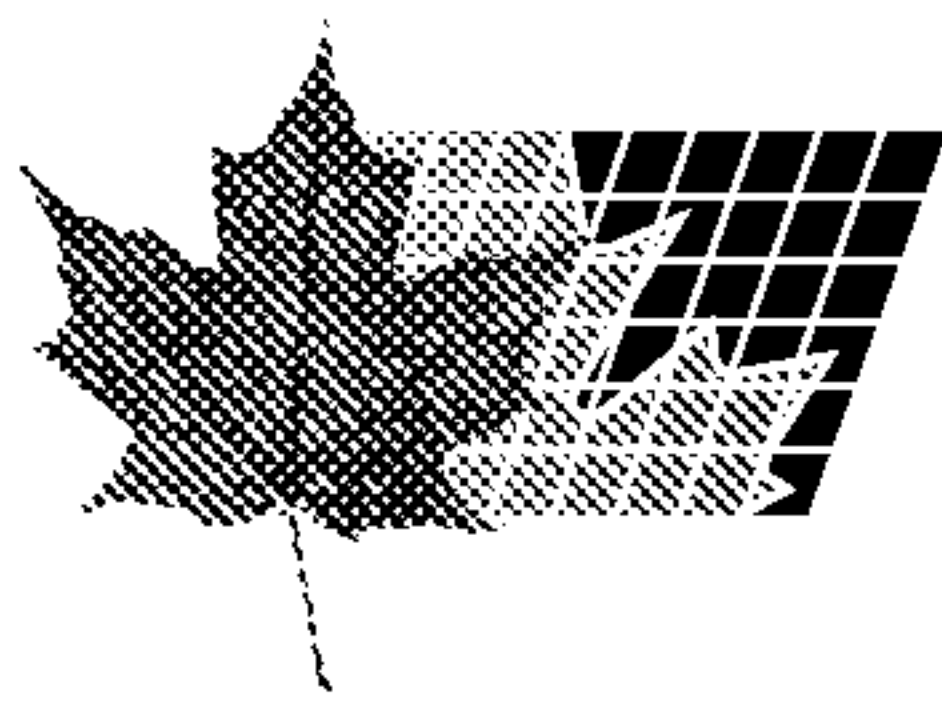




(72) DAVIES, Michael Anthony, US

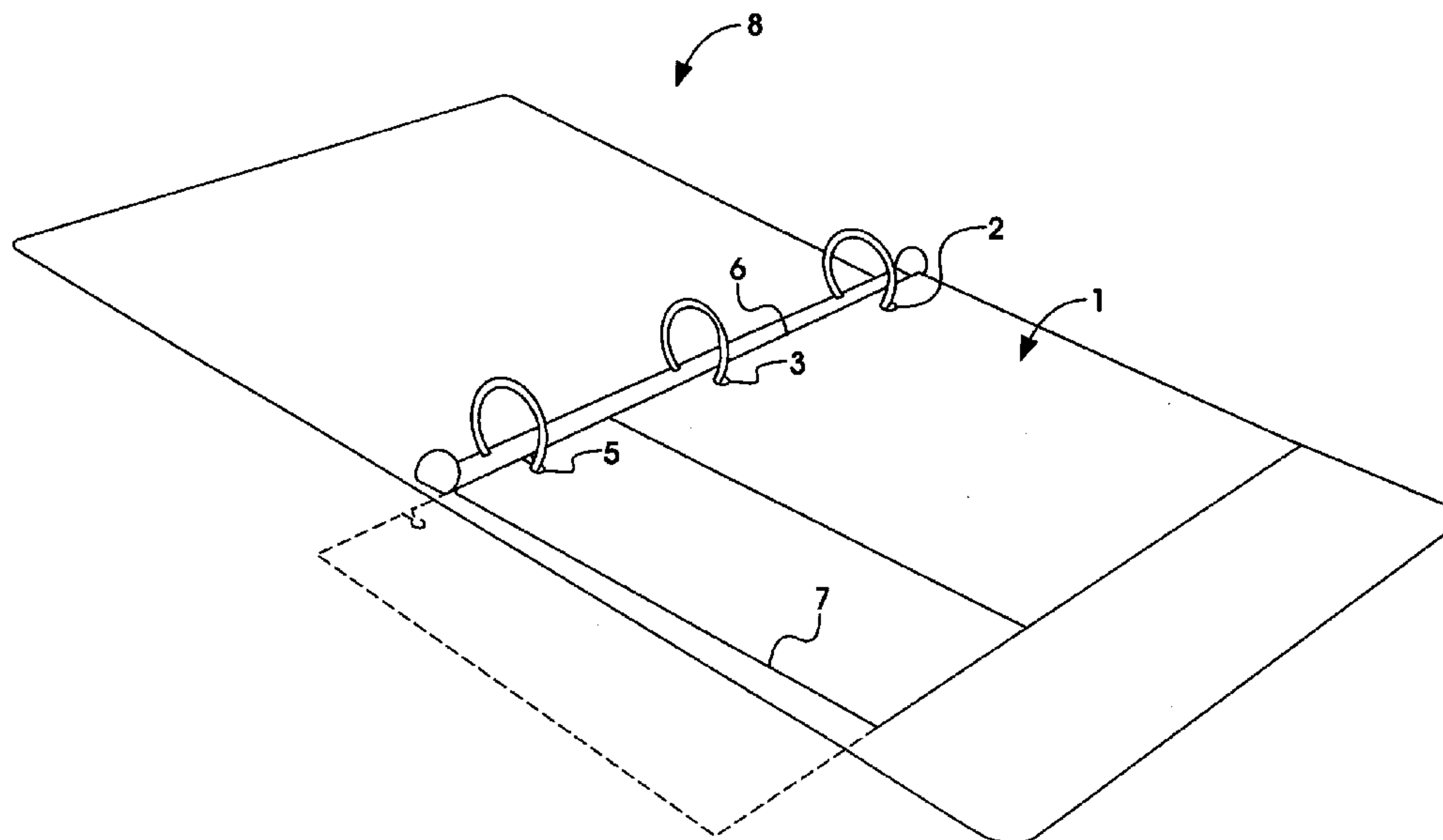
(71) DAVIES, Michael Anthony, US

(51) Int.Cl.⁶ B42F 3/00, B26F 1/32, B43M 17/00

(30) 1998/07/01 (09/109,016) US

(54) **PAPIER ET DISPOSITIF DE DECOUPURE DE PAPIER**

(54) **PAPER AND PAPER CUTOUT DEVICE**



(57) In one aspect, the present invention is an oversized sheet of paper having one or more punch outs for a standard sized ring binder and at least one cutout opening therein that allows the oversized paper to be secured in a standard sized ring binder when the oversized paper is folded at 90 degrees relative to the binding edge, and further allows the oversized paper to be unfolded for viewing without releasing a ring of the ring binder. In another aspect, the present invention comprises paper punches and cutting devices, operable by a user, which make at least one cutout in an oversized sheet of paper that allows the oversized paper to be secured in a standard sized ring binder when the oversized paper is folded, at 90 degrees relative to the binding edge, and further allows the oversized paper to be unfolded for viewing without releasing a ring of a ring binder.

ABSTRACT

In one aspect, the present invention is an oversized sheet of paper having one or more punch outs for a standard sized ring binder and at least one cutout opening therein that allows the oversized paper to be secured in a standard sized ring binder when the oversized paper is folded at 90 degrees relative to the binding edge, and further allows the oversized paper to be unfolded for viewing without releasing a ring of the ring binder. In another aspect, the present invention comprises paper punches and cutting devices, operable by a user, which make at least one cutout in an oversized sheet of paper that allows the oversized paper to be secured in a standard sized ring binder when the oversized paper is folded, at 90 degrees relative to the binding edge, and further allows the oversized paper to be unfolded for viewing without releasing a ring of a ring binder.

APPLICATION

for

PAPER and PAPER CUTOUT DEVICE

Inventor

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Field of the Invention

This invention relates to oversized paper that is punched or otherwise cut so the paper can be stored in standard sized ring binders, and to paper punches and cutters that make it possible for oversized paper to be adapted for storage in ring binders that are smaller than the oversized paper.

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Background of the Invention

Correspondence, reports and documents are most often printed on paper of so-called standard sizes, that is, on paper of sizes that have come to be commonly used in a given situation or in a given field. In the United States and some other countries, paper that measures 8 ½ by 11 inches is the standard size used by most businesses, most schools, and by many individuals. The 8 ½ by 11 inch paper is sometimes referred to as "letter sized" paper. Many file cabinets and many file binders, including ring binders, are sized to hold "letter sized" paper. However, in some other fields, law for example, larger sized paper is the standard. In law, standard sized paper measures 8 ½ by 13 inches or 8 ½ by 14 inches. Many legal documents, including pre-printed legal agreements, are printed on "legal sized" paper that is 8 ½ by 13 or 8 ½ by 14 inches. There are file cabinets and file binders sized to hold legal sized paper, and these are extensively used by those in fields where legal sized paper is the standard. Legal sized file cabinets and file binders are used less by those who use letter sized paper in the normal course of their affairs.

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Sometimes those who use letter sized paper will also have a document or agreement that is printed on legal sized paper, and those who use the letter sized paper will want to file the oversized legal document along with their letter sized papers. This can be done in a non-bound file folder by merely folding the legal sized document so it fits in the non-bound file folder. However, 5 if the letter sized papers are bound for example, in a letter sized "left side edge" ring binder, the folded legal paper will not fit within the letter sized binder unless the oversized legal paper is folded 90 degrees relative to the ring binder's edge, and then additional ring binder punch outs are punched through the left folded edge of the oversized legal paper. This solution works as long as the contents of 10 the oversized legal paper under the "fold" do not have to be viewed. If they do, it is necessary for the viewer to open the rings on the ring binder, and take out from the ring binders at least the folded portion of the oversized legal document. This is not convenient.

Thus there is a need for an oversized sheet of paper that can be 15 folded for storage in a smaller sized ring binder and further adapted in such a way as to provide a secure binding of the folded oversized sheet, and yet still allow access to the entire oversized sheet when it is unfolded, without opening the loose leaf binder rings. Furthermore, there is a need for users to be able to create the necessary punch outs and cutouts in oversized sheets of paper 20 lacking such, so as to make oversized sheets conveniently storable in smaller sized ring binders. These punch outs and cutouts can be created by suitable paper punches or cutters, alone or in combination with punches that create standard punch outs for standard ring binders.

Objects of the Invention

25 An object of invention is to provide a sheet of paper that is oversize for the ring binder in which it is stored, yet can be folded to fit within the binder, and unfolded without the necessity of opening any of the binder rings.

Another object is to provide punch means that will make a cutout in an oversized sheet of paper not having the cutout invention.

Yet another object of the invention is to provide a fold line indicator on an oversized sheet of paper that indicates where the paper should be folded in order to utilize the properties of the invention.

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Summary of the Invention

In one aspect, the present invention is an oversized sheet of paper having one or more punch outs for a standard sized ring binder and at least one cutout therein that allows the oversized paper to be bound in a standard sized ring binder when the oversized paper is folded at 90 degrees relative to binding edge, and further allows the oversized paper to be unfolded for viewing without releasing the ring binders of the standard sized ring binder.

10

In one form, the oversized paper of the invention has at least one punch out through which a ring on a standard ring binder can pass, and at least one cutout therein extending to the edge of the paper that will be bound within the ring binder. For example, when the oversized paper is legal sized paper measuring 8 ½ by 14 inches, and the storage binder is a 3-ring binder designed to store 8 ½ by 11 inch letter sized paper, the cutout of the present invention will be on the left lateral edge of the oversized paper.

15

According to the invention, the cutout(s) can be of any shape that allows the bound oversized paper, when folded 90 degrees relative to the binding edge, to lie relatively flat in the binder without interference or obstruction from the binder rings, and still be unfolded without opening the binder rings. Various possible shapes of cutouts are illustrated in Figures 1, 3, 4 and 5. In preferred form, the cutout will have a first cutout portion that allows a ring of a ring binder to pass through it without interference when it is in a folded position, and a second cutout portion that extends the cutout to the binding edge of the oversized paper. In a most preferred form, the first cutout portion will have a

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"standard" punch out that will partially encircle the binder ring(s), which would otherwise obstruct and prevent the folded oversized paper from lying flat in the binder. Also in a most preferred form, the second cutout portion will be a narrow neck extending from the rounded circular edges of the first portion of the cutout, to the binding edge of the paper, the neck having either straight or curvilinear parallel sides. In another preferred form, the narrow neck of the second cutout portion is flared at the paper edge, giving this cutout a keyhole shape. Other preferred forms include cutouts with divergent straight or curvilinear sides. By means of any of such cutouts, the oversized paper can be folded and bound in the standard sized binder, and still unfolded for viewing without opening the binder rings.

In another form, a portion of the corner of the oversized paper is removed (or perforated so it can be torn away by the user) so that when the oversized paper is folded 90 degrees relative to binding edge, the cutout allows the fold of the oversized paper to fit within the binder without touching the binding rings. For example, if the binder is a 3-ring binder for 8 ½ by 11 inch letter sized paper, and the paper is legal sized, measuring 8 ½ by 14 inches, a rectangular section is cutout from the lower left corner of the legal sized paper so that when the 8 ½ by 14 inch legal sized sheet is folded 90 degrees relative to the binding edge of the paper, and punched with a standard 3-hole punch, the legal sized paper can be folded and stored in the letter sized 3-ring binder and unfolded for viewing without releasing the ring binders.

The oversized paper may include a "fold line indicator" to show where the oversized paper is to be folded, so the oversized paper will be storable in a binder of smaller size according to the teaching of the invention. The fold line may be indicated by an ink stamp, an embossed mark, a cut, such as a notch, or any other means that indicates where the oversized paper is to be folded.

In another aspect, the present invention comprises paper punches and cutting devices, operable by a user, which make at least one cutout in an oversized sheet of paper that allows the oversized paper to be secured in a standard sized ring binder when the oversized paper is folded, at 90 degrees relative to the binding edge, and further allows the oversized paper to be unfolded for viewing without releasing the ring binders of the standard sized ring binder.

The cutout punch can be single, that is, one which only makes a cutout of the invention and is not associated with any other type of punch device, such as a standard three-hole punch. Alternatively, the cutout punch of the invention can be incorporated as part of a punch device that produces standard punch outs for a ring binder. In its single form, the punch can be used to add a cutout to a sheet of paper that contains standard ring binding holes, so as to allow easy storage of the oversized sheet in a standard sized ring binder. In its incorporated form, the cutout punch of the invention will be incorporated into standard hole punching devices. The cutout punch of the invention may be incorporated into standard three hole punches, either the heavier desk top types or the portable types made to be carried from place to place, in book bags or ring binder, for example. In this form a punch device that is designed to make standard punch outs for a ring binder will have an additional cutout punch placed so as to create the cutout in the location needed to allow the oversize paper to be stored in a folded condition.

When the cutout punch of the invention is incorporated into standard punches, means for indicating the fold line can also be incorporated into the punches. For example, the fold line may be indicating by a fold line indicator punch head incorporated into a standard desk top punch, along with the cutout punch of the invention.

This invention is applicable to any binding methods that operate by having pre-formed or user-formed holes in the paper, no matter what the shape, material, or location of the binding ring or other binding device. Thus, the invention applies also to those bindings at which the holes are on the upper edge of the paper, and for which it is desirable to bind an oversize paper folded along either the right or left edges, or both, in a manner which permits the paper to be folded and unfolded without interference from a ring of a ring binder or without the necessity of opening a binder ring.

Definitions

For use in the present specification and claims, the terms of art listed below are defined as follows:

Oversized sheet of paper: A sheet of paper that is too large to fit in chosen storage means without modification. The portion of the oversized sheet of paper that does not fit within the chosen storage means is the non-standard size portion of the oversized sheet of paper. An example of an oversized sheet of paper is a legal sized sheet of paper that one wants to store in a standard letter sized ring binder.

Punch Out: A punch out is an area in a sheet of paper from which the paper has been removed so that a ring of a standard ring binder can pass therethrough. To be bound in a standard three ring binder an oversized sheet of paper has three colinear punch outs: a first outer punch out, a middle punch out and second outer punch out. A standard punch out is round.

Ring Binder: A method of holding sheets of paper in a binder using punch outs in the paper and a ring which passes through the punch outs.

Cutout: A cutout is an area in an oversized piece of paper from which the paper has been removed. A cutout of the invention can be any shape that extends to the edge of the paper that will be bound within a ring binder and allows a non-standard size portion of an oversized sheet of paper to be folded 90

degrees relative to the binding edge and unfolded without interference from a ring of a ring binder or without the necessity of opening a binder ring.

Fold Line: A fold line is a line perpendicular to the binding edge of an oversized sheet of paper, along which the oversized sheet of paper is folded such that the cutout and punch out are aligned.

5 Fold Line Indicator: A printed, embossed, slit, or cut marking on an oversized piece of paper indicating the position of the fold line.

Brief Description of the Drawings

In the drawings:

10 Figure 1 is a plan view of an oversized sheet of paper containing standard punch outs for a three-ring binder, a cutout of the invention, plus a notch shaped fold line indicator of the invention.

Figure 2 is a plan view showing an oversized sheet of paper with a first outer punch out, a middle punch out, a second outer punch out, and a cutout of the invention, folded and in place in a standard 3-ring binder.

15 Figure 3 (a, b, c, d, e & f) shows plan views of the lower part of the sheet of paper shown in Figure 1; Figures 3a through 3f illustrate different-shaped cutouts of the invention.

20 Figure 4 (a, b, c & d) shows the keyhole cutout punch head and corresponding die of the invention. Figure 4a shows a side view of a cutout punch head that makes a keyhole-shaped cutout. Figure 4b shows a plan view of the cutout punch head of Figure 4a. Figure 4c is an end view of the cutout punch head of Figure 4a. Figure 4d is a plan view of the die corresponding to the cutout punch head of Figure 4a.

25 Figure 5 (a, b, c, d, e, f, g, h, i, j, k & l) shows a collection of cutout punch heads. Figures 5a, 5c, 5e, 5g, 5i & 5k show side views of the cutout punch heads. Plan views of the cutout punch heads are shown in Figures 5b, 5d, 5f, 5h, 5j & 5l.

Figure 6 shows an elongated desk-top punching system that can simultaneously create three standard punch outs for a three-ring binder in addition to the cutout of the invention.

Figure 7 shows desk-top punching system of Figure 6, further including a fold line indicator punch head to indicate the fold line on an oversized sheet or sheets of paper.

Figure 8 (a, b, c & d) shows fold line indicator punch head that creates a notch fold line indicator of the invention and its corresponding die. Figure 8a shows a side view of the fold line indicator punch head shown in Figure 8a. Figure 8b shows a plan view of the fold line indicator punch head of Figure 8a. Figure 8c is an end view of the fold line indicator punch head of Figure 8a. Figure 8d shows the die corresponding to fold line indicator punch head shown in Figure 8a, b and c.

Figure 9 shows a hand-held punching system that can create a single cutout of the invention, having a keyhole shape.

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Detailed Description

First Preferred Embodiment

Figure 1 shows a plan view of oversized sheet of paper 1 that has three standard punch outs, first outer punch out 2, middle punch out 3, and second outer punch out 4, fold line 7, fold line indicator 9, and cutout 5. First outer punch out 2, middle punch out 3, and second outer punch out 4 are placed to allow oversized sheet of paper 1 to be bound in standard 3-ring binder 8. Cutout 5 is so placed that when paper 1 is folded along line 7, second outer punch out 4 and the cutout 5 are aligned. When the paper is so folded, its size is such that it may be bound within standard 3-ring binder 8. (See Figure 2.)

25

Cutout 5 is a keyhole shape having a first and second portion. The first cutout portion allows a ring of a ring binder to pass through it without interference when it is in a folded position. The second cutout portion extends

cutout 5 to binding edge 6. Because cutout 5 reaches the binding edge 6 of oversized sheet of paper 1, paper 1 may be placed in binder 8 and be folded, unfolded and refolded to reveal the entire length of the oversized sheet while the sheet remains bound by the three standard rings without the necessity of opening any of the rings. (See Figure 2.)

5 Fold indicator means 9 provides a visual mark to help the user readily locate the position of fold line 7 before folding paper 1 along line 7. The fold indicator means may be any means for indicating where to fold oversized sheet of paper 1. The fold indicator means may be a cutout, a slit, an ink mark, or an embossed mark. An example of a fold indicator means 9 is a notch shown in
10 Figure 1.

As shown in Figure 3, other cutout shapes can also be utilized in this invention. All cutouts are so placed that when paper 1 is folded along line 7, second outer punch out 4 and any cutout of the invention will align, allowing the oversized paper to be placed within a three-ring binder. Figure 3a shows oval
15 cutout 11. Figure 3b shows triangular cutout 13. Figure 3c shows rectangular cutout 15. Figure 3d shows curvilinear cutout 17. The shape of cutout 17 is optimized to allow the binder ring to pass along the cutout from the binding edge towards the final position with minimal bending of the paper. Figure 3e shows corner cutout 19. Corner cutout 19 is shaped by removing paper from both the
20 binding edge and the immediately-adjacent edge of the sheet. Figure 3f shows slit cutout 21.

The exact shape and course of the cutout of the invention is not critical as long as the cutout extends to the edge over the oversized paper and aligns with outer punch out 4 allowing the oversized sheet of paper to be placed
25 in a binder so that the non-standard portion of an oversized sheet of paper may be folded 90 degrees relative to the binding edge and unfolded without

interference from a ring of the ring binder or without the necessity of opening a binder ring.

Method of Making the Invention

5 The method of making the paper of the invention provides a user with a means to create one or more cutouts of the invention in a piece of paper not having such a cutout. The cutouts for a single sheet or a number of sheets can be made using standard punch techniques known in the art.

10 Figure 4b shows the plan view of a cutout punch head that will make keyhole cutout 5 shown in Figure 1. Figure 4a is a side view and Figure 4c is an end view of the cutout punch head shown in Figure 4b. Figure 4d shows the die that works in cooperation with the cutout punch head shown in Figures 4a, b and c to make keyhole cutout 5. As shown in Figure 3, other cutouts can also be utilized in this invention.

15 Cutout punch head of Figure 4a is shaped to increase cutting efficiency. The bottom of the punch is shown angled and beveled so as to start the cutting at the edge of the cutout farthest from the binding edge, and then to continue the cutting in a direction towards the binding edge.

20 The cutout punch head (see Figures 4a, 4b and 4c) and its corresponding die (see Figure 4d) can be mounted in any of a number of ways known in the art for aligning a punch and die, and for providing a means of forcing the punch through the paper and die. The paper is placed on top of the die and then the cutout punch shown in Figure 4a is moved downward, cutting the paper and creating keyhole cutout 5 shown in Figure 1. It is not necessary for the binding edge of the paper to be co-incident with edge 20 of the die. If the paper is not co-incident with the edge of the die, it is not necessary for there to be any
25 cutting action of the punch and die along edge 20.

The cutout punch heads of Figure 5 and their corresponding dies make the cutout of the invention in the manner described in detail above for the

punch head and die of Figure 4. Cutout punch head of Figure 5a and b and its corresponding die work in cooperation to make oval cutout 11 shown in Figure 3a. Cutout punch head of Figure 5c and d and its corresponding die work in cooperation to make triangular cutout 13 shown in Figure 3b. Cutout punch head of Figure 5e and d and its corresponding die work in cooperation to make
5 rectangular cutout 15 shown in Figure 3c. Cutout punch head of Figure 5g and h and its corresponding die work in cooperation to make curvilinear cutout 17 shown in Figure 3d. Cutout punch head of Figure 5i and j and its corresponding die work in cooperation to make corner cutout 19 shown in Figure 3e. Cutout punch head of Figure 5k and l and its corresponding die 5l work in cooperation to
10 make slit cutout 21 shown in Figure 3f. The cutout punch heads of Figures 5a and b, 5c and d, 5e and f, 5g and h, 5i and j, and 5k and l are also shaped to increase cutting efficiency.

Second Preferred Embodiment

15 A conventional paper punch uses three standard punch out punch heads and their corresponding dies to make three standard punch outs: first outer punch out, middle punch out, and second outer punch out. Figure 6 shows paper punch 145, which is a punch head and die combination for making punch outs and cutouts of the invention.

20 To make the oversized sheet of paper of the invention, punch 145 has first outer punch head 152, middle punch head 153, and second outer punch head 154 and their corresponding dies, correctly positioned for making punch outs in paper that will be stored in a standard 8 1/2 by 11 inch 3-ring binder. An additional cutout punch head 155 and its corresponding die create a cutout shape of the invention. First outer punch head 152, middle punch head 153, second
25 outer punch head 154, and cutout punch head 155 and their corresponding dies are positioned by alignment means 159, 161, 163 and 165, respectively.

With a single motion of handle 149, the user causes the first outer punch head 152, middle punch head 153, second outer punch head 154 and cutout punch head 155 and their respective dies to work cooperatively to make the punch outs and cutout in an oversized sheet or sheets of paper that have been properly positioned in paper punch 145. In this way, both the punch outs and the cutout of the invention are created simultaneously.

The cutout, made by cutout punch head 155, in the non-standard portion of an oversized sheet or sheets of paper allows the paper be placed in a ring binder and folded 90 degrees relative to the binding edge and unfolded without interference from a ring of a ring binder or without the necessity of opening a binder ring.

Oversized sheet of paper 1 having keyhole cutout 5 (see Figures 1 & 2) may be created by using the cutout punch head and its corresponding die shown in Figure 4 as cutout punch head 155 in paper punch 145. Oversized sheets of paper with other cutout shapes may be made with the cutout punch heads and their corresponding dies shown in Figure 5.

Third Preferred Embodiment

Figure 7 shows paper punch 245, which is a punch head and die combination for creating punch outs, cutouts and fold line indicator of the invention. Paper punch 245 functions similar to previously described paper punch 145.

Oversized sheet of paper 1 having fold indicator means 9 (see Figure 1) may be created by using the fold indicator punch head and its corresponding die (see Figure 8) as fold indicator punch head 257 and its corresponding in paper punch 245. The punch head that makes notch fold line indicator 9 is shown in side view in Figure 8a, plan view in Figure 8b and in end view in Figure 8c. Figure 8d shows the plan view of the die that will create notch fold line indicator cutout 9 shown in Figure 1.

To make the oversized sheet of paper of the invention punch 245 has first outer punch head 252, middle punch head 253, and second outer punch head 254 and their corresponding dies, correctly positioned for making punch outs in paper that will be stored in a standard 8 1/2 by 11 inch 3-ring binder. An additional fold line punch head 257 and cutout punch head 255 and there
5 corresponding dies create a fold line indicator and cutout, respectively, of the invention. First outer punch head 252, middle punch head 253, second outer punch head 254, fold line indicator punch head 257 and cutout punch head 255, and their corresponding dies are positioned by alignment means 259, 261, 263 264, and 265, respectively.

10 With a single motion of handle 249, the user causes the first outer punch head 252, middle punch head 253, second outer punch head 254, fold line indicator punch head 257, and cutout punch head 255 and their respective dies to work cooperatively to make the punch outs, fold line indicator, and cutout in an oversized sheet or sheets of paper that have been properly positioned in paper
15 punch 245. In this way, both the punch outs, fold line indicator, and the cutout of the invention are created simultaneously.

The cutout, made by cutout punch head 255, in the non-standard portion of an oversized sheet or sheets of paper allows the paper be placed in a ring binder and folded, at fold line indicator 9, 90 degrees relative to the binding
20 edge and unfolded without interference from a ring of a ring binder or without the necessity of opening a binder ring.

Fourth Preferred Embodiment

Figure 9 shows a hand-held punch 345 having keyhole cut out punch head 355 and corresponding die 370. This hand-held punch can be used
25 to create a keyhole cutout in an oversized sheet of paper not having the cutout. A hand-held punch may have any of the cutout punch heads shown in Figure 3. Being hand-held, such a punch 345 would have use for those who handle paper

already having the standard punch outs, and need only to add the cutout of the invention.

5 With respect to the above description then, it is to be realized that the optimum dimensional relationships for the elements of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

10 Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

CLAIMS

What is claimed is:

1. An oversized sheet of paper comprising:
 - at least one punch out through which a ring of ring binder can pass;
 - at least one cutout;
 - 5 a binding edge;
 - said cutout being positioned such that, when said oversized paper is folded 90 degrees relative to said binding edge, at least a portion of said cutout is aligned with said punch out.
2. The oversized sheet of paper of claim 1 wherein said cutout is comprised
10 of one of the following shapes: keyhole, oval, triangle, rectangle, curvilinear, corner cutout or slit.
3. The oversized sheet of paper of claim 2 further comprising at least one means for indicating the fold line.
4. An oversized sheet of paper comprising:
 - 15 a first and second outer punch out, and middle punch out;
 - said first outer punch out, said middle punch out, and said second outer punch out being colinear, thus enabling said oversized sheet to be bound by the rings of a ring binder;
 - a cutout;
 - 20 a binding edge;
 - said cutout being positioned such that, when said oversized paper is folded 90 degrees relative to said binding edge, at least a portion of said cutout is aligned with said first or second outer punch out.

5. The oversized sheet of paper of claim 4 wherein said cutout is comprised of one of the following shapes: keyhole, oval, triangle, rectangle, curvilinear, corner cutout or slit.
6. The oversized sheet of paper of claim 4 further comprising at least one means for indicating the fold line.
- 5 7. The oversized sheet of paper of claim 4 further comprising a fold line indicator.
8. The oversized sheet of paper of claim 7 wherein said fold line indicator is selected from the group consisting of an ink stamp, an embossed mark and a cut.
- 10 9. The oversized sheet of paper of claim 7 wherein said fold line indicator is a cut in the shape of a notch.
10. A paper punch comprising:
at least one punch out punch head and corresponding punch out die which
in cooperation make at least one punch out in a sheet of paper
15 through which a ring of a ring binder can pass;
at least one cutout punch head and corresponding cutout die which in
cooperation form at least one cutout which in cooperation make at
least one cutout in a sheet of paper;
said cutout punch head and said punch out punch head being positioned
20 such that, when said cutout and said punch out are made in an
oversized paper, and said oversized paper is folded 90 degrees
relative to the binding edge of said oversized sheet paper, at least a
portion of said cutout is aligned with said punch out.
11. The paper punch of claim 10 wherein said cutout is comprised of one of
25 the following shapes: keyhole, oval, triangle, rectangle, curvilinear, corner
cutout or slit.

12. The paper punch of claim 10 further comprising a fold line indicator.
13. The paper punch of claim 10 wherein said fold line indicator is selected from the group consisting of an ink stamp, an embossed mark and a cut.
14. The paper punch of claim 10 wherein said fold line indicator is a cut in the shape of a notch.
- 5 15. A paper punch comprising:
 - a die body, a press body, a first outer punch head, a middle punch head, a second outer punch head, and a cutout punch head; said die body and said press body being pivotally connected along a rocking axis with said punch heads operating therebetween;
 - 10 said die body having a die base with a first outer die corresponding to said first outer punch head, a middle die corresponding to said middle punch head, a second outer die corresponding to said second outer punch head and a cutout die corresponding to said cutout punch head, and a paper
 - 15 reception region between said dies and said punch heads; means for aligning said punch heads with said dies; wherein said punch out punch heads and their corresponding dies are colinear and cooperate to make to punch outs in a sheet of paper thus enabling said sheet to be bound by the rings of
 - 20 a three ring binder;
 - wherein said cutout punch head and its corresponding die cooperate to make to a cutout in an oversized sheet of paper; and further wherein when said oversized paper is folded 90 degrees relative to a binding edge said cutout and said punch out are
 - 25 aligned allowing the oversized sheet of paper to be bound in a ring binder but still folded and unfolded without opening a ring of the ring binder.

16. The paper punch of claim 15 wherein said fourth punch head is comprised of one of the following shapes: keyhole, oval, triangle, rectangle, curvilinear, corner cutout, slit.
17. The paper punch of claim 15 further comprising a fold line indicator.
18. The paper punch of claim 17 wherein said fold line indicator is an ink stamp.
19. The paper punch of claim 17 wherein said fold line indicator is an embossed mark.
20. The paper punch of claim 17 further comprising:
a fold line indicator punch head and a corresponding die are
arranged between said second outer punch out head and
said cutout punch head;
wherein said fold line indicator punch head and its corresponding
die cooperate to make to a fold line indicator in an oversized
sheet of paper.
21. The paper punch of claim 20 wherein said fold line indicator punch head has a notch shape.
22. A paper punch comprising:
at least one cutout punch head and a corresponding die that
cooperate to make a cutout in an oversized sheet of paper
having at least one preexisting punch out;
wherein when said oversized paper is folded 90 degrees relative to
a binding edge said cutout is aligned with said preexisting
punch out allowing said oversized sheet of paper to be
bound in a ring binder but still folded and unfolded without
opening a ring of the ring binder.

23. The paper punch of claim 22 wherein said fourth punch head is comprised of one of the following shapes: keyhole, oval, triangle, rectangle, curvilinear, corner cutout, or slit.

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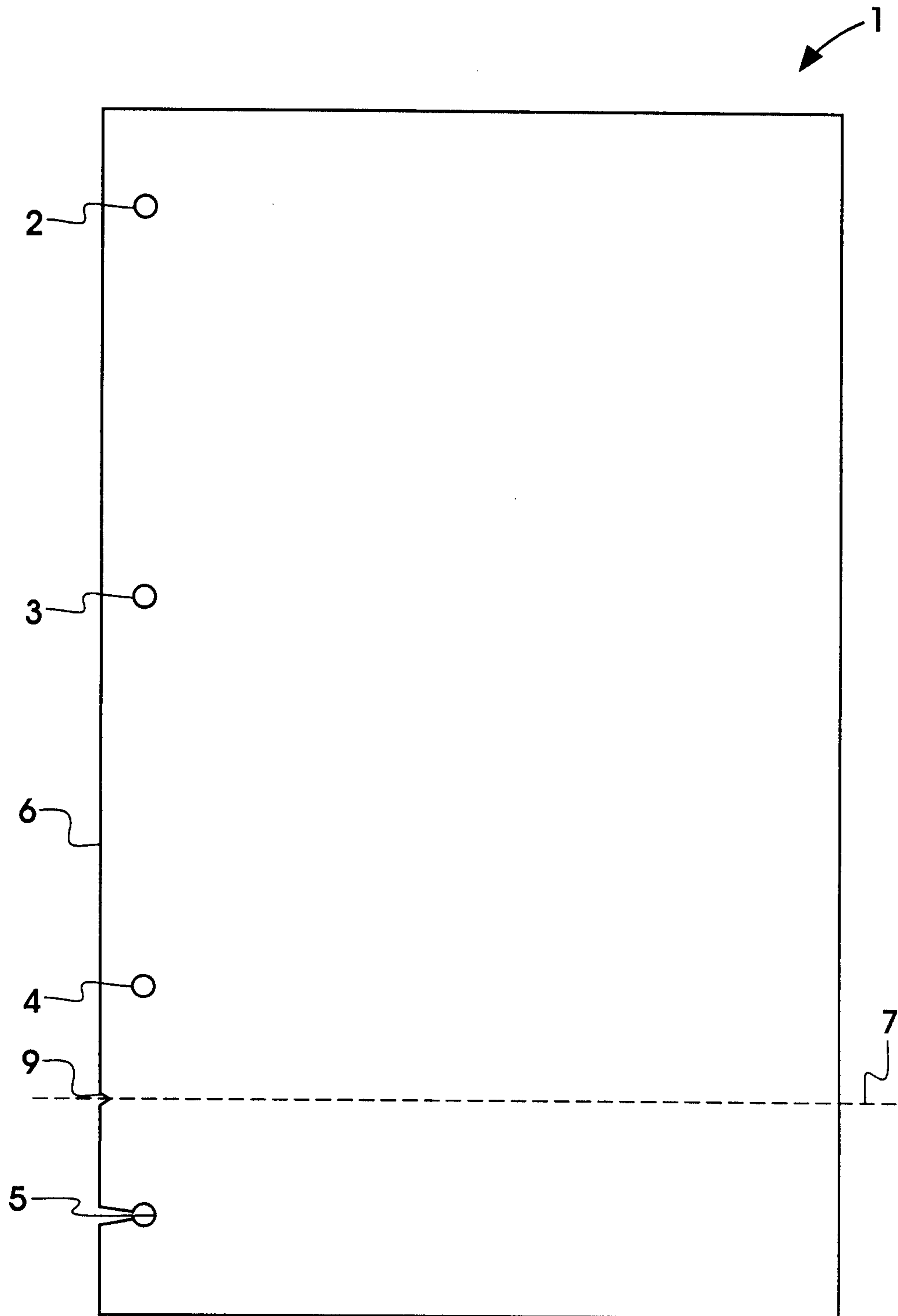


FIG. 1

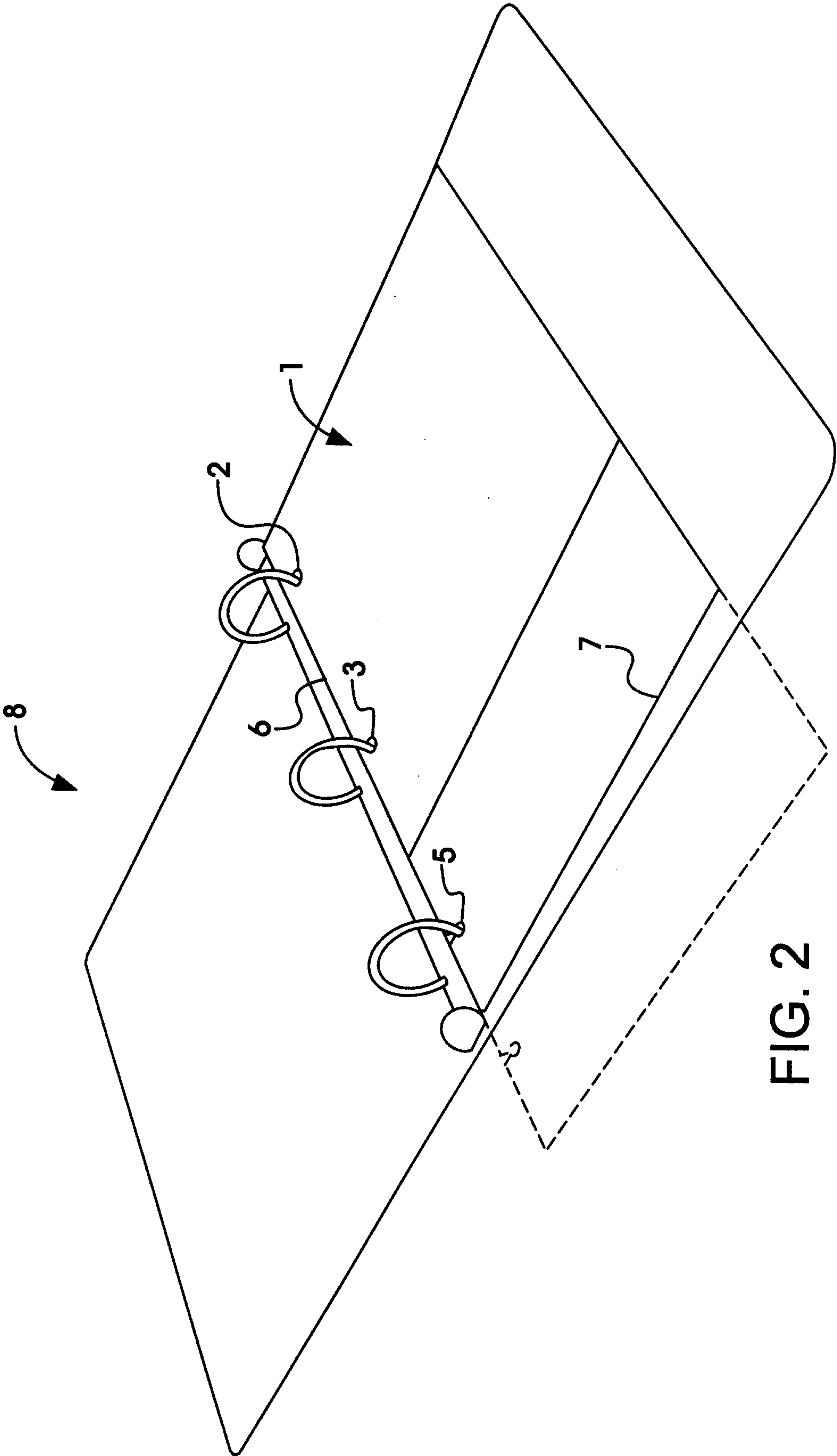


FIG. 2

3 / 8

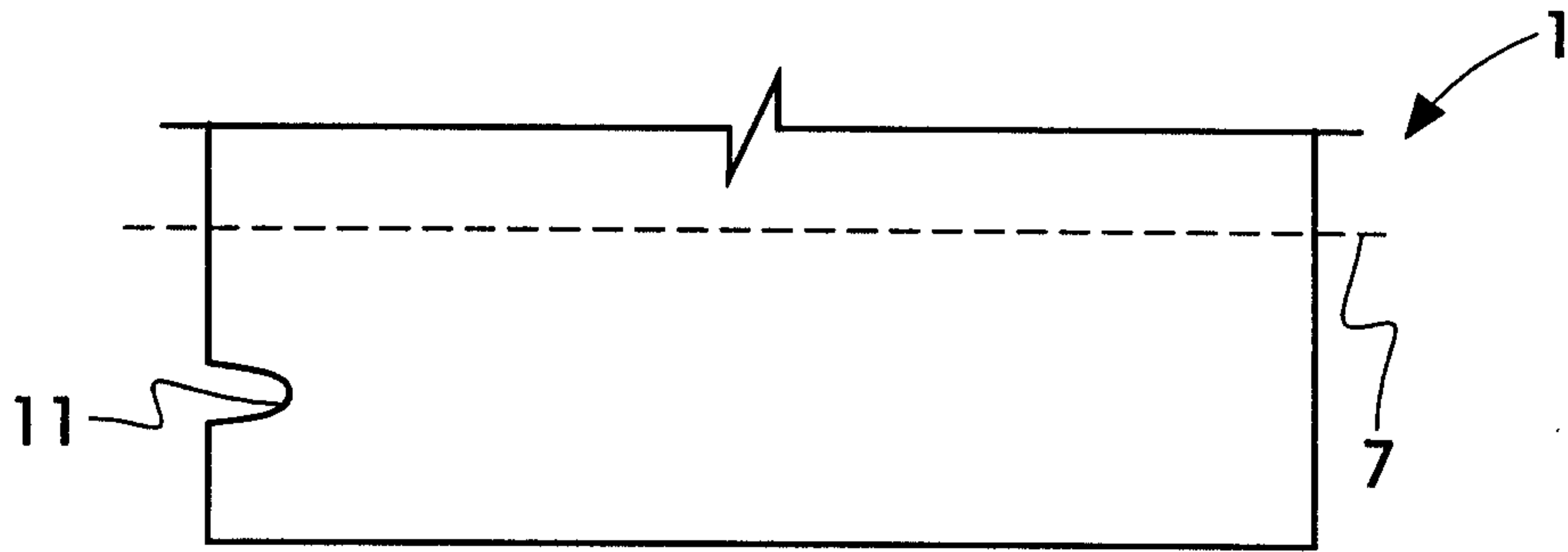


FIG. 3a

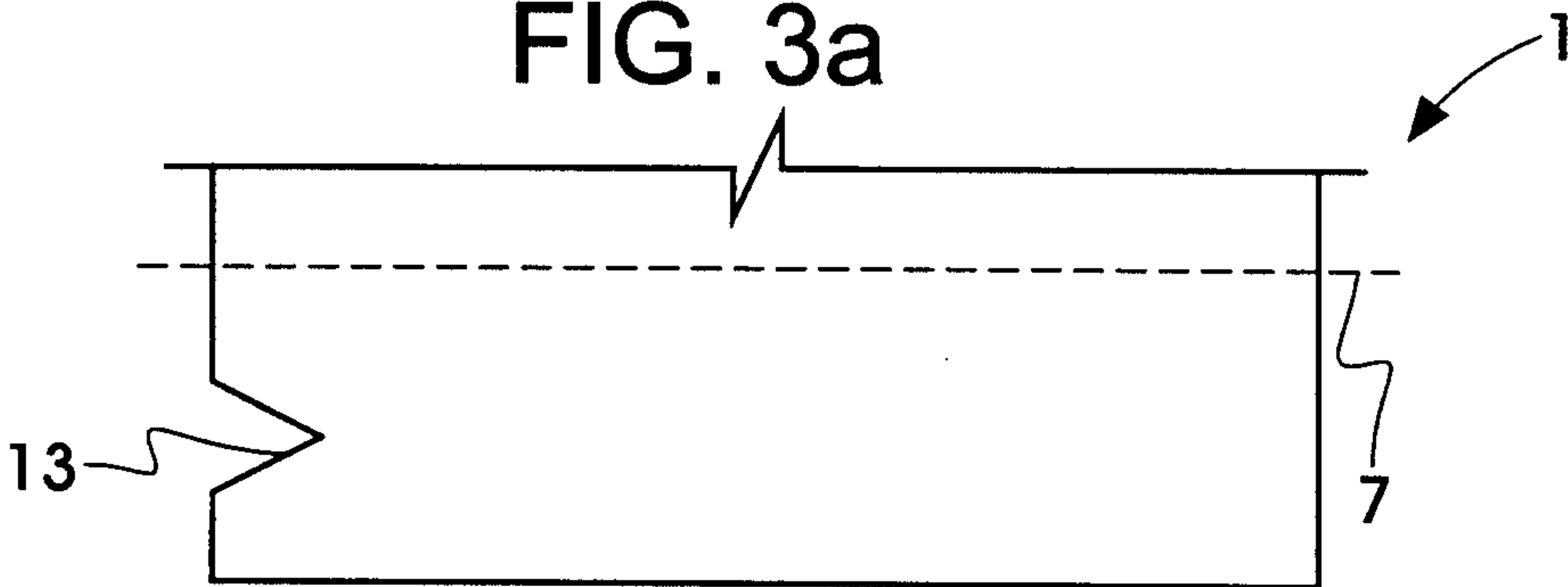


FIG. 3b

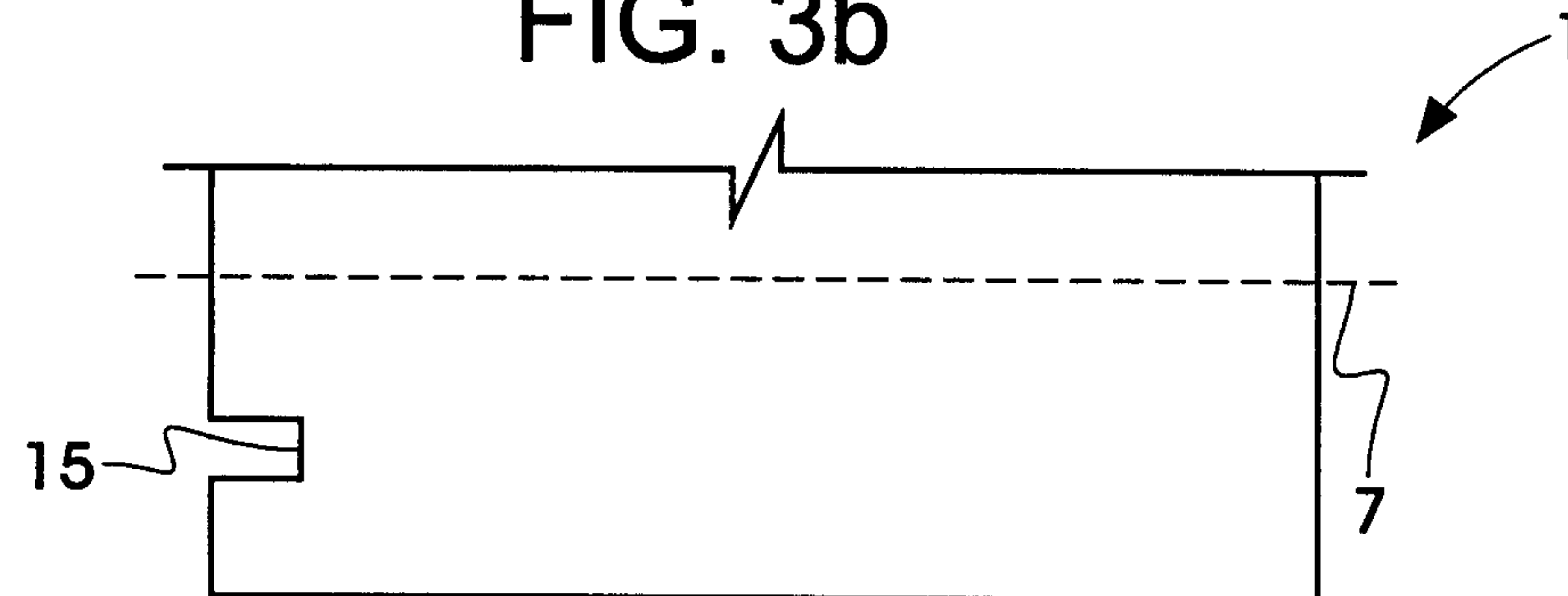


FIG. 3c

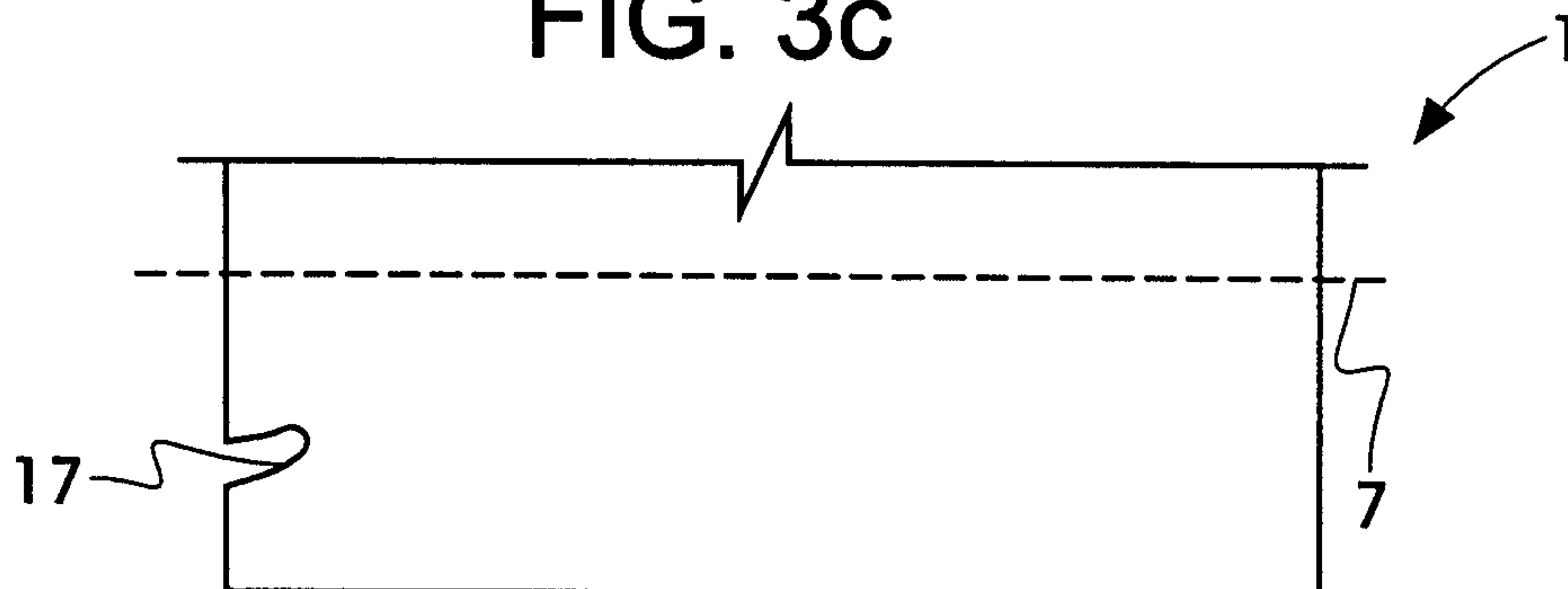


FIG. 3d

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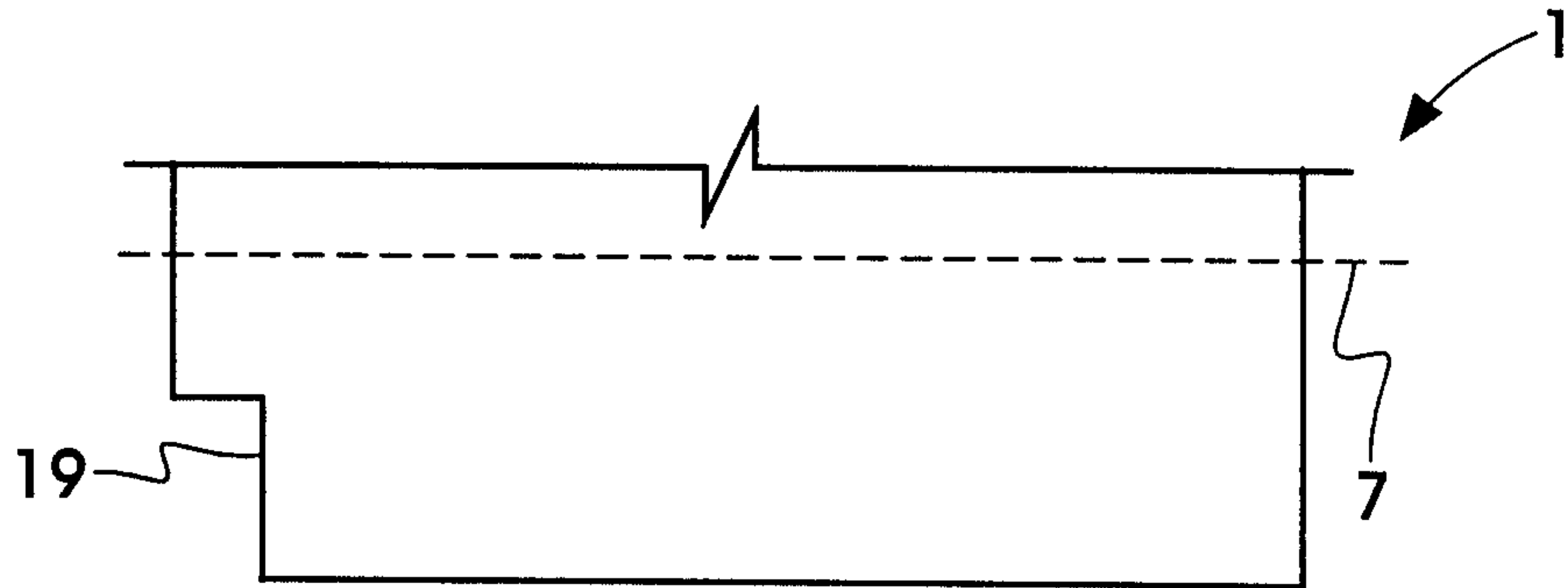


FIG. 3e

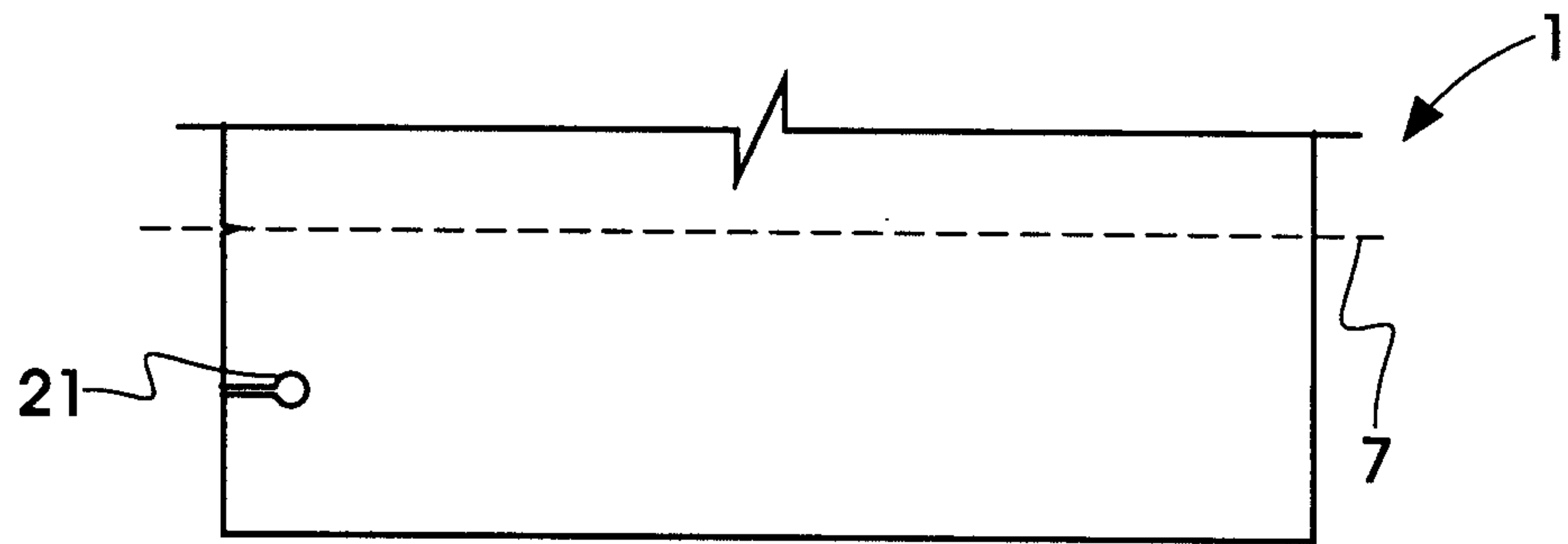


FIG. 3f

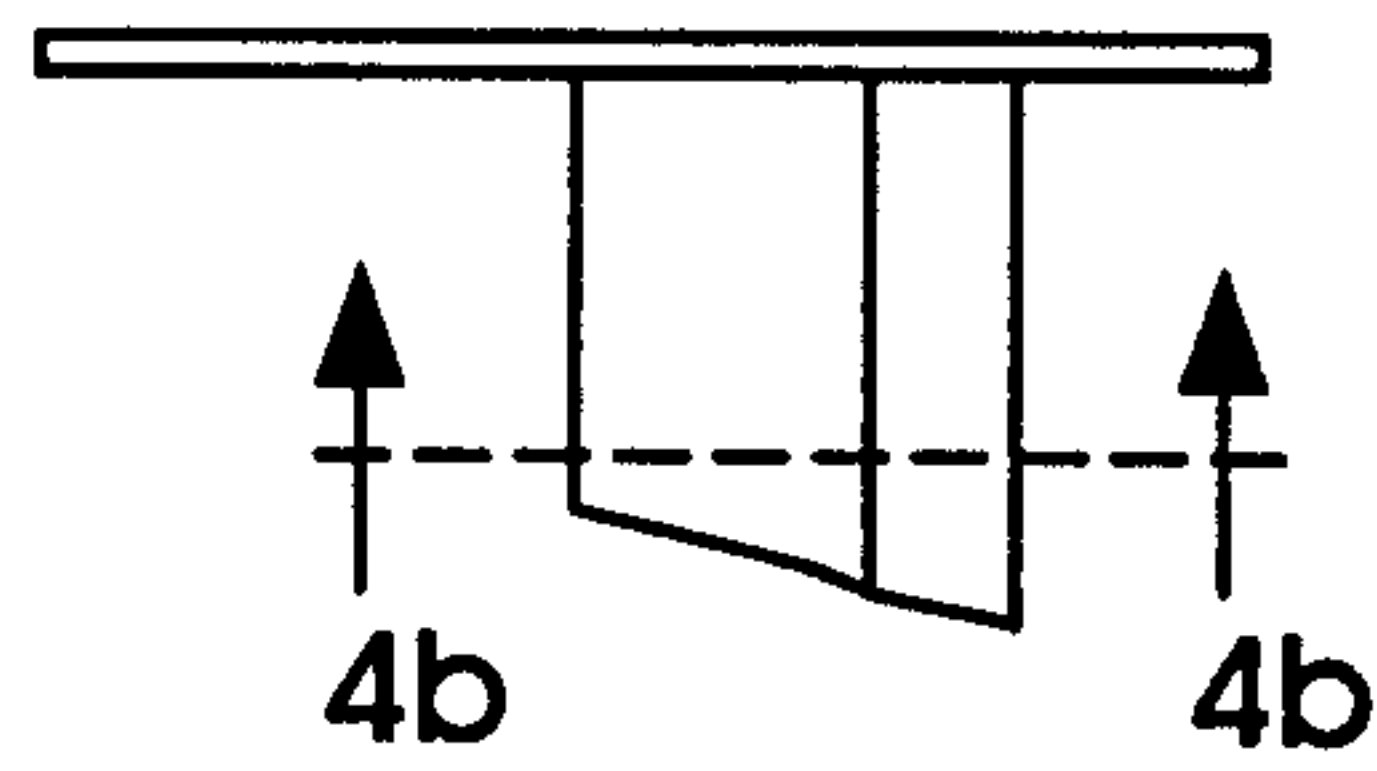


FIG. 4a

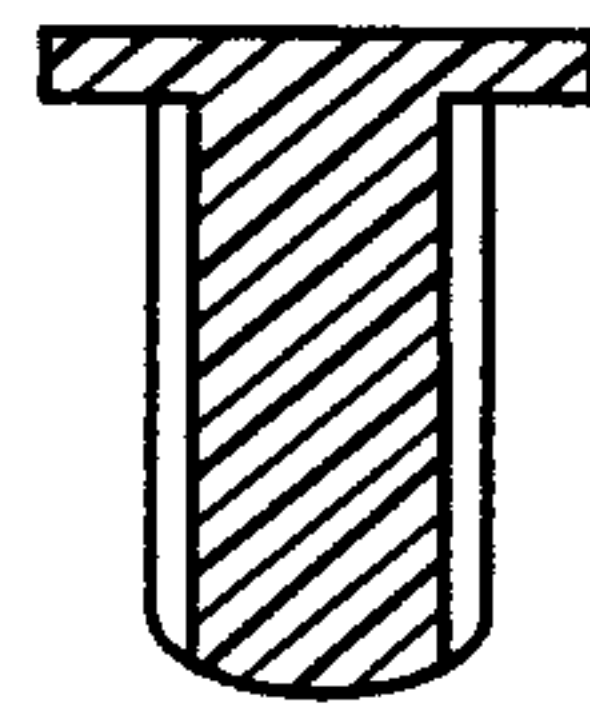


FIG. 4c

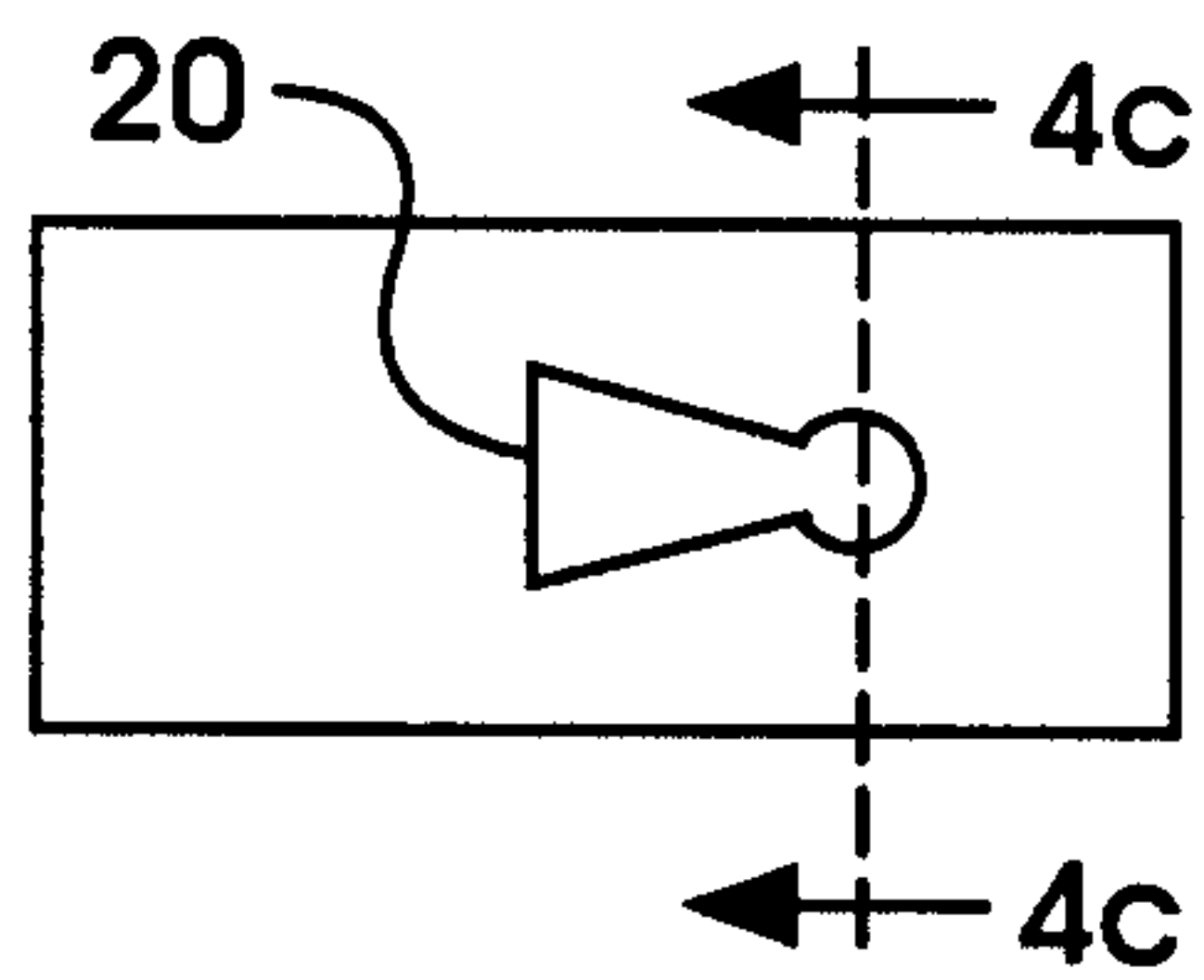


FIG. 4b

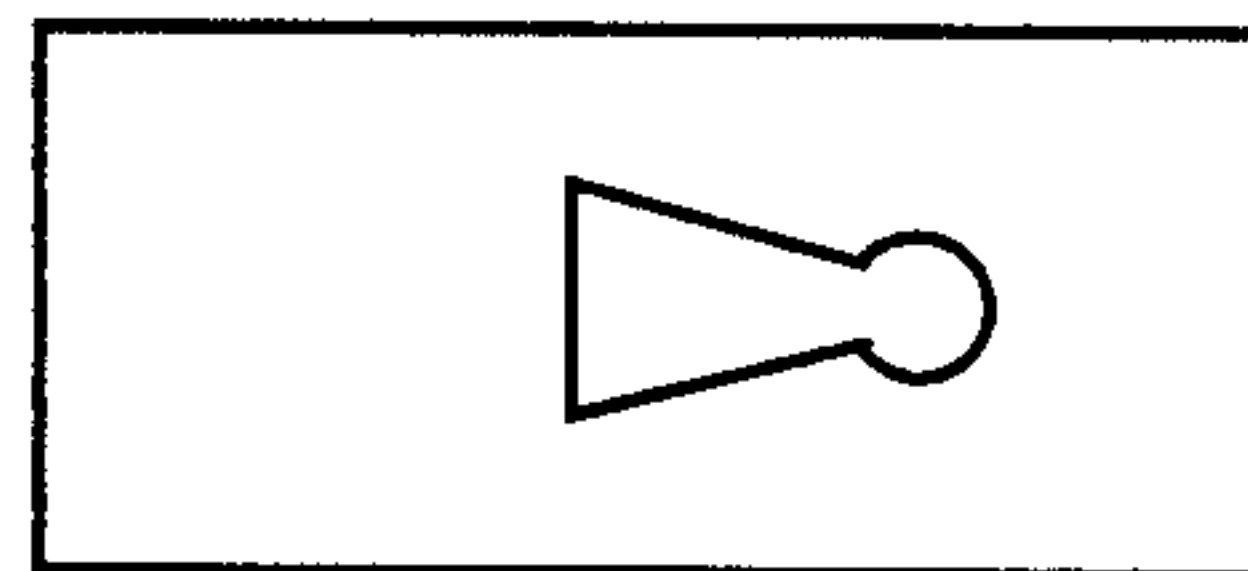


FIG. 4d

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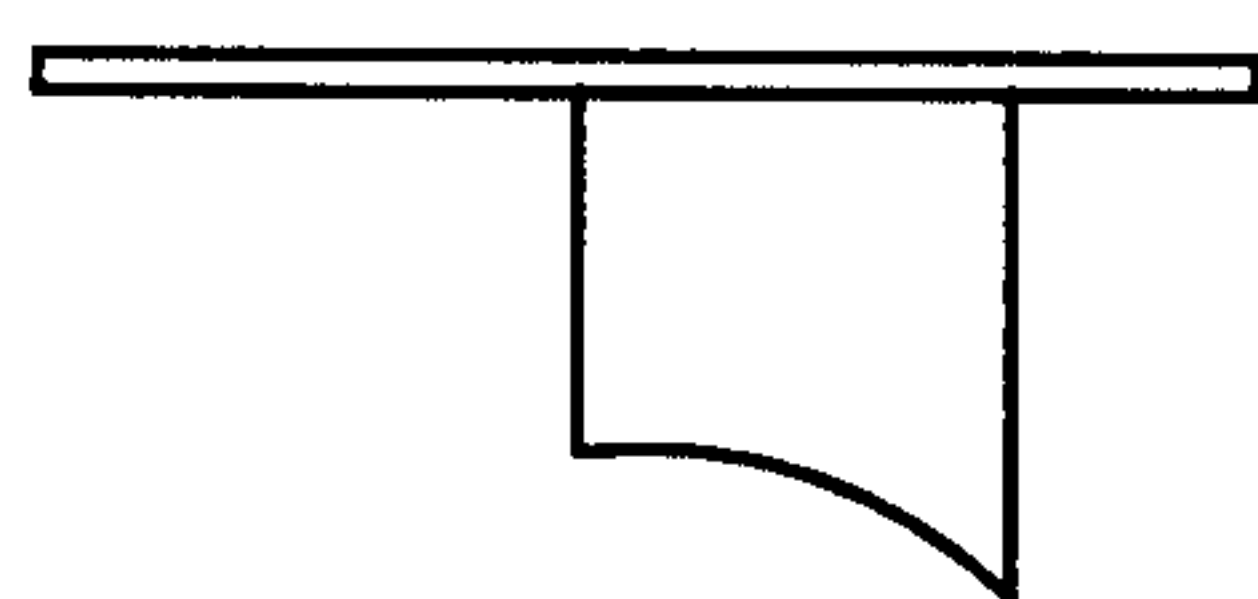


FIG. 5a

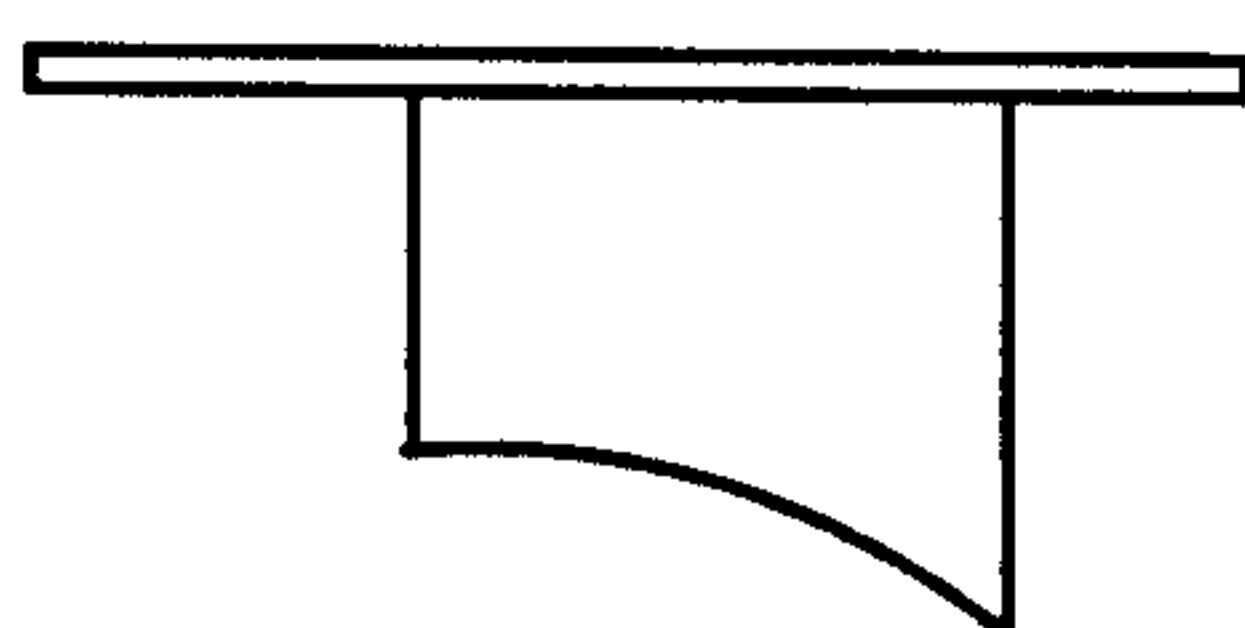


FIG. 5c

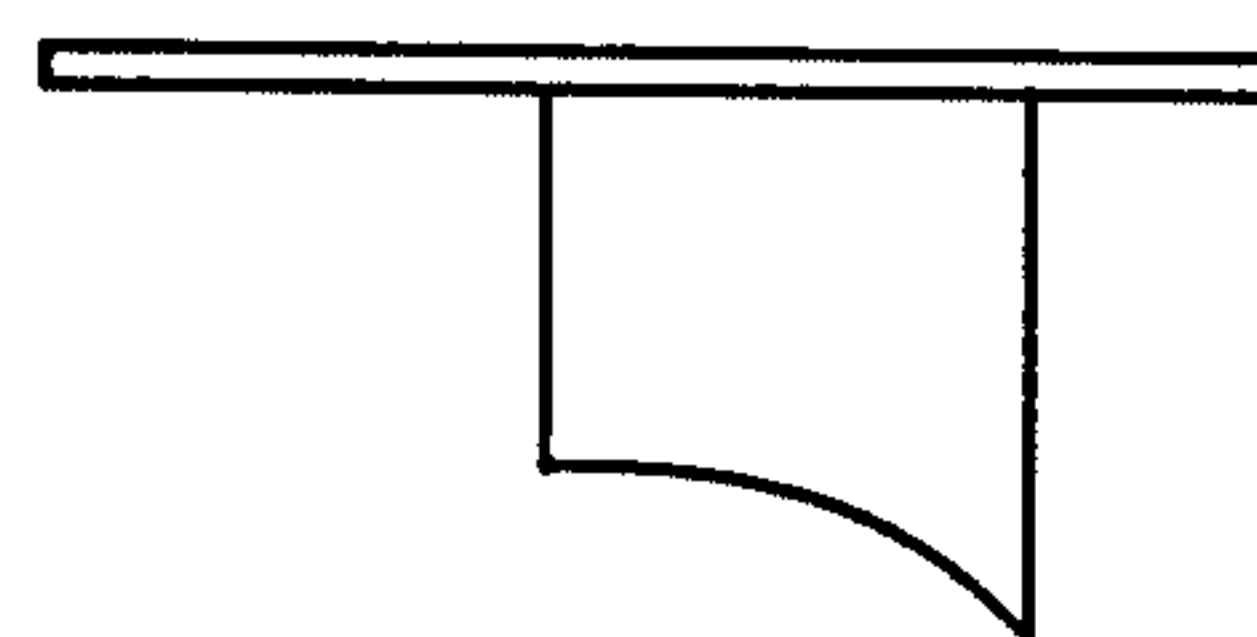


FIG. 5e

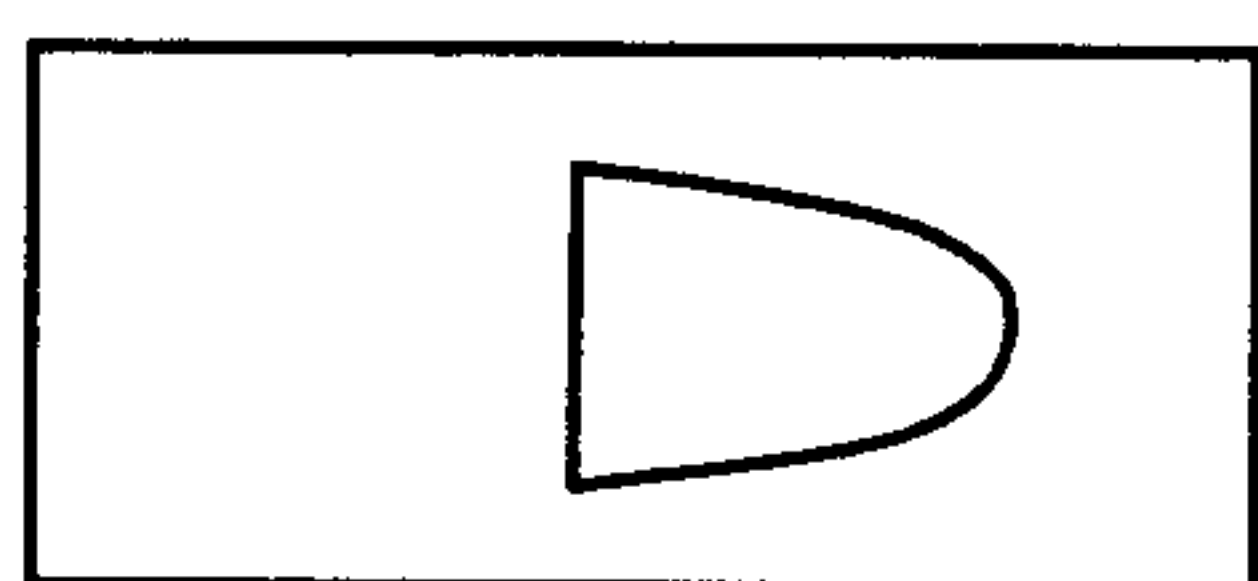


FIG. 5b

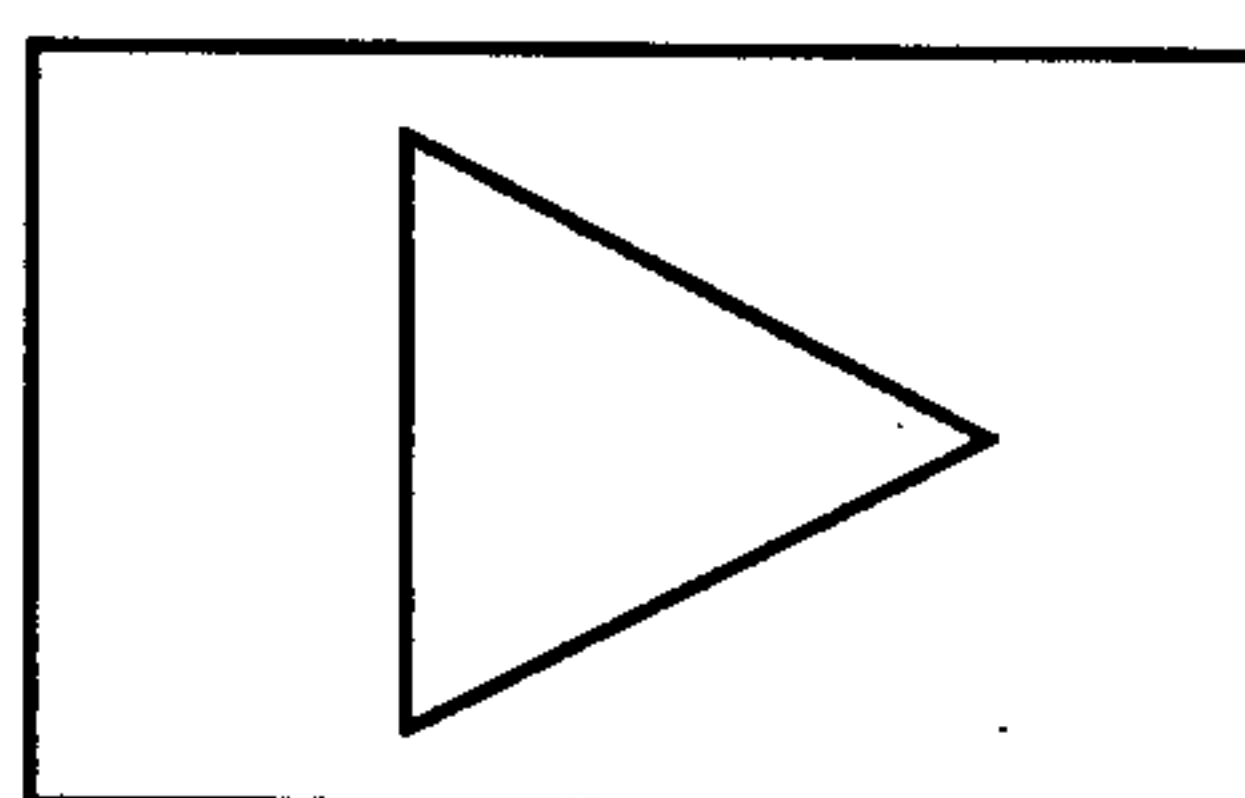


FIG. 5d

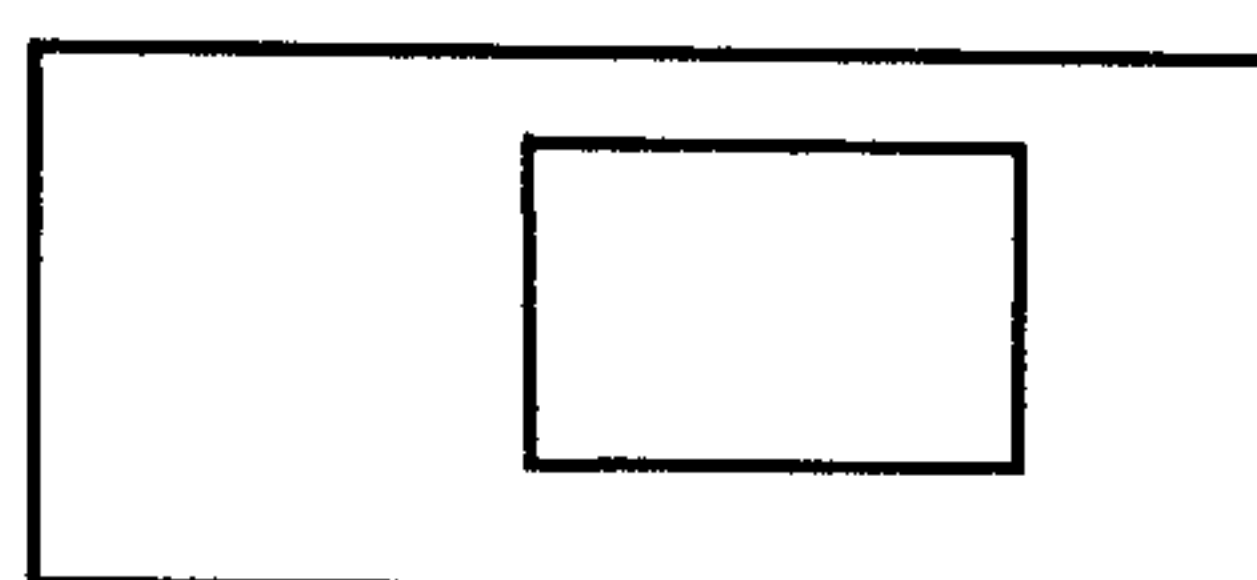


FIG. 5f

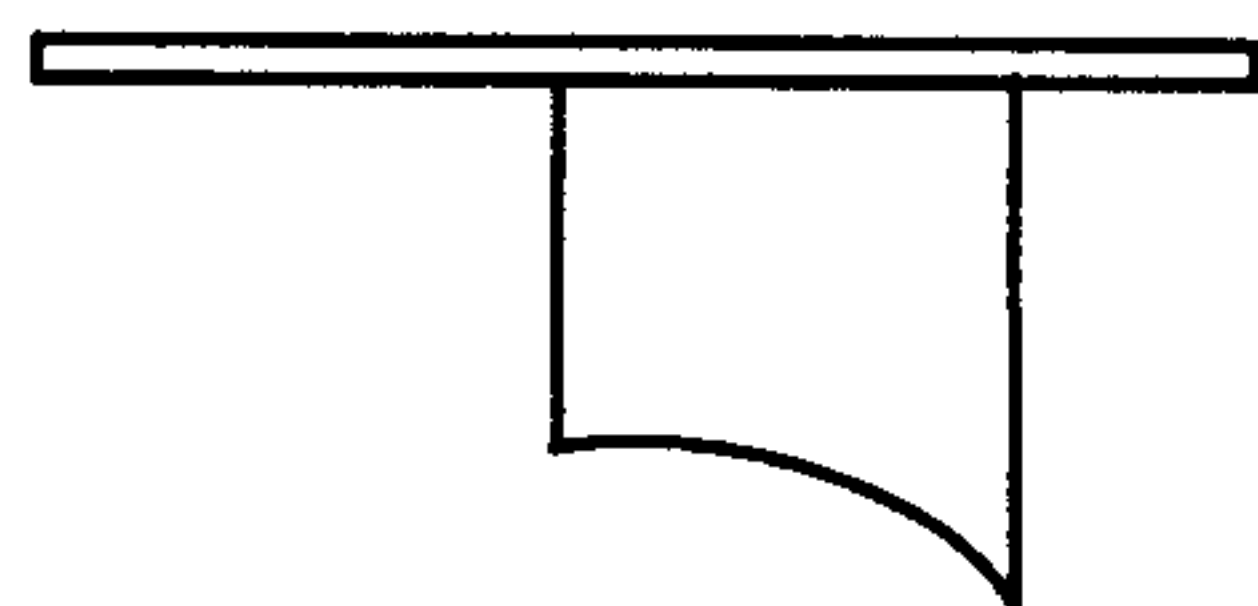


FIG. 5g

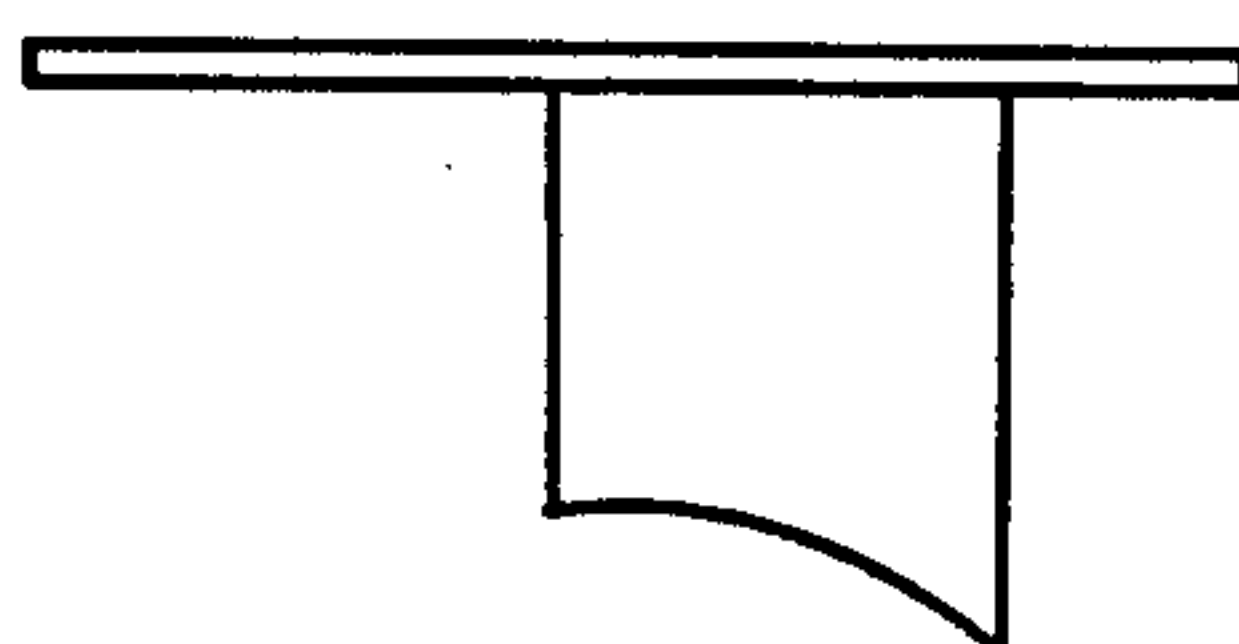


FIG. 5i

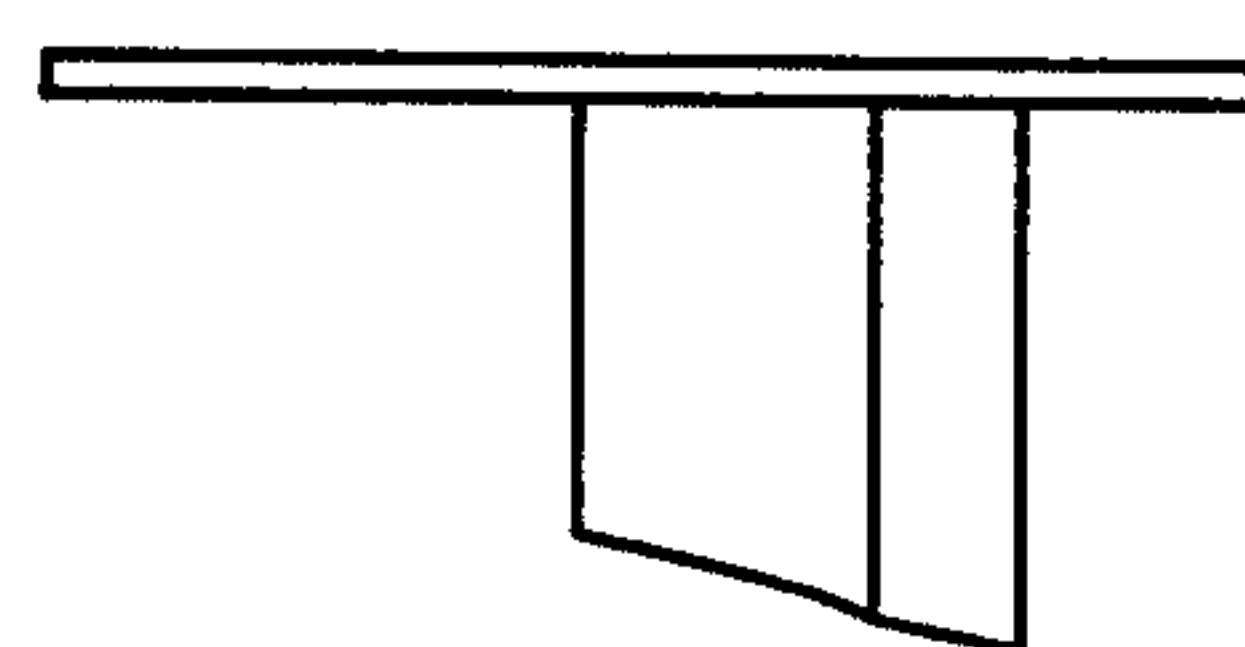


FIG. 5k

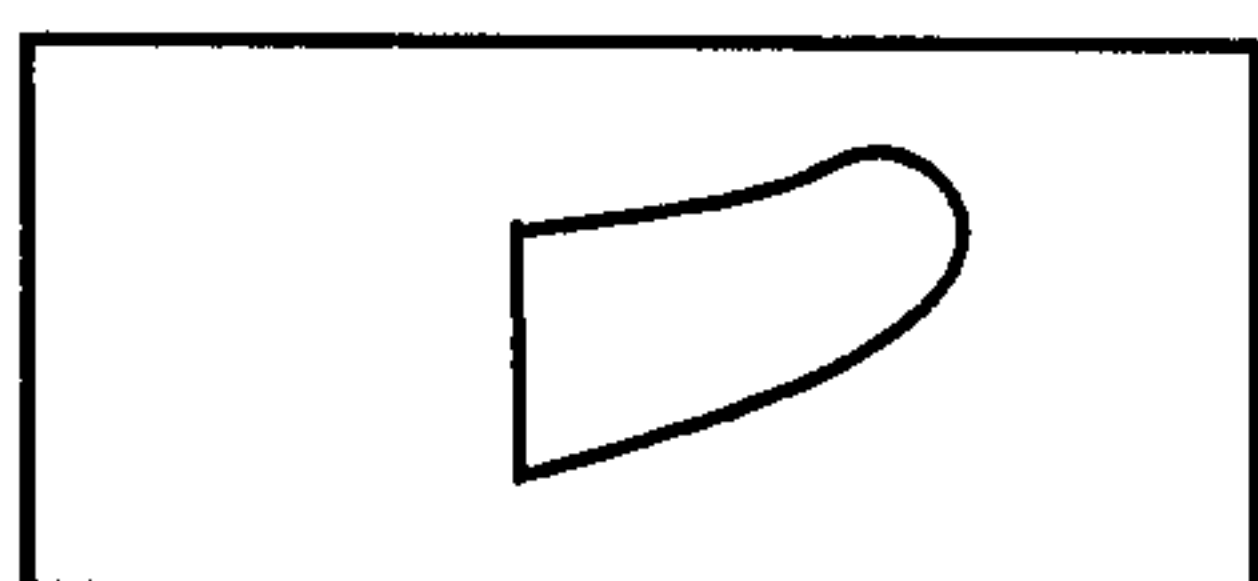


FIG. 5h

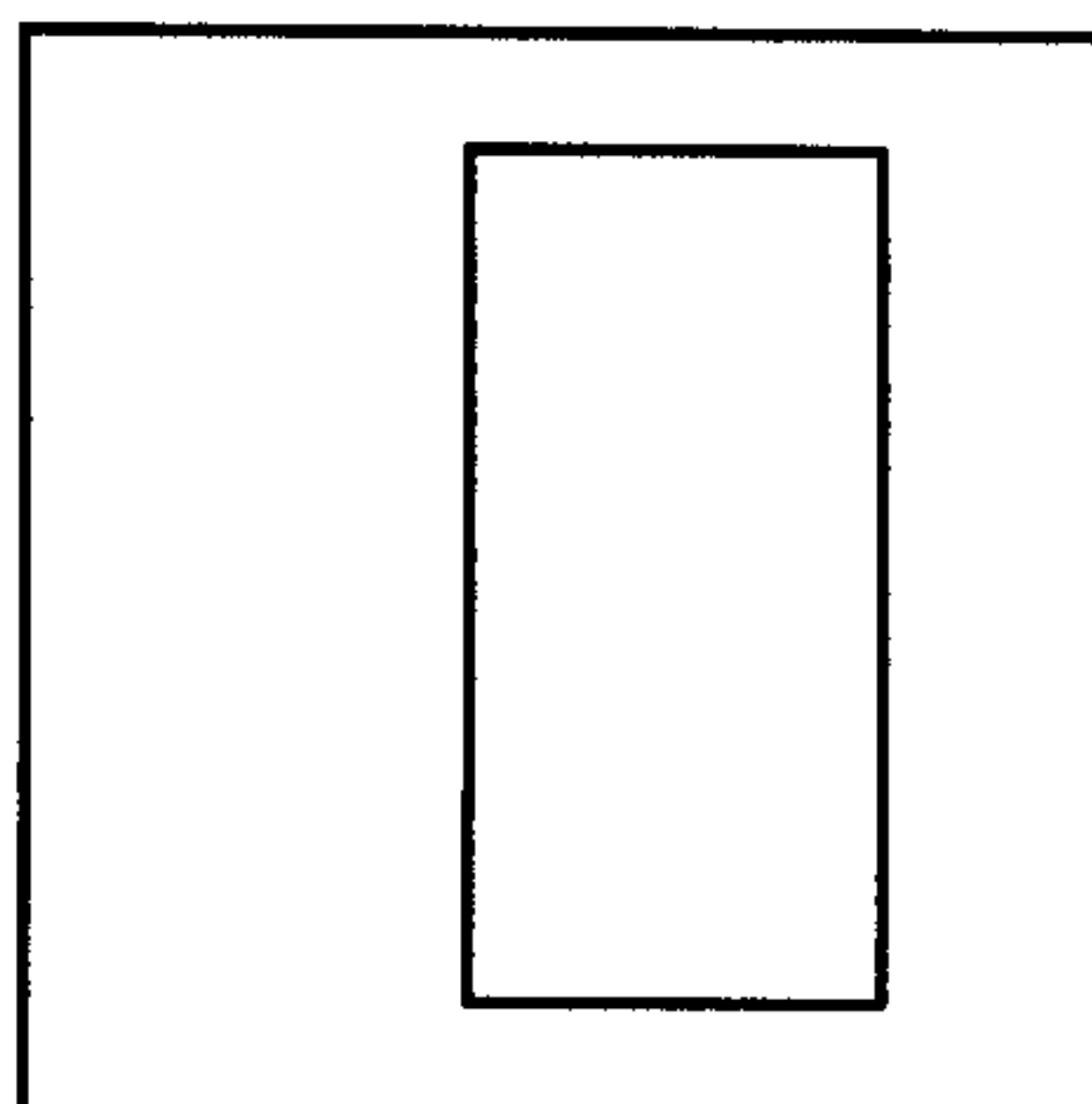


FIG. 5j

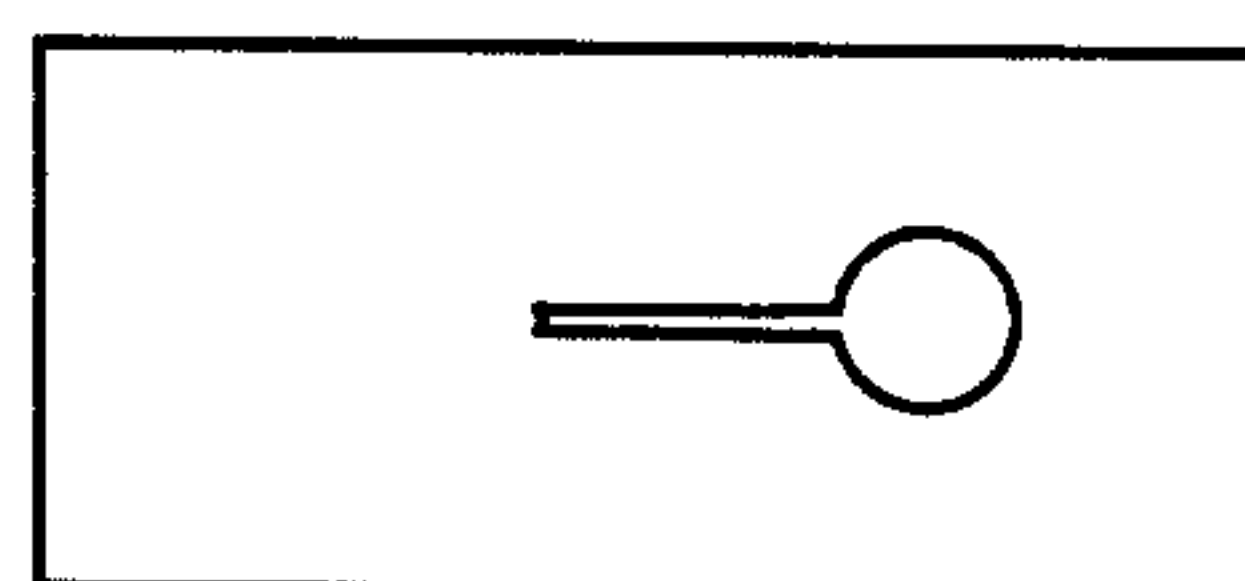


FIG. 5l

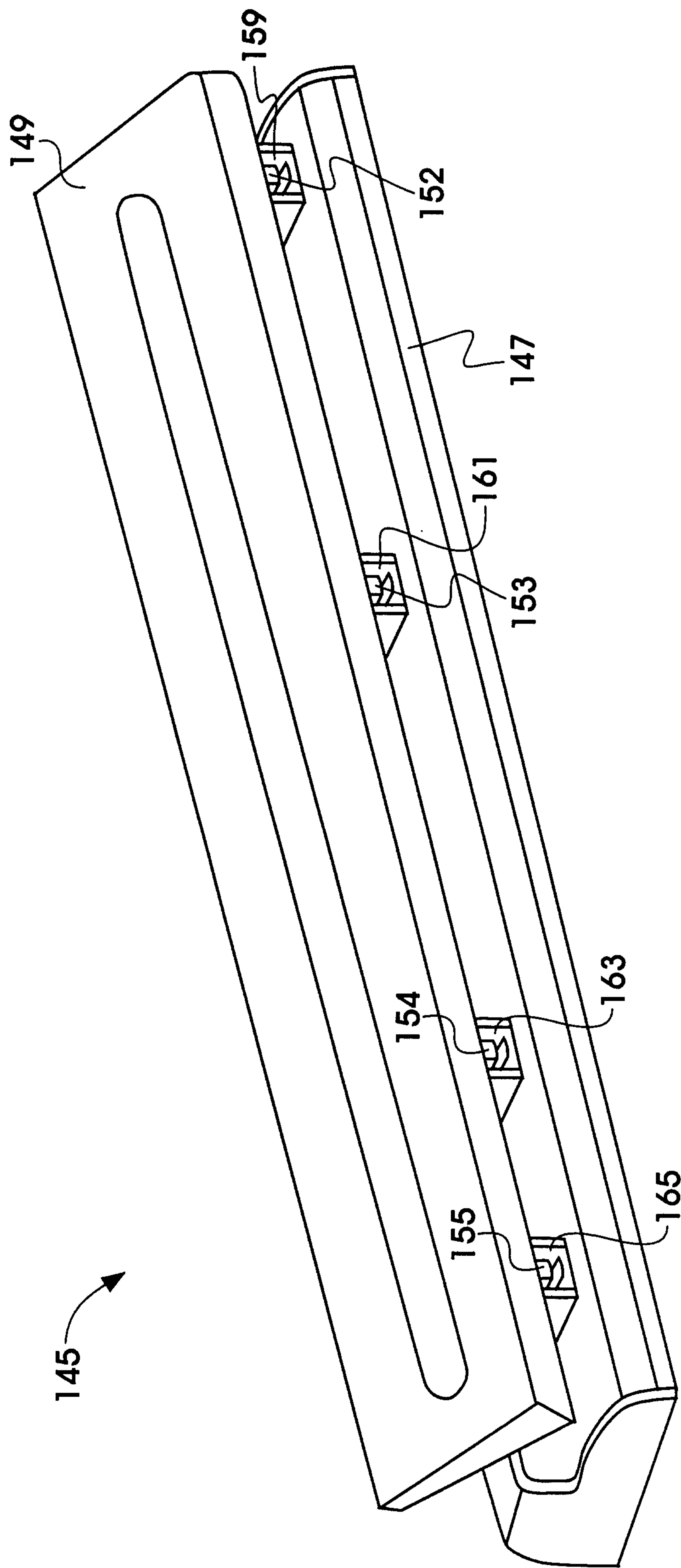


FIG. 6

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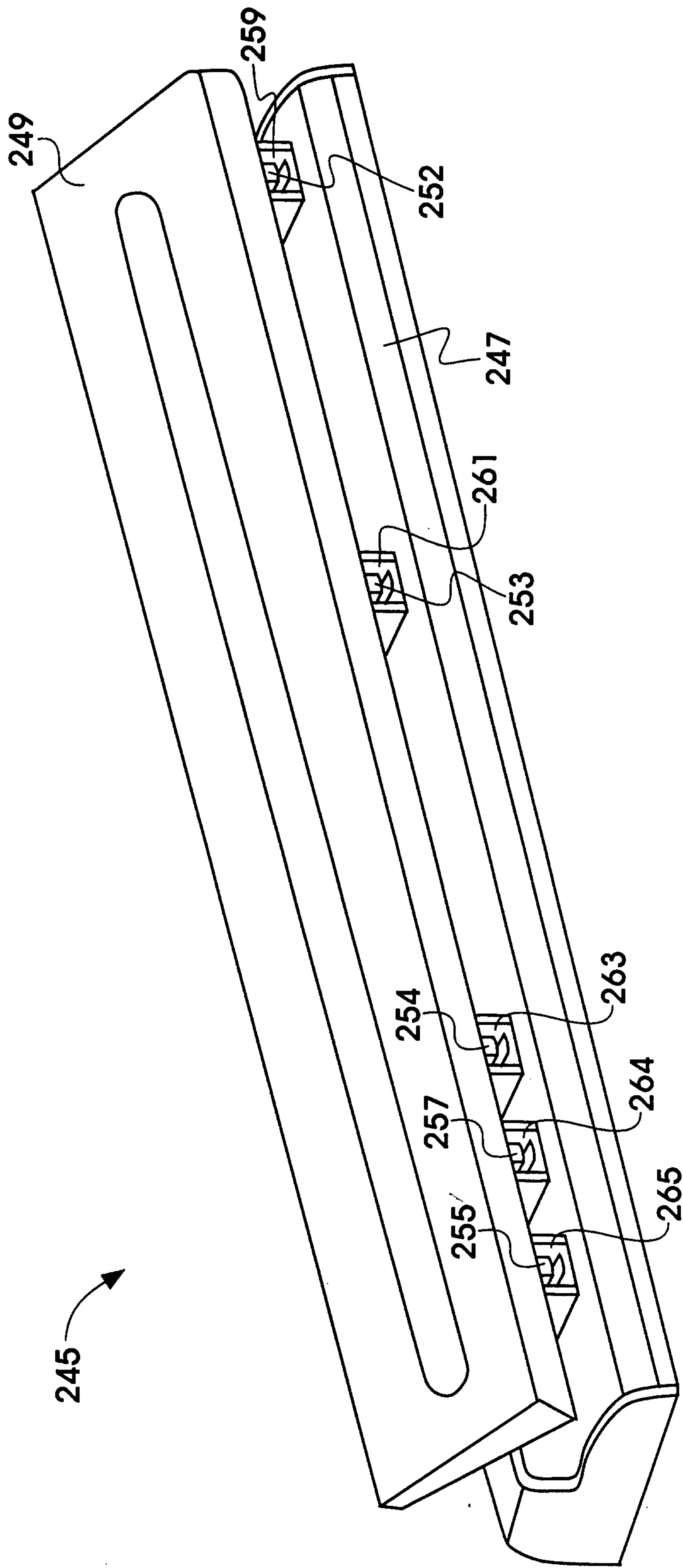


FIG. 7

Inventor: Stanley H. Henderson

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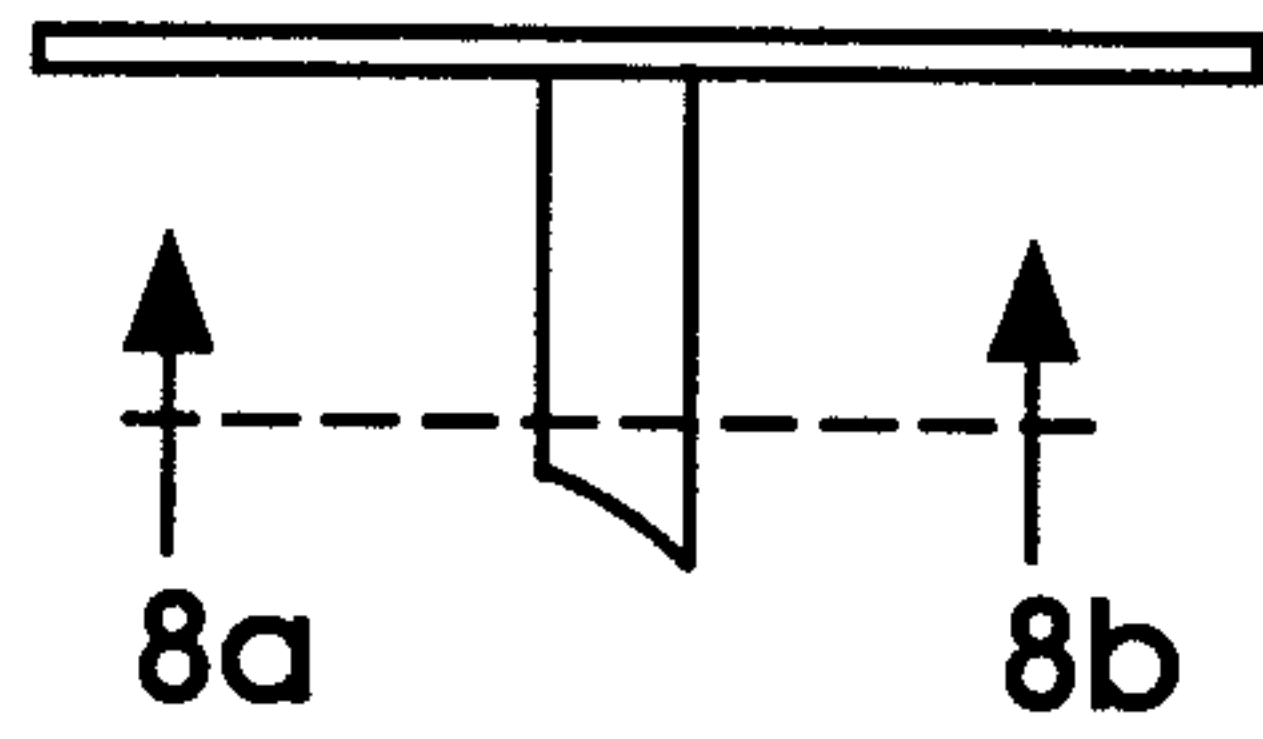


FIG. 8a

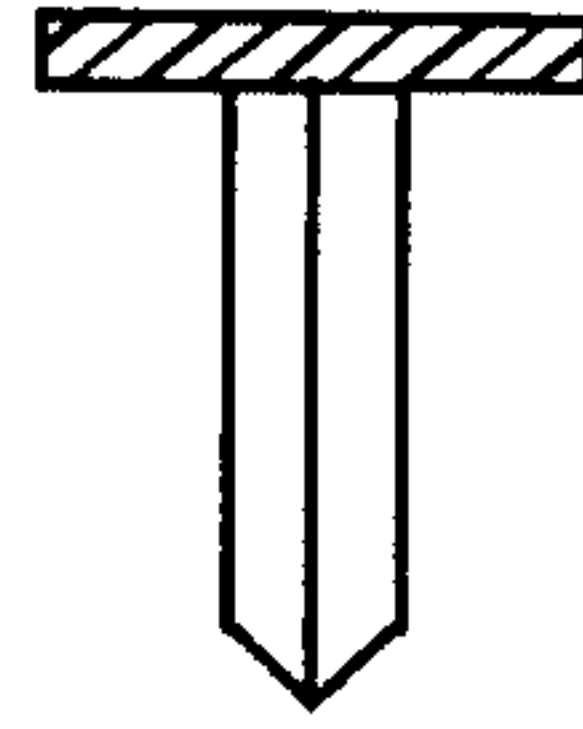


FIG. 8c

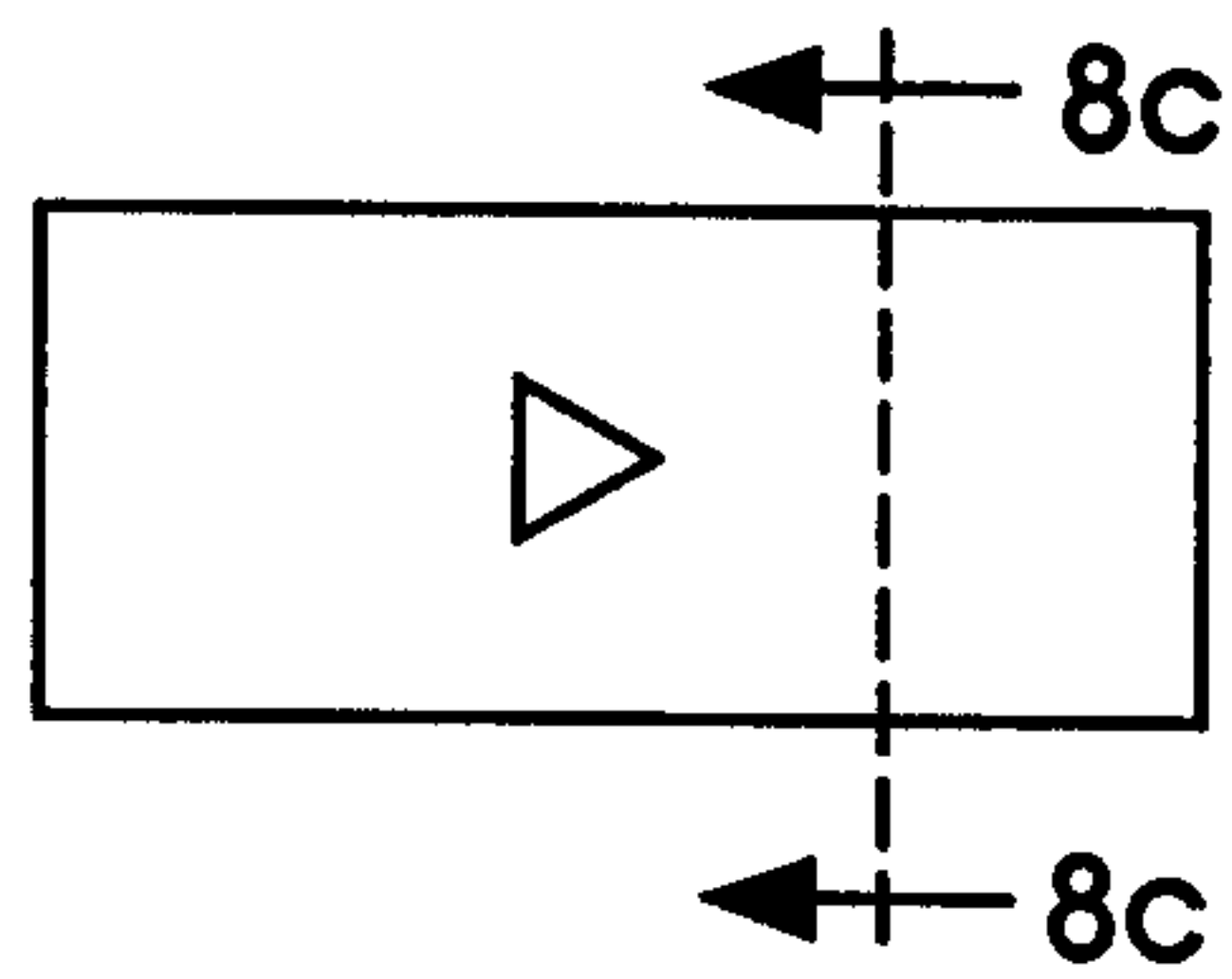


FIG. 8b

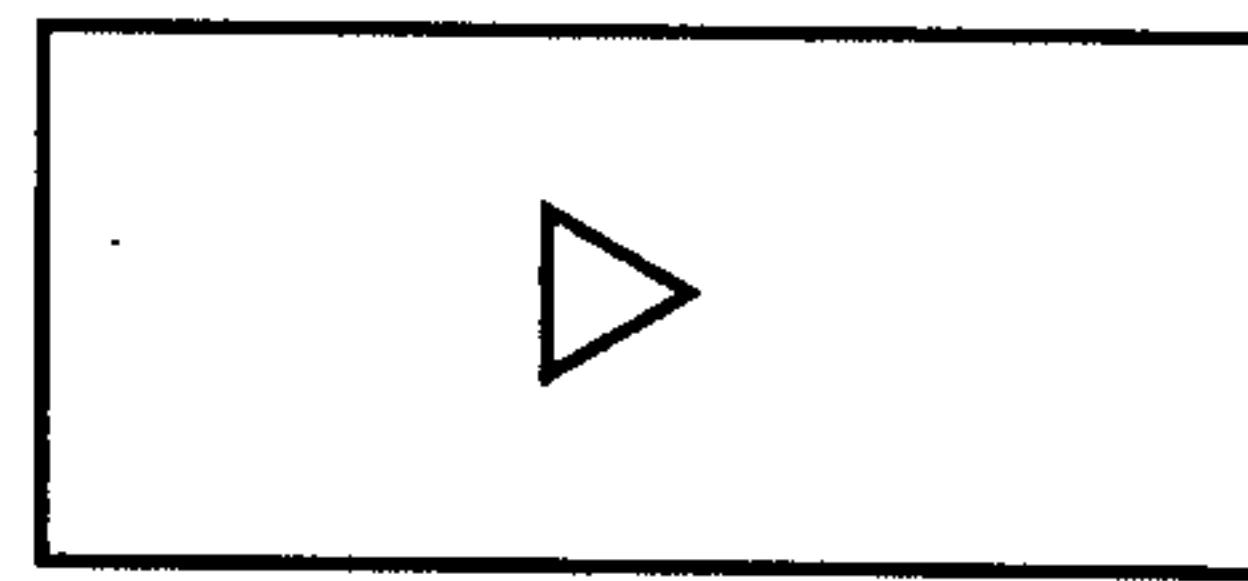


FIG. 8d

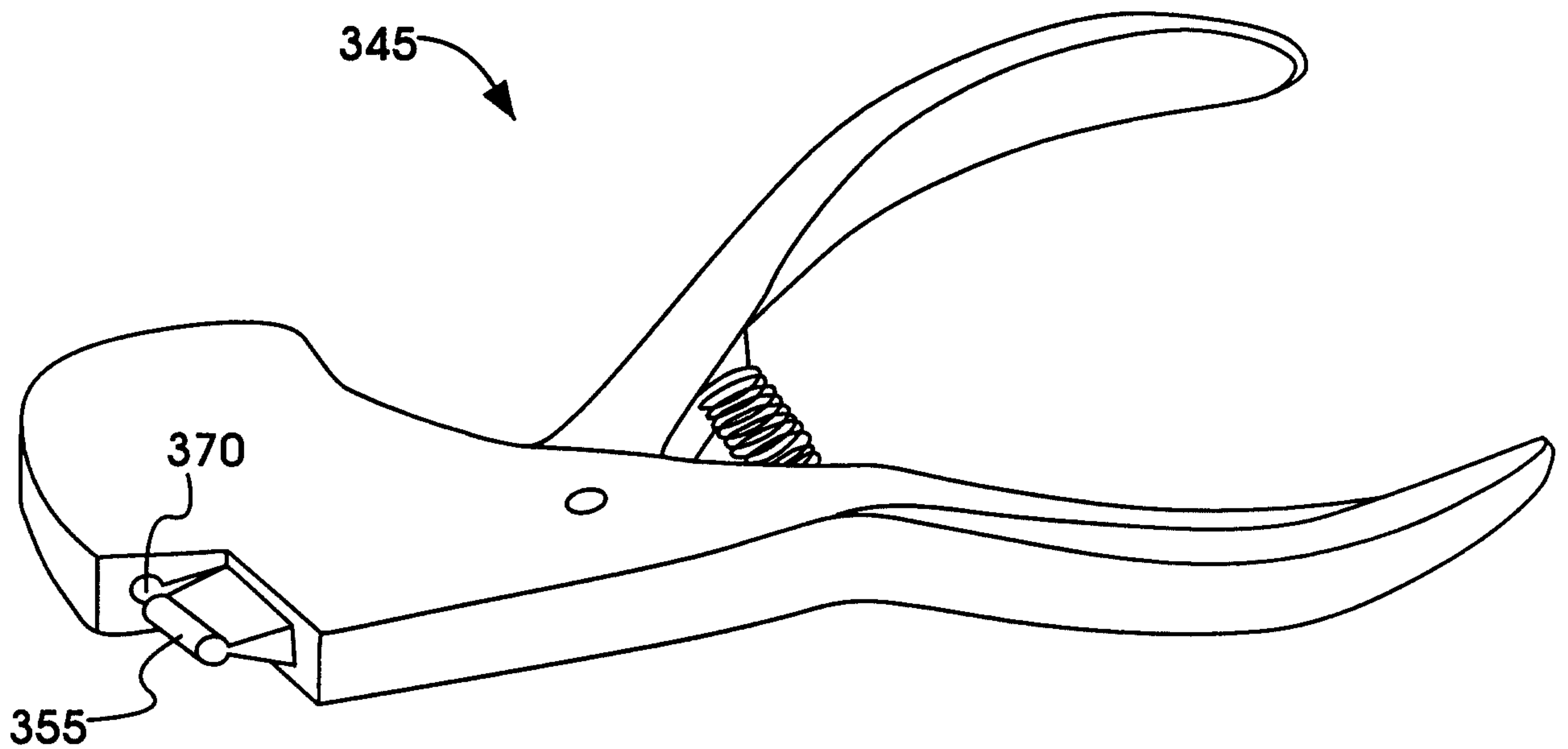


FIG. 9