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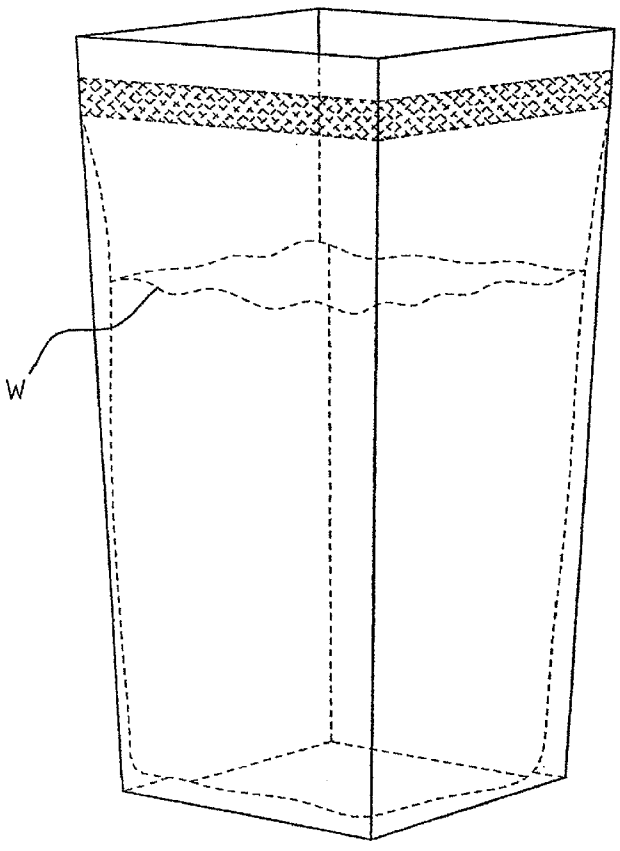
(54) Title: HOLDER FOR HOLDING A MEDIUM



(57) Abstract: The invention relates to a receptacle (1) for holding a medium consisting of a liquid and/or a solid, which receptacle comprises: -a package (2) that can be folded and unfolded, characterised in that when folded the package occupies minimum space and when unfolded the package defines at least an upright wall and an open side; - an inner bag (3) inside the package, which can be folded and unfolded with the package, characterised in that the inner bag is medium-proof in order to hold a medium (w) when unfolded.

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FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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FOLDABLE HOLDER FOR CUT FLOWERS

The present invention relates to a receptacle for holding a medium consisting of a liquid and/or a solid. The invention also relates to a method for holding such a medium.

If somebody buys flowers they are packed in paper to protect them during transport. After transport the flowers must be placed in a vase with water. Sometimes, however, no vase is available so that the flowers remain without water for too long. In order to solve this problem, the flower salesman can dispatch a vase with the order so that the buyer can keep the flowers in water at all times. Such a vase, however, occupies relatively a lot of space, which is inconvenient during the transport of the flowers. Vases are therefore needed that occupy relatively little space during transport of the flowers; though once the flowers have arrived still offer enough volume to provide the flowers with sufficient water.

It is an objective of the present invention to provide a receptacle that solves the above and other inconveniences of the prior art.

According to a first aspect of the invention, for this purpose a receptacle is provided for holding a medium consisting of a liquid and/or a solid. The receptacle comprises:

- a package that can be folded and unfolded, characterised in that the package occupies minimum space when folded, and when unfolded defines at least an upright wall and an open side;

- an inner bag to be inserted inside the package, characterised in that the inner bag is medium-proof in order to hold the medium when unfolded.

When folded the receptacle occupies relatively little space so that it can for example be simply and efficiently transported. If the package and the inner bag are unfolded, a space is created into which the medium (a liquid, such as water, or a solid, such as garden mould) can be introduced. If the thus unfolded package is placed upright without there being a medium in the inner bag, the stability of the receptacle is insufficient to hold objects, such as flowers and suchlike. The receptacle has after all the tendency to fold back automatically. If, however, sufficient medium is introduced into the inner bag via the open top of the package, this medium as a consequence of the construction according to the

invention presses against the side wall of the package so that it remains unfolded, as a result of which the stability of the package is improved.

According to a first embodiment several fastening flaps are provided at the top of the upright wall to keep the package unfolded. The fastening flaps can for example be folded back so that they prevent the unfolded package from "springing back".

In a certain preferential embodiment each of the flaps is provided with at least a protrusion and at least a groove, characterised in that the protrusion of a fastening flap can be inserted into the groove of a following fastening flap to fix the package in an unfolded position. The protrusions and grooves ensure that the once folded back fastening flaps (whereby the package is prevented from folding up again) cannot bend back. The package therefore remains fixed in an unfolded position.

According to another preferential embodiment the receptacle comprises an inner bag inside the package, which can be folded and unfolded with the package, characterised in that the inner bag is medium-proof to enable it to hold the medium when unfolded.

In a further preferential embodiment the inner bag is fastened to the package, so that incorrect positioning of the inner bag in the package is avoided as much as possible. In a certain preferential embodiment the inner bag is also fastened to the top edge of the upright wall of the package, so that the whole inner surface of the package is protected against the medium. The medium can after all not reach the inner surface of the package in this embodiment. The inner bag is thus so formed that when unfolded it presses against the inside of the upright wall, if sufficient medium has been introduced into the inner bag, with the purpose of keeping the wall upright when unfolded, as stated above. This benefits the stability of the receptacle.

In some embodiments the receptacle is bottomless. A base is not needed anyway, because the medium is retained in the inner bag. In other preferential embodiments the package is however provided with a base that can be folded and unfolded. When the package is unfolded, the base can seal off the bottom of the receptacle, so that the unfolded base keeps the upright wall of the receptacle or the bottom part thereof sufficiently unfolded. By introducing a suitable amount of medium into the inner bag, the inner bag filled with the medium presses on the top of the base, which prevents the unfolded base from folding back. The combination of unfolding base and inner bag filled with medium

provides extra shape stability to the receptacle and therefore an improved stability to the receptacle.

According to a certain preferential embodiment the inner bag is fastened to the inside of the package via a glued connection. The advantage of a glued connection is that it is barely critical in comparison with many other connection methods. Moreover, different materials can be easily fastened to each other. In another embodiment the inner bag is however sealed to the package. In a blister seal package a product is packed in a plastic sheet that is sealed against a prepared cardboard plate by heat and pressure. An advantage of sealing the package is that contamination is less, considering that no extra additions are needed to bind the materials together.

In a special advantageous embodiment the package is made of cardboard, such as for example sulphate cardboard. Cardboard is relatively inexpensive and also barely pollutes the environment. In a further embodiment the package is made of liquid-proofed cardboard. In this embodiment the inner bag could therefore be omitted, if it were not for the fact that a waterproof closure by a base that can be unfolded is not or might possibly only be feasible in practice after a costly effort. Therefore in such an embodiment a small inner bag is inserted near or on the base itself. This inner bag ensures that the receptacle can still be given a liquid-proof seal at the base.

According to a further embodiment one or more windows are provided in the package. The provision of windows in for example the upright wall of the receptacle enables the inside of the receptacle to be inspected. If the inner bag is also provided with partially transparent material, the medium introduced into the inner bag can be easily inspected from outside, so that for example the liquid level in the receptacle can be checked.

In a further preferential embodiment the bottom of the base is provided with double-sided tape to fasten the receptacle to a foundation. The stability of the receptacle can be improved by fastening the receptacle to the foundation in this way.

According to another aspect of the invention a method is provided for keeping a medium in a receptacle as described here. The method comprises:

- the provision of such a receptacle;
- the unfolding of the package;
- the opening of the inner bag simultaneously with the opening of the

package; and

- the introduction of medium into the inner bag along the open side of the package and the opening in the inner bag mainly for securing the shape of the package.

Further advantages, characteristics and details of the present invention will be elucidated on the basis of the following description of some preferential embodiments thereof.

Reference is made to the appended figures in the description. The following are shown:

figure 1A: a cross-section of a first preferential embodiment of the receptacle in a folded transport position;

figure 1B: a cross-section of the receptacle of figure 1A in a first intermediate position;

figure 1C: an aspect in perspective of the receptacle of figure 1A in a second intermediate position;

figure 1D: an aspect in perspective of the receptacle in an unfolded position;

figure 1E: a cross-section of the receptacle of figure 1A in a position for use;

figure 2: an aspect in perspective of a second preferential embodiment of the invention;

figure 3A: an aspect in perspective of another preferential embodiment of the invention, with the receptacle unfolded and fastening lips in a starting position;

figure 3B: an aspect in perspective of the embodiment of figure 3A, with the receptacle unfolded and the fastening lips bent; and

figure 3C a detailed view of the embodiment of figure 3B.

Figure 1A shows a first embodiment of a receptacle 1 completely folded up. In this condition the receptacle occupies minimum space and can be transported easily. The receptacle 1 comprises a cardboard package 2, with an inner bag 3 inserted in the inside. If the receptacle is intended for holding a liquid, such as water, the inner bag 3 is made liquid-proof, for example in the form of liquid-proof plastic. If the receptacle is intended for holding a solid, such as garden mould, etc, a paper inner bag for example will suffice.

As stated above, the receptacle 1 in the position shown in figure 1A occupies relatively little space (e.g. several millimetres thick, length and width about one or two decimetres). The package consists of two parallel protruding parts, 16 and 17 respectively,

which can hinge with respect to each other by means of ribbed joins or hinges 18,18'. If the hinged parts 16,17 are turned in the direction P_1 (figure 1A), the receptacle 1 unfolds until it has reached the intermediate position shown in figure 1B. In this position the hinges 18,18' are moved away from each other (direction P_2), so that the package unfolds along hinges 19,19' to the position shown in figure 1C.

The inner bag 3 is fastened to the inside of the package 3. In the embodiment shown the package is fastened for this purpose to the top using a glued connection to a fastening edge 8 of the package 3 (figure 1D). The inner bag 3 is also unfolded when the package 2 is unfolded as the inner bag 3 is inserted inside the package 2 and moreover fastened to the inside of the package.

In the unfolded position the flaps on the bottom of the base 7 of the receptacle can be unfolded in direction F3 so that an essentially flat base 7 is provided. This final position is shown in figure 1D.

It will be obvious that many types of foldable bases are possible. Most bases, however, experience the difficulty that the flaps thereof automatically stand up somewhat. The consequence is that the base is no longer flat in practice, and also that the front and rear walls 4,4' and side walls 5,5' of the package 2 are no longer kept at the correct distance apart by the base. If the receptacle is placed upright on a foundation, this could mean that the receptacle becomes unstable.

As, however, the waterproof inner bag 3 is now inserted inside the package 2, the receptacle can be filled (P_4) with garden mould or water (W), as is shown in figure 1E. As a result of the sideways and downward pressure of the water, the side walls 4,41,5,51 are pressed sufficiently outwards and the base 7 is pressed sufficiently downwards to ensure a stable position of the receptacle on the foundation.

If the receptacle is thus placed stably on the foundation, objects such as a bunch of flowers or a plant can be placed in the receptacle.

Figure 2 shows an alternative embodiment of the invention. In this figure the walls 11 and the base 12 of the receptacle 10 are made of waterproof material. Considering that a foldable base with a waterproof seal cannot be achieved in practice without sealing the base with adhesive in some way, a liquid-proof, plastic inner bag 14 is placed on the bottom of the receptacle 10. This inner bag 14 is fastened by a glued connection 15 to the inside of the package 11 in a similar way as described in the earlier embodiment. Making

the connection between the inner bag 14 and the walls 11 of the package liquid-proof prevents liquid from seeping out of the receptacle.

Moreover, a window 20 has been incorporated in one of the walls 11 of the package in the embodiment shown in figure 2, so that the inside of the receptacle is visible to a user on the outside. Considering that garden mould A has been introduced into the receptacle in the embodiment shown in figure 2, the structure of the garden mould can be studied through the window 20. In other embodiments, for example an embodiment in which a vertical window (not shown) is incorporated in the embodiment of figure 1, the window can serve for visual inspection of the water level in the receptacle.

Although not shown in the figures, a double-sided, removable tape or label can be attached to the bottom of the base, which makes adhesion to the foundation possible. A more stable construction is provided in this way and the chance of falling over is decreased still further.

Figure 3A shows a further preferential embodiment of a receptacle 21 according to the invention. The receptacle 21 is largely the same as an earlier discussed embodiment in connection with figure 1 and a detailed description of the construction and of the folding and unfolding of the receptacle can be omitted. The top of the receptacle 21 is provided with four elongated fastening lips 22. Each of the fastening lips has a bendable connection via a bending line 23 to the top edge of the upright walls 24 of the receptacle 21. One of the fastening lips 22 is provided on two sides with protrusions 25. Another fastening lip 22 is provided on second sides with grooves 26. The other two fastening lips 22 are each provided with a protrusion 25 on a first side and a groove 26 on a second, opposite side. Figure 3A shows the receptacle 21 unfolded and the fastening lips in the starting position. In figures 3B and 3C the fastening lips 22 are folded downwards so that the protrusions and grooves of successive fastening lips 22 grip each other. In this position the fastening lips 22, which are bent together and which grip each other, ensure that the receptacle 21 remains unfolded (as the fastening lips 22 restrain the receptacle 21 from folding back). This fixes the receptacle in its unfolded position without using a tool or other fastening materials, such as glue and suchlike.

The present invention is not limited to the preferential embodiments thereof shown here. The requested rights are determined by the following claims, within the context of which various modifications are possible.

CLAIMS

1. Receptacle for holding a medium consisting of a liquid and/or a solid, which receptacle comprises:

- a package that can be folded and unfolded, characterised in that when folded the package occupies minimum space and when unfolded the package defines at least an upright wall and an open side;

- an inner bag to be inserted inside the package, characterised in that the inner bag is made medium-proof to be able to hold the medium when unfolded.

2. Receptacle according to claim 1, characterised in that several fastening flaps are provided on the top of the upright wall to hold the package when unfolded.

3. Receptacle according to claim 2, characterised in that the upright wall comprises three or more upright wall sections and in that a foldable fastening flap is provided on the top of each of the wall sections.

4. Receptacle according to claim 3, characterised in that each of the flaps is provided with at least a protrusion and at least a groove, characterised in that the protrusion of a fastening flap can be inserted into the groove of a following fastening flap to fix the package in an unfolded position.

5. Receptacle according to claim 1, comprising an inner bag inside the package, which can be folded and unfolded with the package, characterised in that the inner bag is medium-proof to be able to hold the medium when unfolded.

6. Receptacle according to one of the preceding claims, characterised in that the inner bag is fastened to the package.

7. Receptacle according to one of the preceding claims, characterised in that the inner bag is fastened to the top edge of the upright wall of the package.

8. Receptacle according to one of the preceding claims, characterised in that the inner bag has such a shape that when unfolded and filled with medium it presses against the inside of the upright wall in order to keep the upright wall in an unfolded position.

9. Receptacle according to one of the preceding claims, characterised in that the package is provided with a foldable base.

10. Receptacle according to claim 9, characterised in that the inner bag has such a shape that when unfolded and filled with medium it presses against the top of the base in

order to keep the base and thus the upright wall in an unfolded position.

11. Receptacle according to one of the preceding claims, characterised in that the fastening has a glued connection.

12. Receptacle according to one of the preceding claims, characterised in that the inner bag is sealed onto the package.

13. Receptacle according to one of the preceding claims, characterised in that the package is made of cardboard, preferably sulphate cardboard.

14. Receptacle according to one of the preceding claims, characterised in that the package is made of liquid-proof cardboard.

15. Receptacle according to claim 14, characterised in that the inner bag is fastened near the bottom edge of the upright wall of the package.

16. Receptacle according to claim 14, characterised in that the inner bag is only fastened to the foldable base.

17. Receptacle according to one of the preceding claims, characterised in that the inner bag is made of liquid-proof plastic, preferably a multi-layer foil of PE, HDPE, LDPE, polyester and/or nylon.

18. Receptacle according to one of the preceding claims, characterised in that one or more windows have been incorporated in the package.

19. Receptacle according to claim 18, characterised in that the inner bag is made of at least partially transparent material.

20. Receptacle according to one of the preceding claims, characterised in that the base is provided with double-sided tape to fasten the package to a foundation.

21. Receptacle according to one of the preceding claims, characterised in that the package can be stacked when unfolded.

22. Receptacle according to one of the preceding claims, characterised in that the outside of the package is provided with decorations.

23. Receptacle according to one of the preceding claims, characterised in that the receptacle forms a vase, beaker or bucket.

24. Use of a receptacle according to one of the preceding claims.

25. Method for holding a medium consisting of a liquid and/or a solid, which method comprises:

- the provision of a receptacle according to one of the claims 1-23;

- the unfolding of the package;

- the unfolding of the inner bag simultaneously with the unfolding of the package;

- the introduction of medium into the inner bag along the open side of the package and the opening in the inner bag in order to retain the shape of the package.

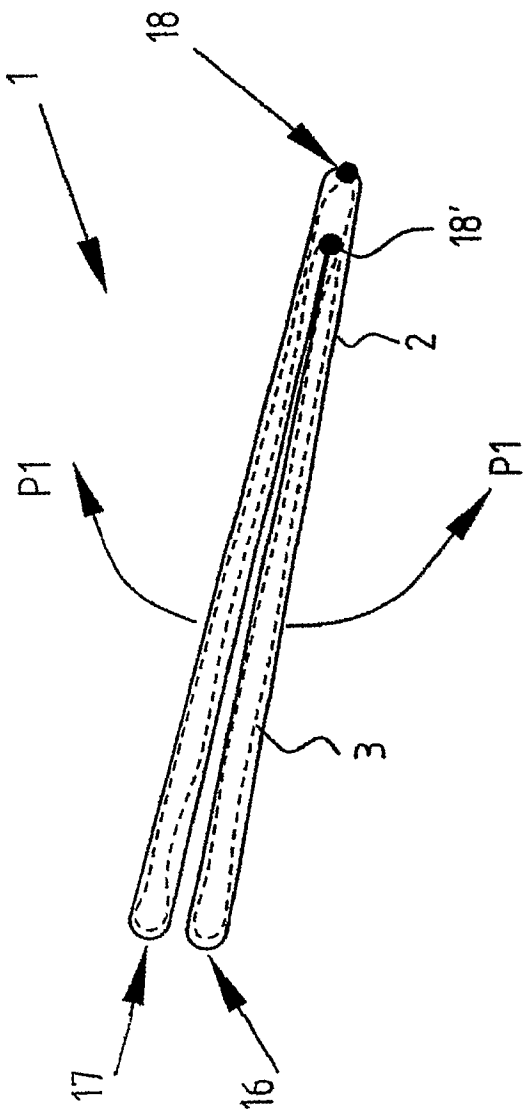


FIG. 1A

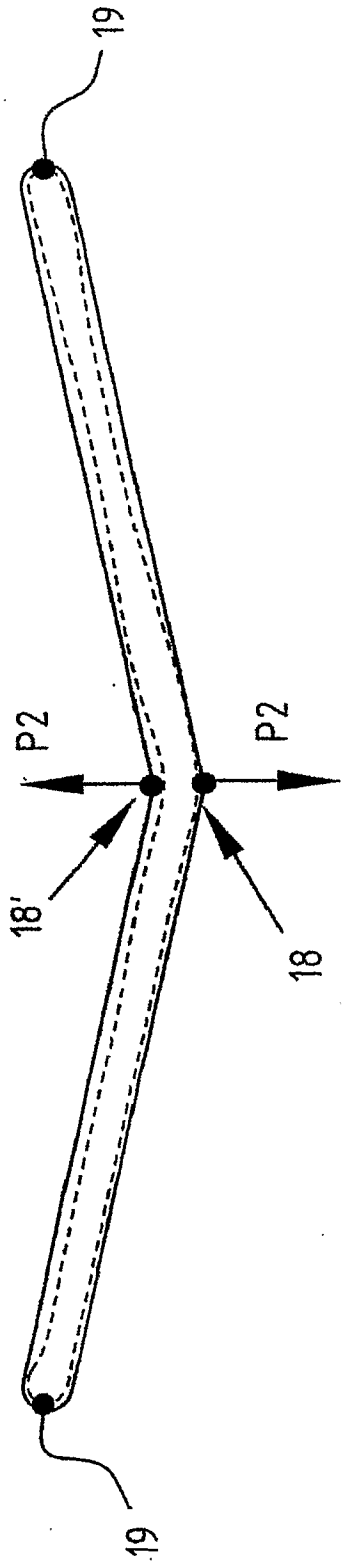


FIG. 1B

SUBSTITUTE SHEET (RULE 26)

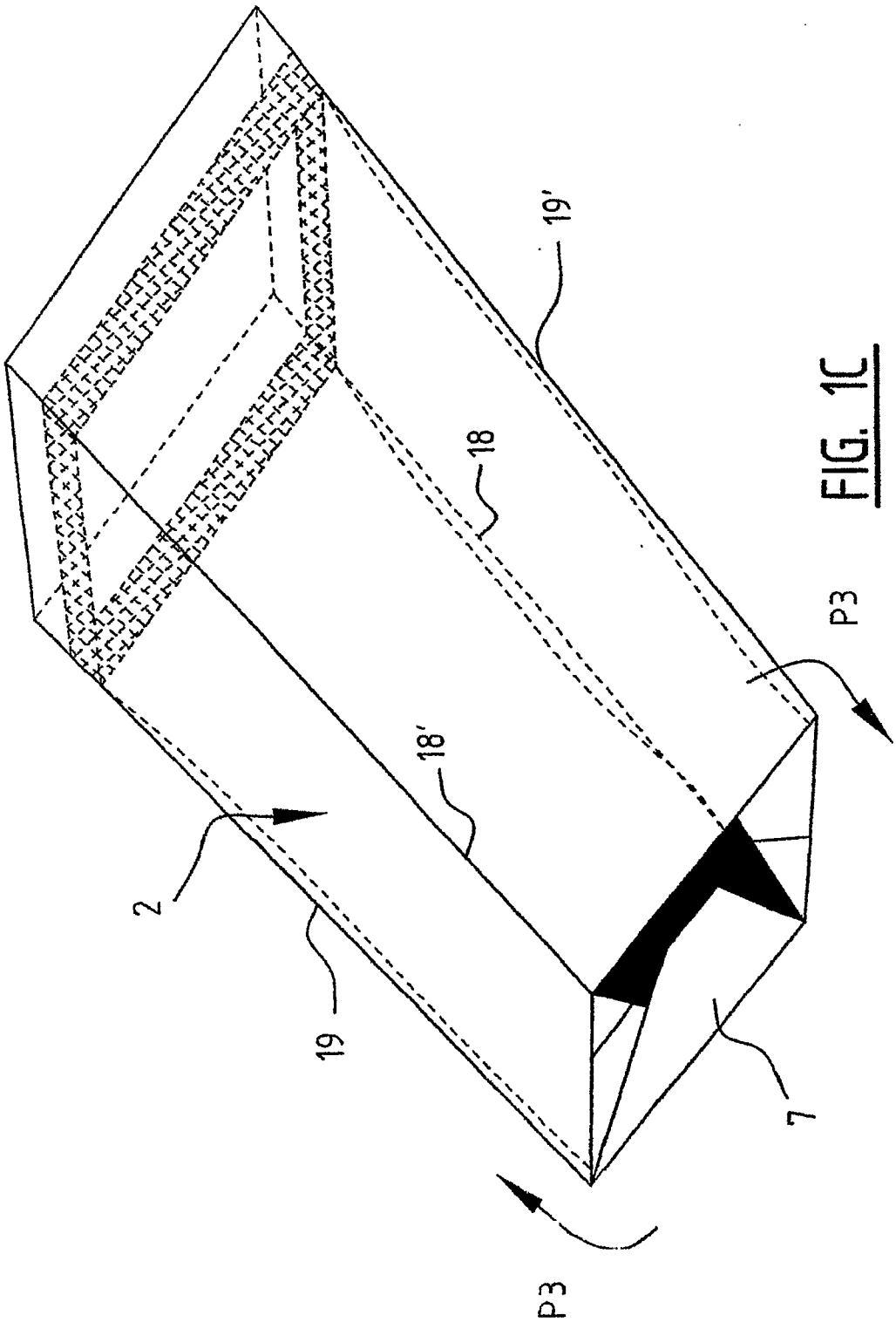


FIG. 1C

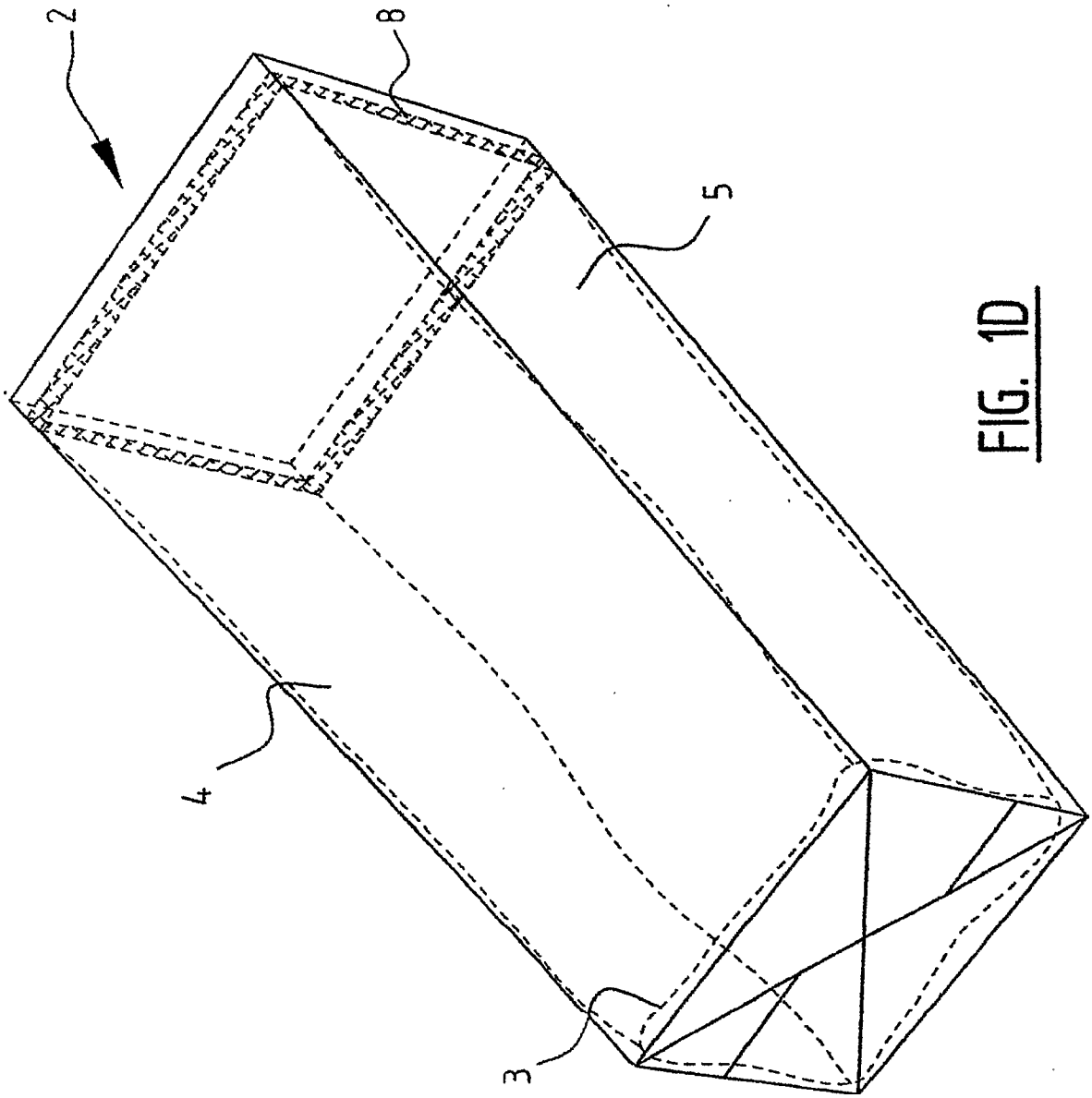


FIG. 1D

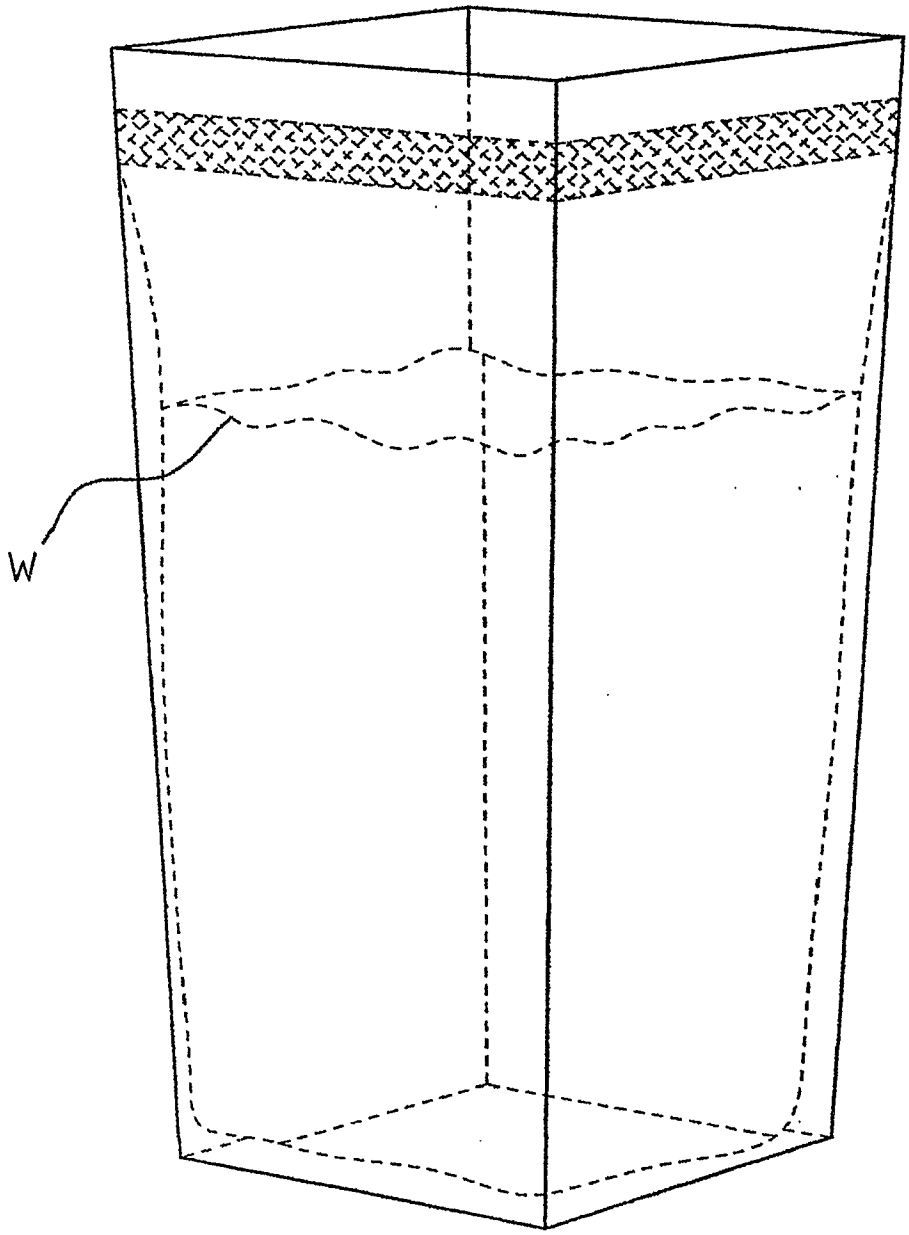


FIG. 1E

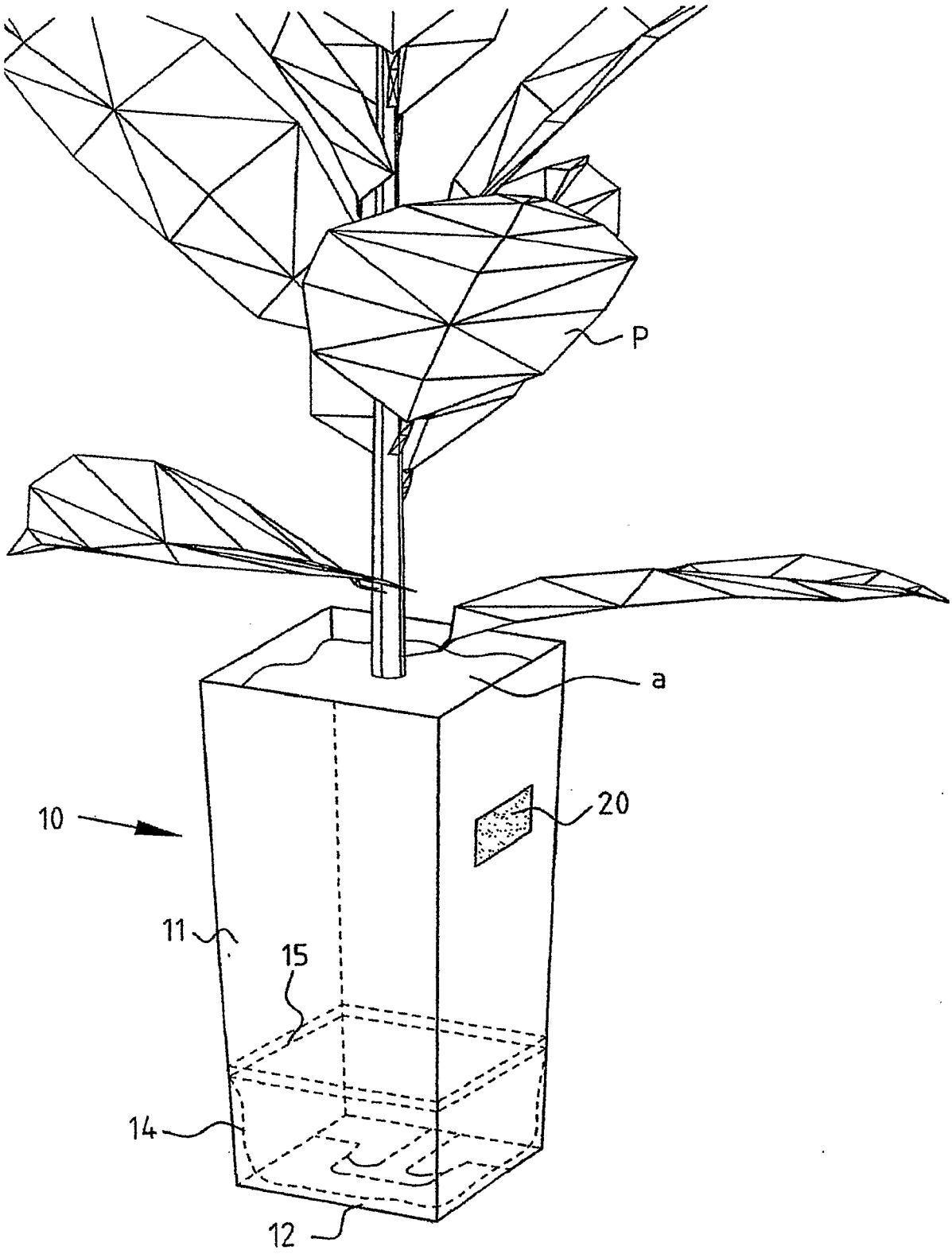
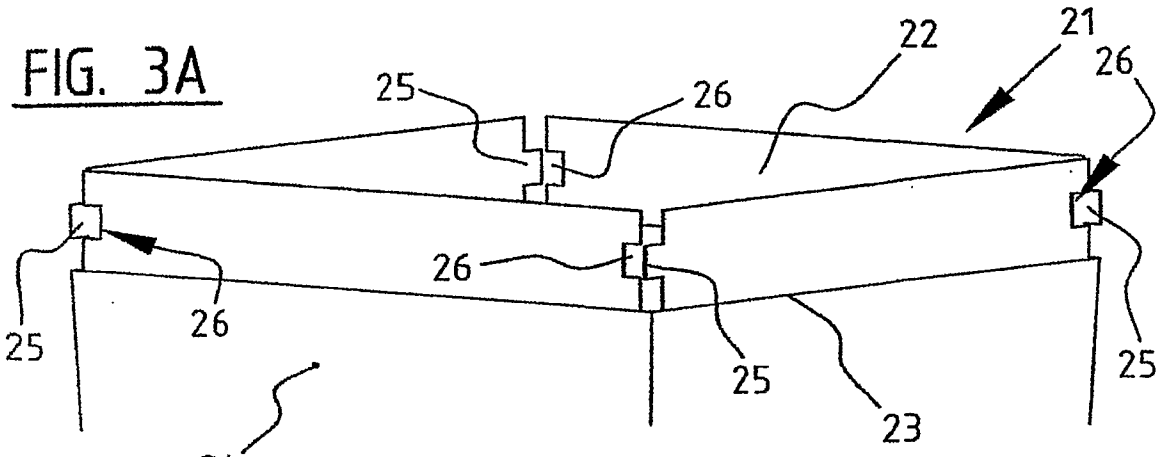


FIG. 2

FIG. 3A



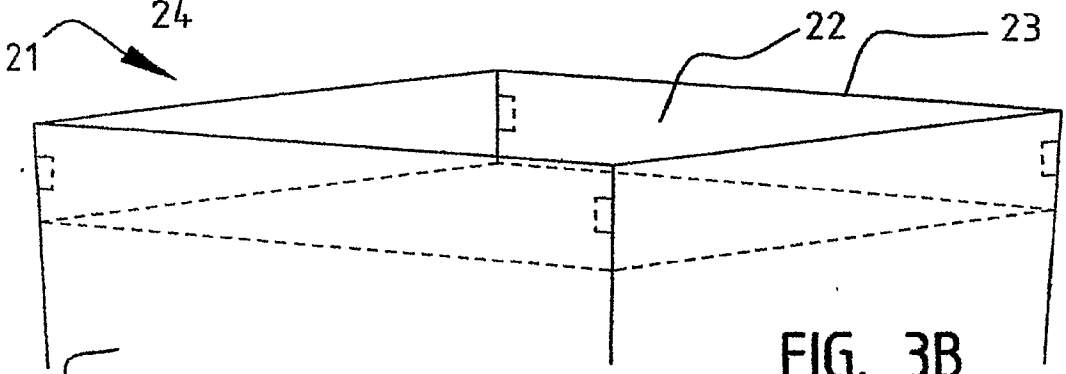
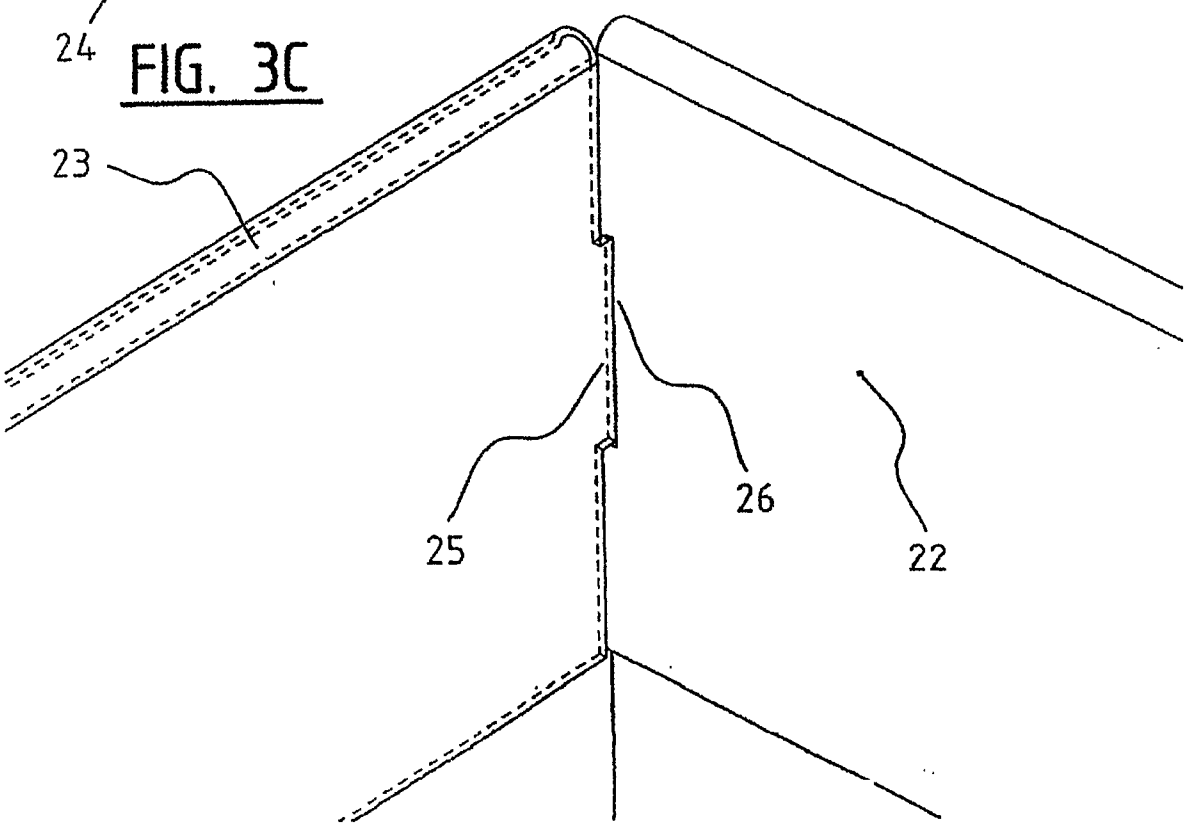


FIG. 3B

FIG. 3C



INTERNATIONAL SEARCH REPORT

International application No
PCT/NL2006/000481

A. CLASSIFICATION OF SUBJECT MATTER
INV. B65D5/60 B65D85/50 B65D5/36 A47G7/06

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 A47G A01G

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 practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	the whole document	20
Y	US 5 895 540 A (DAVID ET AL) 20 April 1999 (1999-04-20) abstract; figures 2-7	20
X	FR 2 778 177 A1 (BENICH SEBASTIEN [FR]) 5 November 1999 (1999-11-05) page 2, line 30 - page 4, line 20; figures 1-3	1-3, 8-10,13, 17-19, 22-25

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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19 December 2006	28/12/2006

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INTERNATIONAL SEARCH REPORT

International application No
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Information on patent family members

International application No
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