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(54) **EXTENDED ROD OF SLIDE MECHANISM FOR DRAWER SLIDE TRACK**

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(57) **ABSTRACT**

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An extended rod of slide mechanism for drawer slide track comprises a control stop mounted on the extended rod and a stop stock mounted on the front of the slide track wherein the control stop is an integrally formed extrusion with a swing block fixed on the extended rod by a rivet. The swing block has a cut section at one end to stop the stop stock of the slide track. The extended front end of the swing block forms a push-pull section. Pushing or pulling the push-pull section will free the cut section from the stock causing the extended rod disengages the slide track and pull the drawer out of the slide track. Regardless whether the slide mechanism is installed on the right side or the left side of the drawer, it provides a disengaging direction, easy the operator to take the drawer out of the slide track.

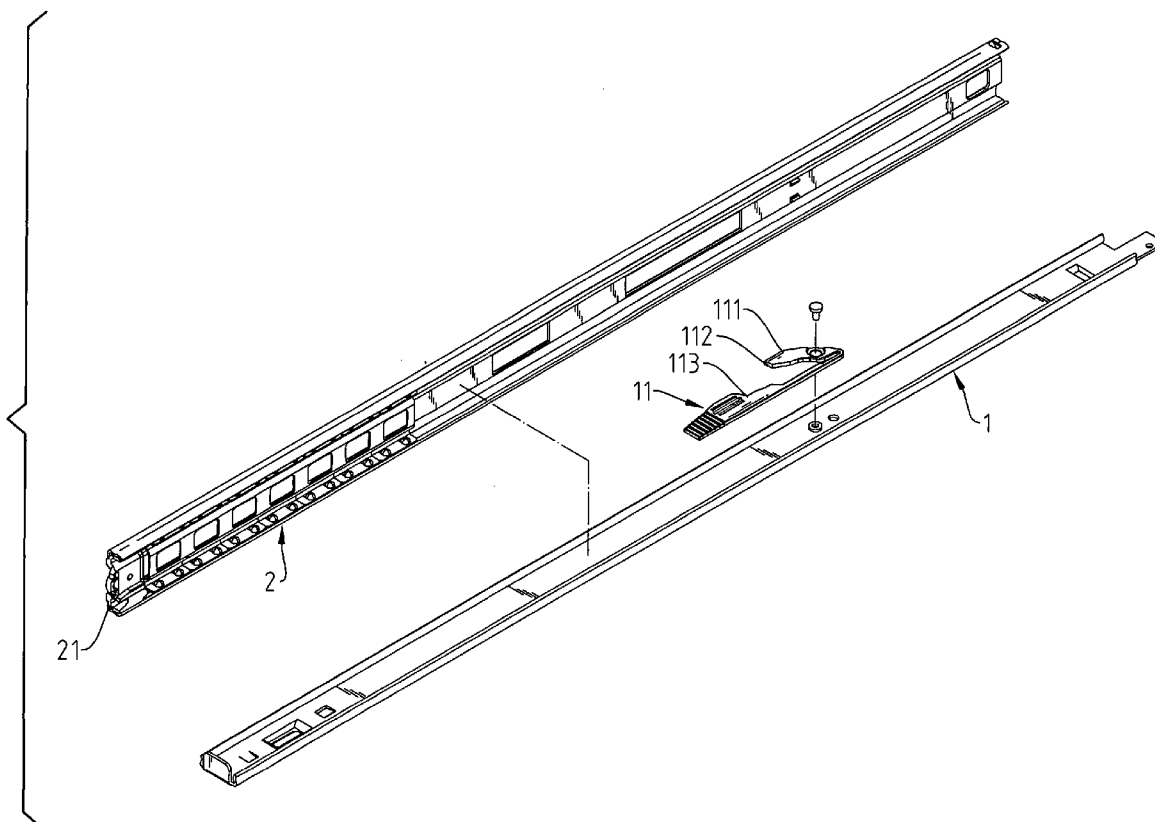
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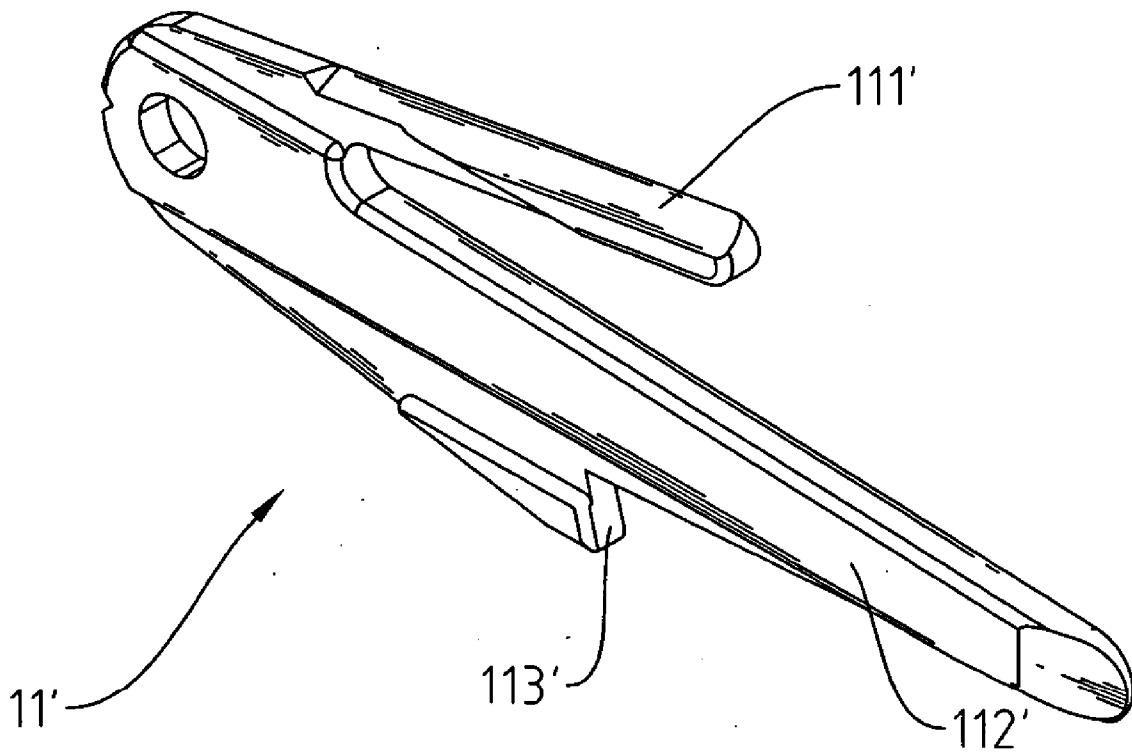


Fig. 1
Prior Art

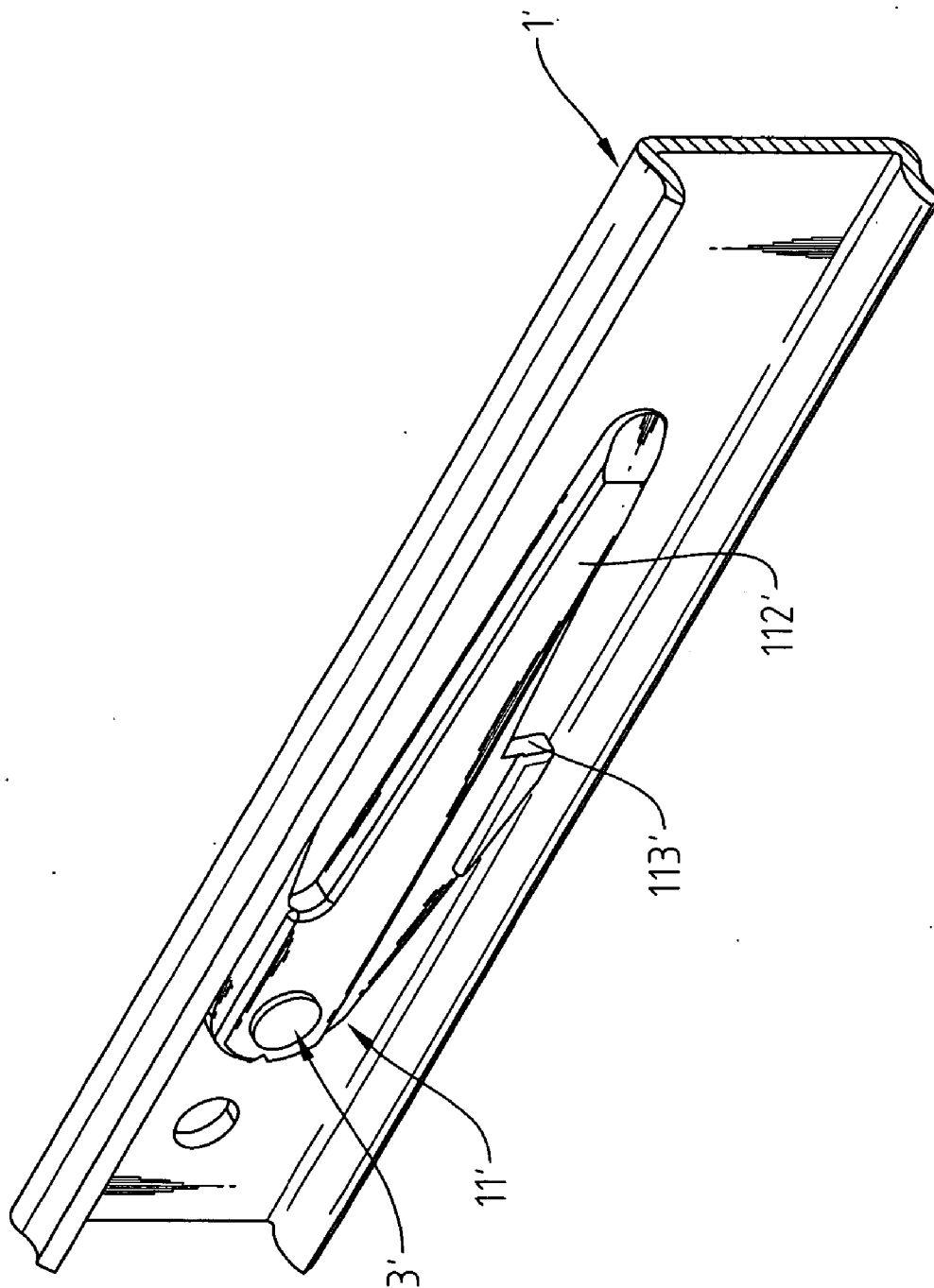


Fig. 2
Prior Art

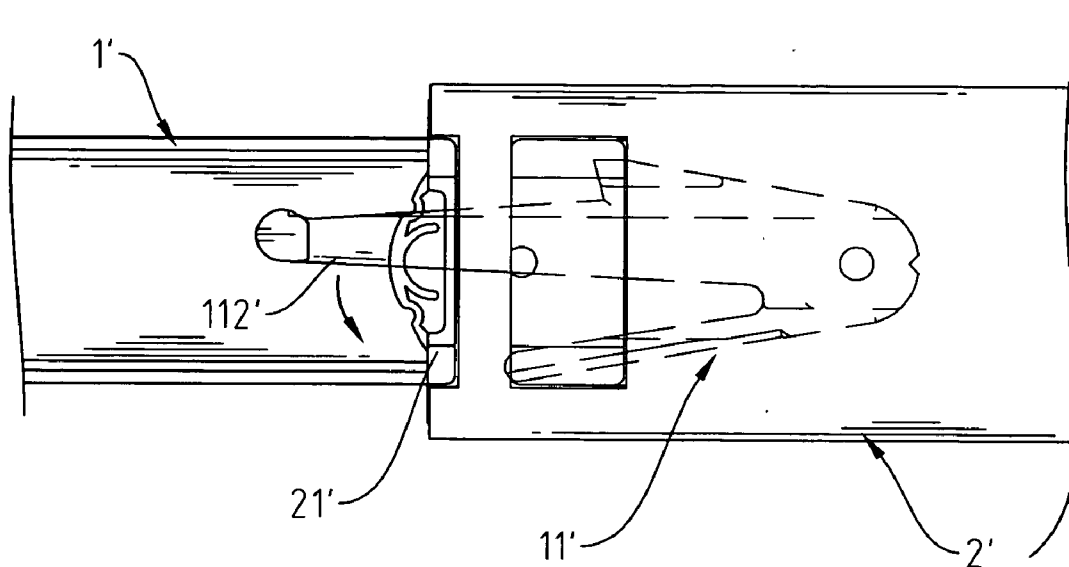


Fig. 3
Prior Art

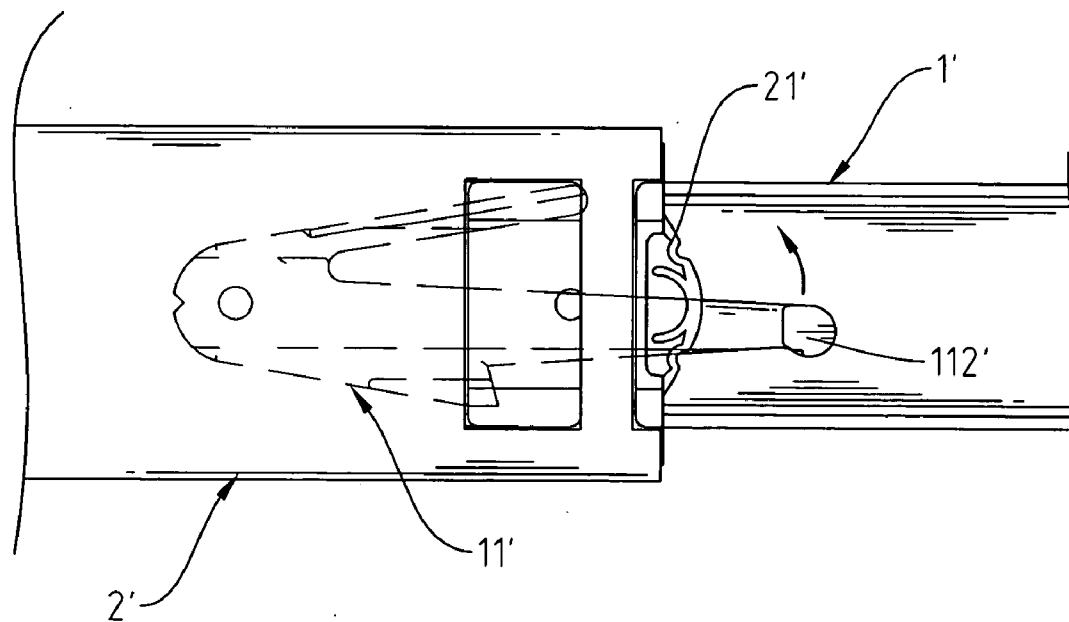


Fig. 4
Prior Art

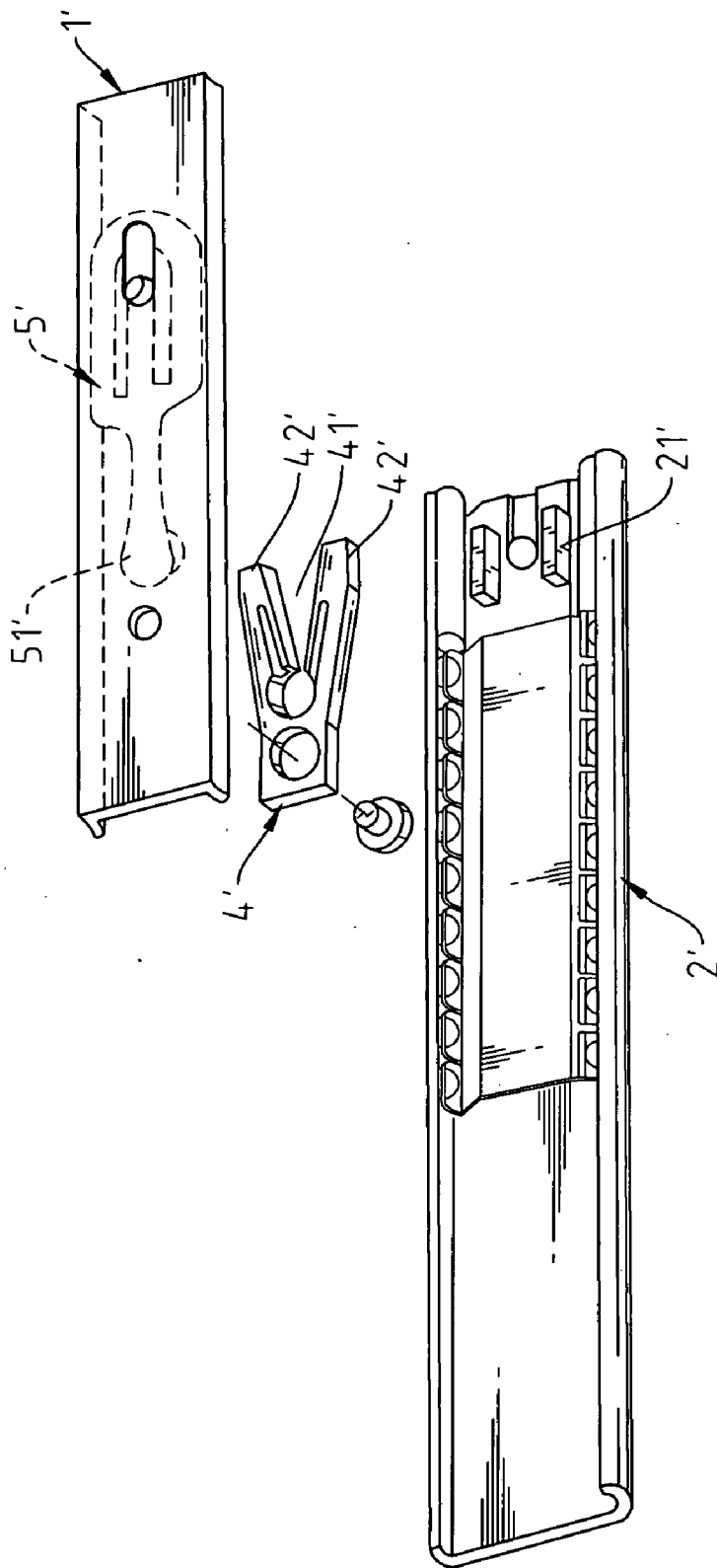


Fig. 5
Prior Art

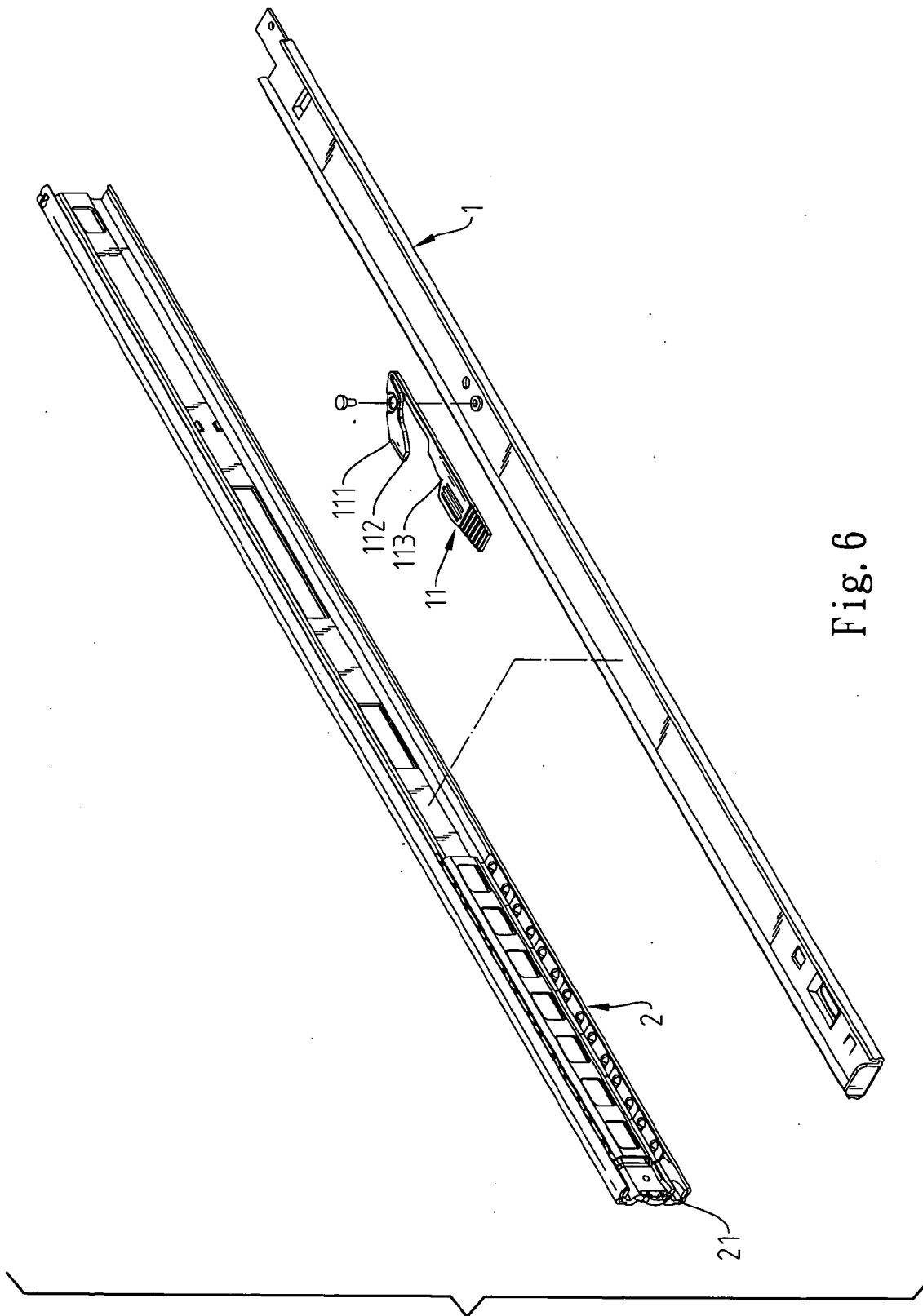


Fig. 6

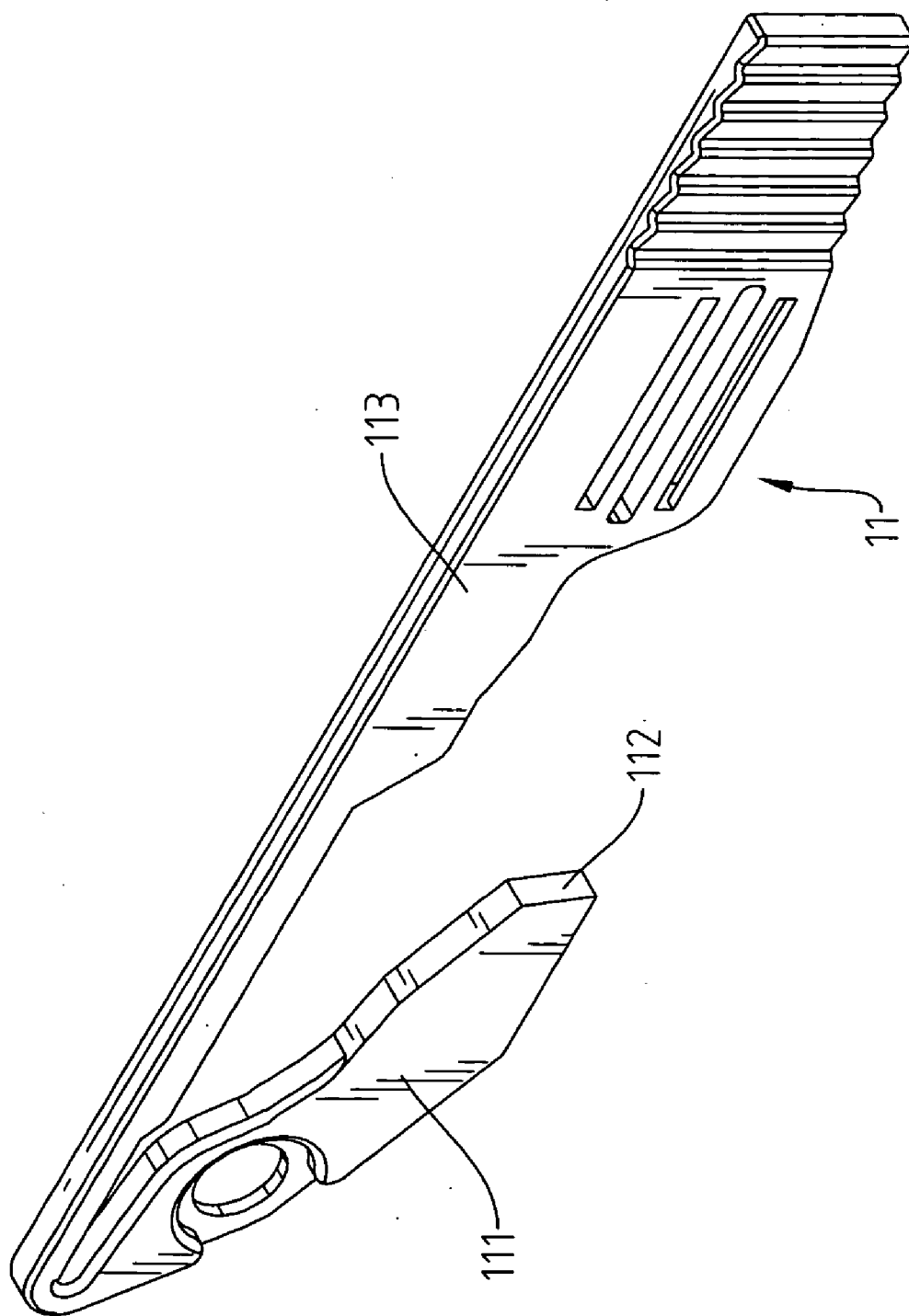


Fig. 7

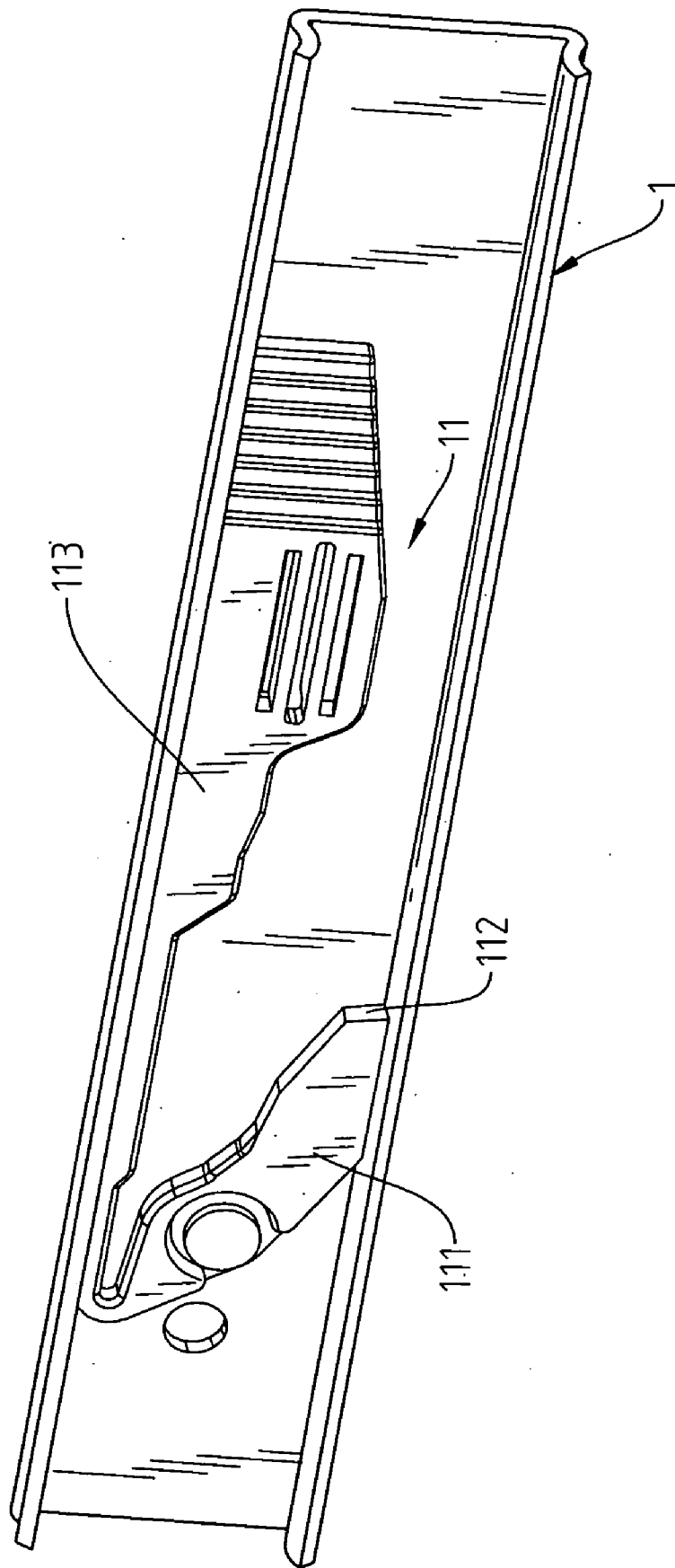


Fig. 8

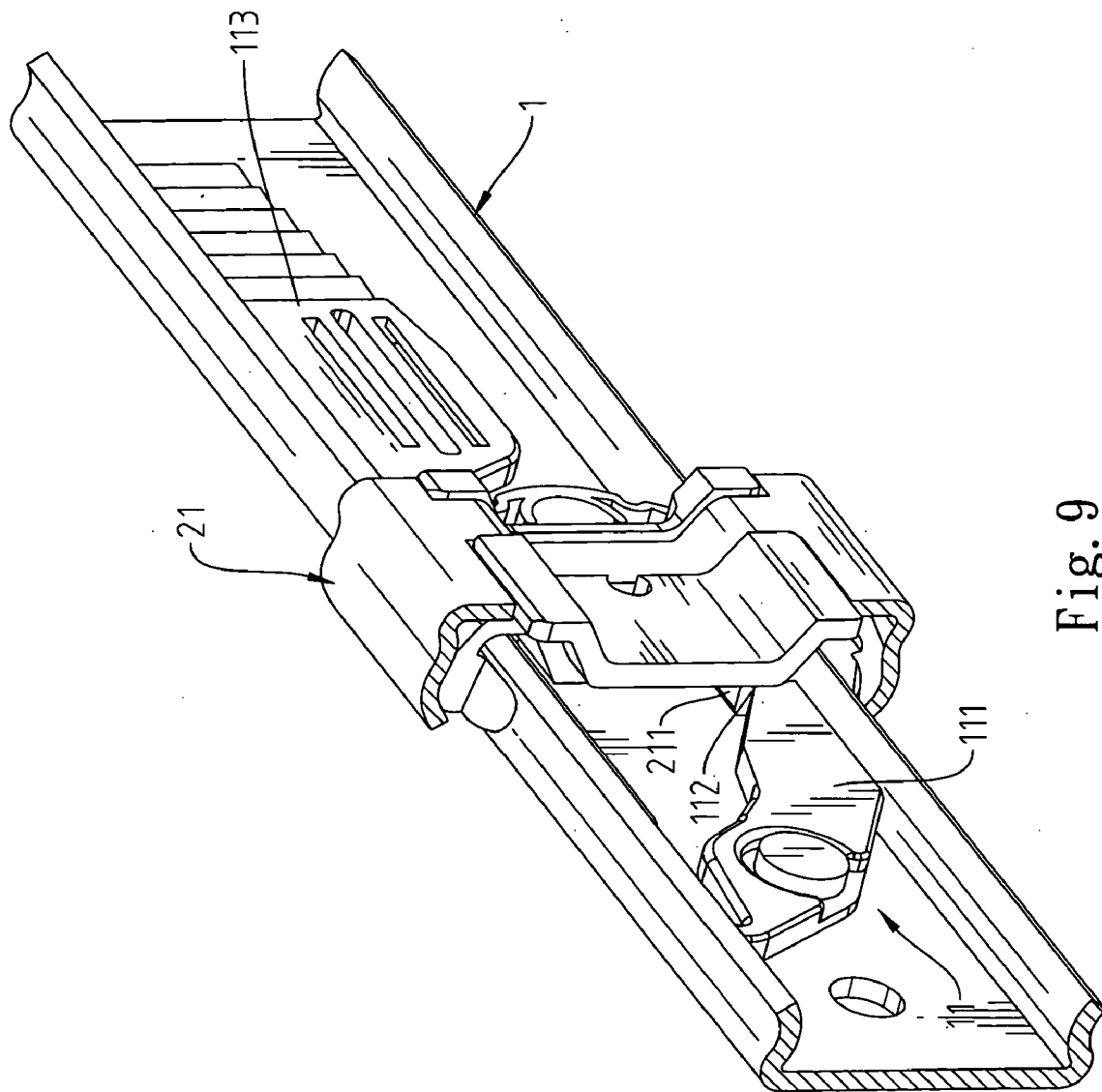


Fig. 9

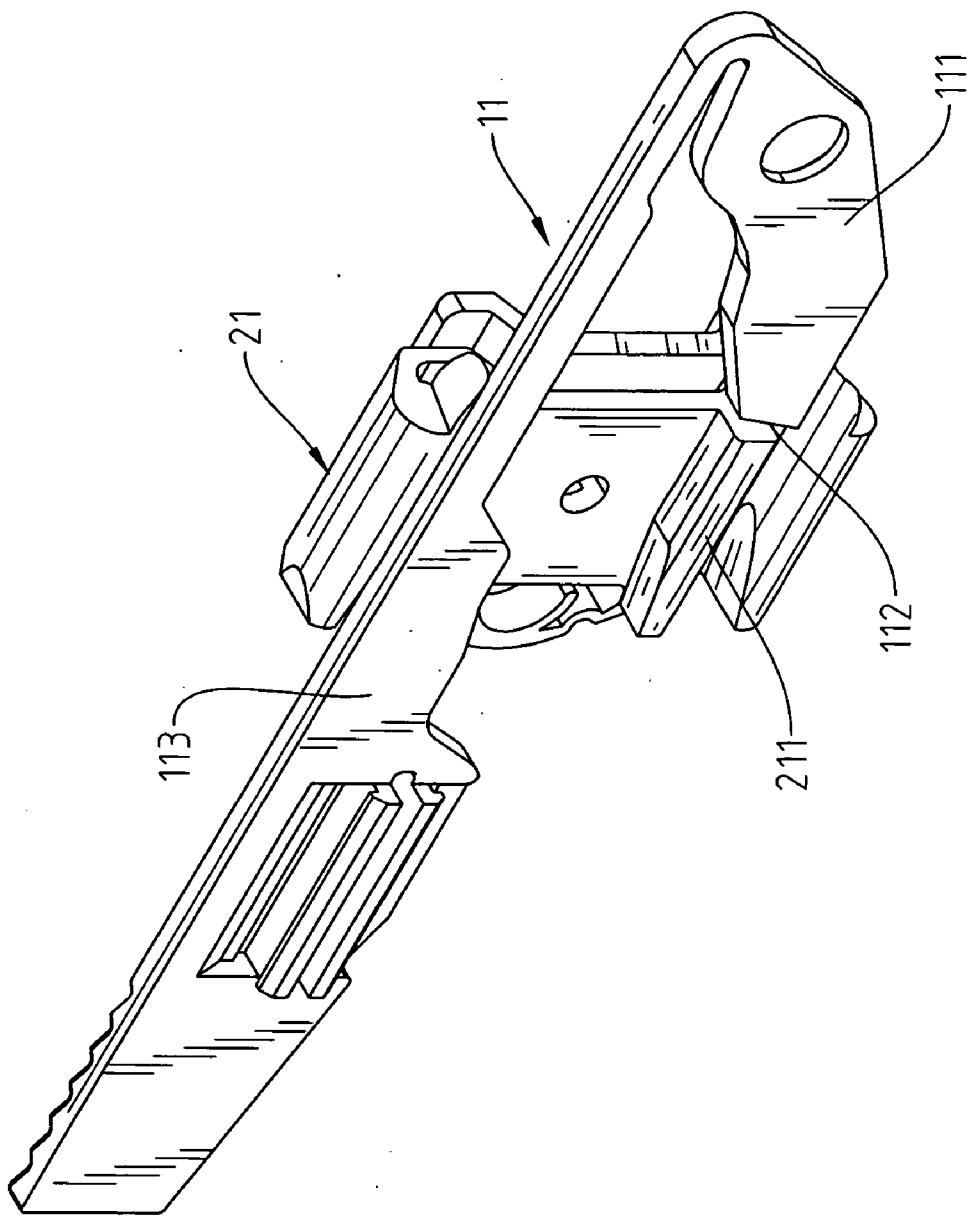


Fig. 10

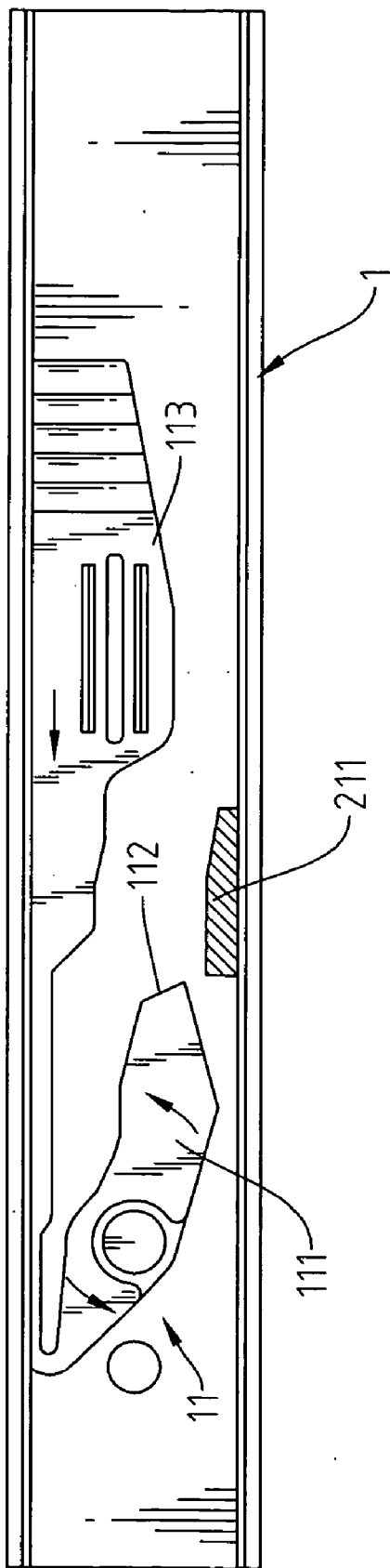


Fig. 11

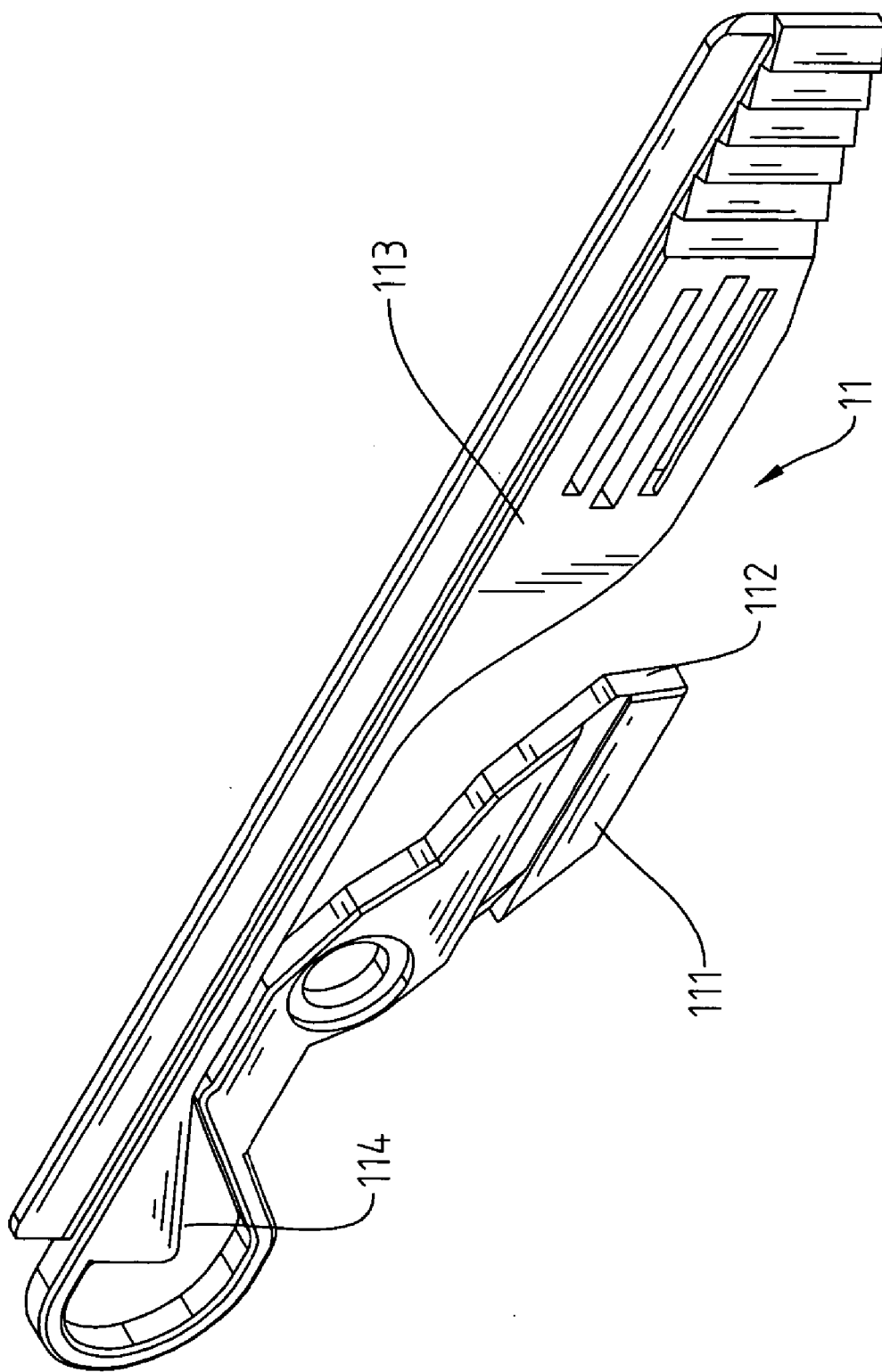


Fig. 12

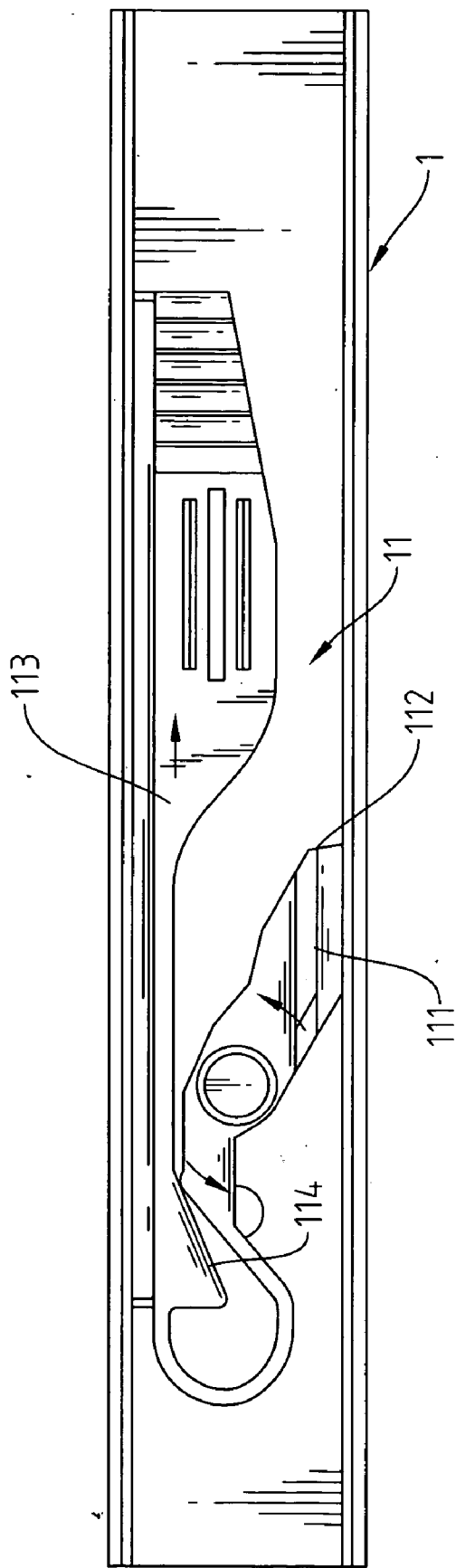


Fig. 13

EXTENDED ROD OF SLIDE MECHANISM FOR DRAWER SLIDE TRACK

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] This invention relates to the major components of the slide mechanism of the drawer, particularly the control stop operated to disengage and stop the extended rod from the slide track for the multiple drawer slide tracks.

[0003] 2. Description of the Related Art

[0004] For the structure of multiple drawer slide tracks, when drawer is pulled out and the extended rod travels to the end of the slide track, there provides a stop mechanism on the join of the slide track and extended rod to control the stop operation, and prevents the extended rod falling off from the slide track. This stop mechanism consists of one control stop mounted at the end of the extended rod and a stop stock mounted on the slide track. If it is intended to disengage the extended rod from the slide track, use the stopping operation by the control stop and stop stock of the stop mechanism, the extended rod can be released from slide track smoothly.

[0005] As shown in **FIGS. 1 through 4**, it is the control stop **11'** of the prior art where the control stop **11'** is locked on the extended rod **1'** by a rivet **3'**. The control stop **11'** has a guide section **111'** and a swing rod section **112'** extended at the rear side. The swing rod section **112'** has a cut section **113'** at the bottom of the front end, when the extended rod **1'** is installed on the slide track **2'**, the stop stock **21'** and cut section **113'** will prevent the extended rod **1'** from disengaging the slide track **2'**.

[0006] The slide track is generally installed on both sides of the drawer. If it is intended to disengage the extended rod **1'** from the slide track **2'**, on the left side of the drawer, it is necessary to swing downward the swing rod section **112'** of the control stop **11'**, so the cut section **113'** moves downward as shown in **FIG. 3**, the left side extended rod **1'** is freed from the stop stock **21'** of the slide track **2'** and can be pulled out the slide track **2'**. For the control stop **11'** of the right side extended rod **1'** is necessary to swing upward by the swing rod section **112'** to control the cut section **113'** swing upward as shown in **FIG. 4**, the right side extended rod **1'** is free released from the stop stock **21'** of slide track **2'**. This practice of disengaging the extended rod **1'** from the slide track **2'** differing the control stop **11'** of the extended rod **1'** in left and right sides which renders too much inconvenience on the disassembly. It requires prompt improvement.

[0007] In order to accomplish a uniform practice, a new control stop of slide mechanism was invented as shown in **FIG. 5**, the U.S. Pat. No. 5,169,238 in which the extended rod **1'** has a stop section **4'** with a V slot **41** and an independent pull board **5'** comprised a control stop. When the extension section **51'** of the pull board **5'** is pushed into the V slot **41'**, both sides of the stop sections **42'** on the slot **41'** of the stop section **4'** are forced to expand outward respectively to engage the stop stocks **21'** on the slide track **2'**, so the extended rod **1'** is stopped thereof. If the pull board **5'** is pull outward, the extension section **51'** will leave the V slot **41**, the stop sections **42'** of the stop section **4'** will shrink inward and the stop stock **21'** of the slide track **2'** is free from both sides of the stop sections **42'** of the stop sections **4'**, the extended rod **1'** is released from the slide track **2'**. However,

even though the stop section **4'** is separated from the pull board **5'**, the different swing direction still exists on the left and right side of the drawer. For the production alone, the cost is high and the assembly is time consuming, not good for competition.

[0008] Due to the fact that the demand for the extended rod of the slide mechanism for the multiple drawer slide tracks is ever increasing and the inconvenience caused by the upswing and downswing in disengaging the control stop of the slide mechanism of prior art, a great efforts have devoted to the improvement and now come up an improved control stop structure of the slide mechanism.

SUMMARY OF THE INVENTION

[0009] The unique technology applied in this invention is that the control stop is an integrally formed extrusion with a swing section riveted on the extended rod. One end of the swing section extends to form a cut section for engaging the stop stock of the slide track and the other end extends to form a push-pull board. When the push-pull board is pushed or pulled, the swing section will pivot upward to disengage the cut section from the stop stock, permitting the extended rod to fall off the slide track. This improved control stop of the slide mechanism, regardless whether being mounted on the left or right side of the drawer, is very convenient for the operation to disassemble the drawer. In addition, it is easy to fabricate and assemble, great beneficiary to the manufacturers. This is the main object of this invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] **FIG. 1** shows the appearance of prior art of control stop for the slide mechanism of the drawer.

[0011] **FIG. 2** shows the prior art of the control stop mounted on the extended rod of the slide mechanism of the drawer.

[0012] **FIG. 3** shows the prior art of the control stop mounted on the slide mechanism on the left side of the drawer.

[0013] **FIG. 4** shows the prior art of the control stop mounted on the slide mechanism on the right side of the drawer.

[0014] **FIG. 5** shows the disassembly of the prior art of the related control stop for the slide mechanism of the drawer.

[0015] **FIG. 6** shows the disassembly of the control stop for the slide mechanism of the drawer of this invention.

[0016] **FIG. 7** shows the appearance of the control stop of this invention.

[0017] **FIG. 8** shows the layout of the control stop of this invention.

[0018] **FIG. 9** shows the stop stock being stopped by the control stop of this invention.

[0019] **FIG. 10** shows angular view of the stop stock being stopped by the control stop of the slide mechanism of the drawer.

[0020] **FIG. 11** shows the working condition that the control stop being pushed.

[0021] FIG. 12 shows another embodiment of the control stop of this invention.

[0022] FIG. 13 shows another embodiment of the control stop being pushed.

DETAILED DESCRIPTION OF THE INVENTION

[0023] Please refer to FIG. 6, the control stop of the extended rod mainly comprises a control stop 11 mounted on the extended rod 1 and the stop stock 21 mounted on the front end of the slide track 2.

[0024] As shown in FIGS. 7 through 10, the control stop 11 is an integrally formed extrusion with a swing section 111 riveted on the extended rod 1. One end of the swing section 111 forms a cut section 112 for engaging the stop stock 21 of the slide track 2. The other end of the swing section 111 forms a push-pull board 113 which starts from the fine bent and extends outward to become a broad board.

[0025] As shown in FIG. 11, when the push-pull board 113 is pushed, the swing section 111 will swing up to disengage the cut section 112 from the stop section 211 of the stock 21 and let go the extended rod 1 off the slide track 2.

[0026] As shown in FIG. 12, a part of the push-pull board 113 can extend downward through the joint of swing section which becomes a broad board, and mounted a right angle slant 114, here the push-pull board 113 works as a pull board as shown in FIG. 13. Once the push-pull board 113 is pulled, the slant 114 will press on the swing section 111 and force the swing section 111 to make a turning action in the manner that the cut section acts 112 as a leverage to disengage the stop section 211 of the stop stock 21, letting go the extended rod 1 off the slide track 2.

[0027] It is well learned from the above statement that the improved control stop structure of the slide mechanism

where it requires only pushing or pulling the control stop 11 to disengage the extended rod 1 from the slide track 2. It offers a convenience for the operation to disassemble and easy for the manufacturer to fabricate, gaining huge benefit and progressiveness.

What the invention claimed is:

1. An extended rod of slide mechanism for drawer slide track of this invention mainly comprises a control stop mounted on the extended rod and a stop stock mounted on the front end of the slide track, in which, the control stop is an integrally formed extrusion with a swing section riveted on the extended rod, the swing section has a cut section at one end to engage the stop stock of the slide track and the other end of the swing section extends to form a push-pull board, when the push-pull board is being pushed or pulled, the cut section of the swing section will disengage the stop section of stop stock and let go the extended rod off the slide track.

2. The extended rod of slide mechanism for drawer slide track of this invention as claimed in the claim 1 in which the push-pull board comes out from the fine bend of the swing and extend and expand to form a broad board.

3. The extended rod of slide mechanism for drawer slide track of this invention as claimed in the claim 1 in which a part of the push-pull board can extend downward at the bend area to form a right angle slant.

4. The extended rod of slide mechanism for drawer slide track of this invention as claimed in the claim 1 in which a part of the push-pull board can extend downward at the bend area to form a right angle slant, and the push-pull acts as the pull board, when the pull board is being pulled, the slant presses on the swing bend to make a turn and the cut section works a level to disengage the stop section of the stop stock, let go the extended rod off the slide track.

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