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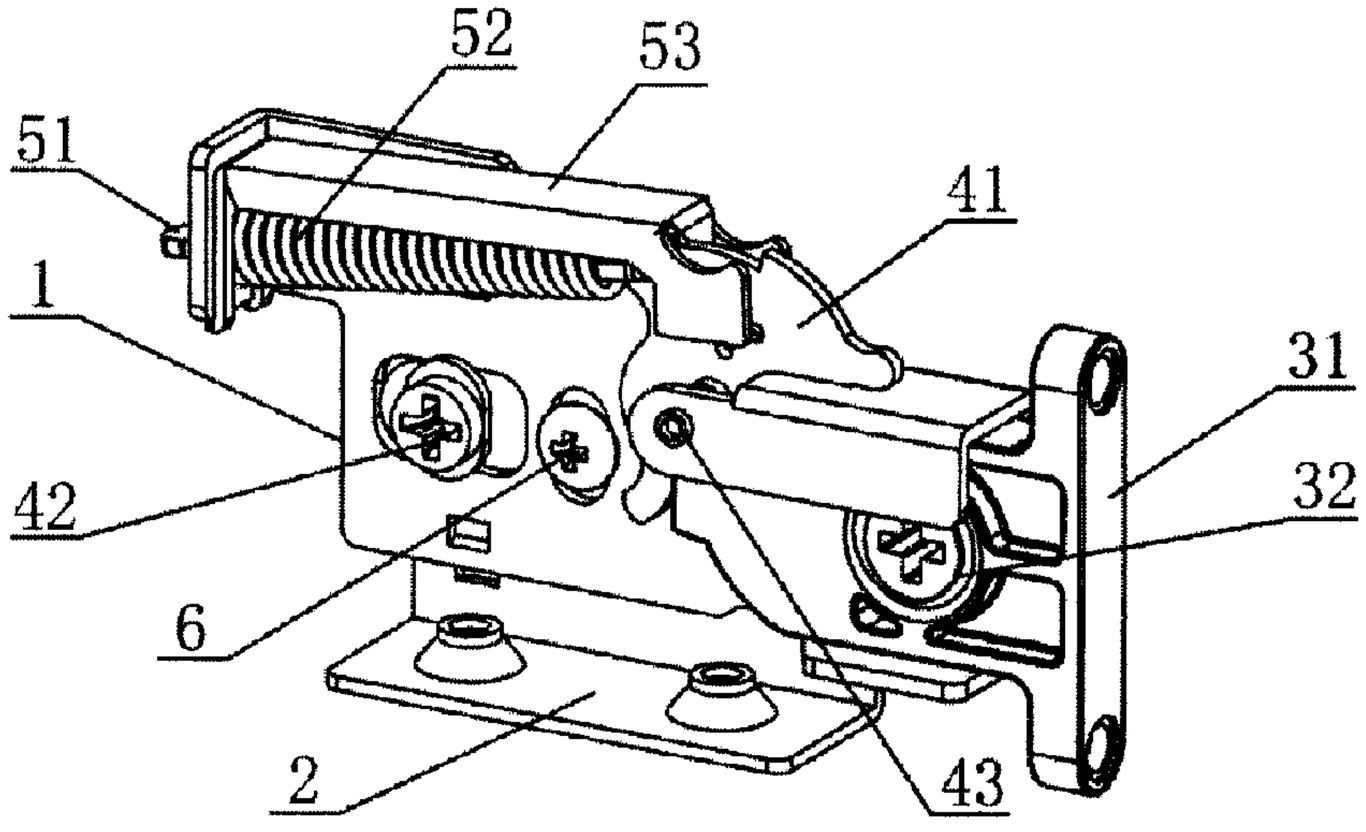
(54) **Titre : DISPOSITIF DE REGLAGE POUR PANNEAU DE TIROIR**
(54) **Title: A REGULATING DEVICE OF DRAWER PANEL**



(57) **Abrégé/Abstract:**
A regulating device of drawer panel includes the stationary frame set on drawer side and the adjusting bracket assembled on the stationary frame. The flexible connection of drawer panel can be realized by horizontal regulating components and the adjusting bracket. The longitudinal regulating components that match with the described horizontal regulating components, as well as the elastic tripping components are set on the adjusting bracket. The horizontal and longitudinal regulating components are set on the adjusting bracket in this utility model which can realize the adjusting screw to control the horizontal position of jointer while the adjusting rivet to control the vertical height of jointer in rotation. The horizontal and longitudinal regulating components are set so that the sliding rail can be installed in accordance with the actual size of components, which prevents the drawer panel from being moved and dramatically improves the stability of sliding rail in use. Besides, the adjusting bracket in this utility model is also equipped with elastic tripping components for easy of dismounting and using the drawer slide.

ABSTRACT

A regulating device of drawer panel includes the stationary frame set on drawer side and the adjusting bracket assembled on the stationary frame. The flexible connection of drawer panel can be realized by horizontal regulating components and the adjusting bracket. The longitudinal regulating components that match with the described horizontal regulating components, as well as the elastic tripping components are set on the adjusting bracket. The horizontal and longitudinal regulating components are set on the adjusting bracket in this utility model which can realize the adjusting screw to control the horizontal position of jointer while the adjusting rivet to control the vertical height of jointer in rotation. The horizontal and longitudinal regulating components are set so that the sliding rail can be installed in accordance with the actual size of components, which prevents the drawer panel from being moved and dramatically improves the stability of sliding rail in use. Besides, the adjusting bracket in this utility model is also equipped with elastic tripping components for easy of dismounting and using the drawer slide.

A REGULATING DEVICE OF DRAWER PANEL

FIELD OF TECHNOLOGY

This invention is involved in the field of furniture accessories, more precisely, a regulating device of drawer panel.

BACKGROUND TECHNOLOGY

The existing drawer with sliding rail usually adopts the sliding mechanism with internal and external fixation. However, this mechanism has significant technical defects. First of all, the requirements of machining precision and installation accuracy for the sliding mechanism with internal and external fixation are very high. If the dimensional deviation or installation error occurs during install the sliding rail, it will directly result in moving the drawer panel and failing to close; secondly, for the safety of internal and external rail sliding, they are overall integration. However, it is necessary to separate the internal and external rails when clean up the drawer or the sliding rail. The disassembling operation is so messy that how to deal with the slide mechanism with sliding drawer is always the technical problem of product.

Chinese patent number: 200620066129.3 discloses a drawer rail assembly that uses the adjusting screw to adjust the vertical position of panel to complete the tripping mechanism through pulling first and then lifting during dismounting.

However, this drawer rail assembly only can adjust the up-down position of panel, not the left-right position. Beside, the users often have the lifting action when pull out the drawer, which will make the panel of drawer rail assembly come off easily when pull out the drawer. Therefore, it is necessary to improve further.

SUMMARY

Based on the deficiency of prior art, this invention aims to provide a regulating device of drawer panel to realize the adjustment of drawer panel and to be easily dismantle and assemble through installing horizontal and longitude regulating components, as well as the elastic tripping components.

In order to achieve the above goal, this invention adopts the following technical proposals:

A regulating device of drawer panel includes the stationary frame set on drawer side and the adjusting bracket assembled on the stationary frame. The flexible connection of drawer panel can be realized by horizontal regulating components and the adjusting bracket. The longitudinal regulating components, matching with the horizontal regulating components, are set on the adjusting bracket. There also have the elastic tripping components which are connected with the longitudinal regulating components.

It's important to note that the horizontal regulating components include the jointer with flanges at the end of adjusting bracket and the adjusting screw at the side of

the jointer. The adjusting screw end is through the jointer to press on the wall of the adjusting bracket.

It's important to note that the longitudinal regulating components include the distance piece and adjusting rivet on the adjusting bracket respectively. The adjusting rivet is located in the front of the distance piece.

It's important to note that the distance piece also has the rivet of distance piece connected with the live hinge of adjusting bracket. The adjusting rivet is off-center rivet, rotatably installed on the adjusting bracket.

It's important to note that the elastic tripping components include the guide bar between distance piece and adjusting bracket, the spring installed on the guide bar as well. The guide bar is connected with the adjusting bracket. Besides, one side of spring presses on the end of guide bar while the other side presses on the adjusting bracket.

It's important to note that there also has the spring cup aligning with adjusting bracket and distance piece above the spring. The front end of spring cup presses on adjusting bracket; one side of guide bar is inserted in the adjusting bracket through the front end of spring cup while the back end of spring cup is against distance piece.

As an optimal program, the stationary frame is L-shape. The fastening screw is used to fix stationary frame and adjusting bracket.

The invention has the advantages that the horizontal and longitudinal regulating components are set on the adjusting bracket in this utility model which can realize the adjusting screw to control the horizontal position of jointer while the adjusting rivet to control the vertical height of jointer in rotation. The horizontal and longitudinal regulating components are set so that the sliding rail can be installed in accordance with the actual size of components, which prevents the drawer panel from being moved and dramatically improves the stability of sliding rail in use. Besides, the adjusting bracket in this utility model is also equipped with elastic tripping components for easy of dismounting and using the drawer slide.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is the structural diagram of the utility model;

Figure 2 is the sketch map of structural decomposition of the utility model;

Figure 3 is the installation structural diagram of the utility model;

Figure 4 is the fore structural diagram of drawer panel assembled in Figure 3;

Figure 5 is the post structural diagram of drawer panel assembled in Figure 3;

Figure 6 is the fore structural diagram of adjusting bracket assembled by horizontal regulating components in the utility model;

Figure 7 is the post structural diagram of adjusting bracket assembled by horizontal regulating components in the utility model;

Figure 8 is the connection sketch map when the jointer flange contacts the distance piece for the first time;

Figure 9 is the connection sketch map after the jointer flange contacts the distance piece.

DETAILED DESCRIPTION

The next section will further describe this invention as shown in the Figures.

As shown in Figure 1~5, this invention is a regulating device of drawer panel, including L-shaped stationary frame 2 installed in the drawer side 13, assembled on adjusting bracket 1 of stationary frame 2 through fastening screw 21. The drawer panel 12 is connected with adjusting bracket 2 by horizontal regulating components 3. The longitudinal regulating components 4, matching with the horizontal regulating components 3, are set on the adjusting bracket 1. There also have the elastic tripping components 5 on the adjusting bracket 1.

The horizontal regulating components 3 include the jointer with flanges 31 at the end of adjusting bracket and the adjusting screw 32 at the side of the jointer 31. The end of adjusting screw 32 is through the jointer 31 to press on the wall of the adjusting bracket 1. The adjusting screw 32 can rotate about jointer 31 and adjust the horizontal position of jointer 31 by pressing on the end of the wall of adjusting bracket 1. It's important to note that the fixed orifice 33 is set on the jointer 31 to make it fix on the drawer panel 12.

The longitudinal regulating components 4 include the distance piece 41 and adjusting rivet 42 on the adjusting bracket 1 respectively. The adjusting rivet 42 is located in the front of the distance piece 41. The flexible connection of distance piece 41 can be realized by the rivet 43 of distance piece and adjusting bracket 1, which complete the rotation and regulation functions of distance piece 41; the adjusting rivet 42 is off-center rivet, rotatably installed on the adjusting bracket 1. It can control the distance piece 41 to make vertical shifting of jointer 31 by rotating the adjusting rivet 42.

The elastic tripping components 5 include the guide bar 51 between distance piece 41 and adjusting bracket 1, the spring 52 installed on the guide bar 51 as well. The guide bar 51 is connected with adjusting bracket 1. Besides, one side of spring 52 presses on the end of guide bar 51 while the other side presses on the adjusting bracket 1. There also has the spring cup 53 aligning with adjusting bracket 1 and distance piece 41 above the spring 52. The front end of spring cup 53 presses on adjusting bracket 1; one side of guide bar 51 is inserted in the adjusting bracket 1 through the front end of spring cup 53 while the back end of spring cup 53 is against distance piece 41. It can adjust the position of guide bar 51 by adjusting the distance piece 41 to achieve the compression and tripping of spring 52 caused by guide bar 51, which is convenient to dismantle sliding rail 15.

It's important to note that the seal between adjusting bracket 1 and drawer side 13 is achieved by the surface cover 14 of side plate.

As shown in Figure 6 and Figure 7, before the jointer 31 is inserted into the adjusting bracket 1, the assembly angle between spring 52 on adjusting bracket 1 and level surface is α; After the jointer 31 is inserted into the adjusting bracket 1, the distance piece 41 is forced to adjust the position of guide bar 51 and will make the spring 52 swing to a certain angle. At the moment, the assembly angle between spring 52 on adjusting bracket 1 and level surface is β. As shown in Figure 8, after the jointer 31 is inserted into the adjusting bracket 1, the jointer 31 with flange 311 exposes the distance piece 41. When side A of flange 311 continues to knock side B of distance piece 41, it will touch the distance piece 41 at last.

As shown in Figure 9, the distance piece 41 is forced to swing inward, side C of the distance piece hooks side D of flange 311. It will pull the jointer 31 to move inward. On the contrary, when the jointer exits, the product action will be against the principles of movement that side B of distance piece will push side A of flange.

For the technical staffs in this field, they can make various corresponding modification and transformation on the basis of the above-described technical proposals and designs.

THAT WHICH IS CLAIMED IS:

1. A regulating device of drawer panel includes the stationary frame set on drawer side and the adjusting bracket assembled on the stationary frame. The flexible connection of drawer panel can be realized by horizontal regulating components and the stationary frame. It is characterized in that the longitudinal regulating components, matching with the horizontal regulating components, are set on the adjusting bracket. There also have the elastic tripping components which are connected with the longitudinal regulating components.

2. The regulating device, according to Claim 1, is characterized in that the horizontal regulating components include the jointer with flanges at the end of adjusting bracket and the adjusting screw at the side of the jointer. The end of adjusting screw is through jointer to press on the wall of the adjusting bracket.

3. The regulating device, according to Claim 1, is characterized in that the longitudinal regulating components include the distance piece and adjusting rivet on the adjusting bracket respectively. The adjusting rivet is located in the front of the distance piece.

4. The regulating device, according to Claim 3, is characterized in that the distance piece also has the rivet of distance piece with the connection of adjusting bracket. The

adjusting rivet is the off-center rivet, rotatably installed in the adjusting bracket.

5. The regulating device, according to Claim 1, is characterized in that the elastic tripping components include the guide bar between distance piece and adjusting bracket, the spring installed in the guide bar as well. The guide bar is connected with adjusting bracket. Besides, one side of the spring presses on the end of guide bar while the other side presses on the adjusting bracket.

6. The regulating device, according to Claim 5, is characterized in that there also has the spring cup aligning with adjusting bracket and distance piece above the spring. The front end of spring cup presses on adjusting bracket; one side of guide bar is inserted in the adjusting bracket through the front end of spring cup while the back end of spring cup is against distance piece.

7. The regulating device, according to Claim 1, is characterized in that the stationary frame is L-shape. The fastening screw is used to fix stationary frame and adjusting bracket.

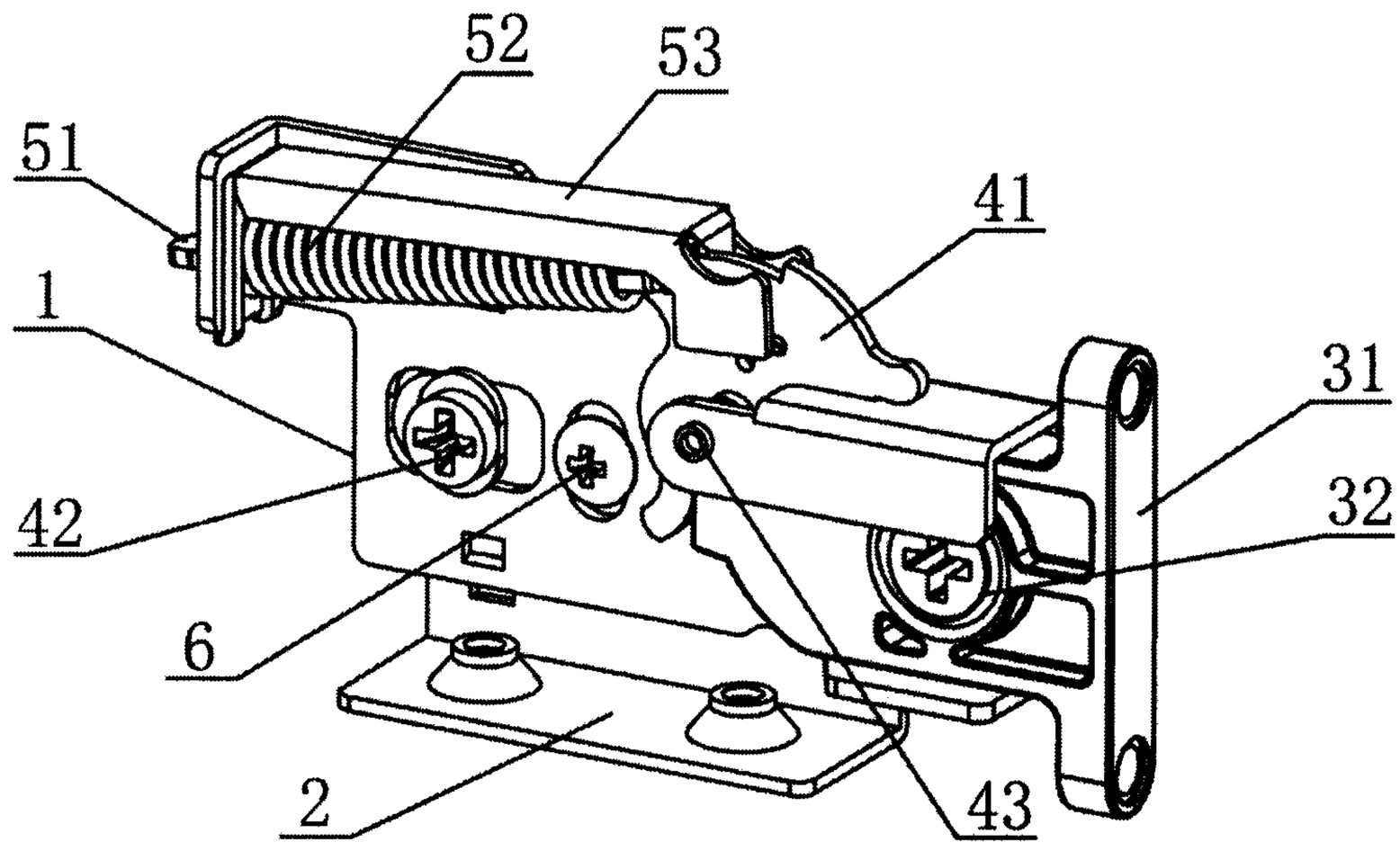


Figure 1

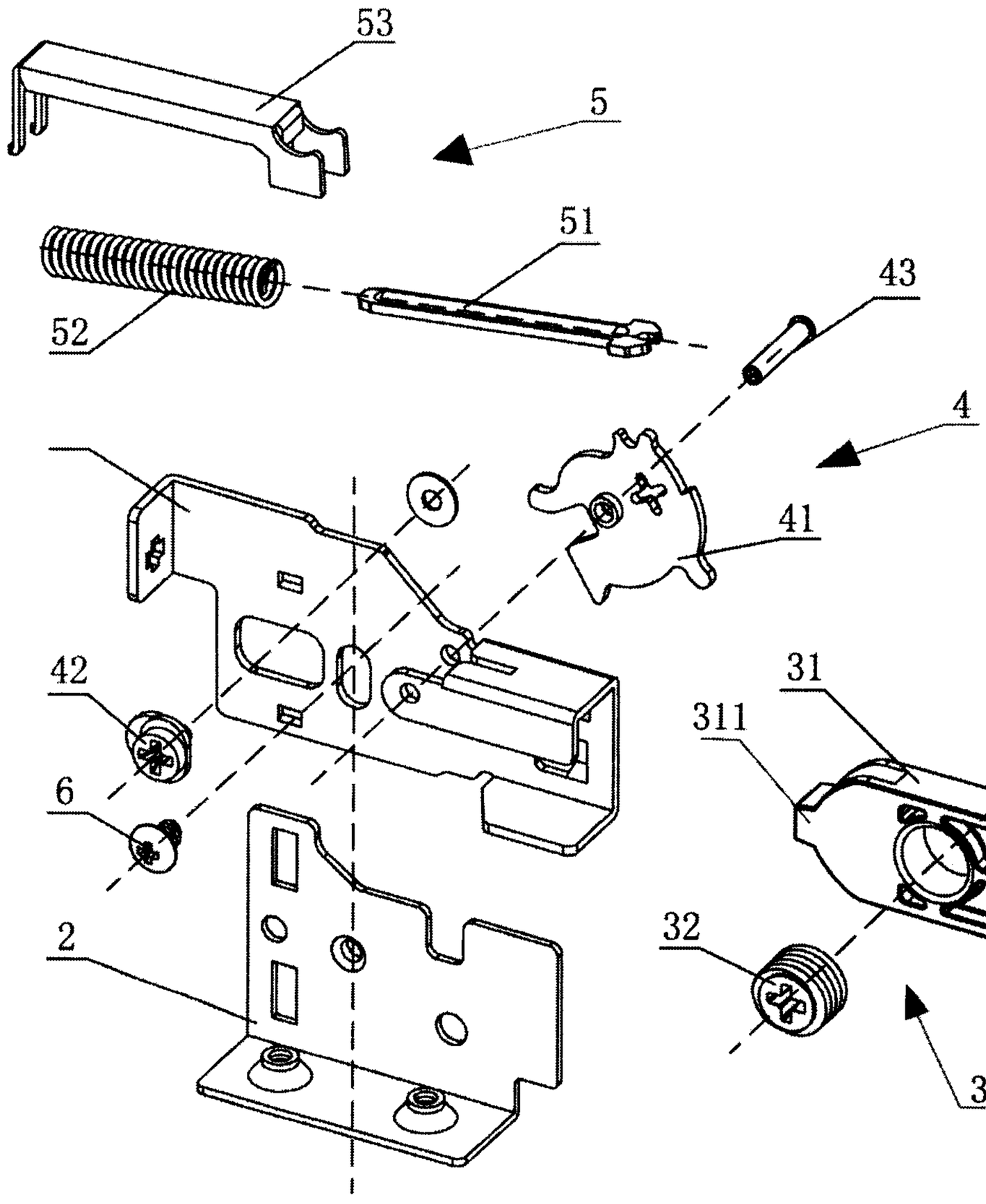
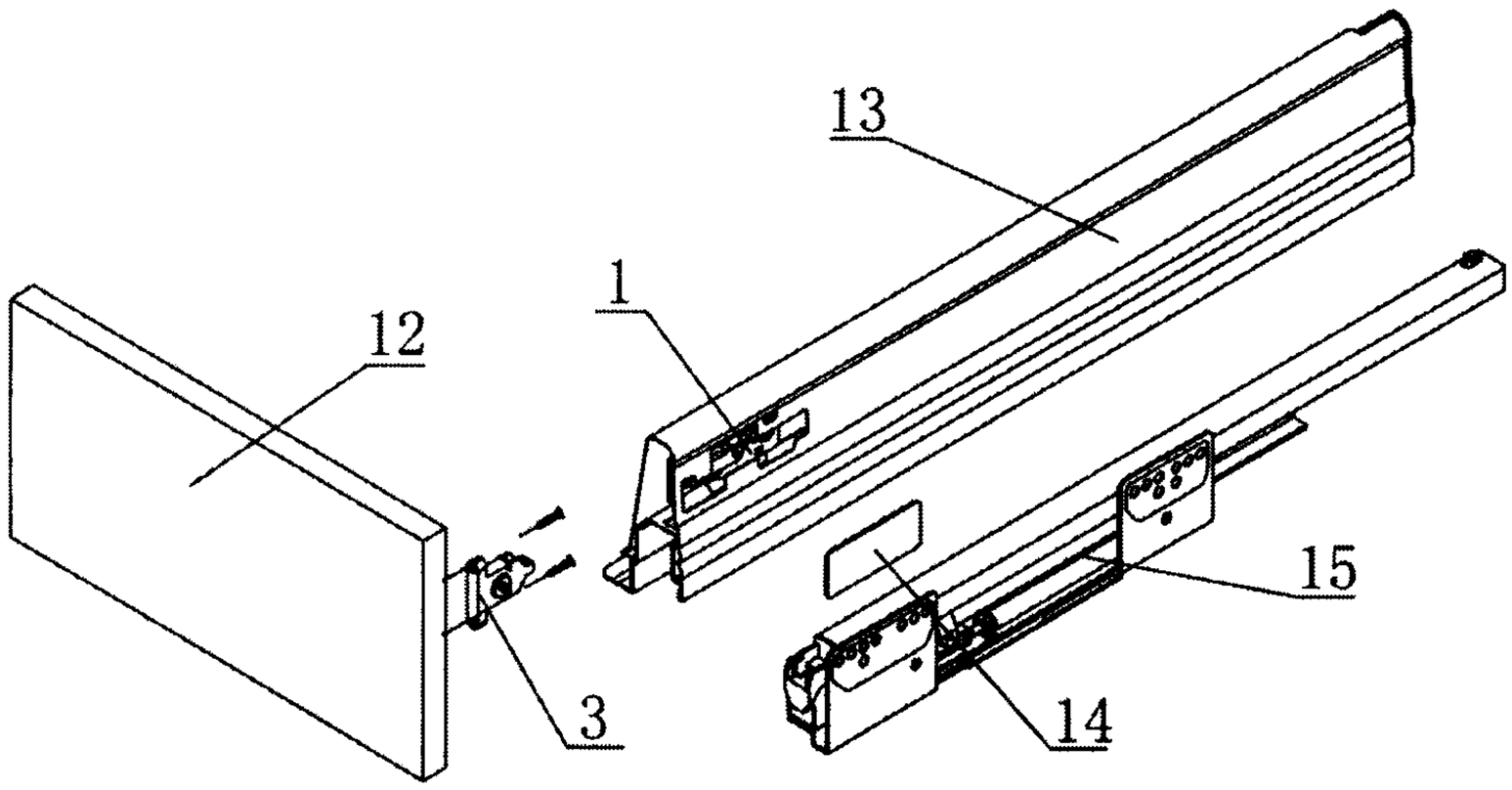


Figure 2

Figure 3



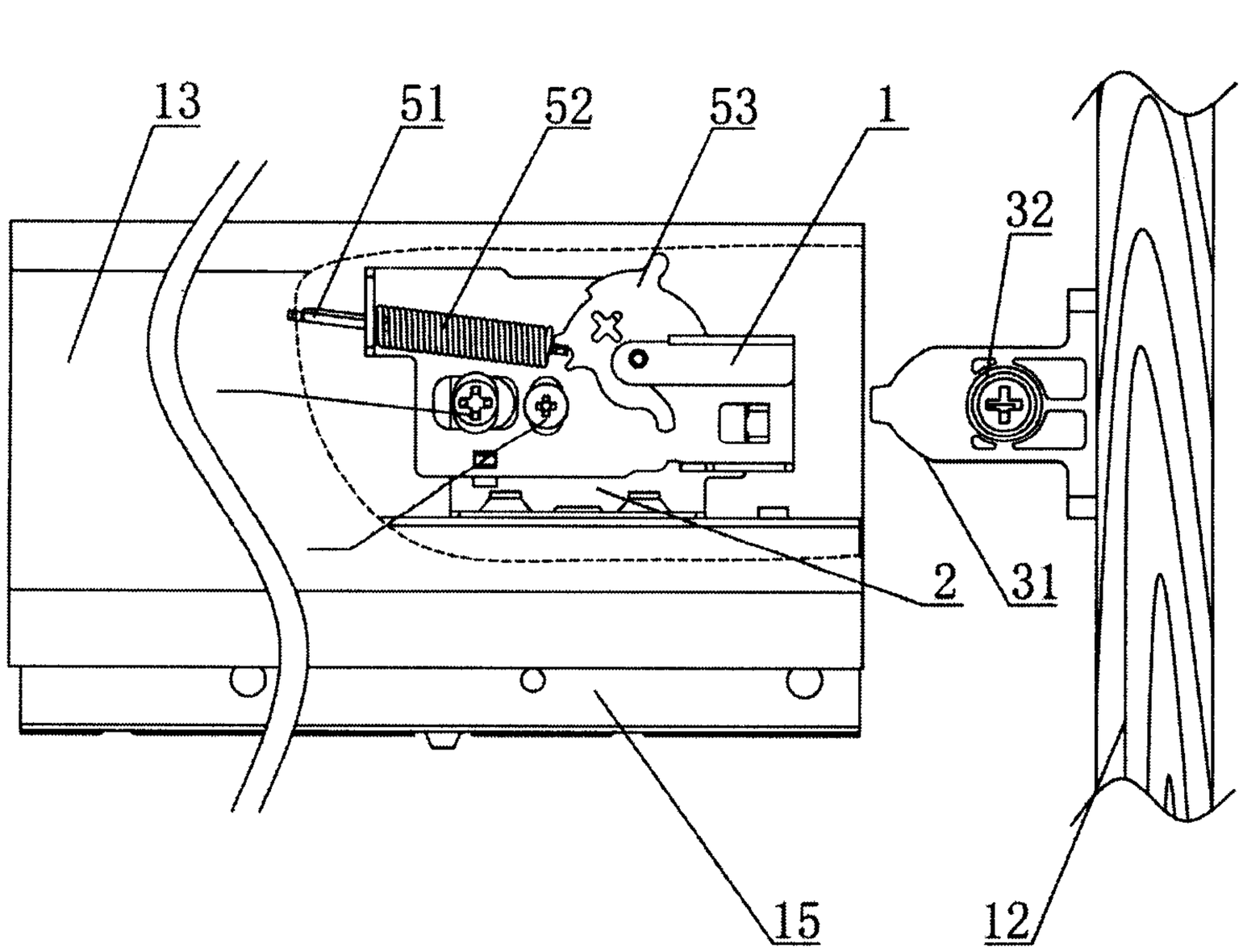
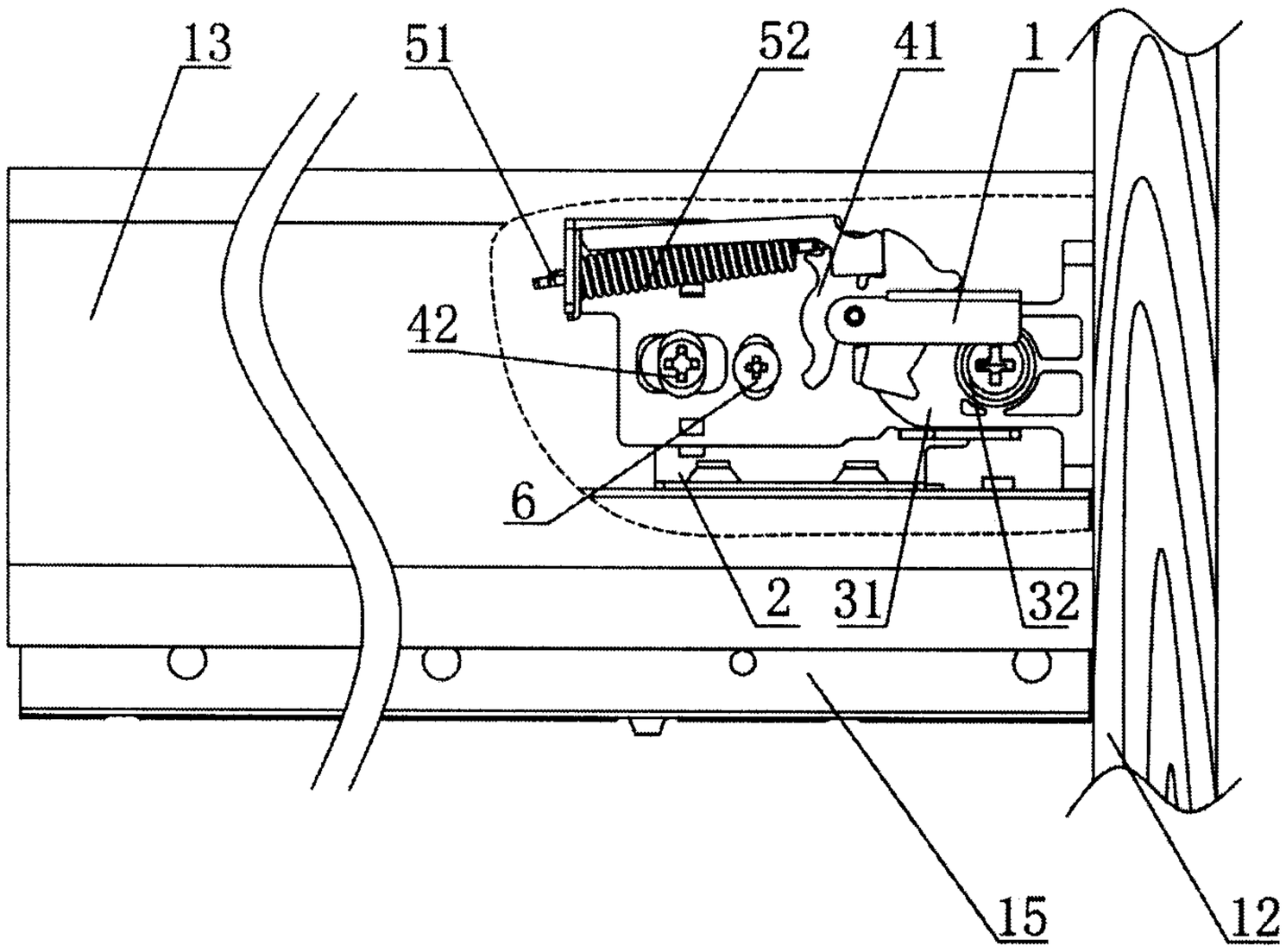
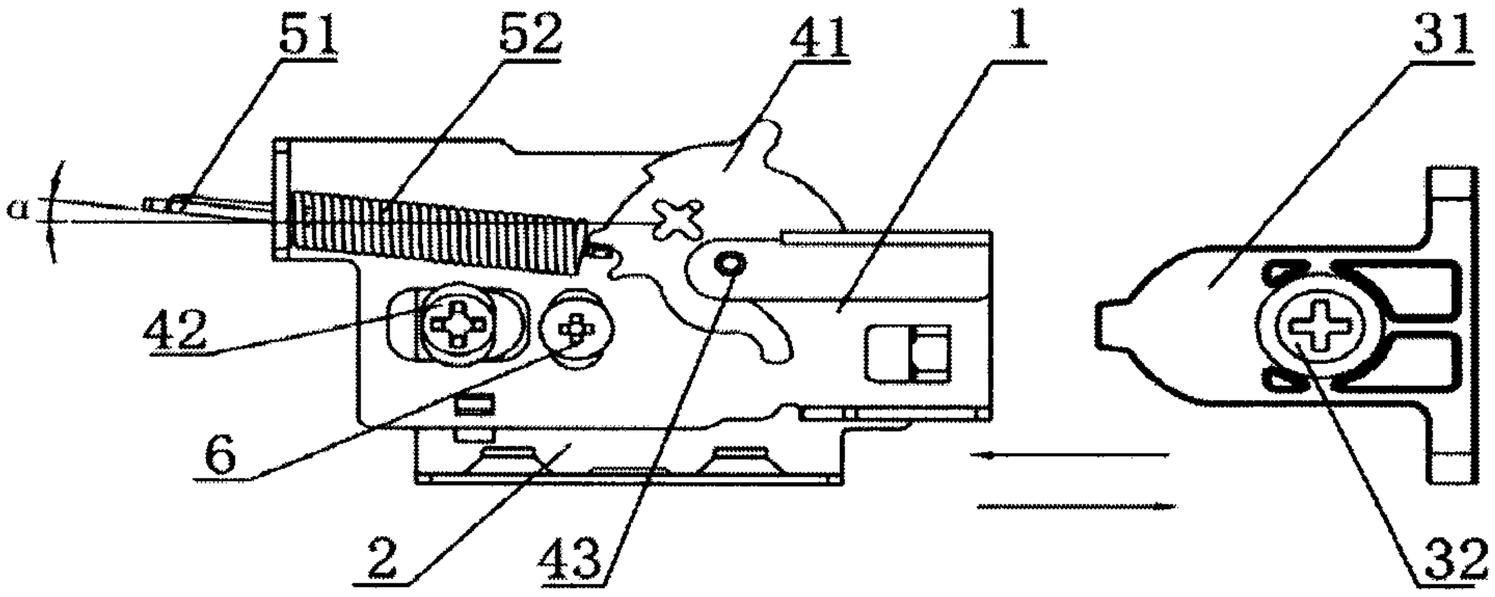


Figure 4

Figure 5





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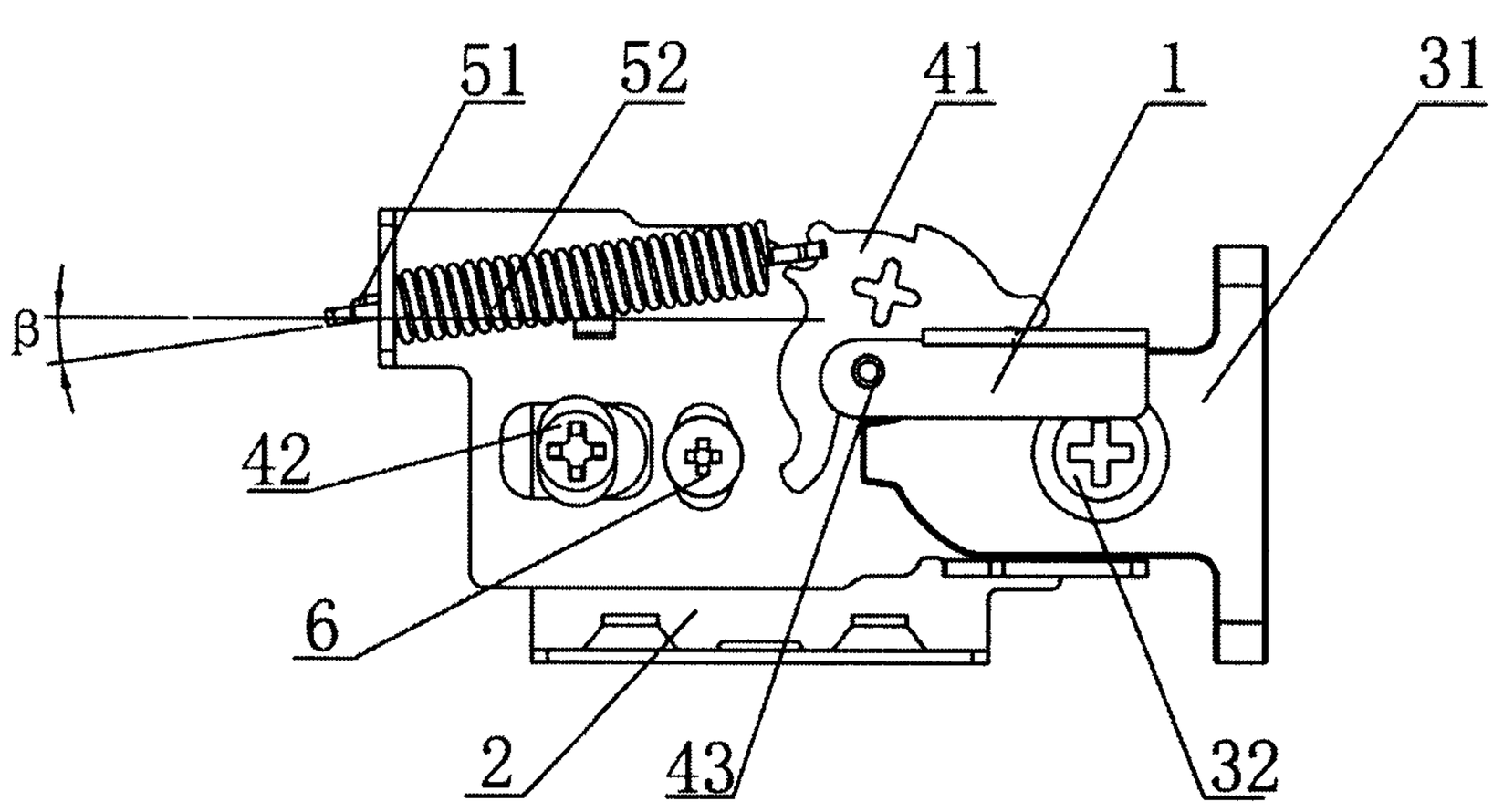


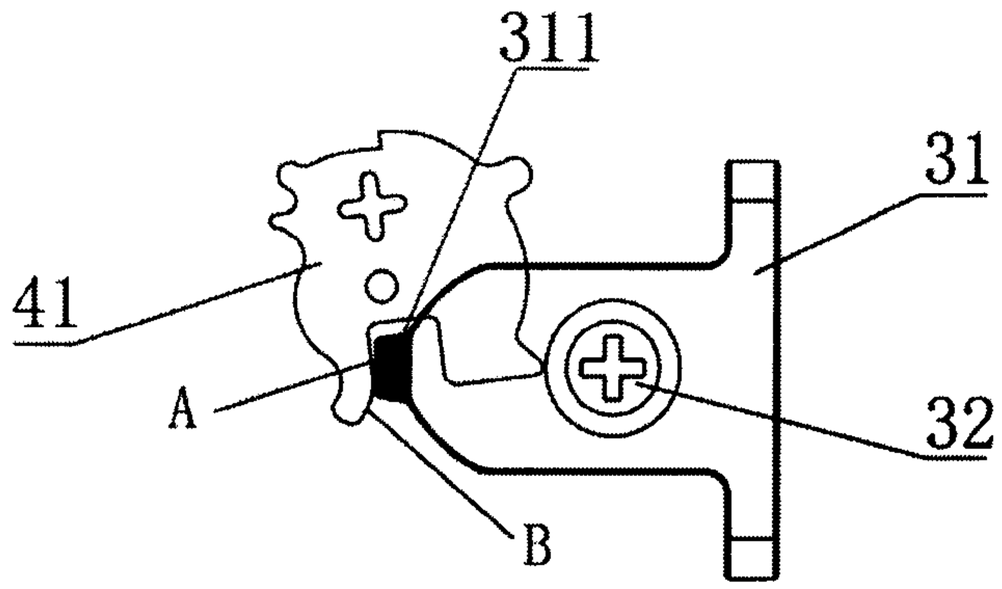


Figure 8

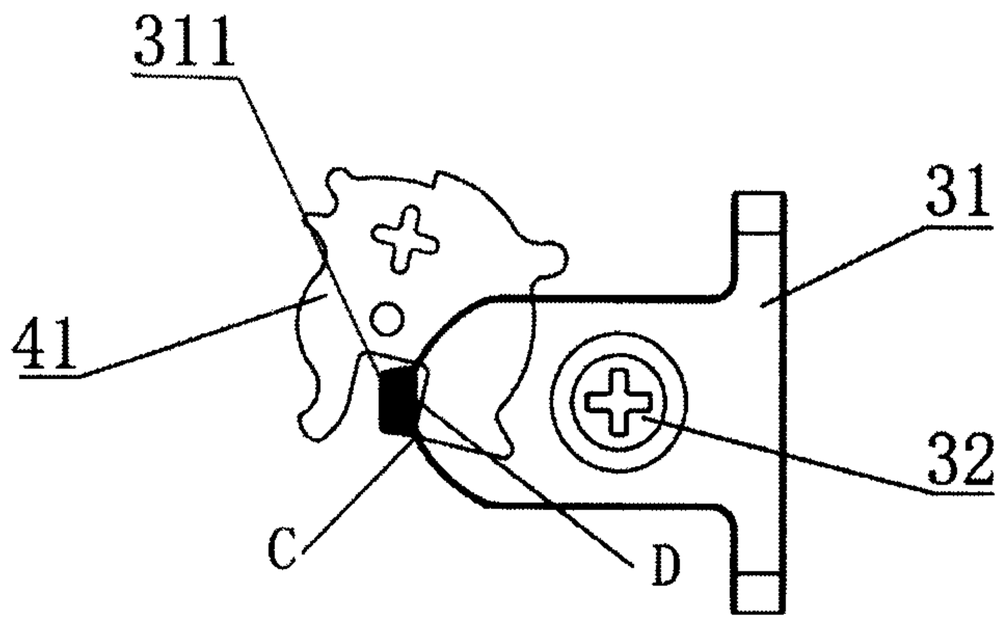
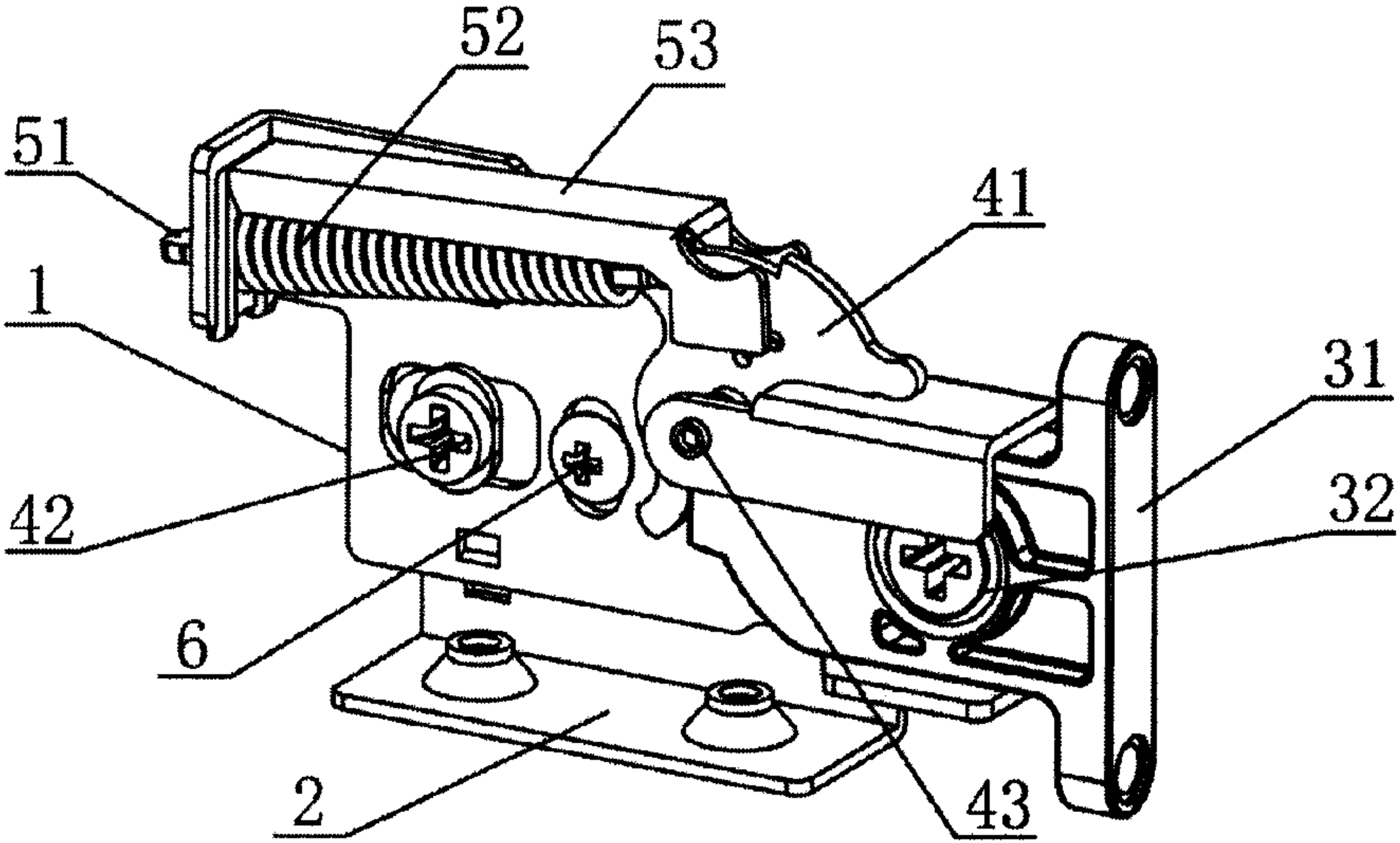


Figure 9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