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(54) **Paperboard container including anti-tampering means and inner bag having an extractable dispenser**

(57) The present invention relates to a paperboard container (10) having an inner bag (1) including an extractable dispenser (21), and provided with anti-tampering means, which comprises an inner bag, on which is applied an outer container.

An extractable dispenser is moreover provided.

The main feature of the invention is that the paperboard container comprises control means for controlling the untampered condition of the package, which comprise a portion (6) of the inner bag, which can be extracted to the outside of the outer container, as the extractable dispenser is opened for the first time.

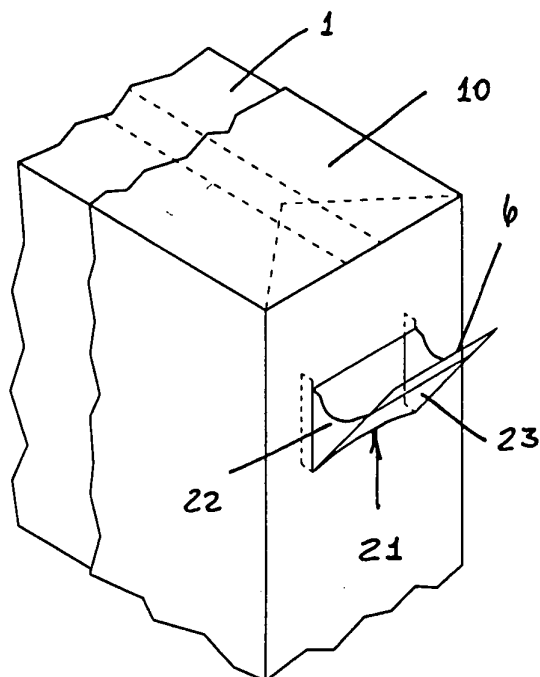


Fig. 6

Description

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a paperboard container including anti-tampering means and an inner bag having an extractable dispenser.

[0002] As is known, paper or paperboard, or the like material, containers are already commercially available; said prior containers have a conventional parallelepiped, cylindric or the like configuration, and, on a preset portion of their outer surface, is arranged a dispenser element or dispensing spout, which is made either of a metal or of a paperboard material.

[0003] The above mentioned prior containers, depending on the products to be held therein, can have an inner bag or liner.

[0004] Thus, with the above mentioned prior containers, it is necessary to allow a consumer to easily control the untampered condition of the container or package, as it is sold.

[0005] In order to solve the above mentioned problem, the outer surface of the dispenser element is conventionally coated, in its condition withdrawn in the vessel, by a self-glueing label which, as it is removed, is broken along a preset die-cut arrangement, or entrains with it a portion of the printed upon surface of the underlying paperboard material.

[0006] Another prior solution provides to cover the dispenser element with a paperboard lug made of the same paperboard material.

[0007] Thus, the two disclosed approaches, require to perform additional operations, or form additional elements, with a consequent great increase of the container making cost.

SUMMARY OF THE INVENTION

[0008] Accordingly, the aim of the present invention is to overcome the above mentioned problem, by providing a paperboard container, having an inner bag with an extractable dispenser, including control means for controlling the untampered condition of the package, which allows to easily detect a possible opening thereof, without the need of providing additional constructional elements or processing operations.

[0009] Within the scope of the above mentioned aim, a main object of the present invention is to provide such a paperboard container, which can be easily made by the conventional methods for making containers or vessels including an inner bag or liner therein.

[0010] Another object of the present invention is to provide such a container which, owing to its specifically designed construction features, is very reliable and safe in operation.

[0011] Yet another object of the present invention is to provide such a paperboard container having an inner bag or liner with an extractable dispenser and further

including control means for controlling the untampered condition of the package, and which, moreover, can be easily made and is very competitive from a mere economic standpoint.

[0012] 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 paperboard container, including an inner bag with an extractable dispenser, having control means for controlling an untampered condition thereof, comprising an inner bag on which an outer container is applied, and an extractable dispenser being moreover provided, characterized in that said container comprises control means for controlling an untampered condition of the package, said control means comprising an inner portion of the inner bag which can be withdrawn outside of the outer container, as the extractable dispenser is opened for a first time.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] Further characteristics and advantages of the present invention will become more apparent hereinafter from the following detailed disclosure of a preferred, though not exclusive, embodiment of a paperboard material having an inner bag with an extractable dispenser, including control means for controlling an untampered condition thereof, and being illustrated, by way of an indicative, but not limitative example, in the accompanying drawings, where:

Figure 1 is a schematic view illustrating the inner bag applied to a mandrel and, as seen in exploded form, a blade bearing block for forming the extractable portion of the inner bag or liner;

Figure 2 is a top plan view illustrating the die-cut element forming the outer container;

Figure 3 illustrates, on an enlarged scale, a detail of a glue application region between the outer container and inner bag or liner;

Figure 4 schematically illustrates an application step for applying the extractable dispenser;

Figure 5 illustrates a portion of the package, including a dispenser in a closed condition thereof, with the package still in a non opened condition;

Figure 6 shows an operating step for opening the container or package; and

Figure 7 shows the container, in a closed position thereof, after having performed a first opening thereof.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0014] With reference to the number references of the above mentioned figures, the paperboard material including an inner bag or liner with an extractable dispenser, provided with control means for controlling the un-

tampered condition of the package, according to the present invention, comprises an inner bag or liner, generally indicated by the reference number 1, which is advantageously made of a thermosealing polythene coated paper material, or other laminated paper, and is typically arranged on a forming mandrel, generally indicated by the reference number 2.

[0015] A main feature of the invention is that on the inner bag or liner is performed an open-line cut 3, by blades 4, supported on a blade bearing block 5.

[0016] The cut 3 will define a portion 6, formed on the inner bag surface near the region the dispenser element is applied to.

[0017] In a per se known manner, on the inner bag or liner 1 is arranged an outer container, generally indicated by the reference number 10.

[0018] The latter, at the region thereof provided for applying the dispenser, comprises a notch or incision, generally indicated by the reference number 11, which, in turn, comprises two side parallel notches or incisions 11a and a central connecting incision or notch 11b.

[0019] About the region affected by the notch 11, a glue layer 12 is provided, said glue layer being so arranged as not to affect the portion 6 defined by the cut 3.

[0020] Said glue region is schematically shown in figure 3, therefore it should be apparent that the glue region encompasses the region affected by the notch or incision 11, while a portion, at the region for arranging the portion 6, will be left free.

[0021] Upon having applied the outer container 10 on the inner bag 1, a dispenser element, generally indicated by the reference number 21, is applied by an inserting device or member 20, said dispenser element having dispenser element wings or legs 22, adapted to enter the parallel notches 11a to perforate the inner bag.

[0022] Moreover the central portion 23 is coupled to the outer container at the region between the notches 11a, generally by a clamping operation, for an aluminium dispenser, or a glueing operation, by depositing a cold or hot adhesive, for a paper material dispenser.

[0023] The thus made or packaged container is schematically shown in figure 5, the dispenser element 21 being arranged in a closure position or condition thereof.

[0024] For a first opening of a package, the dispenser will be turned over, by causing it to turn about its bottom side.

[0025] During this operation step, the portion 6, delimited by the cut 3, will be brought to the outside, thereby allowing to easily detect that an opening operation has been performed.

[0026] That same portion or tongue 6 will be easily seen from the outside of the container, thereby indicating a first opening or tampering of the container.

[0027] From the above disclosure it should be apparent that the invention fully achieves the intended aim and objects.

[0028] In fact, the invention provides a container in which a portion of the inner bag or liner is used for sig-

nalling a performed first opening of the container.

[0029] In fact, a portion of the inner bag is initially extracted, thereby it can be easily seen from the outside of the outer container.

[0030] The invention, as disclosed, is susceptible to several modifications and variations, all of which will come within the scope of the invention.

[0031] Moreover, all the constructional details can be replaced by other technically equivalent elements.

[0032] In practicing the invention, the used materials, as well as the contingent size and shapes, can be any, depending on requirements.

Claims

1. A paperboard container, including an inner bag with an extractable dispenser, having control means for controlling an untampered condition thereof, comprising an inner bag on which an outer container is applied, and an extractable dispenser being moreover provided, **characterized in that** said container comprises control means for controlling an untampered condition of the package, said control means comprising an inner portion of the inner bag which can be withdrawn outside of the outer container, as the extractable dispenser is opened for a first time.
2. A container, according to the preceding claim, **characterized in that** the extractable portion of the inner bag is delimited by a cut which extends along an open line.
3. A container, according to the preceding claims, **characterized in that** the extractable portion of the inner bag has a substantially rectangular configuration.
4. A container, according to one or more of the preceding claims, **characterized in that** said container comprises, at a region provided for applying the dispenser to the outer container, a layer of glue material defining a portion encompassing, without affecting, the region of the inner bag where said extractable portion is arranged.
5. A container, according to one or more of the preceding claims, **characterized in that** said extractable portion is provided at a region adjoining a region affected by a notch housing the wings of said extractable dispenser.
6. A container, according to one or more of the preceding claims, **characterized in that** said extractable portion is held outside of the outer container as the extractable dispenser is reclosed.
7. A method for making a paperboard material, includ-

ing an inner bag with an extractable dispenser, having control means for controlling an untampered condition of the package, **characterized in that** said method comprises the steps of forming, on an inner bag arranged on a forming mandrel, a cut 5 along an open line, applying on said inner bag an outer container having a cut adapted for connection of a dispenser adjoining a region affected by said cut.

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8. A method, according to claim 7, **characterized in that** said method further comprises the steps of applying a glue layer for binding the inner bag to the outer container, at a region delimiting said cut and non affecting the portion delimited by said cut, coupling a dispenser having wings engaging in the notch and perforating the inner bag, said dispenser being attached at the portion between the wings of the dispenser to said outer container.

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9. A paperboard container having an inner bag with an extractable dispenser, including means for controlling an untampered condition of the package, and method for making said container, **characterized in that** said container and method include one or 25 more of the disclosed and/or illustrated features.

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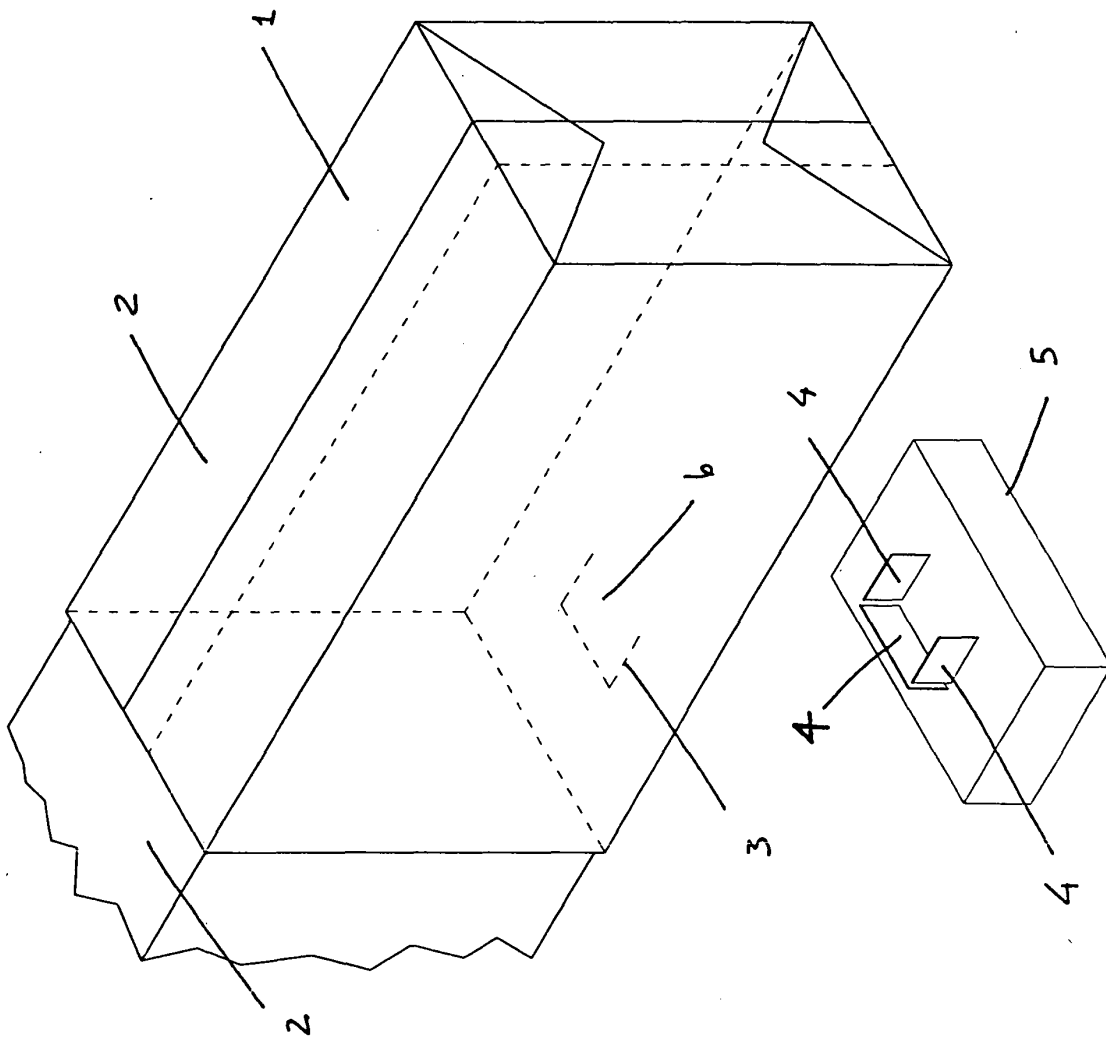


FIG. 1

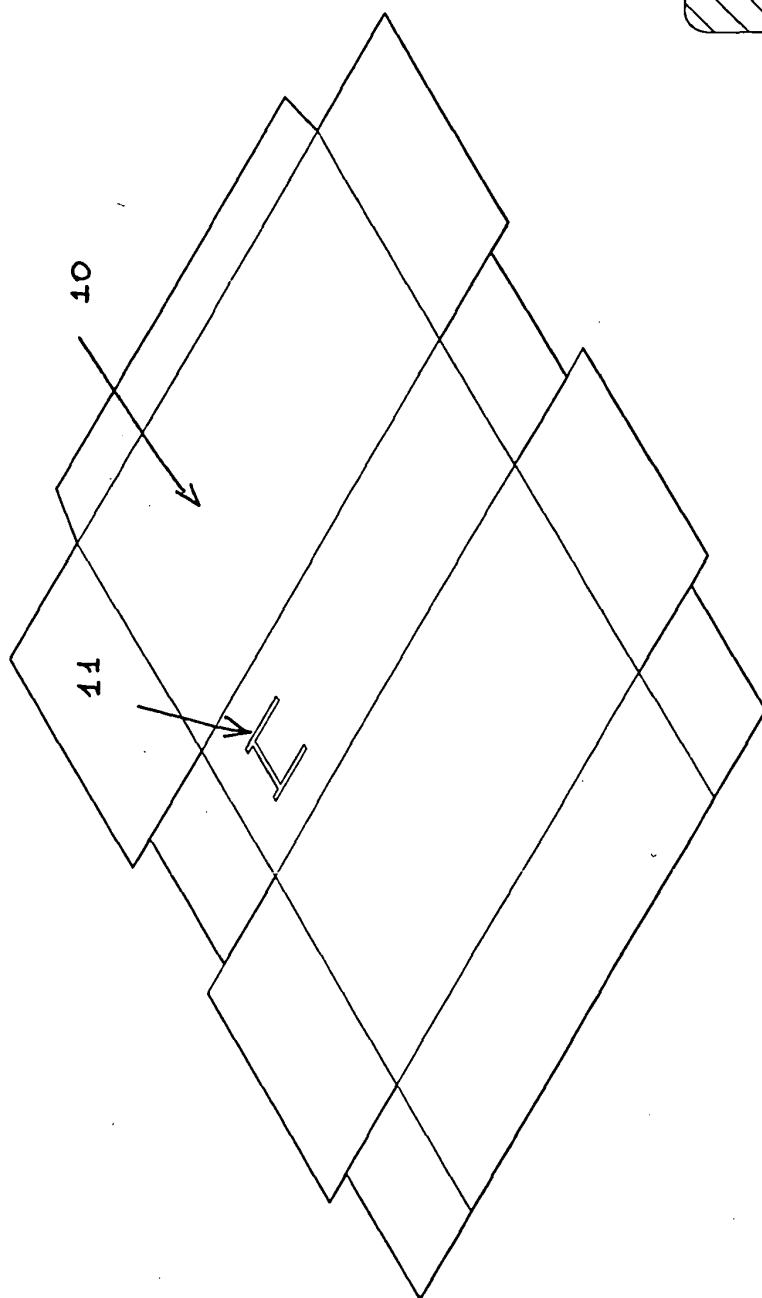


Fig. 2

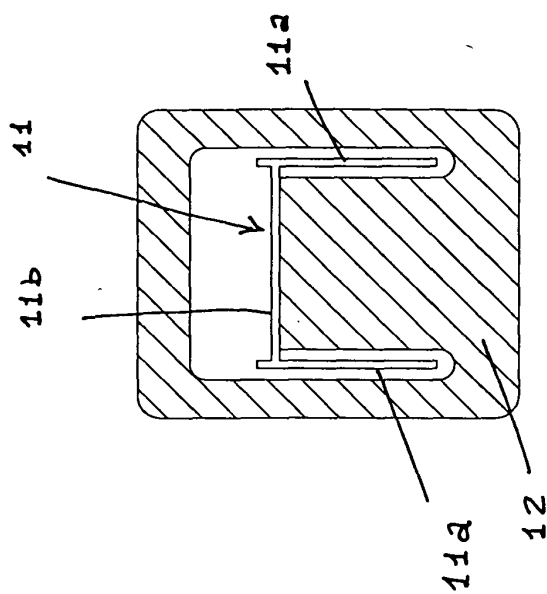
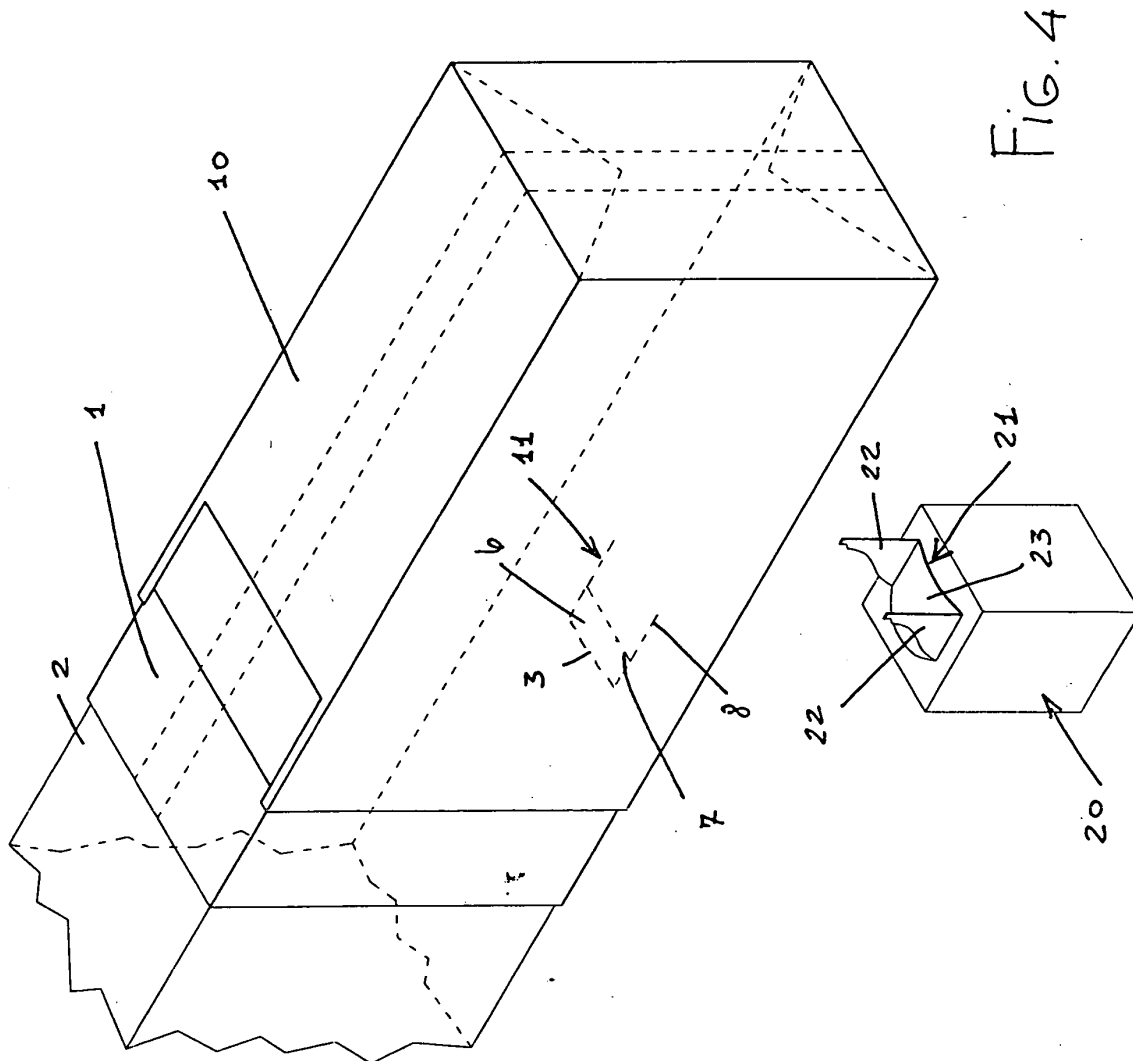


FIG. 3



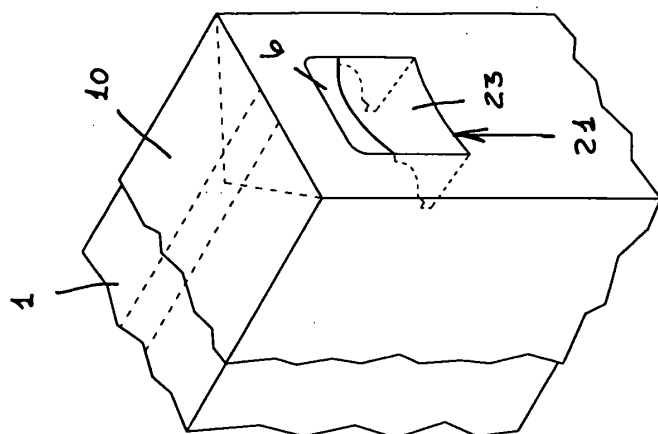


Fig. 7

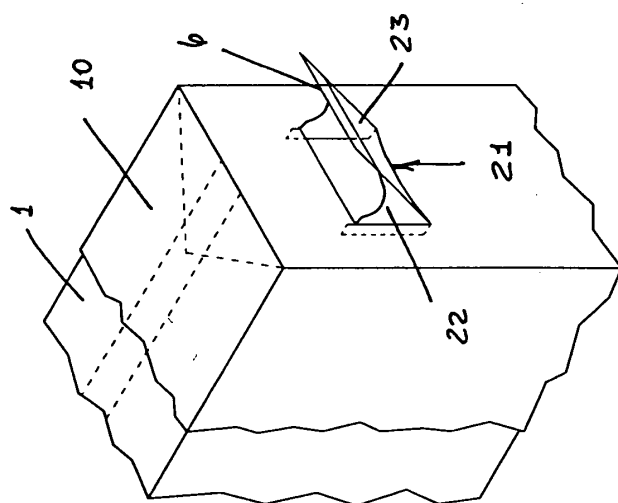


Fig. 6

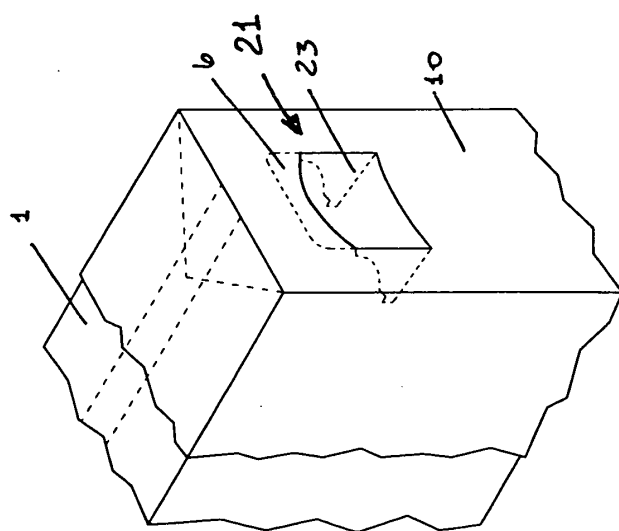


Fig. 5



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PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention EP 04 01 0070 shall be considered, for the purposes of subsequent proceedings, as the European search report

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.7)
X	EP 0 126 440 A (SCHMIDT C P VERPACKUNG) 28 November 1984 (1984-11-28)	1-4,6,7	B65D5/74
A	* page 8, line 1 - page 9, line 5 * * figures 1-5 *	8	B65D5/60
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X	FR 2 755 099 A (BEGHIN SAY ERIDANIA) 30 April 1998 (1998-04-30)	1-5	B31B1/90
A	* page 9, line 19 - page 10, line 6 * * figures 1,2,7 *	7	

X	WO 00/75025 A (KELLOG CO) 14 December 2000 (2000-12-14)	1,3,4	
A	* page 6, lines 4-14 * * figures 5,13,14 *	7	

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	* column 4, lines 1-30 * * figures 3-6 *		

			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B65D
			B31B
INCOMPLETE SEARCH			
The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims. Claims searched completely : Claims searched incompletely : Claims not searched : Reason for the limitation of the search: see sheet C			
Place of search		Date of completion of the search	Examiner
Munich		16 August 2004	Piolat, O
CATEGORY OF CITED DOCUMENTS 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 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			

EPO FORM 1503 03-82 (P04C07)



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**INCOMPLETE SEARCH
SHEET C**

Application Number
EP 04 01 0070

Claim(s) searched completely:
1-8

Claim(s) not searched:
9

Reason for the limitation of the search:

The wording of claim 9 "A paperboard container ... and method for making said container, characterized in that said container and method include one or more of the disclosed and/or illustrated features." leaves the reader in doubt as to the technical features to which it refers, so that a lack of clarity within the meaning of Article 84 EPC arises to such an extent as to render a meaningful search of that claim impossible.

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

EP 04 01 0070

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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16-08-2004

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