

(19)



(11)

EP 3 815 574 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:

19.01.2022 Bulletin 2022/03

(51) International Patent Classification (IPC):

A47B 1/06 ^(2006.01) **A47B 1/08** ^(2006.01)
A47B 1/10 ^(2006.01)

(21) Application number: **20193186.2**

(52) Cooperative Patent Classification (CPC):

A47B 1/06; A47B 1/08; A47B 1/10

(22) Date of filing: **27.08.2020**

(54) **EXTENDABLE TABLE**

AUSZIEHBARER TISCH

TABLE EXTENSIBLE

(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 MK MT NL NO
PL PT RO RS SE SI SK SM TR**

(30) Priority: **29.10.2019 CN 201911037587**

29.10.2019 CN 201921838621 U

(43) Date of publication of application:

05.05.2021 Bulletin 2021/18

(73) Proprietor: **Jiaxing Mindo Outdoor Products
Co.Ltd**

Jiaxing, Zhejiang 314000 (CN)

(72) Inventor: **Wang, Lei**

Jiaxing, Zhejiang 314000 (CN)

(74) Representative: **Westphal, Petra**

Einsel Attorney at Law und

Rechtsanwälte PartmbB

Große Bäckerstraße 3

20095 Hamburg (DE)

(56) References cited:

EP-A1- 1 177 747 EP-A1- 1 941 813

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

EP 3 815 574 B1

Description

Technical field

[0001] The present invention relates to furniture, in particular to an extendable table.

Background art

[0002] A conventional table has a fixed form after being manufactured, so cannot be extended or retracted, and has the disadvantages of taking up a large area and being difficult to move around, or being unable to extend when the table surface needs to be enlarged. To solve these problems, a table having the ability to extend and retract has appeared on the market.

[0003] The extendable table announced in CN 2011 75 090 Y has the following key technical features: it comprises a table frame and a table surface, the table frame comprising a frame body and frame legs, the frame body comprising left and right supports and a middle slide tube, the middle slide tube having two ends connected to the left and right supports respectively, with at least one end being moveably connected; the table surface comprises head and tail surface slats and multiple middle surface slats, the head and tail surface slats being fixed to two ends of the table frame respectively, and a soft linkage strap is connected between the head and tail surface slats, each middle surface slat being separately fixed to the soft linkage strap. The invention in question dispenses with an extension board, piecing together the head and tail surface slats and middle surface slats to form the table surface, with the head and tail surface slats being fixed to the table frame, and the middle surface slats being fixed to the soft linkage strap.

[0004] In EP 1 177 747 A1 is described a table with the features of the preamble of claim 1. The frame of said table consists of two guiding cross-members which comprise inner cross-members and outer supporting and guiding cross-members. Coupling rollers engaging in sliding tracks, defined on said cross members, are provided. The cross members support S-shape arms, which are mutually articulated. The arms are articulated, at their end portions, with further arms, opposite to one another and, at an intermediate position, they are articulated by a central peg, extending into a pin, engaged in a strip or stave which, adjoining further strips, provides the table-top construction. In particular, the mentioned arms, at their end portions, are articulated with side pins, so arranged as to practically provide a Nuremberg scissors coupling.

[0005] It has been found in the course of practical application that the technical solution described above carries the risk of the middle surface slats loosening due to the lack of any constraints on the middle surface slats; thus, there is a need to propose a new solution to solve this problem.

Summary of the invention

[0006] In response to the deficiencies in the prior art, an object of the present invention is to provide an extendable table which has a more stable structure overall, with each surface slat having a restricted degree of movement, effectively eliminating the risk of loosening thereof; the multiple surface slats are spaced more uniformly after being opened out, effectively improving the appearance.

[0007] The above mentioned technical object of the present invention is achieved through the following technical solution: an extendable table, comprising two table leg sets arranged opposite each other, and multiple surface slats disposed between the two table leg sets; the table leg set has an inverted U-shape overall, and comprises two table legs, and a crossbeam disposed between top ends of the two table legs; two extendable beams are provided between the two table leg sets, and an upper end face of the extendable beam is provided with a slide groove, the slide groove being provided with a chain structure; the chain structure comprises multiple sliders slidably mated with the slide groove, and a separation limiting plate disposed between adjacent sliders; each of the surface slats is fixed on top of two sliders corresponding to the two chain structures.

[0008] Through the adoption of the technical solution described above, the extendable table provided in the present invention is supported by the table leg sets, and the multiple surface slats form a horizontal table surface on which to place objects; each table leg set comprises two table legs, and the crossbeam is used to connect the top ends of the two table legs, such that the four table legs are connected in pairs; when extending and retracting the present invention, a force may be applied to two table legs at the same time for movement, thus making controlled extension and retraction convenient; the two extendable beams are disposed between the two table leg sets, thereby connecting the two table leg sets together without affecting a change in separation of the two table leg sets; the slide grooves are disposed in the upper end faces of the extendable beams, and the chain structures are disposed in the slide grooves, such that the chain structures restrict each surface slat, ensuring that the degree of movement of each surface slat is limited to sliding in the length direction of the extendable beams, effectively avoiding the risk of the surface slats loosening as compared with reference documents; the chain structures utilize the sliders to fix the surface slats and accomplish a sliding connection between the surface slats and the extendable beams; the separation limiting plates are disposed between adjacent sliders, thereby defining the maximum separation of two sliders, and achieving the technical effect of uniform separation of all of the surface slats after the extendable table has been extended; in summary, the extendable table provided in the present invention has a more stable structure overall, with each surface slat having a restricted degree of movement, effectively eliminating the risk of loosening thereof, and the

multiple surface slats have more uniform separation after being opened out, effectively improving the appearance.

[0009] The present invention according to claim 1 is further configured such that: one end of the separation limiting plate is provided with a fixing end head fixed to one end of the slider, the separation limiting plate is provided with a travel slot, the slider is provided with a travel post slidably mated with the travel slot, and a bottom end of the travel post is provided with an end cap head after passing through the travel slot.

[0010] Through the adoption of the technical solution described above, one slider of two adjacent sliders is slidably mated with the travel slot of the separation limiting plate between the two sliders by means of the travel post, while the other slider is connected in a fixed manner to the separation limiting plate between the two sliders by means of the fixing end head, thereby meeting the technical requirement that the separation limiting plate limits the separation of adjacent sliders, thus ensuring that all of the surface slats have uniform separation after the present invention has been opened out; it must be explained that the end cap head is provided on the bottom end of the travel post so that the separation limiting plate is held between the end cap head and a lower end face of the slider, thus increasing the stability of the sliding connection between the slider and the separation limiting plate.

[0011] The present invention is further configured such that: a bottom end of the table leg is provided with a foot pad.

[0012] Through the adoption of the technical solution described above, hardness and sharpness at the points of contact between the bottom ends of the table legs and the floor are reduced through the addition of the foot pads, effectively eliminating the risk of the table legs causing wear to the floor during extension and retraction of the present invention.

[0013] The present invention is further configured such that: an insertion member which mates with an end of the extendable beam by insertion-connection is fixed horizontally to the table leg set, and a fixing threaded hole is provided running through a lower wall of the extendable beam and extending into the insertion member.

[0014] Through the adoption of the technical solution described above, by providing the table leg sets with the insertion members which mate with the extendable beams by insertion-connection, the ends of the extendable beams are connected to the table leg sets in a fixed manner, and the fixing threaded holes are provided such that the strength of the connection between the extendable beams and the table leg sets can be reinforced by screwing in bolts.

[0015] The present invention is further configured such that: the extendable beam comprises an outside beam and an inside beam which are slidably connected to each other; a side face of the outside beam is provided with a pincer groove, and a side face of the inside beam is provided with a folded-over strip which is slidably inserted

in the pincer groove.

[0016] Through the adoption of the technical solution described above, the extendable beam is endowed with its extension/retraction ability through the sliding connection between the inside beam and outside beam; the outside beam is provided with the pincer groove for the folded-over strip of the inside beam to be inserted in, thereby ensuring the stability of the sliding connection of the outside beam and inside beam.

[0017] The present invention is further configured such that: a slide strip is provided at each of two sides of an opening end of the slide groove, and two sides of the slider are each provided with a U-shaped pincer groove; the U-shaped pincer groove slidably holds the slide strip in a sandwich configuration.

[0018] Through the adoption of the technical solution described above, the slide groove is provided with the slide strips to be slidably held in a sandwich configuration by the U-shaped pincer grooves of the slider, thereby achieving the technical effect of the slider being slidably connected to the opening end of the slide groove, such that there is ample space for accommodating the separation limiting plate between the slider and a bottom face of the slide groove.

[0019] The present invention is further configured such that: a catching slot is provided in the bottom face of the slide groove at an end close to the table leg set, and the slider close to the table leg set is provided with a catching post slidably mated with the catching slot.

[0020] Through the adoption of the technical solution described above, the catching post is caught at one end of the catching slot; thus, when the present invention is opened out, all of the surface slats can be forced to slide one by one by merely pulling one table leg set, making opening-out convenient.

[0021] The present invention is further configured such that: a first threaded hole is provided running through the travel post and slider and extending into the surface slat, and a second threaded hole is provided running through the fixing end head and slider and extending into the surface slat.

[0022] Through the adoption of the technical solution described above, the travel post, slider and surface slat can be assembled simultaneously by screwing a bolt into the first threaded hole, and the fixing end head, slider and surface slat can be assembled by screwing a bolt into the second threaded hole; in summary, the first threaded hole and second threaded hole facilitate assembly of the surface slat, travel post, slider and fixing end head.

[0023] The present invention is further configured such that: an upper end face of the slider is provided with a locating insertion post, and the surface slat is provided with a locating insertion hole for the locating insertion post to be inserted in.

[0024] Through the adoption of the technical solution described above, the surface slat is provided with the locating insertion hole for the locating insertion post of

the slider to be inserted in, thereby defining the relative positions of the surface slat and slider, and further increasing the convenience of assembly.

[0025] In summary, the present invention has the following beneficial effects: the extendable table provided in the present invention has a more stable structure overall, with each surface slat having a restricted degree of movement, effectively eliminating the risk of loosening thereof, and the multiple surface slats have more uniform separation after being opened out, effectively improving the appearance; hardness and sharpness at the points of contact between the bottom ends of the table legs and the floor are reduced through the addition of the foot pads, effectively eliminating the risk of the table legs causing wear to the floor during extension and retraction of the present invention; by providing the table leg sets with the insertion members which mate with the extendable beams by insertion-connection, the ends of the extendable beams are connected to the table leg sets in a fixed manner, and the fixing threaded holes are provided such that the strength of the connection between the extendable beams and the table leg sets can be reinforced by screwing in bolts; the outside beam is provided with the pincer groove for the folded-over strip of the inside beam to be inserted in, thereby ensuring the stability of the sliding connection of the outside beam and inside beam; the slider is slidably connected to the opening end of the slide groove, such that there is ample space for accommodating the separation limiting plate between the slider and a bottom face of the slide groove; the catching post is caught at one end of the catching slot, such that when the present invention is opened out, all of the surface slats can be forced to slide one by one by merely pulling one table leg set, making opening-out convenient; the end cap head is provided on the bottom end of the travel post so that the separation limiting plate is held between the end cap head and a lower end face of the slider, thus increasing the stability of the sliding connection between the slider and the separation limiting plate; the first threaded hole and second threaded hole facilitate assembly of the surface slat, travel post, slider and fixing end head; the surface slat is provided with the locating insertion hole for the locating insertion post of the slider to be inserted in, thereby defining the relative positions of the surface slat and slider, and further increasing the convenience of assembly.

Brief description of the drawings

[0026]

Fig. 1 is a schematic drawing of the overall structure of the present invention in an extended state.

Fig. 2 is a schematic diagram of the overall mechanism of the present invention in a retracted state, wherein the angle of view mainly shows the bottom structure.

Fig. 3 is a structural schematic drawing of the present invention with some of the surface slats removed.

Fig. 4 is an enlarged schematic drawing of part A in Fig. 3, mainly showing the mating relationship between the chain structure and the extendable beam.

Fig. 5 is a structural schematic drawing of the table leg set of the present invention.

Fig. 6 is a drawing showing the mating relationship between the extendable beam and the chain structure in the present invention.

Fig. 7 is a schematic end-face drawing of Fig. 6.

Fig. 8 is a structural schematic drawing of Fig. 6 after removing a slider and separation limiting plate thereof, wherein truncation has been performed to make the drawing easier to display.

Fig. 9 is a structural schematic drawing of the chain structure of the present invention, wherein truncation has been performed to make the drawing easier to display.

Fig. 10 is a sectional view of the chain structure of the present invention after being fitted to the surface slats.

Detailed description of the invention

[0027] The present invention is explained in further detail below in conjunction with the drawings.

[0028] An extendable table, as shown in Figs. 1, 2, 3 and 4, comprises two table leg sets 1 arranged opposite each other, and multiple surface slats 2 disposed between the two table leg sets 1; each table leg set 1 has an inverted U-shape overall, and comprises two table legs 11, and a crossbeam 12 fixed by welding between top ends of the two table legs 11; two extendable beams 13 are provided between the two table leg sets 1, and an upper end face of each extendable beam 13 has a slide groove 14 integrally formed therein, the slide groove 14 being provided with a chain structure 21; the chain structure 21 comprises multiple sliders 22 slidably mated with the slide groove 14, and separation limiting plates 23 disposed between adjacent sliders 22; each surface slat 2 is fixed on top of two sliders 22 corresponding to the two chain structures 21.

[0029] The extendable table provided in the present invention is supported by the table leg sets 1, and the multiple surface slats 2 form a horizontal table surface on which to place objects; each table leg set 1 comprises two table legs 11, and the crossbeam 12 is used to connect the top ends of the two table legs 11, such that the four table legs 11 are connected in pairs; when extending and retracting the present invention, a force may be ap-

plied to two table legs 11 at the same time to force them to move, thus making controlled extension and retraction convenient; the two extendable beams 13 are disposed between the two table leg sets 1, thereby connecting the two table leg sets 1 together without affecting a change in separation of the two table leg sets 1; the slide grooves 14 are disposed in the upper end faces of the extendable beams 13, and the chain structures 21 are disposed in the slide grooves 14, such that the chain structures 21 restrict each surface slat 2, ensuring that the degree of movement of each surface slat 2 is limited to sliding in the length direction of the extendable beams 13, effectively avoiding the risk of the surface slats 2 loosening as compared with reference documents; the chain structures 21 utilize the sliders 22 to fix the surface slats 2 and accomplish a sliding connection between the surface slats 2 and the extendable beams 13; the separation limiting plates 23 are disposed between adjacent sliders 22, thereby defining the maximum separation of two adjacent sliders 22, and achieving the technical effect of uniform separation of all of the surface slats 2 after the extendable table has been extended; in summary, the extendable table provided in the present invention has a more stable structure overall, with each surface slat 2 having a restricted degree of movement, effectively eliminating the risk of loosening thereof, and the multiple surface slats 2 have more uniform separation after being opened out, effectively improving the appearance.

[0030] The overall structure of the present invention employs an aluminum alloy material, and bottom ends of the table legs 11 will inevitably rub against the floor during extension and retraction; to avoid consequent wear to the floor, foot pads 15 are connected by insertion and fixed by gluing to the bottom ends of the table legs 11 as shown in Fig. 5; the foot pads 15 may be made of rubber or resin, such that hardness and sharpness at the points of contact between the bottom ends of the table legs 11 and the floor are reduced by means of the foot pads 15, effectively eliminating the risk of the table legs 11 causing wear to the floor during extension and retraction of the present invention.

[0031] The extendable beams 13 are fixed to the table leg sets 1 in the following manner: as shown in Figs. 5 and 6, insertion members 16 which mate with ends of the extendable beams 13 by insertion-connection are fixed horizontally to the table leg sets 1, and fixing threaded holes 17 are provided running through lower walls of the extendable beams 13 and extending into the insertion members 16; by providing the table leg sets 1 with the insertion members 16 which mate with the extendable beams 13 by insertion-connection, the ends of the extendable beams 13 are connected to the table leg sets 1 in a fixed manner, and the fixing threaded holes 17 are provided such that the strength of the connection between the extendable beams 13 and the table leg sets 1 can be reinforced by screwing in bolts.

[0032] The extendable beam 13 has the following specific structure: as shown in Figs. 6 and 7, the extendable

beam 13 comprises an outside beam 131 and an inside beam 132 which are slidably connected to each other, and the extendable beam 13 is endowed with its extension/retraction ability through the sliding connection between the inside beam 132 and outside beam 131; the outside beam 131 and inside beam 132 are slidably connected in the following manner: a side face of the outside beam 131 has a pincer groove 133 integrally formed therein, and a side face of the inside beam 132 has folded-over strips 134 integrally formed therein which are slidably inserted in the pincer groove 133, thereby ensuring the stability of the sliding connection of the outside beam 131 and inside beam 132.

[0033] The slider 22 is slidably connected to the slide groove 14 in the following manner: as shown in Figs. 6 and 7, a slide strip 141 is integrally formed at each of two sides of an opening end of the slide groove 14, and two sides of the slider 22 are each machined to have a U-shaped pincer groove 24, wherein the U-shaped pincer groove 24 slidably holds the slide strip 141 in a sandwich configuration; the slide groove 14 is provided with the slide strips 141 to be slidably held in a sandwich configuration by the U-shaped pincer grooves 24 of the slider 22, thereby achieving the technical effect of the slider 22 being slidably connected to the opening end of the slide groove 14, such that there is ample space for accommodating the separation limiting plate 23 between the slider 22 and a bottom face of the slide groove 14.

[0034] To make it easier to open out the present invention, as shown in Figs. 6, 7 and 8, a catching slot 25 is provided in the bottom face of the slide groove 14 at an end close to the table leg set 1 (marked in Fig. 5), and a catching post 26 slidably mated with the catching slot 25 is fixed by insertion-connection to the slider 22 close to the table leg set 1, such that the catching post 26 is caught at one end of the catching slot 25; thus, when the present invention is opened out, all of the surface slats 2 can be forced to slide one by one by merely pulling one table leg set 1, making opening-out convenient.

[0035] The way in which the separation limiting plates 23 are mated with the sliders 22 is specifically as follows: as shown in Figs. 8 and 9, one end of the separation limiting plate 23 is provided with a fixing end head 231 fixed to one end of the slider 22, the separation limiting plate 23 is machined to have a travel slot 232, the slider 22 is provided with a travel post 233 slidably mated with the travel slot 232, and a bottom end of the travel post 233 is machined to have an end cap head 234 after passing through the travel slot 232; one slider 22 of two adjacent sliders 22 is slidably mated with the travel slot 232 of the separation limiting plate 23 between the two sliders by means of the travel post 233, while the other slider 22 is connected in a fixed manner to the separation limiting plate 23 between the two sliders by means of the fixing end head 231, thereby meeting the technical requirement that the separation limiting plate 23 limits the separation of adjacent sliders 22, thus ensuring that all of the surface slats 2 have uniform separation after the present inven-

tion has been opened out; it must be explained that the end cap head 234 is provided on the bottom end of the travel post 233 so that the separation limiting plate 23 is held between the end cap head 234 and a lower end face of the slider 22, thus increasing the stability of the sliding connection between the slider 22 and the separation limiting plate 23.

[0036] To facilitate assembly of the surface slat 2, travel post 233, slider 22 and fixing end head 231, as shown in Figs. 9 and 10, a first threaded hole 235 is provided running through the travel post 233 and slider 22 and extending into the surface slat 2, and a second threaded hole 236 is provided running through the fixing end head 231 and slider 22 and extending into the surface slat 2, such that the travel post 233, slider 22 and surface slat 2 can be assembled simultaneously by screwing a bolt into the first threaded hole 235, and the fixing end head 231, slider 22 and surface slat 2 can be assembled by screwing a bolt into the second threaded hole 236, thus achieving the technical effect of more convenient assembly.

[0037] It must be explained that as shown in Figs. 9 and 10, a locating insertion post 221 is fixed by welding to an upper end face of the slider 22, and the surface slat 2 is provided with a locating insertion hole 222 for the locating insertion post 221 to be inserted in, thereby defining the relative positions of the surface slat 2 and slider 22, and further increasing the convenience of assembly.

[0038] The particular embodiment merely explains the present invention, without limiting it. Those skilled in the art could, after reading this specification, make non-creative amendments to this embodiment as required, but all such amendments will be protected by the Patent Law as long as they fall within the scope of the claims of the present invention.

Reference numeral list

[0039]

1	table leg set
11	table leg
12	crossbeam
13	extendable beam
131	outside beam
132	inside beam
133	pincer groove
134	folded out strip
14	slide groove
141	slide strip
15	foot pad
16	insertion member
17	fixing threaded hole
2	surface slat
21	chain structure
22	slider
221	locating insertion post
222	locating insertion hole

23	separation limiting plate
231	fixing end head
232	travel slot
233	travel post
5 234	end cap head
235	first threaded hole
236	second threaded hole
24	U-shaped pincer groove
25	catching slot
10 26	catching post

Claims

- 15 1. Extendable table, comprising two table leg sets (1) arranged opposite each other, and multiple surface slats (2) disposed between the two table leg sets (1), the table leg set (1) has an inverted U-shape overall, and comprises two table legs (11), and a crossbeam (12) disposed between top ends of the two table legs (11); two extendable beams (13) are provided between the two table leg sets (1), and an upper end face of the extendable beam (13) is provided with a slide groove (14), **characterized in that:**
 - 25 a chain structure (21) is disposed in the slide groove (14),
 - the chain structure (21) comprises multiple sliders (22) slidably mated with the slide groove (14), and a separation limiting plate (23) disposed between adjacent sliders (22); one end of the separation limiting plate (23) is provided with a fixing end head (231) fixed to one end of the slider (22), the separation limiting plate (23) is provided with a travel slot (232), the slider (22) is provided with a travel post (233) slidably mated with the travel slot (232), and a bottom end of the travel post (233) is provided with an end cap head (234) after passing through the travel slot (232),
 - 30 each of the surface slats (2) is fixed on top of two sliders (22) corresponding to the two chain structures (21).
- 35 2. Extendable table according to Claim 1, **characterized in that** a bottom end of the table leg (11) is provided with a foot pad (15).
- 40 3. Extendable table according to Claim 1, **characterized in that** an insertion member (16) which mates with an end of the extendable beam (13) by insertion-connection is fixed horizontally to the table leg set (1), and a fixing threaded hole (17) is provided running through a lower wall of the extendable beam (13) and extending into the insertion member (16).
- 45 4. Extendable table according to Claim 1, **characterized in that** the extendable beam (13) comprises an

outside beam (131) and an inside beam (132) which are slidably connected to each other; a side face of the outside beam (131) is provided with a pincer groove (133), and a side face of the inside beam (132) is provided with a folded-over strip (134) which is slidably inserted in the pincer groove (133).

5. Extendable table according to Claim 1, **characterized in that** a slide strip (141) is provided at each of two sides of an opening end of the slide groove (14), and two sides of the slider (22) are each provided with a U-shaped pincer groove (24); the U-shaped pincer groove (24) slidably holds the slide strip (141) in a sandwich configuration.
6. Extendable table according to Claim 1, **characterized in that** a catching slot (25) is provided in the bottom face of the slide groove (14) at an end close to the table leg set (1), and the slider (22) close to the table leg set (1) is provided with a catching post (26) slidably mated with the catching slot (25).
7. Extendable table according to Claim 1, **characterized in that** a first threaded hole (235) is provided running through the travel post (233) and slider (22) and extending into the surface slat (2), and a second threaded hole (236) is provided running through the fixing end head (231) and slider (22) and extending into the surface slat (2).
8. Extendable table according to Claim 7, **characterized in that** an upper end face of the slider (22) is provided with a locating insertion post (221), and the surface slat (2) is provided with a locating insertion hole (222) for the locating insertion post (221) to be inserted in.

Patentansprüche

1. Ausziehbarer Tisch, umfassend zwei Tischbeinsätze (1), die einander gegenüber angeordnet sind, und mehrere Oberflächenleisten (2), die zwischen den beiden Tischbeinsätzen (1) angeordnet sind, wobei der Tischbeinsatz (1) insgesamt umgekehrt U-förmig ist und zwei Tischbeine (11) und einen Querbalken (12) umfasst, der zwischen oberen Enden der beiden Tischbeine (11) angeordnet ist, wobei zwei ausziehbare Balken (13) zwischen den beiden Tischbeinsätzen (1) vorgesehen sind und eine obere Endfläche des ausziehbaren Balkens (13) mit einer Gleitnut (14) versehen ist,

dadurch gekennzeichnet, dass

ein Kettenstruktur (21) in der Gleitnut (14) angeordnet ist, die Kettenstruktur (21) mehrere Gleitbacken (22), die gleitend mit der Gleitnut (14) gekoppelt

sind, und eine Trennungsbegrenzungsplatte (23) umfasst, die zwischen benachbarten Gleitbacken (22) angeordnet ist, ein Ende der Trennungsbegrenzungsplatte (23) mit einem Befestigungsendekopf (231) versehen ist, der an einem Ende der Gleitbacke (22) befestigt ist, die Trennungsbegrenzungsplatte (23) mit einem Bewegungsschlitz (232) versehen ist, die Gleitbacke (22) mit einem Bewegungspfoften (233) versehen ist, der verschiebbar mit dem Bewegungsschlitz (232) gekoppelt ist, und ein unteres Ende des Bewegungspfoften (233) nach dem Durchlaufen des Bewegungsschlitzes (232) mit einem Endkappenkopf (234) versehen ist, jede der Oberflächenleisten (2) auf der Oberseite von zwei Gleitbacken (22) befestigt ist, die den beiden Kettenstrukturen (21) entsprechen.

2. Ausziehbarer Tisch nach Anspruch 1, **dadurch gekennzeichnet, dass** ein unteres Ende des Tischbeins (11) mit einem Fußpolster (15) versehen ist.
3. Ausziehbarer Tisch nach Anspruch 1, **dadurch gekennzeichnet, dass** ein Einführglied (16), das mittels einer Einführverbindung mit einem Ende des ausziehbaren Balkens (13) koppelt, horizontal an dem Tischbeinsatz (1) befestigt ist und ein Befestigungsgewindeloch (17) vorgesehen ist, das durch eine untere Wand des ausziehbaren Balkens (13) verläuft und sich in das Einführglied (16) erstreckt.
4. Ausziehbarer Tisch nach Anspruch 1, **dadurch gekennzeichnet, dass** der ausziehbare Balken (13) einen Außenbalken (131) und einen Innenbalken (132) umfasst, die verschiebbar miteinander verbunden sind, eine Seitenfläche des Außenbalkens (131) mit einer Kneifnut (133) versehen ist und eine Seitenfläche des Innenbalkens (132) mit einer umgeknickten Leiste (134) versehen ist, die verschiebbar in der Kneifnut (133) eingeführt ist.
5. Ausziehbarer Tisch nach Anspruch 1, **dadurch gekennzeichnet, dass** eine Gleitleiste (141) an jeder von zwei Seiten eines Öffnungsendes der Gleitnut (14) vorgesehen ist und zwei Seiten der Gleitbacke (22) jeweils mit einer U-förmigen Kneifnut (24) versehen sind und die U-förmige Kneifnut (24) die Gleitleiste (141) verschiebbar in einer Sandwich-Konfiguration hält.
6. Ausziehbarer Tisch nach Anspruch 1, **dadurch gekennzeichnet, dass** ein Fangschlitz (25) in der unteren Fläche der Gleitnut (14) an einem Ende in der Nähe des Tischbeinsatzes (1) vorgesehen ist und die Gleitbacke (22) in der Nähe des Tischbeinsatzes (1) mit einem Fangpfoften (26) versehen ist, der verschiebbar mit dem Fangschlitz (25) gekoppelt ist.

7. Ausziehbarer Tisch nach Anspruch 1, **dadurch gekennzeichnet, dass** ein erstes Gewindeloch (235) vorgesehen ist, das durch den Bewegungspfofen (233) und die Gleitbacke (22) verluft und sich in die Oberflchenleiste (2) erstreckt, und ein zweites Gewindeloch (236) vorgesehen ist, das durch den Befestigungsendkopf (231) und die Gleitbacke (22) verluft und sich in die Oberflchenleiste (2) erstreckt.
8. Ausziehbarer Tisch nach Anspruch 7, **dadurch gekennzeichnet, dass** eine obere Endflche der Gleitbacke (22) mit einem Anordnungseinfuhrpfosten (221) versehen ist und die Oberflchenleiste (2) mit einem Anordnungseinfuhrloch (222) versehen ist, in das der Anordnungseinfuhrpfosten (221) einzufuhren ist.

Revendications

1. Table extensible, comprenant deux ensembles pied de table (1) disposs  l'oppos l'un de l'autre, et de multiples lames de surface (2) disposes entre les deux ensembles pied de table (1), l'ensemble pied de table (1) ayant une forme gnrale en U invers, et comprenant deux pieds de table (11), et une traverse (12) dispose entre les extrmits suprieures des deux pieds de table (11) ;

deux poutres extensibles (13) sont disposes entre les deux ensembles pied de table (1), et une face d'extrmit suprieure de la poutre extensible (13) est pourvue d'une rainure de glissement (14),

caractrise en ce que :

une structure de chane (21) est dispose dans la rainure de glissement (14), la structure de chane (21) comprend plusieurs coulisseaux (22) accoupls de manire coulissante avec la rainure de glissement (14), et une plaque de limitation de sparation (23) dispose entre des coulisseaux (22) adjacents ; une extrmit de la plaque de limitation de sparation (23) est pourvue d'une tte d'extrmit de fixation (231) fixe  une extrmit du coulisseau (22), la plaque de limitation de sparation (23) est pourvue d'une fente de dplacement (232), le coulisseau (22) est pourvu d'un montant de dplacement (233) accoupl de manire coulissante avec la fente de dplacement (232), et une extrmit infrieure du montant de dplacement (233) est pourvue d'une tte de capuchon d'extrmit (234) aprs avoir travers la fente de dplacement (232), chacune des lames de surface (2) est fixe

sur le dessus de deux coulisseaux (22) correspondant aux deux structures de chane (21).

2. Table extensible selon la revendication 1, **caractrise en ce qu'**une extrmit infrieure du pied de table (11) est pourvue d'un patin (15).
3. Table extensible selon la revendication 1, **caractrise en ce qu'**un lment d'insertion (16) qui s'adapte  une extrmit de la poutre extensible (13) par insertion-liaison est fix horizontalement  l'ensemble pied de table (1), et un trou filet de fixation (17) est fourni traversant une paroi infrieure de la poutre extensible (13) et s'tendant dans l'lment d'insertion (16) .
4. Table extensible selon la revendication 1, **caractrise en ce que** la poutre extensible (13) comprend une poutre extrieure (131) et une poutre intrieure (132) qui sont relies de manire coulissante l'une  l'autre ; une face latrale de la poutre extrieure (131) est pourvue d'une rainure en pince (133), et une face latrale de la poutre intrieure (132) est pourvue d'une bande replie (134) qui est insre de manire coulissante dans la rainure en pince (133).
5. Table extensible selon la revendication 1, **caractrise en ce qu'**une bande de glissement (141) est fournie au niveau de chacun des deux cts d'une extrmit d'ouverture de la rainure de glissement (14), et deux cts du coulisseau (22) sont chacun pourvus d'une rainure en pince en forme de U (24) ; la rainure en pince en forme de U (24) maintenant de manire coulissante la bande de glissement (141) dans une configuration en sandwich.
6. Table extensible selon la revendication 1, **caractrise en ce qu'**une fente d'accrochage (25) est fournie dans la face infrieure de la rainure de glissement (14) au niveau d'une extrmit proche de l'ensemble pied de table (1), et le coulisseau (22) proche de l'ensemble pied de table (1) est pourvu d'un montant d'accrochage (26) accoupl de manire coulissante  la fente d'accrochage (25).
7. Table extensible selon la revendication 1, **caractrise en ce qu'**il est fourni un premier trou filet (235) est fourni traversant le montant de dplacement (233) et le coulisseau (22) et s'tendant dans la lame de surface (2), et un second trou filet (236) est fourni traversant la tte d'extrmit de fixation (231) et le coulisseau (22) et s'tendant dans la lame de surface (2).
8. Table extensible selon la revendication 7, **caractrise en ce qu'**une face d'extrmit suprieure du

coulisseau (22) est pourvue d'un montant d'insertion de positionnement (221), et la lame de surface (2) est pourvue d'un trou d'insertion de positionnement (222) pour que le montant d'insertion de positionnement (221) y soit inséré.

5

10

15

20

25

30

35

40

45

50

55

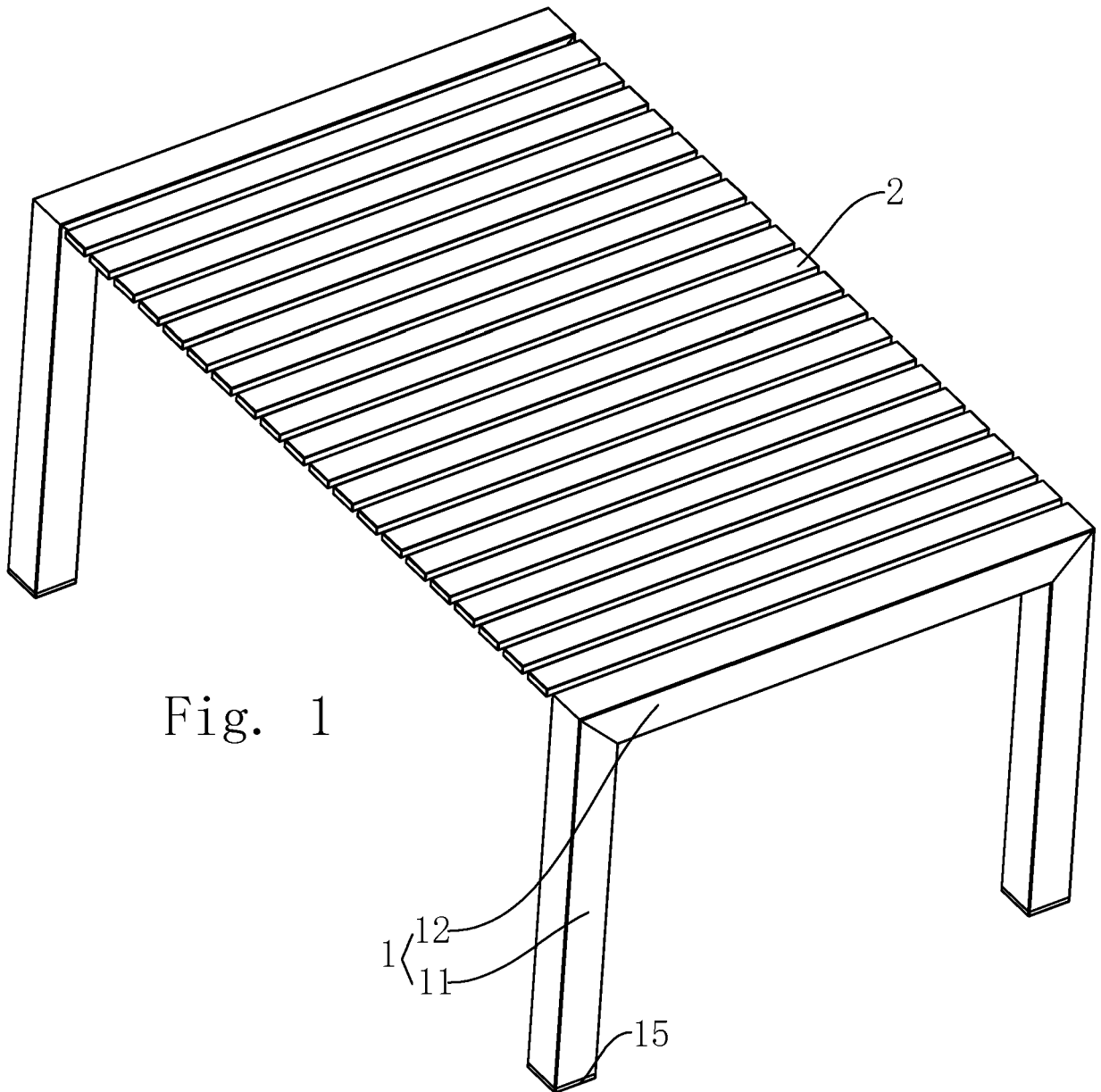


Fig. 1

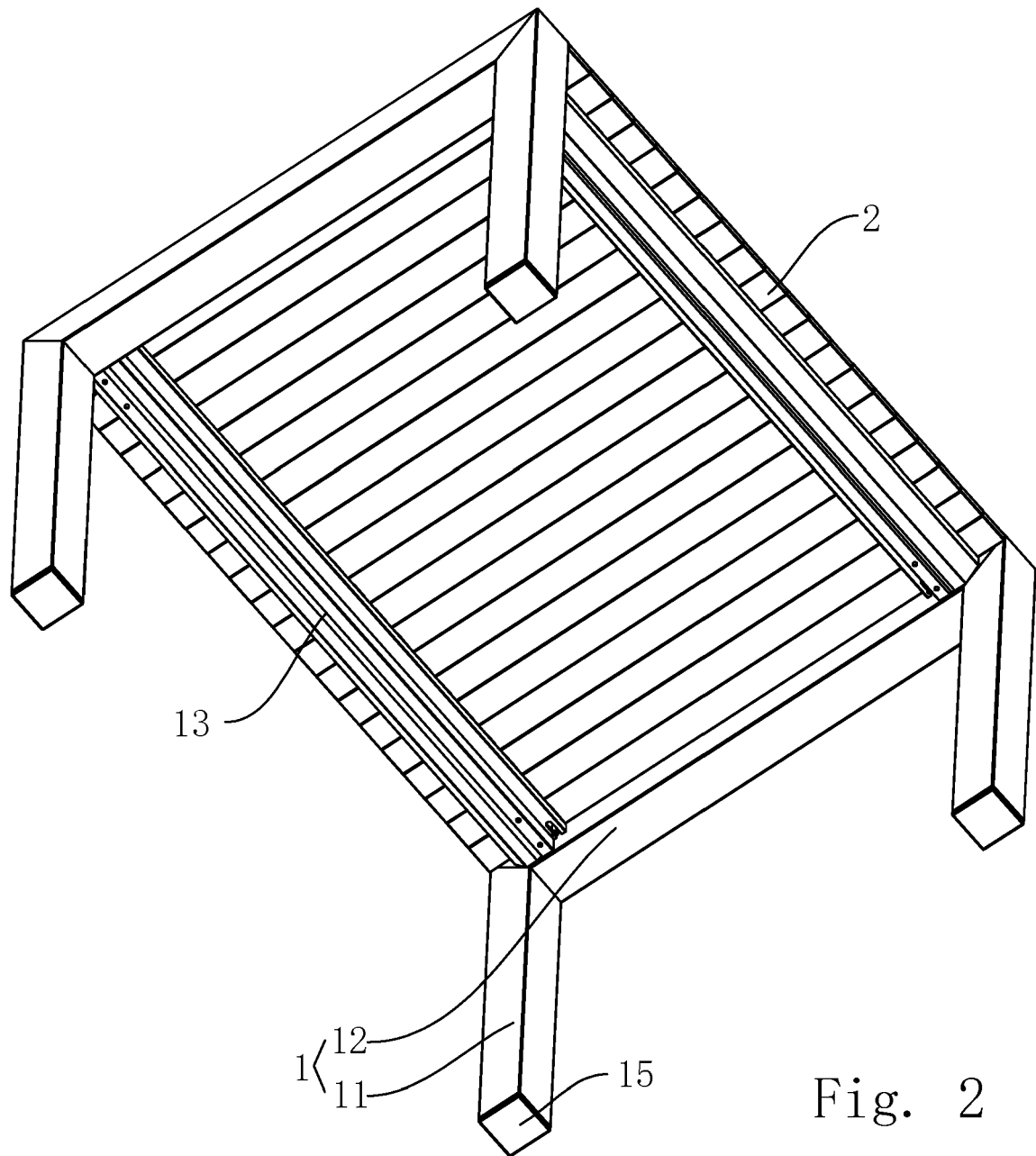


Fig. 2

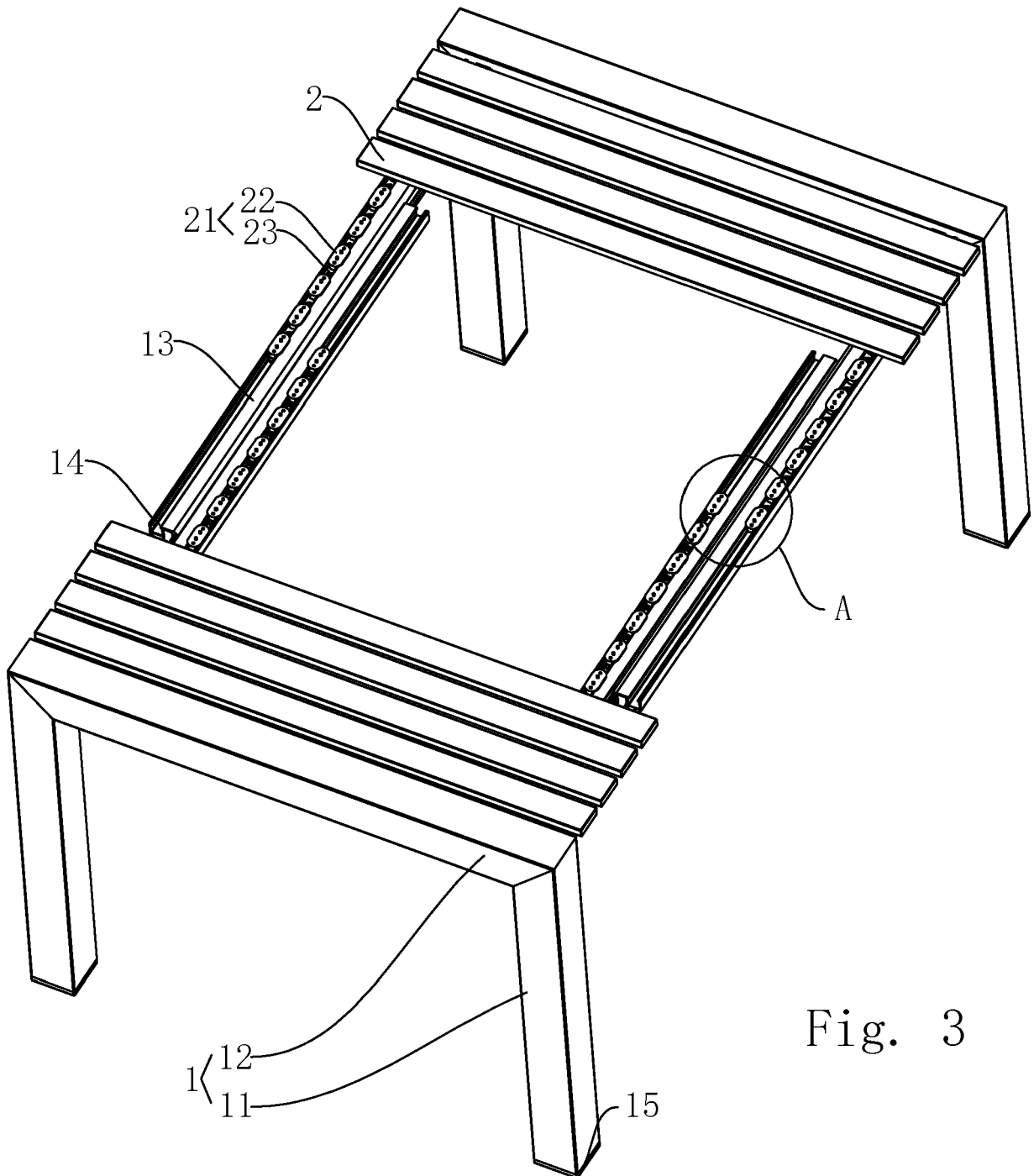


Fig. 3

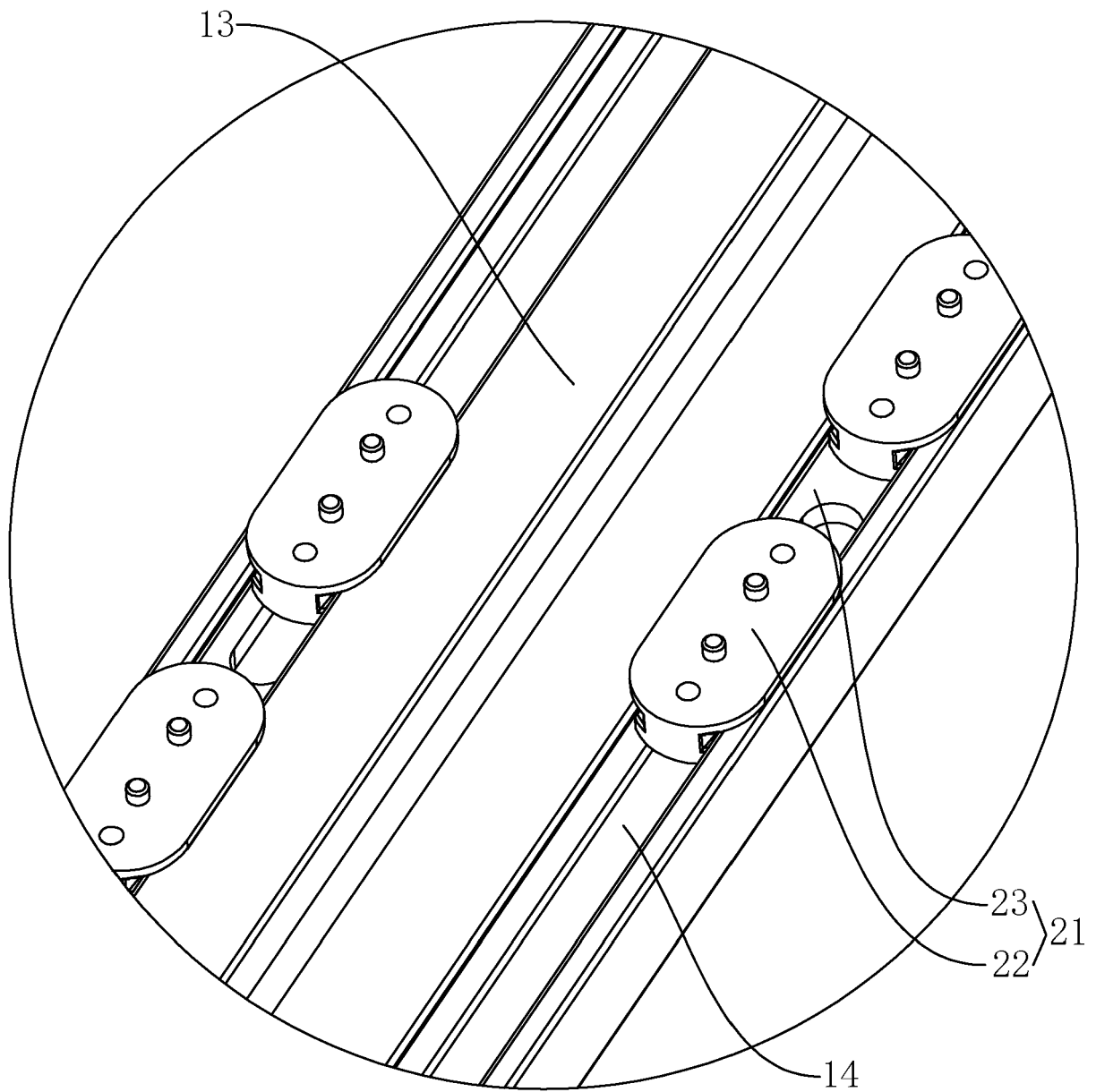


Fig. 4

Fig. 5

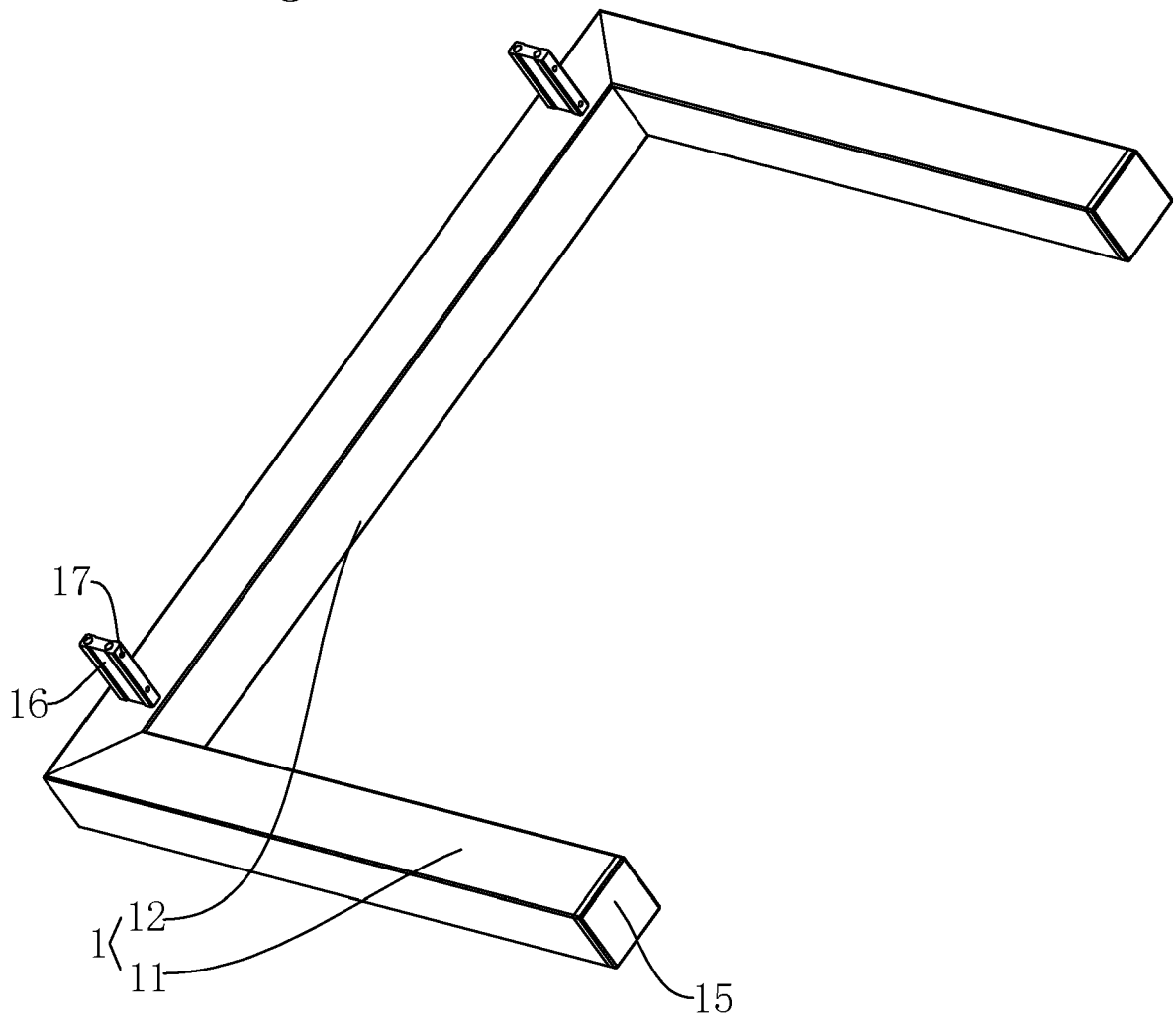
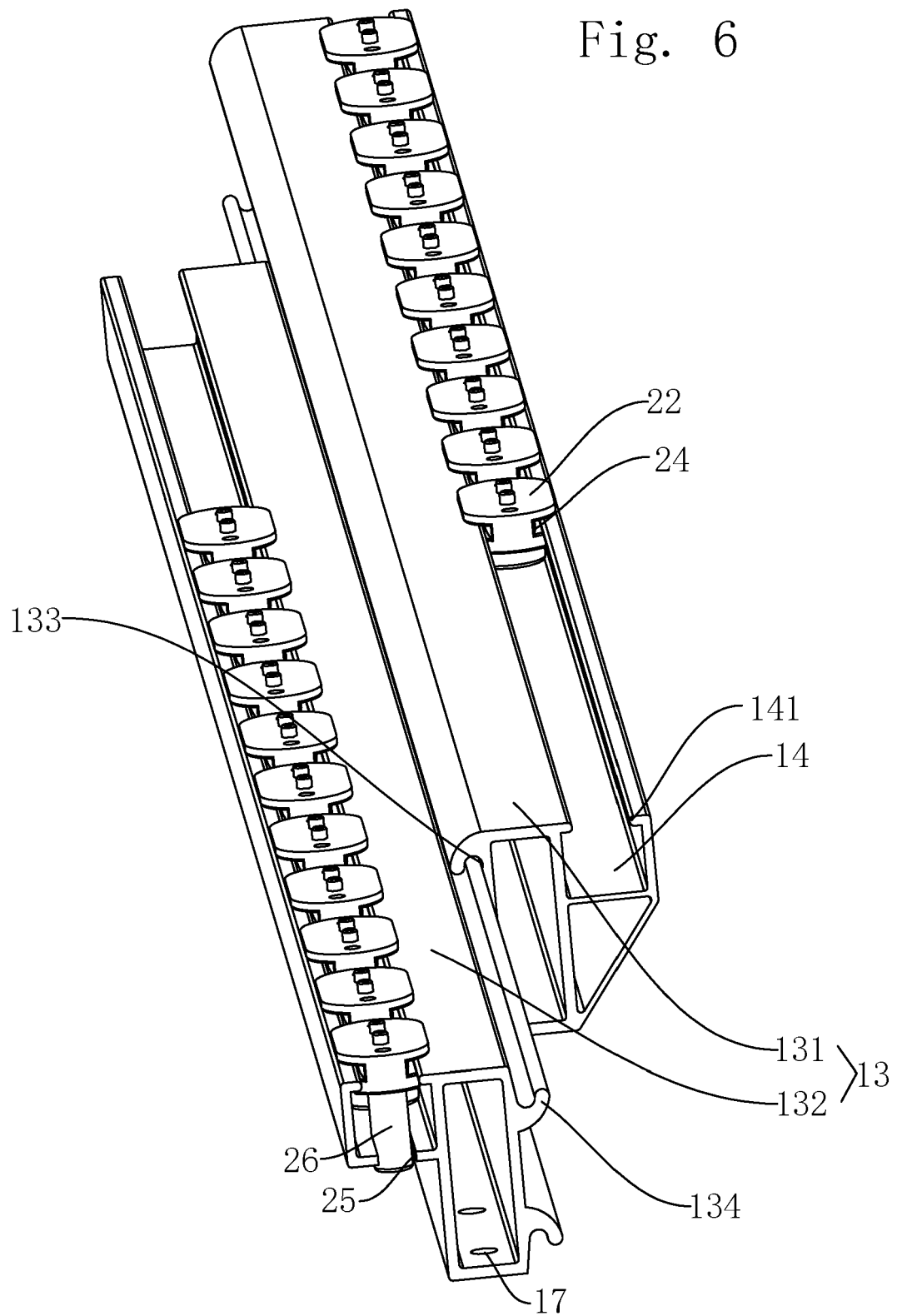


Fig. 6



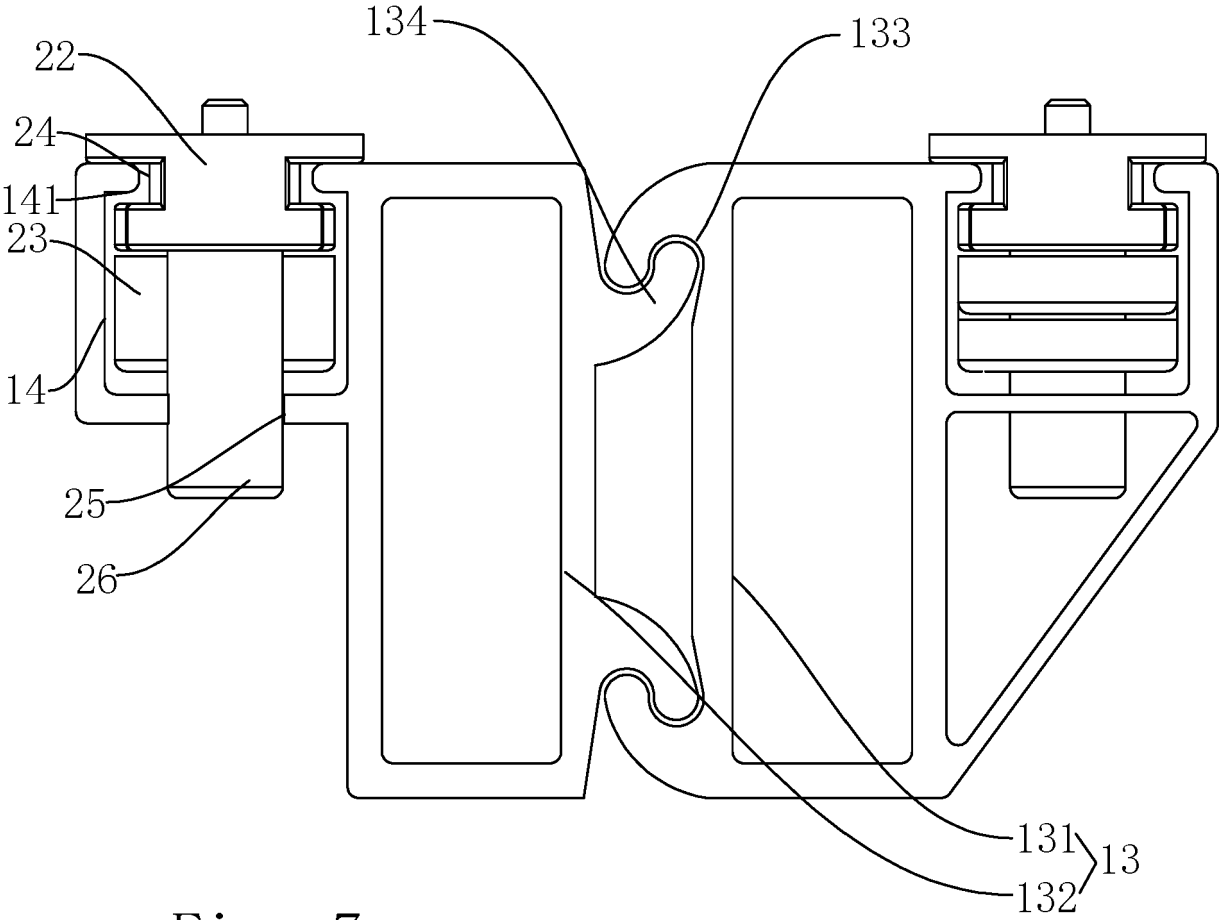


Fig. 7

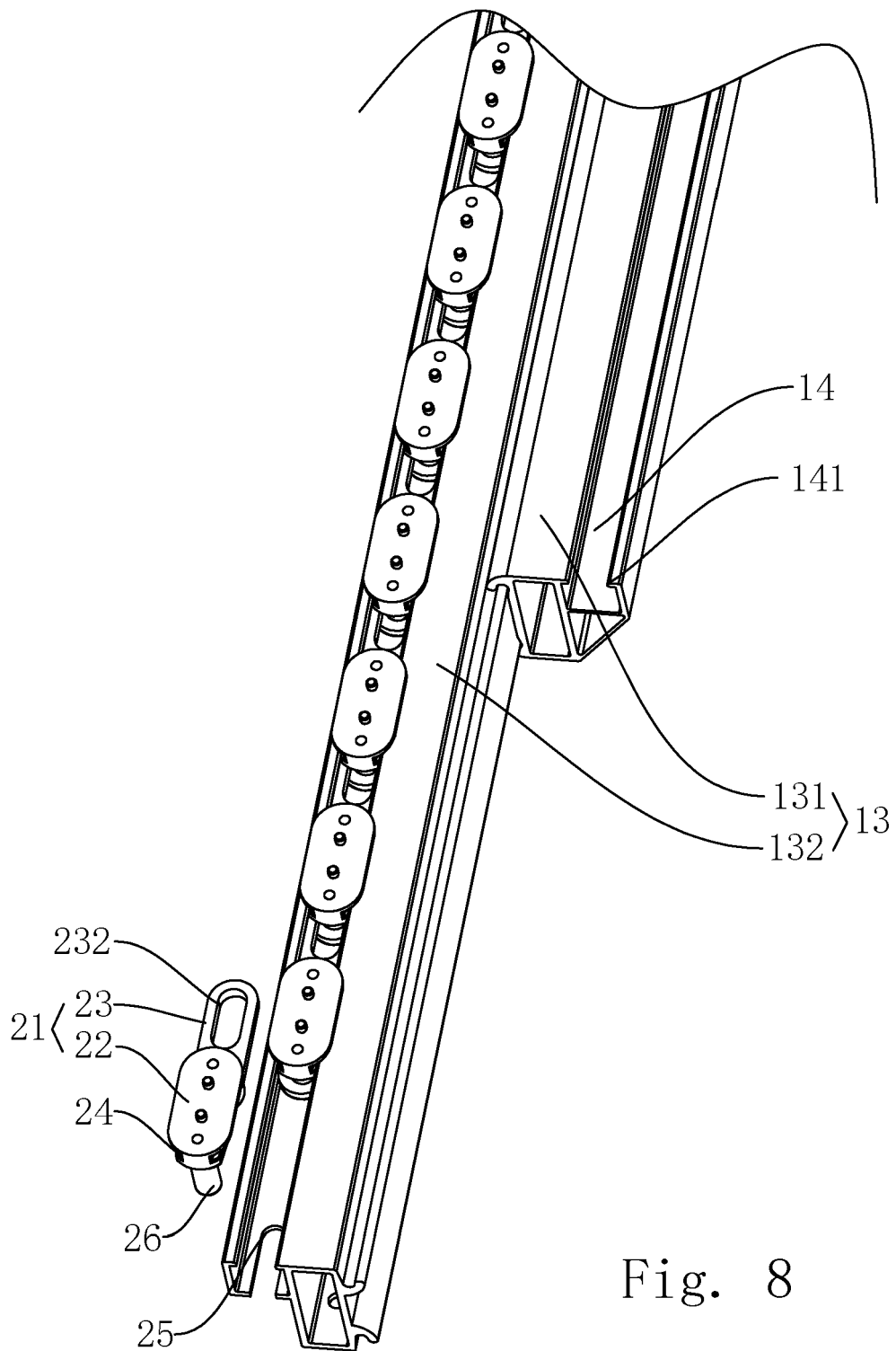


Fig. 8

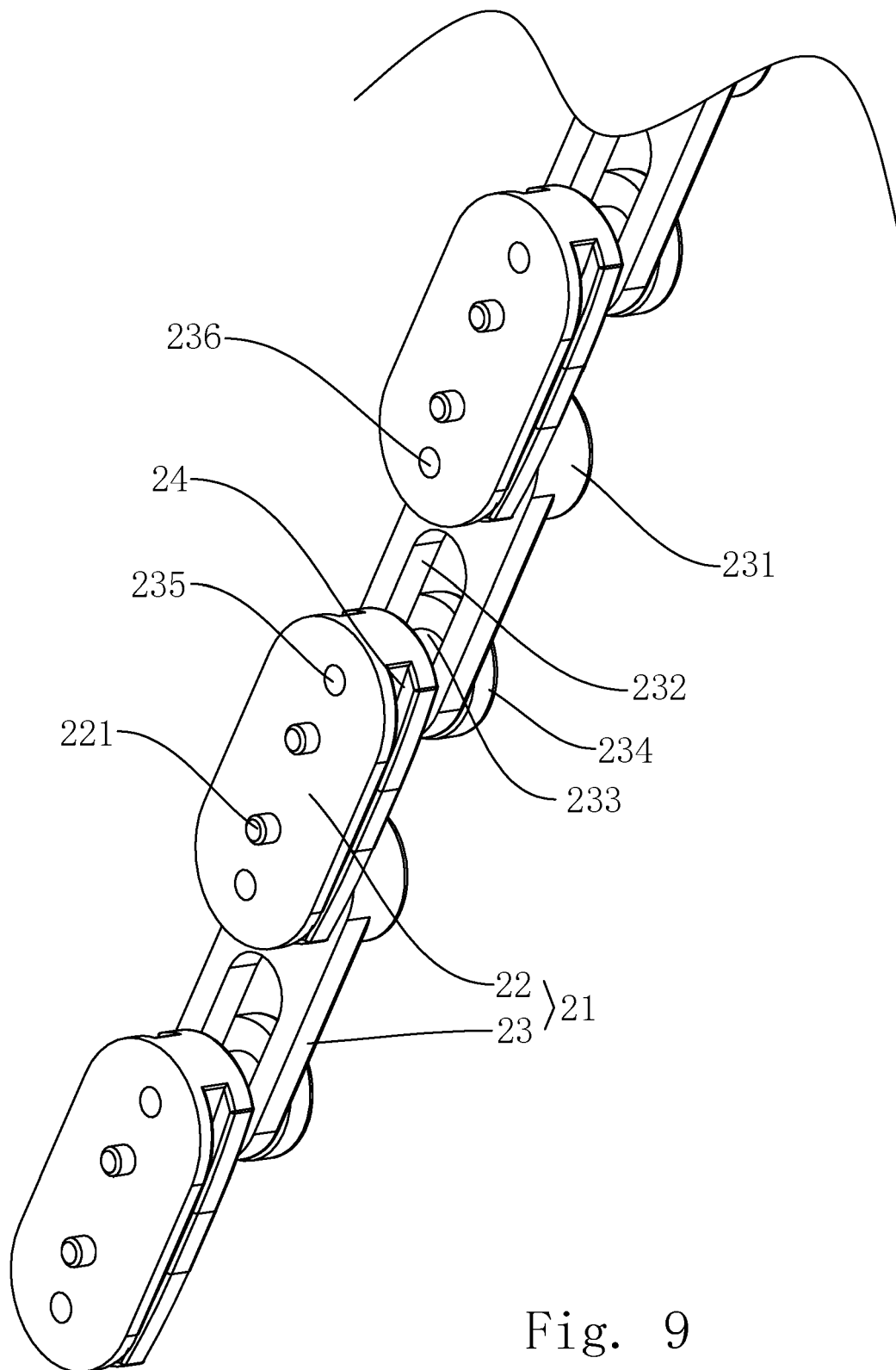


Fig. 9

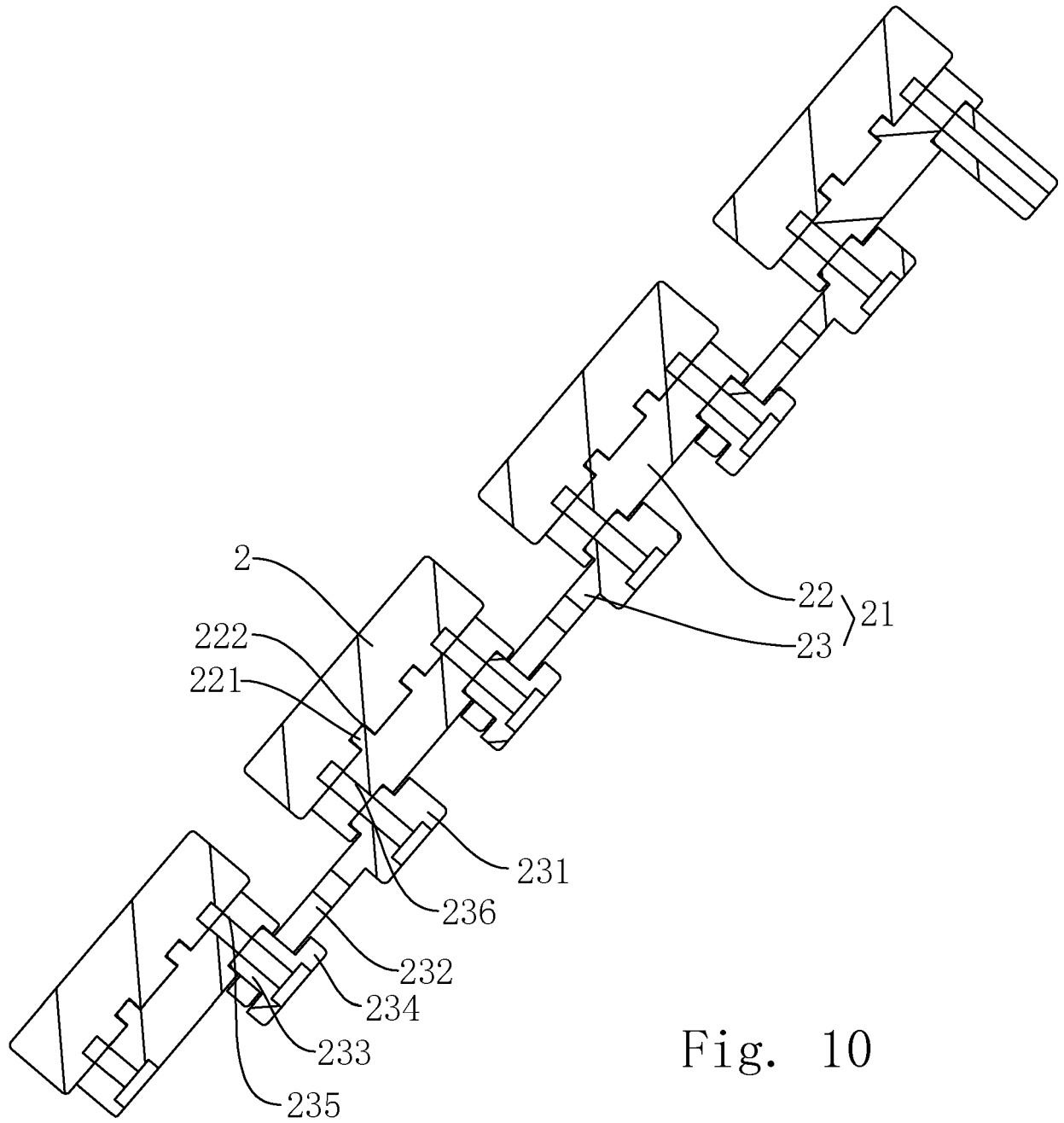


Fig. 10

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- CN 201175090 Y [0003]
- EP 1177747 A1 [0004]