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[12] 实用新型专利说明书

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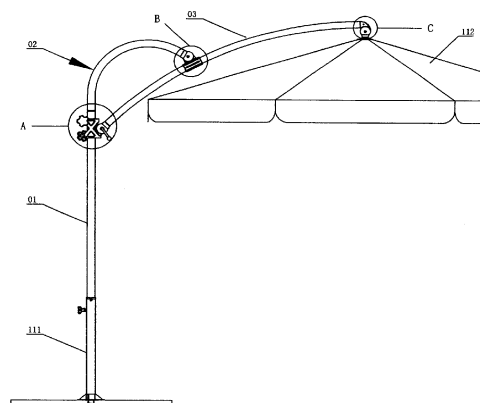
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[54] 实用新型名称

一种简易香蕉吊伞

[57] 摘要

本实用新型涉及太阳伞，特别是一种简易香蕉吊伞，主要由伞杆、悬杆、拉杆、伞面及其伞架组成，拉杆底端与伞杆顶端连接；拉杆顶端套连悬杆，伞杆的顶端与拉杆底端为水平转动式连接结构，伞杆套装带有与伞杆配合的锁定装置的滑套，该滑套包括摇绳器并与悬杆底端轴连，悬杆顶端与伞架的上伞盘为俯仰转动式连接结构，拉绳的一端固结于装在滑套内卷绳器的卷轴，另一端贯穿悬杆、装于上伞盘内的顶管固结于下伞盘。本实用新型结构使伞面开合方便，伞面既可绕伞杆 360° 旋转，也可调整俯仰角度，伞面平稳，操作简单，省力方便。



1、一种简易香蕉吊伞，主要由伞杆（01）、悬杆（03）、拉杆（02）、伞面（112）及其伞架组成，拉杆（02）底端与伞杆（01）顶端连接；拉杆（02）顶端套连悬杆（03），其特征在于伞杆（01）的顶端与拉杆（02）底端为水平转动式连接结构，伞杆（01）套装带有与伞杆配合的锁定装置的滑套（11），该滑套包括摇绳器并与悬杆（03）底端轴连，悬杆（03）顶端与伞架的上伞盘（70）为俯仰转动式连接结构，拉绳（13）的一端固结于装在滑套（11）内卷绳器的卷轴（26），另一端贯穿悬杆（03）、装于上伞盘内的顶管（57）固结于下伞盘。

2、根据权利要求1所述的简易香蕉吊伞，其特征在于悬杆（03）、拉杆（02）均由弯弧管构成。

3、根据权利要求1所述的简易香蕉吊伞，其特征在于伞杆滑套（11）与卷绳器连接成一体，滑套（11）为螺栓锁定式抱箍结构。

4、根据权利要求1所述的简易香蕉吊伞，其特征在于管状伞杆（01）的顶端内固装轴套（17），该轴套的上下端各自构成轴承座，螺栓形转轴（19）的轴帽（19.1）与管状拉杆（02）下端紧固并座于上轴承（18），转轴（19）下端伸入轴套（17）并与下轴承（16）紧固而构成的水平转动连接结构。

5、根据权利要求1所述的简易香蕉吊伞，其特征在于悬杆（03）顶端装有制成开有绳孔的齿棱圆柱面接头（51），顶管（57）顶端嵌装上堵头（58），该上堵头顶部制成与接头（51）的齿棱配合的齿棱，底端嵌装可与下伞盘中空轴管（60）顶触的下堵头（59），顶管（57）套有复位弹簧（55）。

6、根据权利要求1所述的简易香蕉吊伞，其特征在于拉杆（02）顶端与套于管状悬杆（03）的管套（42）轴连。

7、根据权利要求1所述的简易香蕉吊伞，其特征在于摇绳器卷轴（26）顶端固装扭簧（21），扭簧（21）扭动时直径变大而与其周围的管壁涨挤而使卷轴止动。

一种简易香蕉吊伞

技术领域:

本实用新型涉及太阳伞，特别是伞面倾角可调的吊伞。

背景技术

传统的香蕉吊伞，由于伞杆位于伞面的一侧，伞的遮蔽面积大。伞主要由伞杆、悬杆、拉杆、伞面及其伞架组成，在伞杆的一端装有活动支撑座，活动支撑座套在弯管上；弯管的一端与摇手壳及拉管铆固，弯管的另一端连接伞面，滑动座套在伞杆上与拉管的一端铰链。如需要打开伞面，首先要将摇绳壳向上托起，用固定套套固拉管，再将滑动座向上提，固定在伞杆上，通过摇把摇动，即可打开伞面。此类香蕉伞的操作步骤复杂，伞面开合不方便，而且在伞面和弯头之间未设有定位装置，不仅在伞面张开时不平稳，并且在调节伞面倾斜度和伞面调节方位要达到遮蔽斜射阳光效果时很不方便。

发明内容

本实用新型的目的是提供一种操作轻便、伞面倾角可调的一种简易香蕉吊伞。

本实用新型的技术解决方案是：一种简易香蕉吊伞，主要由伞杆、悬杆、拉杆、伞面及其伞架组成，拉杆底端与伞杆顶端连接，拉杆顶端套连管状悬杆，其特征在于伞杆的顶端与拉杆底端为水平转动式连接结构，伞杆套装带有与伞杆配合的锁定装置的滑套，该滑套包括摇绳器并与悬杆底端轴连，悬杆顶端与伞架的上伞盘为俯仰转动式连接结构，拉绳的一端固结于装在滑套内卷绳器的卷轴，另一端贯穿悬杆、装于上伞盘内的顶管固结于下伞盘。

上述悬杆、拉杆均由弯弧管构成。

伞杆滑套与卷绳器连接成一体，滑套为螺栓锁定式抱箍结构。

管状伞杆的顶端内固装轴套，该轴套的上下端各自构成轴承座，螺栓形转轴的轴帽与管状拉杆下端紧固并座于上轴承，转轴19下端伸入轴套并与下轴承紧固而构成的水平转动连接结构。

管状悬杆顶端装有制成开有绳孔的齿棱圆柱面接头的，顶管顶端嵌装上堵头，该上堵头顶部制成与接头的齿棱配合的齿棱，底端嵌装可与下伞盘中空轴管顶触的下堵头，顶管套有复位弹簧。

上述拉杆顶端与套于管状悬杆的管套轴连。

摇绳器卷轴顶端固装扭簧，扭簧扭动时直径变大而与其周围的管壁涨挤而使卷轴止动。

采用本实用新型结构，伞面开合方便，开伞时，将伞杆滑套上推，摇动摇绳器卷绕伞绳提升下伞盘，下伞盘中空轴管顶触顶管，顶管上堵头顶部与悬杆顶端接头的齿棱啮合，同时下伞盘伞撑上顶伞骨使伞面张开，锁定滑套即成为普通吊伞；若阳光斜射，可稍微松开伞绳使顶管与接头脱离啮合，扳动伞面调整至伞面法线指向太阳的合适俯仰角度后锁紧；还可稍微松开滑套，利用上轴承 360° 旋转作用，推动伞面带动悬杆、拉杆绕伞杆水平转动，改变伞面的遮蔽区域，位置范围可任意定位；摇绳器卷绕时同时扭动装在卷轴顶端的扭簧，利用扭簧扭动时直径变化而与其周围的管壁挤涨作用，使卷轴自动锁定，操作简单，省力方便。

附图说明：

图 1 为本实用新型实施例伞主视图；

图 2 为图 1 中 A 处放大结构图；

图 3 为图 2 中 A-A 截面图；

图 4 为图 1 中 B 处放大结构图；

图 5 为图 1 中 C 处放大结构图。

具体实施方式：

参照图 1、图 5，实施例一种简易香蕉吊伞，主要由伞杆 01、弯弧管构成的管状悬杆 03、管状拉杆 02、伞面 112 及其伞架组成，伞架由上伞盘 70、下伞盘 73、伞撑 72、伞骨 71 组成。伞杆 01 插接于伞座 111，拉杆 02 底端与伞杆 01 顶端连接，顶端套连管状悬杆 03，悬杆 03 顶端吊连伞架。

参照图 2、图 3、图 5，伞杆 01 的顶端内由螺钉 28 固装轴套 17，该轴套的上下端分别构成上轴承 18、下轴承 16 的轴承座，螺栓形转轴 19 的轴帽 19.1 与管状拉杆 02 下端紧固并座于上轴承 18，转轴 19 伸入轴套 17 并与下轴承 16 的内圈紧固而使拉杆 02 可相对伞杆 01 水平 360° 转动。伞杆 01 套装由螺栓锁定的抱箍式滑套 11，螺栓一端装有旋柄 22，抱箍夹头之间的螺栓部位套有弹簧 23。滑套 11 内上下端分别安装一滚轮 21，以与伞杆滑动顺畅；滑套 11 与卷绳器的球形左右壳体 141、142 连接成一体，摇柄 27 的卷绳轴 26 系结拉绳 13，拉绳的另一端通过滑轮 15 贯穿悬杆 03、装于上伞盘 70 内的顶管 57 固结于下伞盘 73。图中标记 20 为下轴承 16 的定位卡簧，25 为绳盘，121、122 各为遮盖帽盖。位于左壳体 141 内的卷绳轴 26 顶端固装扭簧 24，当扭簧 24 被反向扭动时直径会变大而与其周围的管壁涨挤而使卷轴 26 止动，无需另装锁紧机构。

参照图 4, 拉杆 02 顶端装有凹弧面接头 411, 以与悬杆 03 管套 42 的半圆柱面挂耳相对滑动, 接头 411 与管套 42 由轴销 43 铰接, 使悬杆 03 在管套 42 内滑动时半圆柱面挂耳可相对凹弧面接头 411 转动。

参照图 5, 管状悬杆 03 与伞架的上伞盘 70 为俯仰转动式连接结构, 悬杆 03 顶端装有制成开有绳孔的齿棱圆柱面接头 51, 装于上伞盘内的顶管 57 顶端嵌装上堵头 58, 该上堵头顶部制成可与接头 51 的齿棱啮合的齿棱; 顶管 57 套有上端与装于伞帽 53 内的管座 52 顶触的复位弹簧 55, 底端嵌装可与下伞盘 73 的中空轴管 60 顶触的下堵头 59, 上堵头 58 和下堵头 59 均为中空; 拉绳 13 经装在接头 51 内的滑轮 54 穿出接头 51 进入上堵头 58、顶管 57、下堵头 59 后固结于下伞盘内的中空轴管 60。

工作过程: 当需改变伞面的遮蔽位置时, 稍微松开滑套 11, 推动伞面 112, 带动悬杆 03、拉杆 02 绕伞杆 01 水平转动再旋紧旋柄 22; 当需改变伞面俯仰角时, 稍微松开伞绳 13 使上堵头 58 与接头 51 脱离啮合, 然后扳动伞面调整俯仰角至伞面法线指向太阳的合适角度后在摇紧伞绳 13, 使上堵头 58 上升与接头 51 重新啮合定位, 伞面平稳。

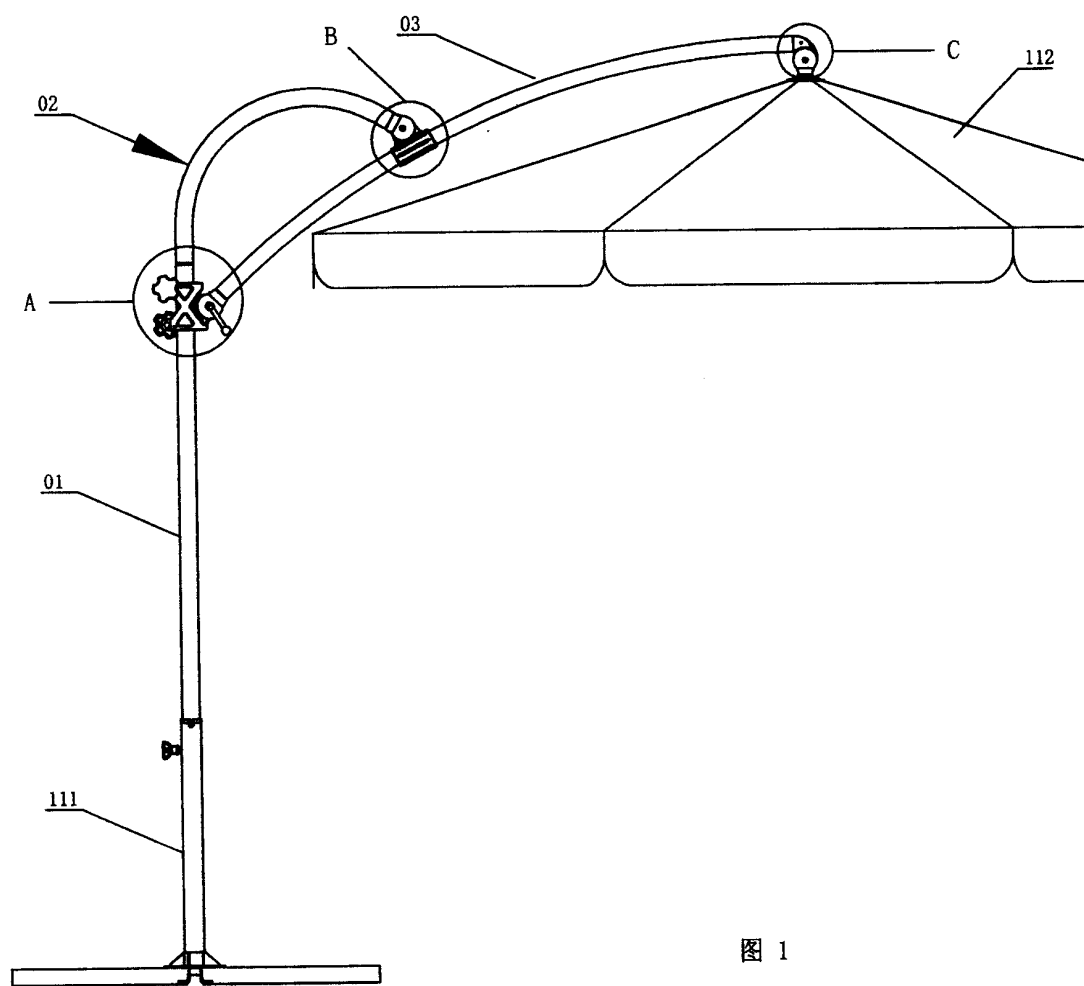
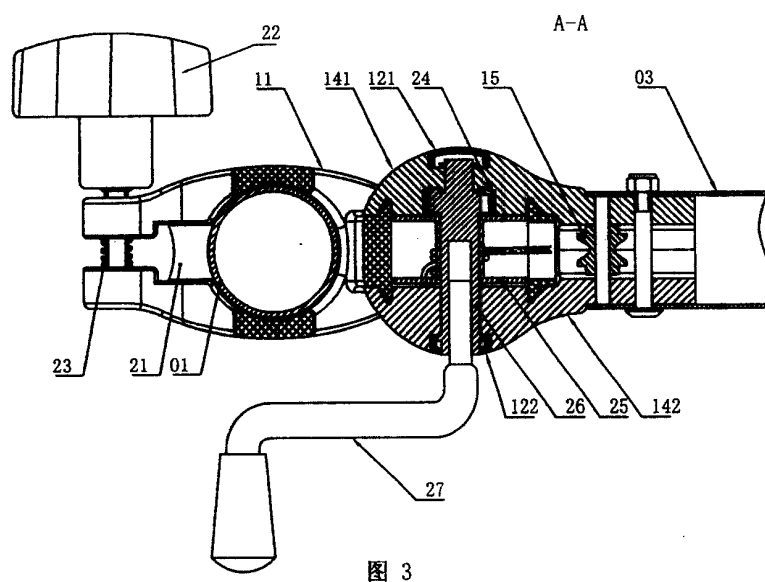
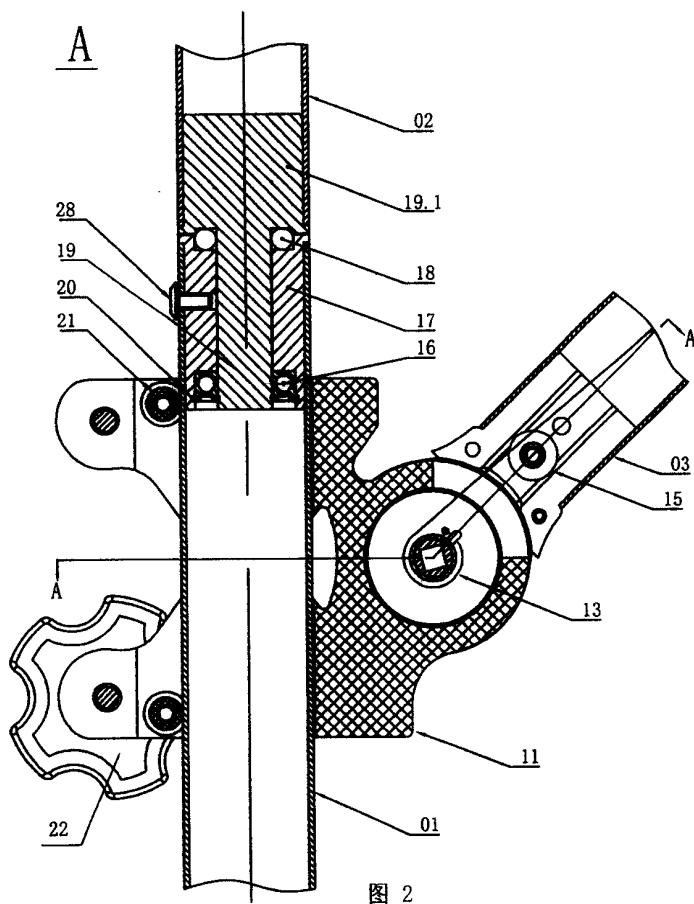


图 1



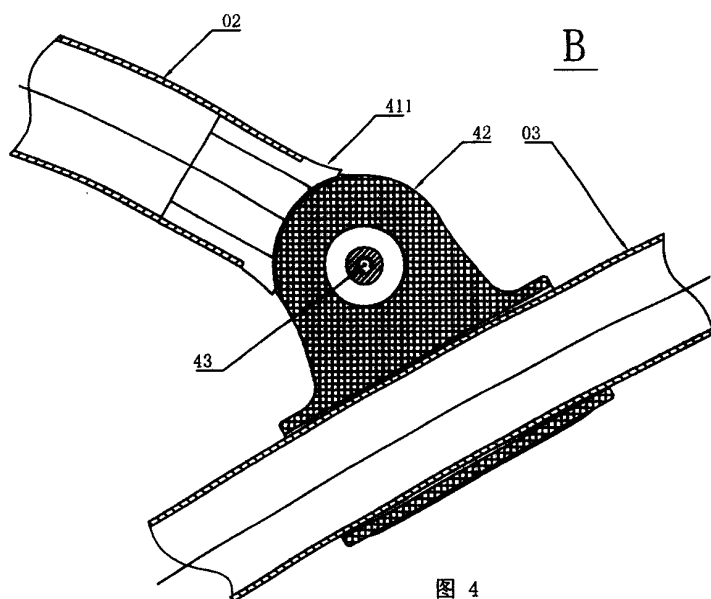


图 4

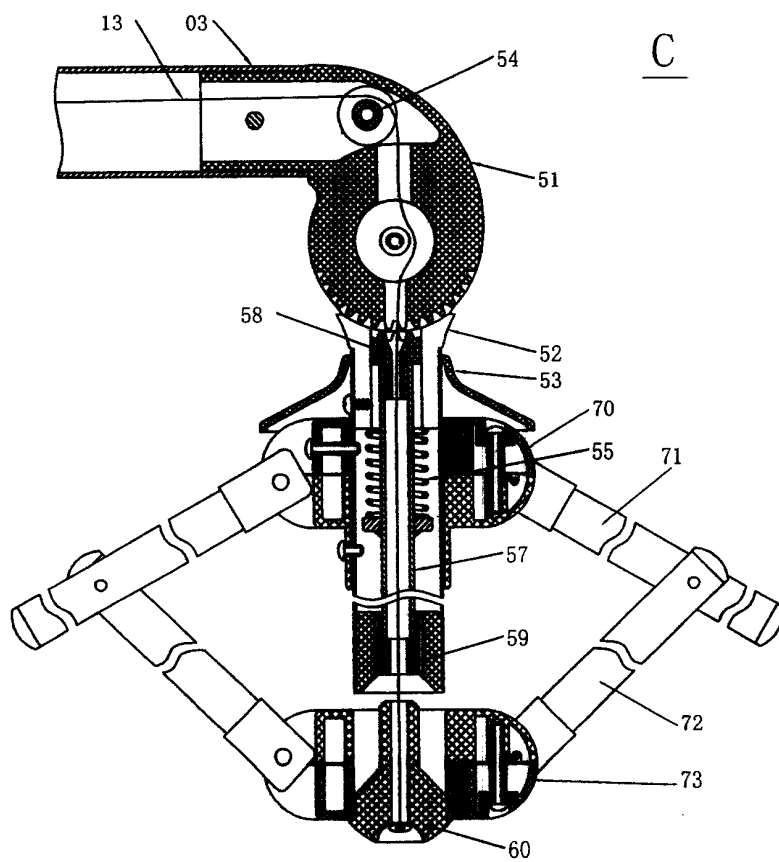


图 5

**Certification of Accuracy**

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[12] Description of Utility Model Patent

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Claims 1 page, Description 3 pages, Drawings 3 pages

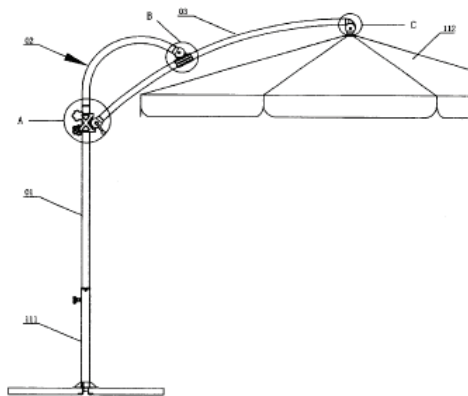
[54] **Title of Utility Model**

Simple banana hanging parasol

[57] **Abstract of Disclosures**

The present utility model relates to parasol, in particular to a simple banana hanging parasol. It mainly includes a parasol pole, a suspension rod, a pull rod, a parasol cover, and a parasol frame. A bottom end of the pull rod is connected to a top end of the parasol pole; a top end of the pull rod is connected to the suspension rod in a sleeving manner, the top end of the parasol pole and the bottom end of the pull rod have a horizontal rotating connection structure, a parasol pole set has a sliding sleeve of a locking device that matches the parasol pole, the sliding sleeve includes a rope winder and is shaft-connected to a bottom end of the suspension rod, a top

end of the suspension rod and an upper parasol disc of the parasol frame have a pitch rotating connection structure, one end of a pull rope is fixed to a reel of the rope winder installed in the sliding sleeve, and the other end thereof passes through the suspension rod and a top tube installed in the upper parasol disc to be fixed to a lower parasol disc. The structure of the present utility model makes the parasol cover easy to open and close, the parasol cover can rotate 360° around the parasol pole, and the pitch angle thereof can also be adjusted. The parasol cover is stable; the operation is simple, labor-saving and convenient.



1. A simple banana hanging parasol, mainly comprising a parasol pole (01), a suspension rod (03), a pull rod (02), a parasol cover (112), and a parasol frame, a bottom end of the pull rod (02) is connected to a top end of the parasol pole (01); a top end of the pull rod (02) is connected to the suspension rod (03) in a sleeving manner, characterized in that the top end of the parasol pole (01) and the bottom end of the pull rod (02) have a horizontal rotating connection structure, a parasol pole (01) set has a sliding sleeve (11) of a locking device that matches the parasol pole, the sliding sleeve comprises a rope winder and is shaft-connected to a bottom end of the suspension rod (03), a top end of the suspension rod (03) and an upper parasol disc (70) of the parasol frame have a pitch rotating connection structure, one end of a pull rope (13) is fixed to a reel (26) of the rope winder installed in the sliding sleeve (11), and the other end thereof passes through the suspension rod (03) and a top tube (57) installed in the upper parasol disc to be fixed to a lower parasol disc.

2. The simple banana hanging parasol according to claim 1, characterized in that the suspension rod (03) and the pull rod (02) are both composed of curved arc tubes.

3. The simple banana hanging parasol according to claim 1, characterized in that the parasol pole sliding sleeve (11) is connected to the rope winder to form a whole unit, and the sliding sleeve (11) has a bolt-locking hoop structure.

4. The simple banana hanging parasol according to claim 1, characterized in that the top end of the tubular parasol pole (01) is fixed with a bushing (17), an upper end and a lower end of the bushing respectively form a bearing seat, a shaft cap (19.1) of a bolt-shaped rotating shaft (19) is fastened to a lower end of the tubular pull rod (02) and seated on an upper bearing (18), a lower end of the rotating shaft (19) extends into the bushing (17) and is fastened to a lower bearing (16) to form the horizontal rotating connection structure.

5. The simple banana hanging parasol according to claim 1, characterized in that the top end of the suspension rod (03) is equipped with a toothed cylindrical joint (51) with a rope hole, a top end of the top tube (57) is embedded with an upper plug (58), a top end of the upper plug is made into tooth edges that match tooth edges of the joint (51), a bottom end thereof is embedded

with a lower plug (59) that can abuts against a hollow shaft tube (60) of the lower parasol disc, and the top tube (57) is sleeved with a return spring (55).

6. The simple banana hanging parasol according to claim 1, characterized in that the top end of the pull rod (02) is axially connected to a tube sleeve (42) that is sleeved on the tubular suspension rod (03).

7. The simple banana hanging parasol according to claim 1, characterized in that a torsion spring (21) is fixed on a top end of the reel of the rope winder (26), and when the torsion spring (21) is twisted, the diameter thereof becomes larger to press a tube wall therearound so as to stop the reel.

Simple banana hanging parasol

Technical Field:

The present utility model relates to a parasol, in particular to a hanging parasol with adjustable inclination angle of the parasol cover.

Background Art

A traditional banana hanging parasol has a large shielding area because the parasol pole is located on one side of the parasol cover. The parasol is mainly composed of a parasol pole, a suspension rod, a pull rod, a parasol cover and a parasol frame. A movable support seat is provided at one end of the parasol pole, and the movable support seat is sleeved on a bent tube; one end of the bent tube is riveted to a handle casing and a pull tube, and the other end of the bent tube is connected to the parasol cover. A sliding seat is sleeved on the parasol pole and hinged with one end of the pull tube. When the parasol cover needs to be opened, a user has to first lift up a rope casing and secures the pull tube with a fixing sleeve, and then lifts the sliding seat upward, fixes it on the parasol pole, and operates the handle to open the parasol cover. The operation steps of this type of banana parasol are complicated, and the opening and closing of the parasol cover is quite inconvenient. Moreover, there is no positioning device between the parasol cover and an elbow. It is not only unstable when the parasol cover is opened, but also very inconvenient when adjusting the inclination angle and direction of the parasol cover to achieve the effect of blocking slanting sunlight.

Summary of the Utility Model

One object of the present utility model is to provide a simple banana hanging parasol that is easy to operate and has an adjustable inclination angle of parasol cover.

The technical solutions of the present utility model are as follows: a simple banana hanging parasol is provided, which mainly comprises a parasol pole, a suspension rod, a pull rod, a parasol cover, and a parasol frame, a bottom end of the pull rod is connected to a top end of the parasol pole; a top end of the pull rod is connected to the suspension rod in a sleeving manner, characterized in that the top end of the parasol pole and the bottom end of the pull rod have a horizontal rotating connection structure, a parasol pole set has a sliding sleeve of a locking

device that matches the parasol pole, the sliding sleeve comprises a rope winder and is shaft-connected to a bottom end of the suspension rod, a top end of the suspension rod and an upper parasol disc of the parasol frame have a pitch rotating connection structure, one end of a pull rope is fixed to a reel of the rope winder installed in the sliding sleeve, and the other end thereof passes through the suspension rod and a top tube installed in the upper parasol disc to be fixed to a lower parasol disc.

The suspension rod and the pull rod are both composed of curved arc tubes.

The parasol pole sliding sleeve is connected to the rope winder to form a whole unit, and the sliding sleeve has a bolt-locking hoop structure.

The top end of the tubular parasol pole is fixed with a bushing, an upper end and a lower end of the bushing respectively form a bearing seat, a shaft cap of a bolt-shaped rotating shaft is fastened to a lower end of the tubular pull rod and seated on an upper bearing, a lower end of the rotating shaft extends into the bushing and is fastened to a lower bearing to form the horizontal rotating connection structure.

The top end of the suspension rod is equipped with a toothed cylindrical joint with a rope hole, a top end of the top tube is embedded with an upper plug, a top end of the upper plug is made into tooth edges that match tooth edges of the joint, a bottom end thereof is embedded with a lower plug that can abut against a hollow shaft tube of the lower parasol disc, and the top tube is sleeved with a return spring.

The top end of the pull rod is axially connected to a tube sleeve that is sleeved on the tubular suspension rod.

A torsion spring is fixed on a top end of the reel of the rope winder, and when the torsion spring is twisted, the diameter thereof becomes larger to press a tube wall therearound so as to stop the reel.

With the structure provided in the present utility model, the parasol cover can be easily opened and closed. When opening the parasol, the sliding sleeve of the parasol pole is pushed up, the rope winder is then operated to wind the parasol rope so as to lift the lower parasol disc, the hollow shaft tube of the lower parasol disc abuts against the top tube, the top end of the upper plug of the top tube meshes with the tooth edges of the top joint of the suspension rod; at the same time, the parasol support of the lower parasol disc pushes the parasol ribs to open the parasol cover, and the sliding sleeve is then locked to become an ordinary hanging parasol. If the

sun is shining obliquely, the parasol rope can be slightly loosened to disengage the top tube from the joint, the parasol cover can be adjusted to reach an appropriate pitch angle where the normal line of the parasol cover points to the sun, and then the configuration is locked. Moreover, the sliding sleeve can be slightly loosened, based on the 360° rotation of the upper bearing, so as to push the parasol cover to further drive the suspension rod and pull rod to rotate horizontally around the parasol pole to change the shielding area of the parasol cover. Thus, the position range can be adjusted as desired. When the rope winder is used for rope winding, it can simultaneously press the torsion spring installed at the top end of the reel. When the torsion spring is twisted, its diameter changes to press the surrounding tube wall; thus the reel can be automatically locked. The operation is simple, labor-saving and convenient.

Brief Description of the Drawings

Fig. 1 is a front view of a parasol according to some embodiments of the present utility model.

Fig. 2 is an enlarged structural view of the position A in Fig. 1.

Fig. 3 is a cross-sectional view of A-A in Fig. 2.

Fig. 4 is an enlarged structural view of the position B in Fig. 1.

Fig. 5 is an enlarged structural view of the position C in Fig. 1.

Description of the Embodiments

With reference to Fig. 1 and Fig. 5, an embodiment of a simple banana hanging parasol is shown. The hanging parasol is mainly composed of a parasol pole 01, a tubular suspension rod 03 composed of a curved arc tube, a tubular pull rod 02, a parasol cover 112 and a parasol frame. The parasol frame is composed of an upper parasol disc 70, a lower parasol disc 73, a parasol support 72, and parasol ribs 71. The parasol pole 01 is plugged into a parasol base 111. The bottom end of pull rod 02 is connected to the top end of parasol pole 01, and the top end thereof is connected to the tubular suspension rod 03. The top end of the suspension rod 03 is hung with the parasol frame.

With reference to Fig. 2, Fig. 3 and Fig. 5, the top end of the parasol pole 01 is fixed with a bushing 17 by screws 28. The upper end and lower end of the bushing constitute the bearing seats of an upper bearing 18 and a lower bearing 16 respectively. A shaft cap 19.1 of the bolt-

shaped rotating shaft 19 is fastened to a lower end of the tubular pull rod 02 and seated on the upper bearing 18. The rotating shaft 19 extends into the bushing 17 and is tightened with an inner ring of the lower bearing 16 so that the pull rod 02 can rotate 360° horizontally relative to the parasol pole 01. The parasol pole 01 is equipped with a hoop-type sliding sleeve 11 locked by a bolt. One end of the bolt is equipped with a rotating handle 22, and a spring 23 is sleeved on the bolt portion between the hoop chucks. A roller 21 is respectively installed at the upper end and lower end of the sliding sleeve 11 to slide smoothly with the parasol pole. The sliding sleeve 11 is connected to the spherical left and right casings 141 and 142 of the rope winder. The rope reel 26 of a winder handle 27 is tied with a pull rope 13, and the other end of the pull rope passes through the suspension rod 03 through a pulley 15 and the top tube 57 installed in the upper parasol disc 70, so as to be fixed to the lower parasol disc 73. The element 20 in the figures is a positioning spring clip of the lower bearing 16, the element 25 is a rope drum, and 121 and 122 are respectively covering caps. The torsion spring 24 is fixed at the top end of the rope reel 26 located in the left casing 141. When the torsion spring 24 is reversely twisted, its diameter becomes larger and the tube wall around it will be pressed by it so as to stop the rope reel 26, without the need to install an additional locking mechanism.

With reference to Fig. 4, the top end of the pull rod 02 is equipped with a concave arc joint 411 to slide relatively with a semi-cylindrical lug of a tube sleeve 42 of the suspension rod 03. The joint 411 and the tube sleeve 42 are hingedly connected by a pivot pin 43, so that when the suspension rod 03 slides in the tube sleeve 42, the semi-cylindrical lug can rotate relative to the concave arc joint 411.

With reference to Fig. 5, the tubular suspension rod 03 and the upper parasol disc 70 of the parasol frame have a pitch rotating connection structure. The top end of the suspension rod 03 is equipped with a toothed cylindrical joint 51 with a rope hole. An upper plug 58 is embedded at the top end of the top tube 57 installed in the upper parasol disc. The top end of the upper plug is made into tooth edges that can mesh with the tooth edge of the joint 51. The top tube 57 is provided with a return spring 55 whose upper end contacts a tube base 52 installed in a parasol cap 53, and the bottom end thereof is embedded with a lower plug 59 which is in contact with the hollow shaft tube 60 of the lower parasol disc 73. Both the upper plug 58 and the lower plug 59 are hollow. The pull rope 13 passes through the joint 51 through the pulley 54 installed

in the joint 51, enters the upper plug 58, the top tube 57, and the lower plug 59, and is then fixed to the hollow shaft tube 60 in the lower parasol disc.

Work process: when it is necessary to change the shielding position of the parasol, the sliding sleeve 11 is slightly loosened, the parasol cover 112 is pushed to drive the suspension rod 03 and the pull rod 02 to rotate horizontally around the parasol pole 01, and then the rotating handle 22 is tightened. When it is necessary to change the pitch angle of the parasol, the parasol rope 13 can be slightly loosened to disengage the upper plug 58 from the joint 51, then the parasol cover is moved to adjust the pitch angle to reach a suitable angle where the normal line of the parasol cover points to the sun, and then the parasol rope 13 is tightened so that the upper plug 58 rises and re-engages the joint 51 for positioning, so that the parasol cover is stable.

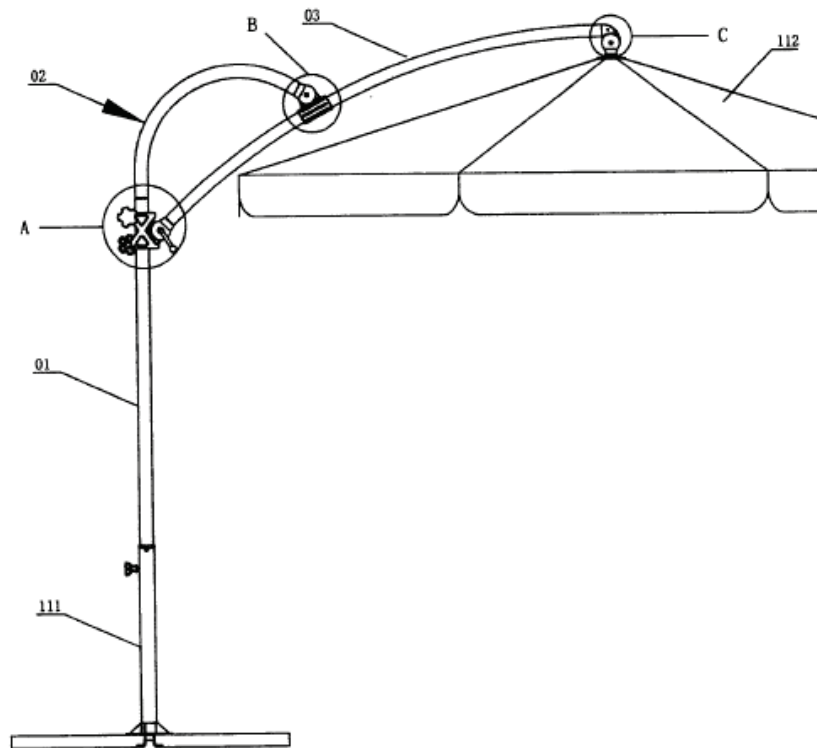


Fig. 1

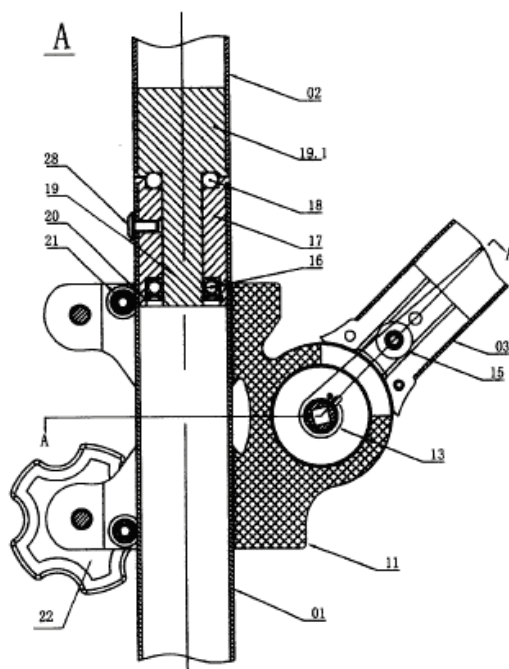


Fig. 2

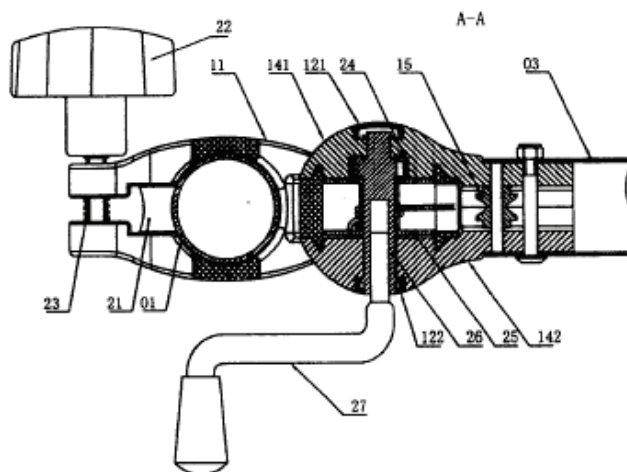


Fig. 3

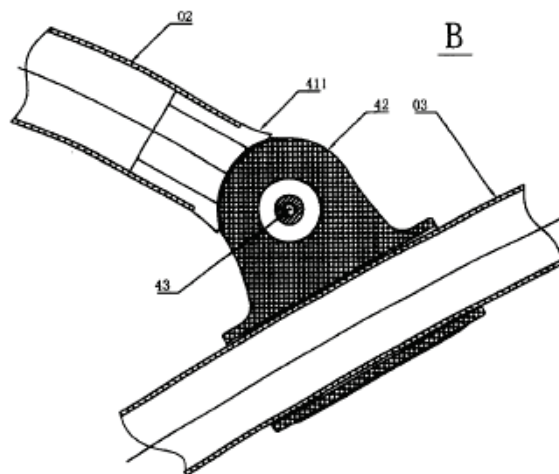


Fig. 4

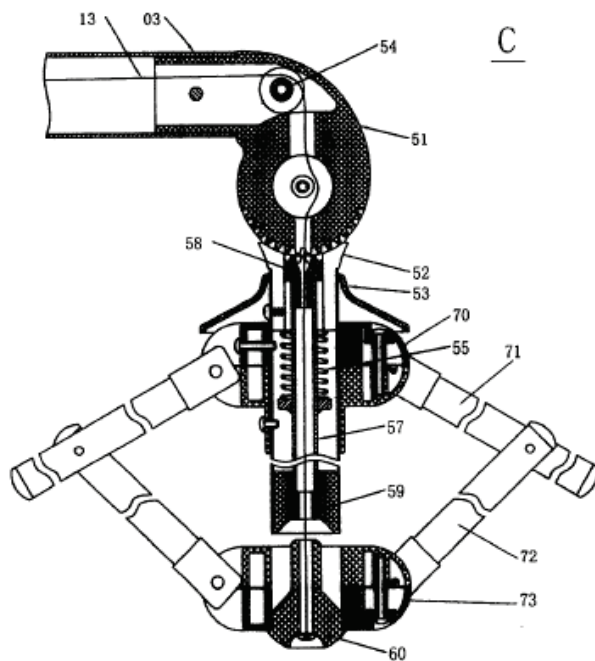


Fig. 5