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Design and Research of a Rotating Packing Device for Decryption

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Abstract

The design of the second rotating shaft is a plurality of the second part of the suspended shaft arms along the radial direction of the second rotating shaft. A plurality of topmost parts have a second opening of the second part of the box body, each of the first suspended shaft arms, the second suspended shaft arms are connected to each other separately from the two end points of the opposite position of each second box body, the second box body opening part of each second box body can be rotated to change the direction of the first box body opening. Multiple boxes of the second part can take turns through the first opening, and items can be put in or taken out in the direction of the second box opening of the second box body. This is the box body used for packaging in the rotating way.

Keywords

Packaging Box; A Device; Design.

1. Design Strategies

The rotating box body used for packaging is characterized in that the first connected part block and the second connected part block are the second box body design, the first connected part block and the second connected part block are a relative position design; The first rotating rack also includes a first connecting shaft designed on each first hanging shaft arm and a first bearing designed on each first connecting shaft. The first bearing is designed on the first hanging shaft arm far off the end of the first rotating shaft. What distinguishes the first bearing from the first connecting part block is the two end points of the first connecting shaft.

The second part of the rotating rack also includes a second connecting shaft designed for each second hanging shaft arm and a second bearing designed for each second connecting shaft. The second bearing is designed for the second hanging shaft arm far from the end of the second rotating shaft. What distinguishes the second bearing from the second connecting part block is the two end points of the second connecting shaft,As shown in Figure 1.

Figure 1. Shaft arm mechanism

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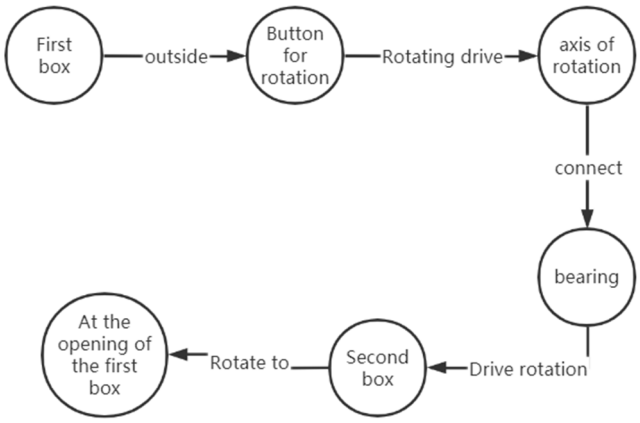
Please refer to the use flow chart of the rotary box body for packaging in Figure 2 above, as shown in Table 1. The top part of the box board of the first box body is designed with openings; The shelf driving the first rotation in the first box body includes the outermost rotation button, a rotating shaft connected to the first rotation button and a plurality of shaft arms suspended in the first part. The rotating button directly passes through the box plate of the first box body and drives the rotation of the first rotating shaft. A plurality of first part suspended shaft arms are designed along the radial direction of the rotating shaft on the first rotating shaft; The second rotating frame comprises a second rotating shaft and a plurality of second suspended arms. The second rotating shaft is designed with a plurality of second suspended arms along the radial orientation of the second rotating shaft. A plurality of topmost parts has a second opening of the second part of the box body, each of the first suspended shaft arms, the second suspended shaft arms are connected to each other separately from the two end points of the opposite position of each second box body, the second box body opening part of each second box body can be rotated to change the direction of the first box body opening. Multiple second part boxes can take turns through the first opening, and items can be put in or taken out in the direction of the second opening of the second box body, as shown in Table 1.

Table 1. Use flow chart of rotary box used for packaging



2. The Execution Case of This Design is as Follows

A rotating box body for packaging comprises a first box body, a first rotating shelf, a second box body and a second part rotating shelf. The top part of the box board of the first box body is provided with the first box body opening; The first rotating shelf includes a rotating button, a first rotating shaft and a plurality of first suspended shaft arms. The rotating button is designed outside the first box body, and the first rotating shaft is designed inside the first box body. The rotating button passes directly through the box plate of the first box body and drives the first rotating shaft to rotate a plurality of second box bodies. The first rotating shaft is designed in a plurality of first hanging shaft arms along the radial position of the first rotating shaft; The second part of the rotating shelf and the first rotating shelf is synchronous rotation, rotation is a second rotating shaft and a plurality of second hanging shaft arms, the first box body is also designed a second rotating shaft, the second rotating shaft is designed in a plurality of second hanging shaft arms along the radial direction of the second rotating shaft; The topmost parts have an open second box body, and each first suspended shaft arm is connected with an end point of each second box body. The end point of the first suspended shaft arm is connected far away from each second suspended shaft arm and each second box body. The opening of the second box body for each second box body can be changed to the direction of the opening of the first box body.

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The good effect of the specific implementation case of this design is:

The specific execution case of this design is a rotating box body used for packaging, which includes the first box body, the first rotating shelf, the second box body and the second part of the rotating shelf. The uppermost part of the box plate of the first box body is provided with the first box body opening; The first rotating shelf comprises a rotating button, a first rotating shaft and a plurality of first suspended shaft arms. The rotating button passes directly through the box plate of the first box body and is rotated with the first rotating shaft, the first rotating shaft is designed in a plurality of first suspended shaft arms along the radial direction of the first rotating shaft; The next use in turn, the second part drives the second part of the parts. A plurality of uppermost sections have an opening for a second box body, and each suspended shaft arm is separately connected to two opposite end points of each box body, allowing the opening of each second box body to vary in direction to the opening of the first box body. It is characterized by convenient use and simple structure.

Icon display: rotary box body used for packaging; Board for six boxes; The first box body opening; The first rotating shelf; Rotate button; The first axis for rotation; The first hanging shaft arm; The first connecting shaft; The first bearing; The second box body; The second box body opening; The first connecting part block; The second connecting part block; The second part drives the rotating shelf; The second axis for rotation; A second suspended shaft arm; A shaft for the second connection; The second bearing.

3. Establish Reasonable Institutional Analysis and Explanation

In order to illustrate the technical aspects of the specific execution cases of this design, the following drawings will be introduced in these specific execution cases. Please understand that the following drawings only illustrate some specific execution cases of this design, so it should not be regarded as a limitation of scope. For technical personnel in this field, other relevant drawings can be obtained according to these drawings. Without the need for creative labor.

The structure of the rotary box to be wrapped for this design concrete example is shown in Figure 1. The schematic diagram of the first section structure of the rotating box body used for packaging is provided for the specific execution of this design, and the second section structure of the rotating box body used for packaging can be used in various forms to achieve the effect of rotating to complete the packaging performance,As shown in Figure 2.

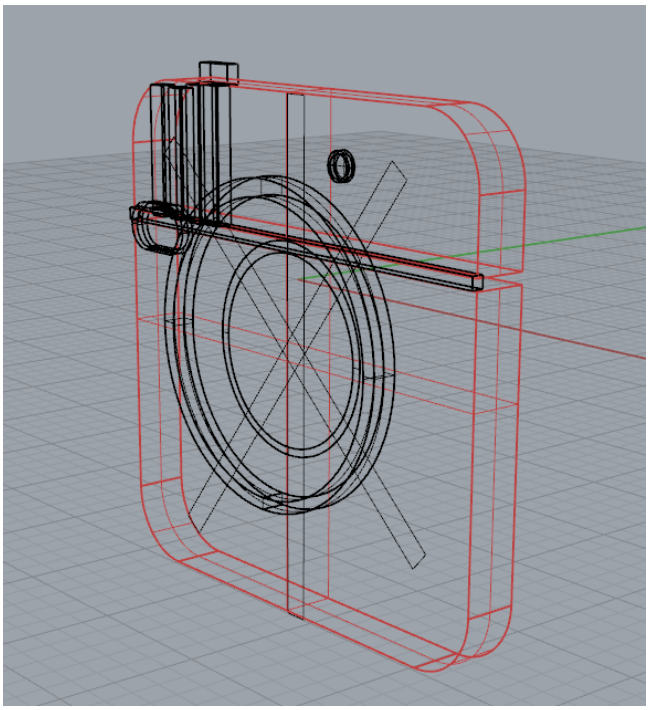

Figure 2. Rotatable structure

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Among them, the second rotation uses a shaft rotation design in the second box with a plate, and the six second hanging shaft arms rotate along the second with a radial design of the shaft in the second rotation with a shaft,As shown in Figure 3.

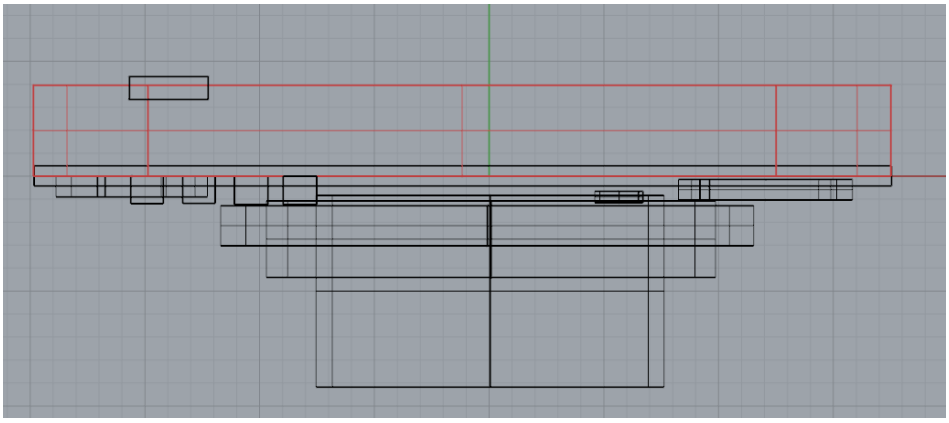

Figure 3. Rotatable attachment mechanism

The preferred six shaft arms are evenly distributed along the axis of rotation. In addition, the number of shaft arms is always consistent to ensure the synchronous rotation of the first rotating shelf and the second rotating shelf.

Please refer to Figure 2 for the first section structure diagram of the box body for packaging, Figure 3 for the second section structure diagram of the box body for packaging and Figure 4 for partial expansion diagram, each second box body is a hexahedron less side structure, similar to the drawer type, i.e., The uppermost part of each second box is the opening belonging to the second box. The first and two hanging shaft arms are separated and distinguished from the two end points of each second box body, and coordinate with each other one by one to open to the opening position of the first box body in turn. The schematic diagram of rotating mechanism is shown in Figure 4.

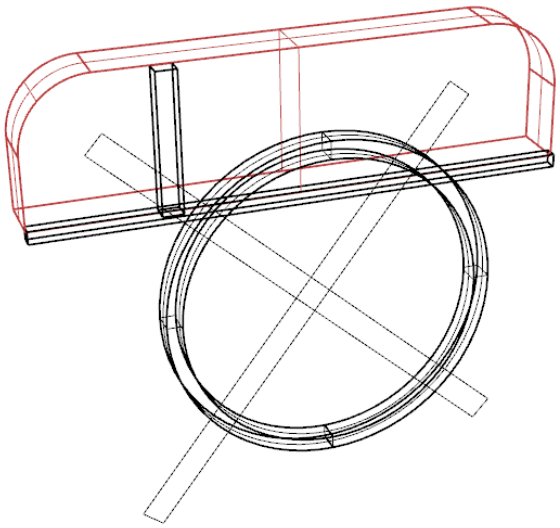

Figure 4. Schematic diagram of rotating mechanism

Specifically, the second box has a first connecting part block and a second connecting part block, and the connecting part block is set relative to each other. The second box uses one side of the box plate and protrudes in the direction of the opening of the first box body designed at the first connecting part

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block, and so on. The first connecting shaft is far from the end point of the first bearing and is connected with the first connecting part block. The partial enlargement diagram is shown in Figure 5.

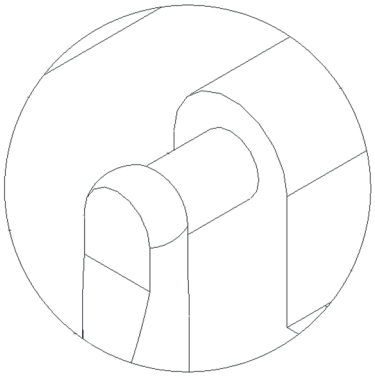

Figure 5. Local magnification diagram

The openings of the two boxes as preferred items are equal in size. Different parts of the second box are transferred to the opening direction of the first box in turn to realize the use of the second box. You can place some small objects, as shown in Figure 6.

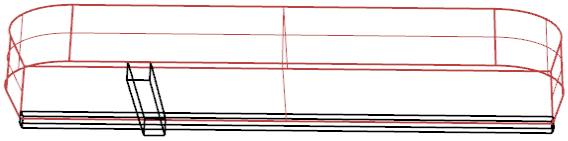

Figure 6. Second box use

4. Conclusion

The above are only examples of the specific implementation of the design, and are not intended to limit the design. The design can be changed in a variety of ways, and can also be changed for the technical personnel in the field. Any modification, equivalent substitution, alteration, etc., shall be included within the protection of this design and within the spirit and principles of this design.

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