



US 20030135963A1

(19) **United States**

(12) **Patent Application Publication**  
**Holbrook et al.**

(10) **Pub. No.: US 2003/0135963 A1**

(43) **Pub. Date: Jul. 24, 2003**

(54) **CD CLIP**

**Publication Classification**

(76) Inventors: **Richard M. Holbrook**, Altadena, CA  
(US); **Jeffrey Bentzler**, Los Angeles,  
CA (US)

(51) **Int. Cl.<sup>7</sup>** ..... **A44B 21/00**

(52) **U.S. Cl.** ..... **24/343**

Correspondence Address:

**CHRISTIE, PARKER & HALE, LLP**  
**350 WEST COLORADO BOULEVARD**  
**SUITE 500**  
**PASADENA, CA 91105 (US)**

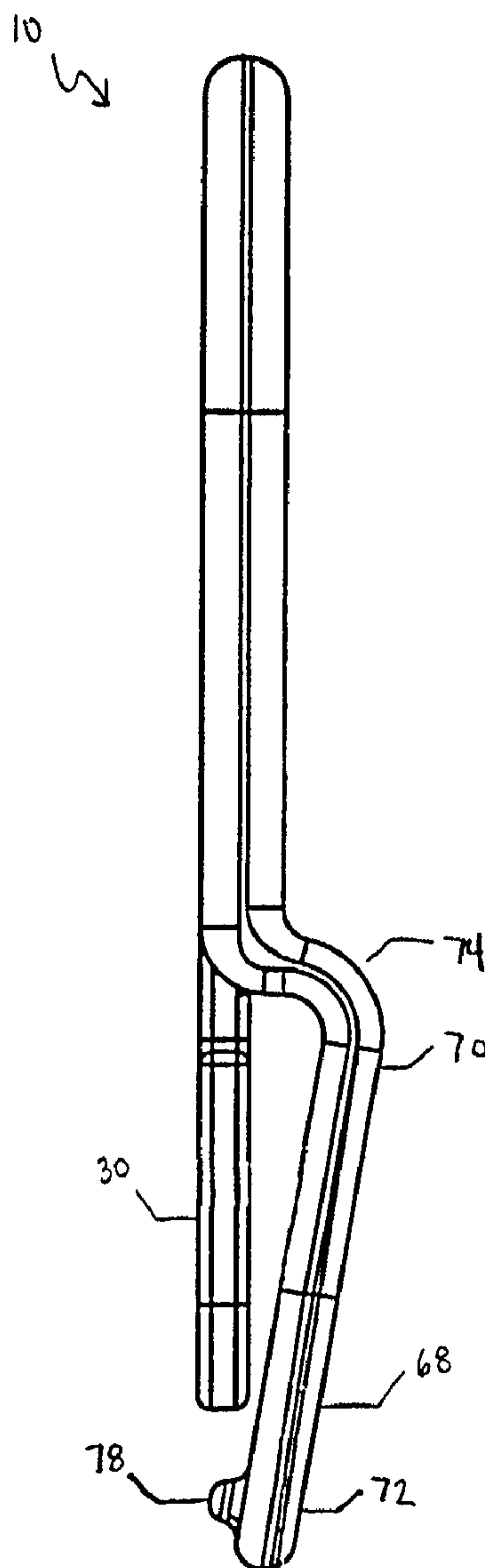
(57)

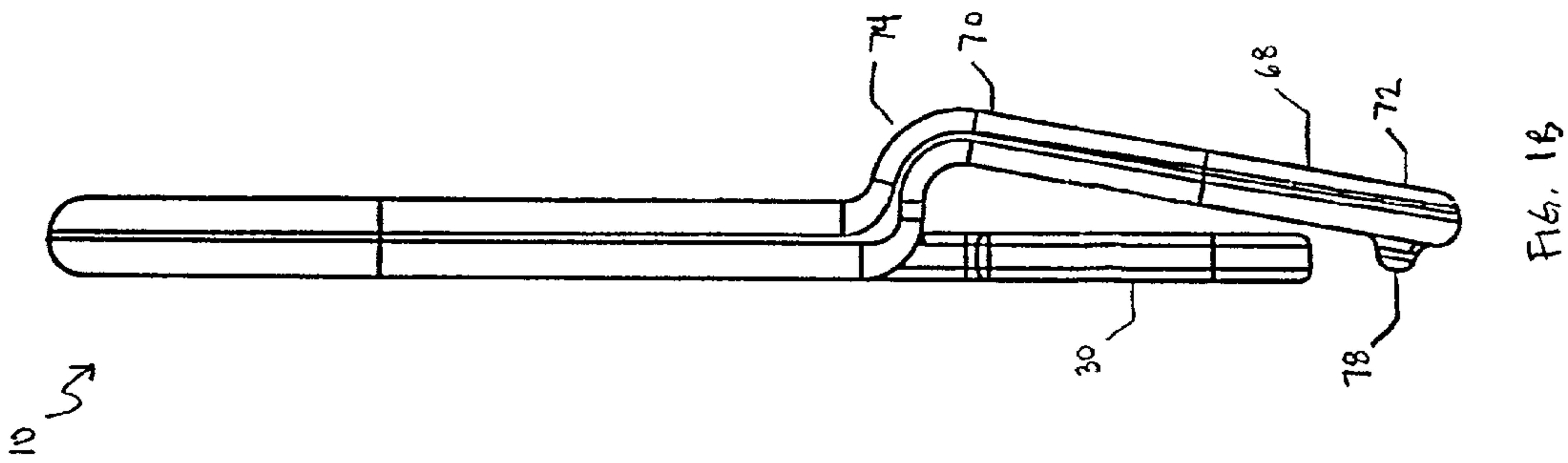
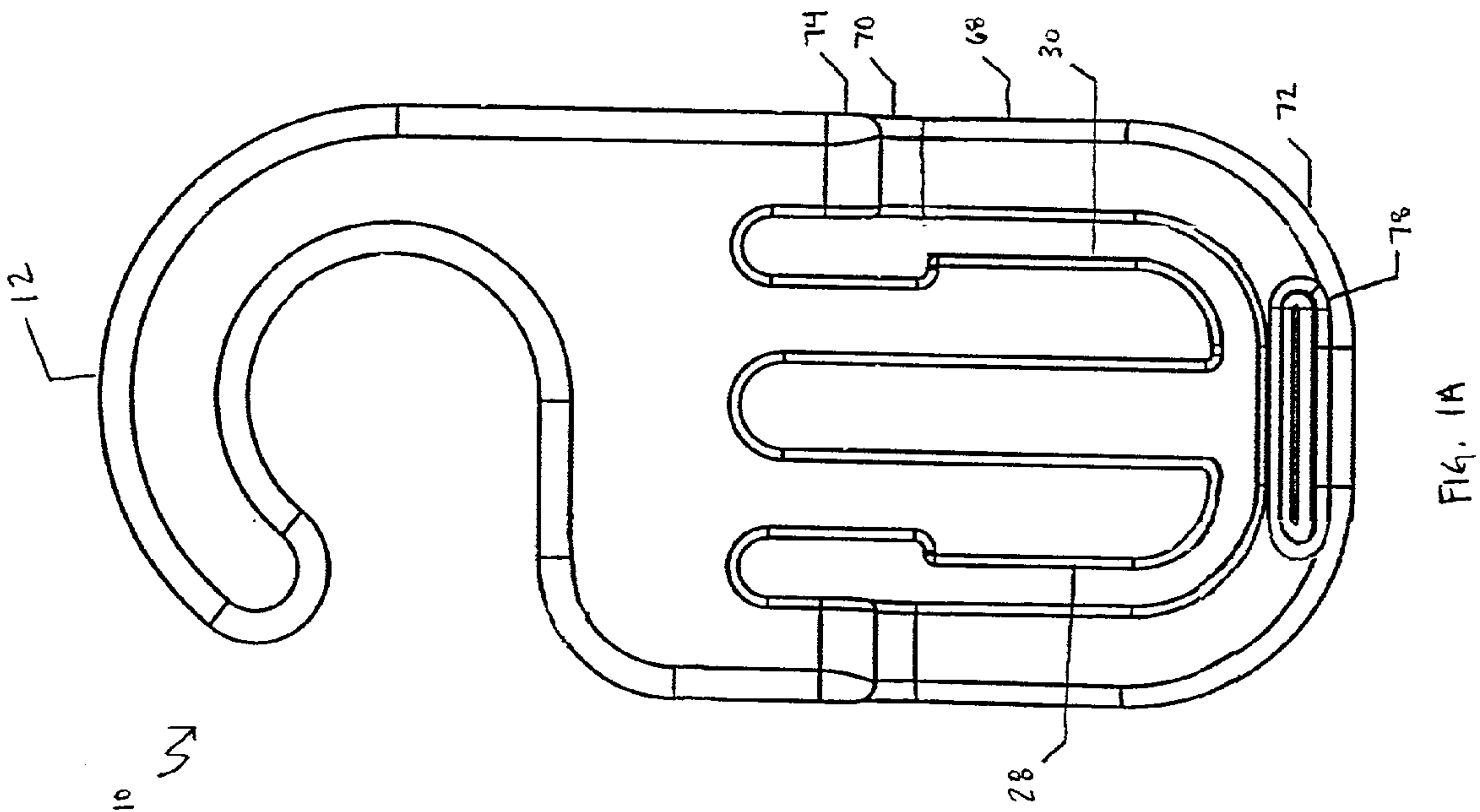
**ABSTRACT**

(21) Appl. No.: **10/052,290**

(22) Filed: **Jan. 18, 2002**

A clip having a first fixation device capable of attaching to a rail, a second fixation device attached to the first fixation device, for releasably engaging a slot in a compact disc case and a loop attached to the first fixation device such that one or more documents may be secured between the loop and the second fixation device.





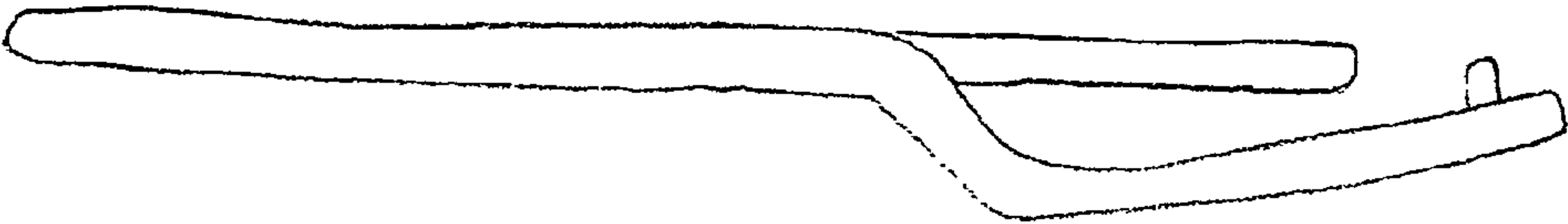
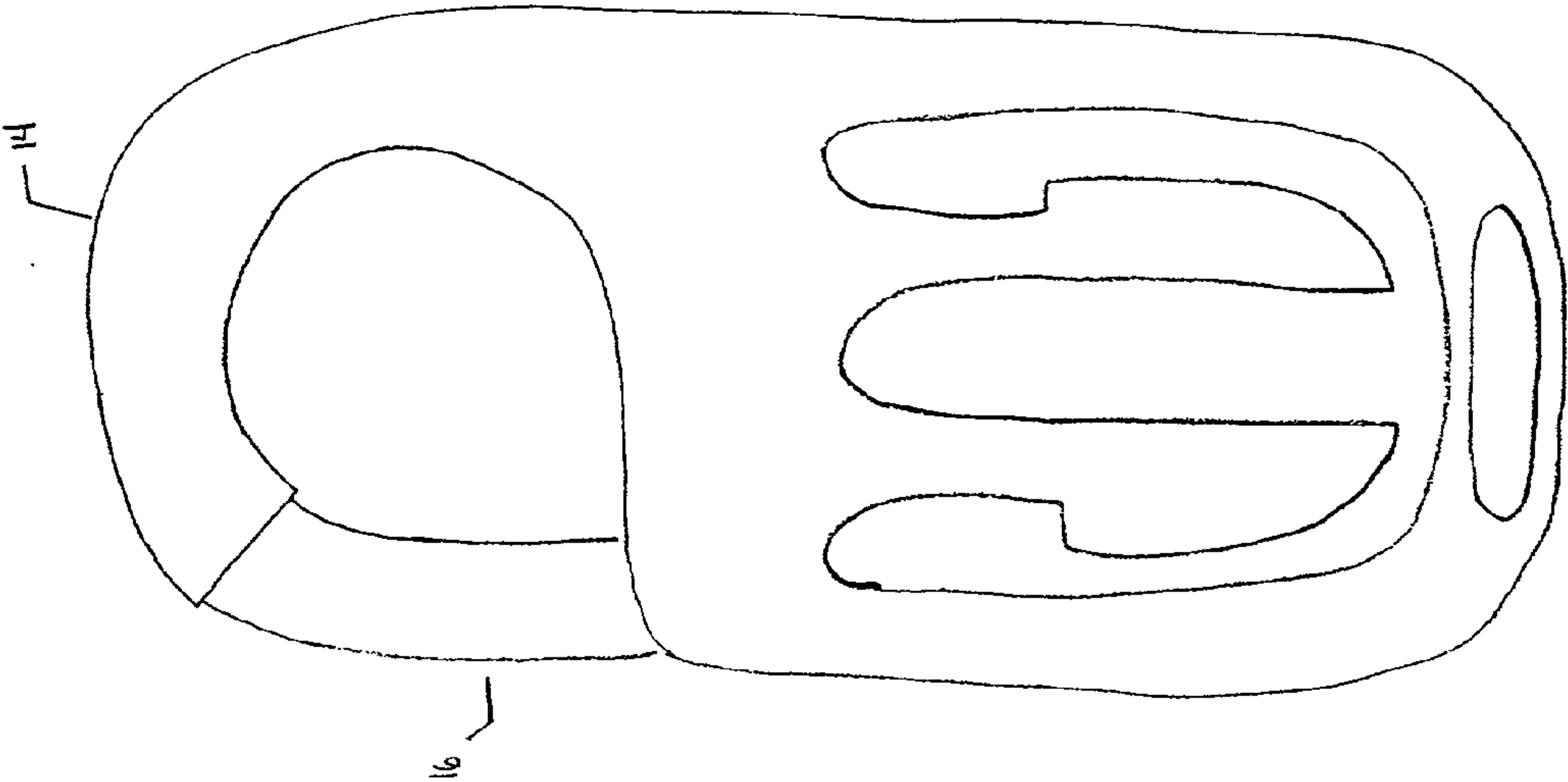
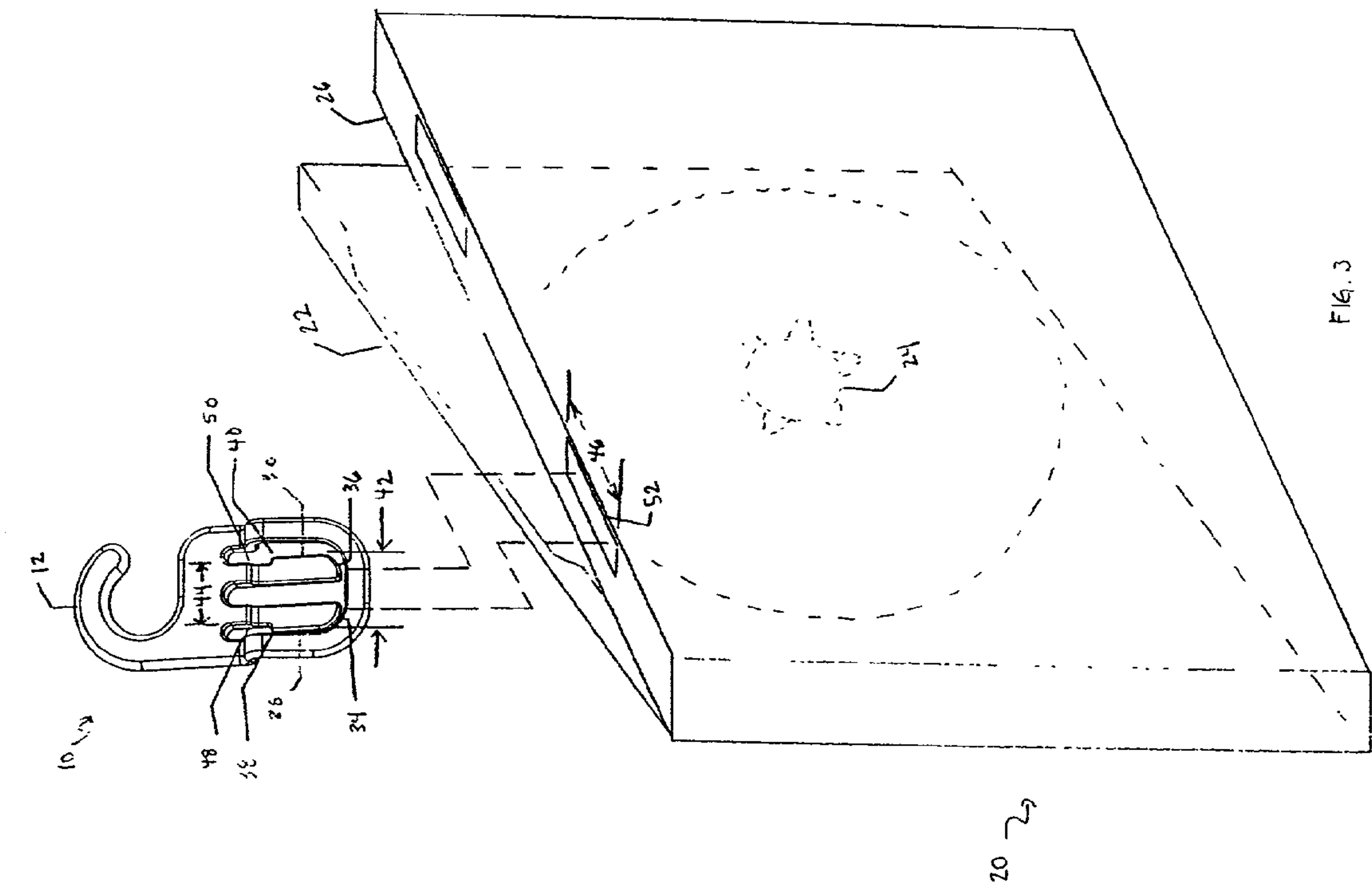


FIG. 2A

FIG. 2B



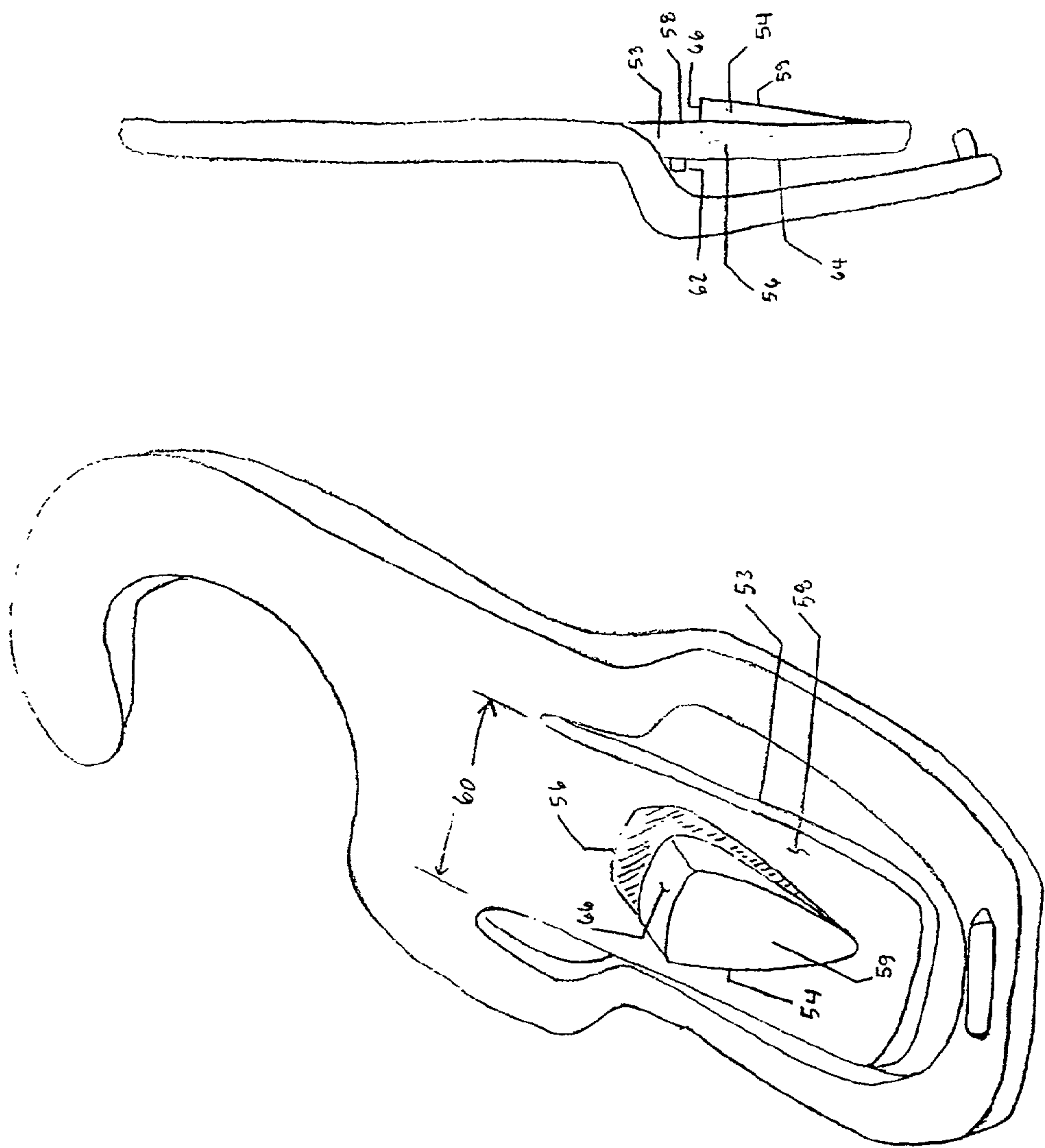


FIG. 4A

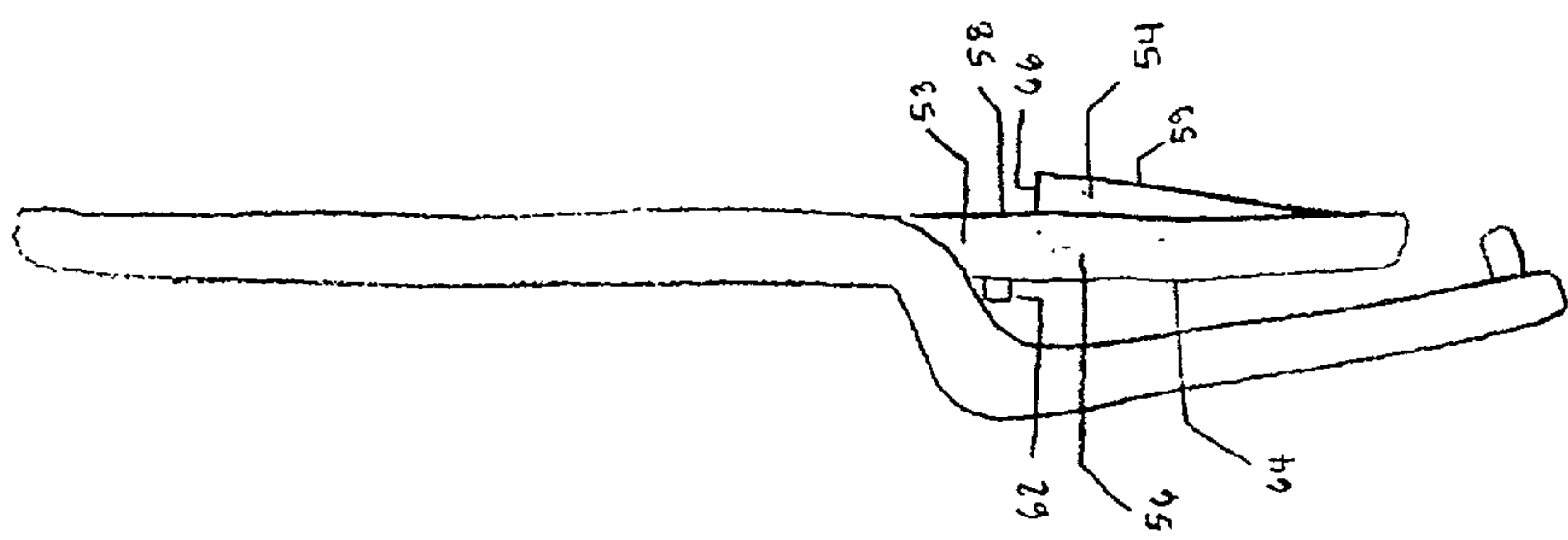


FIG. 4B

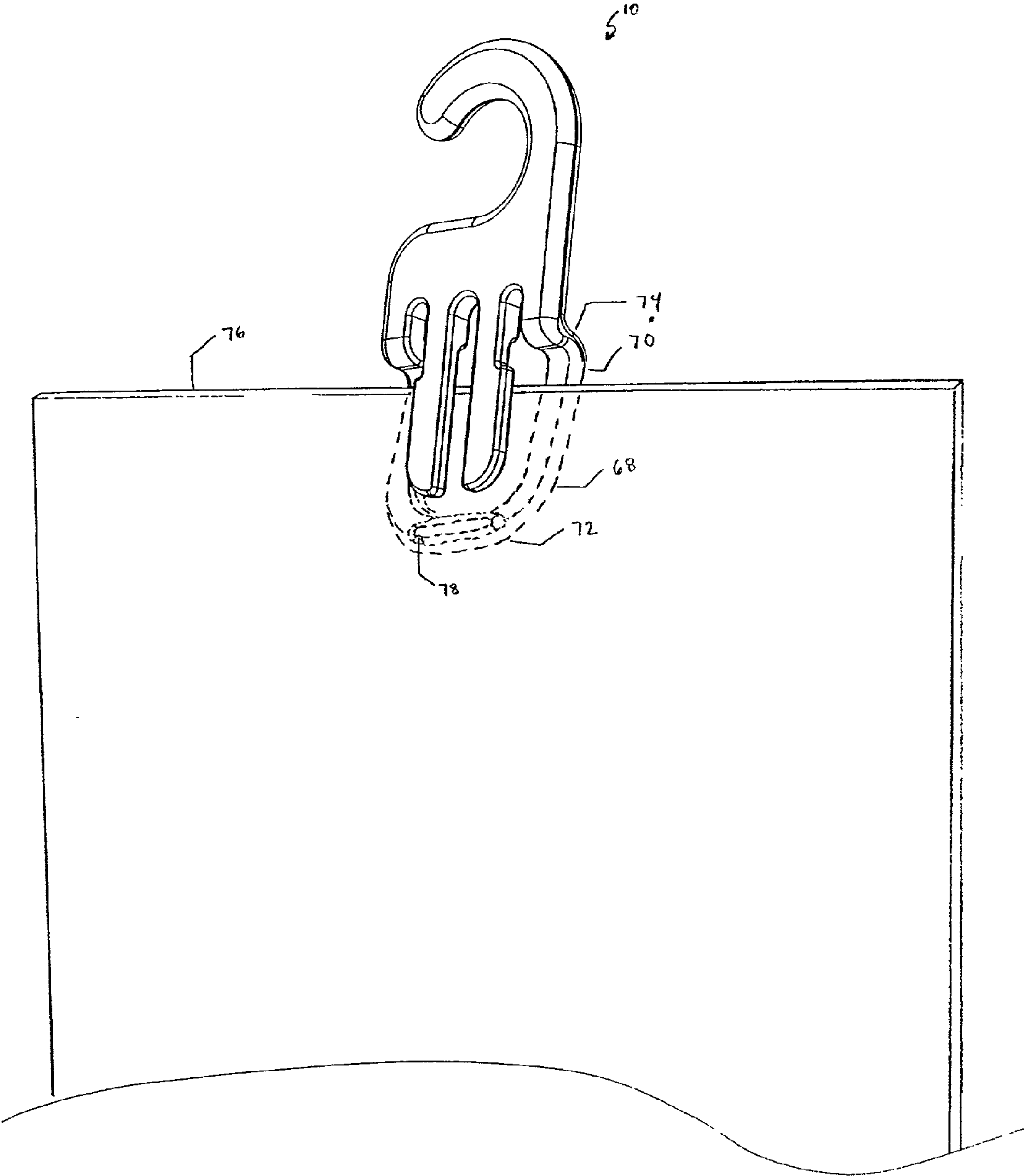


FIG. 5

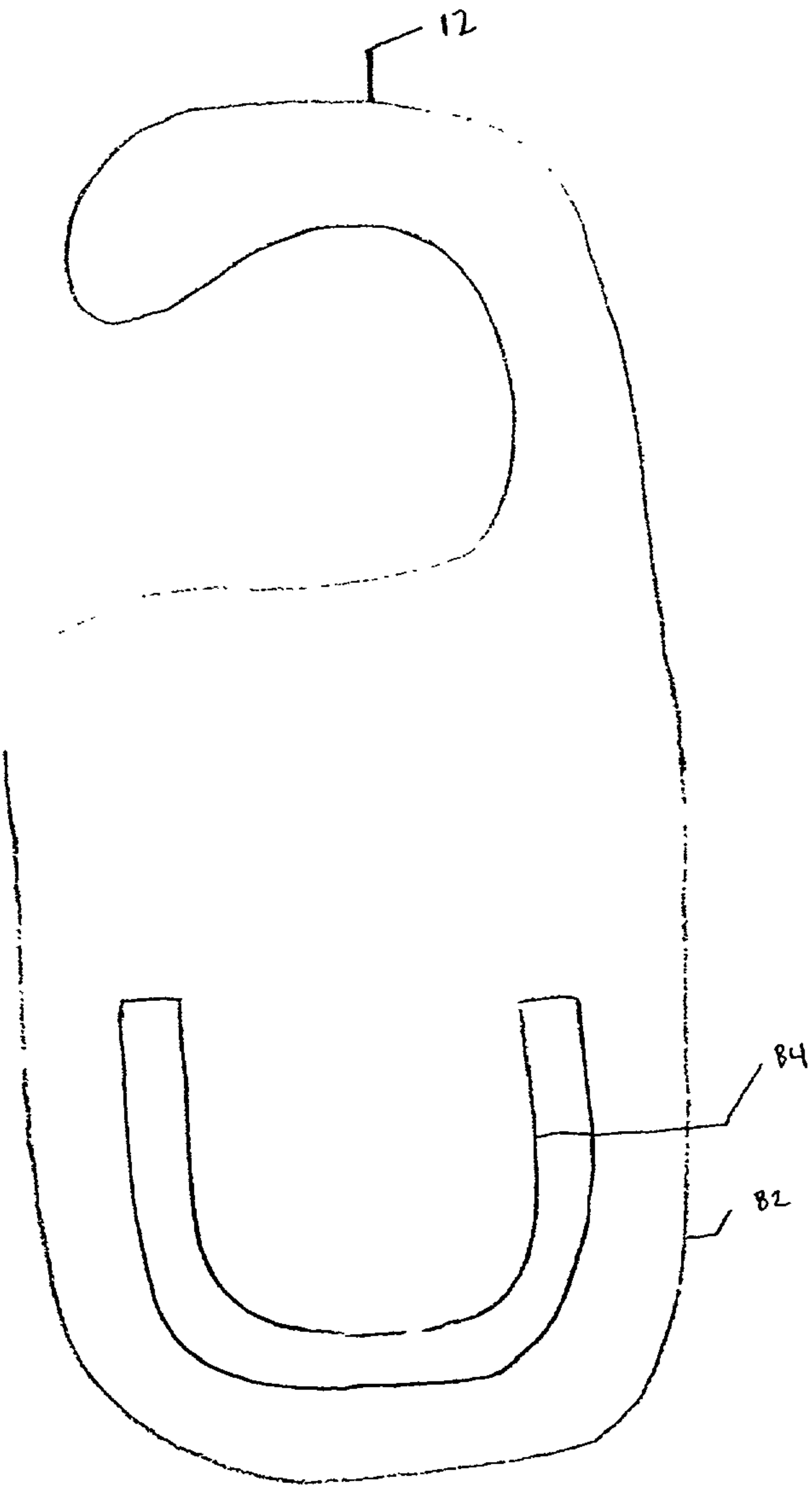


FIG. 6A

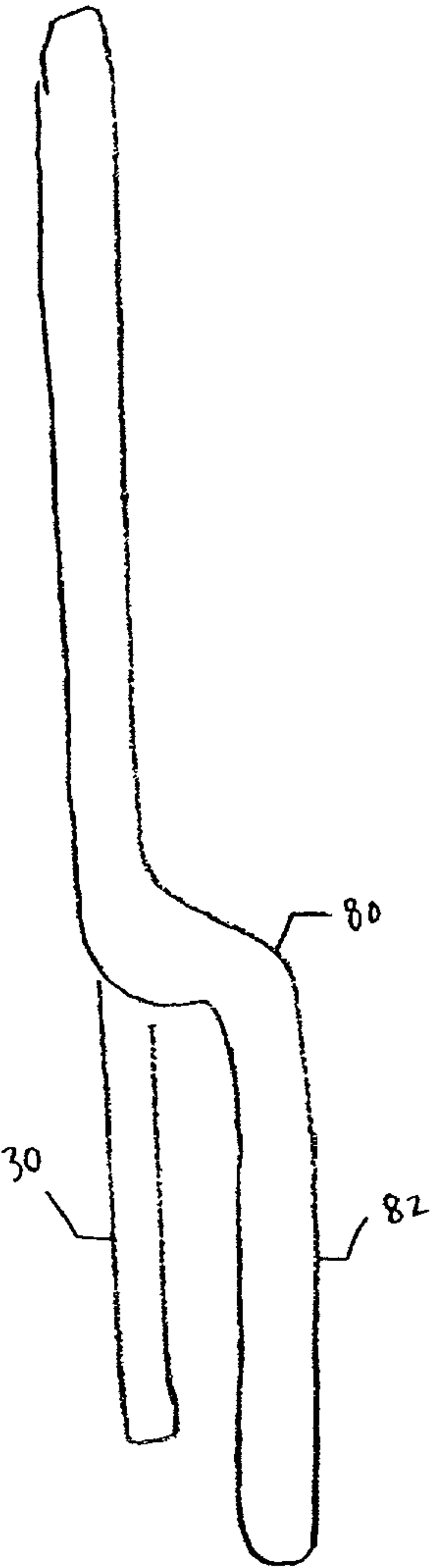


FIG. 6B



## CD CLIP

### FIELD OF THE INVENTION

[0001] This invention relates to a clip capable of releasably engaging a slot in a CD case and capable of attaching to one or more documents. More particularly, this invention relates to a clip capable of attaching to a rail for suspending a CD case or suspending one or more documents.

### BACKGROUND OF THE INVENTION

[0002] Since the advent of commercially available compact discs (CDs), it has been conventional to store CDs in specially constructed cases. A typical CD case comprises a main housing having a protrusion for receiving a CD and a second housing hingably connected to the main housing. The second housing forms a lid for the main housing and can be pivoted into a closed position for totally confining the CD within the CD case.

[0003] A problem with typical CD cases arises when one owns multiple CD cases, such as tens or even hundreds or more, and desires to store the cases in a manner which conserves space while at the same time permitting free access to each CD case. Multiple CD cases can be stored simply by stacking the cases in a vertical column. However, retrieving a case towards the bottom of such an arrangement can be cumbersome and time consuming and might result in collapsing the column. Multiple CD cases can also be stored by simply arranging the CDs in a horizontal row. However, due to the narrow dimensions of the cases, it can be difficult to grasp a single case and retrieve it without displacing adjacent cases and possibly knocking down all of the cases to the right or the left of the desired case.

[0004] As a result, various CD case storage devices have been developed. Typically, these storage devices include spacers, rails or individual compartments for separately storing each case. While these devices usually facilitate retrieval of desired cases, the spacers, rails or individual compartments can also occupy a large amount of space. In addition, many users like to arrange their CD cases in particular arrangements, such as alphabetically. While an initial arranging or alphabetizing may be easily accomplished using the above described devices, when it is desired to insert a new CD case into the arrangement, it may become burdensome. For example, inserting a CD case having a title starting with an "M" would require either removing all of the CD cases having an alphabetical title which precedes "M" or removing all of the CD cases having an alphabetical title which follows "M" and reinserting them into an adjacent compartment in order to provide a space for the new CD case to be inserted.

[0005] In addition, some CD cases are similar to the CD case construction above, but comprise two main housings, each having a protrusion for receiving a CD. Such double CD cases are approximately twice as wide as the previously described single CD cases. However, many CD case storage devices contain spacers, rails or individual compartments having openings only large enough for single CD cases and, as a result, cannot accommodate double CD cases. Consequently, an improved device for storing multiple CD cases is needed to address the problems of the prior art.

[0006] In addition to CD case storage devices, many devices exist for the grouping and storing of documents,

such as conventional file cabinets. However, using conventional file cabinets, once a document is stored within the file cabinet it is no longer clearly visible. Also, to separate each document or groups of documents within the file cabinet, a separate device, such as a file folder is typically required. Consequently, an improved device for grouping and storing documents is needed to address the problems of the prior art.

### SUMMARY OF THE INVENTION

[0007] The present invention addresses the above-referenced problems by providing a clip comprising a first fixation device capable of attaching to a rail, a second fixation device attached to the first fixation device, for releasably engaging a slot in a compact disc case and a loop attached to the first fixation device such that one or more documents may be secured between the loop and the second fixation device.

[0008] Other objects, advantages and novel features of the present invention will become apparent from the following detailed description of the invention when considered in conjunction with the accompanying drawings.

### DESCRIPTION OF THE DRAWINGS

[0009] **FIG. 1A** is a back view of a clip of the present invention;

[0010] **FIG. 1B** is a side view of the clip of **FIG. 1A**;

[0011] **FIG. 2A** is a back view of an alternative embodiment of a clip of the present invention.

[0012] **FIG. 2B** is a side view of the clip of **FIG. 2A**;

[0013] **FIG. 3** is a perspective view of the clip of **FIG. 1A** and a CD case having a slot into which the clip may be inserted;

[0014] **FIG. 4A** is a back view of another alternative embodiment of a clip of the present invention.

[0015] **FIG. 4B** is a side view of the clip of **FIG. 4A**;

[0016] **FIG. 5** is a perspective view of the clip of **FIG. 1A** and a document to which the clip may be attached;

[0017] **FIG. 6A** is a back view of another alternative embodiment of a clip of the present invention.

[0018] **FIG. 6B** is a side view of the clip of **FIG. 6A**.

### DETAILED DESCRIPTION OF THE INVENTION

[0019] The invention is directed to a clip having a first fixation device capable of attaching to a rail, and a second fixation device, attached to the first fixation device, capable of releasably engaging a slot in a CD case, such that when the second fixation device is attached to the slot, the first fixation device may be attached to the rail to suspended the CD case from the rail. In addition, the clip comprises a loop, attached to the first fixation device, such that one or more documents may be secured between the loop and the second fixation device.

[0020] A clip **10** of the present invention is shown in **FIGS. 1A and 1B**. The clip **10** comprises a first fixation device capable of attaching to a rail (not shown). For example, in the depicted embodiment, the first fixation



device is a hook 12. The hook 12 is substantially circular and has an opening therein for releasably engaging the rail (not shown). Alternatively, the hook 12 may have other suitable shapes, such as elliptical or ovular, among others.

[0021] In an alternative embodiment, such as that shown in FIG. 2A and 2B, the first fixation device is a ring 14, having a deflectable portion 16 which, when deflected, forms an opening in the ring, allowing the ring to releasably engage a rail (not shown). The deflectable portion 16 may be deflected, for example, by moving a lever (not shown) which retracts the deflectable portion 16 into an internal opening (not shown) in the ring 14. Alternatively, the deflectable portion 16 may be hingably connected to the ring 14, such that pivoting the deflectable portion with respect to the ring produces an opening in the ring. In another alternative embodiment, the first fixation device may be a clamp or any other structure capable of releasably attaching to a rail.

[0022] Attached to the first fixation device is a second fixation device for releasably engaging a slot in a CD case. FIG. 3 shows a typical CD case 20, which comprises a main housing 22 having a protrusion 24 for receiving a CD and a second housing 26 hingably connected to the main housing 22. The second housing 26 forms a lid for the main housing 22 and can be pivoted into a closed position for totally confining the CD within the CD case 20. The second housing 26 contains a plurality of slots 18.

[0023] As shown in FIG. 3, the second fixation device, in this embodiment a first and second prong 28 and 30, releasably engages the slot 18. Each prong 28 and 30 comprises an elastic material having shape memory, such as polycarbonate plastic or acrylonitrile butadiene styrene (ABS) plastic. Each prong 28 and 30 also comprises a laterally extending shoulder 38 and 40 and a protruding shoulder 48 and 50. The width of the prongs 28 and 30 below the lateral shoulders 38 and 40, a lower width 42, is greater than the slot length 46, and the width of the prongs above the lateral shoulders, an upper width 44, is less than the slot length. The prongs 28 and 30 also have converging lower ends 34 and 36, to enable the prongs to be inserted into the slot 18. When the prongs 28 and 30 are inserted into and travel downwardly within the slot 18, the slot laterally compresses the prongs such that the lower width 42 of the prongs is less than the slot length 46. When the lateral shoulders 38 and 40 travel to a position below the slot 18, the lateral shoulders spring back laterally away from each other, such that the lower width 42 is again larger than the slot length 46. In this position, the lateral shoulders 38 and 40 engage the slot 18, and prevent the prongs 28 and 30 from moving upwardly within the slot.

[0024] Positioned above the lateral shoulders 38 and 40 are the protruding shoulders 48 and 50. The protruding shoulders 48 and 50 are disposed on the prongs 28 and 30, such that when the lateral shoulders 38 and 40 are positioned below the slot 18, the protruding shoulders 48 and 50 abut against a facing 52 on the side of the second housing 26 of the CD case 20. In this position, the protruding shoulders 48 and 50 prevent the prongs 28 and 30 from moving downwardly in the slot 18.

[0025] When the lateral shoulders 38 and 40 are engaged with the slot 18 and the protruding shoulders 48 and 50 are engaged with the facing 52 on the side of the second housing 26 of the CD case 20, the prongs 28 and 30 are locked within

the slot 18. In this locked position, the CD case 20 can be suspended on a rail (not shown) by attaching the first fixation device, such as a hook 12, to the rail. The prongs 28 and 30 may be released from the locked position by applying a compression force to the prongs and sliding the prongs upwardly in the slot 18.

[0026] In an alternative embodiment, such as that shown in FIGS. 4A and 4B the second fixation device is a plate 53, comprising a wedge 54 and a shoulder 62. In the depicted embodiment, the wedge 54 is hingably connected to a first plate surface 58 and the shoulder 62 extends from a second plate surface 64. The wedge 54 may be biased in a direction away from the first plate surface 58, such that when the wedge is uncompressed (as shown), it protrudes from the first plate surface, and when the wedge is compressed (not shown), it enters a plate opening 56. The plate opening 56 may have a sufficient depth, such that when the wedge 54 is fully compressed, its outer surface 59 is flush with the first plate surface 58.

[0027] The plate 53 has a width 60 which is less than the length 46 of the slot 18, thus allowing the plate to be inserted into the slot. When the plate 53 is inserted into and travels downwardly within the slot 18, the slot compresses the wedge 54, forcing the wedge into the plate opening 56. When the plate travels to a position where an upper edge 66 of the wedge 54 is positioned below the slot 18, the wedge springs back away from the first plate surface 58, such that the wedge again protrudes from the first plate surface. In this position, the upper edge 66 of the wedge 54 engages the slot 18, and prevents the plate 53 from moving upwardly within the slot.

[0028] Positioned above the wedge 54 is the shoulder 62. The shoulder 62 is disposed on the plate 53, such that when the upper edge 66 of the wedge 54 is positioned below the slot 18, the shoulder abuts against the facing 52 on the side of the second housing 26 of the CD case 20. In this position, the shoulder 62 prevents the plate 53 from moving downwardly in the slot 18.

[0029] When the upper edge 66 of the wedge 54 is engaged with the slot 18 and shoulder 62 is engaged with the facing 52 on the side of the second housing 26 of the CD case 20, the plate 53 is locked within the slot 18. In this locked position, the CD case 20 can be suspended on a rail (not shown) by attaching the first fixation device, such as a hook 12, to the rail. The plate 53 may be released from the locked position by applying a compression force to the wedge 54, such that the wedge is flush with the first plate surface 58 and sliding the plate upwardly in the slot 18.

[0030] In addition to being capable of suspending CD cases, the clip of the current invention is also capable of suspending documents, as shown in FIG. 5. In the depicted embodiment, the first fixation device, in this case a hook 12, is attached to the second fixation device, in this case prongs 28 and 30. Below the first fixation device is a loop 68, which comprises a bend 74, an upper end 70 and a lower end 72. The bend 74 is attached to both the first fixation device and the upper end 70, such that the upper end is in a different vertical plane with respect to second fixation device. The loop 68 is angled with respect to the second fixation device such that the lower end 72 of the loop intersects the vertical plane of the second fixation device. When a document 76 is inserted between the second fixation device and the loop 68,



the intersecting of the lower end **72** of the loop with the vertical plane of the second fixation device allows the document to be secured between the loop and the second fixation device.

**[0031]** In addition, the loop **68** may comprise an elastic material having shape memory, for example polycarbonate plastic or ABS plastic, such that if the document **76** forces the lower end **72** of the loop out of intersection with the vertical plane of the second fixation device, the elastic material biases the lower end back towards the vertical plane of the second fixation device, causing the lower end to apply a lateral force to the document, which presses the document against the second fixation device, thus securing the document between the loop and the second fixation device. A plurality of documents may similarly be secured between the loop **68** and the second fixation device.

**[0032]** The lower end **72** of the loop **68** may also comprise an extension **78**. The extension **78** protrudes from the lower end **72** of the loop **68** and provides a gripping surface, which grasps the document **76**, when the document is secured between the loop and the second fixation device.

**[0033]** An alternative embodiment is shown in **FIGS. 6A and 6B**. As in previous embodiments, the first fixation device, such as a hook **12**, is attached to the second fixation device, such as prongs **28** and **30**. Below the first fixation device is an outer loop **82**, comprising a bend **80** which attaches the outer loop to the first fixation device, such that the outer loop is in a different vertical plane with respect to the second fixation device. Secured within the outer loop **82** is an inner loop **84** which is substantially coplanar with the outer loop. In addition, one or both of the loops **82** and **84** may comprise an elastic material having shape memory, for example polycarbonate plastic or ABS plastic, such that if a document **76** (see **FIG. 5**) forces the loops out of the coplanar arrangement, the elastic material biases the loops back towards the coplanar arrangement, causing the loops to apply substantially oppositely directed lateral forces to the document, thus clamping the document within the loops. A plurality of documents may similarly be secured between the loops **82** and **84**.

**[0034]** The clip of the present invention may be manufactured by a variety of techniques, uses a variety of materials. For example, injection molding a plastic material, such as polycarbonate plastic or ABS plastic, machining a plastic material such as polycarbonate plastic or ABS plastic, or machining or casting a metal such as spring steel.

**[0035]** Although the present invention has been described and illustrated with respect to various embodiments thereof, it is to be understood that the invention is not to be limited since changes and modifications are within the intended scope of the invention as hereinafter claimed.

**1. A clip comprising:**

- a first fixation device capable of attaching to a rail;
- a second fixation device attached to the first fixation device, for releasably engaging a slot in a compact disc case; and
- a loop attached to the first fixation device such that one or more documents may be secured between the loop and the second fixation device.

**2.** The clip of claim 1, wherein the second fixation device comprises at least two prongs.

**3.** The clip of claim 1, wherein the second fixation device comprises a first and second prong, each prong having a lateral shoulder, such that when the lateral shoulders are engaged with the slot, the prongs are prevented from moving upwardly.

**4.** The clip of claim 3, wherein each prong has a protruding shoulder, such that when the protruding shoulders are engaged with the slot, the prongs are prevented from moving downwardly.

**5.** The clip of claim 1, wherein the first and second fixation devices are substantially coplanar.

**6.** The clip of claim 5, wherein the loop comprises upper and lower ends, such that the upper end is in a different vertical plane with respect to the second fixation device.

**7.** The clip of claim 6, wherein the loop is angled with respect to the second fixation device, such that the lower end of the loop intersects the vertical plane of the second fixation device.

**8.** The clip of claim 6, wherein the lower end of the loop comprises an extension arm which protrudes in a direction towards the second fixation device and wherein the loop is angled with respect to the second fixation device, such that the extension arm intersects the vertical plane of the second fixation device.

**9.** The clip of claim 1, wherein the lower end of the loop comprises an extension arm which protrudes in a direction towards the second fixation device, providing a gripping surface when the one or more documents are secured between the loop and the second fixation device.

**10.** The clip of claim 1, wherein the second fixation device comprises a plate having a wedge hingably attached thereto.

**11.** The clip of claim 10, wherein the plate further comprises an opening, such that when the wedge is compressed, the wedge enters the opening.

**12.** The clip of claim 10, wherein the wedge comprises an upper edge, such that when the upper edge is engaged with the slot, the plate is prevented from moving upwardly.

**13.** The clip of claim 12, wherein the plate further comprises a shoulder, such that when the shoulder is engaged with the slot, the plate is prevented from moving downwardly.

**14. A clip comprising:**

- a hook for engaging a rail;
- a first and second prong, each attached to the hook, for releasably engaging a slot in a compact disc case; and
- a loop attached to the hook such that one or more documents may be secured between the loop and the prongs.

**15.** The clip of claim 14, wherein each prong comprises a lateral shoulder, such that when the lateral shoulders are engaged with the slot, the prongs are prevented from moving upwardly.

**16.** The clip of claim 15, wherein each prong has a protruding shoulder, such that when the protruding shoulders are engaged with the slot, the prongs are prevented from moving downwardly.

**17.** The clip of claim 14, wherein the hook and the prongs are substantially coplanar.

**18.** The clip of claim 17, wherein the loop comprises upper and lower ends, such that the upper end is in a different vertical plane with respect to prongs and wherein



the loop is angled with respect to the prongs such that the lower end intersects the vertical plane of the prongs.

**19.** The clip of claim 1, wherein the loop comprises upper and lower ends, and wherein the lower end comprises an extension arm which protrudes in a direction towards the prongs to provide a gripping surface when the one or more documents are secured between the loop and the prongs.

**20.** The clip of claim 19, wherein the upper end of the loop is in a different vertical plane with respect to prongs and wherein the loop is angled with respect to the prongs such that the protruding arm extends into the vertical plane of the prongs.

**21.** A clip comprising:

a hook for engaging a rail;

a first and second prong, each attached to the hook, for releasably engaging a slot in a compact disc case; and

at least two loops attached to the hook such that one or more documents may be secured between the loops.

**22.** The clip of claim 21, wherein the at least two loops are substantially coplanar.

**23.** The clip of claim 22, wherein the at least two loops are in a different vertical plane with respect to the at least two prongs.

**24.** The clip of claim 22, wherein the at least two loops comprises a first loop attached to the hook and a second loop secured within the first loop.

**25.** A method for storing a compact disc case comprising:

releasably securing a clip to the compact disc case by inserting a second fixation device of the clip into a slot in the compact disc case; and

releasably securing the clip to a rail by coupling a first fixation device of the clip to the rail.

**26.** The method for storing a compact disc case of claim 25, wherein the second fixation device comprises at least two prongs.

**27.** The method for storing a compact disc case of claim 25, wherein the second fixation device comprises a first and second prong, each prong having a lateral shoulder, such that when the lateral shoulders are engaged with the slot, the prongs are prevented from moving upwardly.

**28.** The method for storing a compact disc case of claim 26, wherein each prong has a protruding shoulder, such that when the protruding shoulders are engaged with the slot, the prongs are prevented from moving downwardly.

**29.** The method for storing a compact disc case of claim 25, further comprising releasably securing a document to the clip by inserting an edge of the document between the compact disc case and a loop of the clip.

**30.** The method for storing a compact disc case of claim 25, further comprising releasably securing a document to the clip by inserting an edge of the document between a first loop and a second loop of the clip.

**31.** A method for storing a document comprising:

releasably securing an edge of the document to a clip by inserting the edge into the clip, between a loop and a second fixation device of the clip; and

releasably securing the clip to a rail by coupling a first fixation device of the clip to a rail.

**32.** The method for storing a document of claim 31, wherein the first and second fixation devices are substantially coplanar.

**33.** The method for storing a document of claim 32, wherein the loop comprises upper and lower ends, such that the upper end is in a different vertical plane with respect to the second fixation device.

**34.** The method for storing a document of claim 33, wherein the loop is angled with respect to the second fixation device, such that the lower end of the loop intersects the vertical plane of the second fixation device.

**35.** The method for storing a document of claim 33, wherein the lower end of the loop comprises an extension arm which protrudes in a direction towards the second fixation device and wherein the loop is angled with respect to the second fixation device, such that the extension arm intersects the vertical plane of the second fixation device.

**36.** The method for storing a document of claim 31, wherein the lower end of the loop comprises an extension arm which protrudes in a direction towards the second fixation device, providing a gripping surface when the one or more documents are secured between the loop and the second fixation device.

**37.** The method for storing a document of claim 31, further comprising releasably securing a compact disc case to the clip by inserting the second fixation device into a slot in the compact disc case.

\* \* \* \* \*