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(54) **Display box**

(57) Display box, which comprises a sheet of perforated material which is provided with a series of sectors (1,2,3,4) defined by fold lines (5,6,7) which, when the box is assembled, form the walls thereof, with said walls comprising in turn flaps (1.1,1.2,2.1,2.2,3.1,3.2,4.1,4.2) which configure the base and the upper panel of the box in assembled position, wherein one of the sectors (3)

comprises a window (3.1) defined by a cut line (3.4) joined to one of the flaps (3.1) of the sector (3) by means of a fold line (3.5) with the cut line (3.4) of the window (3.3) continuing in the flap (3.1) in a pre-cut line (3.6) which is concealed behind the portion of the sector (3) external to the cut line (3.4) defining the window (3.3) when the flap (3.1) is placed in contact with the internal part of the sector (3).

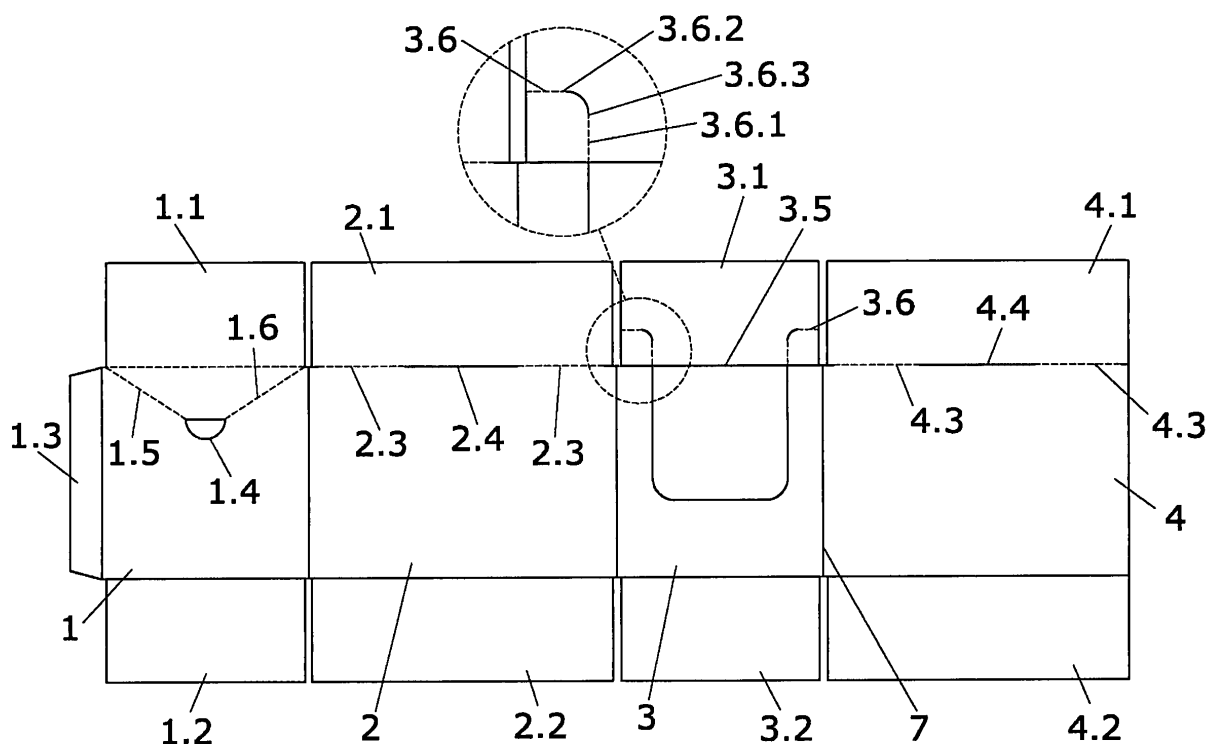


FIG.1

Description

OBJECT OF THE INVENTION

[0001] This invention refers to a display box for the packaged product having a configuration which includes cut and tear lines which define its division into a display tray, on which the packaged product would be displayed, with an extractable part which would enable access to said product.

[0002] The package which is the object of the invention includes a sheet of material which can be perforated and cut and which has a series of sectors defined by fold lines which, when the container has been formed, make up the walls of said container, and these in turn contain flaps which make up the base and the upper panel of the box in its mounted position

[0003] The container is characterised by the pre-cut or tear lines which enable the container to be separated into a display tray and an extractable part, and therefore it is possible to display the product in its own box, having a configuration which conceals other parts of the display box, so that these are not visible to the user, thus improving the final aspect of the box which is the object of the invention when it is acting as a display unit.

BACKGROUND TO THE INVENTION

[0004] One of the most frequent ways of protecting a group of containers such as disposable bottles, tins, glasses, is the cardboard box. It is able to provide protection from the light, from impact and friction, is easily stackable, and it provides information support on the product it contains, as well as providing advertising or promotional support at the sale point, as a result of the fact that it can be converted to a display tray, as the perforated cardboard may include tearable zones.

[0005] Using the container as a display item has the disadvantage that the ends of the sheet which have been torn remain visible to the user, thus creating an anti-aesthetic affect. This invention resolves the previously mentioned problem by its configuration of tear or pre-cut lines in combination with the extensions and cut lines which make it easy to conceal the tear lines, in this way presenting the cut sheet with cleanly cut ends which are visible to the user.

DESCRIPTION OF THE INVENTION

[0006] The invention refers to a box or container which, in addition to protecting the product to be transported, comprises means which permit its use as a display tray for the actual product it protects. For this purpose it includes cut and tear lines which define the division of the container to create a display tray and an extractable part.

[0007] The container which is the object of the invention includes a layer of perforated or cut material such as for example, cardboard or plastic material which is

provided with a series of sectors defined by fold lines which, when the container has been configured, constitute walls thereof, with these being provided with flaps which form the base and the upper panel of the box when it is in assembled position.

[0008] The display box is characterised in that one of the sectors comprises a window defined by a cut line joined to one of the sector flaps by means of a fold line, with the window cut line continuing in the flap in a pre-cut line which is concealed behind the portion of the external sector to the cut line which defines the window by positioning the flap in contact with the internal part of the sector.

[0009] When assembling the display box, a turn is made between the aforementioned window of the sector and the flap of the same, so that the flap passes to a situation in which it is in contact with the internal part of the sector and the window in order to carry out the functions of overlap, which would then form when the box is in its assembled position, part of the upper panel of the box, together with the remaining overlapping flaps corresponding to the other sectors of the box.

[0010] In this way this exchange between the position of the overlap and the position of the window enables the pre-cut line of the flap through which the separation of the container is made, dividing it into a display tray and the extractable part is concealed behind the part of the sector which includes the window, so that the user does not notice the tear or pre-cut zone, but instead clean cuts of the perforated sheet.

DESCRIPTION OF THE DRAWINGS

[0011] The present descriptive report is complemented by a set of plans illustrating a preferred embodiment of the invention but which is in no way restrictive of the invention.

[0012] Figure 1 shows an example of an embodiment of a template sheet of the display box which is the object of the invention.

[0013] Figure 2 shows an example of an embodiment which corresponds to figure 1 in assembled position.

[0014] Figure 3 shows an example of an embodiment corresponding to figure 1 of the box in assembled position and with the overlap and window turned.

[0015] Figure 4 shows an example of an embodiment corresponding to figure 1 with the box in closed position.

[0016] Figure 5 is a representation of an example of an embodiment corresponding to figure 1 with the box in display function.

PREFERRED EMBODIMENT OF THE INVENTION

[0017] The display box corresponding to the example of an embodiment consists of four sectors (1, 2, 3, 4) which configure the lateral walls of the container and which are shaped by three fold lines (5, 6, 7). The sectors (1, 2, 3, 4) comprise overlapping flaps (1.1, 1.2, 2.1, 2.2,

3.1, 3.2, 4.1, 4.2) which configure the base and the upper panel of the box in assembled position.

[0018] In the example of an embodiment shown, the sector (3) designed to configure the front of the box comprises a window (3.3) defined by a cut line (3.4) joined to the overlapping flap (3.1) designed to be situated above using a fold line (3.5). The cut line (3.4) of the window (3.3) continues in the overlapping flap (3.1) in a pre-cut line (3.6). This pre-cut line (3.6) will be concealed behind the portion of the sector (3) exterior to the cut line (3.4) which defines the window (3.3) when the turn is made between the window (3.3) and the overlapping flap (3.1) which change their positions so that the flap (3.1) is situated in contact with the internal part of the sector (3).

[0019] In the embodiment shown in the figures the pre-cut line (3.6) is provided with an initial section (3.6.1) continuing from the cut line (3.4) of the window (3.3) and a second section (3.6.2) at 90°. In order to facilitate the tearing operation, between the first section (3.6.1) and the second section (3.6.2) a third cut section (3.6.3) is established, that is, having been previously cut.

[0020] The figures show an example of an embodiment in which it is possible to totally detach the upper panel of the display box. For this purpose the sectors adjacent (2, 4) to the sector (3) which is provided with the window (3.3) comprise a pre-cut line (2.3, 4.3). In the example shown, the pre-cut lines (2.3, 4.3) coincide with the fold line between the sector (2, 4) and its upper flap (2.1, 4.1). Additionally, also for the purpose of facilitating the tearing operation, there is a cut section (2.4, 4.4).

[0021] Similarly the sector (1) of the example of an embodiment designed to be situated at the back comprises an orifice (1.4) joined to respective pre-cut lines (1.5, 1.6), which continue with the pre-cut lines (2.3, 4.3) of the adjacent sectors (2, 4), so that by initiating tearing in the back sector, the whole upper part of the display box is removed together with the window of the front sector (3).

[0022] In order to facilitate tearing of the pre-cut lines (1.5, 1.6) they are inclined.

[0023] Finally, in the embodiment shown, one of the end sectors (1) includes a closing tab (1.3) which is glued to the opposite sector (4).

(3.3) continuing in the flap (3.1) in a pre-cut line (3.6) which is concealed behind the portion of the sector (3) external to the cut line (3.4) defining the window (3.3) when the flap (3.1) is placed in contact with the internal part of the sector (3).

2. Display box, according to claim 1, **characterised in that** the pre-cut line (3.6) is provided with an initial section (3.6.1) continuing from the cut line (3.4) of the window (3.3) and a second line (3.6.2) at 90°.
3. Display box, according to claim 2, **characterised in that** between the first pre-cut section (3.6.1) and the second pre-cut section (3.6.2) it includes a third cut section (3.6.3).
4. Display box, according to claim 1, **characterised in that** it comprises four sectors (1, 2, 3, 4).
5. Display box, according to claim 4, **characterised in that** the adjacent sectors (2, 4) to the sector (3) provided with the window (3.3) comprise a pre-cut line (2.3, 4.3).
6. Display box, according to claim 5, **characterised in that** the pre-cut lines (2.3, 4.3) coincide with the fold line between the sector (2, 4) and its upper flap (2.1, 4.1).
7. Display box, according to claims 4 and 5, **characterised in that** the sector (1) designed to be situated at the back comprises an orifice (1.4) joined to respective pre-cut lines (1.5, 1.6) which continue with the pre-cut lines (2.3, 4.3) of the adjacent sectors (2, 4).
8. Display box, according to claim 7, **characterised in that** in order to facilitate tearing of the pre-cut lines (1.5, 1.6) these are inclined.
9. Display box, according to claim 1, **characterised in that** the end sectors (1) comprise a closing tab (1.3).

Claims

1. Display box, which comprises a sheet of perforated material which is provided with a series of sectors (1, 2, 3, 4) defined by fold lines (5, 6, 7) which, when the box is assembled, form the walls thereof, with said walls comprising in turn flaps (1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 4.1, 4.2) which configure the base and the upper panel of the box in assembled position, **characterised in that** one of the sectors (3) comprises a window (3.1) defined by a cut line (3.4) joined to one of the flaps (3.1) of the sector (3) by means of a fold line (3.5) with the cut line (3.4) of the window

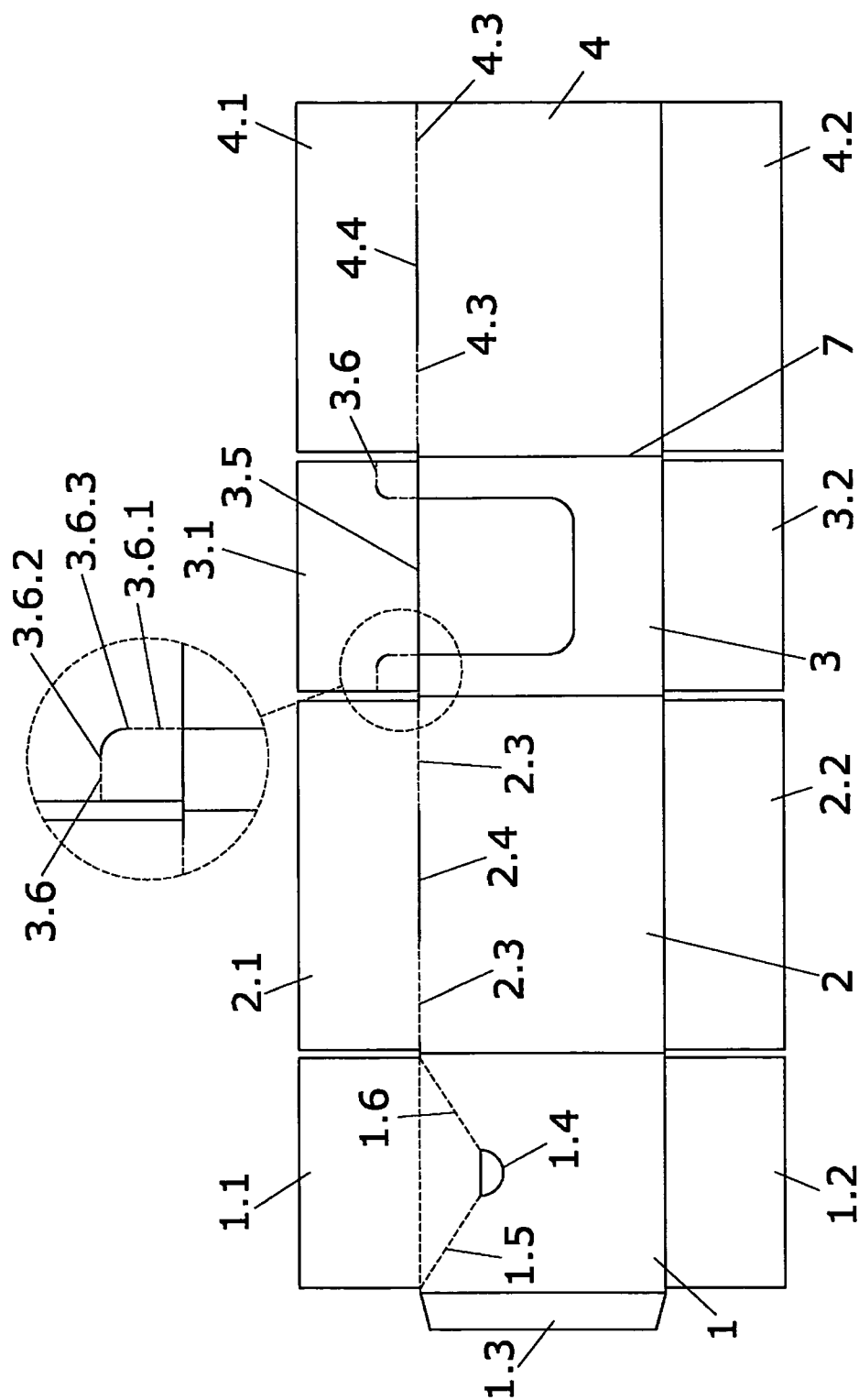


FIG.1

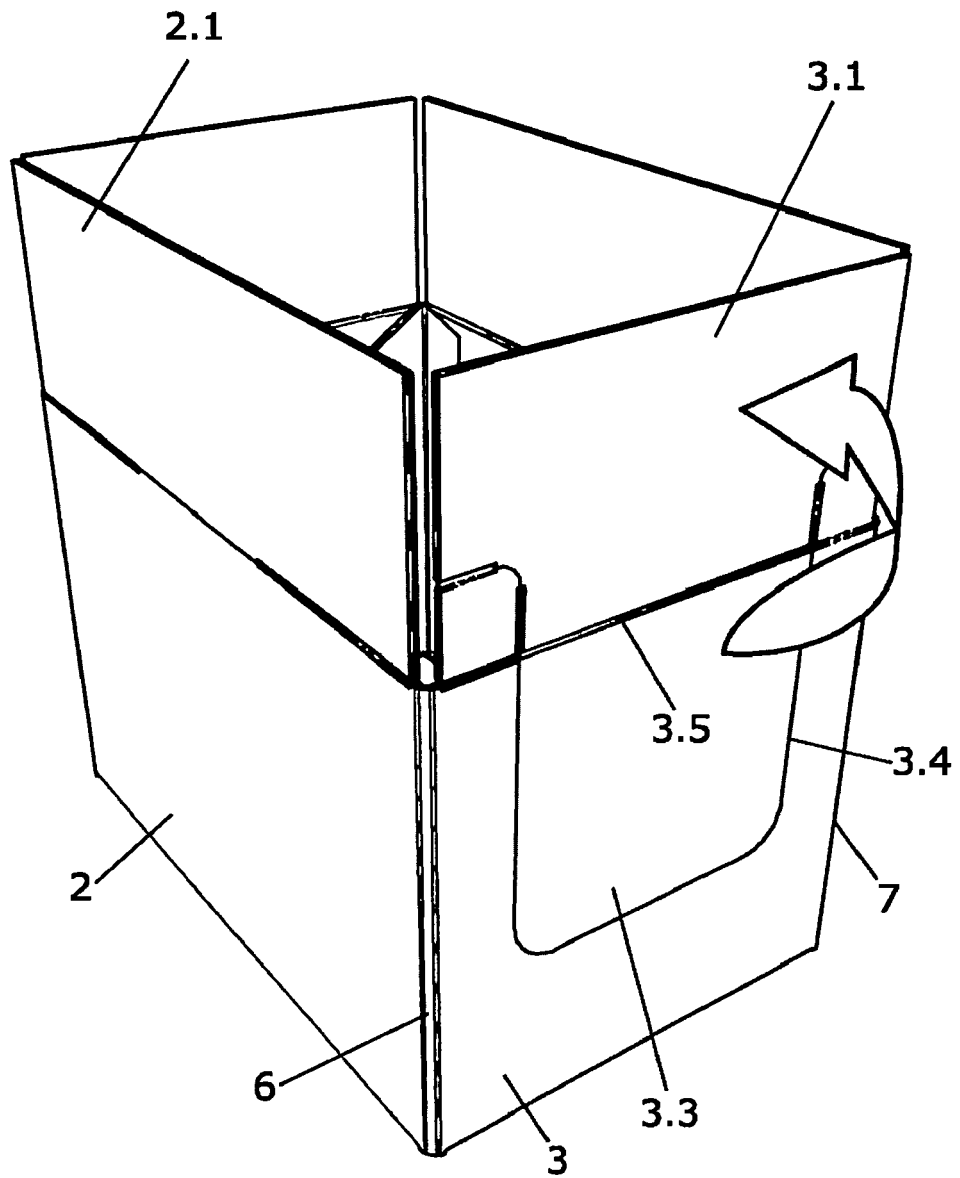


FIG.2

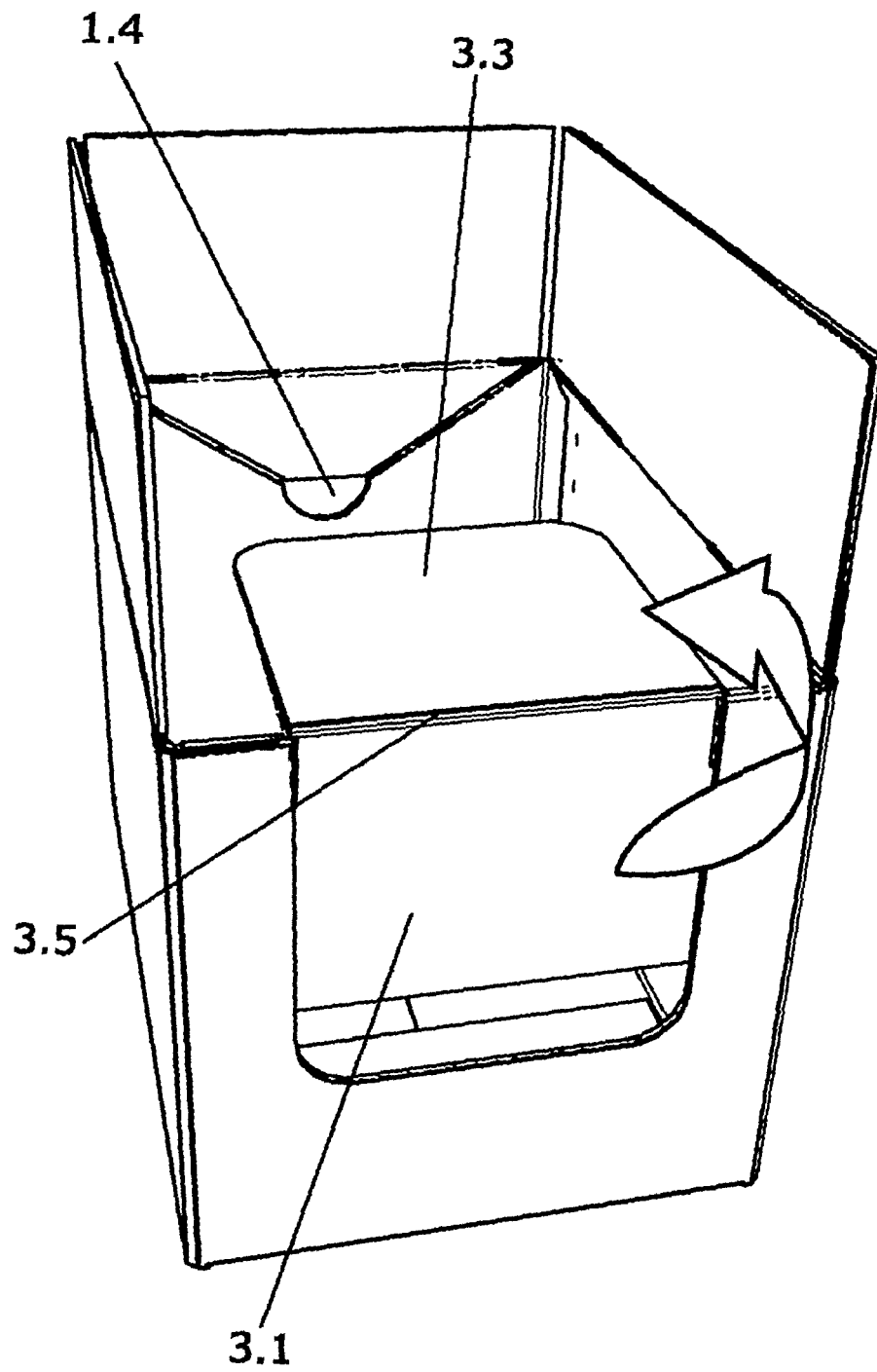


FIG.3

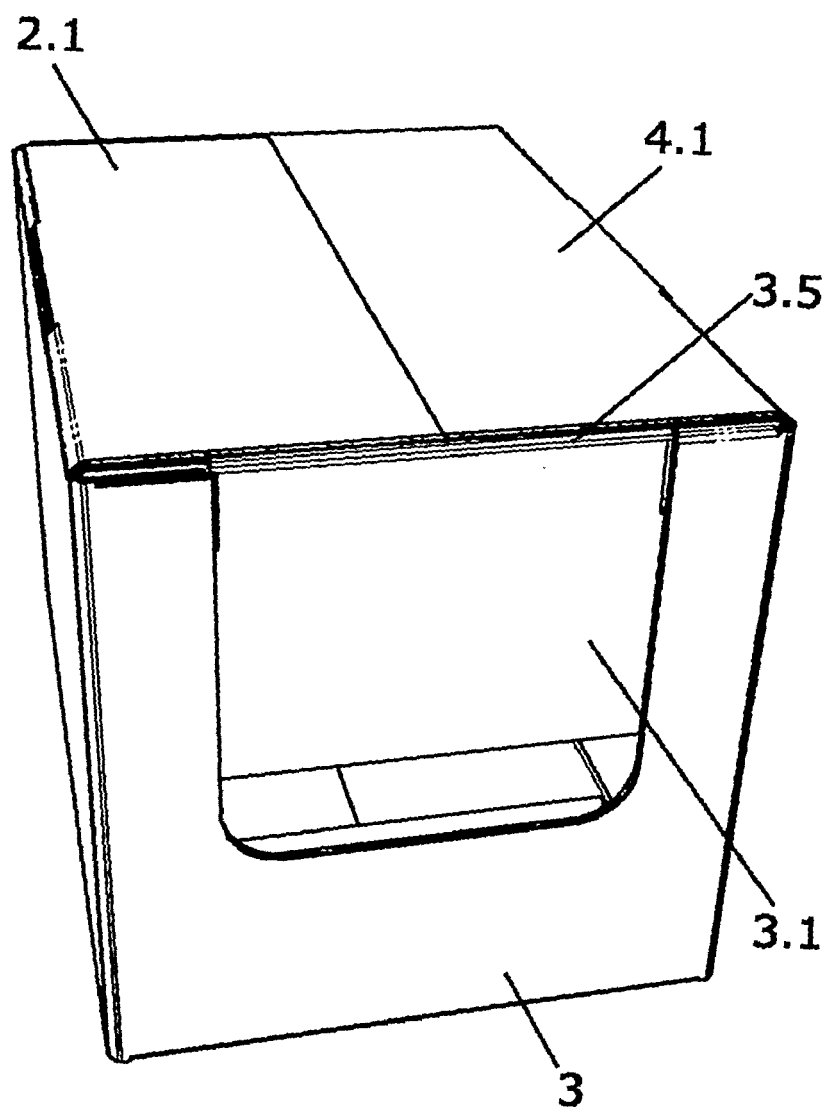


FIG.4

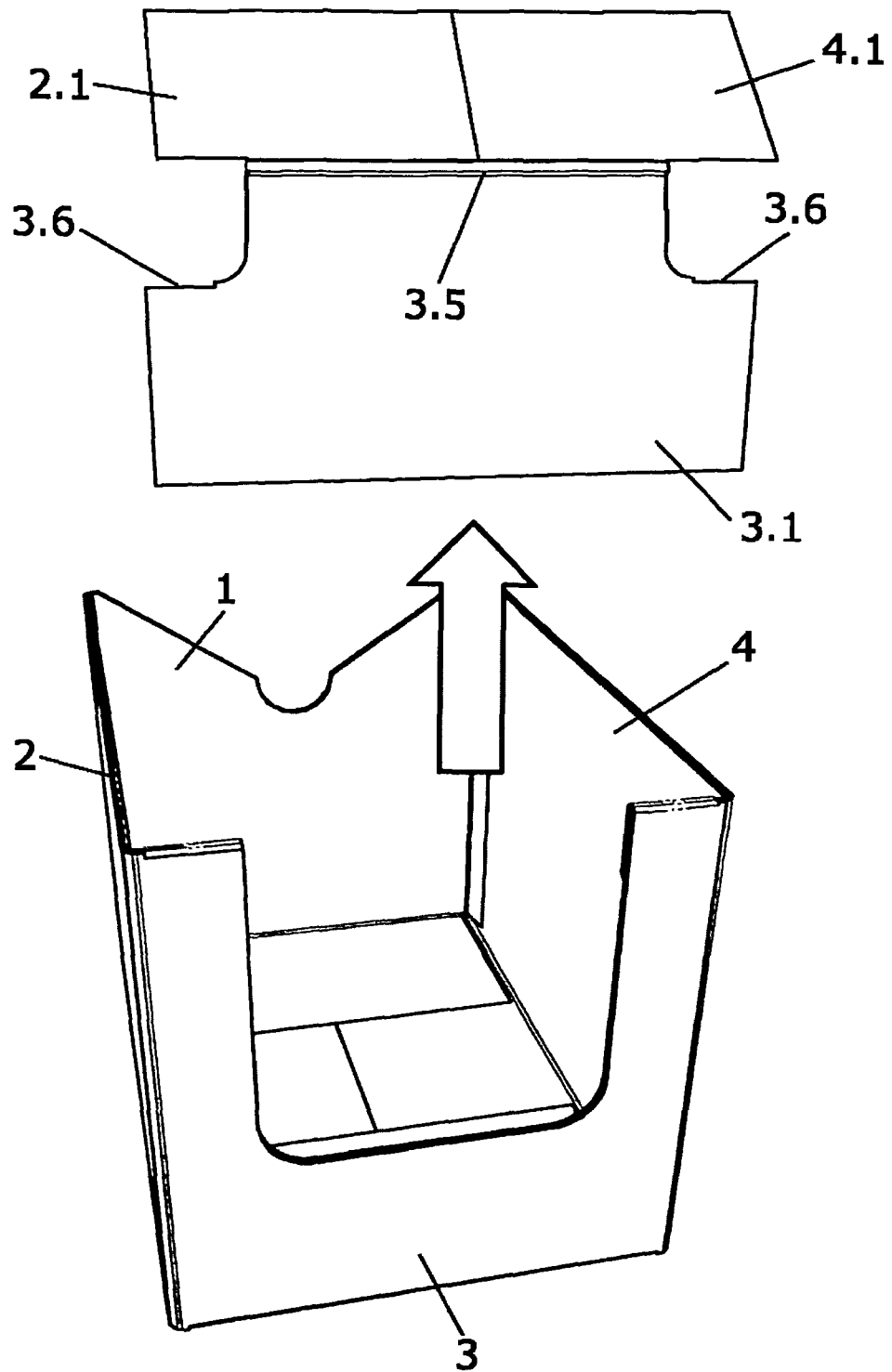


FIG.5



EUROPEAN SEARCH REPORT

Application Number
EP 09 38 1003

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	GB 2 289 041 A (CORRABOX LTD [GB]) 8 November 1995 (1995-11-08) * page 3, line 19 - page 5, line 2; figures 1,2 *	1,2,4,9	INV. B65D5/54
A	US 6 189 780 B1 (KANTER ALLEN [US]) 20 February 2001 (2001-02-20) * column 3, line 14 - column 4, line 17; figures 1,2,5 *	1,2,4,9	
A	GB 2 420 113 A (SCA PACKAGING LTD [GB]) 17 May 2006 (2006-05-17) * page 6, line 1 - page 8, line 20; figures 9,10 *	1,2,4,9	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
5 The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		23 June 2009	Vesterholm, Mika
CATEGORY OF CITED DOCUMENTS		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	
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			

EPO FORM 1503 03.82 (P04C01)



Application Number

EP 09 38 1003

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1, 2, 4, 9

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 09 38 1003

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1,2,4,9

Providing a display box

2. claims: 3,5-8

Dividing material in two parts.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 09 38 1003

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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23-06-2009

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2289041	A	08-11-1995	NONE	

US 6189780	B1	20-02-2001	NONE	

GB 2420113	A	17-05-2006	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82