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(54) THERMAL CONTAINER FOR BOTTLES

(57) A thermal container for bottles comprising an open box (1) and a lid (2) for closing, which incorporates a waterproof and insulating sheet (3) having a polygonal geometry intended to be inserted inside the open box (1) for covering the inner space thereof and insulating it from the exterior. The insulating sheet (3) comprises a base (4), front walls (5) from the outer longitudinal edge of which first flaps (9) are provided with folding lines (10), side walls (6), from the outer longitudinal edge of which second flaps (11) are provided with double folding lines (12), adjusting surfaces (7) between the front walls (5) and the side walls (6), and slanting folding lines (8) for folding the adjusting surfaces (7) on the outer face of the side walls (6) and under the second flaps (11), for adjusting the insulating sheet (3) inside the open box (1).

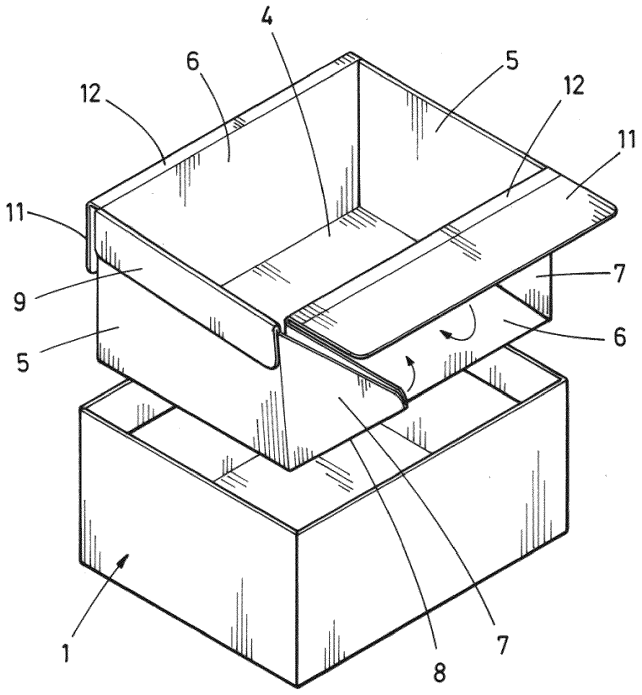

FIG.2

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Description

OBJECT OF THE INVENTION

[0001] The present invention falls with the technical field of containers for storing or transporting objects, more specifically, of containers that provide a certain environment for the content thereof, and it refers particularly to a container for storing, transporting and displaying bottles with thermal insulation capacity in relation to outside temperature conditions, and waterproof so it can be used to contain ice.

BACKGROUND OF THE INVENTION

[0002] Boxes, especially those made of cardboard, are the most common containers for storing and transporting goods, due to their light weight, strength and low cost. They generally have parallelepiped geometry and flat faces, optimizing both the occupied space and the inner volume thereof. The use of cardboard enables manufacturing lightweight yet robust boxes to hold all types of products.

[0003] On the other hand, certain products require low temperatures for proper conservation. In other cases, maintaining low temperatures is not essential for the conservation of the product, although it is appropriate and desirable at the time of consumption, as is the case, for example, with certain beverages such as sparkling wines. This is usually achieved by adding ice to the containers.

[0004] Said solution is not suitable when the product remains in the container for a long period of time, since it eventually melts and may even damage the material said container is made of, especially in the case of cardboard.

[0005] In order to avoid this drawback, container boxes made of thermally insulating materials such as polystyrene are commonly used, which achieve acceptable maintenance of cold conditions to preserve the product, yet the boxes are not very resistant, which means that special care must be taken when handling them. Furthermore, these boxes are heavy even when empty, which considerably increases shipping costs.

DESCRIPTION OF THE INVENTION

[0006] The object of the present invention consists of a box-type container for storing, transporting and displaying bottles with thermal insulation capacities in relation to outside temperature conditions, which is made up of an open box, a lid for closing the box and a sheet made of a material with thermal insulating and waterproofing capacity, which enables an additional use of the box as an ice container.

[0007] The sheet is intended to be folded to fit into the inner space of the open box in order to cover the inner face of the side walls and base thereof, and thus create thermal insulation in relation to outside conditions. To this end, said sheet is conveniently die-cut and comprises a plurality of folding lines defined on the surface thereof, as well as adjusting elements that enable it to be coupled only by physical means to the inside of the box.

[0008] The open box and the lid are preferably made of cardboard, while the insulating sheet can be made of materials such as PET, or of a cardboard sheet with at least one side coated with a thermal and waterproof insulating material. Furthermore, all these container elements are preferably dimensioned to house bottles of wine.

[0009] The container thus described is a simple and economical solution for storing and transporting products that require special thermal conditions, especially bottles. The lightness and robustness of the materials thereof reduce transport costs and adequately protect the contents from impacts and movements that could occur during handling and that could damage them.

[0010] It also represents an ecological solution as it enables selective recycling of the components thereof, since they can be easily separated and are biodegradable.

DESCRIPTION OF THE DRAWINGS

[0011] As a complement to the description provided herein and for the purpose of helping to make the characteristics of the invention more readily understandable, in accordance with an exemplary preferred embodiment thereof, said description is accompanied by a set of figures constituting an integral part thereof, which by way of illustration and not limitation represent the following:

Figure 1 shows a plan view of the extended sheet of insulating material of the container, wherein the surfaces thereof and the folding lines can be seen.

Figure 2 shows a perspective view of a step in the assembly process, wherein the sheet of insulating material is folded for inserting into the open box.

Figure 3 shows a perspective view of the container box with the lid opened, in which it can be seen how the open box and the suitably folded insulating sheet are linked together.

PREFERRED EMBODIMENT OF THE INVENTION

[0012] What follows is a detailed description, with the help of the figures referenced above, of an exemplary preferred embodiment of the object of the present invention.

[0013] The described thermal container for bottles comprises an open box (1), a lid (2) for closing the open box (1), and a waterproof and insulating sheet (3) which, suitably folded, is inserted inside the open box (1) for covering the inner space thereof and insulate it from outside thermal conditions.

[0014] The insulating sheet (3), shown in Figure 1, suit-

ably die-cut to give it an essentially square polygonal geometry with rounded vertices, comprises folds that delimit a base (4), front walls (5) and side walls (6). Adjusting surfaces (7) are furthermore defined between the respective front walls (5) and side walls (6). Each of the adjusting surfaces (7) further comprises a slanting folding line (8).

[0015] A first flap (9) is provided on each of the front walls (5) as a result of a folding line (10). Likewise, a second flap (11) is provided on each of the side walls (6), in this case as a result of a double folding line (12).

[0016] Figure 2 shows how the insulating sheet (3) is folded for inserting into the open box (1). It shows that the respective adjusting surfaces (7), once folded by means of the slanting folding line (8), as indicated by the arrows, face the outer face of the side walls (6) under the second flaps (11) taking advantage of the separation created by the double folding line (12).

[0017] The combination of the first flaps (9), the second flaps (11) and the adjusting surfaces (7) facilitates a suitable physical coupling of said insulating sheet (3) with the inner walls of the open box (1), as shown in Figure 3, without having to use additional adhesives.

[0018] In the preferred embodiment described herein, the open box (1) and the lid (2) are made of cardboard, while the insulating sheet (3) is made of cardboard coated with a layer of PET.

Claims

1. A thermal container for bottles comprising an open box (1) and a lid (2) for closing the open box (1), **characterized in that** it incorporates a waterproof and insulating sheet (3) having an essentially polygonal geometry intended to be inserted inside the open box (1) for covering the inner space thereof and insulating it from the exterior, wherein said insulating sheet (3) comprises:

    - a base (4),
    - front walls (5) from the outer longitudinal edge of which first flaps (9) are provided as a result of folding lines (10),
    - side walls (6) from the outer longitudinal edge of which second flaps (11) are provided as a result of double folding lines (12),
    - adjusting surfaces (7) defined between the front walls (5) and the side walls (6), and
    - slanting folding lines (8) for folding the adjusting surfaces (7) on the outer face of the side walls (6) and under the second flaps (11), for facilitating the adjustment of the insulating sheet (3) inside the open box (1).

2. The thermal container for bottles according to claim 1, **characterized in that** the open box (1) is made of cardboard.

3. The thermal container for bottles according to any of the preceding claims, **characterized in that** the lid (2) is made of cardboard.

4. The thermal container for bottles according to any of the preceding claims, **characterized in that** the insulating sheet (3) is made of PET.

5. The thermal container for bottles according to any of claims 1 to 3, **characterized in that** the insulating sheet (3) is made of coated cardboard.

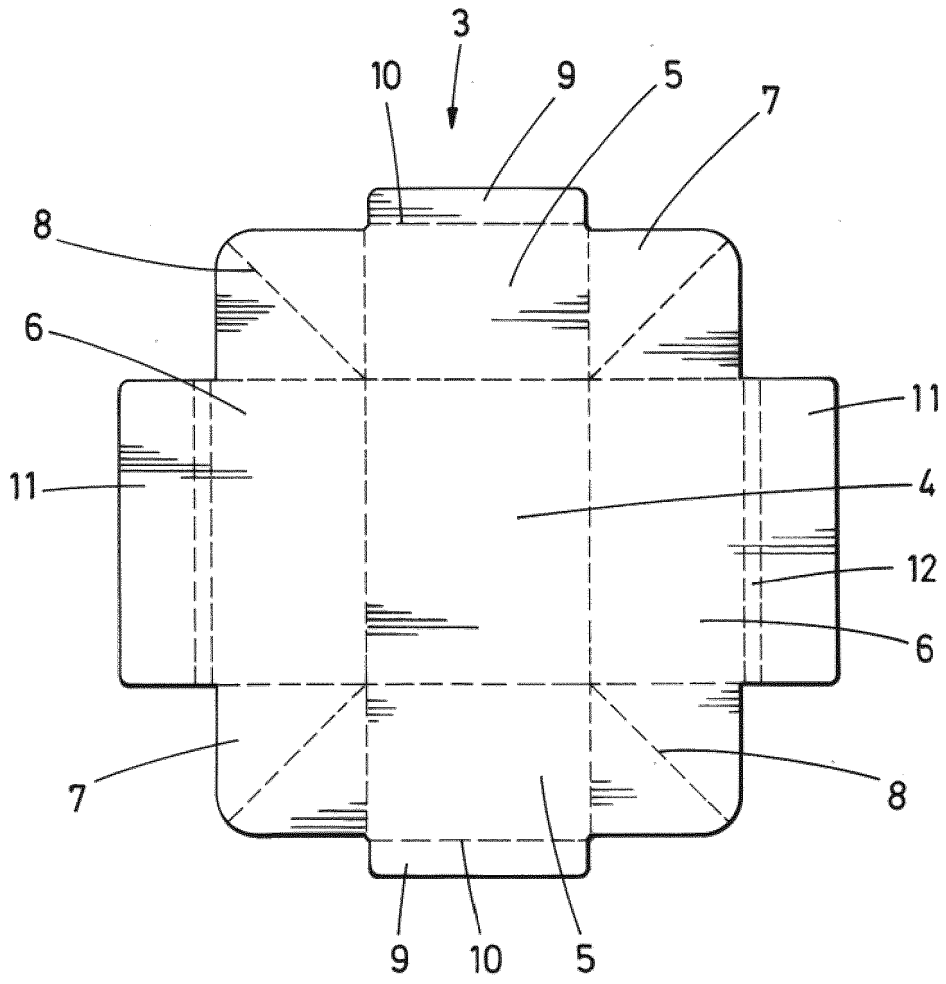

FIG.1

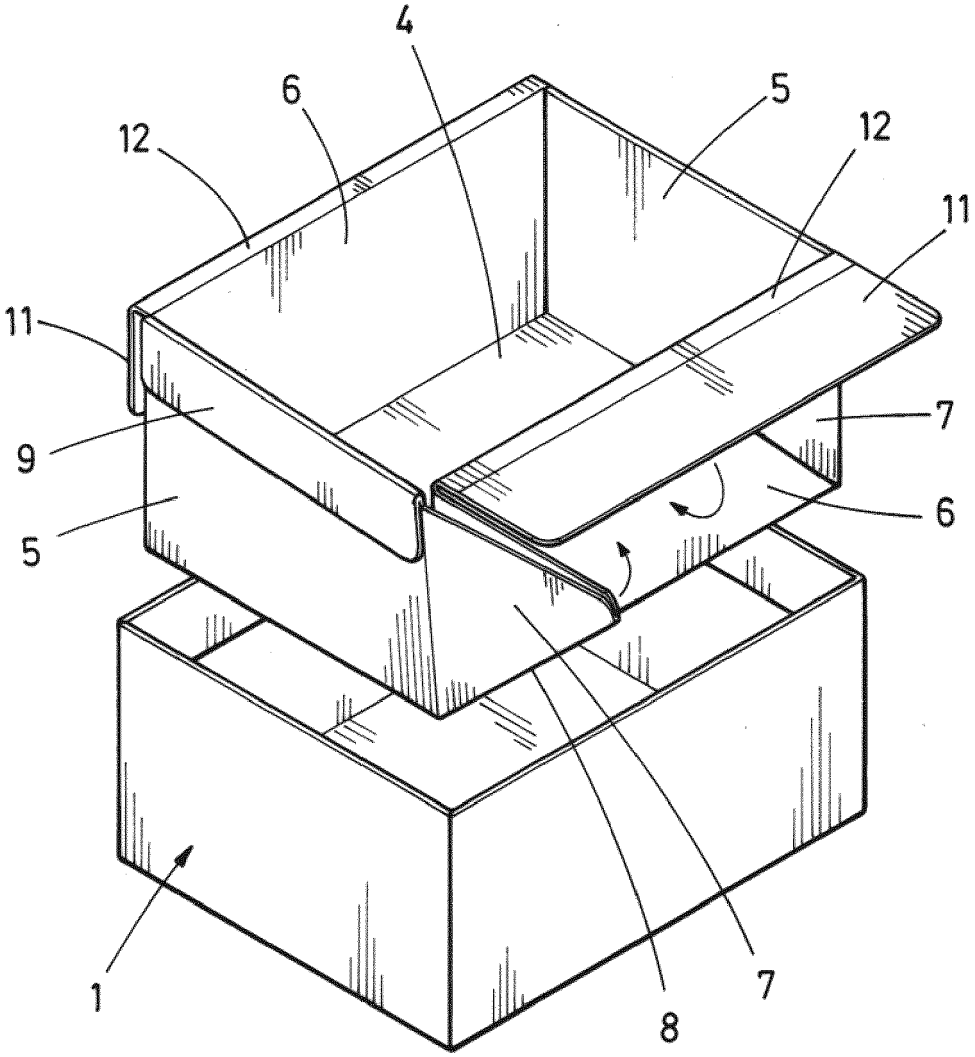

FIG.2

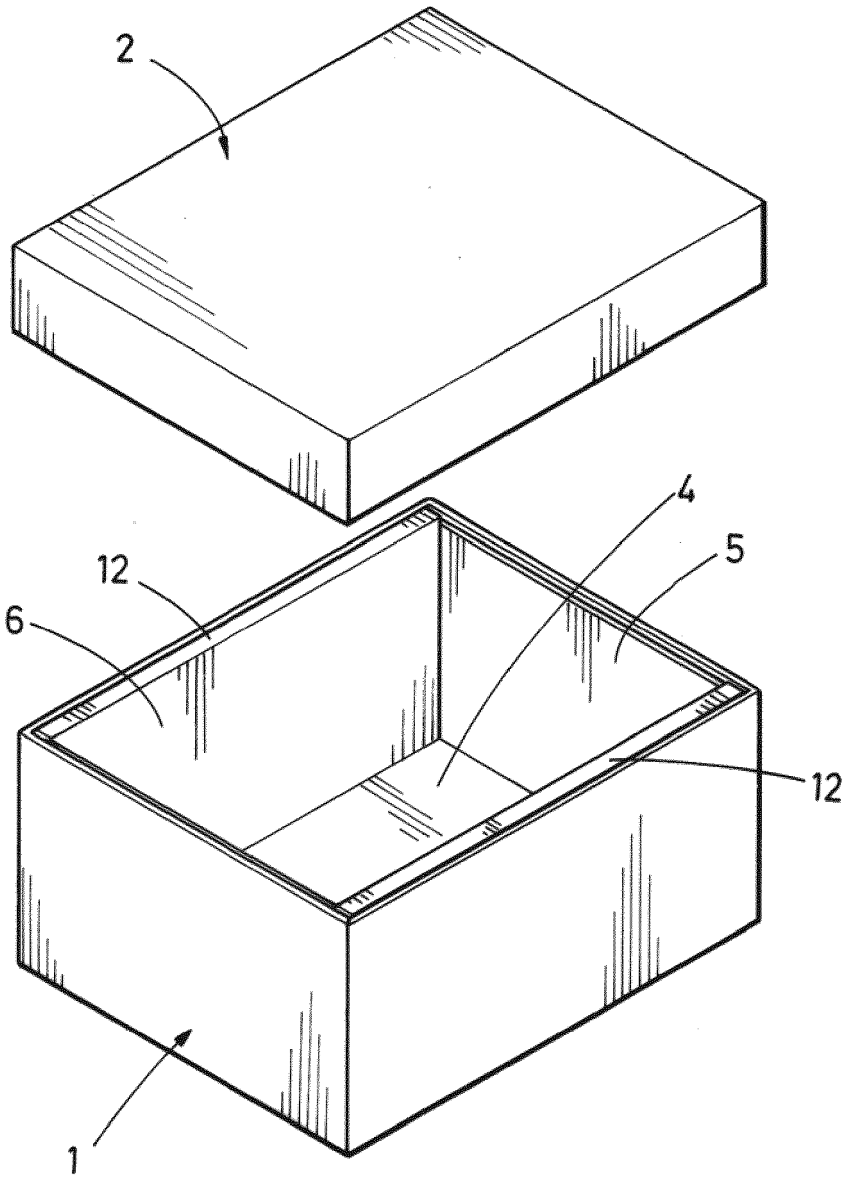

FIG.3

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EUROPEAN SEARCH REPORT

Application Number
EP 18 38 2019

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	EP 1 182 146 A1 (HOKURIKU PACKAGE CO LTD [JP]) 27 February 2002 (2002-02-27) * paragraphs [0005], [0011], [0012], [0025], [0030], [0043]; figures 8-9B * -----	1-5	INV. B65D77/04 B65D81/38 B65D5/24 B65D5/40

TECHNICAL FIELDS SEARCHED (IPC)

B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	15 May 2018	Sundell, Olli

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
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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

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 18 38 2019

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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15-05-2018

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1182146 A1	27-02-2002	NONE	

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