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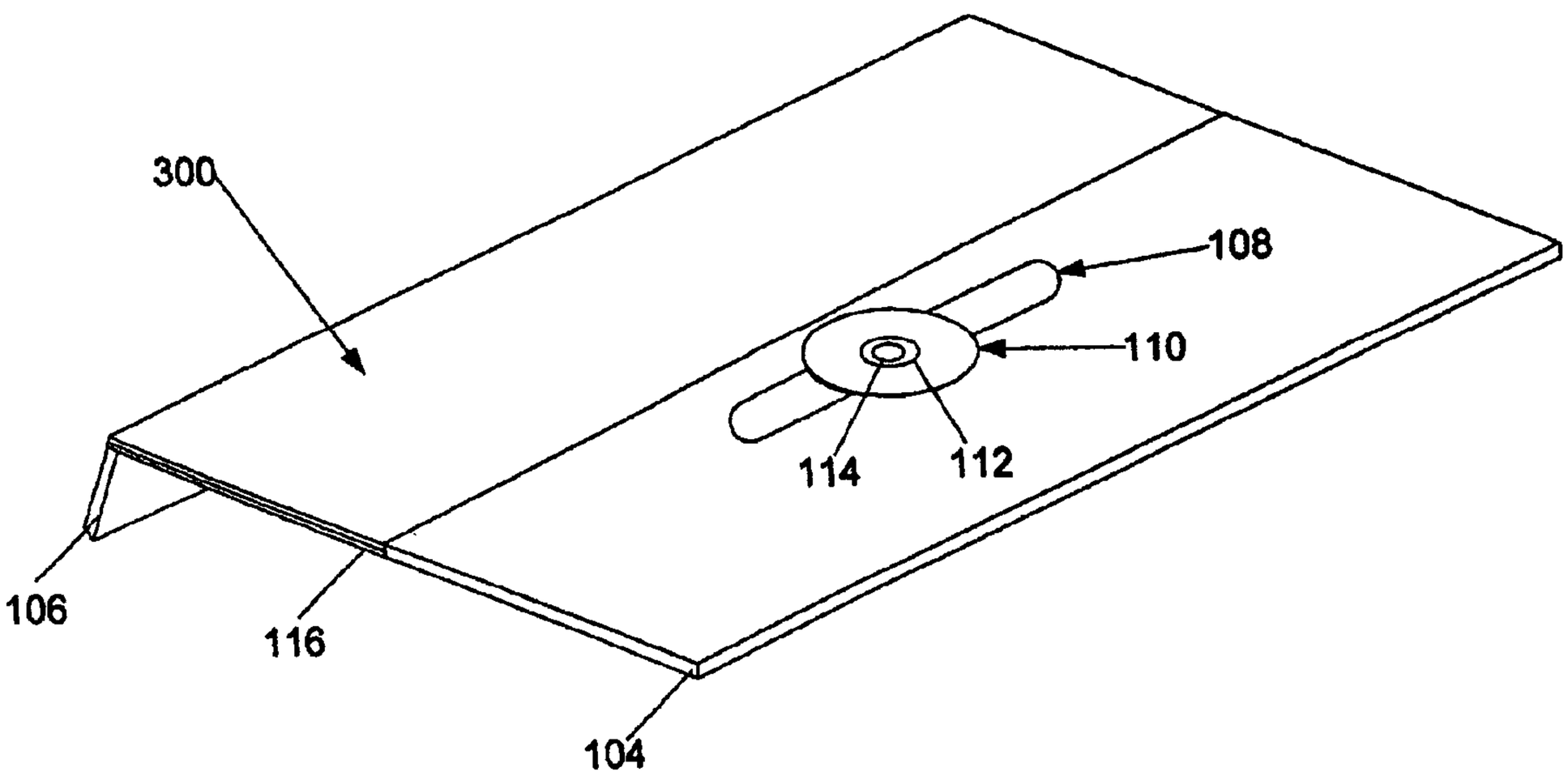


(57) Abrégé/Abstract:
A hide-a-nail sliding strip is described comprising a combination washer and spacer device and a sliding L-connector. The washer/spacer is embedded in an elongated slot on the face of the L-connector, allowing the connector to freely move. Double-sided tape and a tack are also provided on the L-connector. When applying vinyl trim, a nail is first inserted through the washer and the hide-a-nail strip is secured. A strip of vinyl trim is then pressed against the tape and tack. The sliding strip decreases pinching the trim and allows for expansion and contraction due to temperature changes, thus decreasing rippling or buckling.

ABSTRACT OF THE DISCLOSURE

A hide-a-nail sliding strip is described comprising a combination washer and spacer device and a sliding L-connector. The washer/spacer is embedded in an elongated slot on the face of the L-connector, allowing the connector to freely move. Double-sided tape and a tack are also provided on the L-connector. When applying vinyl trim, a nail is first inserted through the washer and the hide-a-nail strip is secured. A strip of vinyl trim is then pressed against the tape and tack. The sliding strip decreases pinching the trim and allows for expansion and contraction due to temperature changes, thus decreasing rippling or buckling.

Hide-a-Nail

BACKGROUND OF THE INVENTION

Field of Invention

The present invention relates generally to the field of trim moldings. More specifically, the present invention is related to a spacer for trim molding arranged to allow for expansion and contraction, thus eliminating rippling or buckling.

Discussion of Prior Art

Trim moldings are provided to trim the edges of a house or building both inside and outside for both functional and decorative purposes. For example, trim moldings may be used for doors and floors inside a house, as well on windows on the outside. Also, when siding is secured to the walls of a house in elongated strips, trim may be used to finish off the wall edges.

Methods of applying trim are well-known. Trim may be provided in strips to be bent and cut to the desired size using appropriate tools. Trim may also be provided in coil form, such that the trim must be rolled out to be bent and cut to desired lengths and different forms. The trim pieces are then used to "finish" the desired area by securing the trim to the housing (or object) via nails. Although the pieces are secure, a basic problem caused by temperature changes is rippling or buckling. Virtually all trim pieces require more than one nail. Therefore, when outside temperatures change, buckling may occur in the trim pieces between the nails that are inserted to secure the strips. The nails pinch the material (e.g., vinyl or aluminum) against the wall and do not permit the trim to expand.

One alternative is to provide openings directly in the trim or trim coil. Although nails may be

inserted into the openings to secure the trim, nails are fastened tightly and thus again pinch the material. Although openings are provided, the material remains tightly pinched against the wall of the house and cannot expand.

A method for preventing pinching of the material and thus buckling of trim/trim coil would be beneficial. The use of a washer or spacer device can prevent a nail or fastener from being driven too tightly. A sliding device will allow trim to expand and contract due to outside temperatures. The combination of these devices such that the washer is embedded into the sliding device, then, creates an ideal method that allows expansion of trim when secured to the walls of a house.

The following patents describe methods of using washers as spacers and methods of applying siding:

U.S. Patent 5,906,080 illustrates a washer positioned in a slot that prevents the head of a screw from pressing too tightly on the plate so as to allow relative sliding movement between the two structures. U.S. Patent 6,203,231 shows a similar washer structure to that of the '080 patent. However, neither washer is applied to a siding or trimming system.

U.S. Patents 4,435,938, 3,504,467, and 5,224,318 show stand-off means for preventing siding from being applied too tightly. In the '318 patent, anti-overdrive ridges are provided to prevent the overdriving of nails. None of these patents, however, employ a sliding washer system.

Other patents showing washers or the like captured in a slot in order to allow a "flexible" connection are shown in U.S. Patents 3,998,019, 4,589,809, and 5,443,526. All of these references show similar functioning washers, yet none show a similar washer applied to a trimming system.

U.S. Patent 4,788,807 shows a washer having a recess deeper than the head of the nail. U.S. Patents 4,380,413 and 4,884,932 also show recesses for the head of the nail, but are not used to create a space between the siding, trim molding, and wall of a house. U.S. Patents 4,780,039 and

6,282,857 show the recess the same depth as the head of the nail.

Additional references such as U.S. Patents 3,212,387, 4,717,281, 4,959,886, 4,999,963, and 5,118,235 in general show the advantages of a countersink in a washer to control the depth and/or pressure applied by an inserted fastener. It should be noted that none of the references described above show a trimming system having embedded washers, nor do they show a method of using embedded washers with a trim molding system that are able to slide or expand. Thus, while the use of a sliding washer may be known for certain general applications, a trimming system having installed, sliding washers to allow for trim expansion and contraction and to prevent an over tight fit does not appear to be shown in the prior art.

Whatever the precise merits, features, and advantages of the above cited references, none of them achieves or fulfills the purposes of the present invention.

SUMMARY OF THE INVENTION

A strip having embedded washer/spacer therein is designed to allow housing trim to slide during temperature expansion and contraction. In the preferred embodiment the strip comprises an L-shaped connector having an elongated slot designed to receive a combination washer/spacer. The connector is secured by nailing the washer/spacer to a wall while still allowing sliding movement of the strip. The design of the washer/spacer allows the nail to be flush with the top of the washer such that the nail will be hidden once the trim is secured. The trim is secured by using double-sided tape on the L-connector. The trim may be additionally secured via tacks.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 illustrates a frontal view of the hide-a-nail sliding strip.

Figure 2 illustrates a back view of the hide-a-nail sliding strip.

Figure 3 illustrates a side view of the hide-a-nail sliding strip.

Figure 4 illustrates a perspective view of the hide-a-nail sliding strip.

Figure 5 illustrates a side view of the method of attaching the strip to a wall.

Figure 6 illustrates an overhead view of the method of attaching the strip to a wall.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

While this invention is illustrated and described in a preferred embodiment, the device may be produced in many different configurations, forms and materials. There is depicted in the drawings, and will herein be described in detail, a preferred embodiment of the invention, with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and the associated functional specifications for its construction and is not intended to limit the invention to the embodiment illustrated. Those skilled in the art will envision many other possible variations within the scope of the present invention.

Figures 1, 2, 3, and 4 illustrate the front, back, side, and perspective views, respectively, of hide-a-nail sliding strip **100**. Hide-a-nail strip **100** is preferably used along with vinyl or aluminum trim to allow for expansion and contraction between the nails that are used to secure strips of trim molding.

Strip **100** preferably comprises L-shaped connector **102**. L-shaped connector **102** consists of face **104** and tab **106** connected at their ends. Alternatively, only a flat strip may be used and tab **106** is broken from face **104**. Also the strip **104** can be provided even without the tab. Face **104** comprises elongated slot **108**. Within slot **108** is provided a combination washer **110** and spacer **118**. As illustrated in figure 1, washer **110** is free to slide in elongated slot **108**. Spacer **118** is spaced a slight thickness beyond the back wall f the back side and protrudes slightly therefrom.

It is designed such that washer **110** does not pinch against the wall of a house even if the wall through the washer trim is very hard, this spacer will still allow strip **100** to slide once the washer/spacer combination is secure.

It should be appreciated that this washer/spacer itself could be used in other situations. For example, in aluminum trim itself, if an elongated hole is provided, this washer/spacer can be snapped in and prevents the trim from being pinched.

As also shown in the figures, washer **110** is designed to have counter bore **112**. In order to place a nail flush with the top of washer **110** when placed through hole **114**, counter bore **112** is provided. Even though the nail is secured within washer **100**, slot **108** allows strip **100** to slide.

Also provided on strip **100** is double-sided tape **116**. Before use, tape **116** is covered by a protective cover **300** (see figure 3). During installation, cover **300** is removed and the trim piece is pressed to tape **116**. The vinyl or aluminum trim piece is tightly secured to the hide-a-nail strip **100** via tape **116**. The nails used to secure the strip **100** to the wall are then hidden by the trim piece. That is, in addition to preventing buckling, the use of the strip **100** provides an aesthetically pleasing appearance of a smooth front surface when the trim is applied. The method of installation is further described with reference to figures 5 and 6 below.

Figures 5 and 6 illustrate the method of installation of hide-a-nail strips **100**. Figure 5 shows a side view of inserting nail **500** or other similar fastener into face **104** of strip **100**. Figure 6 shows an overhead view of this process. Strip **100** is placed on wall **600**. As previously noted, tab **106** may wrap around or into wall **600** or may not be used at all. Nail **500** is then inserted through hole **114** of washer **110** until flush and even in counter bore **112**. Once washer **110** is secure (and thus hide-a-nail strip is secure), protective cover **300** of tape **116** is removed. The adhesive of the tape **116** is then exposed and allows for vinyl or aluminum trim **502** to be placed on top and held securely against strip **100**. Thus, as the trim piece expands, the trim is tightly secured by tape **116** to hide-a-nail strips **100**, and permits expansion such that strips **100** can

move against the nailed washer through elongated slots **108**.

Additional reinforcements may be needed in certain cases. For example, when using vinyl trim, there is a possibility that the tape will not hold by itself until the temperature reaches 40 degrees (Fahrenheit). Therefore, as shown in figure 6, tack **602** is provided as an additional reinforcement device. The tack is a reverse tack that is designed to be place on the underside of strip **100**. Thereafter, when the vinyl trim is secured via tape **116**, tack **602** is hammered to pierce trim **502** and come through the front face. The end of the tack may then be bent or curled back onto the surface of the trim.

CONCLUSION

A system and method has been shown in the above embodiments for the effective implementation of a hide-a-nail system and method. While various preferred embodiments have been shown and described, it will be understood that there is no intent to limit the invention by such disclosure, but rather, it is intended to cover all modifications and alternate constructions falling within the spirit and scope of the invention, as defined in the appended claims. For example, the present invention should not be limited by size, materials, or specific manufacturing techniques.

CLAIMS

What is claimed is:

1. A strip for accommodating movement of trim molding relative to a support, the strip comprising:

a connector having an elongated slot;

a combination washer and spacer placed in the slot; and

an adhesive disposed on the connector;

wherein the adhesive secures the trim molding to the connector permitting the strip to slide relative to the support

2. The strip of claim 1, wherein the strip is L-shaped for orienting the connector.

3. The strip of claim 1, wherein the combination washer and spacer further comprises a counterbore for a head of a fastener, the counterbore maintaining the head flush with a top surface of the combination washer and spacer.

4. The strip of claim 1, wherein the adhesive further comprises a cover on a surface of the adhesive which is not disposed on the connector, the cover being removed before the trim molding is secured to the connector.

5. The strip of claim 1, wherein the adhesive comprises a double-sided tape.

6. The strip of claim 1, further comprising a tack driven through the connector from a side of the connector adjacent to the support to an opposing side of the connector, the trim molding being secured on the connector by a portion of a shank of the tack.

7. An assembly for securing trim molding with play relative to a support, the connector

comprising:

a connector having a through slot, the slot being elongated in the direction of play;

a slider comprising a washer and a spacer to accommodate play of the trim molding relative to the support, the washer having a throughbore for receiving a fastener to join the connector to the support and the spacer spacing the connector from the support;

an adhesive disposed on the connector, the adhesive joining the trim molding to the connector; and

wherein the slider is slideably received in the slot permitting the trim molding to slide relative to the support.

8. The assembly of claim 7, the washer further comprising a counterbore for a head of the fastener; the counterbore maintaining the head flush with a top surface of the washer.

9. The assembly of claim 7, wherein the slider is snap fit in the slot.

10. The assembly of claim 7, wherein the strip is L-shaped for orienting the connector.

11. The assembly of claim 7, wherein the adhesive further comprises a cover on a surface of the adhesive which is not disposed on the connector, the cover being removed before the trim molding is joined to the connector.

12. The assembly of claim 7, wherein the adhesive comprises a double-sided tape.

13. The assembly of claim 7, further comprising a tack driven through the connector from a side of the connector adjacent to the support to an opposing side of the connector, the trim molding being secured on the connector by a portion of a shank of the tack.

14. A method of securing trim molding with play relative to a support, the method comprising the steps of:

(a) providing a connector having an elongated slot, the slot being elongated in the direction of play;

(b) providing a play assembly comprising a washer and a spacer to accommodate play of the trim molding relative to the support;

(c) inserting the play assembly into the slot of the connector so that the play assembly slides in the slot and the washer and spacer are disposed on opposite surface of the connector;

(d) driving a fastener through a throughbore of the washer to join the connector to the support so that the spacer is disposed between the connector and the support; and

(e) attaching the trim molding to an adhesive disposed on a surface of the connector.

15. The method of claim 14, wherein the connector has an L-shape comprising a tab, and prior to step (b) the tab is removed.

16. The method of claim 14, wherein the connector further comprises a tack driven through the connector from a side of the connector adjacent to the support to an opposing side, and step (e) further comprises securing the trim molding to a portion of a shank of the tack disposed on the opposing side.

17. The method of claim 16, wherein the step of securing the trim molding to the portion of the tack disposed on the opposing side comprises applying a force to the trim molding so that the portion passes through the trim molding.

18. The method of claim 17, further comprising the step of bending the shank to secure the trim molding to the connector.

19. A combination washer and spacer unit cooperating with a fastener to join a first member to a second member, the first member having an opening, the unit comprising:

a washer for retaining the unit above an exterior surface of the first member, the washer

having a throughbore for receiving the fastener to join the first member to the second member;

a spacer for spacing the first and second member apart and being adapted for fitting through the opining,

wherein the spacer comprises a groove for retaining the spacer on an interior surface of the first member, the opening connects the interior surface to the exterior surface, and

wherein the spacer has first planar shape and the washer having a second planar shape, when the first planar shape being no larger than the second planar shape.

20. The combination washer and spacer of claim 19, wherein the washer comprises a shoulder for bearing against the exterior surface of the first member, the shoulder comprising an area of the second planar shape that is not coincident with the first planar shape.

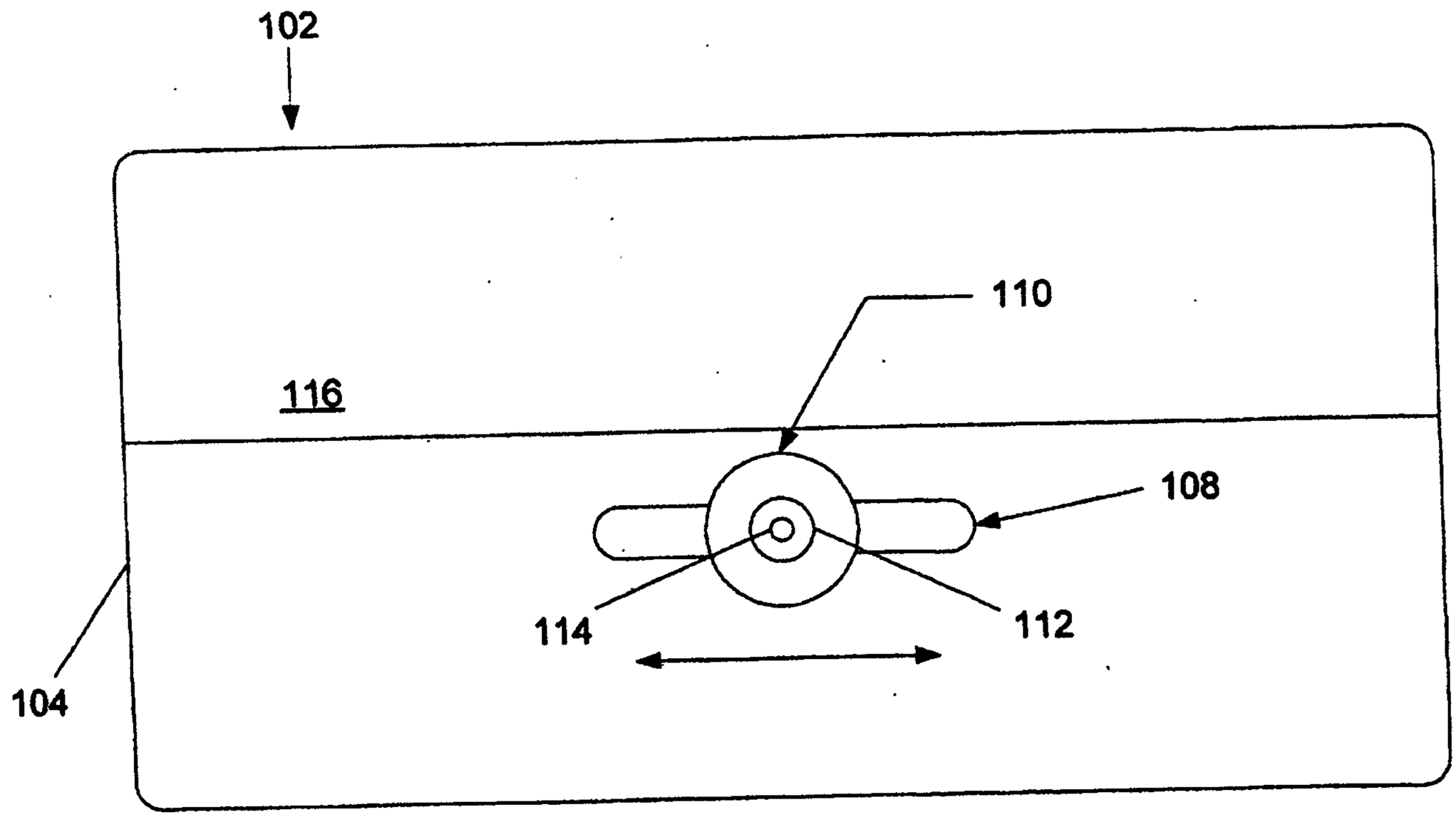


Figure 1

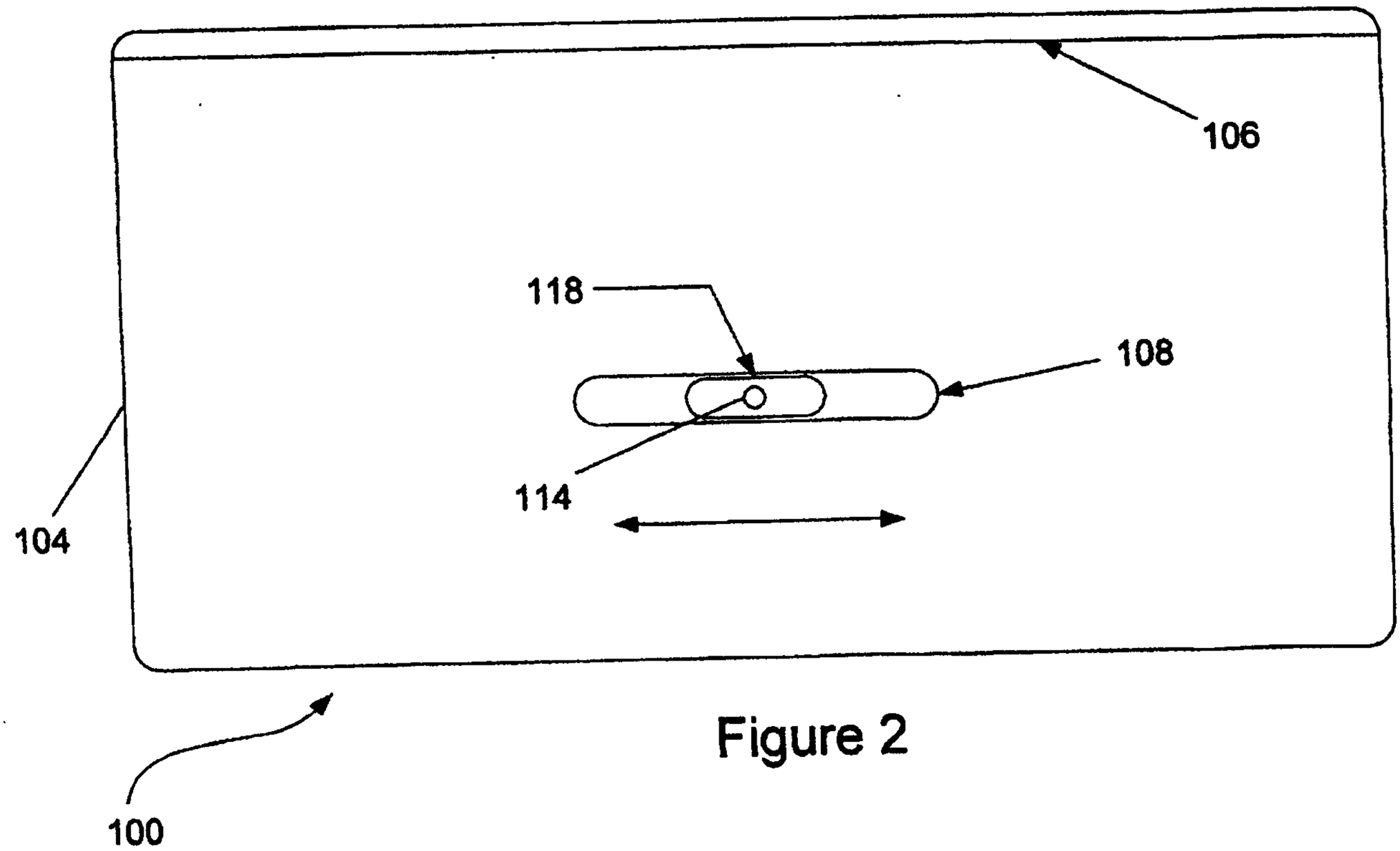


Figure 2

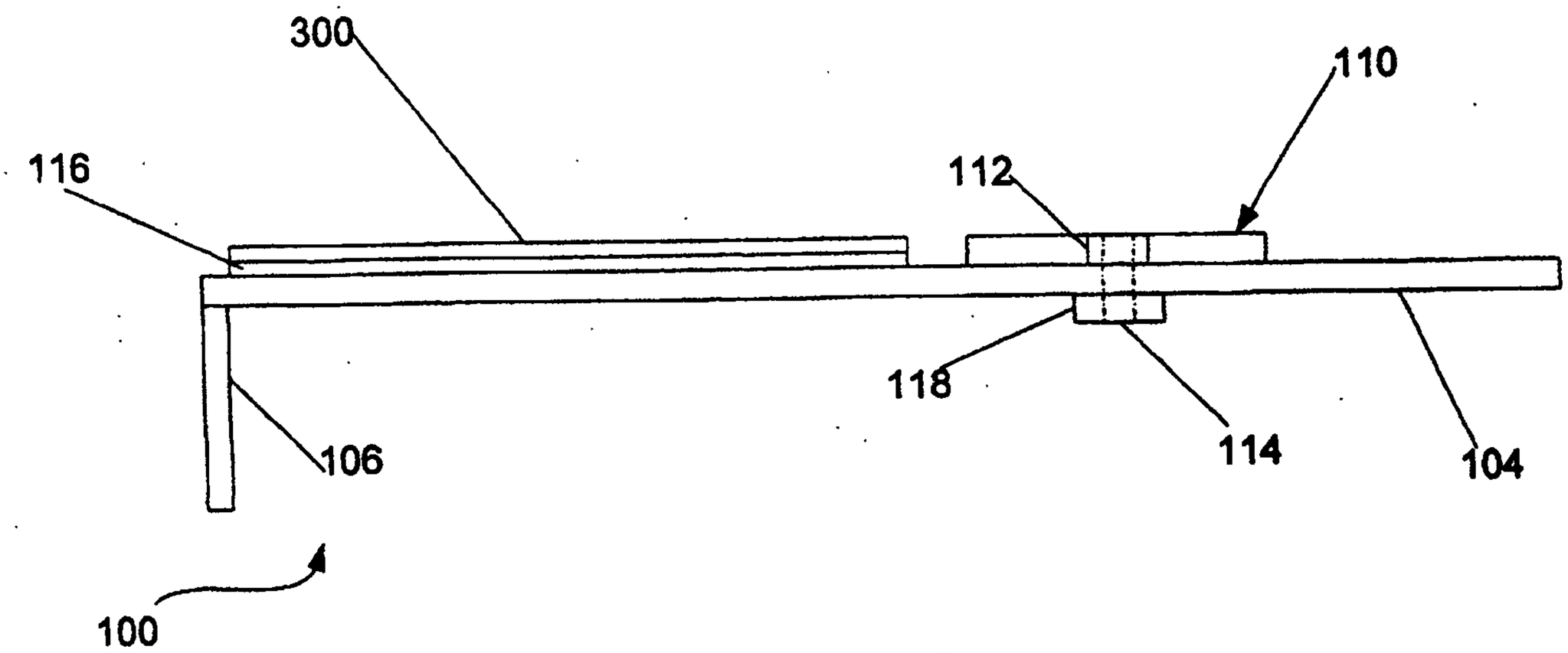


Figure 3

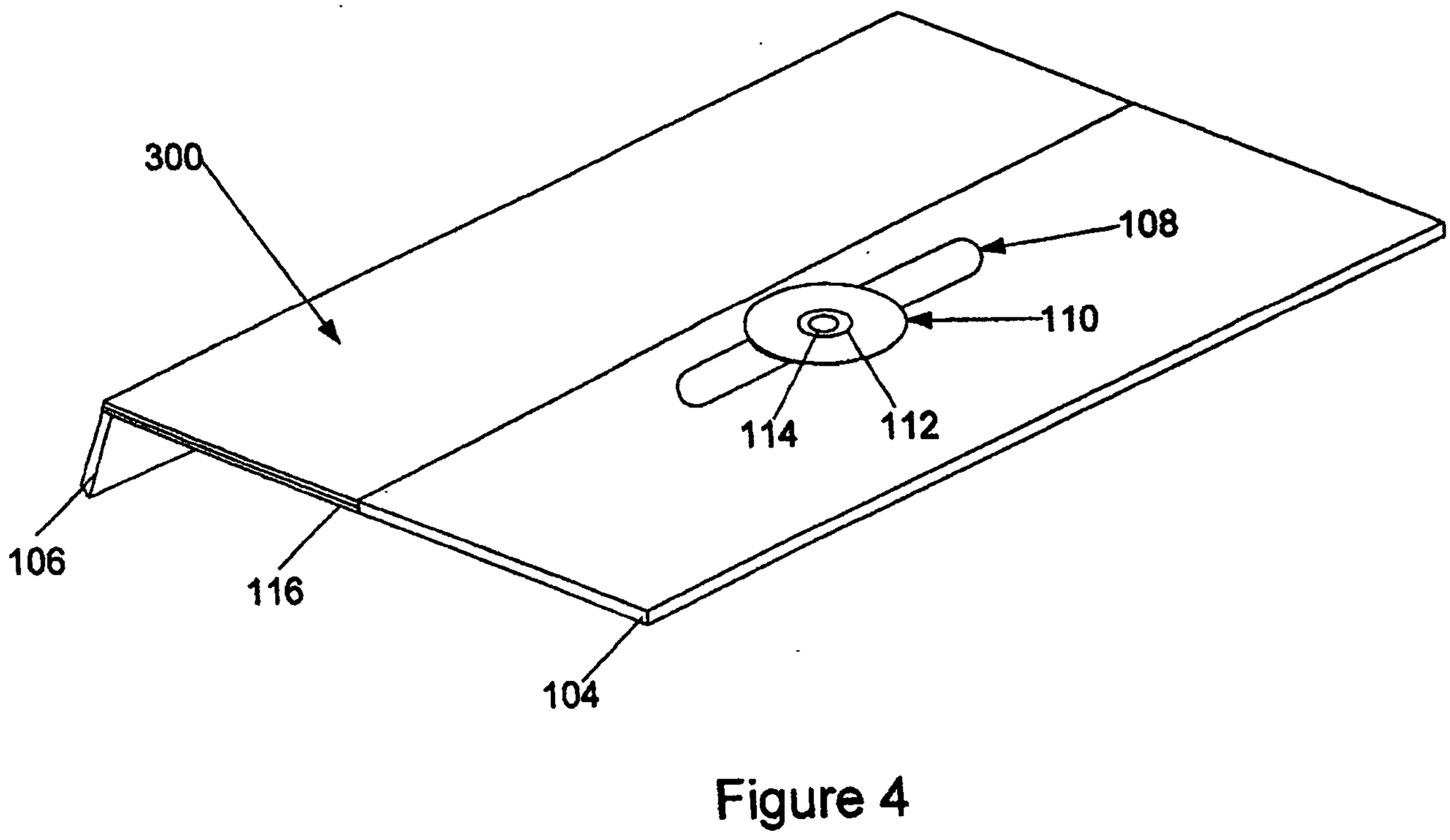


Figure 4

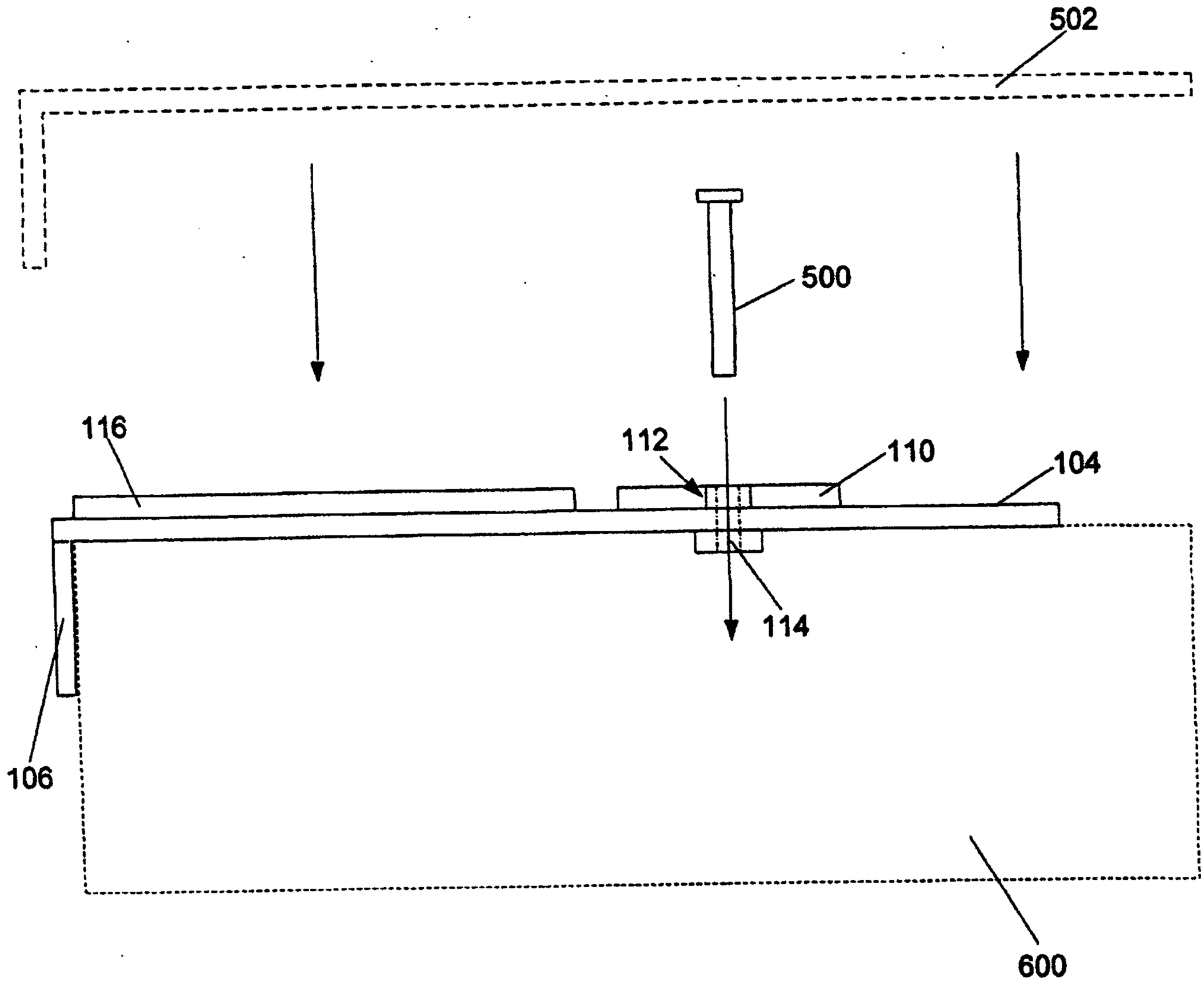


Figure 5

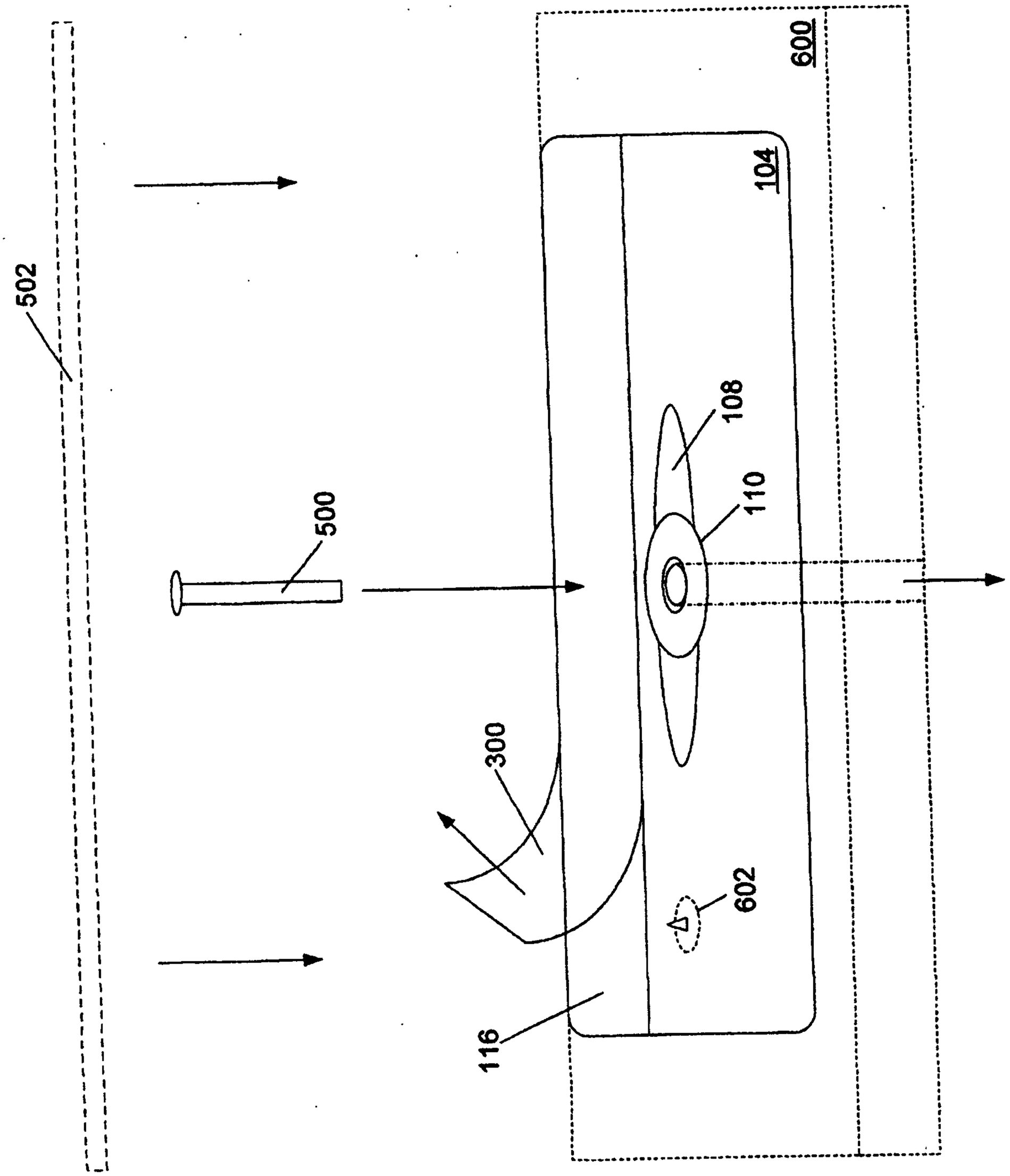
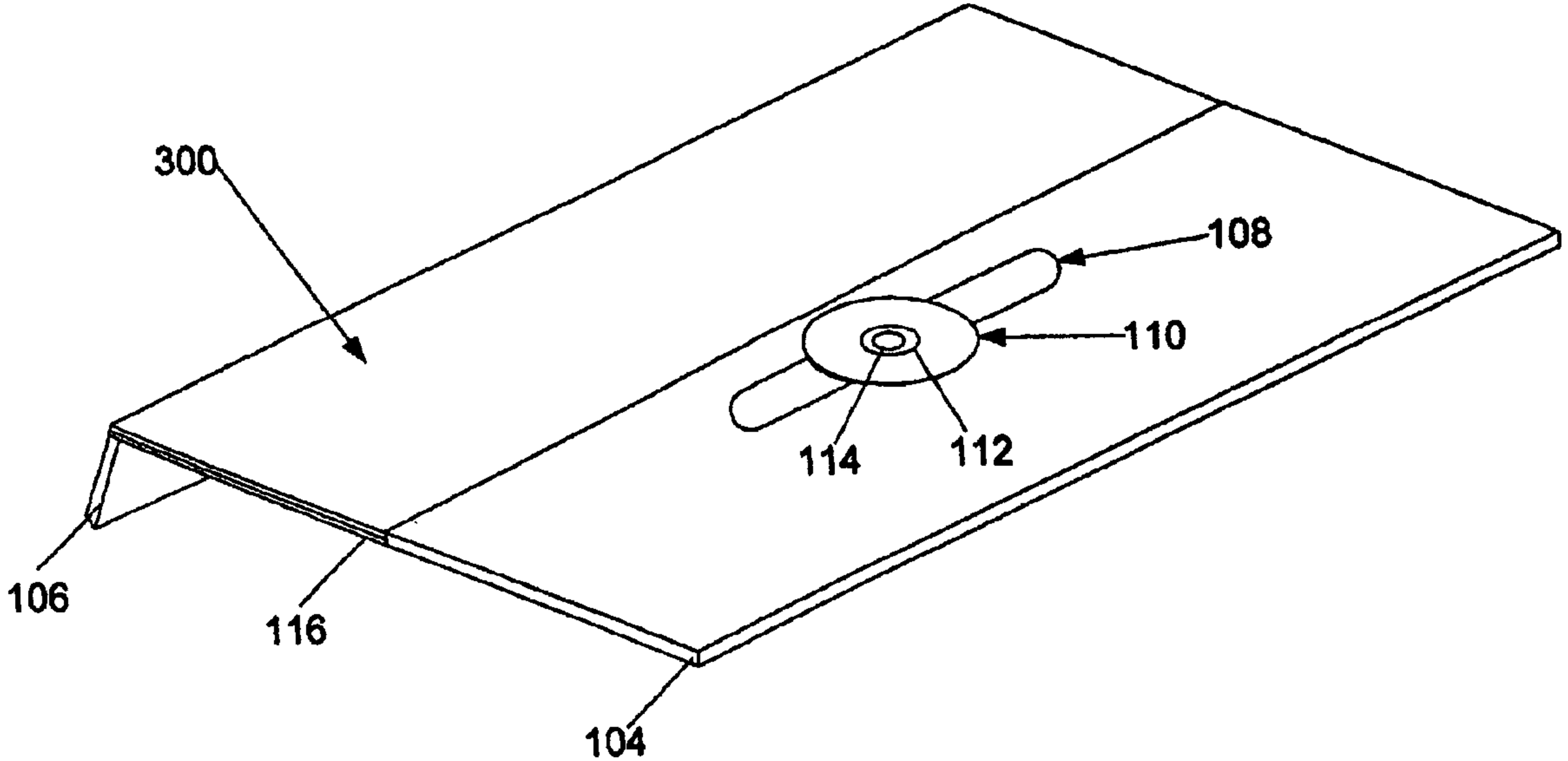


Figure 6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