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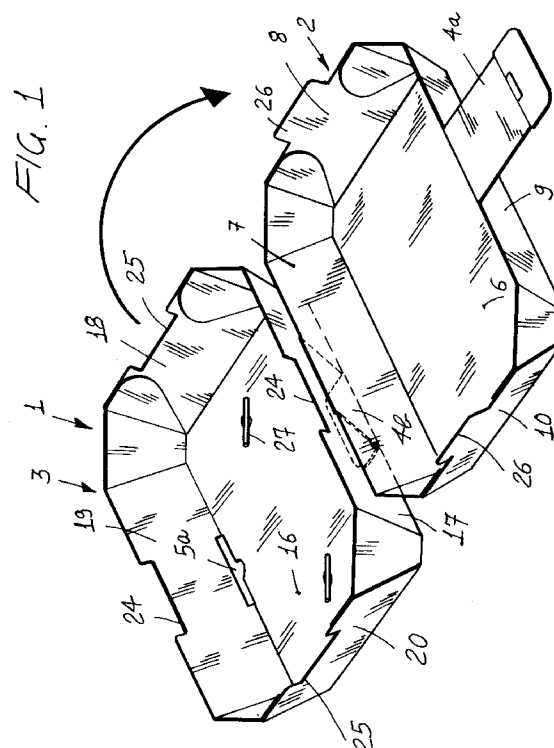
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(54) **Box-like container construction for packaging products.**

(57) The present invention relates to a box-like container construction specifically designed for packaging products.

The box-like container construction (1) according to the invention comprises two half-shells (2,3) each made of a die-cut material sheet and having a concave shape on a side thereof defined by bending peripheral portions of said sheet.

The two half-shells (2,3) can be superimposed onto one another with their concave sides facing to one another and a first (2) of said two half-shells being provided with at least a pair of closure tabs (4a,4b) which laterally extend from opposite portions toward the second half-shell (3) and engage within slot (5a,5b) defined on the side surface of the second half-shell (3).



BACKGROUND OF THE INVENTION

The present invention relates to a box-like container construction, which has been specifically designed for packaging products.

As is known, for packaging bulk or loose products, for selling said products, there are conventionally used decorated paper packages, in which as a supporting base there is frequently used a tray element, made of a cardboard or other material, adapted to provide a required strength to the bottom of the package.

In other cases, in particular as the packaging material must not contact the packaged products, there are used cardboard box containers, which are conventionally made starting from a cardboard die-cut sheet material and which are closed by a strip and, if desired, coated by or enveloped in a decorated paper.

As stated, the packages which simply comprise a paper sheet and a rigid tray as a bottom of the package, are not adapted to prevent the contained products from contacting one another.

On the other hand, in the case of a package comprising a box-like body, one has the drawback that the package must be closed by a strip or tape, for providing the box body with a proper resistance against an accidental opening.

Moreover, prior box-like containers have generally poor aesthetic characteristics and, because of this reason, they must be enveloped by decorated paper.

SUMMARY OF THE INVENTION

Accordingly, the aim of the present invention is to overcome the above mentioned drawbacks, by providing a box-like container construction which is specifically designed to resist against an accidental opening without requiring the application of a closure strip or tape.

Within the scope of the above mentioned aim, a main object of the present invention is to provide such a box-like container construction, which can be made with a very small amount of material and which reduces to a minimum the waste of material during the making thereof.

Another object of the present invention is to provide such a box-like container construction which can be made at a very reduced cost while having a very satisfactory aesthetic aspect.

Yet another object of the present invention is to provide such a box-like container construction which occupies a very reduced space in a stored and shipping condition thereof.

According to one aspect of the present invention, the above mentioned aim and objects, as well as yet other objects, which will become more apparent hereinafter, are achieved by a box-like container construction, particularly for packaging products, characterized in that it comprises two half-shells, each of which is formed of a die-cut sheet material, and has a concave configuration on a side thereof, defined by bending peripheral portions thereof, said two half-shells being provided with at least a pair of closure tabs which extend laterally, from opposite portions, toward the second of said two half-shells, and engaging with slots defined on the side surface of the second half-shell.

BRIEF DESCRIPTION OF THE DRAWINGS

Further characteristics and advantages of the box-like container construction according to the present invention will become more apparent hereinafter from the following detailed disclosure of a preferred, though not exclusive, embodiment thereof which is illustrated, by way of an indicative, but not limitative example, in the accompanying drawings, where:

Figure 1 is a perspective view showing the box-like container construction according to the present invention in an open condition thereof;

Figures 2 and 7 are further perspective views illustrating the box-like container construction according to the present invention in a closure condition thereof;

Figure 3 is a partially cross-sectioned elevation view illustrating the box-like container construction according to the invention;

Figure 4 is a further perspective view illustrating the subject box-like container construction, with the two half-shells thereof disengaged from one another;

and

Figures 5 and 6 are respectively a flat extended view and a top plan view illustrating the two half-shell elements constituting the container according to the present invention, before the assembling thereof.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

With reference to the number references of the figures of the accompanying drawings, the container or box according to the present invention, which has been generally indicated at the reference number 1, comprises a first half-shell 2 and a second half-shell 3 which are preferably made by die-cutting a material sheet, and which have a concave configuration on a side thereof, which concave shape is obtained by properly bending peripheral portions thereof, on a same portion of the sheet used for making them, as it will become more apparent hereinafter.

The two half-shells 2 and 3 can be superimposed onto one another with their concave sides in a facing relationship. In particular, the first half-shell 2 is provided with at least a pair of closure tabs, respectively

indicated at 4a and 4b, which extend from two opposite side faces of the first half-shell 2, in the direction of the other half-shell 3, and which engage in slots 5a and 5b defined on the second half-shell 3.

More specifically, the first half-shell 2 is formed by a sheet element, preferably of a paper material, which is die-cut and is provided with a central portion 6 of substantially rectangular shape, or with a cut-out at the four corners thereof, and four peripheral portions, respectively indicated at the reference numbers 7, 8, 9 and 10, which also have a substantial rectangular configuration and are connected to the sides of the central portion 6 by a bending line 7a, 8a, 9a, 10a.

The first half-shell 2 further comprises corner portions 11, which have substantially an isosceles trapezoid configuration and have a slanted side thereof connected by a bending line 11a to the peripheral portion 7 or 9 and the other slanted side thereof which is connected, also by a bending line, which has been indicated at the reference number 11b, to a restraining tab 12 which is in turn coupled to the adjoining peripheral portion 8 or 10. The second half-shell 3 is made as the first half-shell 2 and is also provided with a central portion 16, and peripheral portions 17, 18, 19 and 20 which are connected to the central portion along a bending line respectively indicated at 17a, 18a, 19a and 20a.

The two half-shells 2 and 3 are made by die-cutting a sheet element and by bending the peripheral portions 7, 8, 9, 10 or the peripheral portions 17, 18, 19 and 20 on the respective central portion 6, 16. Then, the restraining tabs 12, 22 are affixed to the peripheral portions 10, 8, 20, 18 so as to provide the formed half-shell with a frustum of pyramid configuration, having its major base open and provided for facing the major base of the other half-shell, as is clearly shown in Figure 1.

The closure tabs 4a and 4b extend from the peripheral portions 7 and 9, or from the peripheral portions which are connected to the large sides of the central portion 6.

As is clearly shown in Figure 2, it is also possible to provide two or more closure tabs 4a, 4b on one or more sides of the first half-shell 2, depending on requirements and on the overall length of the large side of the container.

The closure tabs 4a and 4b are made in a single piece with the remaining part of the first half-shell 2, during the die-cutting of the latter.

The slots 5a and 5b are preferably defined at the bending line 17a and 19a connecting the peripheral portions 17 and 19 to the central portions 16 of the second half-shell 3.

The closure tabs 4a and 4b are moreover provided, near their end to be engaged in the slots 5a and 5b, with anti-disengaging tabs 23a and 23b to be engaged against the edge of the slot 5a, 5b facing the peripheral portion 17 or 19 so as to efficiently prevent

the tabs 4a and 4b from disengaging from the slots 5a and 5b upon the engagement thereof.

The peripheral portions 17, 18, 19 and 20 of the second half-shell 3 are provided, with a middle region thereof, along their opposite sides, with respect to the central portion 16, with locating recesses 24 and 25. In particular, the recesses 24 are provided for receiving the tabs 4a and 4b, whereas the recesses 25, defined by the peripheral portions 18 and 20 of smaller size, are provided for receiving locating tabs 26 provided correspondingly on the side of the peripheral portions 8 and 10 of the first half-shell 2. Thus, the two half-shells can be properly coupled to one another, and a half-shell is safely prevented from disengaging from the other.

The second half-shell 3 is provided, on the convex side thereof, with a strip-like handle 27, which is coupled to the central portion 16 of the second half-shell 23.

The container or box according to the present invention can be supplied, if required, in a fully disassembled condition, as is clearly shown in Figures 5 and 6, and it will be assembled by the user. In this case, in order to assemble the restraining tabs 12 and 22 to the respective peripheral portions, self-adhesive glues can be used, preliminarily arranged on the side of the restraining tabs 12 and 22 to be superimposed on the peripheral portions 8, 10, 18 and 20, or by metal staples. If desired, the box according to the present invention can be also supplied with the two half-shells 2 and 3 in an already assembled condition and, in this case, for connecting the restraining tabs 12 and 22, it is possible to use glue materials having longer curing times.

In each case, the box 1 will require a very reduced space for the storing and shipment thereof since, even in a pre-assembled condition, it can be easily stacked on like containers.

The use of the container or box according to the present invention will be self-evident from the above disclosure and, in particular, it will be apparent that the products to be packaged can be introduced into the first half-shell 2 which, by introducing the closure tabs 4a and 4b into the slots 5a and 5b can be easily associated with the second half-shell 3 which will operate as a cover.

The pairs of tabs 26, provided for engaging in the recesses 25, will provide the assembled container with a great resistance against pressure, and, accordingly, it will be possible to stack onto one another a plurality of product loaded containers.

From the above disclosure and from the figures of the accompanying drawings, it will be apparent that the invention fully achieves the intended aim and objects. In particular, the fact is to be pointed out that a box-like container has been provided which has a satisfactory resistance against an accidental opening and which, because this reason, will greatly simplify

the packaging operations.

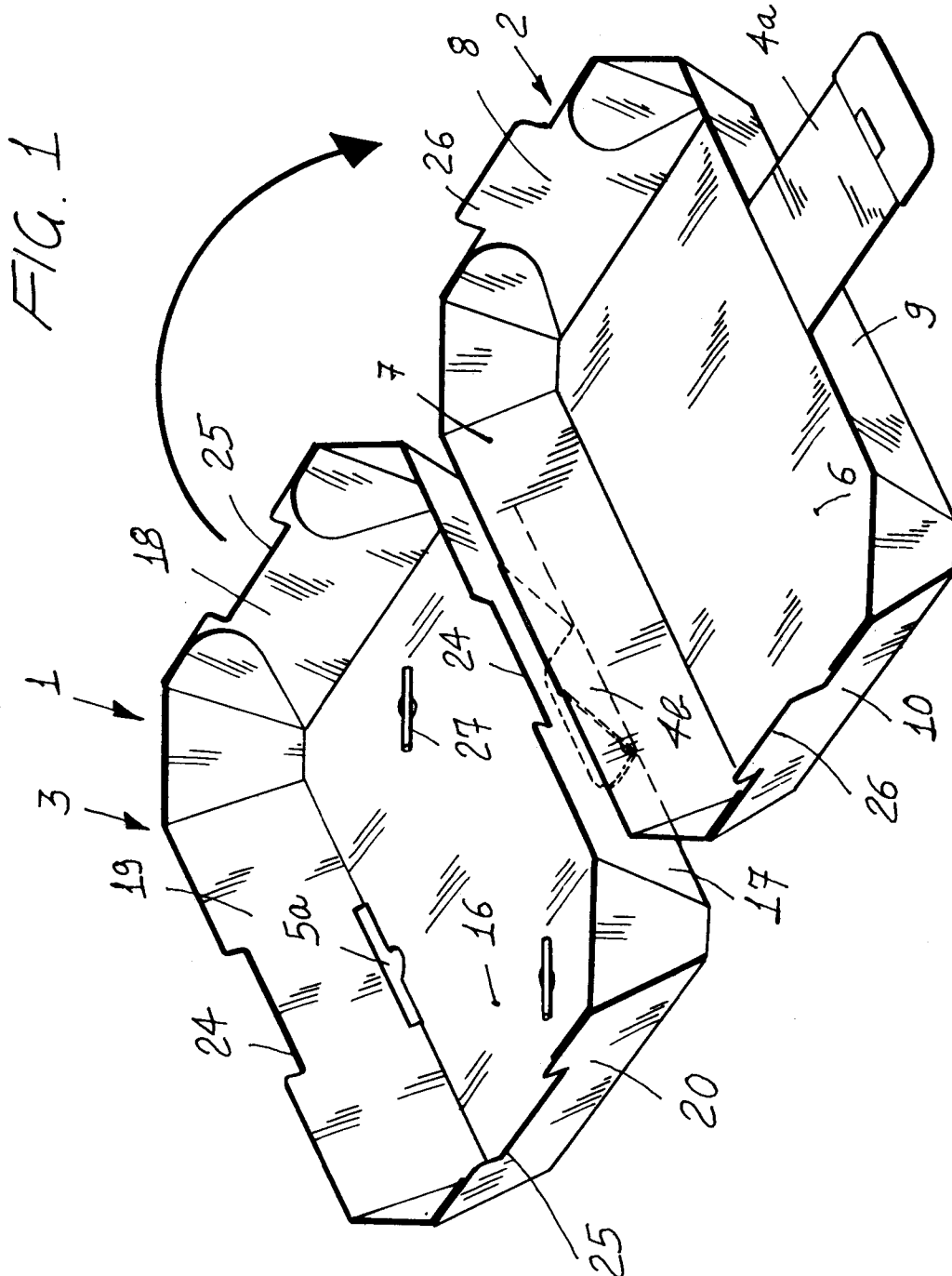
A further advantage of the subject container or box is that it has a good aesthetic aspect, thereby it will be not necessary to coat the container by decorated paper material.

In practicing the invention, the used materials, as well as the contingent size and shapes, can be any, depending on requirements.

Claims

1. A box-like container construction, particularly for packaging products, characterized in that it comprises two half-shells, each of which is formed of a die-cut sheet material, and has a concave configuration on a side thereof, defined by bending peripheral portions thereof, said two half-shells being provided with at least a pair of closure tabs which extend laterally, from opposite portions, toward the second of said two half-shells, and engaging with slots defined on the side surface of the second half-shell.
2. A box-like container, according to Claim 1, characterized in that each of said two half-shells comprises a die-cut sheet element, having a substantially rectangular central portion and four substantially rectangular peripheral portions, each of said peripheral portions being connected to said central portion by a bending line coinciding with a side of said central portion, isosceles trapezoid corner portions being further provided which are connected, with a slanted side thereof, to one of said peripheral portions through a bending line and being provided, on the other slanted side thereof, with a restraining tab associated with the adjoining peripheral portion, said peripheral portions and said corner portions being bent in the direction of a same face of said central portion.
3. A box-like container, according to the preceding claims, characterized in that said closure tabs extend from the peripheral portions arranged on the sides of the first half-shell.
4. A box-like container, according to one or more of the preceding claims, characterized in that said slots are formed along the bending line connecting the two peripheral portions with the sides of the second half-shell.
5. A box-like container, according to one or more of the preceding claims, characterized in that said closure tabs are provided, on the portion thereof engageable in said slots, with anti-disengaging tabs.

6. A box-like container, according to one or more of the preceding claims, characterized in that the peripheral portions of said second half-shell, affected by said closure tabs, are provided, on a side thereof facing the opposite portion of said central portion, with locating recesses for said closure tabs.
7. A box-like container, according to one or more of the preceding claims, characterized in that the peripheral portions of said half-shell, provided with said closure tabs, are provided with locating tabs engaging, as said half-shells are superimposed onto one another, in locating recesses correspondingly defined on the peripheral portions of the second half-shell.
8. A box-like container, according to one or more of the preceding claims, characterized in that said half-shell is provided, on the convex side thereof, with a strip-like handle, coupled to the central portion of the second half-shell.
9. A box-like container, according to one or more of the preceding claims, characterized in that said closure tabs are made in a single-piece with the first half-shell.
10. A box-like container, according to one or more of the preceding claims, characterized in that said half-shells are made of a paper material.



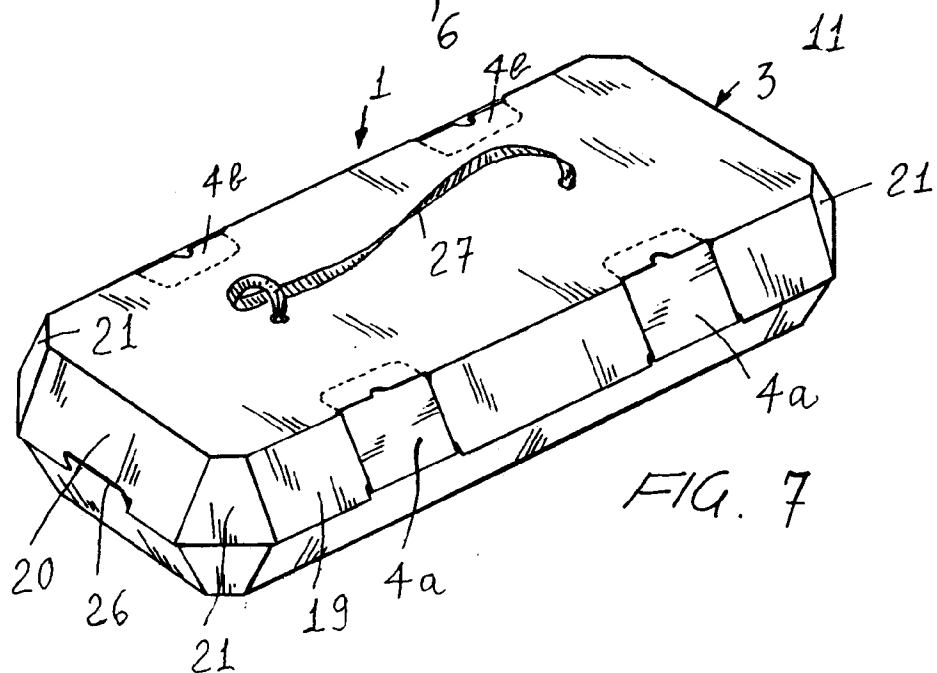
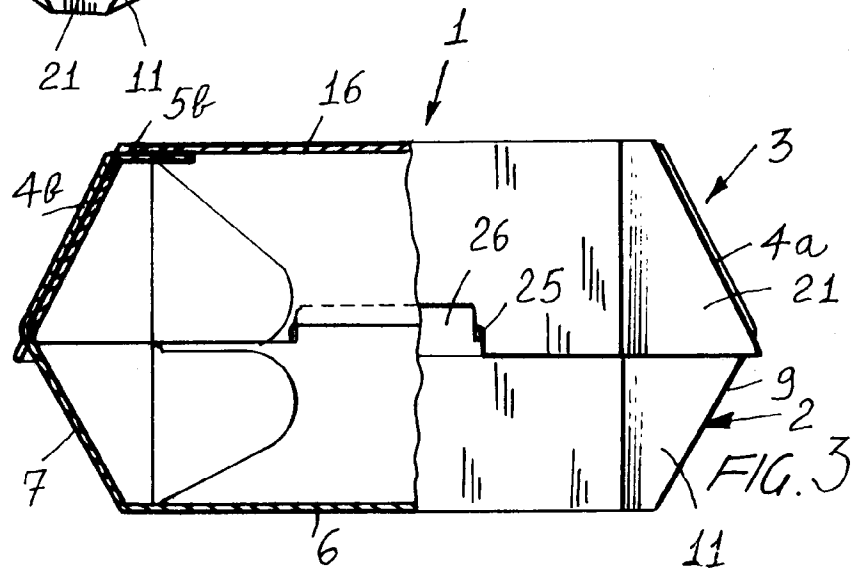
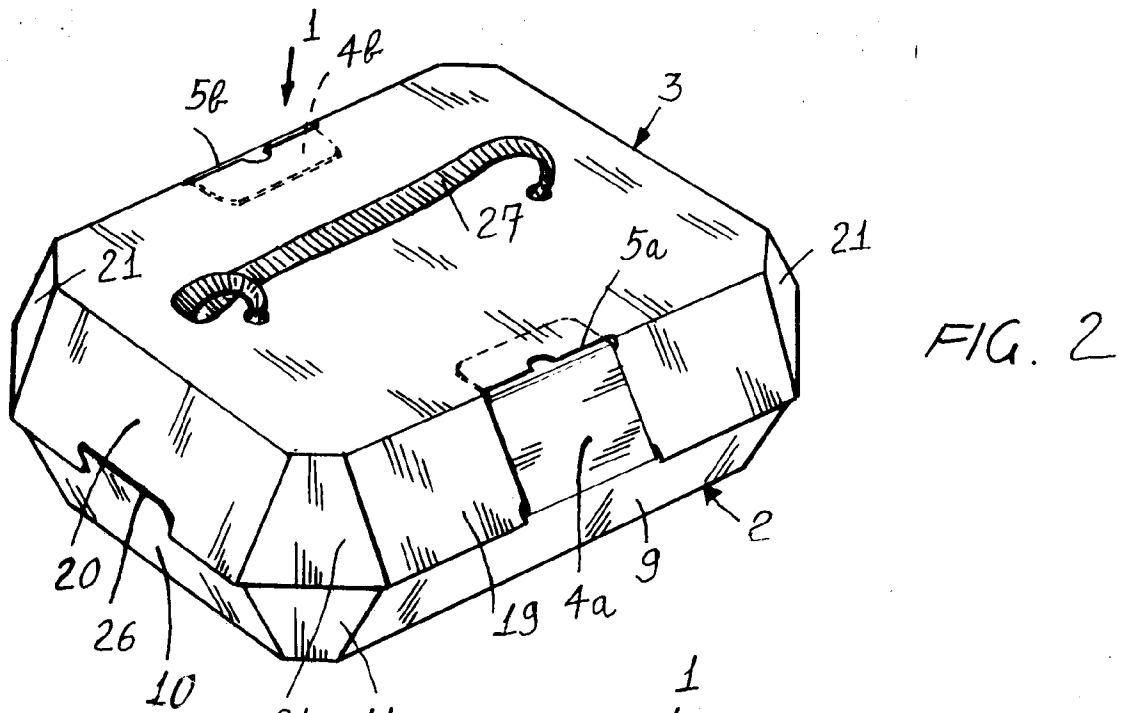
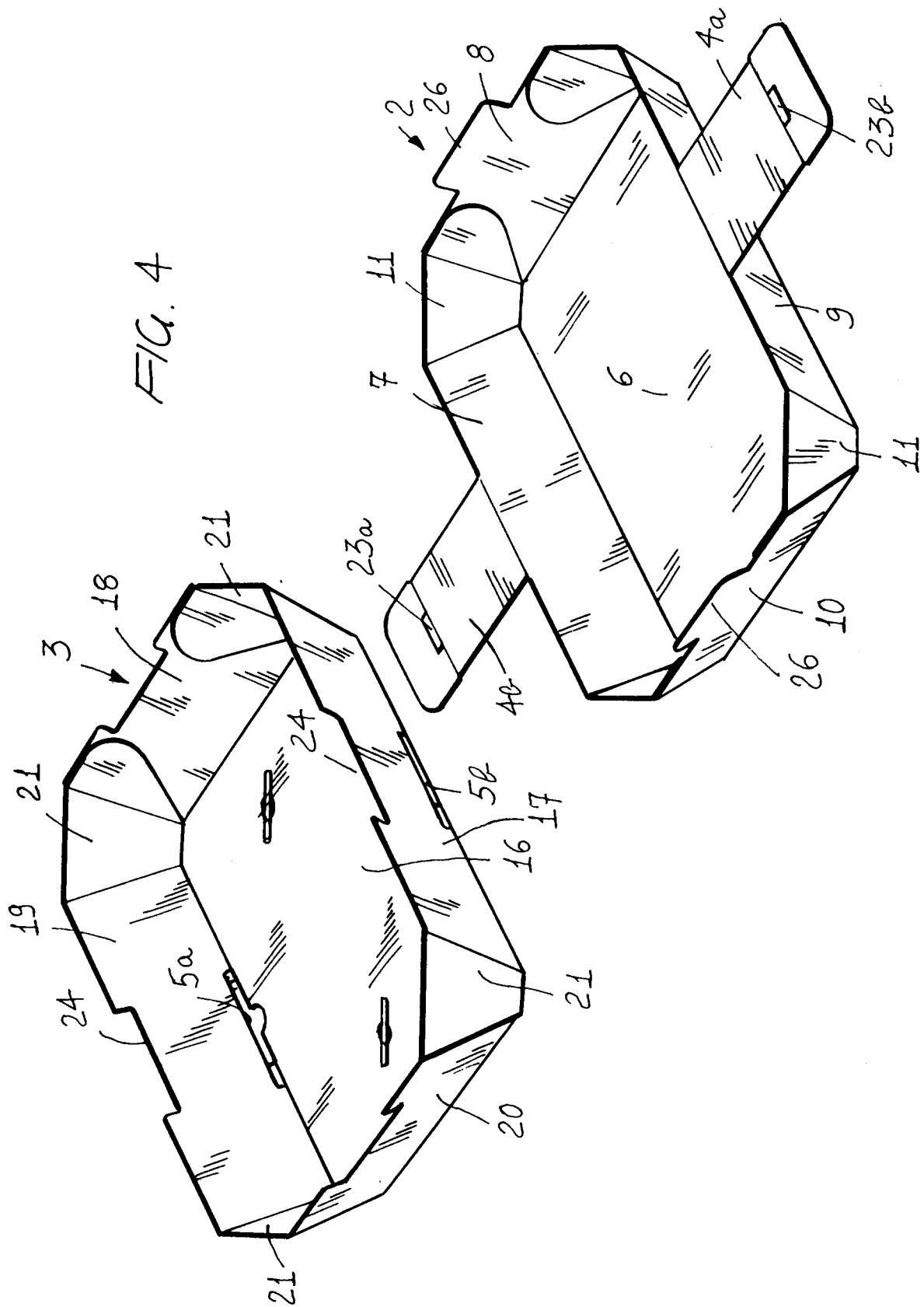


FIG. 4



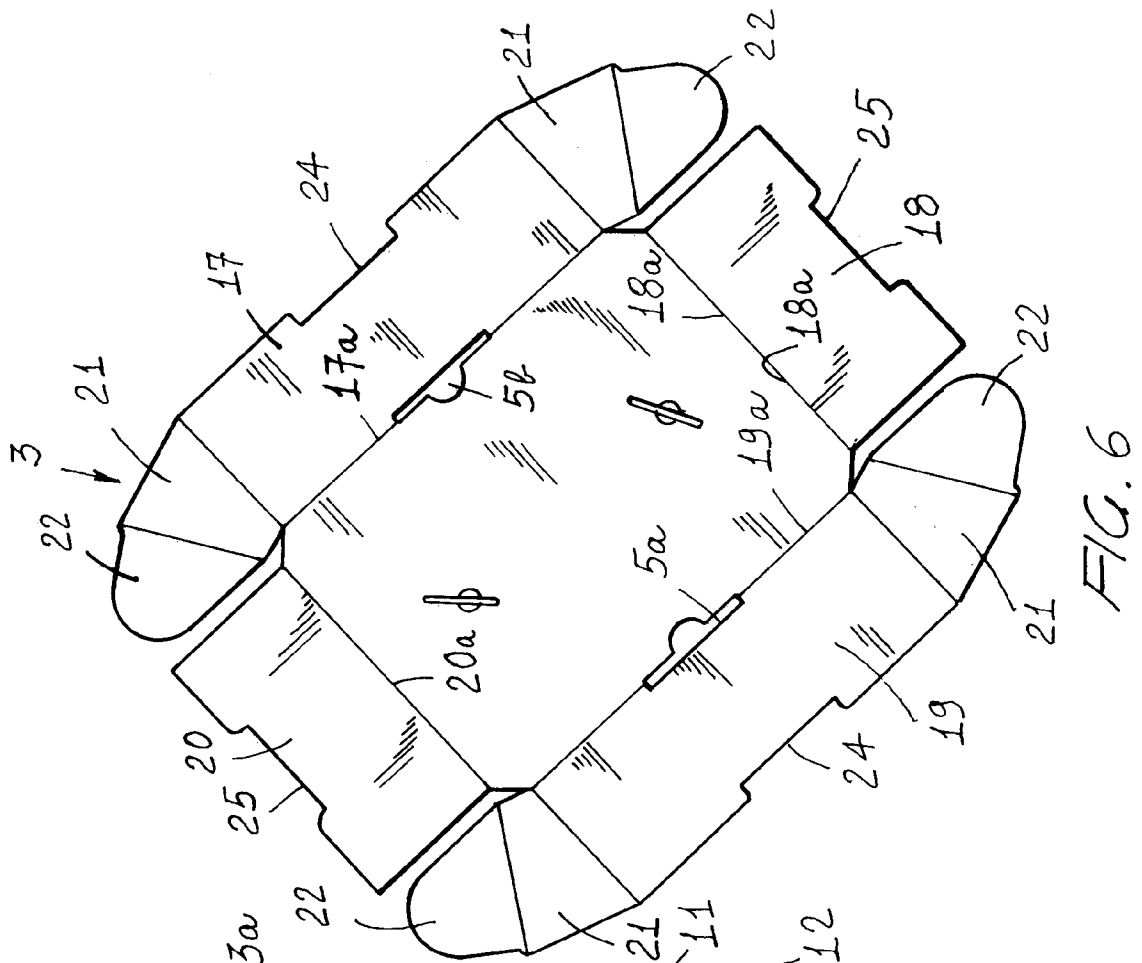


FIG. 5

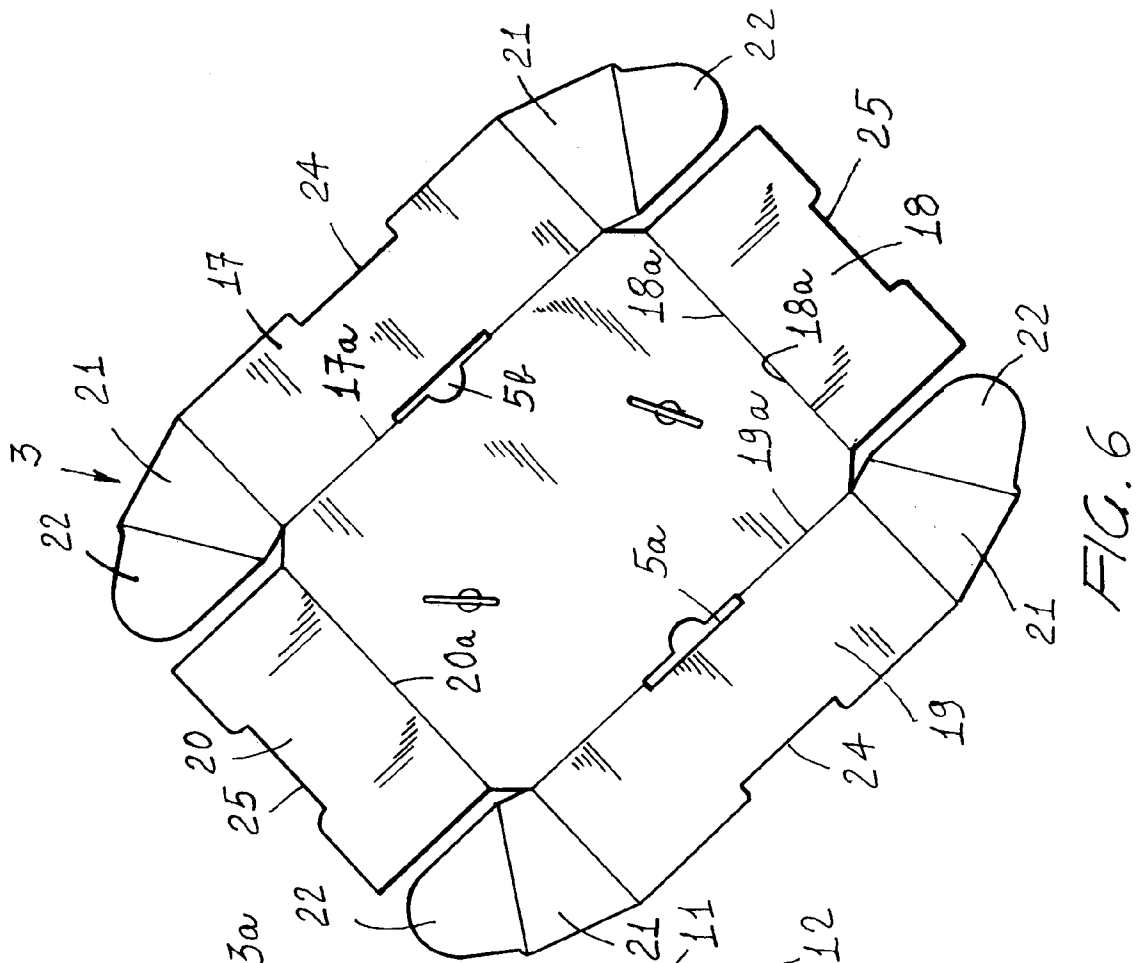


FIG. 6



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 94 83 0568

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	FR-A-2 659 062 (SIEMCO) * claims 1-9; figures 1-3 * ---	1-3, 9, 10	B65D5/64 B65D5/32
X	US-A-4 804 137 (HARBY) * figures 5,6,11-13; tables 1-3,6 * ---	1-3, 9, 10	
A	FR-A-2 663 904 (SIEMCO) * page 4 - page 5; figures 1,2 * ---	1-3, 7-10	
A	EP-A-0 520 131 (MALANCA) * claim 1; figures 1-6 * -----	1, 8-10	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B65D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16 March 1995	Examiner Bessy, M
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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