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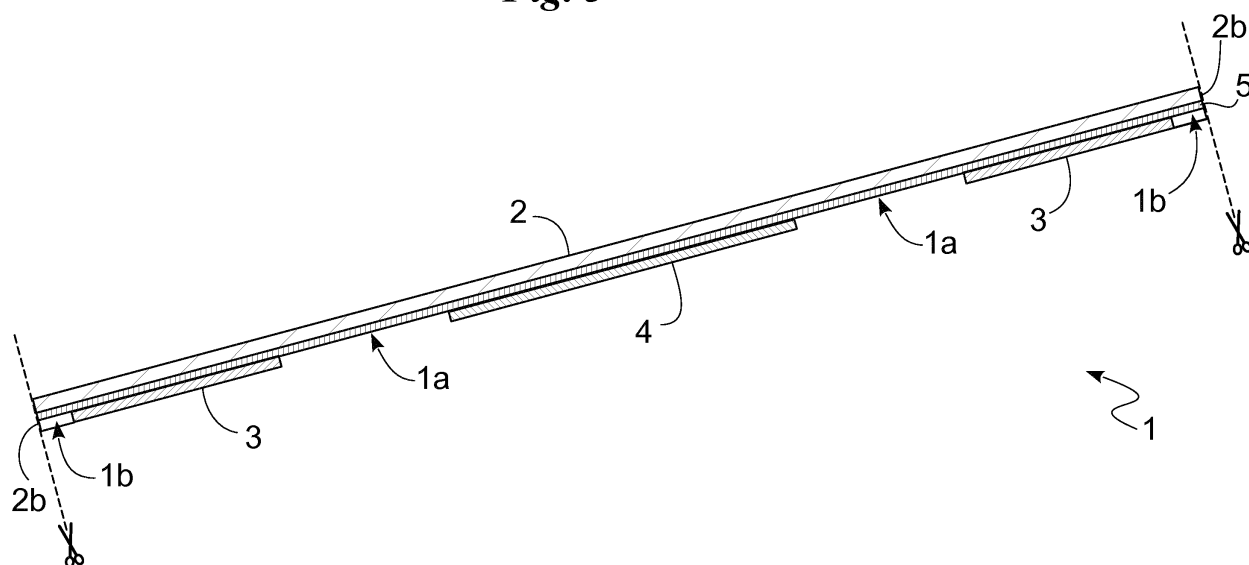
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(54) **Handle for bottles and similar containers**

(57) A handle (1) is provided suitable to be constrained to at least one pack (10) of at least one container (11) and comprising a base tape (2); one or two printable plates (3); a grip (4) interposed between the printable plates (3); and an adhesive layer (5) gluing the printable

plates (3) and the grip (4) to the base tape (2); the printable plates (3) and the grip (4) are mutually spaced apart so that, between each plate (3) and grip (4), the adhesive layer (5) is visible and defines gluing portions (1 a) of the handle (1) to the pack (10).

Fig. 3



Description

[0001] The present invention relates to a handle for bottles and similar containers of the type specified in the preamble of the first claim.

[0002] In particular, the present invention relates to a handle suitable to permit the gripping and thus movement of a pack of one or more bottles, gallon bottles, flagons, cartons, cans and similar containers or multi-packs thereof (hereinafter uniquely identified by the term "containers").

[0003] As is known, currently, the containers of beverages, as well as other not necessarily liquid products, in particular water, are grouped into packs. These packs are composed of a polymeric casing, which by enveloping the containers permits their simultaneous movement, and a handle attached to the casing.

[0004] The prior art mentioned above provides the handle as the sole support for transporting one or more containers or packs thereof.

[0005] The purpose of the invention is to add to the transport function of the handle a function suitable for promotion or information or for drawing attention to said pack. In this situation the technical purpose of the present invention is to devise a handle for containers able to substantially overcome the drawbacks mentioned above. Within the sphere of said technical purpose one important purpose of the invention is to have a handle for containers which permits easy and quick movement of a pack.

[0006] Another important aim of the invention is a handle for containers which makes it possible to have a pack with a communicative impact and which is easy to manufacture.

[0007] The technical purpose and specified aims are achieved by a handle for containers as claimed in the appended Claim 1.

[0008] Preferred embodiments are evident from the dependent claims.

[0009] The characteristics and advantages of the invention are clearly evident from the following detailed description of a preferred embodiment thereof, with reference to the accompanying drawings, in which:

Fig. 1 shows the handle according to the invention;

Fig. 2 shows an exploded view of the handle according to the invention;

Fig. 3 shows a cross-section of the handle according to the invention;

Fig. 4 shows an embodiment method of the handle according to the invention;

Fig. 5 shows a container fitted with the handle according to the invention;

Fig. 6 shows a pack fitted with the handle according to the invention;

Fig. 7a shows a first example of the handle according to the invention;

Fig. 7b shows a second example of the handle according to the invention;

Fig. 7c shows a third example of the handle according to the invention;

Fig. 7d shows a fourth example of the handle according to the invention;

Fig. 7e shows a fifth example of the handle according to the invention;

Fig. 7f shows a sixth example of the handle according to the invention; and

Fig. 7g shows a seventh example of the handle according to the invention.

[0010] Herein, the measures, values, shapes and geometric references (such as perpendicularity and parallelism), when used with words like "about" or other similar terms such as "approximately" or "substantially", are to be understood as except for measurement errors or inaccuracies due to production and/or manufacturing errors and, above all, except for a slight divergence from the value, measure, shape or geometric reference which it is associated with. For example, said terms, if associated with a value, preferably indicate a divergence of not more than 10% of said value.

[0011] In addition, where used terms such as "first", "second", "upper", "lower", "main" and "secondary" do not necessarily refer to an order, a priority relationship or relative position, but may simply be used to more clearly distinguish different components from each other.

[0012] With reference to said drawings, reference numeral **1** globally denotes the handle according to the invention.

[0013] It is suitable to be used to grip and transport a pack **10** of one or more containers **11**.

[0014] The pack **10** (Figs. 5-6) comprises a plurality of containers **11** and connection means **12** mutually constraining the containers **11**, permitting the simultaneous movement thereof.

[0015] The containers **11** (Fig. 5) have a central part **11a**, a cap **11b** and a conical portion **11c** connecting the central portion **11a** and the cap **11b**.

[0016] The connection means **12** include one or more junction points, made between adjacent containers **11a**. Alternatively, the means **12** include a casing, preferably polymeric, enveloping the containers **11**.

[0017] The pack **10** also comprises at least one handle **1**, suitable to be connected to the connection means **12** or to the containers **11**. In both cases, the handle is deemed, in this text, connected both to the containers **11** and to the pack **10**, since the same are mutually constrained.

[0018] The handle **1** is an elongated, narrow shape and comprises a base tape **2** defining the profile of the handle **1** and a longitudinal axis **2a** and at least two ends **2b**; at least one, and preferably two, printable plates **3**; a grip **4** suitable to be placed between the plates **3** or between a plate **3** and an end **2b** (Fig. 7g); and an adhesive layer **5** interposed between the tape **2** and the grip **4** and also between the tape **2** and the plates **3** or end **2b**, connecting the grip **4** and the plates **3** to the tape

2.

[0019] The tape 2 is preferably a film of polymeric material suitably thermoplastic and, in particular, polypropylene. More in particular, the base tape 2 is in high modulus mono-oriented polypropylene.

[0020] Preferably, the base tape 2 is transparent.

[0021] It, and thus, the handle 1 has a length, measured along the longitudinal axis 2a, substantially greater than 3 dm and, in particular, of 6 dm.

[0022] The adhesive layer 5 covers the base tape 2 almost entirely.

[0023] The adhesive layer 5 is polymeric material with open tack.

[0024] The grip 4 and the plates 3 are mutually spaced apart along the axis 2a so that, between them, the adhesive layer 5 is visible defining gluing portions **1a** of the handle 1 to the pack 10.

[0025] It is to be noted how the grip 4 and the plates 3 have a width, measured perpendicular to the axis 2a, substantially equal to that of the strip 2 so that the adhesive layer 5 is visible exclusively between the grip 4 and each plate 3.

[0026] The grip 4 is made of polymeric material or paper in a neutral colour or printed so as to be easily visible.

[0027] It has a length, measured along the longitudinal axis 2a, substantially greater than 1 dm.

[0028] The plates 3 have a length, measured along the axis 2a, substantially greater than 1.5 dm.

[0029] They may be substantially specular to each other or, alternatively, have different shapes from each other. A single plate 3 on one side only may also be present. For example, as shown in Figs. 7a-7g, the printable plates 3 are a rectangular, square, parallelogram shape etc.

[0030] The printable plates 3 are made of printable material and may therefore have a printed surface suitable to come into contact with the adhesive layer 5 so as to be visible, through the tape 2, when the handle 1 is joined to a pack 10. Appropriately, they are in a printable material, and more appropriately paper.

[0031] Optionally, at the ends of the tape 2, the adhesive layer 5, is not covered by the plates 3 and is visible, defining additional gluing portions **1b** of the handle 1 to the pack 10.

[0032] Said additional gluing portions 1b may be any shape and, for example, semicircular, trapezoidal, triangular and may occupy or not the entire width of the tape 2.

[0033] The handle 1 is suitable to be joined to the pack 10 preferably in such a way that the printable plates 3 are in the central part 11 a of the container 11 or of the pack 10. Preferably, the handle 1 is joined to the pack 10 so that the printable plates 3 cover a portion between a lower end and an upper end of said pack 10. Preferably the lower end is positioned between 10% and 30% of the height of the pack 10, and the upper end is positioned between 60% and 90% of the height of the pack 10, so that said plates 3 are clearly visible from the side.

[0034] The invention comprises a new production method **20** of a handle 1, described above in a structural

sense.

[0035] The method 20, shown in Fig. 4, provides for making and feeding a continuous tape **20a**, which constitutes the tape 2, defining a feed axis substantially parallel to the longitudinal axis 2a.

[0036] During the feeding of the continuous tape 20a, the method provides for the deposit **21** of the adhesive layer 5 on the tape 20a by coating, and the gluing **22** of the printable plates 3 and 4 and of the grip interposed and spaced from said plates 3 to the tape 20a.

[0037] It is to be noted how in the gluing 22 between two consecutive grips 4 of adjacent handles 1, two printable plates 3 are interposed, suitably separated from each other, at least partially, so as to leave visible the adhesive layer 5 identifying the additional gluing portions 1 b of the two handles 1.

[0038] Subsequently, the embodiment method 20 provides for cutting **23** the continuous tape 20a between consecutive plates 3, obtaining the handle 1 of the desired length and, taking advantage of the visible adhesive layer 5, i.e. the portions 1a and 1 b, constraining the handle 1 to a pack 10 at the central part 11 a.

[0039] The invention achieves important advantages.

[0040] In fact, the handle 1, thanks to the gluing portions 1a and 1b, is applicable to both packs 10 having, as constraint means 12, junction points and those providing for a casing enveloping the containers 11.

[0041] An important advantage is the fact that the handle 1 makes it possible to easily identify, pick up and move a pack 10 of containers 11.

[0042] A further advantage is given by the presence of the printable plates 3.

[0043] In fact, said plates 3, being able to reproduce a label, a logo or any other type of information, make the labelling of the individual pack unnecessary.

[0044] As a result a no less important advantage is that of being able to make label-free containers 11 and thus packs 10 of reduced cost.

[0045] The presence of the plates 3 on the visible edge allows the operator or user of the supermarket or shop to correctly pick up the pack and also to be able to use bar codes and the like without having to access different portions of the packs 11. The upper portion of the pack 11 may in fact be hard to access since under other packs. This advantage is important in particular for inventory operations of supermarkets and the like, in which the pack cannot be removed from the shelf. Another advantage is the fact that the handle 1 is firmly attached to the pack 10. Variations may be made to the invention without departing from the scope of the inventive concept described in the independent claims and in the relative technical equivalents. In said sphere all the details may be replaced with equivalent elements and the materials, shapes and dimensions may be as desired.

Claims

1. A handle (1) suitable to be constrained to at least one pack (10) of at least one container (11) and **characterized in that** it comprises
 - a base tape (2) defining two ends (2b);
 - at least one printable plate (3);
 - a grip (4) interposed between said at least one printable plate (3) and one of said ends (2b); and
 - an adhesive layer (5) gluing said printable plates (3) and said grip (4) to said base tape (2); and **in that**
 - said at least one printable plate (3) and said grip (4) or said end (2b), are mutually spaced apart so that, between each of said printable plates (3) or said end (2b) and said grip (4), said adhesive layer (5) is visible and defines gluing portions (1 a) of said handle (1) to said pack (10).
2. Handle (1) according to claim 1, comprising two of said printable plates (3), and wherein said grip (4) is interposed between said printable plates (3) and said printable plates (3) and said grip (4) are mutually spaced apart so that, between each of said printable plates (3) and said grip (4), said adhesive layer (5) is visible and defines gluing portions (1 a) of said handle (1) to said pack (10).
3. Handle (1) according to claim 1, wherein, at the ends of said base tape (2), said adhesive layer (5) is visible defining additional gluing portions (1b) of said handle (1) to said pack (10).
4. Handle (1) according to one or more of the preceding claims, wherein said base tape (2) is transparent and wherein said printable plates (3) comprise a printed surface suitable to come into contact with said adhesive layer (5) so as to be visible, through said base tape (2), when said handle (1) is joined to said pack (10).
5. Handle (1) according to one or more of the previous claims, wherein the base tape (2) is made of high modulus mono-oriented polypropylene.
6. Pack (10) comprising a handle (1) according to one or more of the previous claims and at least one container (11).
7. Pack (10) according to the previous claim, comprising a plurality of said containers (11).
8. Pack (10) according to the previous claim, comprising a plurality of said containers (11) and constraint means (12) mutually constraining said containers (11) and comprising a casing enveloping said containers (11).
9. Pack (10) according to one or more of the claims 5-8, wherein said handle (1) is constrained to said pack (10) so that said printable plates (3) cover a portion between a lower end and an upper end of said pack (10), and wherein said lower end is positioned between 10% and 30% of the height of said pack (10), and said upper end is positioned between 60% and 90% of the height of said pack (10).
10. Embodiment method (20) of a handle 1 according to one or more of the previous claims, said method being **characterised in that** it comprises
 - unwinding a continuous tape (20a);
 - depositing (21) said adhesive layer (5) on said continuous tape (20a);
 - gluing (23) said grip (4) on said continuous strip (20a); and
 - cutting (24) said continuous strip (20a), thereby obtaining said handle (1);

and **in that**, in said gluing (23), said printable plates (3) and said grip (4) are mutually spaced so that, between each of said printable plates (3) and said grip (4), said adhesive layer (5) is visible and defines gluing portions (1a) of said handle (1) to said pack (10).

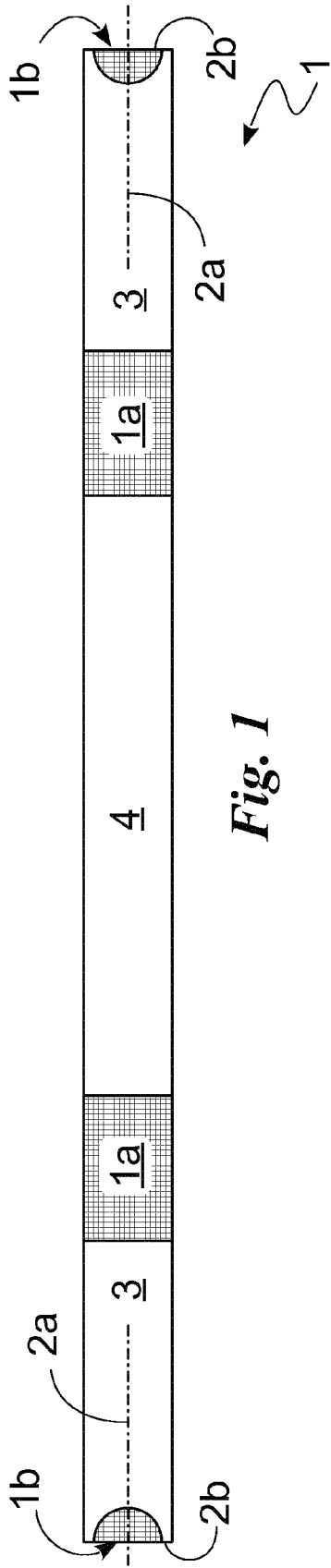


Fig. 1

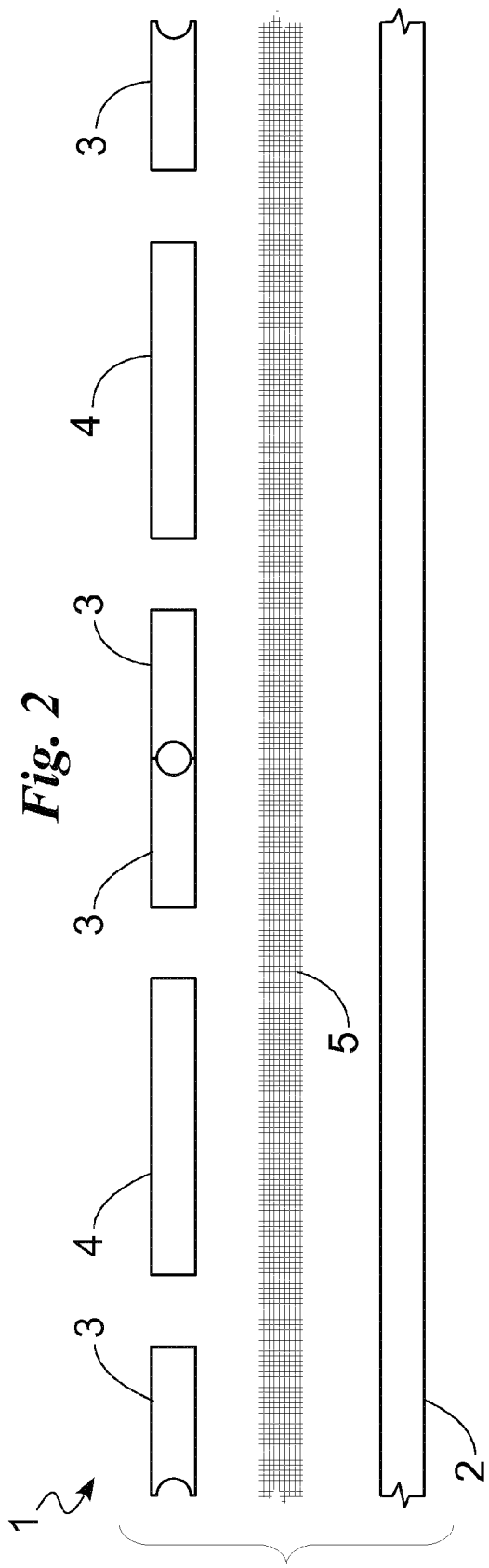
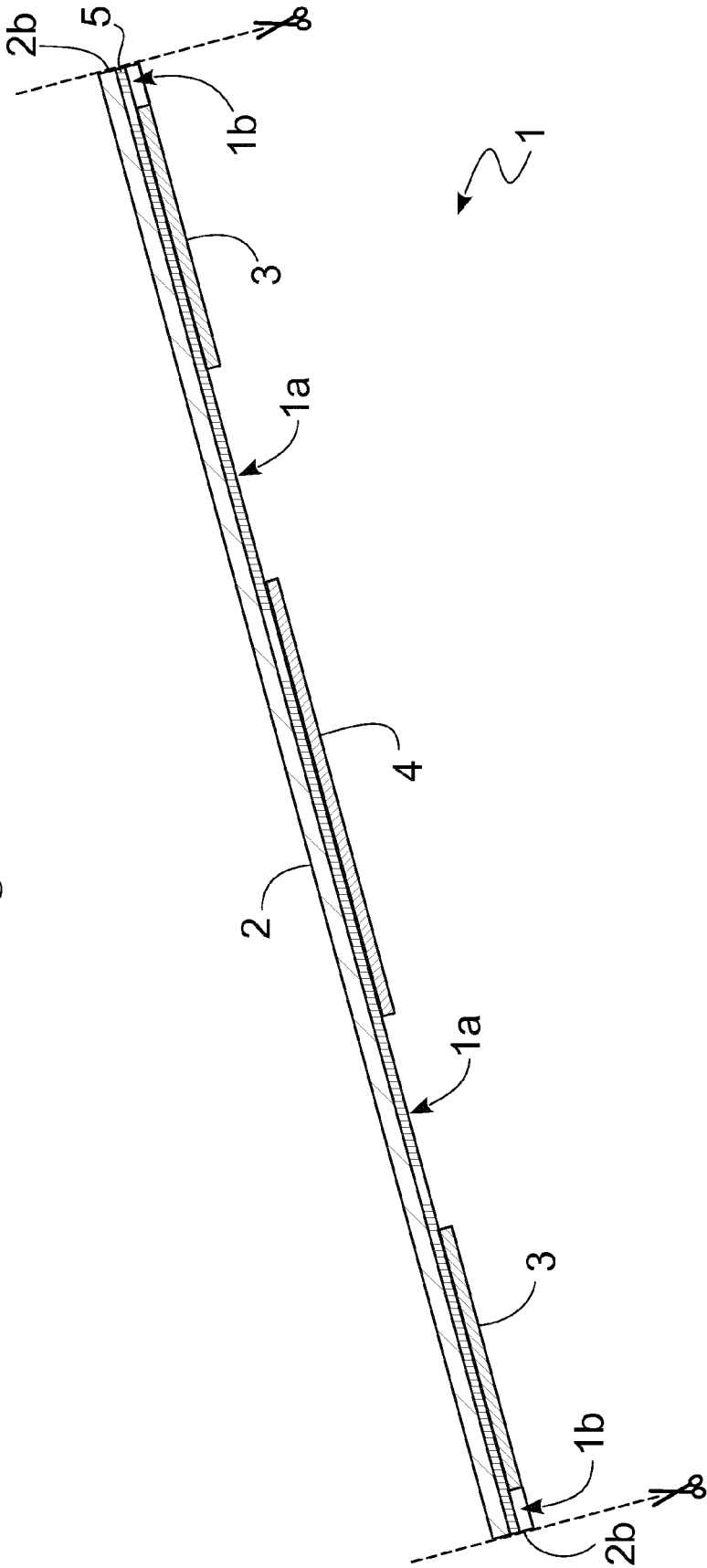
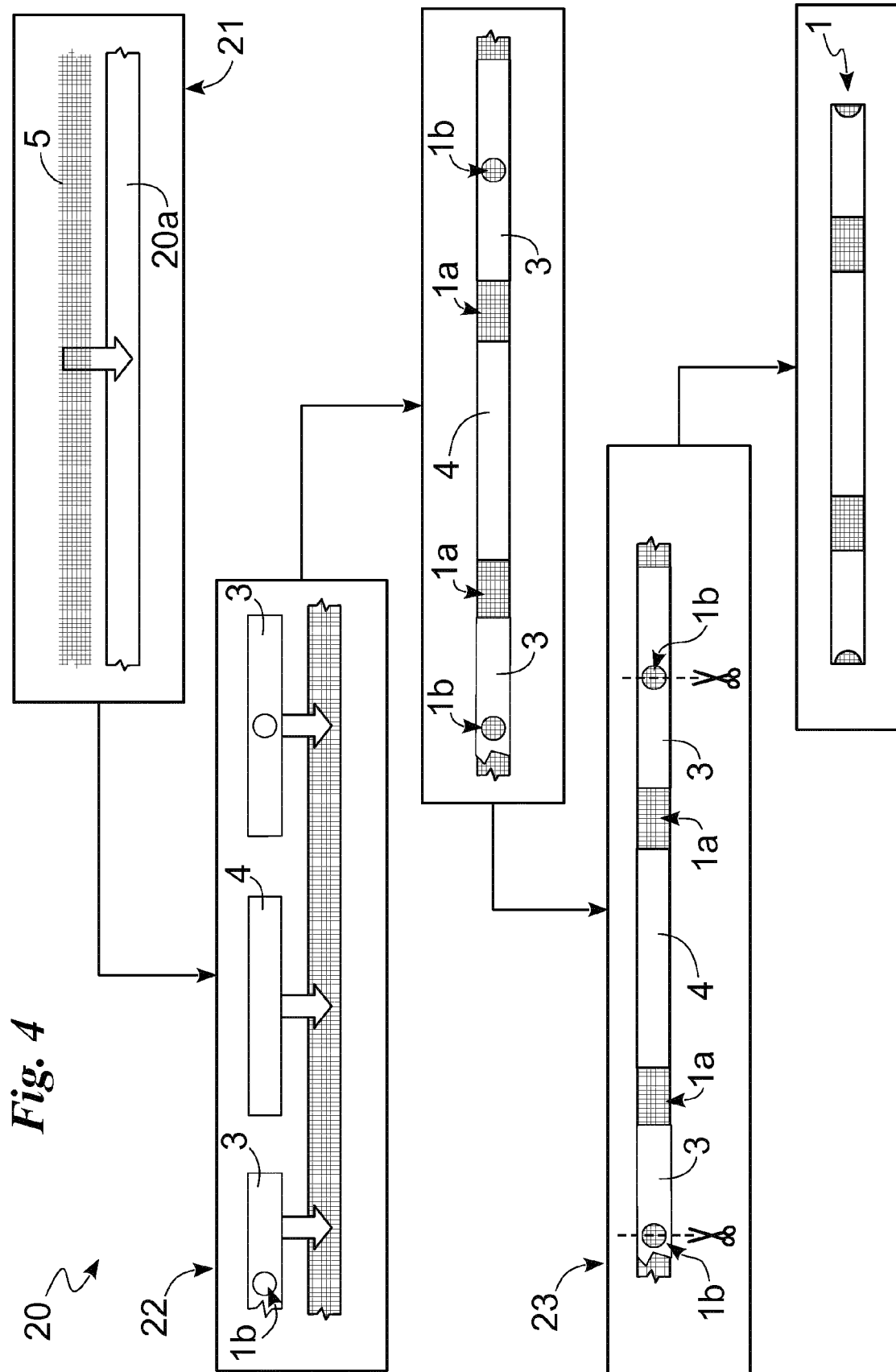


Fig. 2

Fig. 3





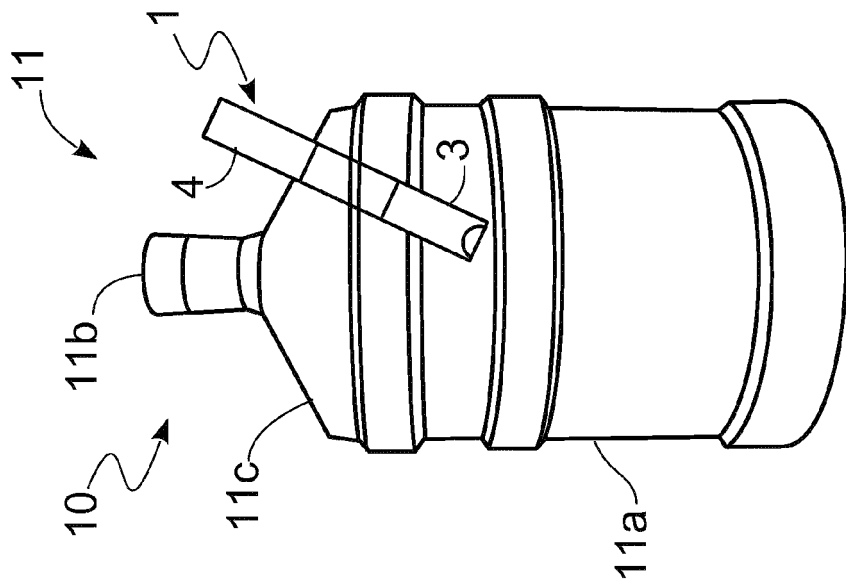


Fig. 5

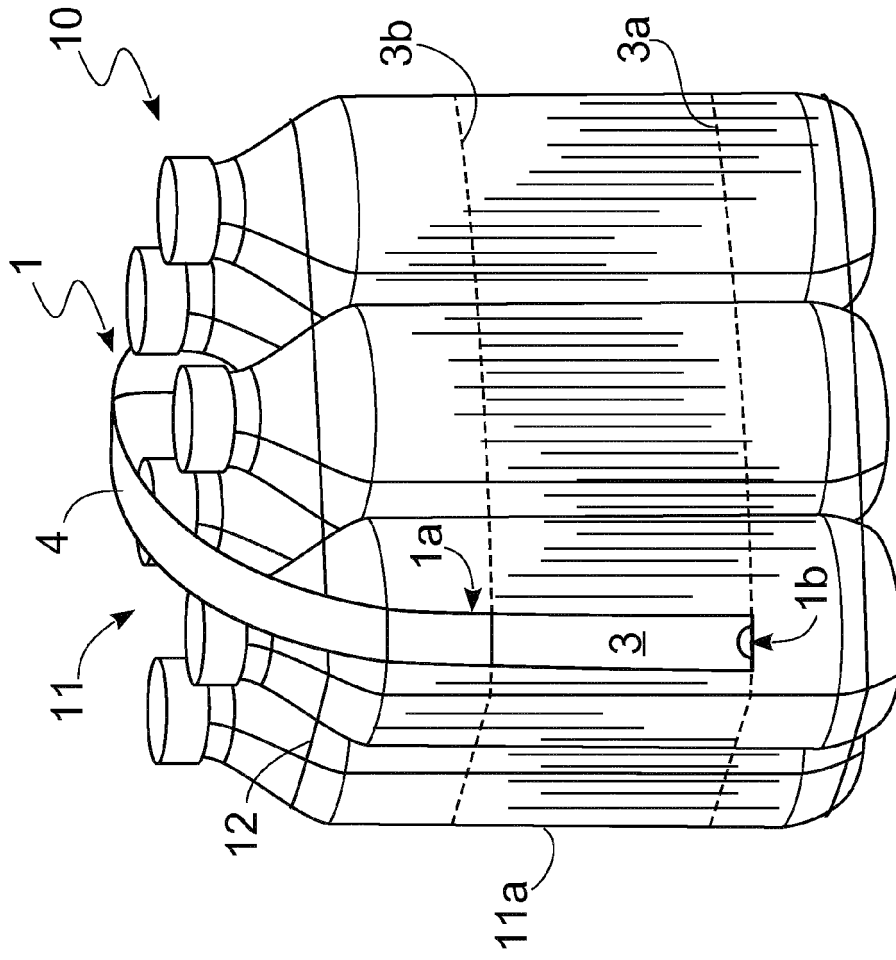
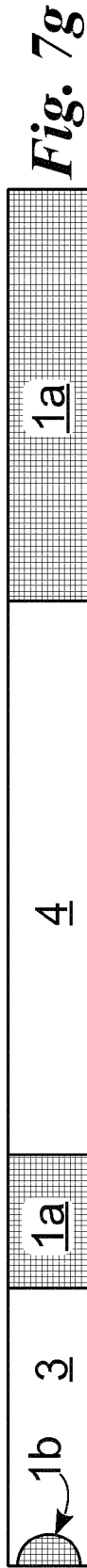
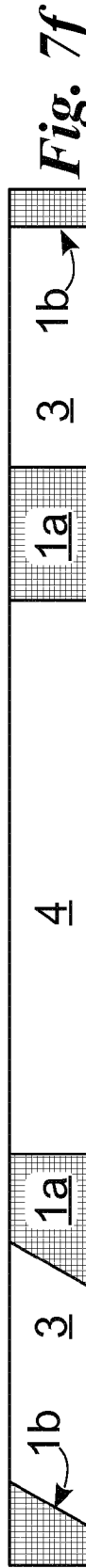
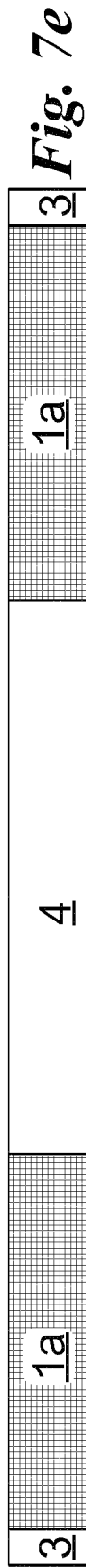


Fig. 6





EUROPEAN SEARCH REPORT

Application Number
EP 15 15 4568

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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A	* paragraphs [0011], [0012], [0013], [0015]; figure 1 *	6-10	
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			TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		10 July 2015	Sundell, 011i
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			

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