

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

**EP 0 603 984 B1**

(12)

**EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention  
of the grant of the patent:  
**11.03.1998 Bulletin 1998/11**

(51) Int. Cl.<sup>6</sup>: **B65D 85/52**, B65D 5/50

(21) Application number: **93203658.5**

(22) Date of filing: **23.12.1993**

**(54) Wrapping for plants or flowers in a potlike container**

Hülle für Pflanzen oder Blumen in einem topfartigen Behälter

Gaine pour plantes ou fleurs disposées dans un récipient en forme de pot

(84) Designated Contracting States:  
**BE DE FR GB IT NL**

(30) Priority: **24.12.1992 NL 9202265**

(43) Date of publication of application:  
**29.06.1994 Bulletin 1994/26**

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**EP 0 603 984 B1**

## Description

The invention relates to a wrapping adapted for locked securement to a flange-shaped edge of a potlike or boxlike container for accommodating, for instance, plants or flowers, and which is made from a relatively stiff material of resilient properties, from which material a tubular element has been formed, which, at least at one end, has an open or openable passage and, in the area of that end, comprises at least one opening or cut forming at least one stop shoulder for abutment against a flanged edge of the container.

Such a wrapping is disclosed in EP-A-0 488 472. In the embodiments shown therein the securement of the wrapping on the container is realised in that, at the level of the flanged edge, the material which has been rounded springs back into a more planar position at the location of the cut. A container introduced from above will push away the tubular element wall portion located above the cut and subsequently abut against the tubular element wall portion located under the cut, which has sprung back. By pulling the flanged edge against the stop shoulder, the tubular element is somewhat stretched at the location of the cut, so that the wall portion located above the cut is allowed to spring back, so that the container is click-fitted in the wrapping in a locked position. Such a wrapping has proved a major success for wrapping cacti, potted plants and the like which are transported for instance in trays. A limitation of this known mechanism, however, resides in the introduction of the container from above, which may present problems in particular when packaging relatively large containers with relatively heavy contents.

A wrapping for packaging and transporting relatively heavy containers is disclosed in US-A-4,330,059, being in the form of a tubular element having a bottom which is formed by flaps formed on the tubular element which are folded back through 90°. The container is locked by inwardly pushed tabs formed from the tubular element, engaging the upper edge of the container. This constitutes a load on the bottom. To prevent the bottom from opening spontaneously, which is undesired, the wrapping is placed in an additional boxlike part and connected therewith by means of binding wires. In the case where potted plants are packaged in this manner, they cannot be watered because otherwise the bottom might become soft and tear when the wrapping is lifted. With this known wrapping, too, the container must be introduced into the wrapping from above.

The object of the invention is to provide such measures that even in the case of relatively large and/or heavy containers, the tubular element can be simply and conveniently fitted and secured to them.

According to the invention, this is realised in a wrapping of the type referred to in the preamble in that a first stop shoulder is formed by first locking means, provided near the one end of the tubular element, in the form of tab or panel portions adapted to be pushed inwardly

into the tubular element and a second stop shoulder is formed by second locking means, formed on the one end of the tubular element, in the form of tabs adapted to be swung back inwardly through approximately 180°, the first and the second locking means in their non-locking end position being situated such that at least the part of the first locking means that forms the first stop shoulder can be slipped past the flange-shaped edge of the container. By virtue of these measures, the wrapping can be locked onto the container without requiring the container to be lifted for the purpose. This can be realised by slipping the tubular element from above over the container until the first locking means are located beyond the flange-shaped edge of the container, i.e. beyond the intended locking position of the wrapping on the container, so that the tabs, being clear of the flange-shaped edge, can be swung into the position wherein they form the second stop shoulder. By subsequently pulling the tubular element upwards, the second stop shoulder comes into contact with the undersurface of the flange-shaped edge and the locking of the wrapping onto the container can be completed by pushing the tab or panel portions inwards, so that the first stop shoulder comes into contact with the top surface of the flange-shaped edge, so that this edge is clamped between the first and second locking means, which provides the intended locking position of the wrapping on the container.

For the purpose of transporting wrappings to the place where they are to be fitted to a container, it is preferred that the wrappings can be brought into a flat collapsed position. To that end, it is preferred, in accordance with a further embodiment of the invention, that the first and the second locking means in their non-locking starting position are located in the plane of the tubular element.

It is observed that by virtue of the procedure of slipping the tubular element over the container and subsequently locking the tubular element by forming first and second stop shoulders, the basic shape of the tubular element is in fact no longer relevant, i.e. the tubular element may have a narrowing or a widening tapering shape or a straight shape and further may have any desired cross section, whether it be round, oval, polygonal, polygonal with rounded corners or any other shape, because the tubular element can always be locked relative to the container in extremely reliable manner by virtue of a suitable design of the stop shoulders.

For the purpose of forming such a stop shoulder, it is preferred, in accordance with a further embodiment of the invention, that each stop shoulder is formed by a cut-clear edge of a locking part of the tubular element, hinging about a hinge line, because in this way a stop shoulder can be obtained which can be situated at a distance which is clearly greater than once or twice the material thickness from the circumferential surface of the tubular element, so that a particularly reliable lock-

ing action can be obtained.

If, further, the locking part is exclusively connected with the rest of the tubular element through a hinge line, a tab or strip can be obtained which can be bent from the plane of the tubular element, which tab or strip should of course be situated such that it can form a stop shoulder capable of effecting a locking arrangement on the flanged edge of the container in cooperation with a further stop shoulder.

A first embodiment of such a locking part is obtained if the hinge line includes an angle with a horizontal plane, each end of the hinge line being adjoined by a cut-clear edge, one of which forms a stop shoulder. If the angle referred to is  $90^\circ$ , the stop shoulder will extend perpendicularly to the plane of the tubular element. In the case of a straight tubular element and a horizontal flanged edge surface, this means a surface-to-surface abutment of the stop shoulder. If it is desired that the stop shoulder slants relative to the flanged edge surface, for instance for creating a clamping effect, the angle referred to should deviate from  $90^\circ$ . In the case of a tapering tubular element, the same effects can be achieved through an appropriate choice of the angle referred to.

A further possibility is for the hinge line to extend substantially parallel to a horizontal plane, each end of the hinge line being adjoined by a cut-clear edge, which edges are connected by a further cut-clear edge, which extends substantially parallel to the hinge line and, upon being turned inwardly into a substantially vertical position, forms a stop shoulder. In this way a stop shoulder can be obtained which can extend over a relatively large length at a distance from and substantially parallel to the plane of the tubular element. Such a stop shoulder provides advantages in particular in the case of a container having at least partly straight flanged edge portions and relatively heavy contents, because, for the purpose of lifting the container via the tubular element, relatively long second stop shoulders bearing the container can be created, it being preferred, with a view to the distribution of forces, that such a locking part is provided centrally in a panel and that in the case of a rectangular tubular element at least two opposite panels are provided with locking parts.

Such a locking part can be formed by providing one or a plurality of cuts in the tubular element. As far as a locking part for forming a second stop shoulder is concerned, however, it may be preferred, in order to save material, that the locking part is a tab-shaped or strip-shaped projection which is connected with the rest of the tubular element through the hinge line.

A different manner of forming particularly stable stop shoulders is characterised in that in a tubular element having a circumferential surface formed from a plurality of panels interconnected by fold lines, the cut-clear edge extends in two panels, a hinge line slanting from each end of the cut-clear edge in the direction of the fold line between the two panels, which hinge lines

meet in that fold line in V-shaped configuration. In this way at a corner a nose is obtained which swings inwardly upon being pressed inwards. By virtue of the fact that in this way a locking part is obtained which is made up of portions of two panels making an angle with each other, the nose has two stable positions. In the first position the constituent portions of the nose are disposed in the same planes as the two panels. By pressing the nose at the location of the fold line, the tubular element is resiliently deformed, the constituent portions of the nose thereby being gradually pushed into the same plane. When the last-mentioned position has been reached and a slight further pressure is exerted, the nose, with the help of the resilience in the tubular element, will slip into the second, stable position, which is mirror-symmetrical relative to the first position. With such a nose both a first and a second stop shoulder can be formed which extends parallel to the stop surface of the flanged edge or makes an angle therewith, depending on the orientation of the cut-clear edge, for instance to effect a particular clamping effect as mentioned hereinabove.

When employing a tapering tubular element having an at least partly curved circumferential surface, an inwardly pushable nose can be realised if the cut-clear edge is located in that curved portion and an arcuate hinge line in the tapering portion of the tubular element adjacent to the cut-clear edge connects the two ends of the cut-clear edge.

A further possibility of realising a locking part for forming a stop shoulder is obtained if the hinge line makes an angle which is preferably  $90^\circ$  with a horizontal plane, each end of the hinge line being adjoined by one end of a cut-clear edge, which preferably extends parallel to the horizontal plane, one of the two cut-clear edges forming a stop shoulder, whilst the two edges are interconnected at their other ends through a second hinge line making an angle which is preferably  $90^\circ$  with a horizontal plane. Such a design of the locking part is possible both in a polygonal tubular element, viz. at each corner, and in a tubular element having an at least partly curved surface, viz. in that curved portion. Such a locking part is initially located in the plane of the tubular element and can be snapped into the position wherein it forms the stop shoulders by inward pressure. If this locking part is provided at a corner of a polygonal tubular element, the fold line between two panels will form a further hinge line between the two hinge lines. A similar further hinge line may also be present in a locking part provided in a tubular element having an at least partly curved circumferential surface.

With reference to the embodiments shown in the drawings, the wrapping according to the invention will now be further clarified and explained, by way of example only. In the drawings:

Fig. 1 shows a blank for making a quadrangular wrapping which can be secured both to a round and

to a quadrangular or octagonal container;

Fig. 2 is a perspective view of a wrapping made from a blank according to Fig. 1, placed on a round container, with omission of one of the cover parts;

Fig. 3 is an elevation of a second embodiment of the wrapping, shown partly in a position wherein it is being fitted and partly in a locked position, and placed on a quadrangular container;

Fig. 4 is an enlarged view of a modified embodiment of a locking part;

Fig. 5 shows a further variant of a locking part;

Fig. 6 is a perspective view of a round wrapping placed and locked on a round container;

and

Fig. 7 is an enlarged view of a modified embodiment of a locking part to be provided in a curved wall.

The blank shown in Fig. 1 is made from a relatively stiff and relatively little flexible material, such as corrugated board, and comprises four identical panels 1-4 having the shape of an isosceles trapezoid, the panels 1 and 2, 2 and 3, and 3 and 4, respectively, being coupled to each other through a fold line 5, 6, and 7, respectively. Through a fold line 8 the panel 4 is connected with a coupling strip 9 connectable to the panel 1 for forming a tubular element from the blank. Near the narrow end of the trapezoid, each panel is centrally provided with a H-shaped cut 10, the free ends of the two legs of the H-shape being connected through a fold line 10a, so that two tabs 10b are formed which can be bent from the plane of the panel. Further, at the edge at its narrow end, each panel is centrally provided with a tab portion 11 connected to the panel through a fold line 11a. The panels 1 and 3 are provided with handgrip cuts 12, the portion of the panel in question which has been cut loose being swingable about a fold line 12a to provide an aperture for passing a number of fingers there-through.

Connected to the long end of the trapezoidal shape of the panels 1 and 3 through a fold line 13 is a flap 14 which is further connected with a foldback flap 16 through a fold line 15 parallel to the fold line 13. Provided centrally in the flap 14 is a slot 17, which begins at the fold line 13, extends perpendicularly thereto and continues into the foldback flap 16 but ends at a distance from the free edge of that foldback flap 16.

Connected to the long ends of the panels 2 and 4 through a fold line 18 is a cover panel 19, whilst an insertion panel 20 in turn is coupled with the cover panel 19 through a fold line 21. The fold line 21 does not extend over the full width of panels 19 and 20, but only from the two side edges as far as a semicircular cutting line 22 in the cover panel 19. This cutting line 22, too, is divided into two parts, viz. by a centrally provided coupling flap 23 which is connected on one side with the cover panel 19 through a fold line 24 and on the other side with a semicircular support panel 26 through a fold

line 25, the support panel 26 being made partly from material of the insertion panel 20 and partly from material of the cover panel 19. The support panel 26 has been cut loose through cutting lines substantially identical in shape to the cutting lines 22 and is further connected with the insertion panel 20 through a fold line 27. The fold lines 24, 25 and 27 extend parallel to each other and also parallel to the fold lines 18 and 21. Further, the distance between the fold lines 21 and 27 is substantially equal to that between the fold lines 24 and 25. In the insertion panel 20 in the side edge areas thereof, cuts 28 are provided at a distance from the side edge corresponding with the width of the flap 14.

Fig. 2 shows a wrapping made from this blank, which is locked onto a potlike container 29 having an annular flanged edge 30. To provide a better view of the cover construction, one of the cover panels 19 with the parts attached thereto has been omitted from fold line 18.

Tubular element 31 in the form of an inverted truncated pyramid has been obtained by securing the coupling strip 9 to the panel 1, for instance by gluing. The tubular element 31 with tabs 10b and tab portions 11 located in the plane of the relevant panel has a lower passage such that the tubular element 31 can be slid from above over the annular edge 30 of the container 29. After the tubular element 31 has thus been fitted onto the container 29, the tab portions 11 are turned inwardly into a substantially vertically upwardly directed position and simultaneously or thereafter those tab portions 11 are brought into abutment with the undersurface of the flanged edge 30. Typically, the flanged edge will be of depending design, so that such edge in cross section has the form of an inverted U-shaped channel. In that case the tab portions 11 extend into this channel and are located in a particularly reliably locking position. In a number of cases, for instance if the free leg of the inverted U-shaped channel is provided on the inside thereof with an undercut portion, the locking action can be further improved by providing the tab portions 11 at the stop shoulder with lateral projections adapted to snap into the undercut portion or engage in or behind a wall portion of the container in any other manner.

To complete the securement of the tubular element 31 to the flanged edge 30 of the container 29, the tabs 10b are subsequently pressed inwards, whereby the free lower edge of each tab 10b comes into contact with the top surface of the flanged edge 30, so that this flanged edge is gripped from two sides and clamped, which completes the locked securement of the tubular element 31 onto the container 29.

It is noted that, for the purpose of placing the tubular element 31 onto the container 29, it is also possible, prior to slipping the tubular element 31 onto the container 29, first to turn the tabs 10b inwardly, the movement of the tubular element 31 being fitted onto the container from above being stopped by the abutment of the inwardly turned tabs 10b against the top surface of

the flanged edge 30. By subsequently turning up the tab portions 11 inwardly, the securement of the tubular element 31 to the container 29 can be completed.

Before or after the tubular element 31 has been slipped onto the container 29 and been secured thereto, it can be closed at its top. This is effected by swinging the flaps 14 inwardly about the fold lines 13 into a substantially horizontal position, whilst the foldback flaps 16 are turned further into a position wherein they extend vertically downwards into the tubular element 31. Thereafter the cover panels 19 are swung inwardly about the fold lines 18 into a substantially horizontal position, while at the same time care has been taken that the insertion panels 20 have been turned about the fold lines 21, the arrangement being such that the insertion panels 20 and the foldback flaps 16 fit into each other in cruciform configuration, as shown in Fig. 2, which further shows that by swinging the insertion panel 20 relative to the cover panel 19, also the support panel 26 swings about the fold line 27 and the coupling flap 23 about its fold lines 24 and 25, so that the support panel 26 has ended up in a substantially horizontal position and the coupling flap 23 in a substantially vertical position. Thus an accommodating recess for a further container has been formed in the cover of the tubular element 31 and this provides the possibility of stably stacking a plurality of containers with wrappings secured thereto. In this connection, the support panel has an additional advantage in that it provides a protection for pollutions originating from the superjacent container, so that the contents of the subjacent container 29 accommodating products, such as plants or cut flowers, for packaged transportation cannot be contaminated by the pollutions referred to.

The tubular element 31 has a tapering shape. However, this shape could also have been straight without this having any consequences for tabs 10b and the tab portions 11.

Fig. 3 shows a further exemplary embodiment of a straight tubular element. The tubular element 41 shown in side elevational view there is depicted on the left in the position wherein it has been secured to a cross-sectionally rectangular container 42 with flanged edge 43 and on the right in the position wherein it is being slipped onto the container. The tubular element comprises four panels 44, mutually separated by fold lines, which, through a coupling flap (not shown), have been formed into a tubular part of a constant cross section which is so large that the tubular element can be slipped from above over the flanged edge 43.

Each panel 44 comprises two fold lines 45 slanting downwards from the corner fold line between two panels. Connecting to the terminal end of a fold line 45 ending in the panel is a cutting line 46 extending in the direction of the corner fold line referred to at an angle with the horizontal. Thus, in each corner area of the tubular element 41 an inwardly pushable nose has been formed, which consists of two triangular panel portions

47 each bounded by a corner fold line, a fold line 45 and a cutting line 46, which panel portions 47 adjoin at the location of the corner fold line in V-shaped configuration at a 90° angle. In the right-hand portion of Fig. 3 the nose is depicted in its starting position and in the left-hand portion in an inwardly bent position which has been obtained, starting from the starting position, by pushing the nose inwardly approximately at the location of the corner fold line. As a result, partly by virtue of the resilience of the material from which the tubular element 41 is made, the two panel portions 47 will be swung further apart until the panel portions 47a are in line. As a result of continued pushing, the panel portions will slip into the inwardly bent position shown, which is a stable position, like the starting position.

Centrally of its lower edge, the depicted panel 42 is extended to include a tab 48 connected with the panel 44 through a fold line 49. In the right-hand portion of Fig. 3 the tab 48 is depicted in its starting or sliding position; in the left-hand portion in its locking or securing position, where the tab 48 has been turned inwards relative to its starting position into a substantially vertically upwardly directed position, where the tab 48 abuts against the undersurface of the flanged edge 43. Such a tab 48 may be formed on each panel 44 or just on two opposite panels. This applies to tubular elements made from four panels as well as those made from any other number of panels, for instance six or eight. The same can be said about the handgrip opening 50, it being noted that such opening may further have a ventilation function, in particular if a tubular element is provided with a cover closing the top.

As mentioned, a cover may further have a bearing and stacking function. In the case of an open tubular element, such a function can be obtained by providing each panel with two fold lines 51 slanting upwards from the corner fold line and terminating at the upper edge of the tubular element 41. Thus, in conformity with the above, inverted, inwardly pushable noses have been formed at the corners of the tubular element 41, these noses, in their inwardly pushed position, constituting points of support for a container to be placed thereon.

The tubular element 41 can be fitted and secured to the flanged edge 43 of the container 42 in the same manner as discussed above with reference to Fig. 2.

In Fig. 3 a further variant embodiment is indicated by means of a broken line 52. The broken line 52 indicates that the tubular element 41 may be extended as far as the lower end of the container, where, if so desired, closing bottom parts may be present. It will be clear that the tab 48 is then formed by a U-shaped cut in the extended panel 44.

Fig. 4 shows a variant of the inwardly pushable tabs 10a or tab portions 11 according to Fig. 2 or of the inwardly pushable noses or tabs 48 according to Fig. 3. In Fig. 4 the locking part is formed by providing two cutting lines 54 in a panel 53, one end of these cutting lines 54 being located on the corner fold line 55 between two

panels and the other ends being connected by a fold line 56. Thus an inwardly pushable ear can be obtained, which is shown in Fig. 4 in its inwardly bent position, the free lower edge of the inwardly pushed ear being in contact with the upper surface of a flanged edge 57 of a container (not shown). It is noted that similarly it is possible to provide an inwardly pushed ear which engages the lower edge of the flanged edge.

A further variant embodiment of a locking part is shown in Fig. 5. Here a triangular, inwardly pushable tab 58 has been formed by providing two cutting lines 60 and 61 in a panel 59, these cutting lines meeting to form an L, whilst the free ends of those cutting lines 60 and 61 are connected with each other through a fold line 62. Preferably, and as shown in Fig. 5, such a construction is made of double design. As the tabs 58 are being pushed inwards, the free lower edge thereof comes into abutting contact with the top surface of a flanged edge 62. Such a construction can also be provided at the location of a corner fold line, with the cutting line 61 coinciding with that corner fold line. By providing the cutting line 60 at a slant relative to the horizontal, any desired clamping point or line contact between the lower edge of the tab 58 and the top surface of the flanged edge 62 can be realized, depending on the inclination of that angle, the angle between the fold line 62 and the horizontal, and the angle between the tubular element and the top surface of the flanged edge.

Fig. 6 depicts a cylindrical tubular element 71 having a cross section such that it can be slipped from above over a flanged edge 72 of a round container 73. The tubular element 71 is secured to the container 73 by means of a number of bent-over tabs 74, one of which is shown, and a number of inwardly pushed tabs 75, two of which are shown. In view of the above, the shape and design of the tab 74 will require no further explanation. A tab 75 has been formed by providing two horizontal cuts 76 in the wall of the tubular element 71, the terminal ends of the cuts 76 being interconnected through two fold lines 77. Initially, tabs so formed are substantially located in the plane of the tubular element 71 and they can be set in their locking position by pushing them inwardly, which is made possible by the resilience of the material from which the tubular element is made, this resilience further ensuring that the tab 75, in the inwardly pushed position thereof, is in a stable position.

In this connection, it is again noted that the tabs 74 can equally be replaced with tabs 75 or any other suitable retaining element, whilst, further, the round straight tube may have a tapering configuration in either direction.

A variant of the last-mentioned tab is shown in Fig. 7, where centrally between the two fold lines 77 a further fold line 78 has been provided, so that, as shown, the inwardly pushed tab acquires a V-shape.

It will be understood that, in addition to the above-indicated possibilities, many other variants and modifi-

cations are conceivable within the concept of the invention. For instance, the centrally provided tabs to be turned up inwardly may also be provided off the center. Also, in the case of polygonal tubular elements, it is possible to form several tabs on a panel, or a strip-like tab extending substantially over the entire width of the panel. The containers shown all taper off towards the bottom. These containers may equally be straight or taper off in the opposite direction. Further, in particular in the case of a round tubular element, if so desired, a loose cover may be provided, whether or not comprising stacking provisions.

## Claims

1. A wrapping adapted for locked securement to a flange-shaped edge (30; 43; 57; 72) of a potlike or boxlike container (29; 42; 73) for accommodating, for instance, plants or flowers, and which is made from a relatively stiff material of resilient properties, from which material a tubular element (31; 41; 71) has been formed, which, at least at one end, has an open or openable passage and, in the area of that end, comprises at least one opening or cut (10; 46; 54; 60; 76) forming at least one stop shoulder for abutment against a flanged edge of the container, characterised in that a first stop shoulder is formed by first locking means (10b; 47; 58; 75), provided near the one end of the tubular element, in the form of tab or panel portions adapted to be pushed inwardly into the tubular element and a second stop shoulder is formed by second locking means (11; 48; 74), formed on the one end of the tubular element, in the form of tabs adapted to be swung back inwardly through approximately 180°, the first and the second locking means in their non-locking end position being situated such that at least the part of the first locking means that forms the first stop shoulder can be slipped past the flange-shaped edge of the container.
2. A wrapping according to claim 1, characterised in that the first (10b; 47; 58; 75) and the second (11; 48; 74) locking means, in their non-locking starting positions, are located in the plane of the tubular element (31; 41; 71).
3. A wrapping according to claim 1 or 2, characterised in that each stop shoulder is formed by a cut-clear edge (46; 54; 60; 76) of a locking part (10b; 11; 47; 48; 58; 74; 75) of the tubular element (31; 41; 71) that can be swung about a hinge line (10a; 45; 49; 56; 62; 77).
4. A wrapping according to claim 3, characterised in that the locking part (10b; 11; 58) is exclusively connected with the rest of the tubular element (31; 41; 71) through a hinge line 10a; 62).

5. A wrapping according to claim 4, characterised in that the hinge line (62) includes an angle with a horizontal plane, each end of the hinge line being adjoined by a cut-clear edge (60; 61), one (60) of which forms a stop shoulder. 5
6. A wrapping according to claim 4, characterised in that the hinge line (10a) extends substantially perpendicularly to a horizontal plane, each end of the hinge line being adjoined by a cut-clear edge, said edges being connected by a further cut-clear edge. 10
7. A wrapping according to claim 4, characterised in that the hinge line extends substantially parallel to a horizontal plane, each end of the hinge line being adjoined by a cut-clear edge, said edges being connected by a further cut-clear edge which extends substantially parallel to the hinge line and, after the locking part (11; 48; 74) has been turned inwardly into a substantially vertical position, forms a stop shoulder. 15 20
8. A wrapping according to claim 7, characterised in that the locking part (11; 48; 74) is designed as a tab-shaped or strip-shaped projection which is connected with the rest of the tubular element (31; 41; 71) through the hinge line. 25
9. A wrapping according to claim 7 or 8, characterised in that in a tubular element (31) having a circumferential surface formed from a number of panels (1-4) interconnected by fold lines (5-8) a locking part (10a) is provided centrally in a panel. 30
10. A wrapping according to claim 9, characterised in that in a rectangular tubular element (31) at least two opposite panels (1, 3; 2, 4) are provided with locking parts (10a; 11). 35
11. A wrapping according to claim 3, characterised in that in a tubular element (41) having a circumferential surface formed from a number of panels (44) interconnected by fold lines the cut-clear edge (46) extends in two panels, a hinge line (45) slanting from each end of the cut-clear edge in the direction of the fold line between the two panels, said hinge lines meeting on said fold line in V-shaped configuration. 40 45
12. A wrapping according to claim 3, characterised in that in a tapering tubular element (71) having an at least partly curved circumferential surface, the cut-clear edge is located in said curved portion and an arcuate hinge line in the tapering portion of the tubular element connects the two ends of the cut-clear edge. 50 55
13. A wrapping according to claim 3, characterised in

that the hinge line (77) includes an angle, which is preferably 90°, with a horizontal plane, each end of the hinge line being adjoined by one end of a cut-clear edge (76), preferably extending parallel to the horizontal plane, one of said cut-clear edges forming a stop shoulder, whilst the two edges are interconnected at their other ends by a second hinge line (77) including an angle, which is preferably 90°, with a horizontal plane.

14. A wrapping according to claim 13, characterised in that between the two hinge lines (77) at least one further hinge line (78) is provided, including an angle, which is preferably 90°, with a horizontal plane.

#### Patentansprüche

1. Verpackung zur verriegelten Befestigung an einem flanschförmigen Rand (30; 43; 57; 72) eines topf- oder kastenähnlichen Behälters (29; 42; 73) zur Aufnahme von, zum Beispiel, Pflanzen oder Blumen, und die aus einem relativ steifen Material mit nachgiebigen Eigenschaften besteht, aus dem ein rohrförmiges Element (31; 41; 71) gebildet ist, das wenigstens an einem Ende eine offene oder zu öffnende Durchlaßöffnung aufweist und im Bereich dieses Endes wenigstens eine Öffnung oder einen Einschnitt (10; 46; 54; 60; 76) aufweist, der wenigstens eine Anschlagsschulter zur Anlage an einem Flanschrand des Behälters bildet, dadurch gekennzeichnet, daß eine erste Anschlagsschulter durch eine nahe dem einen Ende des rohrförmigen Elements vorgesehene erste Verriegelungseinrichtung (10b; 47; 58; 75) in Form von nach innen in das rohrförmige Element drückbaren Laschen oder Plattenbereichen gebildet ist und eine zweite Anschlagsschulter durch eine zweite Verriegelungsschulter (11; 48; 74) gebildet ist, die an ein dem einen Ende des rohrförmigen Elements in Form von Laschen ausgebildet ist, die nach innen über ungefähr 180° verschwenkbar sind, wobei die erste und die zweite Verriegelungseinrichtung in ihrer nicht verriegelten Endstellung derart angeordnet sind, daß wenigstens der Teil der ersten Verriegelungseinrichtung, der die erste Anschlagsschulter bildet, an dem Flanschrand des Behälters vorbei gedrückt werden kann.
2. Verpackung nach Anspruch 1, dadurch gekennzeichnet, daß die erste (10b; 47; 58; 75) und die zweite (11; 48; 74) Verriegelungseinrichtung in ihren nicht verriegelten Ausgangspositionen in der Ebene des rohrförmigen Elements (31; 41; 71) angeordnet sind.
3. Verpackung nach Anspruch 1 oder 2, dadurch gekennzeichnet, daß jede Anschlagsschulter durch

- einen freigeschnittenen Rand (46; 54; 60; 76) eines Verriegelungsteils (10b; 11; 47; 48; 58; 74; 75) des rohrförmigen Elements (31; 41; 71) gebildet ist, der um eine Gelenklinie (10a; 45; 49; 56; 62; 77) verschwenkbar ist. 5
4. Verpackung nach Anspruch 3, dadurch gekennzeichnet, daß das Verriegelungsteil (10b; 11; 58) mit dem Rest des rohrförmigen Elements (31; 41; 71) ausschließlich über eine Gelenklinie (10a; 62) verbunden ist. 10
5. Verpackung nach Anspruch 4, dadurch gekennzeichnet, daß die Gelenklinie (62) einen Winkel mit einer horizontalen Ebene einschließt, wobei an jedes Ende der Gelenklinie ein freigeschnittener Rand (60; 61) anschließt, von denen einer (60) eine Anschlagsschulter bildet. 15
6. Verpackung nach Anspruch 4, dadurch gekennzeichnet, daß sich die Gelenklinie (10a) im wesentlichen senkrecht zu einer horizontalen Ebene erstreckt, wobei sich an jedes Ende der Gelenklinie ein freigeschnittener Rand anschließt und die Ränder durch einen weiteren freigeschnittenen Rand verbunden sind. 20 25
7. Verpackung nach Anspruch 4, dadurch gekennzeichnet, daß sich die Gelenklinie im wesentlichen senkrecht zu einer horizontalen Ebene erstreckt, wobei sich an jedes Ende der Gelenklinie ein freigeschnittener Rand anschließt und die Ränder durch einen weiteren freigeschnittenen Rand verbunden sind, der sich im wesentlichen parallel zur Gelenklinie erstreckt und, nachdem das Verriegelungsteil (11; 48; 74) nach innen in eine im wesentlichen vertikale Position verschwenkt wurde, eine Anschlagsschulter bildet. 30 35
8. Verpackung nach Anspruch 7, dadurch gekennzeichnet, daß das Verriegelungsteil (11; 48; 74) als laschen- oder streiförmiger Vorsprung ausgebildet ist, der mit dem Rest des rohrförmigen Elements (31; 41; 71) durch die Gelenklinie verbunden ist. 40 45
9. Verpackung nach Anspruch 7 oder 8, dadurch gekennzeichnet, daß bei einem rohrförmigen Element (31) mit einer aus einer Anzahl von durch Faltlinien (5-8) verbundenen Platten (1-4) gebildeten Umfangsfläche ein Verriegelungsteil (10a) mittig in der Platte vorgesehen ist. 50
10. Verpackung nach Anspruch 9, dadurch gekennzeichnet, daß bei einem rechteckigen rohrförmigen Element (31) wenigstens zwei gegenüberliegende Platten (1, 3; 2, 4) mit Verriegelungsteilen (10a; 11) versehen sind. 55

11. Verpackung nach Anspruch 3, dadurch gekennzeichnet, daß sich bei einem rohrförmigen Element (41) mit einer aus einer Anzahl von durch Faltlinien verbundenen Platten (44) gebildeten Umfangsfläche der freigeschnittene Rand (46) in zwei Platten erstreckt, wobei sich eine Gelenklinie (45) von jedem von jedem Ende des freigeschnittenen Randes in Richtung der Faltlinie zwischen den beiden Platten schrägverlaufend erstreckt, wobei sich die Gelenklinien auf der Faltlinie in V-Form treffen.
12. Verpackung nach Anspruch 3, dadurch gekennzeichnet, daß bei einem sich verjüngenden rohrförmigen Element (71) mit einer wenigstens teilweise gebogenen Umfangsfläche der freigeschnittene Rand in dem gebogenen Bereich angeordnet ist und eine gebogene Gelenklinie im Verjüngungsbereich des rohrförmigen Elements die beiden Enden des freigeschnittenen Rands verbindet.
13. Verpackung nach Anspruch 3, dadurch gekennzeichnet, daß die Gelenklinie (77) einen Winkel, vorzugsweise 90°; mit einer horizontalen Ebene einschließt, wobei sich an jedes Ende der Gelenklinie ein Ende eines freigeschnittenen Randes (76) anschließt, der sich vorzugsweise parallel zur horizontalen Ebene erstreckt, wobei einer der freigeschnittenen Ränder eine Anschlagsschulter bildet, während die beiden Ränder an ihren anderen Enden durch eine zweite Gelenklinie (77) miteinander verbunden sind, die einen Winkel, vorzugsweise 90°, mit der horizontalen Ebene einschließt.
14. Verpackung nach Anspruch 13, dadurch gekennzeichnet, daß zwischen den beiden Gelenklinien (77) wenigstens eine weitere Gelenklinie (78) vorgesehen ist, die mit der horizontalen Ebene einen Winkel, vorzugsweise 90°, einschließt.

## Revendications

1. Emballage destiné à être fixé par blocage sur un bord en forme de flasque (30 ; 43 ; 57 ; 72) d'un récipient en forme de pot ou de boîte (29 ; 42 ; 73) pour le logement par exemple de plantes ou de fleurs, et qui est formé d'un matériau relativement rigide ayant des propriétés élastiques, un élément tubulaire (31 ; 41 ; 71) étant formé à partir de ce matériau et, à une extrémité au moins, ayant un passage ouvert ou qui peut être ouvert et, dans la région de cette extrémité, comprenant au moins une ouverture ou coupe (10 ; 46 ; 54 ; 60 ; 76) formant au moins un épaulement d'arrêt destiné à être en butée contre un bord à flasque du récipient, caractérisé en ce qu'un premier épaulement d'arrêt est formé par un premier dispositif de blocage (10b ; 47 ; 58 ; 75) placé près de la première extrémité de l'élément tubulaire, sous forme d'une patte ou de



parties de panneau destinées à être poussées vers l'intérieur dans l'élément tubulaire, et un second épaulement d'arrêt est formé par un second dispositif de blocage (11 ; 48 ; 74) formé à la première extrémité de l'élément tubulaire, sous forme de pat-

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tes destinées à pivoter vers l'intérieur sur 180° environ, les premier et second dispositifs de blocage, à leur position d'extrémité sans blocage, étant disposés afin que la partie au moins du premier dispositif de blocage qui forme le premier épaulement d'arrêt

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puisse être glissée le long du bord en forme de flasque du récipient.

2. Emballage selon la revendication 1, caractérisé en ce que le premier (10b ; 47 ; 58 ; 75) et le second (11 ; 48 ; 74) dispositif de blocage, dans leur position initiale sans blocage, se trouvent dans le plan de l'élément tubulaire (31 ; 41 ; 71).

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3. Emballage selon la revendication 1 ou 2, caractérisé en ce que chaque épaulement d'arrêt est formé par un bord coupé net (46 ; 54 ; 60 ; 76) d'une partie de blocage (10b ; 11 ; 47 ; 48 ; 58 ; 74 ; 75) de l'élément tubulaire (31 ; 41 ; 71) qui peut pivoter autour d'une ligne d'articulation (10a ; 45 ; 49 ; 56 ; 62 ; 77).

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4. Emballage selon la revendication 3, caractérisé en ce que la partie de blocage (10b ; 11 ; 58) est raccordée exclusivement au reste de l'élément tubulaire (31 ; 41 ; 71) par une ligne d'articulation (10a ; 62).

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5. Emballage selon la revendication 4, caractérisé en ce que la ligne d'articulation (62) fait un angle avec un plan horizontal, chaque extrémité de la ligne d'articulation étant adjacente à un bord coupé net (60 ; 61) dont l'un (60) forme un épaulement d'arrêt.

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6. Emballage selon la revendication 4, caractérisé en ce que la ligne d'articulation (10a) est pratiquement perpendiculaire à un plan horizontal, chaque extrémité de la ligne d'articulation étant adjacente à un bord coupé net, les bords étant raccordés par un bord coupé net supplémentaire.

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7. Emballage selon la revendication 4, caractérisé en ce que la ligne d'articulation est pratiquement parallèle à un plan horizontal, chaque extrémité de la ligne d'articulation étant adjacente à un bord coupé net, les bords étant connectés par un autre bord coupé net qui est pratiquement parallèle à la ligne d'articulation et qui, après que la partie de blocage (11 ; 48 ; 74) a été tournée vers l'intérieur en position pratiquement verticale, forme un épaulement d'arrêt.

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8. Emballage selon la revendication 7, caractérisé en

ce que la partie de blocage (11 ; 48 ; 74) est réalisée sous forme d'une saillie ayant une configuration de patte ou de bande, raccordée au reste de l'élément tubulaire (31 ; 41 ; 71) par la ligne d'articulation.

9. Emballage selon la revendication 7 ou 8, caractérisé en ce que, dans un élément tubulaire (31) ayant une surface circonférentielle formée d'un certain nombre de panneaux (1-4) raccordés par des lignes de pliage (5-8), une partie de blocage (10a) est placée au centre dans un panneau.

10. Emballage selon la revendication 9, caractérisé en ce que, dans un élément tubulaire rectangulaire (31), deux panneaux opposés au moins (1, 3 ; 2, 4) sont munis de parties de blocage (10a ; 11).

11. Emballage selon la revendication 3, caractérisé en ce que, dans un élément tubulaire (41) ayant une surface circonférentielle formée d'un certain nombre de panneaux (44) interconnectés par des lignes de pliage, le bord coupé net (46) s'étend dans deux panneaux, une ligne d'articulation (45) étant inclinée depuis chaque extrémité du bord coupé net dans la direction de la ligne de pliage entre les deux panneaux, les lignes d'articulation se rejoignant sur la ligne de pliage avec une configuration en V.

12. Emballage selon la revendication 3, caractérisé en ce que, dans un élément tubulaire (71) à forme variant progressivement ayant une surface circonférentielle au moins partiellement courbe, le bord coupé net est disposé dans la partie courbe et une ligne courbe d'articulation de la partie variant progressivement de l'élément tubulaire raccorde les deux extrémités du bord coupé net.

13. Emballage selon la revendication 3, caractérisé en ce que la ligne d'articulation (77) fait un angle, de préférence égal à 90°, avec un plan horizontal, chaque extrémité de la ligne d'articulation étant adjacente à une extrémité d'un bord coupé net (76), disposé de préférence parallèlement au plan horizontal, l'un des bords coupés net formant un épaulement d'arrêt, alors que les deux bords sont interconnectés à leurs autres extrémités par une seconde ligne d'articulation (77) qui fait angle de préférence égal à 90° avec un plan horizontal.

14. Emballage selon la revendication 13, caractérisé en ce qu'une ligne supplémentaire d'articulation (78) est placée entre les deux lignes d'articulation (77) et forme un angle qui est de préférence de 90° avec un plan horizontal.

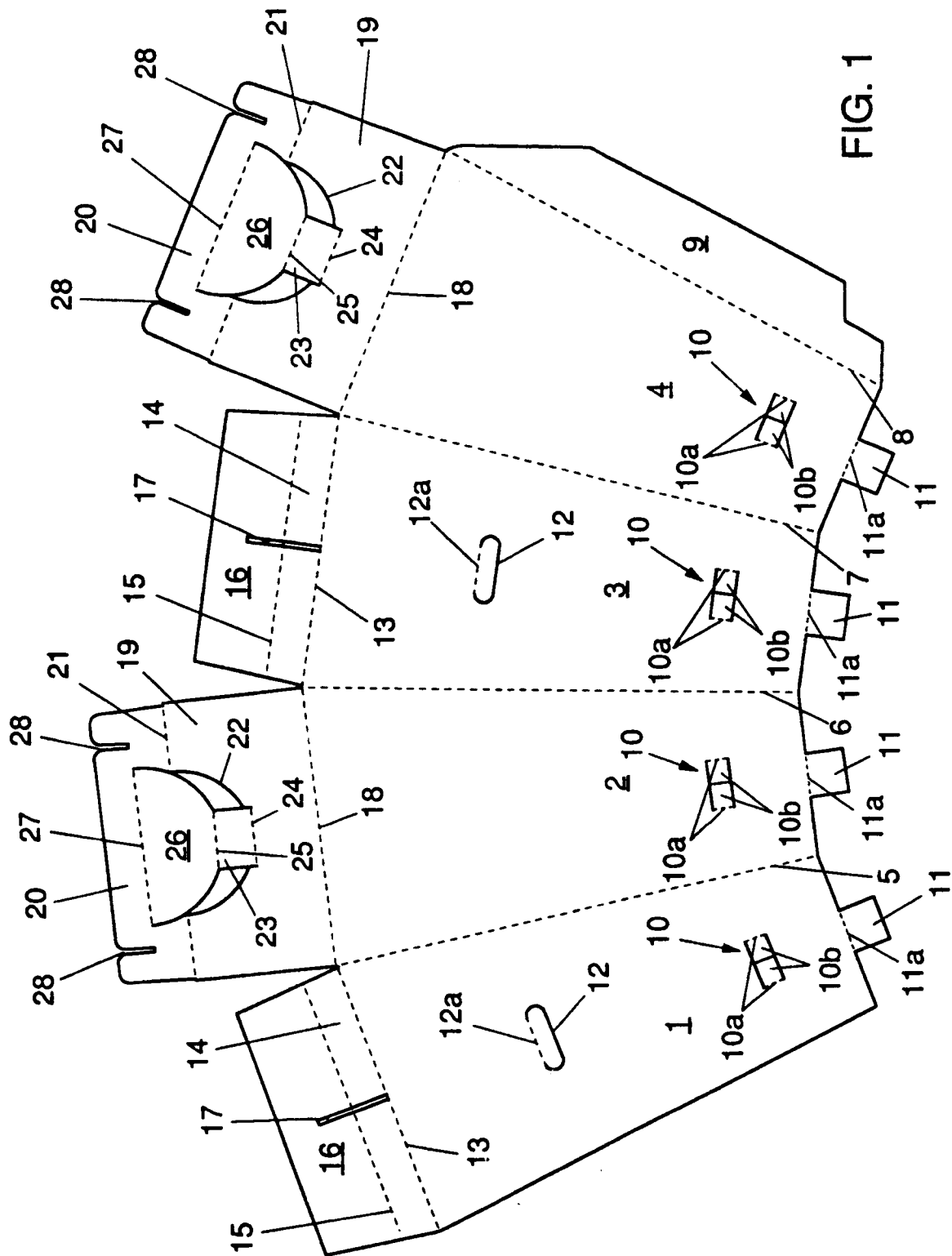


FIG. 1

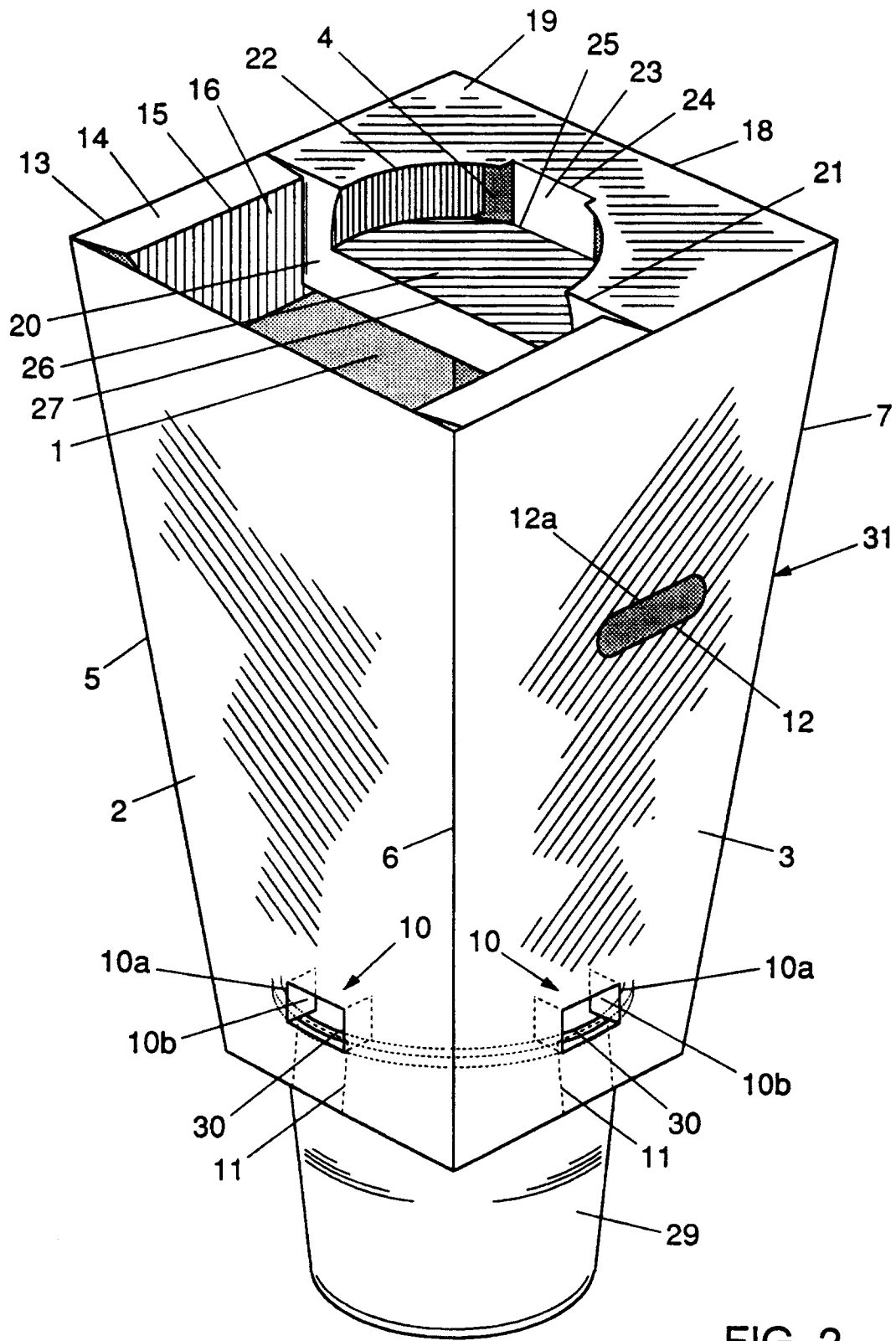


FIG. 2

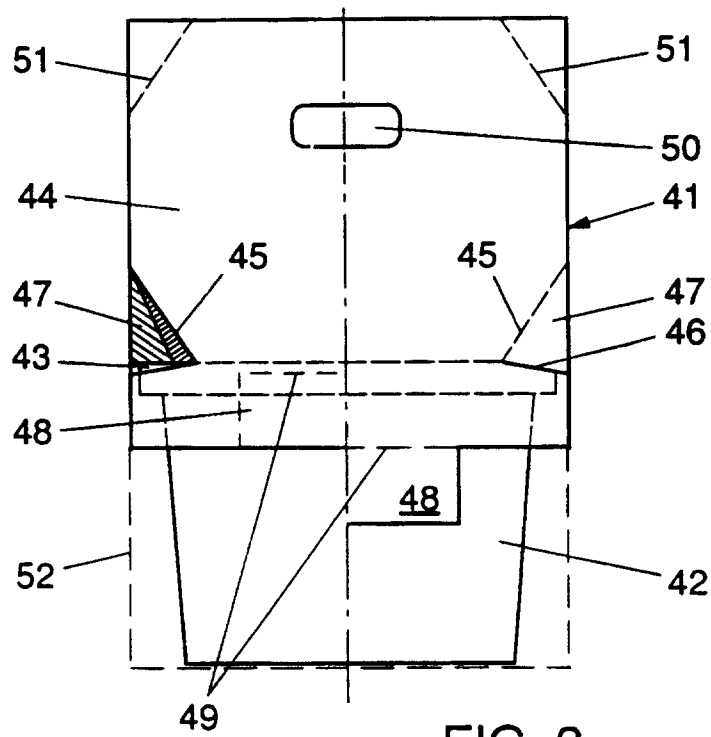


FIG. 3

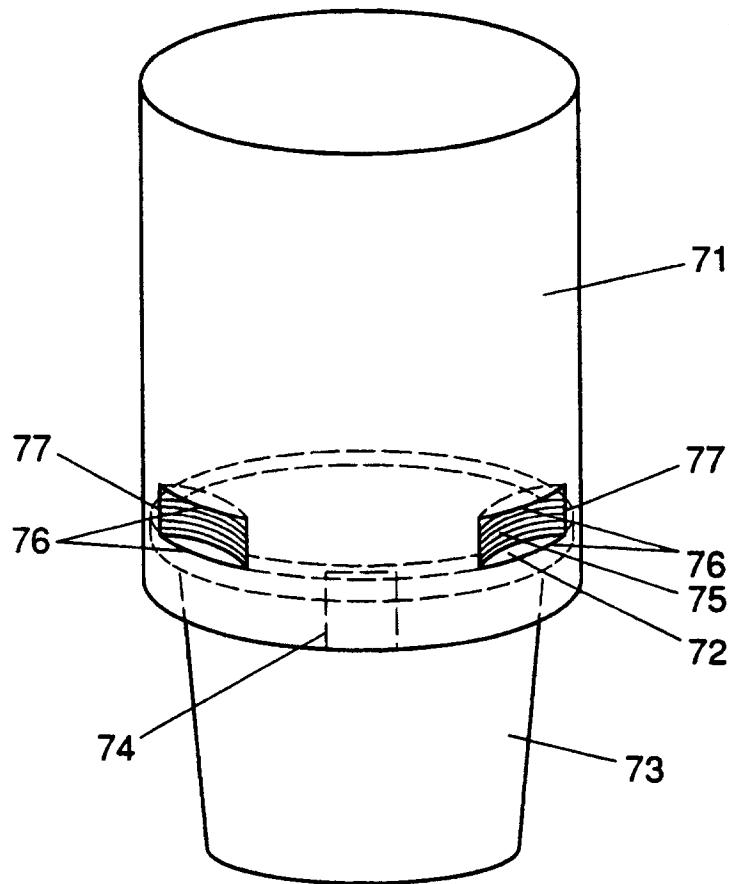


FIG. 6

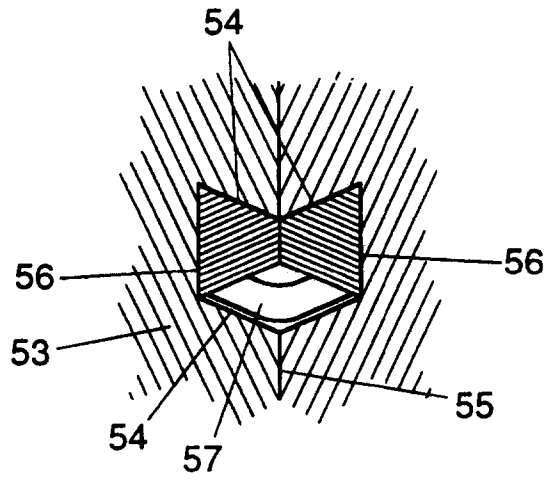


FIG. 4

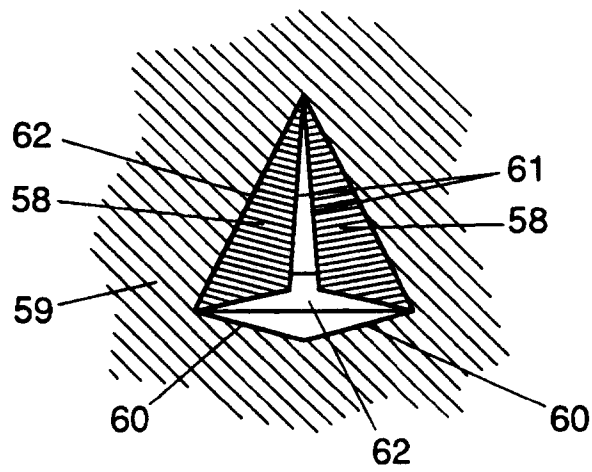


FIG. 5

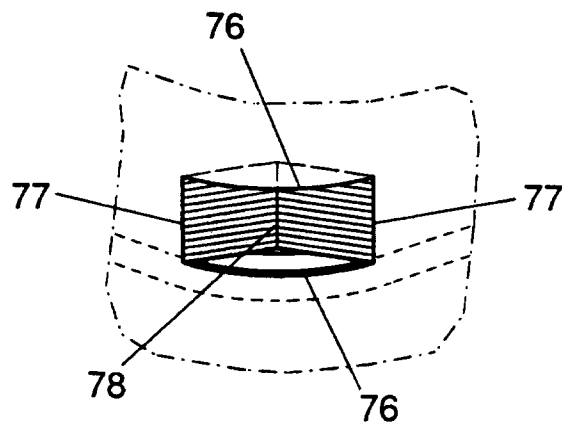


FIG. 7