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(54) **PICTURE-SCROLLING DISPLAY SHELF BASE ABLE TO BE ASSEMBLED SEAMLESSLY**
BILDSCROLLINGANZEIGE-REGALBRETT ZUR NAHTLOSEN MONTAGE
BASE DE PRÉSENTOIR À DÉFILEMENT D'IMAGES ASSEMBLABLE SANS JOINT

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Description

Technical Field

[0001] The present invention relates to a roller display base unit.

Related Art

[0002] A graphic-scrolling display shelf is a common display device, which is commonly known as a roll-up graphic display shelf in China. A roll-up graphic display shelf has a bottom capsule, a roller, a graphic, a graphic clamp, and a support rod. The bottom capsule has a housing and two lateral plates, the roller is placed in the bottom capsule, two sides of the roller are each provided with a roller sealing head, a lower end of the graphic is connected to the roller, and an upper end thereof is connected to the graphic clamp. During storage, the graphic is wound out through a slot on the housing, one end of the support rod is inserted into a jack of a roller display base unit of the graphic-scrolling display shelf, and the other end supports the graphic clamp, to unwind the graphic. To improve the display effect, a large graphic for advertising is required currently. Because a roller shaft of an ordinary roll-up graphic display shelf extends out of the two lateral plates, during assembly of roll-up graphic display shelves, bottom capsules of adjacent roll-up graphic display shelves cannot draw close to each other completely, so that a large gap exists between two graphics, thereby affecting the display effect of the graphics.

[0003] WO 02/09080 A1 describes an information presentation device comprising an elongate housing having two opposed end walls, a first opening provided in a wall of the housing. The opening extends longitudinally between the two end walls. The information presentation device further comprises a drum. The information presentation device further comprises attachment means for releasably attaching a display sheet to the drum. The attachment means comprises an attachment strip for attachment to one end of the display sheet and receiving means on the drum for releasably engaging the attachment strip. The receiving means is a longitudinally extending slot having a tangential opening with a restriction to thereby delimit a chamber in the base of the slot. The slot extends the entire length of the drum. The attachment means permits the attachment strip to be inserted in the longitudinal direction into the receiving means. At least one end wall of the housing has an insertion opening extending from an end of the first opening in the housing. The insertion opening is in the form of a slot and is arranged with respect to the drum such that the attachment strip can be brought into engagement with the receiving means on the drum by inserting the attachment strip through the insertion opening in a direction substantially parallel to the longitudinal axis of the drum.

[0004] GB 2 474 582 A describes a banner system

comprising a roller mounted within a base unit and a banner releasably rolled around the roller. A width of the banner is the same as a length of the base unit. At least one end of the base unit is provided with an engagement means, whereby it can be attached to a second banner system. The base units may be held together magnetically. For providing a display comprising two banner systems, the individual banners are rolled out into viewing position, and the neighboring banner units are then assembled together.

[0005] The Chinese utility model No. 200620047999.6 discloses a display shelf named "roll-up graphic display shelf frameless in a front view and achieving gapless graphic assembly", which includes a housing, a flip cover, a clamping mechanism and a supporting foot, where the front portion of the display shelf is an isosceles trapezoid that is short at the front and long at the back, the front edge and the graphic are equally wide, the flip cover is inserted, by a connecting shaft provided at the rear end, into shaft sleeves provided on inner sides of two housing end covers, to be connected to the housing, the housing and the interior of the flip cover form a cavity, and a gap through which the graphic passes is left between the front edge of the flip cover and the housing. If a plurality of the roll-up graphic display shelves are placed end to end, a seamless assembled graphic wall can be formed, and the graphics form an angle not greater than 150° therebetween. Although seamless graphic assembly can be achieved by assembling the display shelves with the above structure, the assembled large graphic is not a plane and there is no connection between the display shelves; as a result, in applications, consistency of the graphic may be damaged due to separation between the display shelves.

CONTENT OF THE INVENTION

[0006] An objective of the present invention is to provide a roller display base unit able to be assembled seamlessly to a second roller display base unit of identical construction, which can prevent separation during assembly.

[0007] In order to achieve the above objective, the present invention adopts the technical solution of claim 1. The present invention is a first roller display base unit able to be assembled seamlessly to a second roller display base unit of identical construction. The first roller display base unit comprises a bottom capsule. The bottom capsule has: a housing and two lateral plates respectively connected to two ends of the housing, a slot provided on the housing, a roller provided in the housing, and a first insertion strip for connecting a first graphic slidably in the guide groove of the roller body. The roller comprises a roller body and sealing heads respectively connected to two ends of the roller body. The roller body is provided with an axial guide groove formed through inward recessing of a wall of the roller body. The guide groove extends to each of the two ends of the roller body

connected to the sealing heads. Each of the two lateral plates of the housing is provided with a passing groove that allows the first insertion strip to come in and go out. An opening of said passing groove is connected to said slot on said housing, so that said graphic can pass through said passing groove. A second graphic is connectable to the roller body of the second roller display base unit by insertion of a second insertion strip into the guide groove of the roller of the second roller display base unit. One of the lateral plates of the first roller display base unit can contact one of the lateral plates of the second roller display base unit. The first insertion strip on the first roller display base unit can be inserted into the guide groove of the roller of the second roller display base unit for connecting the first insertion strip on the first roller display base unit to the second insertion strip on the roller of the second roller display base unit, when one of the lateral plates of the first roller display base unit is laterally contacting the one of the lateral plates of the second roller display base unit.

[0008] An inner side surface of each lateral plate is provided with at least one magnetic block.

[0009] An insertion strip of the roller display base unit can drive a graphic to move in a guide groove of a roller, and in an assembly state, the insertion strip drives the graphic to move to a guide groove of a roller in an adjacent roller display base unit, thereby able to be assembled seamlessly with a graphic of the adjacent roller display base unit, and further achieving assembly of a plurality of roller display base units. The base units are not separated from each other even if they are subjected to a number of collisions, thereby maintaining integrity of the graphic and making the assembled graphic into a plane. Because the lateral plates of the roller display base unit are provided with magnetic blocks and the two adjacent lateral plates are attracted by the magnetic blocks, alignment is convenient.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010]

FIG. 1 is a front three-dimensional view of the present invention;

FIG. 2 is a side view of the present invention;

FIG. 3 is a view of a housing;

FIG. 4 is a view of an inner side surface of a lateral plate;

FIG. 5 is an exploded view of a roller;

FIG. 6 is an assembly view of the roller;

FIG. 7 is a view of the roller in use; and

FIG. 8 is an application view (where the housing is omitted).

DETAILED DESCRIPTION

Embodiment 1

[0011] Referring to FIG. 1 to FIG. 7, this embodiment includes a bottom capsule 1 and a support plate 3 fixed to the bottom of the bottom capsule 1, where the bottom capsule 1 includes a housing 1-1 and lateral plates 1-2 respectively connected to two ends of the housing 1-1, a slot 1-1-1 is provided on the housing 1-1, and a roller 2 is provided in the housing 1-1.

[0012] The roller 2 includes a roller body 2-1 and sealing heads 2-2 respectively connected to two ends of the roller body 2-1, the roller body 2-1 is provided with an axial guide groove 2-1-1 formed through inward recessing of a roller body wall, the axial guide groove 2-1-1 is cylindrical, and the axial guide groove 2-1-1 of the roller body 2-1 extends to two ends and penetrates into the sealing heads 2-2 at the two ends, that is, the sealing heads 2-2 at the two ends are each provided with a guide groove 2-2-1 in a thorough connection with the axial guide groove 2-1-1 on the roller body 2-1. The sealing heads 2-2 at the two ends may be the same, or may be different due to other structural members in the roller body 2-1, but the sealing heads 2-2 both have the guide groove 2-2-1.

[0013] An insertion strip 2-3 for connecting graphics is connected in the guide groove 2-1-1 of the roller body 2-1 slidably. The insertion strip 2-3 has a guide post 2-3-2 and a curved plate 2-3-1, the guide post 2-3-2 is in movable fit with the guide groove 2-1-1 on the roller body 2-1, and the curved plate 2-3-1 covers a part of the, corresponding guide groove 2-1-1 on the outside of the roller body 2-1.

[0014] The two lateral plates 1-2 of the housing 1-1 are each provided with a passing groove 1-2-1 that allows the insertion strip 2-3 to extend, the passing groove 1-2-1 is slightly curved, and an opening of the passing groove 1-2-1 is connected to the slot 1-1-1 on the housing 1-1, so that the graphic can pass through the passing groove 1-2-1. An inner side surface of each lateral plate 1-2 of the housing 1-1 is provided with two projecting rings, and a magnetic block 4 is fixed in each projecting ring (shown in FIG. 4).

[0015] In the present invention, as the insertion strip 2-3 is movably connected to the roller body 2, the insertion strip can be pulled manually, one end of the insertion strip 2-3 extends out through the guide grooves 2-2-1 on the sealing heads 2-2 of the roller body and the passing grooves 1-2-1 on the lateral plates 1-2 of the housing 1-1, while the other end is indented, and FIG. 7 shows a state in which one end of the insertion strip 2-3 extends out through the guide grooves 2-2-1 on the sealing heads 2-2 of the roller body 2. Because the graphic is fixed onto the insertion strip 2-3, movement of the insertion strip 2-3

can drive the graphic to move. Referring to FIG. 8 (where the housing 1-1 is omitted), during assembly of graphic-scrolling display shelves, lateral plates of two roller display base units can contact each other, an insertion strip on one roller display base unit can be inserted into a guide groove on a roller of an adjacent roller display base unit, to be connected to an insertion strip on the roller of the adjacent roller display base unit. Because a graphic moves along with the insertion strip, through a passing groove on a lateral plate of the roller display base unit of the graphic and through a passing groove on a lateral plate of an adjacent roller display base unit, the graphic goes into the adjacent roller display base unit and is connected to a graphic on the adjacent roller display base unit. In this way, the present invention can achieve seamless assembly of graphics on a plurality of roller display base units.

Claims

1. A first roller display base unit able to be assembled seamlessly to a second roller display base unit of identical construction, the first roller display base unit comprising a bottom capsule (1), wherein the bottom capsule (1) has:

- a housing (1-1) and two lateral plates (1-2) respectively connected to two ends of the housing (1-1),
- a slot (1-1-1) provided on the housing (1-1),
- a roller (2) provided in the housing (1-1), wherein the roller (2) comprises a roller body (2-1) and sealing heads (2-2) respectively connected to two ends of the roller body (2-1), wherein the roller body (2-1) is provided with an axial guide groove (2-1-1) formed through inward recessing of a wall of the roller body (2-1), wherein the guide groove (2-1-1) extends to each of the two ends of the roller body (2-1) connected to the sealing heads (2-2),
- a first insertion strip (2-3) for connecting a first graphic slidably in the guide groove (2-1-1) of the roller body (2-1);

wherein each of the two lateral plates (1-2) of the housing (1-1) is provided with a passing groove (1-2-1) that allows the first insertion strip (2-3) to come in and go out, wherein an opening of said passing groove is connected to said slot on said housing, so that said graphic can pass through said passing groove;

characterized in that

a second graphic is connectable to the roller body (2-1) of the second roller display base unit by insertion of a second insertion strip into the guide groove (2-1-1) of the roller (2) of the second roller display base unit;

wherein one of the lateral plates (1-2) of the first roller display base unit can contact one of the lateral plates (1-2) of the second roller display base unit, wherein the first insertion strip (2-3) on the first roller display base unit can be inserted into the guide groove (2-1-1) of the roller (2) of the second roller display base unit for connecting the first insertion strip (2-3) on the first roller display base unit to the second insertion strip (2-3) on the roller (2) of the second roller display base unit, when one of the lateral plates (1-2) of the first roller display base unit is laterally contacting the one of the lateral plates (1-2) of the second roller display base unit.

2. The roller display base unit according to claim 1, wherein an inner side surface of each lateral plate (1-2) is provided with at least one magnetic block (4).

Patentansprüche

1. Eine erste Rollen-Anzeige-Basiseinheit, fähig, um mit einer zweiten Rollen-Anzeige-Basiseinheit identischen Aufbaus nahtlos zusammengesetzt zu werden, wobei die erste Rollen-Anzeige-Basiseinheit eine untere Kapsel (1) umfasst, wobei die untere Kapsel (1) aufweist:

- ein Gehäuse (1-1) und zwei seitliche Platten (1-2), die mit zwei Enden des Gehäuses (1-1) jeweils verbunden sind,
- einen Schlitz (1-1-1), der an dem Gehäuse (1-1) vorgesehen ist,
- eine Rolle (2), die in dem Gehäuse (1-1) vorgesehen ist, wobei die Rolle (2) einen Rollenkörper (2-1) und Dichtungsköpfe (2-2) umfasst, die mit zwei Enden des Rollenkörpers (2-1) jeweils verbunden sind, wobei der Rollenkörper (2-1) eine axiale Führungsnut (2-1-1) aufweist, die durch eine nach innen gerichtete Aussparung einer Wand des Rollenkörpers (2-1) gebildet ist, wobei sich die Führungsnut (2-1-1) zu jeder der zwei Enden des Rollenkörpers (2-1) erstreckt, der mit den Dichtungsköpfen (2-2) verbunden ist,
- einen ersten Einführstreifen (2-3) zum gleitbeweglichen Verbinden einer ersten Grafik in der Führungsnut (2-1-1) des Rollenkörpers (2-1);

wobei jede der zwei seitlichen Platten (1-2) des Gehäuses (1-1) eine Durchlassnut (1-2-1) aufweist, die dem ersten Einführstreifen (2-3) ermöglicht, hinein- und hinauszukommen, wobei eine Öffnung der Durchlassnut verbunden ist mit dem Schlitz an dem Gehäuse, sodass die Grafik die Durchlassnut passieren kann;

dadurch gekennzeichnet, dass

eine zweite Grafik mit dem Rollenkörper (2-1) der

zweiten Rollen-Anzeige-Basiseinheit durch Einführen eines zweiten Einführstreifens in die Führungsnut (2-1-1) der Rolle (2) der zweiten Rollen-Anzeige-Basiseinheit verbindbar ist;

wobei eine der seitlichen Platten (1-2) der ersten Rollen-Anzeige-Basiseinheit eine der seitlichen Platten (1-2) der zweiten Rollen-Anzeige-Basiseinheit berühren kann;

wobei der erste Einführstreifen (2-3) an der ersten Rollen-Anzeige-Basiseinheit in die Führungsnut (2-1-1) der Rolle (2) der zweiten Rollen-Anzeige-Basiseinheit zum Verbinden des ersten Einführstreifens (2-3) an der ersten Rollen-Anzeige-Basiseinheit mit dem zweiten Einführstreifen (2-3) an der Rolle (2) der zweiten Rollen-Anzeige-Basiseinheit eingeführt werden kann, wenn eine der seitlichen Platten (1-2) der ersten Rollen-Anzeige-Basiseinheit die eine der seitlichen Platten (1-2) der zweiten Rollen-Anzeige-Basiseinheit seitlich berührt.

2. Die Rollen-Anzeige-Basiseinheit nach Anspruch 1, wobei an einer inneren Seitenfläche jeder seitlichen Platte (1-2) wenigstens ein magnetischer Block (4) vorgesehen ist.

Revendications

1. Première unité de base d'affichage de rouleau apte à être assemblée sans jointure à une seconde unité de base d'affichage de rouleau, la première unité de base d'affichage de rouleau comprenant une capsule de fond (1), la capsule de fond (1) comportant :

- un boîtier (1-1) et deux plaques latérales (1-2) connectées respectivement aux deux extrémités du boîtier (1-1),
- une fente (1-1-1) pratiquée sur le boîtier (1-1),
- un rouleau (2) prévu dans le boîtier (1-1), le rouleau (2) comprenant un corps de rouleau (2-1) et des têtes d'étanchéité (2-2) connectées respectivement aux deux extrémités du corps de rouleau (2-1), le corps de rouleau (2-1) étant pourvu d'une gorge de guidage axial (2-1-1) formée par un retrait intérieur d'une paroi du corps de rouleau (2-1), la gorge de guidage (2-1-1) s'étendant vers chacune des deux extrémités du corps de rouleau (2-1) connectées aux têtes d'étanchéité (2-2),
- une première bande d'insertion (2-3) pour connecter un premier graphique de manière coulissante dans la gorge de guidage (2-1-1) du corps de rouleau (2-1) ;

chacune des deux plaques latérales (1-2) du boîtier (1-1) étant pourvue d'une gorge de passage (1-2-1) qui permet à la première bande d'insertion (2-3) d'entrer et de sortir, une ouverture de ladite gorge d'in-

sertion étant connectée à ladite fente dudit boîtier, de sorte que ledit graphique peut passer par ladite gorge de passage ;

caractérisée en ce

qu'un second graphique est connectable au corps de rouleau (2-1) de la seconde unité de base d'affichage de rouleau par insertion d'une seconde bande d'insertion dans la gorge de guidage (2-1-1) du rouleau (2) de la seconde unité de base d'affichage de rouleau ;

une des plaques latérales (1-2) de la première unité de base d'affichage de rouleau pouvant venir en contact avec une des plaques latérales (1-2) de la seconde unité de base d'affichage de rouleau,

la première bande d'insertion (2-3) de la première unité de base d'affichage de rouleau pouvant être insérée dans la gorge de guidage (2-1-1) du rouleau (2) de la seconde unité de base d'affichage de rouleau pour connecter la première bande d'insertion (2-3) de la première unité de base d'affichage de rouleau à la seconde bande d'insertion (2-3) du rouleau (2) de la seconde unité de base d'affichage de rouleau lorsqu'une des plaques latérales (1-2) de la première unité de base d'affichage de rouleau vient latéralement en contact avec une des plaques latérales (1-2) de la seconde unité de base d'affichage de rouleau.

2. Unité de base d'affichage de rouleau selon la revendication 1, dans laquelle une surface latérale interne de chaque plaque latérale (1-2) est pourvue d'au moins un bloc magnétique (4).

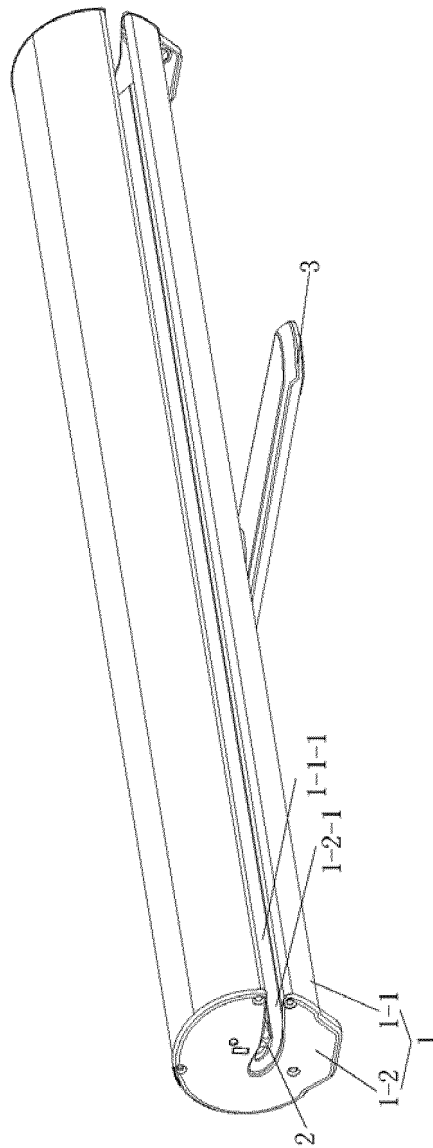


Fig.1

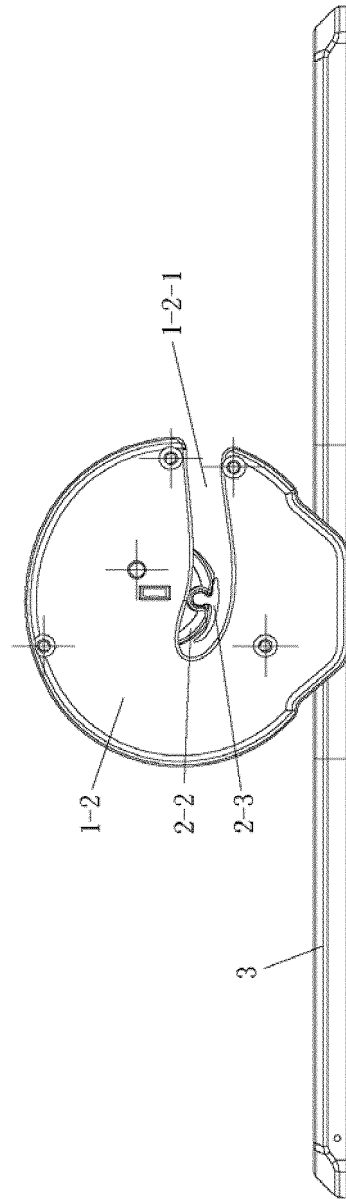


Fig.2

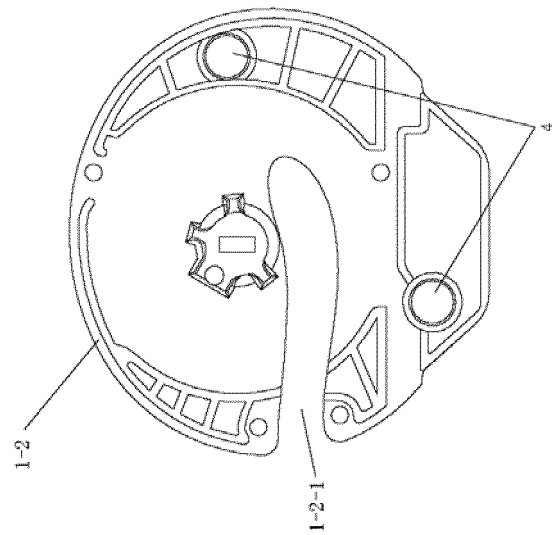


Fig.4

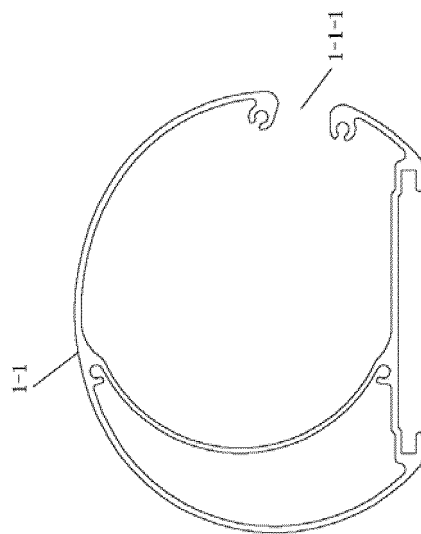


Fig.3

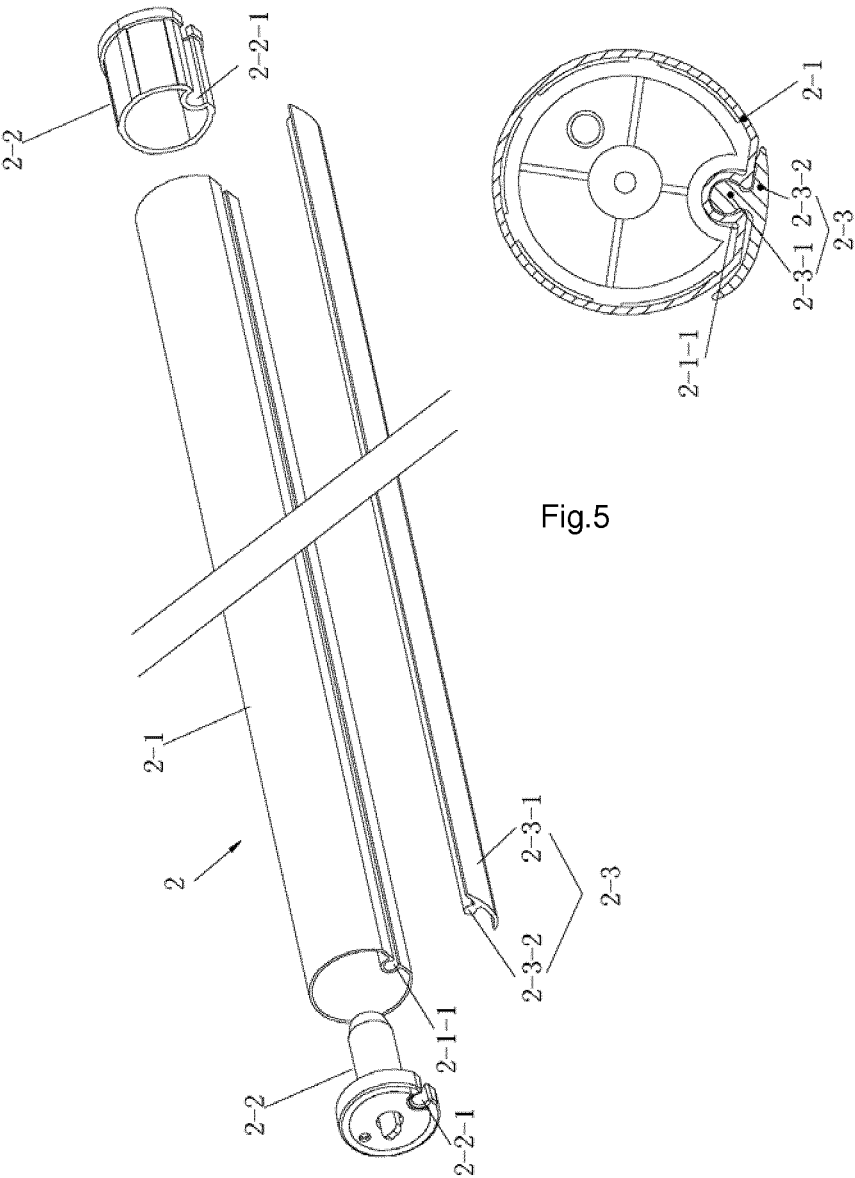


Fig.6

Fig.5

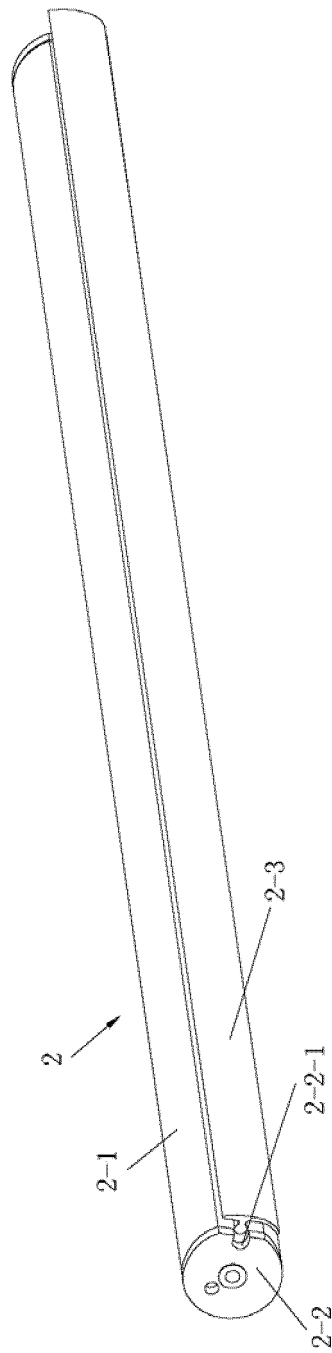


Fig.7

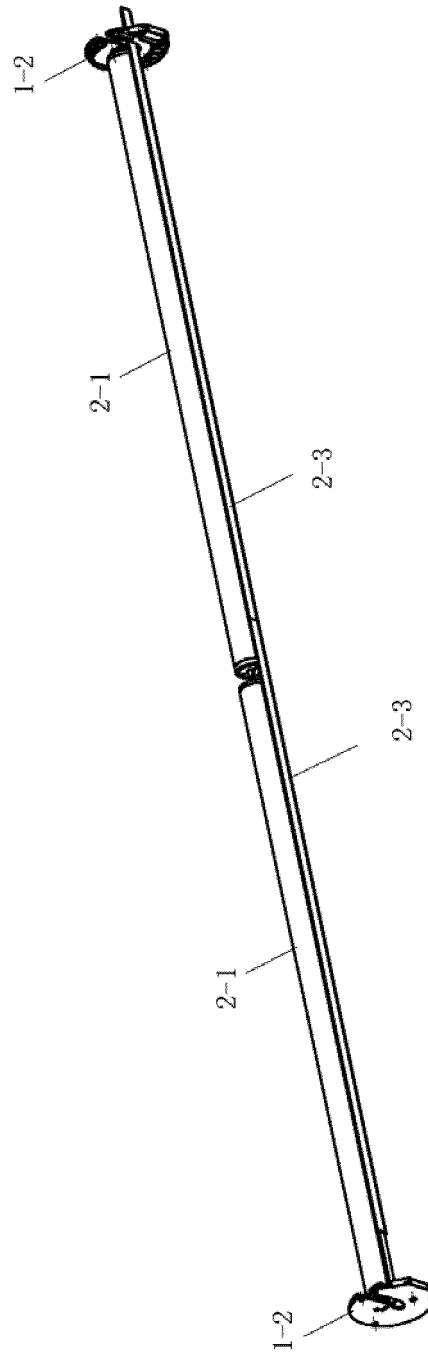


Fig.8

REFERENCES CITED IN THE DESCRIPTION

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