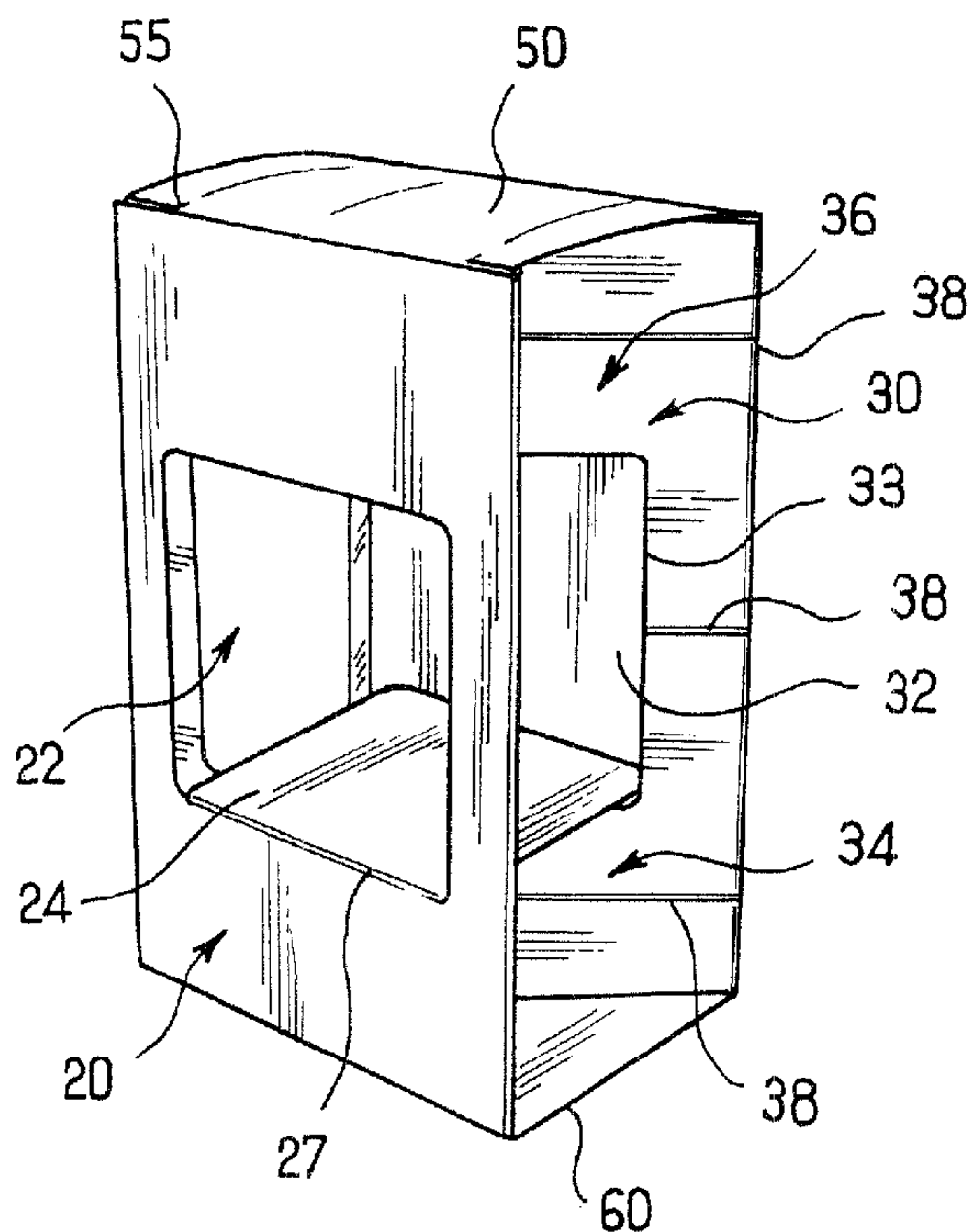




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(54) Titre : EMBALLAGE POUR CONTENANT DE PRODUIT COSMETIQUE, THERAPEUTIQUE OU D'HYGIENE AVEC SOUFFLETS AMELIORES
(54) Title: PACKAGING FOR COSMETIC, HUMAN THERAPEUTIC OR HUMAN HYGIENE PRODUCT RECEPTACLE WITH IMPROVED GUSSETS CONFIGURATION



(57) **Abrégé/Abstract:**

The invention relates to a packaging box for a cosmetic, human therapeutic or human hygiene product receptacle, this box having two opposite side faces (10, 30), each provided with an opening (12, 32) bordered by a strip (14, 34) on its lower part that is moved inwards into the box to support the said receptacle (100) on its upper edge, the box being characterised in that it has a distinct face (10) that is provided with a window (22) enabling the receptacle (100) to partly pass through it, this window (22) being fitted with a flap (24) cut out in it, that covers the upper edges of the support strips (14, 34) and thus forms a reception platform for the receptacle.

ABSTRACT OF THE DISCLOSUREPACKAGING FOR COSMETIC, HUMAN THERAPEUTIC OR HUMAN
HYGIENE PRODUCT RECEPTACLE WITH IMPROVED GUSSETS
CONFIGURATION

The invention relates to a packaging box for a cosmetic, human therapeutic or human hygiene product receptacle, this box having two opposite side faces (10, 30), each provided with an opening (12, 32) bordered by a strip (14, 34) on its lower part that is moved inwards into the box to support the said receptacle (100) on its upper edge, the box being characterised in that it has a distinct face (10) that is provided with a window (22) enabling the receptacle (100) to partly pass through it, this window (22) being fitted with a flap (24) cut out in it, that covers the upper edges of the support strips (14, 34) and thus forms a reception platform for the receptacle.

15 Figure 1

PACKAGING FOR COSMETIC, HUMAN THERAPEUTIC OR HUMAN
HYGIENE PRODUCT RECEPTACLE WITH IMPROVED GUSSETS
CONFIGURATION

This invention relates to packaging for cosmetic, human therapeutic or human hygiene product receptacles, for example makeup removal, shampoo or therapeutic care products.

5 In particular, the invention relates to cream or powder pots particularly in the cosmetic industry and more generally in the skin care industry.

Many variants of cardboard or plastic boxes for a pot have been proposed, capable of providing a means of
10 holding a pot in position for efficient storage and presentation on shop shelves.

In particular, these variants include positioning of the pot at a raised position inside the packaging and different means have been proposed to raise the pot.

15 This patent proposes a lower raised support obtained by providing a recess in two opposite walls of the box and deforming a lower strip surrounding each of the two recesses inwards into the box.

Each of these two lower strips moves towards each other, inwards into the box near its central part, thus extending below the pot.

5 THE SANCTUARY Company has proposed such a box for packaging a cream pot made from a flat piece of plastic material.

The two strips move towards each other particularly at a fold placed in their centre such that each strip is in the form of a gusset. The structure of this box is
10 similar near the top part, such that the pot fits at the centre of the box, surrounded by two pairs of gussets facing each other.

The two remaining faces, in other words the front and back faces of this box, are solid, and one of the
15 faces is made partly of a transparent material through which the product can be seen from the front of the shelves.

This type of devices can produce an advantageous presentation of the pot and facilitate storage on
20 shelves, but it also has serious disadvantages.

Thus, the pot is not supported sufficiently reliably. In particular, the pot tends to rotate inside the packaging, the essential markings on the pot can consequently disappear from the front that is visible to
25 the consumer.

One particular purpose of the invention is to propose a box with close lower strips to raise the receptacle (for example a pot), in which the receptacle will be better held in position.

30 Another disadvantage is due to the fact that the pot is surrounded by front and back surfaces that are solid

walls, and consequently hinder clear vision of the pot, despite the transparent nature of the front wall.

Therefore, ideally another purpose of the invention is to propose a packaging in which the receptacle is exposed more efficiently to a consumer's view.

Another disadvantage of existing packagings is that they are difficult to make in an automated industrial process.

A third purpose of the invention is to propose a packaging that is easily assembled in an automated packaging process.

Finally, one disadvantage of existing packagings is that they are too voluminous compared with the size of the pot. Another preferred feature of the invention is that it proposes a smaller box compared with the size of the receptacle.

These purposes are achieved according to the invention using a receptacle packaging box for a cosmetic, human therapeutic or human hygiene product, this box having two opposite side faces, each provided with an opening in which the lower part is bordered by a strip moved inwards into the box to support the said receptacle at its upper edge, the box being characterised in that it has a distinct face provided with a window enabling the receptacle to project partly beyond it, this window being provided with a flap cut out from the window covering the upper edges of the support strips and thus forms a reception platform for the receptacle.

The invention also proposes a packaging process for a cosmetic, human therapeutic or human hygiene product receptacle, characterised in that it comprises steps consisting of:

- providing a configured side to form a reception box for the receptacle, this side being provided with two opposite faces of the box each provided with an opening;

5 - pushing two strips inwards, each belonging to one of these opposite faces and each bordering one of these two openings on the lower edge, so as to form a lower support for the receptacle;

- providing a window on a third face of this box, sufficiently clear so that the receptacle can partially
10 pass through it;

- providing a flap attached to a lower edge of this window, and pushing this flap inwards into the box, such that it covers the upper edges of the lower support strips of the receptacle and thus forms a support
15 platform for the receptacle.

An automatic folding machine for the packaging box for a cosmetic, human therapeutic or human hygiene product receptacle is also proposed comprising means of folding and closing elements of such a box, including
20 means of causing an inwards displacement of the corresponding lower strips of the two opposite faces of the box, the machine being characterised in that it also comprises means of displacement of a flap of a window in the typical part of a face of the box separate from the
25 said two opposite faces, towards the inside of the box, after displacement of the said corresponding strips for the opposite faces.

Other purposes, characteristics and advantages of the invention will become clear after reading the
30 detailed description given below with reference to the attached Figures in which:

- Figure 1 is a perspective view of a packaging box for a pot according to the invention, with a folded flap overlapping two support strips;

5 - Figure 2 is a perspective view of this same box in which the flap is half raised;

- Figure 3 is a perspective view of this same box, when it contains a pot;

- Figure 4 represents a side view of this same box, also containing a pot;

10 - Figures 5a to 5g represent successive steps of a process for shaping such a box;

- Figure 6 represents a variant of the invention in which there are two windows partially passed through.

15 The box forming the preferred example embodiment of the invention, as it will be described below, is made from a single piece of cardboard, in which grooves, cut-outs, and preliminary cut-outs are formed to facilitate shaping the box.

20 Firstly consider Figure 1 in which this box is shown when it is closed, like it is when a pot, not shown in this Figure, is placed inside it.

25 The external shape of this box is in the form of a parallelepiped, with its height being longer than the other dimensions, in this case designed to contain a pot with a height equal to half the height of the box.

There are three openings 12, 22, 33 in the box distributed on three walls 10, 20, 30 out of the four long walls of this box.

30 One wall 20 out of these three walls with openings is surrounded by the two others. This surrounded wall, or the façade wall 20 is plane in shape.

The opening or window 22 placed approximately at the middle of this wall has the same height as the pot that it will contain and its width is chosen to extend as far as the edges of this wall 20.

5 The other two openings 12, 32 are formed in two sidewalls that are specific to the extent that they are not inscribed within a plane of the parallelepiped considered.

10 Each of these two sidewalls 10, 30 has an approximately central opening with the same height as the previously described façade window 22.

Therefore, each of these side openings 12, 32 has a lower strip 14, 34 and an upper strip 16, 36 that delimit the lower and upper edges respectively of the opening
15 considered 15, 17, 35, 37.

Each of these strips 14, 16, 34, 36 has a through vertical fold 15, 17, 35, 37 pulled inwards into the box such that the strip considered forms at least one gusset moving inwards into the box.

20 Preferably, this vertical fold is at the centre of the strips 14, 16, 34, 36.

In this case, the path of a lower strip 14, 34 of an opening 14, 32 is the path of a folded type gusset, in this case a V shape pointing inwards into the box at its
25 centre.

The two V shapes formed by the opposite lower strips 14, 34 occupy the lower volume of the box and prevent the pot from dropping to the bottom of the box.

30 The configuration of the upper strips 16, 36 in each of these openings is similar, to prevent the pot from moving towards the top end of the box.

This box, in this case made of cardboard has a series of arrangements designed to increase its stiffness.

In particular, there are the grooves 18 and 38 passing through the sidewalls 10 and 30 of the box, and in this case there are three for each sidewall.

Thus, each sidewall has a first through rib 38 under the opening considered and a similar through rib 38 above the opening, like the wall 30 shown in Figure 1. A third rib 38 is split in two segments, each passing through the border of the wall at each side of the opening 32 considered.

Another arrangement in this case is the presence of tabs extending at the ends of the sidewalls to fold back with the box closing flaps.

Thus, at the lower edge of the box, two triangular shaped tabs are placed on each sidewall and are folded back to lie in the plane of the lower face of the box.

Note that each of these two tabs formed on each wall is made by cutting out a single initial tab with a linear fold, cut out in two tabs through a central cut-out.

Each tab is fixed to a half portion of the upper gusset 16, 36 considered.

Preferably, a single tab is formed for each sidewall, in other words on only one of the two portions forming the gusset, at the upper end of the box, to avoid hindering access to the pot when a user is extracting it.

These different tabs perform a function known in itself, for securing locking of the box.

Apart from the advantages mentioned above, this box is very efficient in holding a pot in position, despite

the presence of a particularly wide open window (22) on the front face.

Note firstly (Figures 3 and 4) that the box according to this embodiment is sized with respect to the volume of a pot 100 such that this pot projects at least partially through the façade window 22.

To achieve this, the measured box thickness between its front face 20 and its back face 40 is chosen to be less than the diameter of the pot 100, such that the back face 40 of the box makes it compulsory for the pot to project through the façade window 22.

Note also that, for precise positioning of the pot 100 in a prominent forward position, the side openings 12, 32 are positioned to be slightly offset towards the front face 20, such that the back vertical edge 13, 33 of each side opening 10, 30 also pushes the pot 100 towards the front of the box.

This arrangement of the pot 100 in which it projects forwards is advantageous in itself.

It provides the consumer with a particularly clear and direct vision, particularly of the markings on the pot and the appearance of its contents.

The consumer can also easily touch the product, which enables a privileged and direct contact with the product.

This prominent arrangement also enables the use of a box, like in this example, with a particularly small volume compared with the volume of the pot, because the pot projects beyond the overall volume of the box.

Due to its compact size, a larger number of these boxes can be placed in shop shelves.

This type of box is also less expensive to make since it requires less material.

To hold the pot particularly reliably, an arrangement is proposed with a significant influence on
5 upholding the pot.

Thus, the façade window 22 is preferably made by keeping a part 24 cut out in this window and then folded inwards into the box.

This front parallelepiped shaped window is made
10 using a U cut-out to form such a flap 24 that will be moved inwards into the box.

The edge 25 of this flap 24 that is not cut out is specifically placed to extend under the pot, covering the upper edges of the lower support strips 14, 34
15 originating from the sidewalls 10, 30. The flap 24 thus formed and folded inwards into the box thus forming a reception platform for the pot bearing on the lower support strips 14, 34.

Therefore, the flap 24 thus positioned forms a
20 contact with the bottom of the pot that, due to its extent, reduces risks of the pot sliding in the box, particularly in rotation.

Furthermore, this type of flap 24 encourages distribution of the weight of the pot over the entire
25 extent of the lower support strips 14, 34.

In order to further improve holding of the pot, the presence of this flap 24 is used to place a glue dab that further improves the contact between the pot and the box.

An accidental rotation of the pot, which would have
30 the unfortunate effect of concealing the markings on the pot, is then made impossible in a particularly reliable manner.

For efficient folding of the flap of the façade window, an intermittent preliminary cut-out 27 is preferably adopted along the folding line of this flap.

We will now describe the successive steps in a method for forming such a packaging box and the means of automatically implementing these different steps.

Figures 5a to 5g show the successive steps in the preferred process.

Figure 5a shows a pre-folded and glued cardboard side as it is supplied to the automatic folding machine.

Note that at this stage, this side is folded on itself. It is glued on a longitudinal border such that after simply moving the opposite walls 10 and 30 apart, the box moves into a parallelepiped tube shape.

Thus, in Figure 5b, this situation in which the opposite walls 10 and 30 are moved apart being obtained by automatic means that position a suction cup on one of these walls and then pull on this suction cup to separate the walls.

Figure 5c illustrates the third shaping step consisting of closing the lower face of the box. Closing is particularly easy since the end fold 55 of such a lower closing flap 50 is provided by locking means by simple insertion of this end fold, in a conventional manner in itself.

However, note that closing off the flap 60 forming the lower face is only possible after the lower gussets 14, 34 of the sidewalls 10, 30 have been pushed inward, so as to reduce the thickness of the box at the bottom of the box.

The automatic folding machine is provided with mobile fingers for this purpose capable of pushing these

gussets 14, 34, these fingers moving simultaneously when actuated by automatic means of closing the lower flap 60 of the box.

In the step shown in Figure 5d, the flap 24 of the façade window 22 is placed by automatic means of folding the flap inwards into the box.

These means of folding the window flap 24 are also preferably composed of a movable finger coming into contact with the flap 24 inwards into the box.

The pot is then inserted in the box (Figure 5e) through the top opening, after placement of a glue dab on the window flap 24. The pot is easily placed since at this stage, the sidewalls 10, 30 do not yet form retaining gussets in their upper part 16, 36.

However, after placement of the pot, these upper strips 16, 36 of the sidewalls 10, 30 are pushed, once again by automatic displacement means in the form of mobile fingers, inwards into the box.

These strips pushed inwards then take up their shape as blocking gussets above the pot, in a configuration dimensionally adapted to the pot. This pot is then surrounded at the top and the bottom, and it is impossible for it to move in the packaging.

This operation reduces the thickness of the top part of the box, thus pushes the pot through the façade window 24, enabling automatic means to actuate the upper flap 50 of the box, to close the box.

The box then fulfils the advantageous holding and presentation functions previously described.

Although the invention has been described with reference to a window partially passed through on the opposite side of a solid wall, one variant would consist

of placing two windows that are partially passed through on two opposite faces, in other words on the front and on the back. Therefore a window 42 similar to window 22 is adopted in this case as shown in Figure 6.

5 We have described example embodiments in which the window is rectangular, however any other form would be possible, for example adapted to other shapes of receptacles.

CLAIMS

1. Receptacle packaging box for a cosmetic, human therapeutic or human hygiene product, this box having two opposite side faces (10, 30), each provided with an opening (12, 32) in which the lower part is bordered by a strip (14, 34) moved inwards into the box to support the said receptacle (100) at its upper edge, the box being characterised in that it has a distinct face (10) provided with a window (22) enabling the receptacle (100) to project partly beyond it, this window (22) being provided with a flap (24) cut out from the window covering the upper edges of the support strips (14, 34) and thus forms a reception platform for the receptacle.

2. Assembly composed of a packaging box according to claim 1 and a receptacle placed inside this packaging.

3. Assembly according to claim 2, characterised in that the receptacle is a pot of a cutaneous application product.

4. Assembly according to claim 2 or claim 3, characterised in that the receptacle (100) projects through the window (22) beyond the main plane of the face (20) surrounding this window (20).

5. Assembly according to any one of claims 2 to 4, characterised in that the box has a thickness, as measured between its face (20) forming the said window (22) and its back face (40), that is less than the diameter of the receptacle (100).

6. Assembly according to any one of claims 2 to 5, characterised in that the height of the window (22) is equal to the height of the receptacle (100).

7. Assembly according to any one of claims 2 to 6, characterised in that the openings (12, 32) formed in the box sidewalls (10, 30) are slightly offset towards the face (20) of the box that forms the window (22).

5 8. Assembly according to any one of claims 2 to 7, characterised in that it has at least one glue dab connecting a face of the flap (24) and a lower part of the receptacle (100).

10 9. Assembly according to any one of claims 2 to 8, characterised in that it has a series of stiffening grooves arranged transverse to the walls (10, 30) forming the said openings (12, 32).

15 10. Assembly according to any one of claims 2 to 9, characterised in that the flap (24) has a folding line made from an intermittent preliminary cut-out (27).

11. Assembly according to any one of claims 2 to 10, characterised in that the box is made from a cardboard side.

20 12. Assembly according to any one of the previous claims, characterised in that the box has a second window (42) placed opposite the first said window (22), and in that these two windows (22, 42) are both partially passed through by the receptacle (100).

25 13. Packaging process for a cosmetic, human therapeutic or human hygiene product receptacle, characterised in that it comprises steps consisting of:

30 - providing a configured side to form a reception box for the receptacle, this side being provided with two opposite faces (10, 30) of the box each provided with an opening (12, 32);

- pushing two strips inwards, each belonging to one of these opposite faces (10, 30) and each bordering

one of these two openings (12, 32) on the lower edge, so as to form a lower support for the receptacle;

- providing a window (22) on a third face of this box, sufficiently clear so that the receptacle (100) can
5 partially pass through it;

- providing a flap (24) attached to a lower edge of this window (22), and pushing this flap (24) inwards into the box, such that it covers the upper edges of the lower support strips (14, 34) of the receptacle and thus
10 forms a support platform for the receptacle.

14. Process according to the previous claim, characterised in that it also comprises the step consisting of applying a glue dab on one face of the flap (24) and positioning the receptacle in contact with this
15 glue dab.

15. Process according to claim 13 or claim 14, characterised in that the receptacle is a pot of cutaneous application product (100).

16. Automatic folding machine for a packaging box
20 for a cosmetic, human therapeutic or human hygiene product receptacle, comprising means of folding and closing elements of such a box, including means of causing an inwards displacement of the corresponding lower strips (14, 34) of the two opposite faces (10, 30)
25 of the box, the machine being characterised in that it also comprises means of displacement of a flap (24) of a window (22) in the typical part of a face (20) of the box separate from the said two opposite faces, inwards into the box, after displacement of the said corresponding
30 strips (14, 34) for the opposite faces (10, 30).

17. Packaging assembly for a cosmetic, human therapeutic or human hygiene product receptacle,

characterised in that it includes a folding machine according to the previous claim, and in that it includes automatic gluing means arranged to place a glue dab on the said window flap (24) and means for automatically
5 introducing a receptacle in the box after this glue dab has been put into place.

**Patent Agents
Smart & Biggar**

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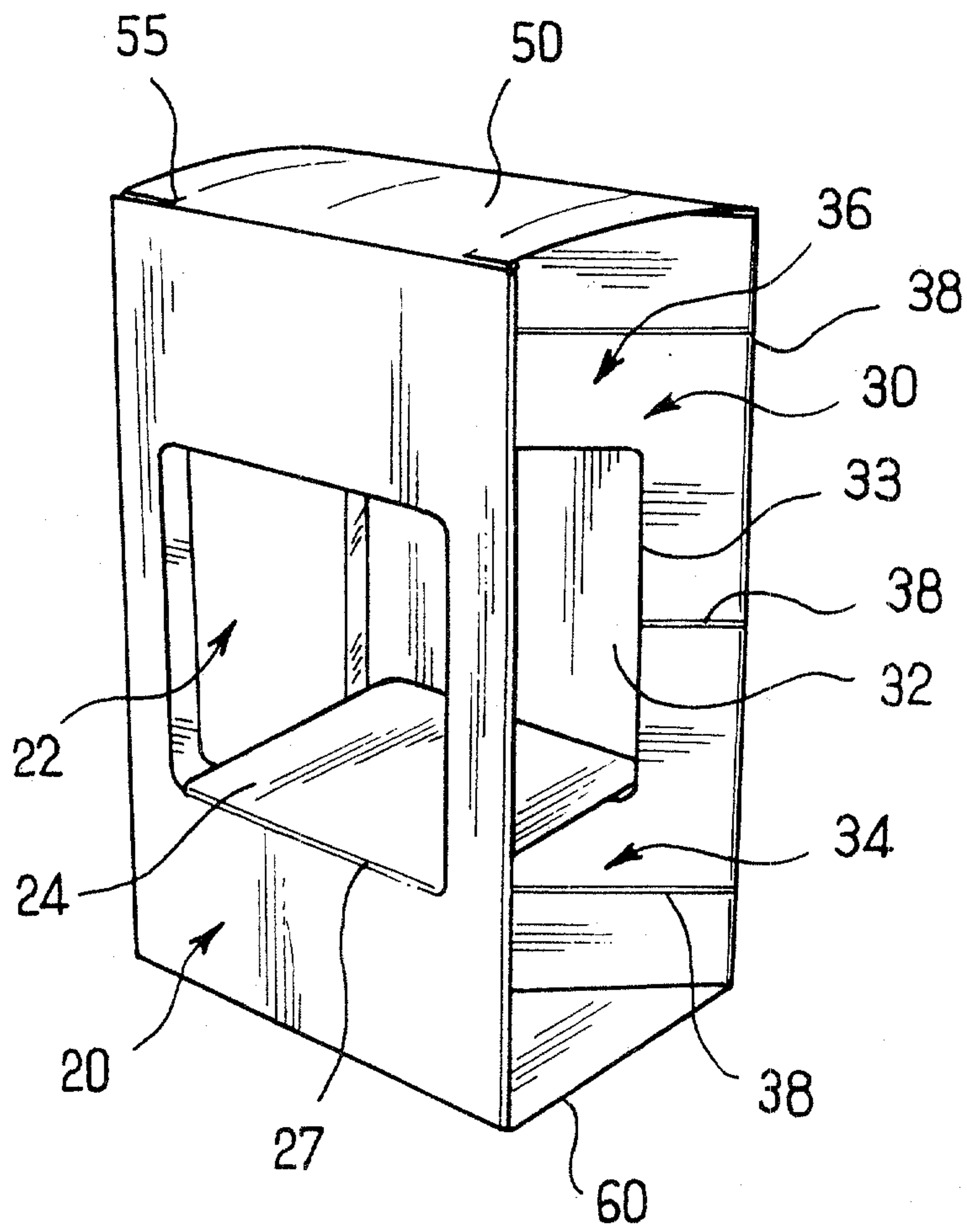


FIG. 1

217

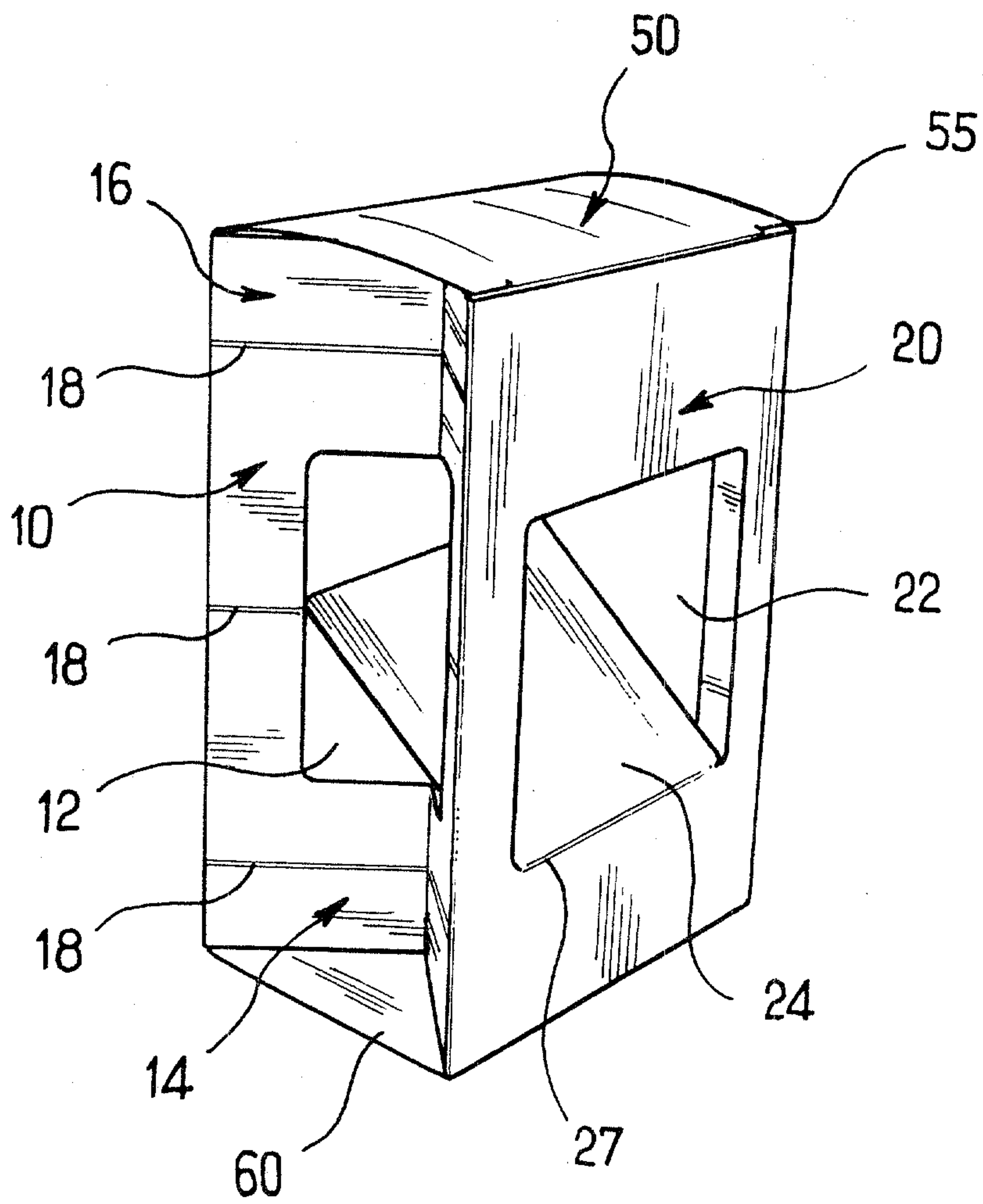


FIG. 2

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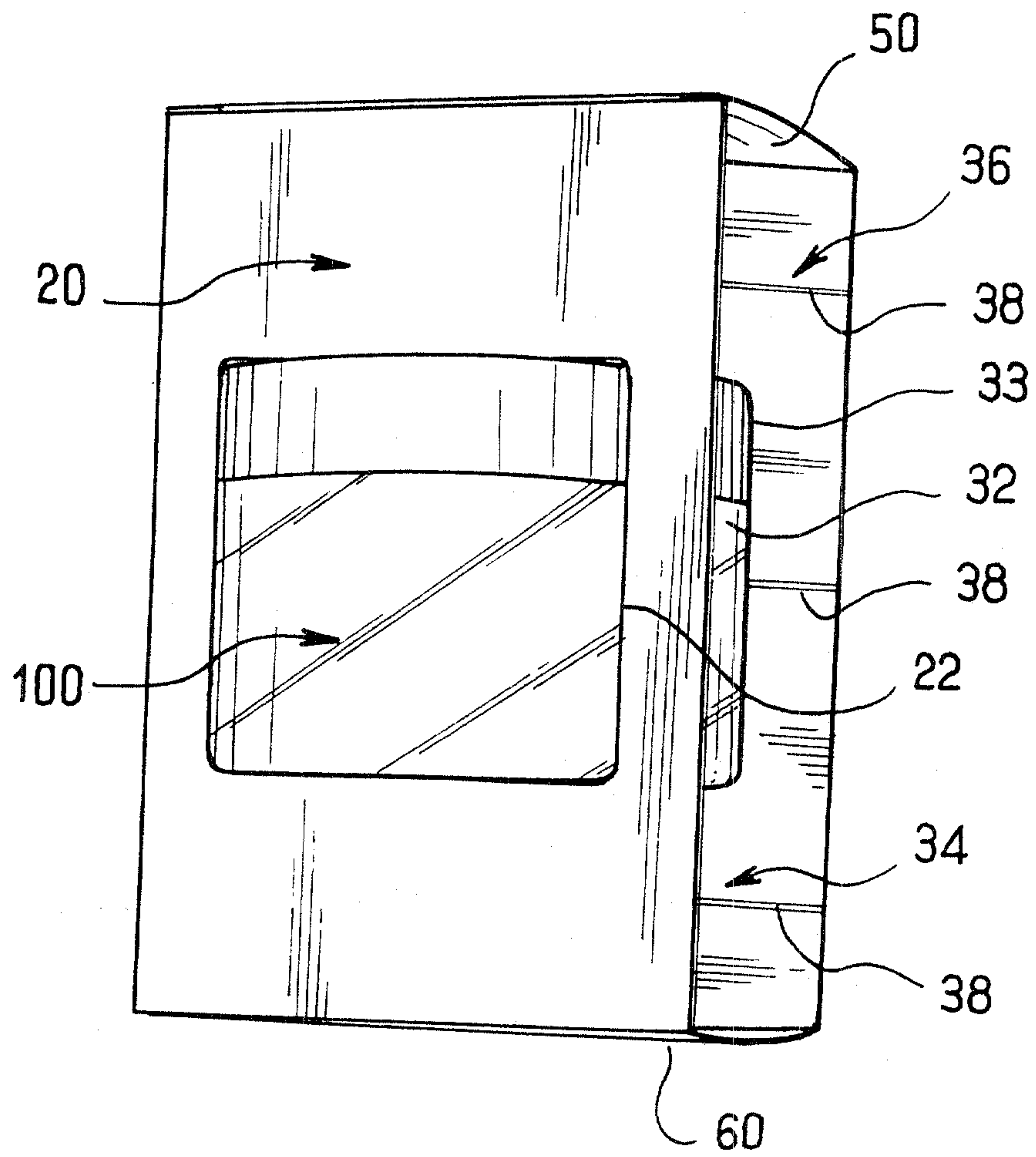


FIG. 3

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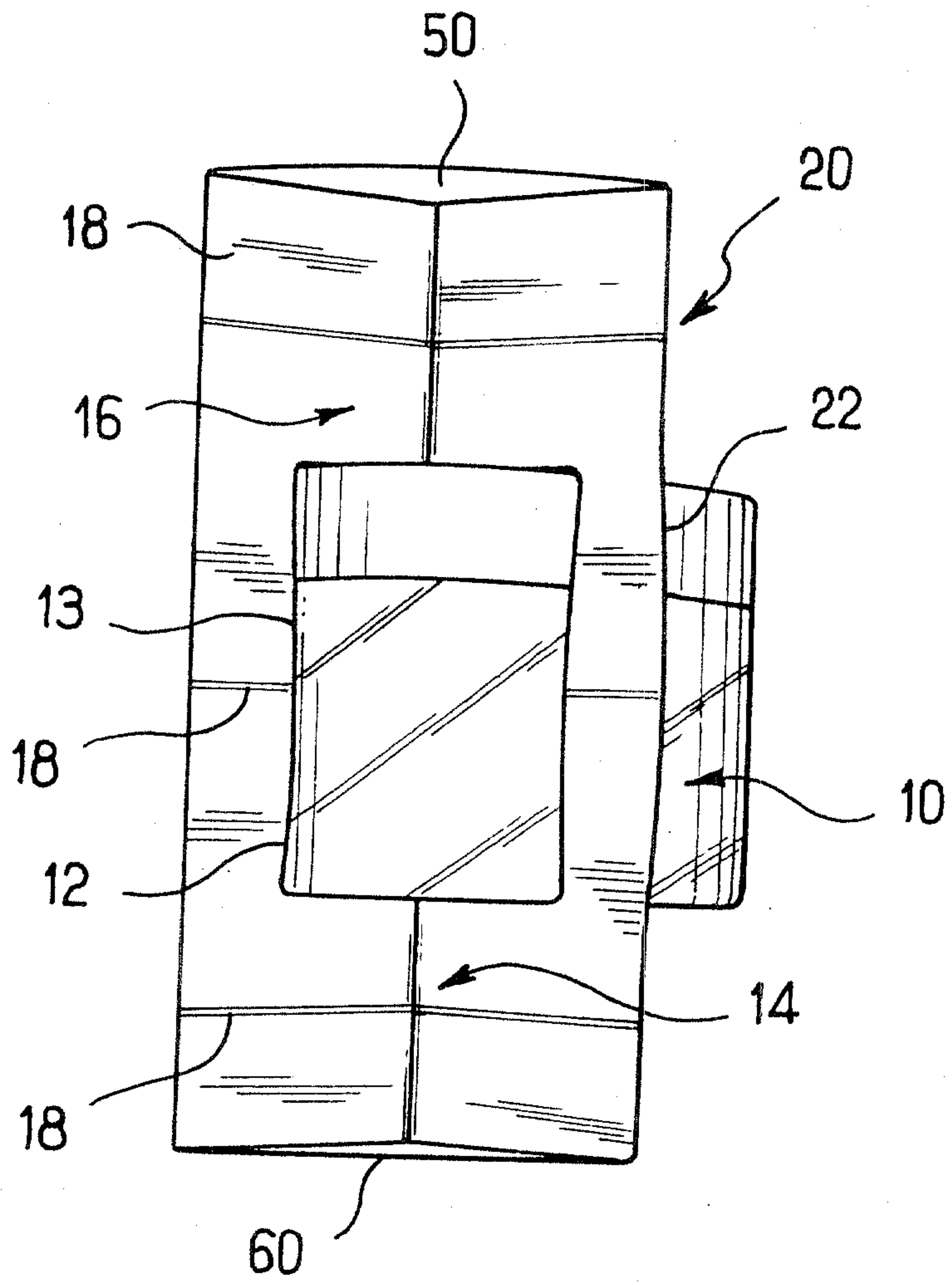


FIG. 4

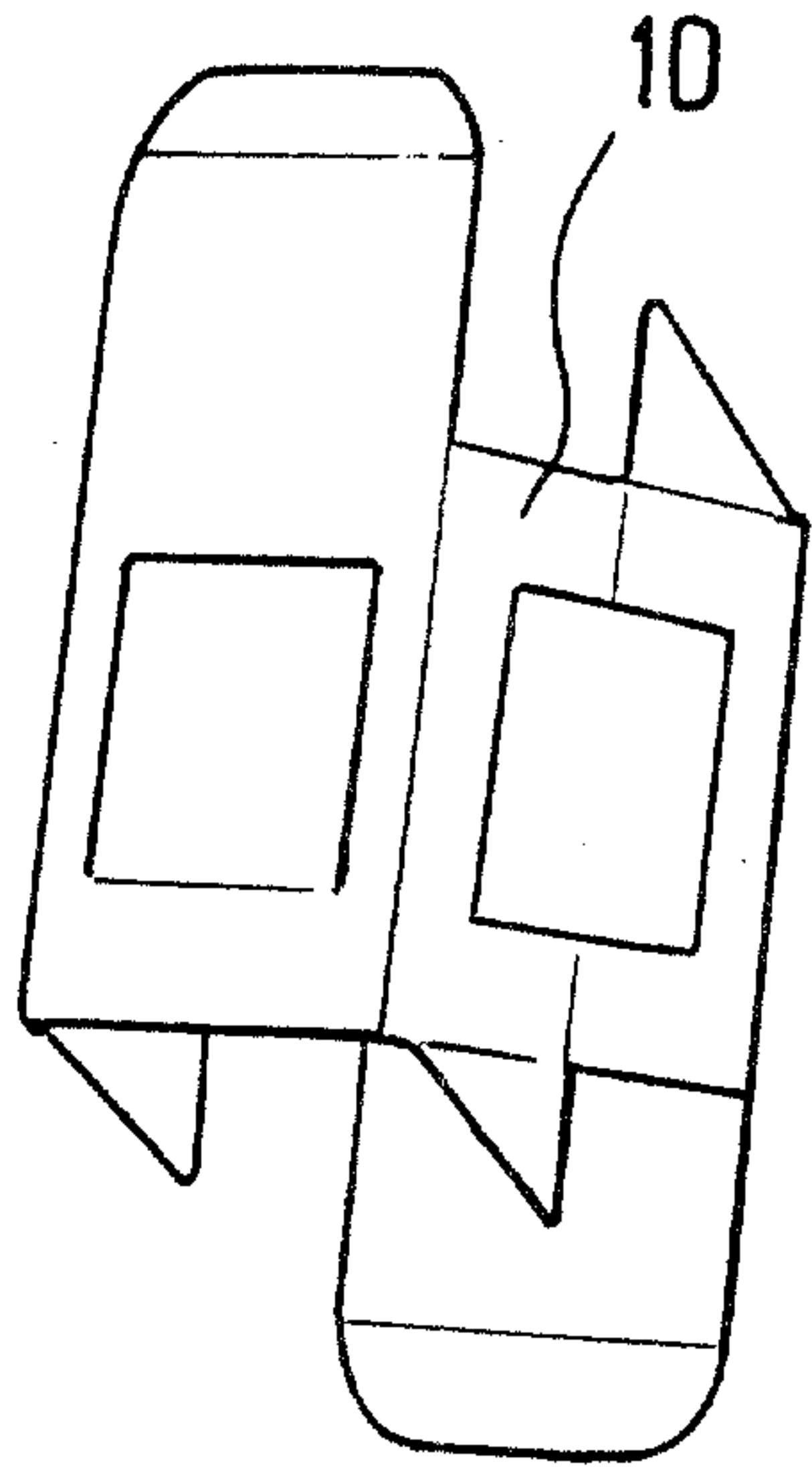


FIG. 5a

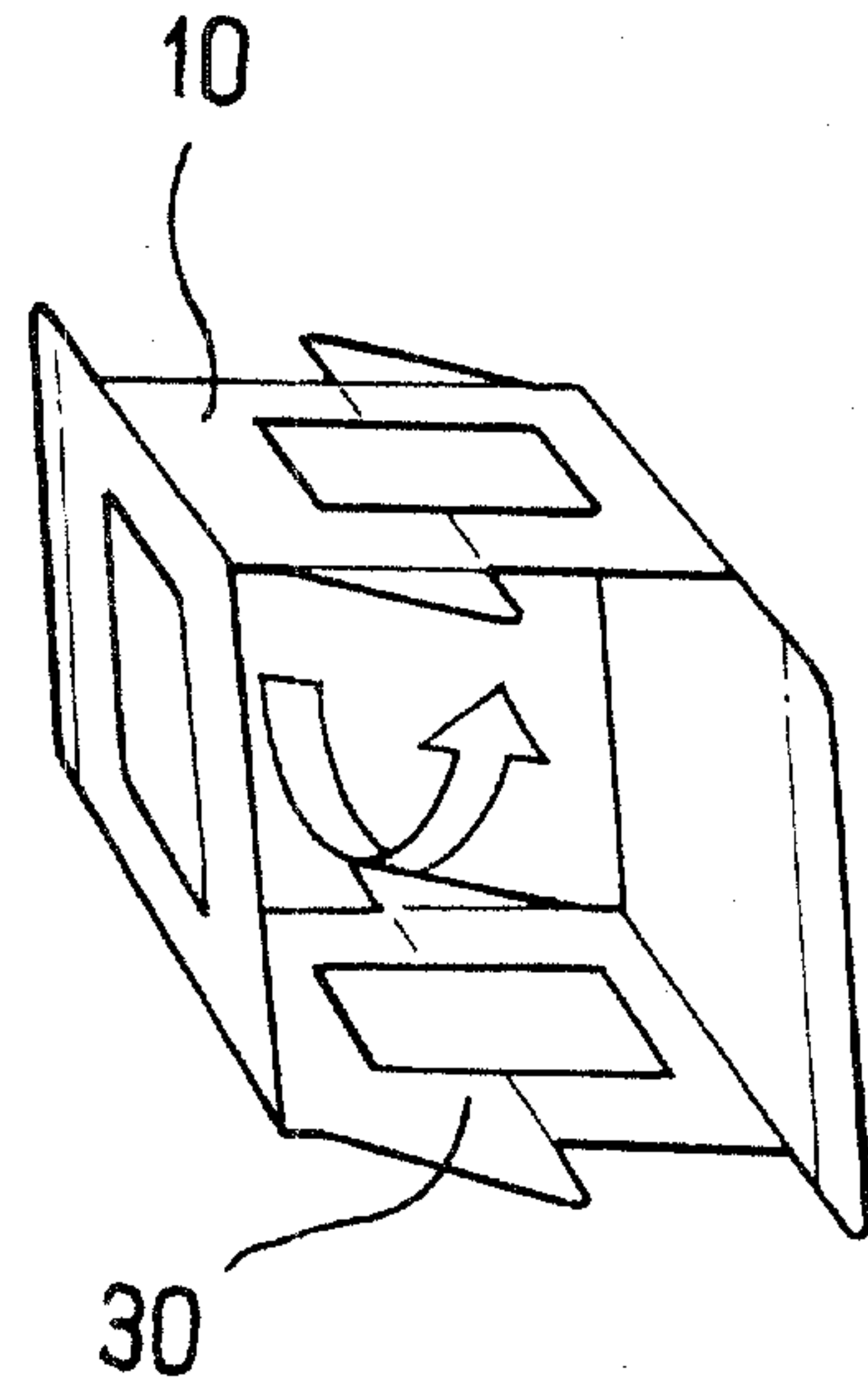


FIG. 5b

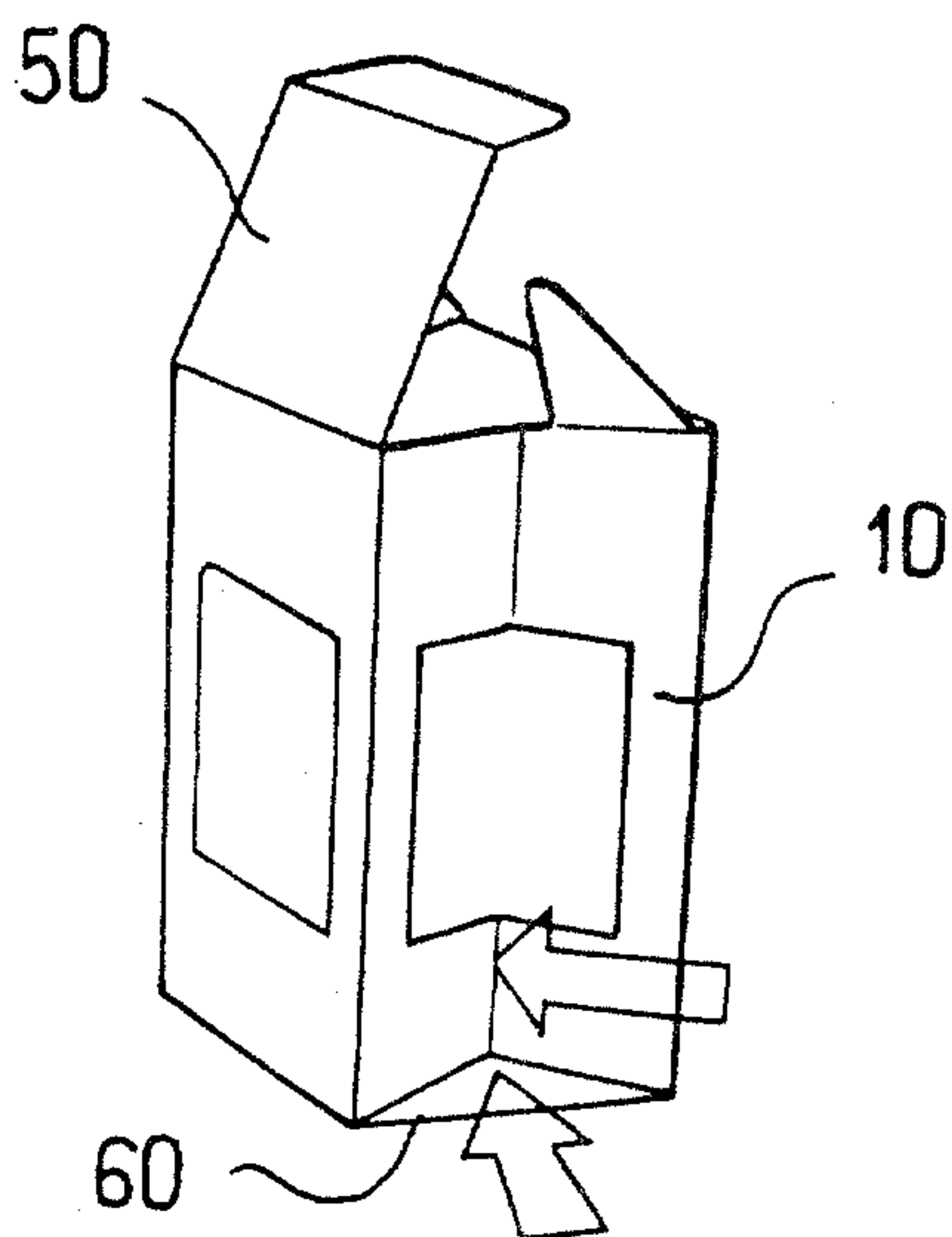


FIG. 5c

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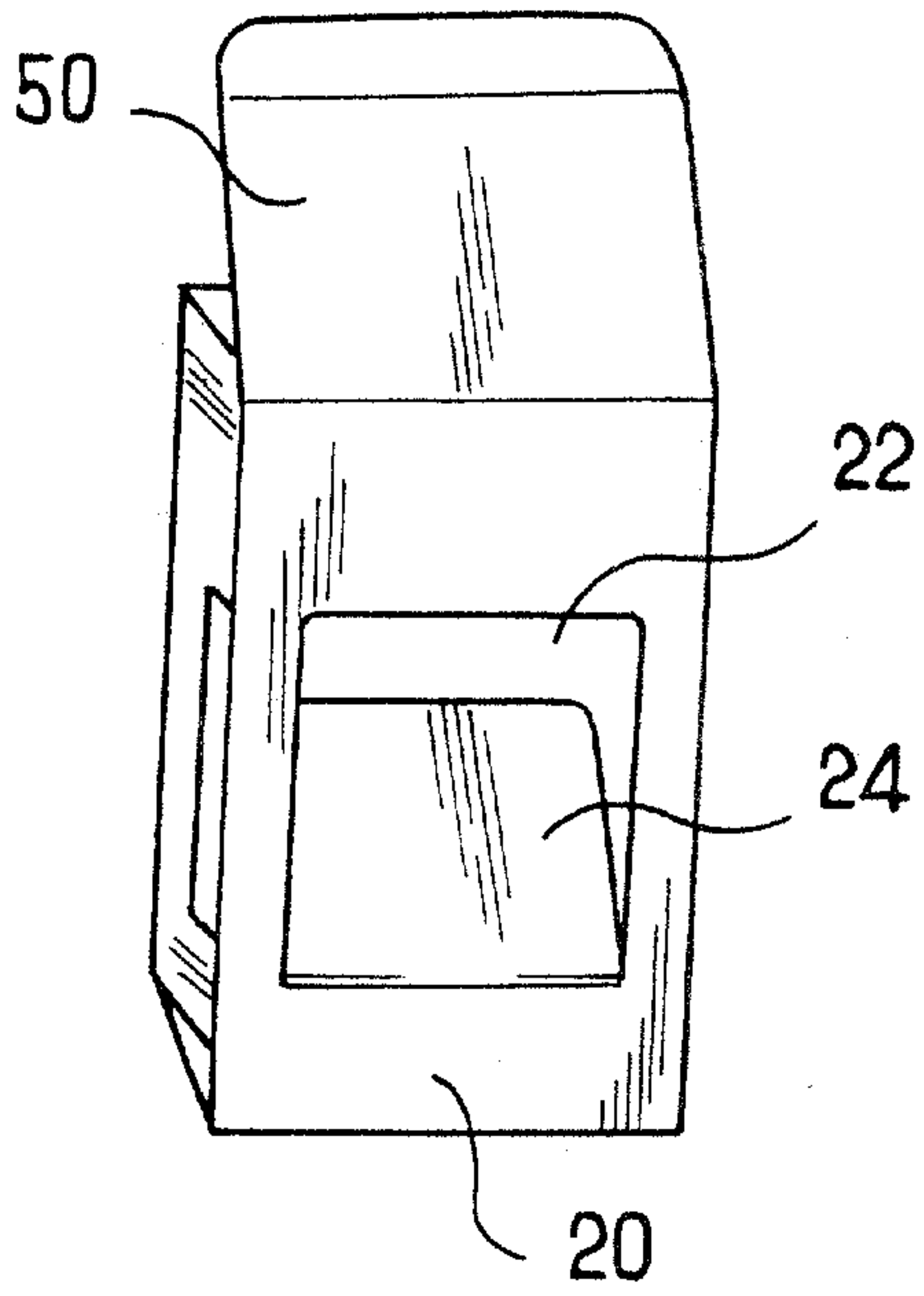


FIG. 5d

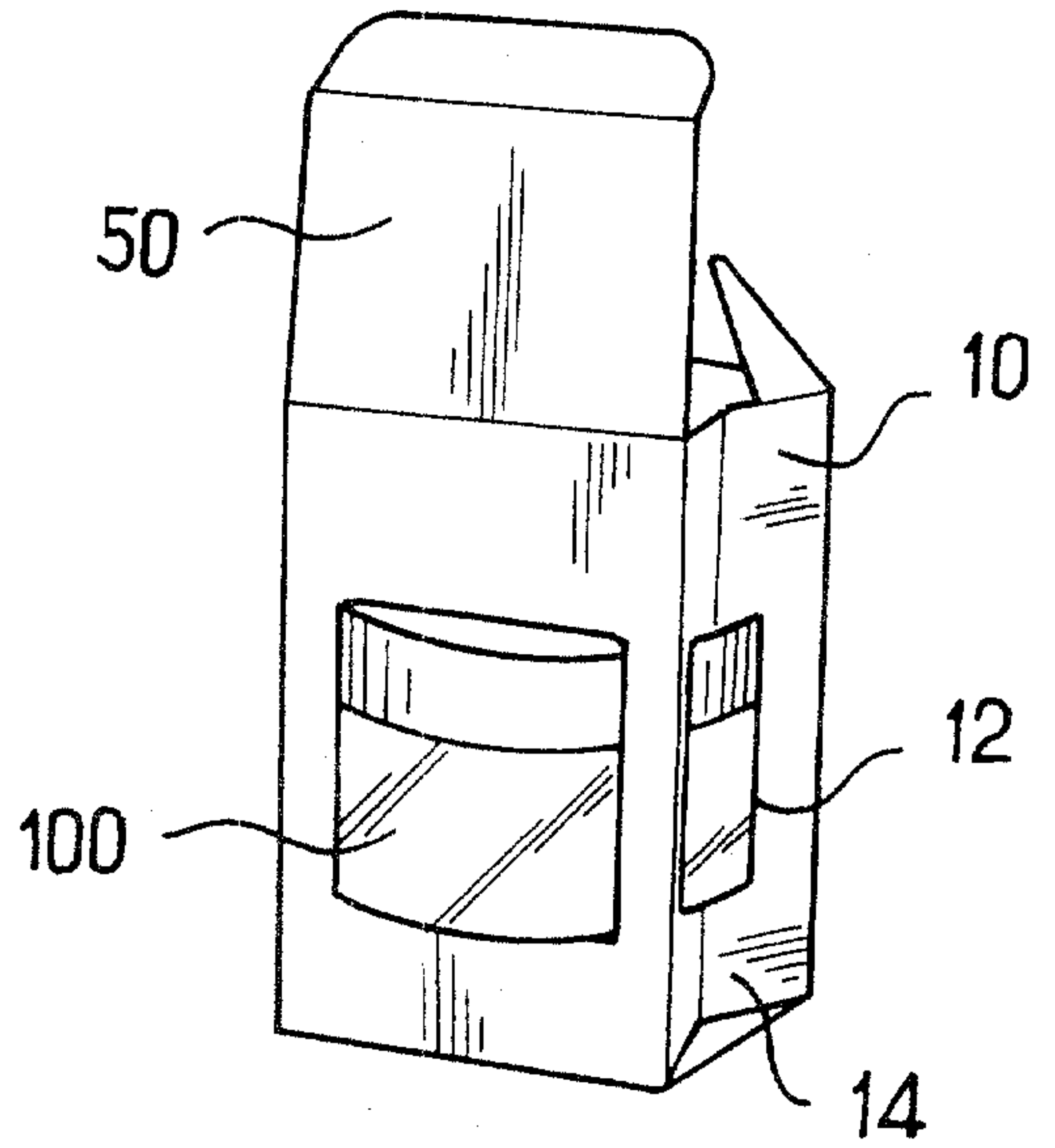


FIG. 5e

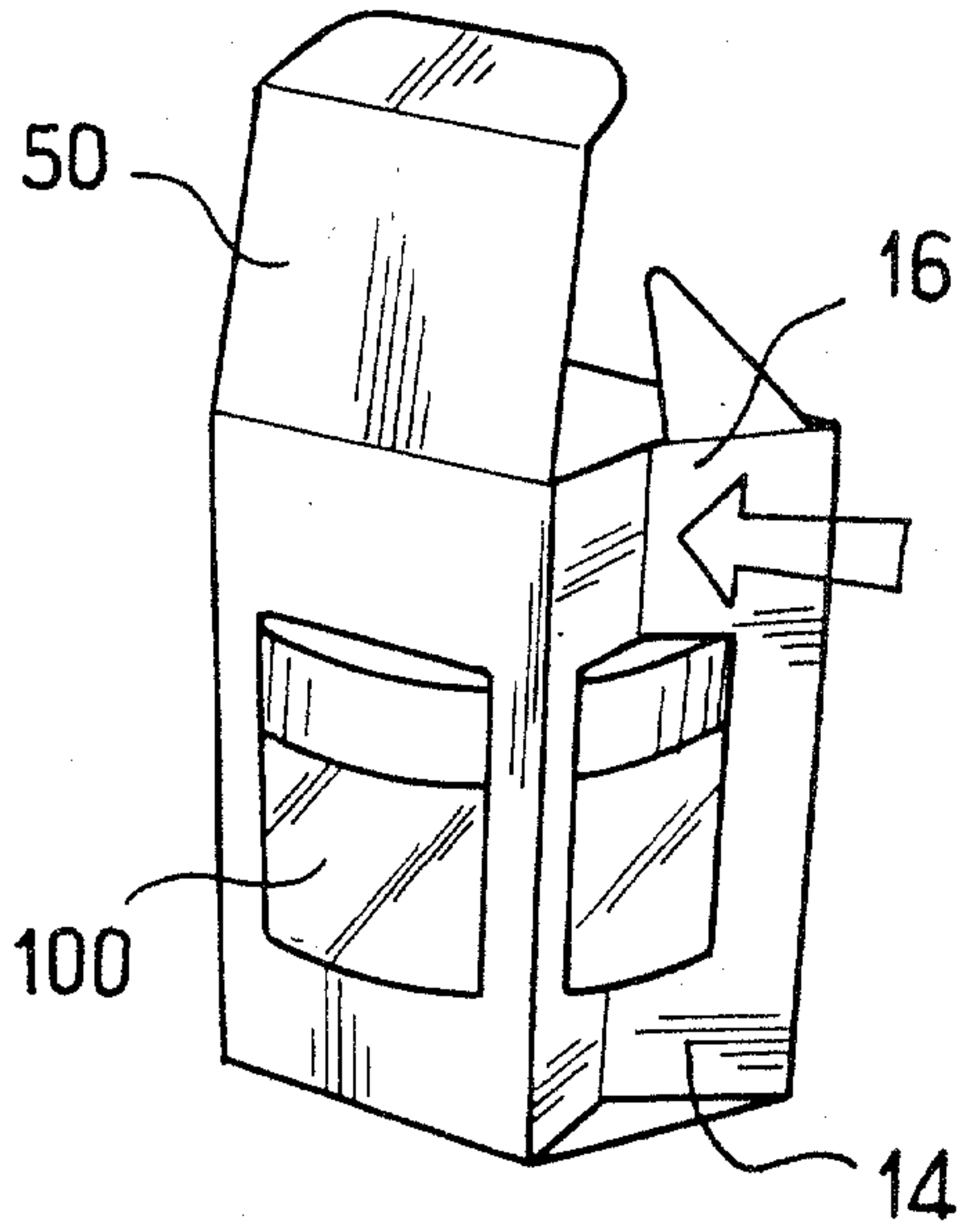


FIG. 5f

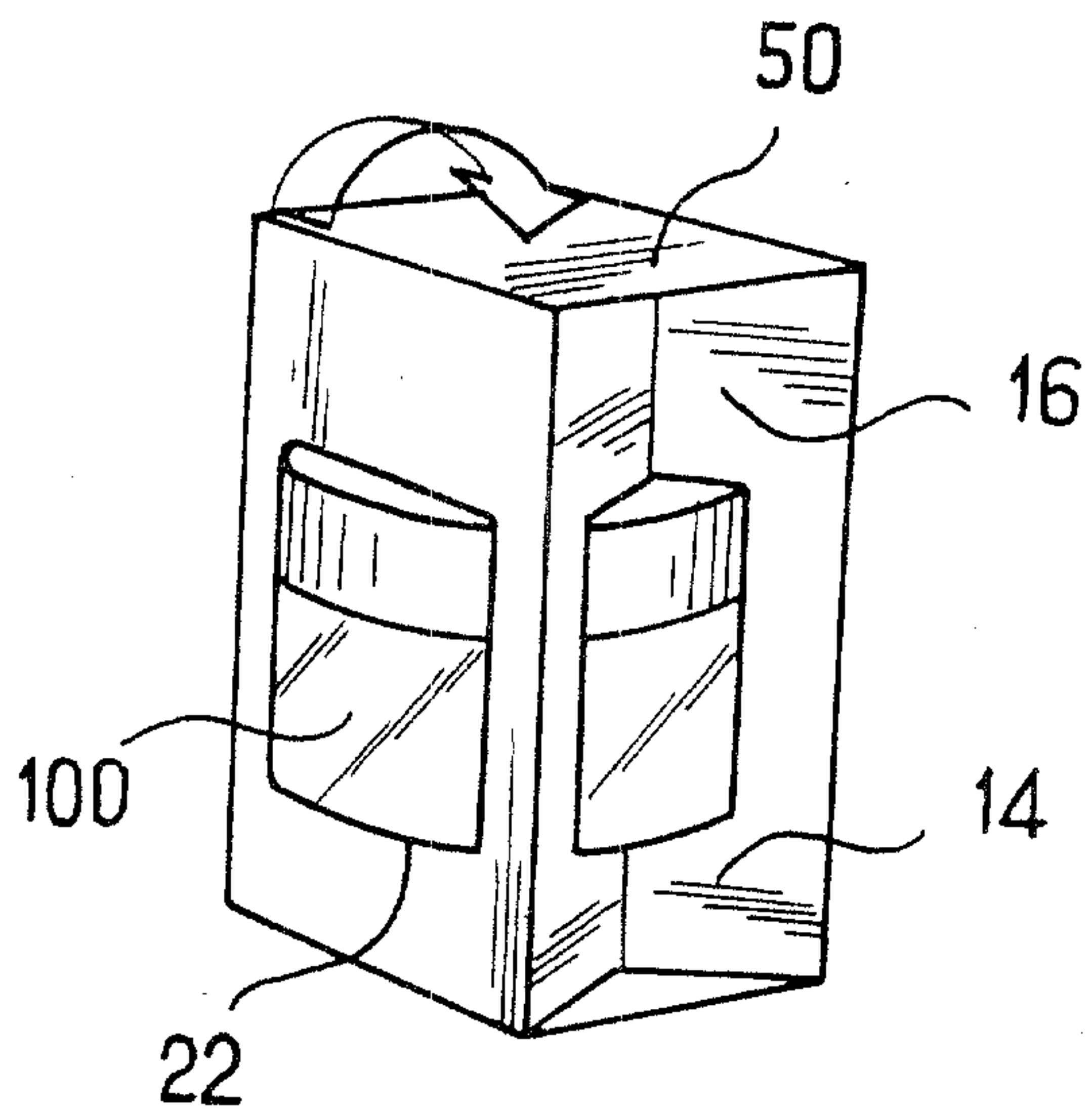


FIG. 5g

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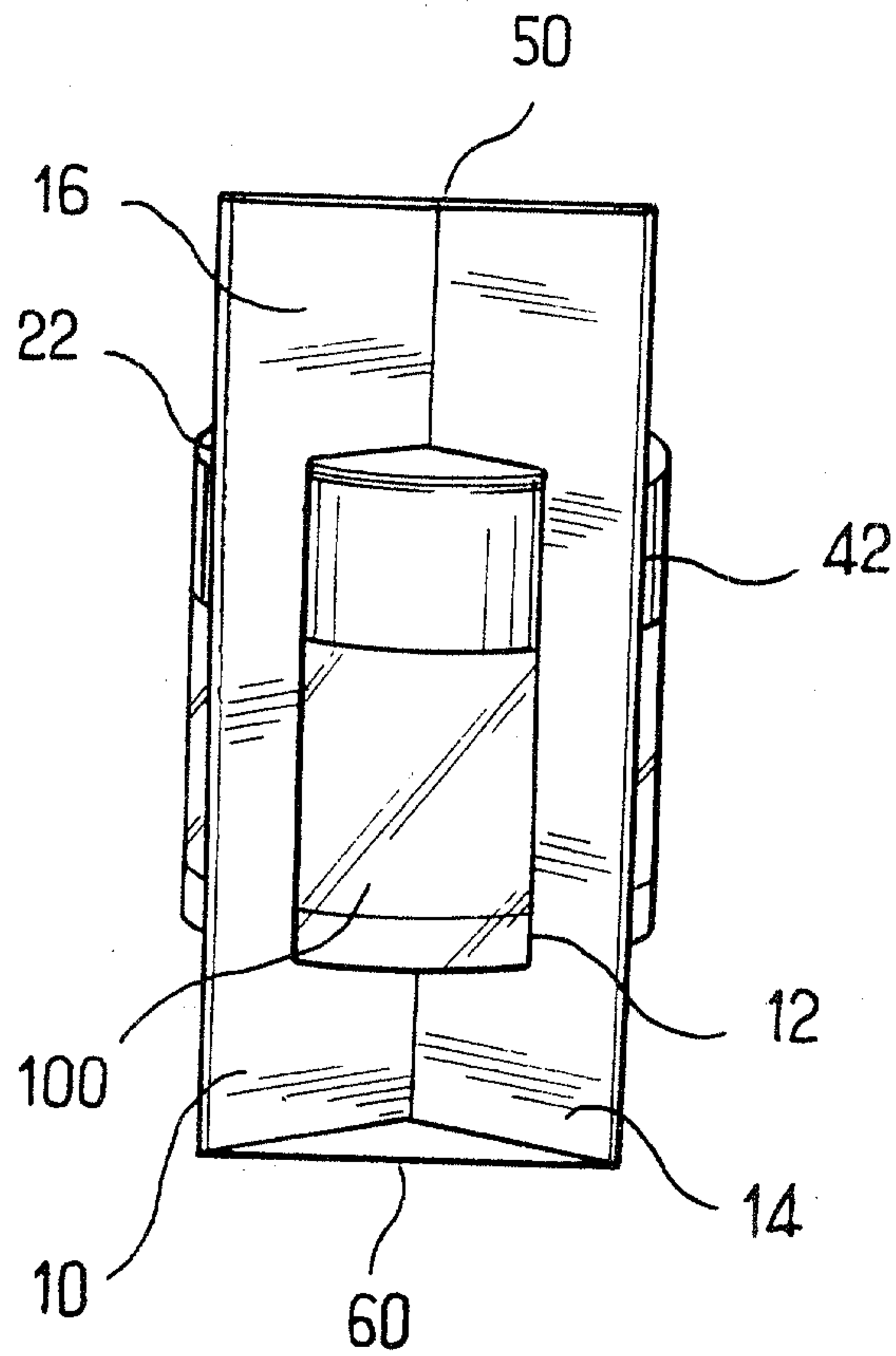


FIG. 6

