claim 2, wherein the positioning hole is a slotted hole.

4. The height adjustable furniture as claimed in claim 1, wherein the adjustment wire comprises a wire sleeve and the positioning assembly further comprises a clamping element disposed corresponding to the second positioning element and clamping the wire sleeve.

5. The height adjustable furniture as claimed in claim 1, wherein the positioning assembly further comprises a conduit, and the second positioning element is disposed through the conduit.

6. The height adjustable furniture as claimed in claim 1, wherein the positioning assembly further comprises an elastic element disposed at one end of the second positioning element.

7. The height adjustable furniture as claimed in claim 6, wherein the positioning assembly further comprises a stop element disposed at one side of the elastic element.

8. The height adjustable furniture as claimed in claim 1, wherein each positioning assembly comprises three first positioning elements and one second positioning element, and the second positioning element is capable of engaging with each of the three first positioning elements.

9. The height adjustable furniture as claimed in claim 8, wherein the three first positioning elements are distributed along a height direction of the support assembly.

10. The height adjustable furniture as claimed in claim 1, wherein

- the support assembly comprises a first support element and a second support element, the first support element is sleeved on the second support element, and the second support element is fixed to the bearing surface and/or

- the support assembly comprises a first fixing element and a second fixing element, the first positioning element is disposed at the first fixing element, and the second positioning element is disposed at the second fixing element and/or

- the support assembly further comprises a third fixing element, and the other end of the pneumatic damper is fixed to the third fixing element and/or

- the support assembly further comprises a snap joint fixed to the second fixing element.

11. The height adjustable furniture as claimed in claim 1, wherein the adjustment wire is a steel wire.

12. The height adjustable furniture as claimed in claim 1, wherein the switch is a pedal switch.

13. The height adjustable furniture as claimed in claim 1, wherein the bearing surface is made of boards, glass or rattan.

14. The height adjustable furniture as claimed in claim

1, wherein both the number of the positioning assemblies and the number of the adjustment wires are four.

15. The height adjustable furniture as claimed in claim 5
17, wherein the switch has four engaging grooves
for engaging four adjustment wires, respectively.

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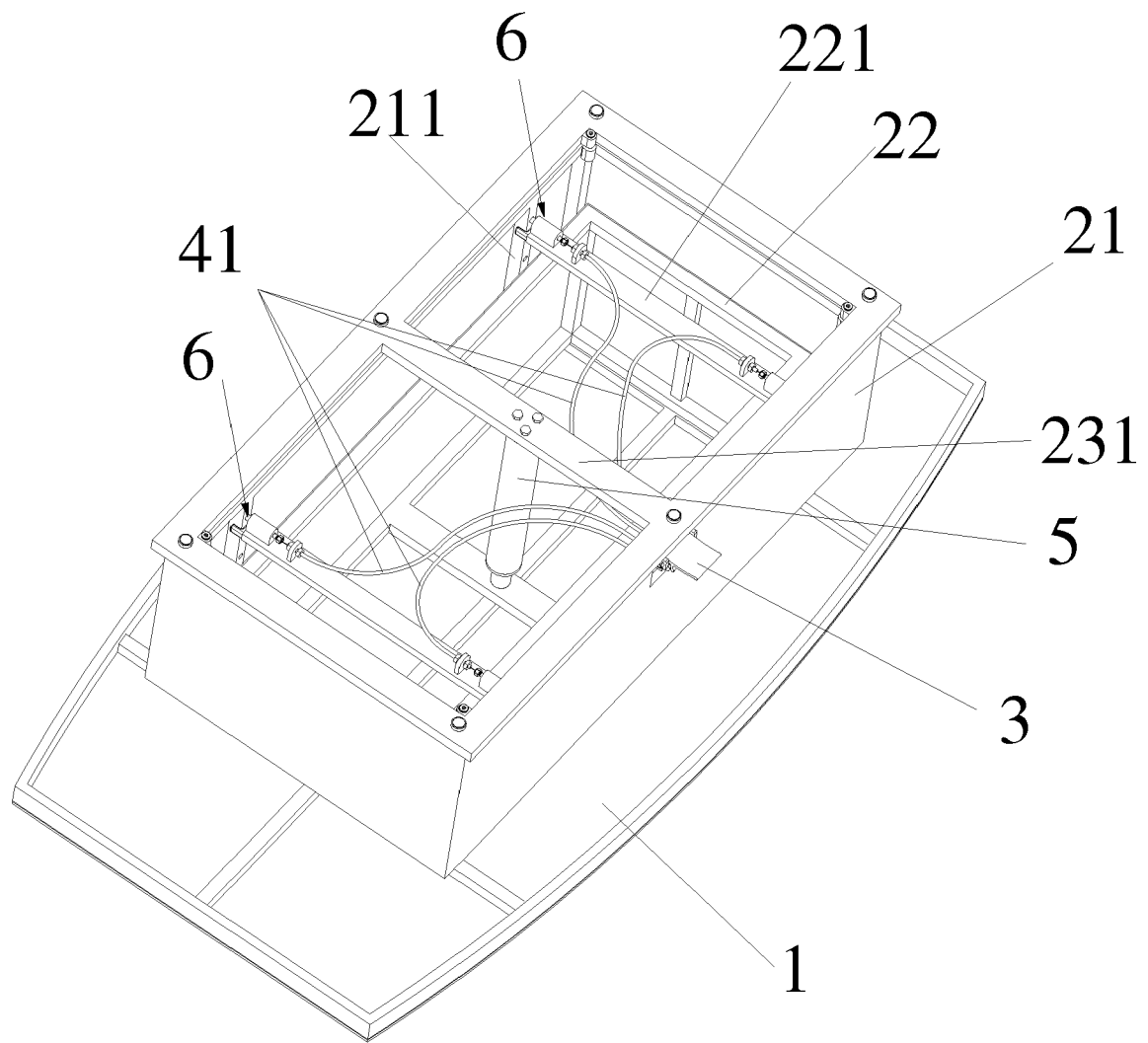


FIG. 1

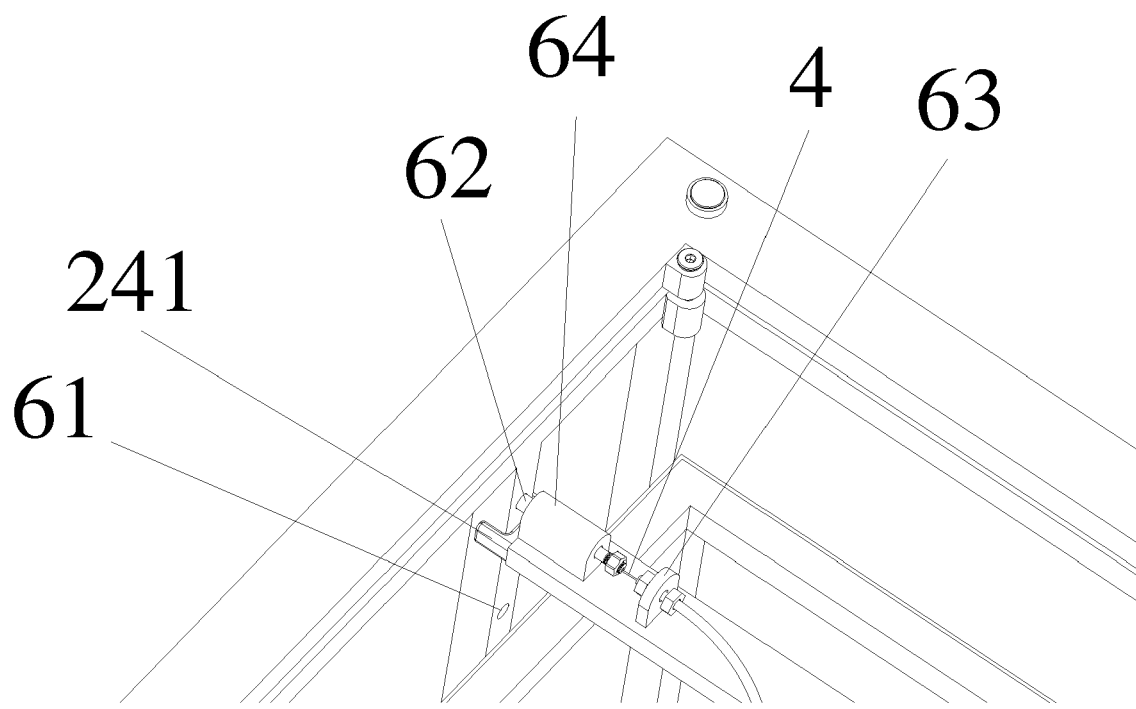


FIG. 2

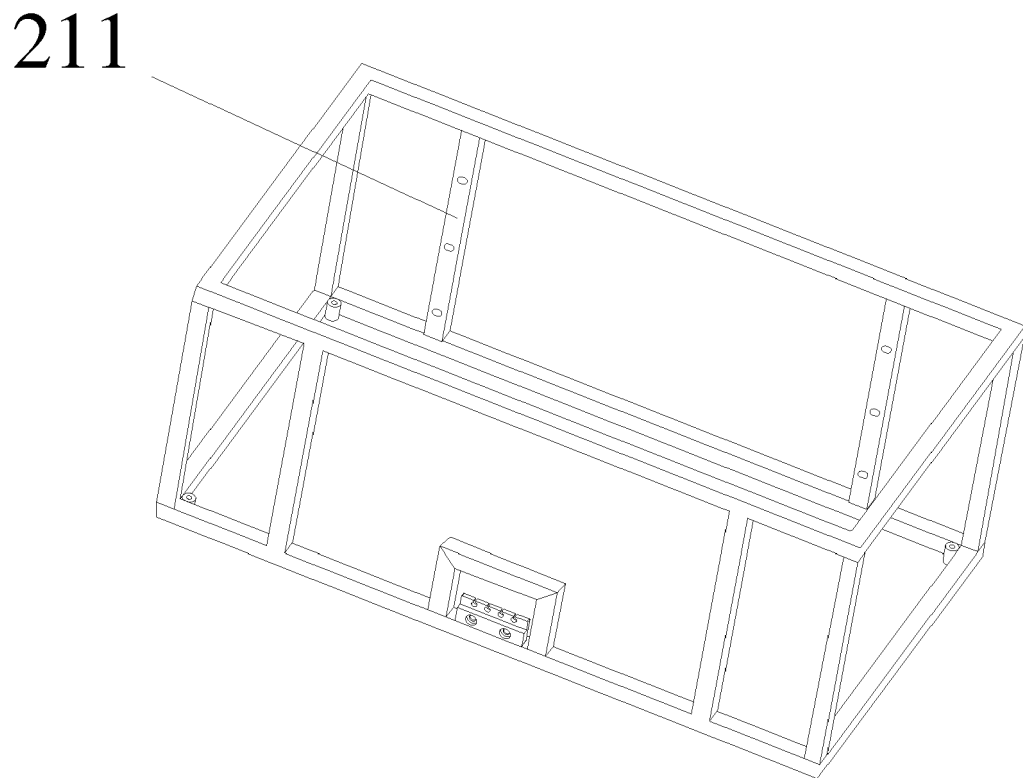


FIG. 3

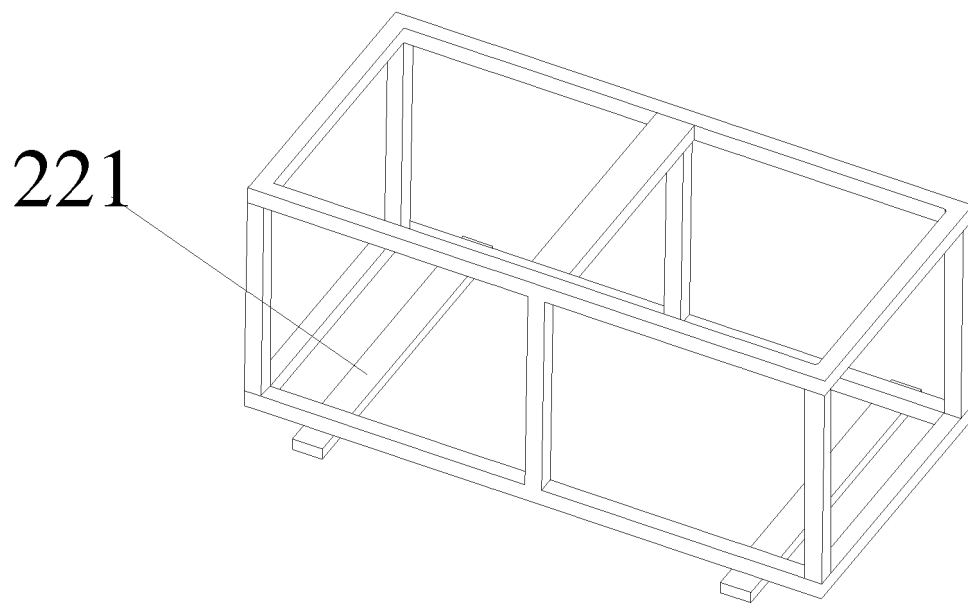


FIG. 4

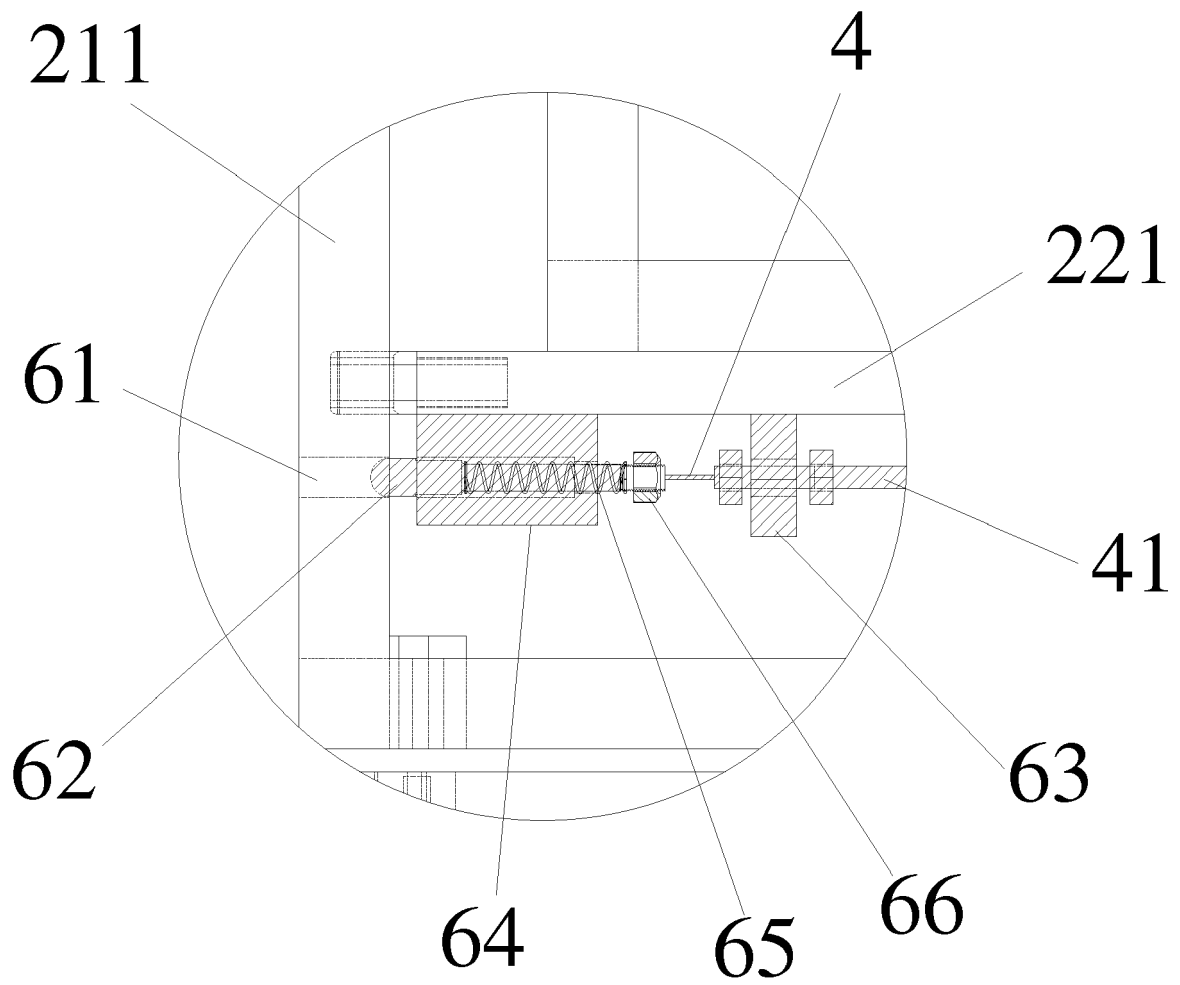


FIG. 5

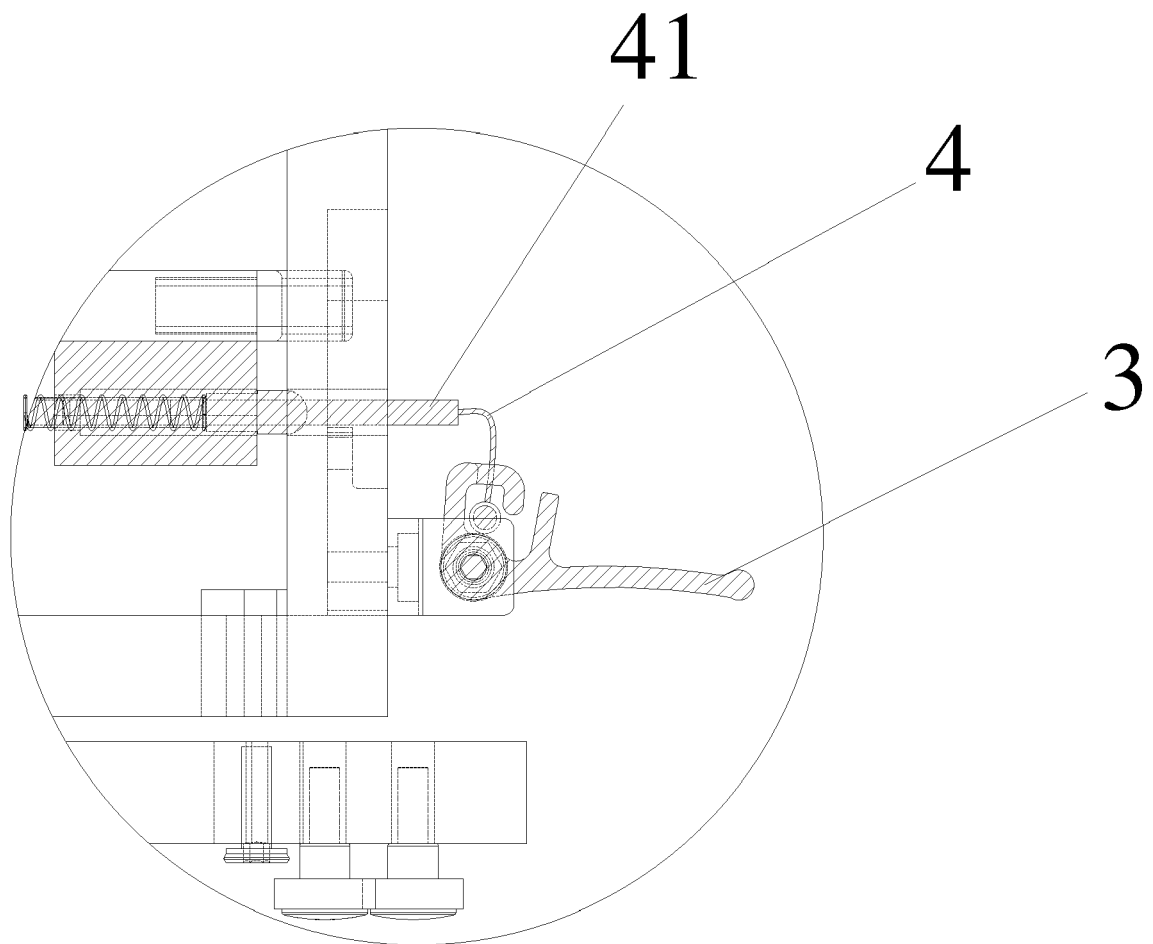


FIG. 6

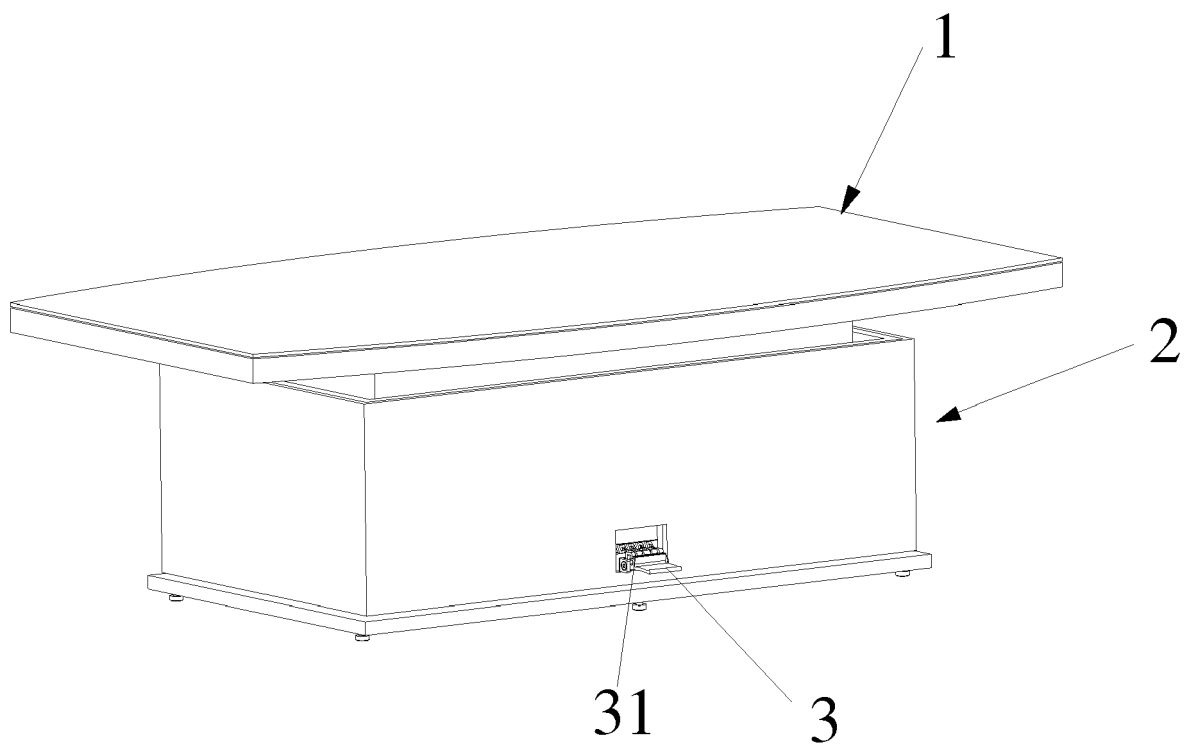


FIG. 7A

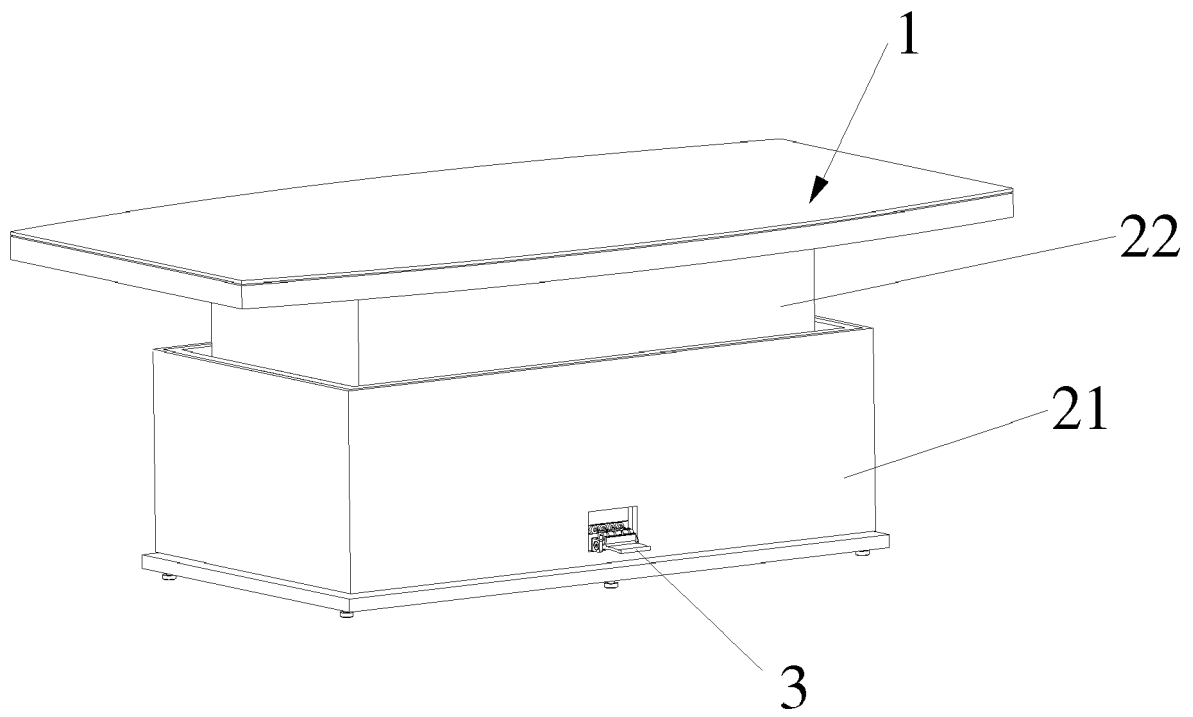


FIG. 7B

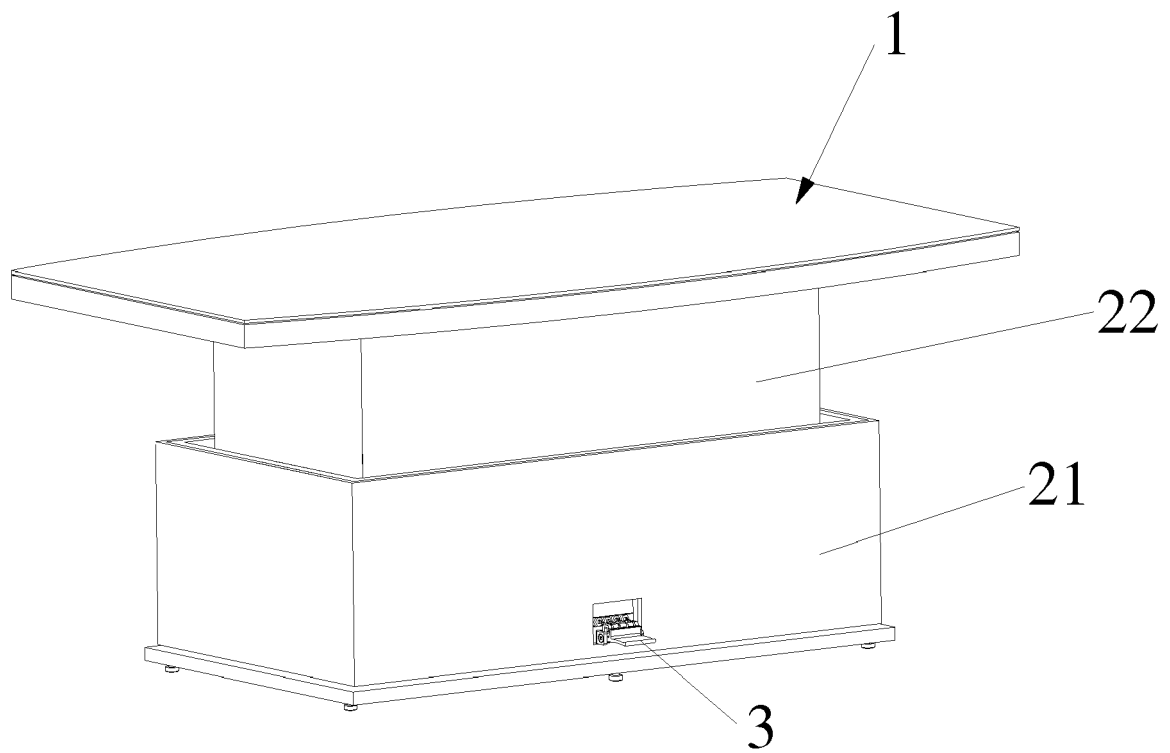


FIG. 7C

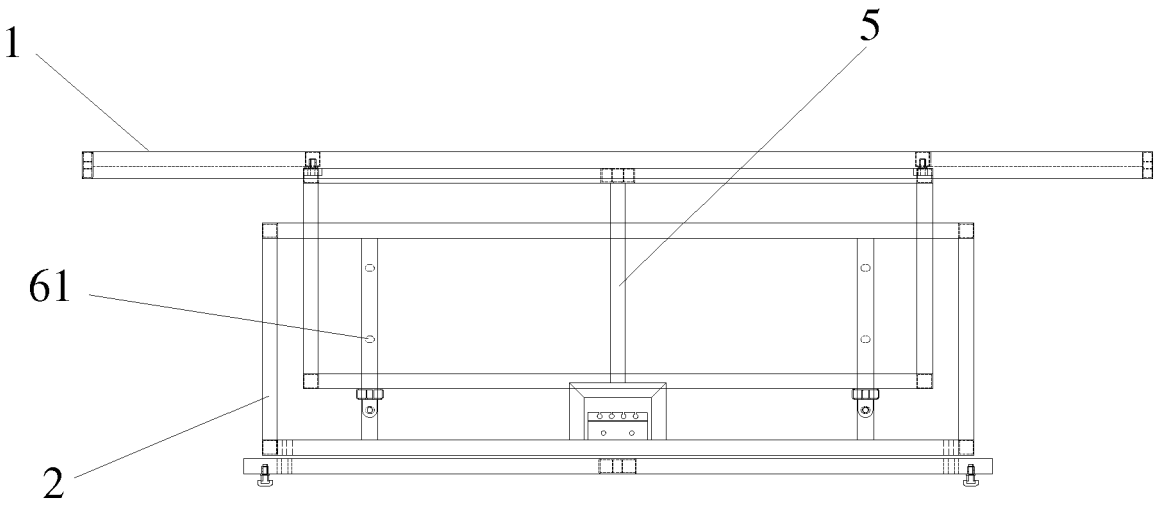


FIG. 8A

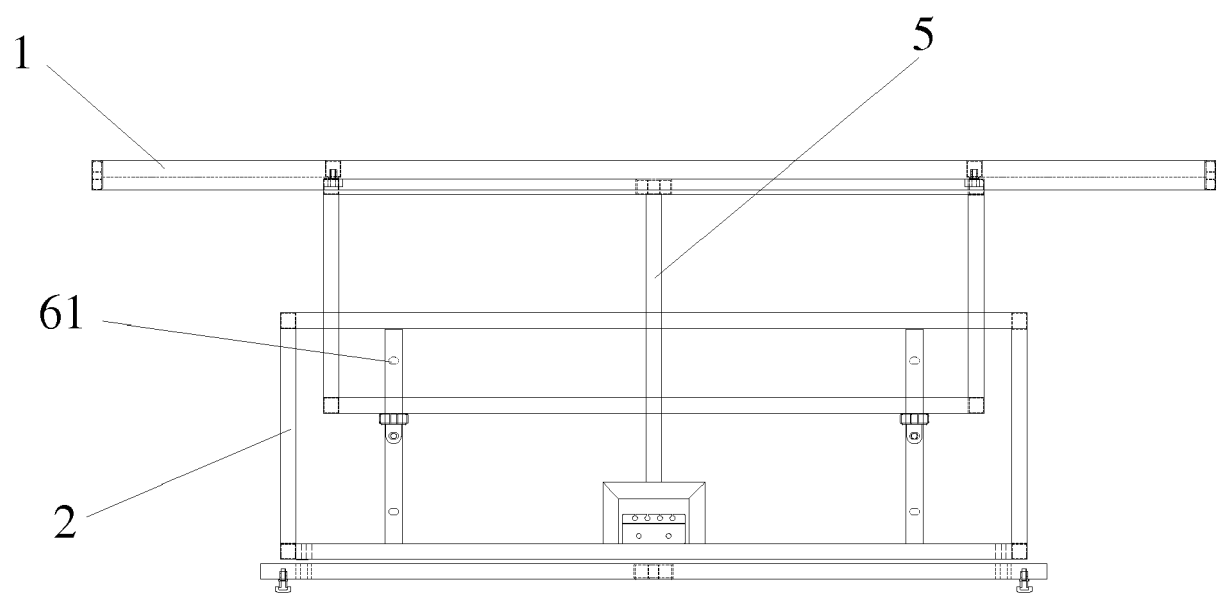


FIG. 8B

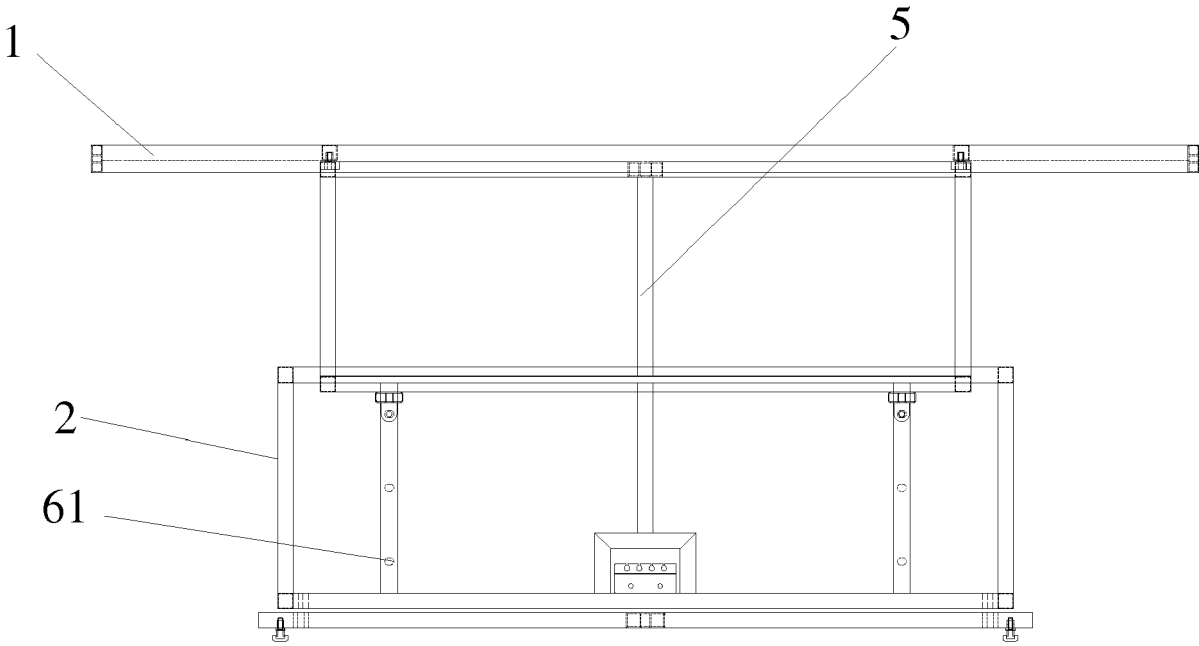


FIG. 8C



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Place of search The Hague		Date of completion of the search 19 July 2018	Examiner Kis, Pál
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