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(54) Title: PACKAGE OF PRODUCTS COMPRISING A CARDBOARD BODY

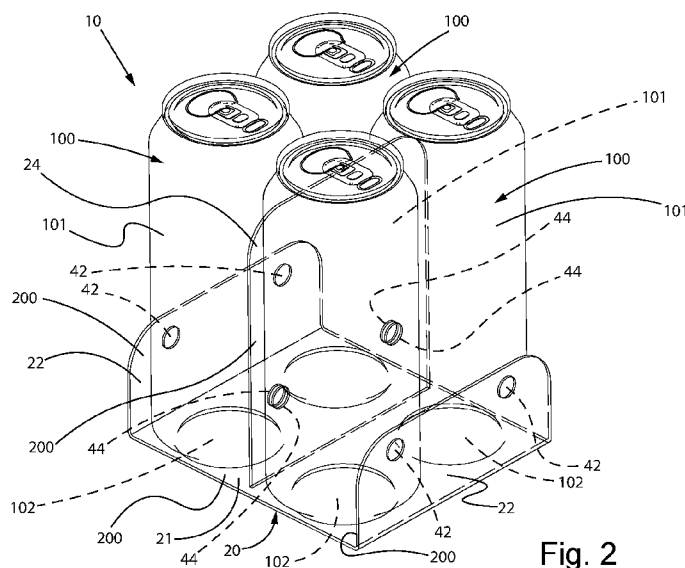


Fig. 2

(57) Abstract: Package (10) of products (100) comprising at least one body (20), and products (100) arranged on at least one row, wherein each of said products (100) comprises at least one outer surface (101, 102), wherein said body (20) comprises at least one cardboard wall (21, 22, 23, 24, 26) comprising a facing surface which is facing an outer surface (101, 102) of at least one product (100) of said products (100), wherein at least one portion of said facing surface of said at least one cardboard wall (21, 22, 23, 24, 26) comprises glue spots (41, 42, 43, 44, 46) arranged between said facing surface and the products (100) so as to glue at least one outer surface (101, 102) of the products (100) with the body (20) of the package (10), wherein said at least one portion of said facing surface of said at least one cardboard wall (21, 22, 23, 24, 26) which comprises glue spots (41, 42, 43, 44, 46) is coated with a thin film (200) of plastic material, wherein said glue spots (41, 42, 43, 44, 46) are applied at said thin film (200).



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PACKAGE OF PRODUCTS COMPRISING A CARDBOARD BODY

The present invention relates to a package of products comprising a cardboard body.

5 In the background art, they are known packages of products, for example containers for liquids such as bottles, cans, flacons, cartons for liquids or others.

Disadvantageously, other cardboard packages which comprise a plurality of glue spots between the outer
10 surfaces of the set of products and the cardboard walls of a package body, do not allow to extract products without a part of the cardboard being torn from the body and remaining attached to the outer surface of the product or without some glue spots remaining attached to
15 the product.

The object of the present invention is to make a package for packaging containers or products, which is ecologically sustainable, more environmentally friendly, greatly reduces the use of plastics of the package for
20 packaging, is handy, allows to safely transport the packaged products, is recyclable, advantageously allows the products to be extracted from the cardboard body preventing portions of the cardboard body and/or glue spots from remaining attached to the outer surface of
25 the products of the package.

According to the invention, such object is achieved with a package of products according to claim 1.

Other features are comprised in the dependent claims.

30 The features and advantages of the present invention will be more apparent from the following description, which is to be understood as exemplifying

and not limiting, with reference to the appended schematic drawings, wherein:

figure 1 is an axonometric view of a package according to the present invention for packaging six
5 products arranged on two rows of three products, in particular six cans are shown, four of which are arranged on two rows, wherein the package comprises a box-shaped body comprising a base support wall and four side walls rising from the sides of the base support wall;

10 figure 2 is an axonometric view of an alternative package according to the present invention for packaging four products arranged on two rows of two products, in particular four cans arranged on two rows are shown, wherein the package comprises the body comprising the
15 base support wall, the two side walls rising from two opposite sides of the base support wall and a vertical wall rising from the base support wall and arranged to separate the two rows of products, wherein the vertical wall intersects a geometric centre of the base support
20 wall;

figure 3 is an axonometric view of another alternative package according to the present invention for packaging six products arranged on two rows of three
25 products, in particular four cans are shown, two of which are arranged on one row, wherein the package comprises the body comprising the base support wall, two side walls rising from the two opposite sides of the base support wall and a vertical wall rising from the base support wall and arranged to separate the two rows of products,
30 wherein the vertical wall intersects a geometric centre of the base support wall, an upper wall extends from an upper side of the vertical wall, wherein the upper wall

comprises a handle, a side extension which extends downwards from an outer side of the upper wall;

figure 4 is an axonometric view of another alternative package according to the present invention
5 for packaging six products arranged on two rows of three products, in particular, two cans arranged outside the body are shown, wherein the package comprises two bodies arranged symmetrically to each other, each body comprises a base support wall, a side wall which rises
10 from an outer side of the base support wall and the vertical wall rising from the opposite side of the base support wall and arranged to separate the two rows of products, an upper wall extends from the upper side of the vertical wall and comprises the handle, the side
15 extension which extends downwards from an outer side of the upper wall, wherein two vertical walls of the two bodies are glued together.

With reference to the mentioned figures and in particular to Figure 1, a package 10 of products 100 for
20 packaging a plurality of products 100 is shown.

The package 10 of products 100 comprises a box-shaped body 20, a handy strap 30 and products 100 arranged on one or more rows. In figure 1 the products 100 are arranged on two rows of three products 100.

25 The box-shaped body 20 is made of paperboard obtained from a cardboard blank so as to limit the use of plastic.

Products 100 are for example cans for liquids as shown in figures 1-4.

30 Alternatively, it is possible to envisage that the products 100 may be other liquid containers such as flacons, other paperboard cartons for liquids or for

other food or even different products.

As shown in figures 1-4 the package 10 is advantageously free from a plastic packaging film wrapping the one or more rows of products 100 or wrapping
5 the whole package 10.

Each of the products 100 comprises at least a vertical surface 101 and a base surface 102 adapted to be laid on a horizontal geometric plane.

According to other examples not shown, the products
10 may be square-shaped containers or in any case be shaped according to another geometric shape.

The box-shaped body 20 comprises a support base wall 21 which lies on the horizontal geometric plane, four side walls 22, 23 which rise upwards from the sides of
15 the base support wall 21. The base support wall 21 lies on the horizontal geometric plane and allows to support the base surface of each of the products 100.

As shown in figure 1 the side walls 22, 23 are a first pair of side walls 22 and a second pair of side
20 walls 23.

Each side wall 22, 23 comprises at least a portion that rests against at least a vertical surface 101 of each of the products 100 oriented outwardly.

In figure 2 an alternative body 20 is shown which
25 comprises only two opposite side walls 22 rising from two opposite sides of the base support wall 21 and a vertical wall 24 rising from the base support wall 21 and arranged to separate the two rows of products 100, wherein the vertical wall 24 intersects a geometric
30 centre of the base support wall 21.

In figure 3 another alternative body 20 is shown wherein the vertical wall 24 extends into an upper wall

25, which extends from an upper side of the vertical wall 24 in a horizontal direction, wherein the upper wall 25 comprises a handle 55. The upper wall 25 comprises a side extension 26 which extends downwards
5 from an outer side of the upper wall 25.

In figure 4 another alternative package 10 is shown, wherein the package 10 comprises two bodies 20 arranged symmetrically with each other, each body 20 comprises the base support wall 21, only a side wall 22 rising
10 from an outer side of the base support wall 21 and the vertical wall 24 rising from the opposite side of the base support wall 21 and arranged to separate the two rows of products 100, the upper wall 25 extends from the upper side of the vertical wall 26 and comprises the
15 handle 55. The side extension 26 extends downwards from the outer side of the upper wall 25. The two vertical walls 24 of the two bodies 20 are glued together and match together.

The box-shaped body 20 comprises glue spots 41, 42,
20 43, 44, 46 between the inner surfaces of the walls 21, 22, 23, 24, 26 and products 100.

Alternatively, some of the walls 21, 22, 23, 24 and 26 may not comprise glue spots 100.

At least the inner surfaces of the walls 21, 22,
25 23, 24 and 26 comprising glue spots 41, 42, 43, 44, 46 are coated with a thin film 200 made of plastic material, such as a thin film 200 of synthetic polymers, bioplastics, green plastics, natural plastics, generic plastics or other types. Glue spots 41, 42, 43, 44, 46
30 are applied at such thin film 200.

Synthetic polymers may be for example polyethylene PE, polystyrene PS, polyvinyl chloride PVC or

polyethylene terephthalate PET, or others.

Preferably the thin film 200 is made of polyethylene PE.

Advantageously, each glue spot 41, 42, 43, 44, 46
5 adheres more firmly to the cardboard body 20 than to the
product 100. This effect is achieved thanks to an
adhesion being different between the glue of the glue
spots 41, 42, 43, 44, 46 and the facing surface of the
walls 21, 22, 23, 24, 26 of the body 20 of the package
10 10. The presence of the thin film 200 makes it possible
to distribute the strain for extracting the product 100
over a larger surface area of the body 20, thus avoiding
that, when the product 100 is extracted from the package
10, any cardboard residue of the body 20, being torn,
15 and/or any glue residue of the glue spots 41, 42, 43,
44, 46 remains attached to the outer surfaces 101, 102 of
the product 100.

The thin film 200 may also be present over the
entire facing surface of the body 20, wherein the facing
20 surface of the body 20 denotes the surface of each of
the walls 21, 22, 23, 24 and 26 that is facing the
respective product 100 for gluing it, as shown in figures
1-4.

Alternatively, the thin film 200 may even be applied
25 to only a portion of the facing surface of the cardboard
walls 21, 22, 23, 24 and 26 where the glue spot 41, 42,
43, 44, 46 is present.

Advantageously, no glue spot 41, 42, 43, 44, 46
remains attached to the products 100 when the product
30 100 is extracted from the package 10, but the glue spots
41, 42, 43, 44, 46 remain attached to the thin film 200.

As an alternative to the bodies 20 shown in figures

1-4, other different bodies 20 may be provided comprising, on the inner surfaces of the cardboard walls 21, 22, 23, 24 and 26, the thin film 200 and the glue spots 41, 42, 43, 44, 46 which attach products 100 and
5 the body 20.

Alternatively, the thin film 200 may be made of a material other than plastic, such as a thin film 200 made of aluminium or another equivalent material to achieve the same technical result.

10 Alternatively, the thin film 200 may be made of a woven material.

Advantageously, the thickness of the thin film 200 made of synthetic polymers is so thin that the cardboard of the body 20 is completely recyclable. The thickness
15 of thin film 200 is between 5 and 15 micrometres, preferably 10 micrometres.

Advantageously, the package 10 for packaging containers or products 100, is ecologically sustainable, more environmentally friendly, greatly reduces the use
20 of plastic materials of the package 10 for packaging, is handy, allows to safely transport the packaged products 100, is recyclable, advantageously allows products to be extracted from the cardboard body 20 without portions of the cardboard body 20 remaining attached to the outer
25 surface 101, 102 of the products 100 of the package 10.

Advantageously, the glue spot 41, 42, 43, 44, 46 remains attached with the thin film 200 applied to the cardboard of the facing surface of the walls 21, 22, 23,
24, 26 whatever the outer surface 101, 102 of the
30 products 100 is. Indeed, the outer surface 101, 102 of product 100 may be very different depending on the manufacturer and the roughness of the outer surface 101,

102 of the product changes considerably depending on the product 100.

The invention thus conceived is susceptible to many modifications and variants, all falling within the same
5 inventive concept; furthermore, all details can be replaced by technically equivalent elements. In practice, the materials used, as well as the dimensions thereof, can be of any type according to the technical requirements.

CLAIMS

1. A package (10) of products (100) comprising at least one body (20), and products (100) arranged on at least one row,

5 wherein each of said products (100) comprises at least one outer surface (101, 102),

 wherein said body (20) comprises at least one cardboard wall (21, 22, 23, 24, 26) which comprises a facing surface that faces one outer surface (101, 102)
10 of at least one product (100) of said products (100),

 wherein at least one portion of said facing surface of said at least one cardboard wall (21, 22, 23, 24, 26) comprises glue spots (41, 42, 43, 44, 46) arranged between said facing surface and the products (100) so as
15 to glue at least one outer surface (101, 102) of the products (100) to the body (20) of the package (10),

 characterized in that said at least one portion of said facing surface of said at least one cardboard wall (21, 22, 23, 24, 26) which comprises glue spots (41, 42,
20 43, 44, 46) is coated with a thin film (200), wherein said glue spots (41, 42, 43, 44, 46) are applied at said thin film (200).

2. The package (10) according to claim 1, characterized in that said thin film (200) is made of
25 plastic material.

3. The package (10) according to claim 2, characterized in that said thin film (200) is made of synthetic polymers (200).

4. The package (10) according to claim 3,
30 characterized in that said thin film (200) is made of polyethylene PE.

5. The package (10) according to any one of claims

1-4, characterized in that all the inner surfaces of the cardboard walls (21-26) of the body (20) are coated with said thin film (200).

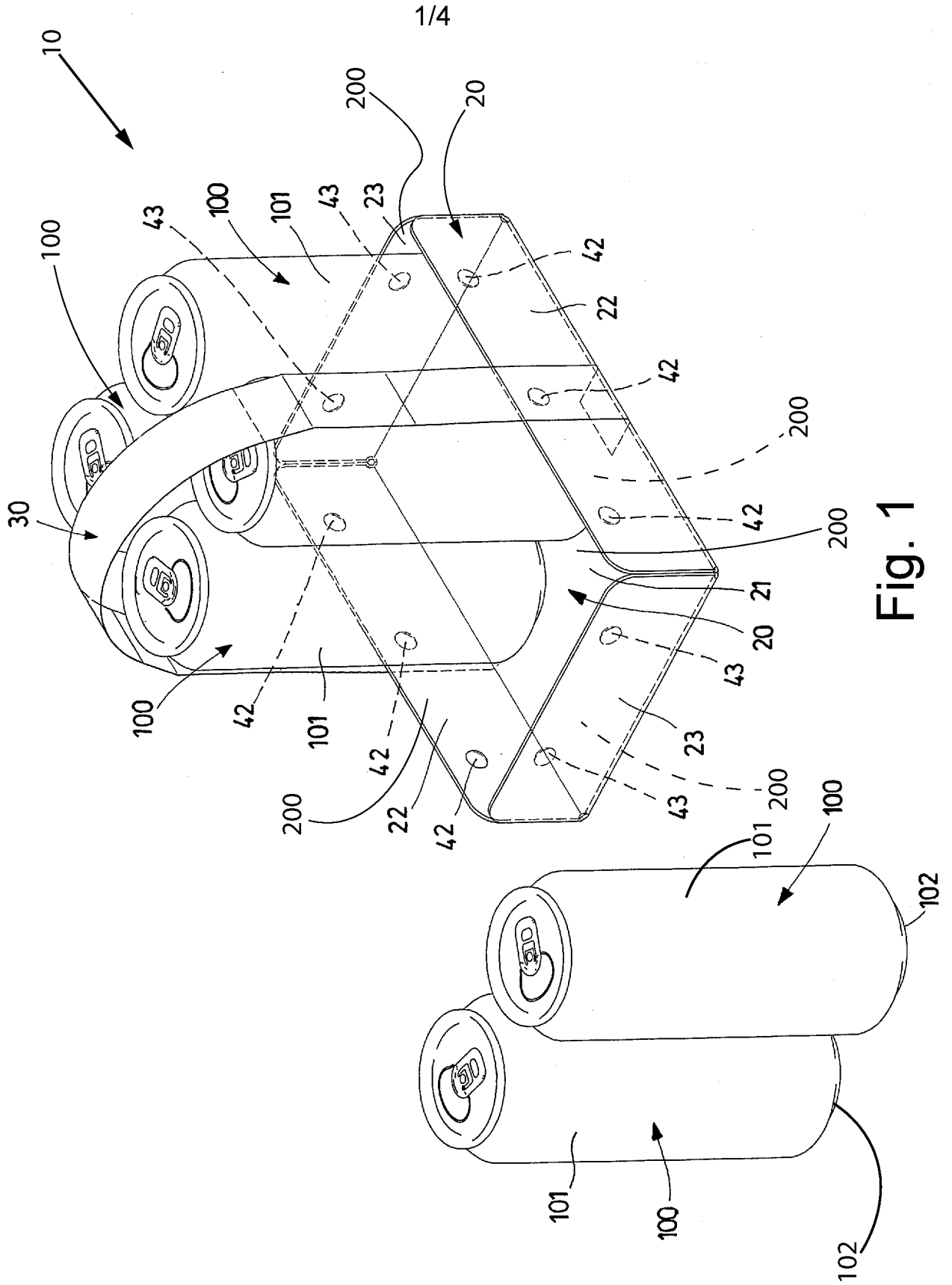


Fig. 1

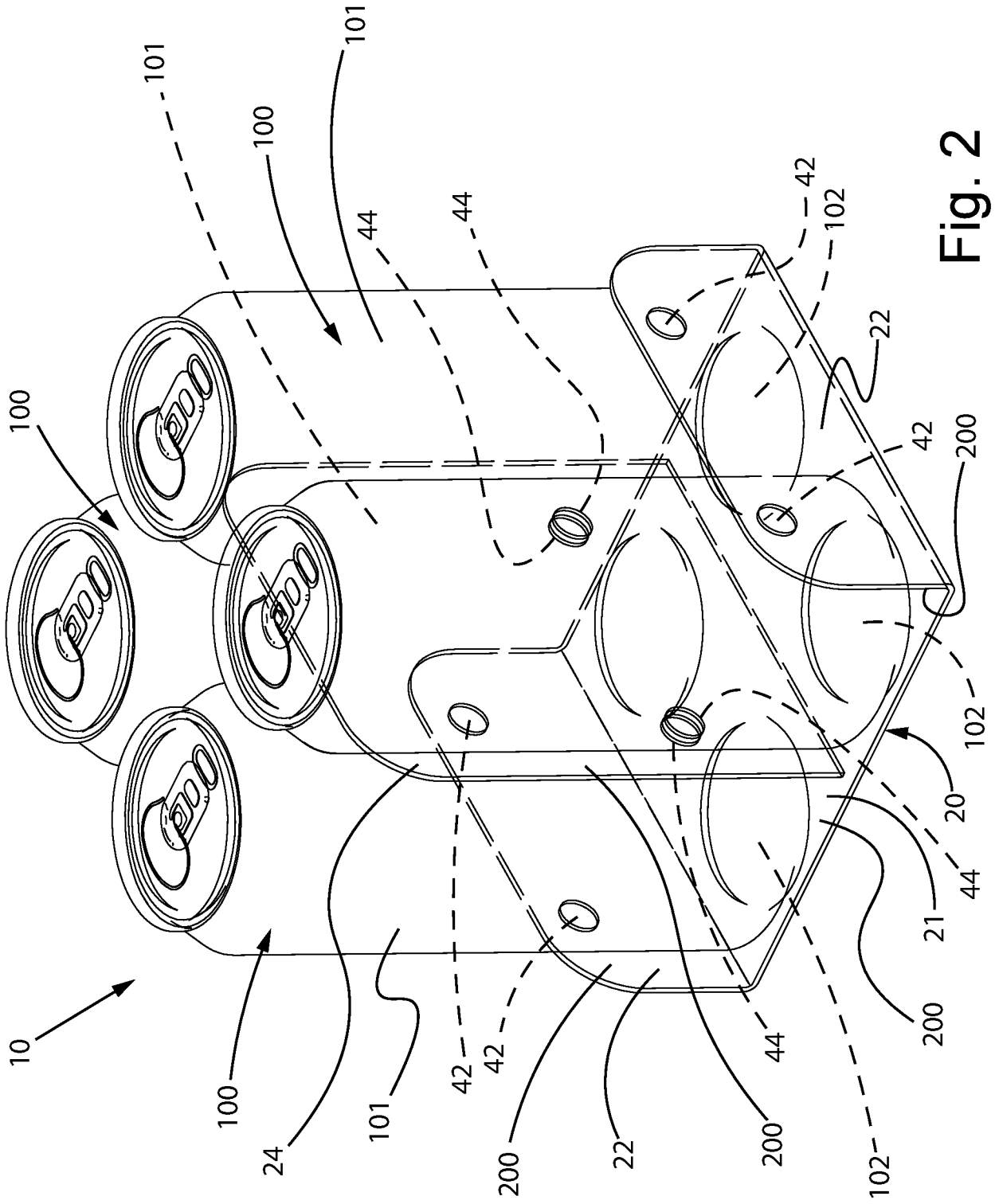


Fig. 2

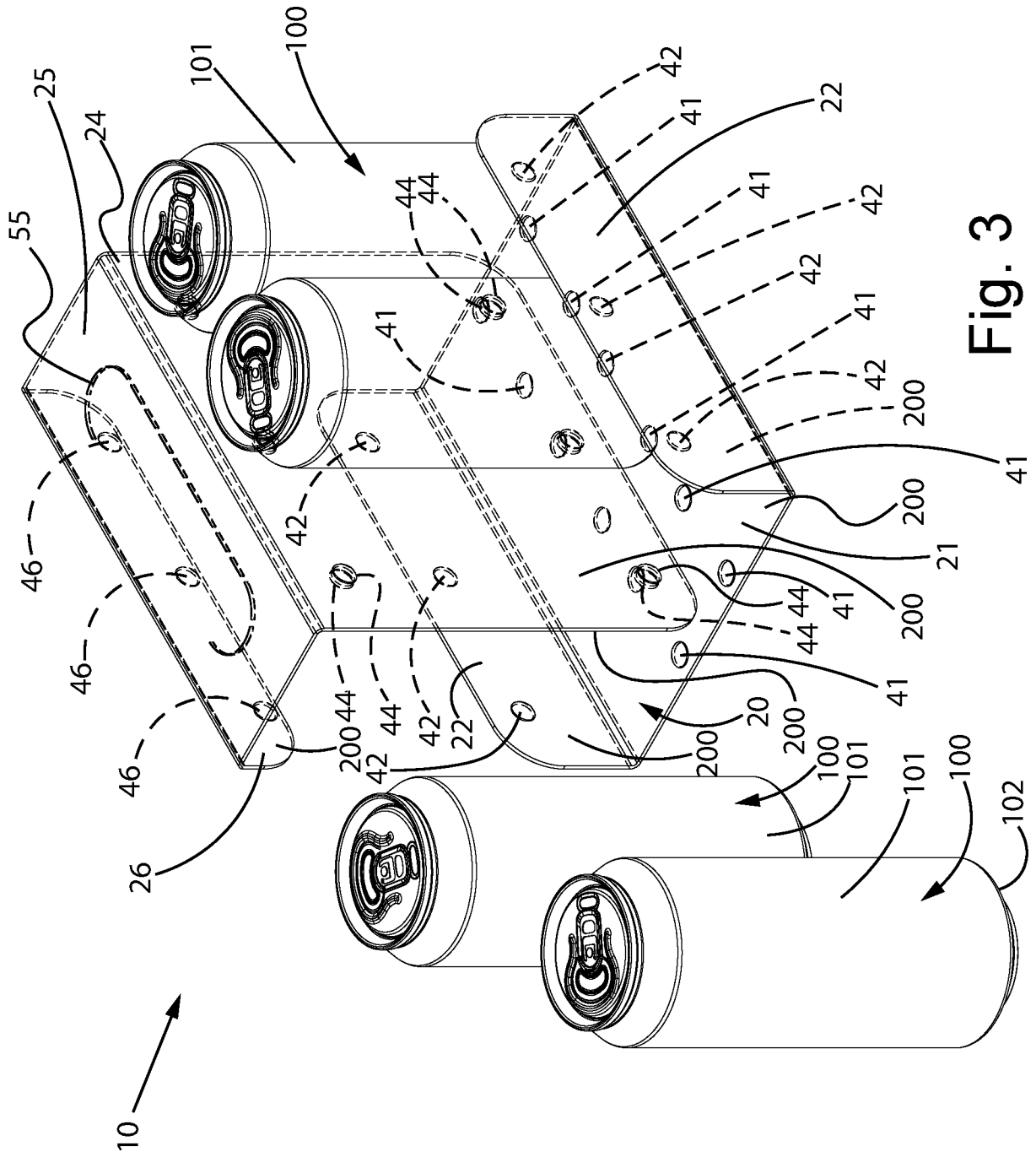


Fig. 3

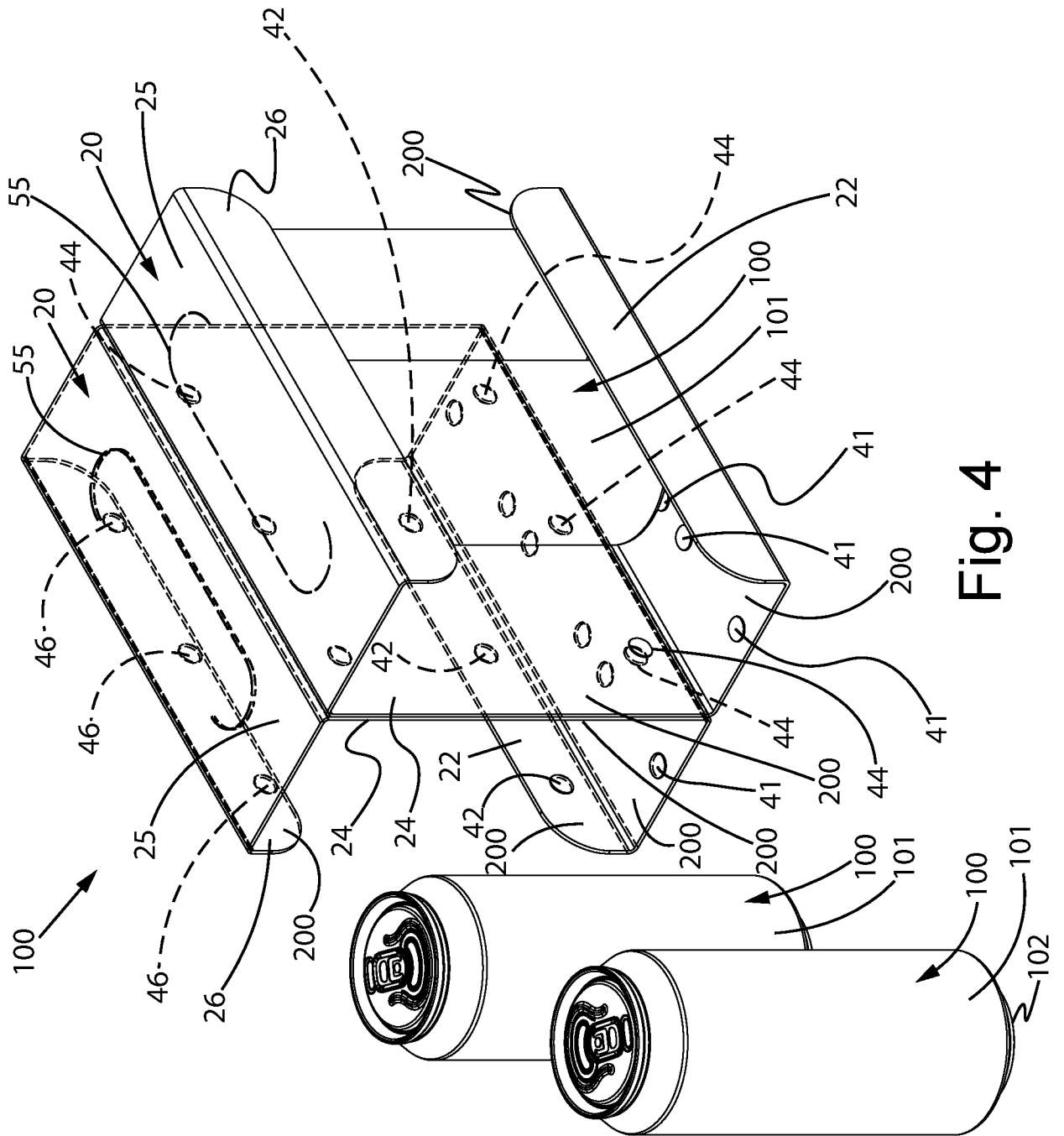


Fig. 4

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2021/055553

A. CLASSIFICATION OF SUBJECT MATTER
INV. B65D71/00
ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	US 2007/007158 A1 (CORDES HERBERT [DE] ET AL) 11 January 2007 (2007-01-11) paragraph [0021]; figure 2 -----	1-5
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A	FR 2 986 221 A1 (SIDEL PARTICIPATIONS [FR]) 2 August 2013 (2013-08-02) page 18; figures 6a, 6b -----	1-5
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Further documents are listed in the continuation of Box C.

See patent family annex.

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Date of the actual completion of the international search 20 September 2021	Date of mailing of the international search report 30/09/2021
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Dominois, Hugo

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2021/055553

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
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Information on patent family members

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