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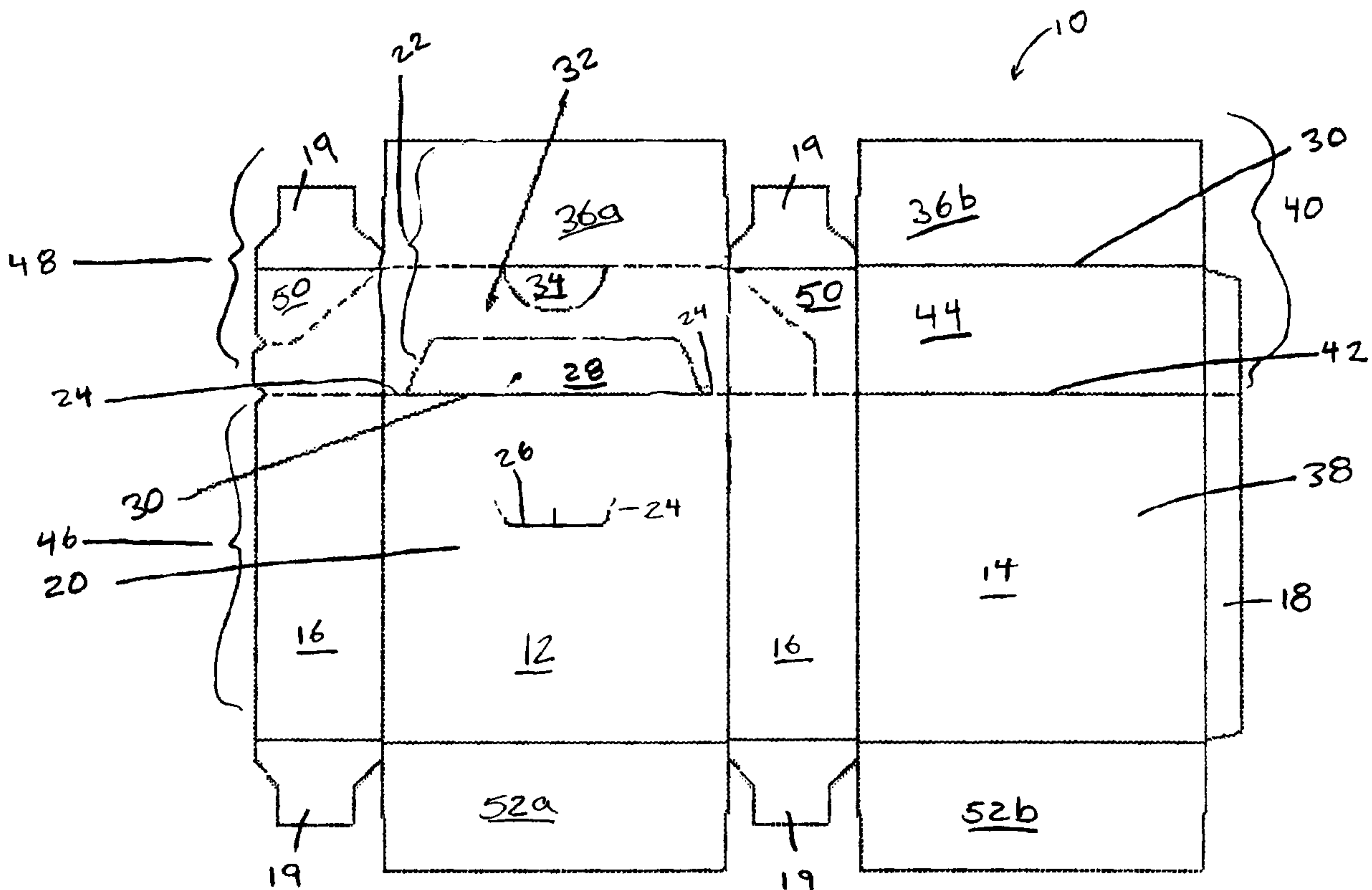
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(54) Title: LOCKING CONTAINER



(57) Abrégé/Abstract:

There is provided a re-closable container that can be reduced in size once a predetermined amount has been removed from the container. Containers according to certain embodiments provide a utility flap that can be used to secure a bag in place, to help prevent moisture from affecting the contents of the container, and to help provide a secure closure for the container.



ABSTRACT OF THE DISCLOSURE

There is provided a re-closable container that can be reduced in size once a predetermined amount has been removed from the container. Containers
5 according to certain embodiments provide a utility flap that can be used to secure a bag in place, to help prevent moisture from affecting the contents of the container, and to help provide a secure closure for the container.

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LOCKING CONTAINER

FIELD OF THE INVENTION

Certain embodiments of the present invention relate to reducible and
5 reclosable locking containers for keeping bagged items fresh and/or for
preventing items contained within the container from spilling out.

BACKGROUND

In many instances, products are packaged in quantities that are greater
than a single serving or use, such that the product container is not completely
10 emptied after being opened. It is desirable for the consumer to be able to
efficiently store the product for later use, and in the case of food products,
prevent the unused portion from becoming stale or otherwise undesirable.

For example, many food products currently on the market are provided in
a sealed bag that is contained within a paperboard box. The typical box has a
15 tab and slot configuration on its lid located at the top of the box for closing the
box, but the configuration does not prevent the contents from becoming stale or
spilling out. Consumers typically roll the inner bag down and "stuff" the bag
inside the box. There is not a seal on the bag or any other way to prevent
moisture from entering the bag and spoiling the food.

20 The tab and slot configuration is also not a sturdy locking mechanism
because it does not secure the open bag in place or close the top of the bag. If
the box were to tip over in the cupboard after being opened, its contents could
easily spill out. This is the case whether the product is a food item such as
cereal, crackers, or cookies, or a household item, such as laundry detergent or
25 fertilizer.

Products are also packaged in boxes or containers that are large enough
to hold the full amount of the item being packaged, but that end up being too
large for the remaining product once a serving or two has been removed.
Reduction in container size once a certain amount has been used would increase
30 available storage space.

Accordingly, there is a need to provide a re-closable container that can be reduced in size once a predetermined amount has been removed from the container. Additionally, because existing packaging does not provide a way to secure an open bag within a box to keep the contents fresh or prevent them from
5 spilling, there is a need to provide a container that allows for re-closing of the box and fastening of the bag to protect the remainder of the product.

SUMMARY

There is provided a re-closable container that can be reduced in size once a predetermined amount has been removed from the container. Containers
10 according to certain embodiments provide a utility flap that can be used to secure a bag in place, to help prevent moisture from affecting the contents of the container, and to help provide a secure closure for the container.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a top plan view of a blank used to make a container according
15 to certain embodiments of the invention.

Figure 2 is a front perspective view of a container according to certain embodiments of the invention during assembly and filling.

Figure 3 is a front perspective view of a container according to certain embodiments of the invention once assembled and prior to removal of the tear
20 away strip.

Figure 4 is a front perspective view of a container according to certain embodiments of the invention once opened.

Figure 5 is a front perspective view of a container according to certain embodiments of the invention in the open position and during closure.

25 Figure 6 is a front perspective view of a container according to certain embodiments of the invention in the closed position.

DETAILED DESCRIPTION

Figure 1 shows a blank 10 according to certain embodiments of the invention, prior to being assembled. Blank 10 has a front wall panel 12, a back
30 wall panel 14, and side wall panels 16. It also includes a glue flap 18 that is preferably used to secure the box in its assembled box-shaped position.

Although glue flap 18 is shown attached to back wall panel 14, it can alternatively extend from any edge panel of blank 10. Blank 10 also features a series of dust flaps 19 that are useful in preventing dust and other particles from entering the assembled container where the panels are joined.

5 Front wall panel 12, back wall panel 14, side wall panels 16, glue flap 18, and dust flaps 19 are attached to one another by lines of weakness that allow the panels to be folded relatively easily with respect to one another during assembly. For the purposes of this document, "line of weakness" means any area of weakness formed in blank 10 that allows a consumer or manufacturer to
10 relatively easily fold a portion of blank 10 without removing the portion being folded from blank 10.

Front wall panel 12 features a lower portion 20 and an upper portion 22. Lower portion 20 has a line of perforation 24, which forms an insertion slit 26. For the purposes of this document, "line of perforation" means a score line or
15 other area of weakness formed in blank 10 that allows a consumer to easily tear away a portion of blank 10 or puncture blank 10. Insertion slit 26 stays closed until the consumer presses against the perforation 24 to form the slit 26. Insertion slit may be located anywhere on front wall panel 12, may extend between front wall panel 12 and side wall panels 16, or may be located on side
20 wall panels 16 alone.

Extending from upper portion 22 of front wall panel 12 is utility flap 28. Utility flap 28 is preferably joined to front wall panel 12 by a line of weakness 30 that allows it to be folded over.

Utility flap 28 preferably also attached to upper portion 22 of front wall
25 panel 12 by two small lines of perforation 24 that form tear away strip 32 (described below). Utility flap 28 may optionally extend the full distance of front panel or may extend a smaller distance. Although preferably associated with front wall panel 12, utility flap 28 may be provided anywhere on blank 10 such that it is allowed to perform the tucking functions described below. Utility flap 28
30 is shown as trapezoidal in shape, but it should be understood that it may be any shape that allows it to perform the desired tucking function, such as square,

triangular, circular, semi-circular and so forth. Utility flap 28 is also shown as a single flap, but it should be understood that utility flap may be multiple flaps or a single flap with multiple panels.

Upper portion 22 of front wall panel 12 also features a locking tab 34. In
5 use, locking tab 34 is adapted to cooperate with insertion slit 26 to close container, as will be described more fully below. Locking tab 34 may be any shape or size and may be located anywhere on carton, as long as it provides the desired closure function. For example, it is possible for the edges of new lid 60 (described further below) to provide the desired locking tabs 34. Additionally,
10 locking tab and insertion slit may have their locations reversed such that locking tab is on the lower portion 20 of front wall panel, extending between front wall panel 12 and side wall panels, or on side panels 16 alone 12 and insertion slit is on the upper portion 22.

Locking tab 34 is shown as a single tab, but it should be understood that
15 locking tab may be multiple tabs. There may also be provided one or more locking tab and slit combinations. Locking tab and slit need not be positioned on the center of container 100, but may be positioned at the edges of container or be otherwise offset.

Figure 4 shows utility flap 28 and locking tab 34 in their formed position
20 once the container 100 (that is ultimately formed from blank 10) is assembled and opened by removal of the tear away strip 32 described below.

Referring back to Figure 1, also extending from upper portion 22 of front wall panel 12 is tear away strip 32. (In some embodiments, however, tear away strip 32 is not connected to front wall panel 12. It may extend from lid panel 36a
25 only.) Tear away strip 32 is provided to allow the container 100 that is ultimately formed from blank 10 to be provided in a typical box-type shape, as shown in Figures 2-6. The consumer removes and discards tear away strip 32, shown in cross-hatchings in Figures 3 and 4, to access the contents of container. It should be understood that rather than discarding tear away strip 32, tear away strip 32
30 may be printed with promotional tools, including coupons or game pieces. As

discussed above, removal of tear away strip defines utility flap 28 and locking tab 34.

At the top of front wall panel upper portion 22 is lid panel 36a. Lid panel 36a (along with 36b) forms the top lid of container 100 in the container's assembled position, as shown in Figure 3. Once box 100 is opened and collapsed, lid panel 36a forms the front lid 36 of container 100, as shown in Figures 4 and 5.

Returning back to Figure 1, back wall panel 14 preferably has a lower portion 38 and an upper portion 40. Lower portion 38 and upper portion 40 of back wall 14 are separated by a line of weakness defining a hinge 42. Upper portion 40 is further divided by another line of weakness 30 defining back lid panel 44 and upper lid panel 36b. Upon assembly, upper lid panel 36b and lid panel 36a are glued to form lid 36 (as shown in Figure 2). Base panels 52a and 52b extend from front wall panel 12 and back wall panel 14.

Side wall panels 16 connect front wall panel 12 and back wall panel 14. Side wall panels 16 have lower portions 46 and upper portions 48. Lower portions 46 of the side walls 16 form the main wall area and upper portions 48 form closure flaps 50 upon removal of tear away strip 32 and assembly of blank 10.

Blank 10 is preferably formed of paperboard, fiberboard, chip board, corrugated or any other easily assembled material. Multiple blanks 10 may be shipped to the food producer in their flat form for assembly and filling on site.

In order to assemble blank 10, front wall panel 12, side wall panels 16, back wall panel 14 are folded to form a rectangular box. Glue or any other adhesive substance or securing mechanism secures glue flap 18 and the other panels in place. Base panels 52a and 52b are also glued or otherwise adhered to one another and lower dust flaps 19 (if provided) are secured.

At this point, a box 100 with an open top is provided, as shown in Figure 2. Typically, the box will be filled with a bagged food product 54, such as cereal, crackers, or cookies, although it is also possible to fill it with other items in bags, such as laundry detergent, fertilizer, or any other item as desired.

Once inner portion of box 100 is filled with the bagged product 54, lid panels 36a and 36b are preferably glued or otherwise adhered to one another to form lid 36, and dust flaps 19 are then glued or otherwise adhered to cover the fold joints formed. This provides a container like that shown by Figure 3.

5 Upon purchase or receipt of the product container, a consumer will remove tear away strip 32 to open the container 100, as shown in Figure 4. A new lid 60 is now formed by back lid panel 44 (upper portion 40 of back wall), lid panels 36a and 36b, and closure flaps 50 of the side walls 18. The lid 60 also features locking tab 34 that is defined upon removal of tear away strip 32. Front
10 panel 12 also features utility flap 28.

Once the bagged product 54 is opened and used, the consumer may fold the new lid 60 back along hinge 42 and replace the bag, as shown in Figure 5. Once the bag 54 is placed inside container, its open end 56 should be placed over utility flap 28 and optionally may be crimped over utility flap. Some users
15 may wish to use a bag clip or a paperclip or other closure device to fully secure bag to utility flap 28, although this is not necessary. After open end 56 of the bag has been folded over the utility flap 28, the utility flap 28 and bag are folded forward and against front wall panel 12, securing the bag against moisture and spillage. In other words, the bag is preferably folded once against the front wall
20 panel 12 of container, over utility flap 28, and is "pinned" or secured against the container 100 when the new lid 60 is closed to help prevent against moisture and spillage. The new lid 60 is folded over and the locking tab 34 (or tabs) is secured in insertion slit 26 for closure.

Container may be printed to provide promotional or marketing material.
25 According to certain embodiments, it is printed so that graphics on the box have the same appearance before and after the box is collapsed. It is also possible, however, to provide new graphics on the lid panels 36a and 36b that are not seen from the front view until the container is collapsed and locked.

Changes and modifications, additions and deletions may be made to the
30 structures and methods recited above and shown in the drawings without departing from the scope or spirit of the invention and the following claims.

What is claimed is:

1. A locking container adapted to contain an inner bag, the locking container comprising:

- 5 (a) a front wall panel, a side wall panel, or both, having an insertion slit;
- (b) a back wall panel having an upper portion and a lower portion separated by a line of weakness adapted to form a hinge between the upper and lower portion;
- (c) side walls panels having upper portions and lower portions, the side
- 10 wall panel upper portions comprising a closure flap;
- (d) a tear away strip; and
- (e) a lid panel,

15 wherein removal of the tear away strip reveals a utility flap and a locking tab on the front wall panel, and wherein folding the line of weakness causes the upper portion of the back wall to form the top of the container, causes the lid panel to form a front panel, and causes the closure flaps to slide over the side walls,

20 wherein the utility flap extends from the front wall panel and has a free end over which an inner bag may lie, the utility flap adapted to fold against the front wall panel to crimp inner bag in place as the locking tab is received in the insertion slit upon closure of the locking container.

25 2. The locking container of claim 1, wherein the locking container is comprised of paperboard.

3. The locking container of claim 1, wherein the locking container is adapted to be shipped in a flat position and assembled on-site.

30

4. A method for helping to prevent moisture from reaching contents of a container holding items contained within an open bag or for preventing items from spilling out of the open bag, comprising:

- 5 (a) providing a container to hold the open bag, the container having a utility flap;
- (b) laying an open end of the bag over the utility flap;
- 10 (c) crimping the open end around the utility flap and folding the utility flap against the container such that the bag is folded once against the front wall panel and is folded again over the utility flap to be secured against the container.

5. The method of claim 5, wherein the container further comprises a lid that wraps over the utility flap and bag and secures the container in a closed position.

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Figure 1

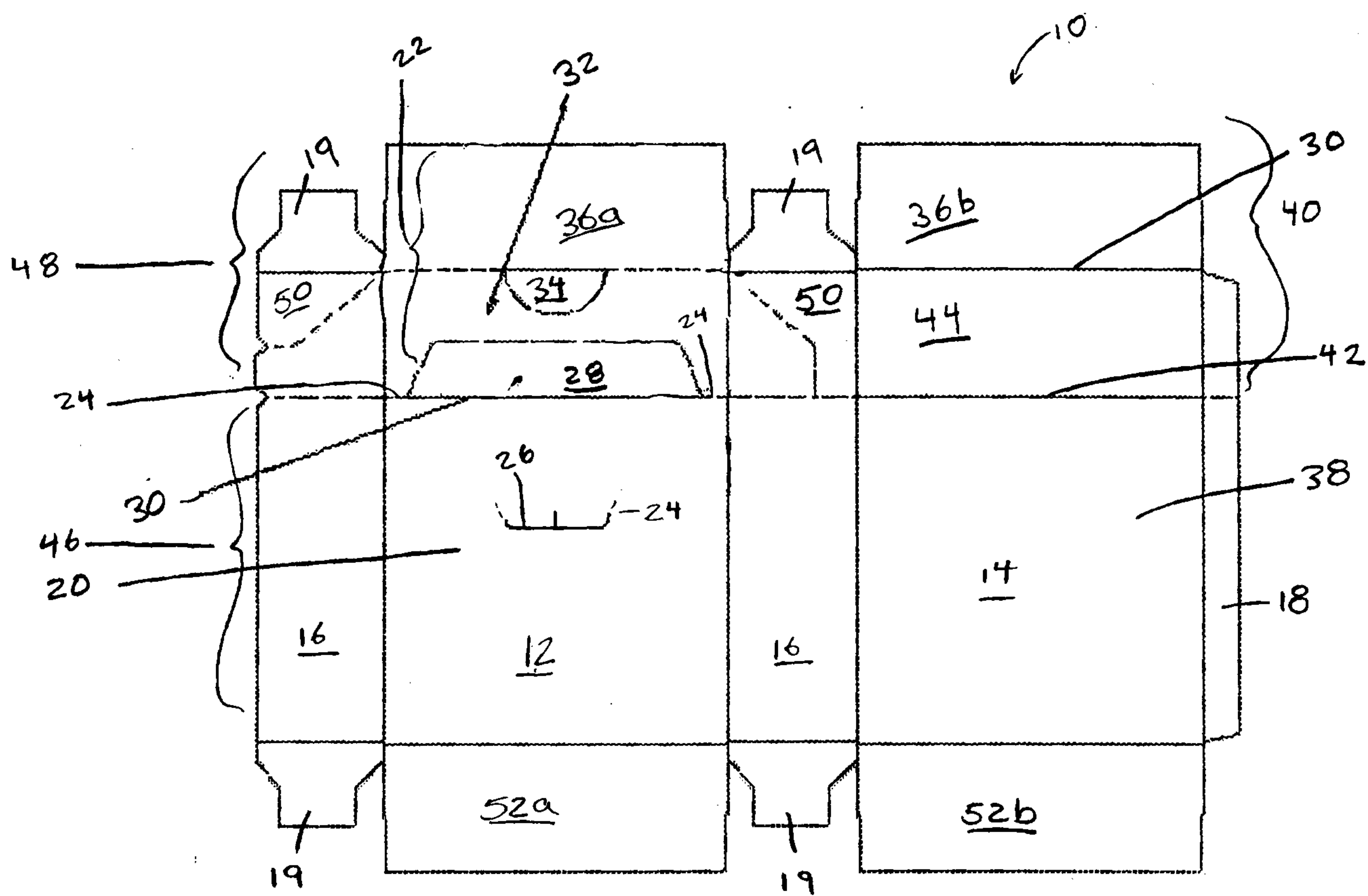


Figure 2

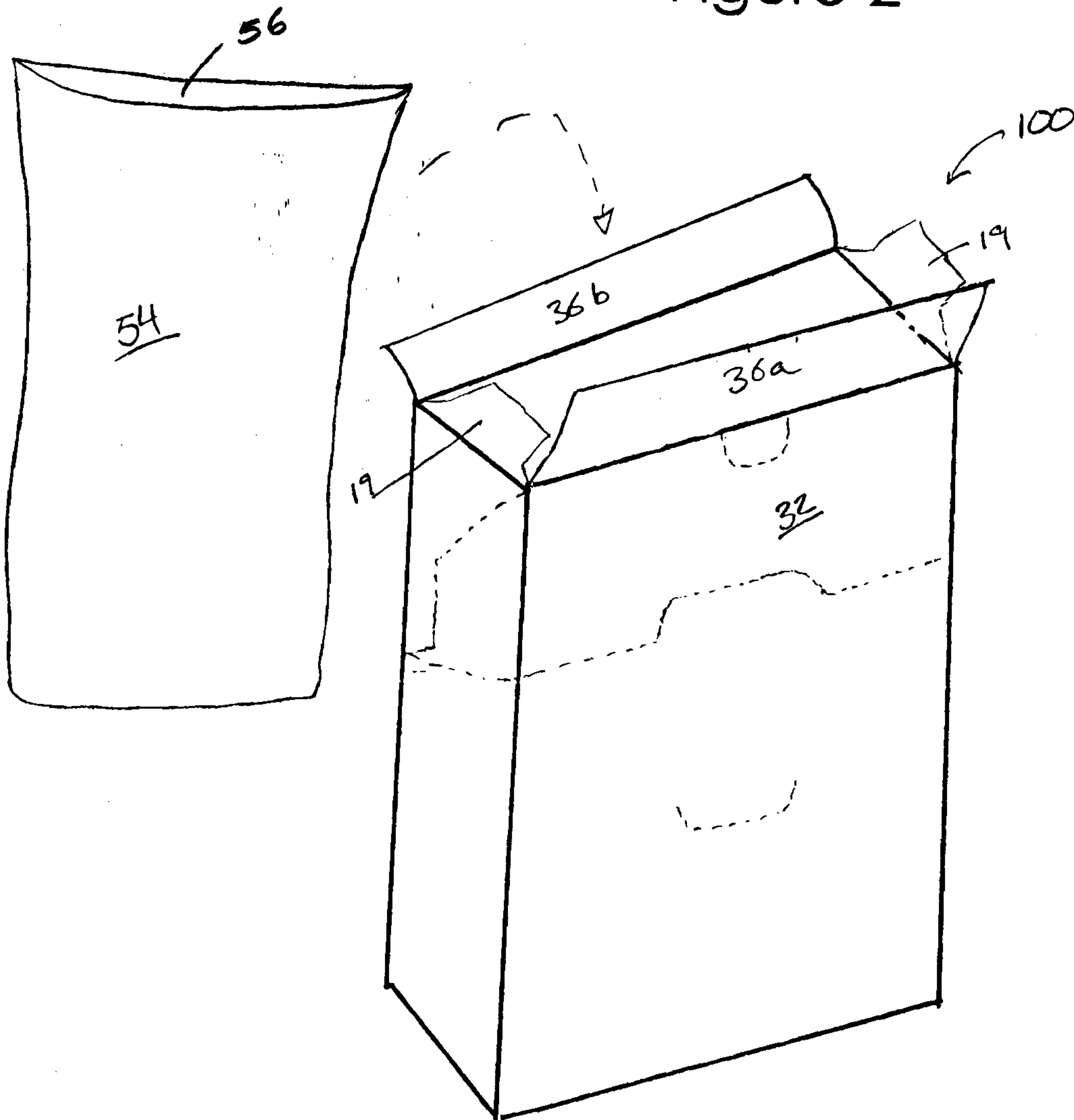


Figure 3

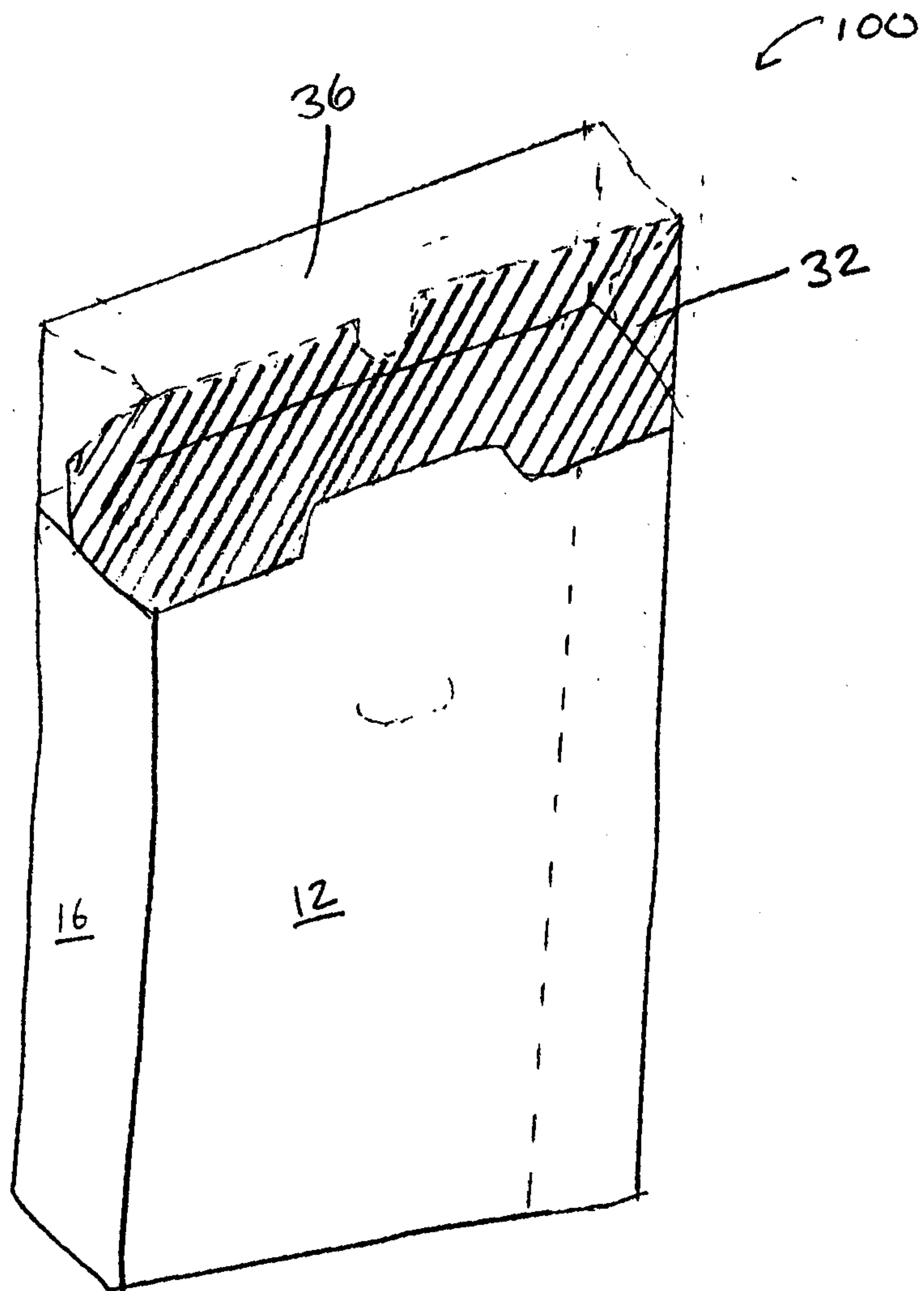


Figure 4

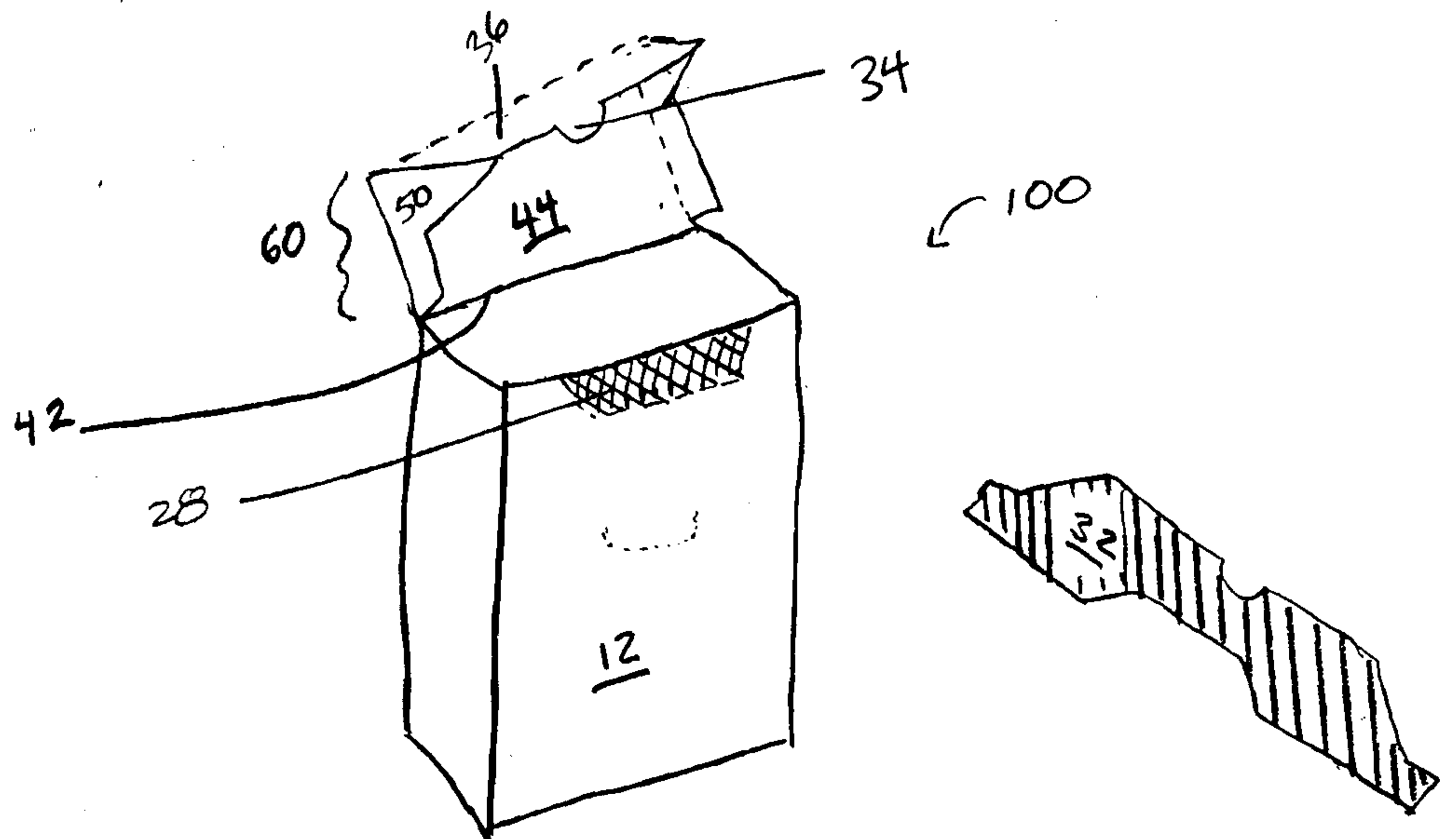


Figure 5

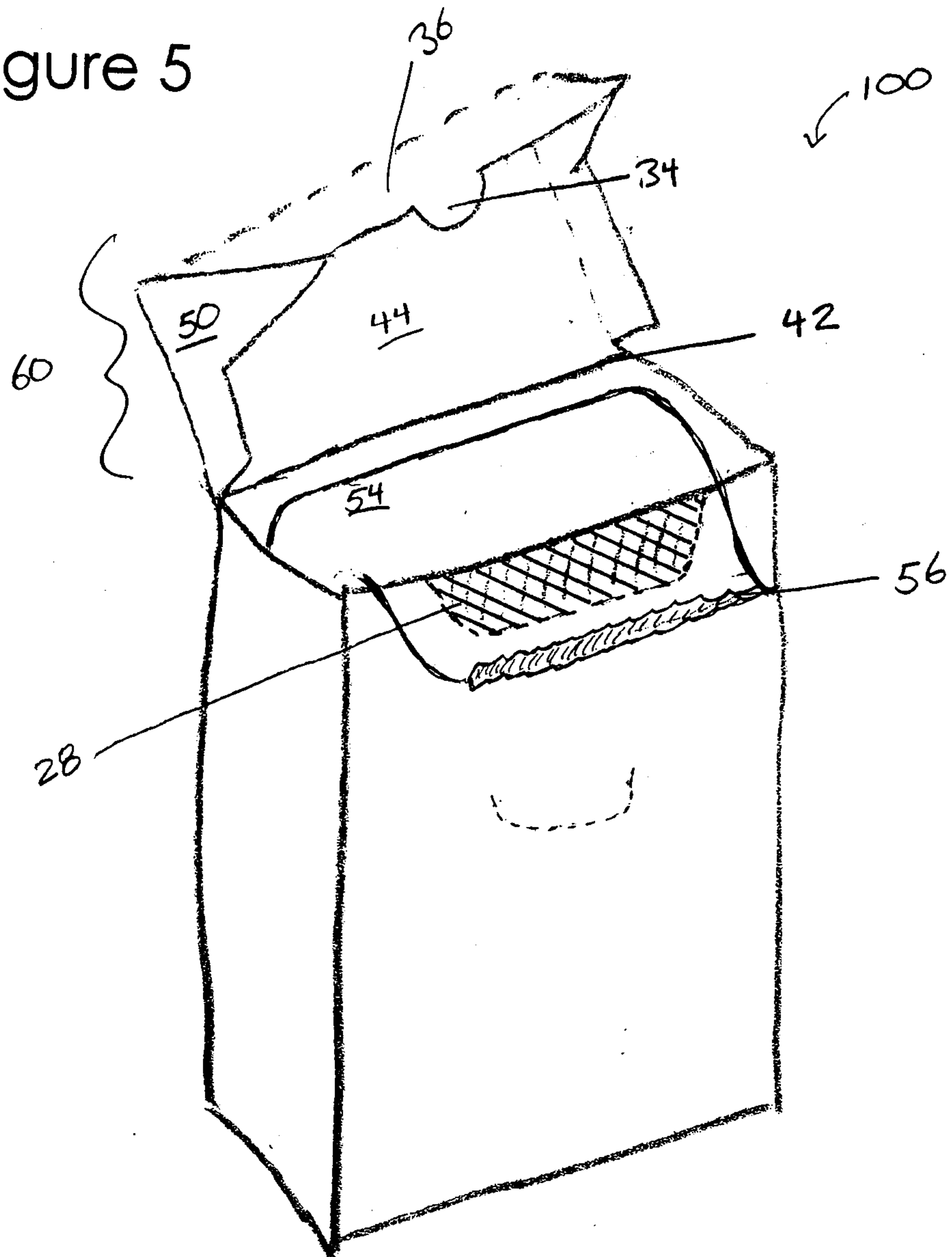


Figure 6

