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(54) **Method for packaging flowers, a flower sleeve and a device for forming thereof**

(57) The present invention relates to a device for forming a sleeve for flowers. The invention also relates to a flower sleeve (20) comprising such a device, and to a method for packaging flowers.

The invention is distinguished in that use is made of a sheet of flexible material (1) in which a handle (6) is defined by means of a punching and/or perforating operation, which handle can be bent outward along a fold line for the purpose of gripping the sleeve.

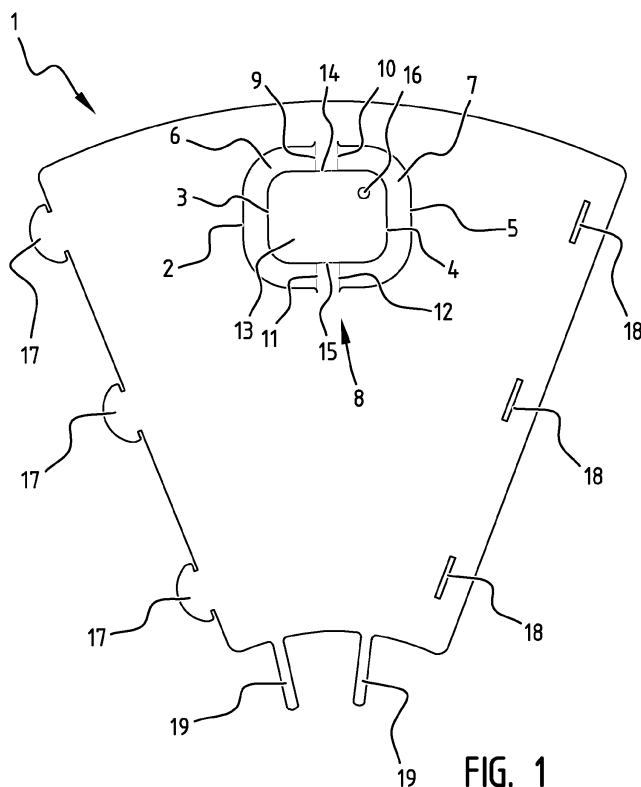


FIG. 1

Description

[0001] The present invention relates to a device for forming a sleeve for flowers. The invention also relates to a flower sleeve comprising such a device, and to a method for packaging flowers.

[0002] The present invention is particularly suitable for packaging flowers, optionally combined to form a bouquet and optionally connected to each other prior to placing in the sleeve. The skilled person will however appreciate that the invention is not limited to flowers but can also be used for packaging plants or other plant material.

[0003] The packaging of flowers or other plant material usually takes place using a cellophane film which is wrapped around a bouquet. The protection provided by such a packaging is minimal, since the film is thin and fragile. Another drawback of the use of cellophane is that the wrapped bouquet is not easy to handle. The cellophane packaging is unwieldy in use, especially in situations where a buyer of a bouquet must carry a number of products, for instance in a supermarket.

[0004] The present invention has for its object to at least partially obviate at least one of the above stated problems.

[0005] This object is achieved by means of a device for forming a sleeve for flowers as defined in claim 1. The device according to the invention comprises a sheet of flexible material which is provided on either side with individual coupling means which, after bending of the sheet to form a sleeve, can co-act in order to hold the sheet in this form. A handle is defined in the sheet by means of a dividing line comprising at least one punched line along which the sheet is punched and/or comprising at least one perforation line along which the sheet is perforated. The handle can be bent or folded outward over a fold line, optionally after the perforation line has been pressed through, for the purpose of gripping the sleeve. The fold line can comprise one or more creases so as to facilitate the folding or bending. At the position of the fold line the handle is connected fixedly to the remaining part of the sheet of material. At other locations the handle can already be separated from the remaining part of the sheet by means of a punching operation. It is also possible for the handle to be still attached to the remaining part by means of a perforation line. The use of a perforation line enables simple release of the handle from the remaining part.

[0006] Because the handle forms part of the sheet, an easy packaging is obtained which makes it possible on the one hand to create a strong packaging for flowers and provides on the other a handle with which the bouquet is easy to displace.

[0007] In an embodiment according to the present invention the sheet is provided on an edge thereof with an elongate element which, after forming of the sleeve, extends in a longitudinal direction of the sleeve, and which element is suitable for coupling to a stalk of a flower in order to fix the height of the flower in the sleeve. With

this measure it is possible to give bouquets of differing length, for instance because the flowers have differing lengths, the same appearance when the flowers are placed in the sleeve. Owing to the fixing, which usually takes place on the underside of the sleeve, the distance between an upper side of the sleeve and the flowers can be chosen so as to be more or less constant in the different bouquets.

[0008] The elongate elements are preferably formed by slots extending inward from the edge in a longitudinal direction of the sleeve and each ending in an opening in the sheet of material. By arranging slots with openings the diameter of the sleeve can easily be reduced on an underside thereof so as to clamp flowers placed in the sleeve, for instance by means of elastic bands.

[0009] In an embodiment according to the present invention the device comprises a further handle defined by means of a dividing line comprising at least one punched line along which the sheet is punched and/or comprising at least one perforation line along which the sheet is perforated, wherein the further handle can be bent or folded outward over a further fold line, optionally after the perforation line has been pressed through, for the purpose of gripping the sleeve, wherein the handle and the further handle are separated by an intermediate part comprising the fold line and a further fold line, along which respectively the handle and the further handle can be bent toward each other. In this embodiment the handles are moved inward, i.e. in the direction of the flowers. This creates openings on either side of the intermediate part, whereby the intermediate part can take on the function of a handle. A user can place his/her fingers through the resulting openings in order to thus grip the sleeve. In a further embodiment the device comprises a label which is defined in the sheet adjacently of one of the handle and the further handle by means of a dividing line comprising at least one punched line along which the sheet is punched and/or comprising at least one perforation line along which the sheet is perforated, wherein the label is connected to at least one of the handle, the further handle and a remaining part of the sheet by means of a perforation line. The opening is enlarged by making use of the label at this location in the sheet, whereby the user can grip the sleeve even more easily.

[0010] In another embodiment according to the present invention the handle, at least when it is not bent outward, at least partially encloses a label in the sheet, wherein the label is connected to at least one of the handle and a remaining part of the sheet by means of a perforation line.

[0011] Within the context of the present invention a label must be interpreted as a part of the sheet which is or can be printed.

[0012] The label is in particular connected releasably to the remaining part of the sheet, the handle and/or further handle, this in a manner such that, even after the flowers have been placed in the sleeve, a user can detach and connect the label to the flowers placed in the sleeve.

According to the invention the label is not defined at a random position inside the sheet but is at least partially enclosed by the handle, at least when in the sheet is flat. This provides an effective use of the sheet, since after removal of the label a space is created, thereby facilitating gripping of the handle. It is possible for the label to be attached only to the handle, wherein the handle is still attached to the remaining part of the sheet by means of a single perforation line.

[0013] In an embodiment according to the present invention the handle comprises a c-shape, v-shape or u-shape defined by elongate parts which are coupled on a side thereof by a bend part. The above shapes provide an opening through which a user can place his/her fingers in order to grip the sleeve. The above stated label is at least partially formed in this opening.

[0014] In an embodiment according to the present invention the dividing line defines an outer periphery of the handle. The device comprises a further dividing line comprising at least one punched line along which the sheet is punched and/or comprising at least one perforation line along which the sheet is perforated. The further dividing line is enclosed by the fold line and the dividing line, wherein the further dividing line at least partially defines an inner periphery of the handle. The dividing line and further dividing line together at least partially define the c-shape, v-shape or u-shape. The further dividing line is adjacent here to the opening of these shapes and the dividing line defines an outer periphery thereof.

[0015] In an embodiment according to the present invention the further dividing line at least partially coincides with the fold line. An example hereof is a handle formed by two c-shaped perforation lines which each end at a fold line which closes the opening of the c-shaped perforation line. The further dividing line is wholly enclosed here by the dividing line and the fold line. The fold line further comprises two creases placed between the further dividing line and the dividing line. The fold line also comprises a perforation line between the two outer ends of the further dividing line. By removing the area, i.e. the label, enclosed by the further dividing line and fold line a user can place his/her fingers through the resulting opening.

[0016] In an embodiment according to the present invention a further handle is defined in the sheet which is embodied as one of the possible embodiments of the above stated handle. The handle and the further handle are defined here at a distance and rotated relative to each other in the sheet. The handle and the further handle are preferably the mirror image of each other, but can also take a different form.

[0017] In an embodiment according to the present invention the further dividing line of the handle and/or of the further handle comprises a closed curve which defines the label and along which curve the label can be pressed out. In such an embodiment, for instance an o-shape, the label need not touch the fold line.

[0018] In another embodiment according to the

present invention the label is enclosed on either side by the handle and the further handle, and the label is connected releasably by means of a perforation edge to at least one of the handle, the further handle and the remaining part of the sheet. In this embodiment there is therefore a single label which is for instance at least partially formed by the openings of the above stated c-shape, u-shape or v-shape. The handle and the further handle having different shapes is not precluded here.

[0019] In a further embodiment according to the present invention the handle and the further handle are separated by an intermediate part comprising fold lines along which the handle and the further handle can be bent toward each other. Using a handle and a further handle enables the sleeve to be gripped in more stable manner. When there is no bending the sleeve can have a completely flat finish apart from the openings formed by the dividing line and further dividing line.

[0020] In a further embodiment according to the present invention the intermediate part comprises a pair of outer parts which are coupled by means of creases to the elongate parts of the handle and the further handle, wherein the creases at least partly form the fold lines for the handle and the further handle and wherein the device comprises an inner part which is disposed between the pair of outer parts and is coupled by means of perforation edges to the pair of outer parts and which forms part of the label. The further dividing lines of the handle and the further handle can be mutually connected here by means of, and lie in line with, the perforation edge of the inner part. Owing to these measures the handle, the further handle and the outer parts form an o-shaped edge which is fixedly connected by means of the outer parts to the remaining part of the sheet, and which edge defines an inner area which forms a label. In a favourable embodiment the handle and the further handle are connected to the outer parts only at the position of the creases and are separated from the remaining part of the sheet, including the label, by means of a punching operation. The label can further be connected to the outer parts only by means of a perforation edge. In this embodiment the handle and the further handle can be bent outward in simple manner because no perforation edge need be broken. Another advantage is that the label need only be detached over a short length from the remaining part of the sheet. When the sheet has not yet been bent to form a sleeve the device is however flat, whereby it can be transported easily in large numbers.

[0021] In an embodiment according to the present invention the label comprises a hole or a perforation edge for forming a hole, wherein the hole is embodied for passage of a fastening means for fastening the label to a flower. The packaging thus provides the user with the option of placing a personal message on the label and connecting this message to a packaged flower. Not precluded is that the label is pre-printed and sold as such, i.e. without flowers. This provides a user with the option of choosing a determined type of sheet on which a mes-

sage desired by the user is already pre-printed. Such products are particularly advantageous for special occasions such as Valentine's Day.

[0022] In an embodiment according to the present invention the handle, the further handle, the label and the remaining part of the sheet are an integral part. Use is therefore made of a single sheet in which the different parts are defined by the different operations such as punching and/or perforating.

[0023] In an embodiment according to the present invention the material of the sheet is chosen from the group consisting of cardboard, polypropylene, polyethylene and polyethylene terephthalate. Cardboard is particularly suitable because it is a biodegradable, recyclable material which is easy to process, for instance to punch or perforate.

[0024] In an embodiment according to the present invention the sheet has a shape for the purpose of forming a sleeve in the form of a frustum. This is a shape which corresponds most to the shape of the average bouquet of flowers.

[0025] In an embodiment according to the present invention the sheet comprises on an edge thereof a tongue extending beyond the edge, wherein an opposite edge of the sheet comprises a slot which can co-act with the tongue to hold the sheet in the sleeve form. It is possible to provide the tongue with a barb or element with similar function so that, once the tongue has been placed in the slot, it remains in the slot

[0026] In an embodiment according to the present invention a sleeve formed by the sheet extends in a longitudinal direction, which direction corresponds to the direction of the fold line. The sheet can further comprise further fold lines extending almost wholly or wholly over the longitudinal direction. A sleeve can hereby be formed with multiple facets.

[0027] The invention also provides a flower sleeve which comprises the device as described above curved into sleeve form.

[0028] According to a further aspect, the invention provides a method for packaging flowers, comprising of providing a device for forming a sleeve for flowers as described above, bending the sheet to a sleeve form, coupling the coupling means so as to retain the sleeve form, placing flowers in the sleeve and attaching stalks of the flowers to the elongate part using an attaching means.

[0029] The invention will be discussed in more detail hereinbelow with reference to the accompanying figures, in which:

Figure 1 shows a view of an embodiment of the device according to the invention;
 Figures 2-5 show the steps for using the device of figure 1 for the purpose of packaging flowers;
 Figures 6 and 7 show a further embodiment of the device according to the invention;
 Figure 8 shows the method of attaching the flowers to the device of figure 6;

Figure 9 shows yet a further embodiment of the device according to the invention; and

Figure 10 shows a detail view at the position of the handles of the embodiment of figure 9.

[0030] Figure 1 shows a view of an embodiment of the device according to the invention. The device comprises a sheet of material 1. A handle 6 and a further handle 7 are defined by means of punched lines 2, 3, 4, 5. It is noted here that punched lines 2, 5 have a slight curve at their outer ends in order to prevent tearing. Handles 6, 7 are connected to an intermediate part 10 by means of creases 9, 10, 11, 12 over which handles 6, 7 can move toward each other. Handles 6, 7 enclose a label 13 which is connected to intermediate part 10 only by means of perforation lines 14, 15. Label 13 further comprises a hole 16, the function of which will be elucidated below.

[0031] Arranged on either side of sheet 1 are tongues 17 which can co-act with slots 18 following bending of sheet 1. Punched into sheet 1 at the position of slots 18 is a small incision (not shown) which makes it possible for tongues 17 to be placed in slots 18. Tongues 17 will however not be able to move easily out of slots 18 after placing due to the barbed form of tongues 17.

[0032] Present on the underside of sheet 1 are elongate elements 19, the function of which will also be elucidated below.

[0033] Figure 2 shows the device of figure 1, wherein sheet 1 has been bent to form a sleeve 20 and wherein tongues 17 have been placed in slots 18. Figure 3 then shows the device wherein handles 6, 7 are bent outward over creases 9, 10, 11, 12. Figure 4 shows the device wherein label 13 is removed. Finally, figure 5 shows the device wherein a bouquet of flowers 22 has been placed in sleeve 20, stalks 23 of which are attached to elongate elements 19 by means of elastic bands 21 for the purpose of fixing the height of flowers 22 relative to sleeve 20. Also shown is how label 13 is fastened to flowers 22 by means of an elastic band or other coupling means through hole 16.

[0034] Figure 6 shows an alternative embodiment of the device according to the invention. This embodiment comprises a sheet 101 in which a handle 107 is defined by means of punched lines 104, 105. Handle 107 can rotate over creases 110, 112. Handle 107 partially encloses a label 113 which is provided with a hole 116. Label 113 is connected to a remaining part of sheet 101 by means of a perforation line 114. Slots 130 and openings 131 are arranged on an underside of sheet 101.

[0035] Figure 7 shows how handle 105 can be rotated outward and how sheet 101 is folded to form a sleeve 120.

[0036] Figure 8 shows how stalks 23 are attached to sleeve 120. Because slots 130 have been arranged, the diameter of sleeve 120 can be decreased on the underside by the sleeve being tensioned by elastic bands 121. Stalks 23 are hereby clamped by sleeve 120. Openings 131 serve here to weaken the strength of sleeve 120 at the position of slots 130 such that the diameter can be

reduced more easily and/or to provide edges which can engage elastic bands 121 in order to prevent displacement of elastic bands 121.

[0037] Figure 9 shows a further embodiment of the device according to the invention. The device here comprises a sheet 201 in which two handles 206, 207 are defined by means of punched lines 202, 205 and creases 209, 210. A label 213 is further connected to handle 207 by means of a perforation line 214. Label 213 once again comprises a hole 216.

[0038] Figure 10 shows the embodiment of figure 9 bent to form a sleeve 220. Label 213 is removed here and handles 206, 207 are rotated inward in the direction of the flowers (which are not shown here). A user can hereby place his/her fingers through openings 250, 251 in order to grip sleeve 220.

[0039] The invention is discussed inter alia with reference to embodiments thereof. It will be apparent to the skilled person that various modifications are possible without departing from the scope of protection as defined by the appended claims.

Claims

1. Device for forming a sleeve for flowers, comprising a sheet of flexible material which is provided on either side with individual coupling means which, after bending of the sheet to form a sleeve, can co-act in order to hold the sheet in this form, wherein a handle is defined in the sheet by means of a dividing line comprising at least one punched line along which the sheet is punched and/or comprising at least one perforation line along which the sheet is perforated, wherein the handle can be bent outward over a fold line, optionally after the perforation line has been pressed through, for the purpose of gripping the sleeve.
2. Device as claimed in claim 1, wherein the sheet is provided on an edge thereof with an elongate element which, after forming of the sleeve, extends in a longitudinal direction of the sleeve, and which element is suitable for coupling to a stalk of a flower in order to fix the height of the flower in the sleeve, wherein the elongate element is preferably formed by slots extending inward from the edge in a longitudinal direction of the sleeve and each ending in an opening in the sheet of material.
3. Device as claimed in claim 1 or 2, further comprising a further handle defined by means of a dividing line comprising at least one punched line along which the sheet is punched and/or comprising at least one perforation line along which the sheet is perforated, wherein the further handle can be bent outward over a further fold line, optionally after the perforation line has been pressed through, for the purpose of grip-

ping the sleeve, wherein the handle and the further handle are separated by an intermediate part comprising the fold line and the further fold line, along which respectively the handle and the further handle can be bent toward each other, the device further comprising a label which is defined in the sheet adjacently of one of the handle and the further handle by means of a dividing line comprising at least one punched line along which the sheet is punched and/or comprising at least one perforation line along which the sheet is perforated, wherein the label is connected to at least one of the handle, the further handle and a remaining part of the sheet by means of a perforation line.

4. Device as claimed in claim 1 or 2, wherein at least when the sheet is flat the handle at least partially encloses a label in the sheet, wherein the label is connected to at least one of the handle and a remaining part of the sheet by means of a perforation line, wherein the handle preferably comprises a c-shape, v-shape or u-shape defined by elongate parts which are coupled on a side thereof by a bend part.
5. Device as claimed in claim 4, further comprising a further dividing line comprising at least one punched line along which the sheet is punched and/or comprising at least one perforation line along which the sheet is perforated, wherein the dividing line defines an outer periphery of the handle, wherein the further dividing line forms a closed curve which defines the label and which at least partially defines an inner periphery of the handle, and along which curve the label can be pressed out.
6. Device as claimed in claim 4, wherein the dividing line defines an outer periphery of the handle, the device further comprising a further dividing line comprising at least one punched line along which the sheet is punched and/or comprising at least one perforation line along which the sheet is perforated, which further dividing line is enclosed by the fold line and the dividing line, wherein the further dividing line at least partially defines an inner periphery of the handle, wherein the further dividing line preferably coincides at least partially with the fold line.
7. Device as claimed in claim 4 or 6, wherein a further handle is defined in the sheet which is embodied as one of the possible embodiments of the above stated handle, wherein the handle and the further handle are defined at a distance and rotated relative to each other in the sheet, wherein the handle and the further handle are preferably the mirror image of each other.
8. Device as claimed in claim 7, wherein the label is enclosed on either side by the handle and the further handle, and is connected releasably by means of a

perforation edge to at least one of the handle, the further handle and the remaining part of the sheet, wherein the handle and the further handle are separated by an intermediate part comprising fold lines along which the handle and the further handle can be bent toward each other. 5

9. Device as claimed in claim 8, wherein the intermediate part comprises a pair of outer parts which are coupled by means of creases to the elongate parts of the handle and the further handle, wherein the creases at least partly form the fold lines for the handle and the further handle and wherein the device comprises an inner part which is disposed between the pair of outer parts and is coupled by means of perforation edges to the pair of outer parts and which forms part of the label. 10 15

10. Device as claimed in claims 6 and 8, wherein the further dividing lines of the handle and the further handle are mutually connected by means of, and lie in line with, a perforation edge of the inner part. 20

11. Device as claimed in any of the foregoing claims, to the extent dependent on claim 3 or 4, wherein the label comprises a hole or a perforation edge for forming a hole, wherein the hole is embodied for passage of a fastening means for fastening the label to a flower. 25

12. Device as claimed in any of the foregoing claims, wherein the handle, the further handle, the label and the remaining part of the sheet are an integral part, wherein the material of the sheet is preferably chosen from the group consisting of cardboard, polypropylene, polyethylene and polyethylene terephthalate and/or wherein the sheet has a shape for the purpose of forming a sleeve in the form of a frustum and/or wherein a sleeve formed by the sheet extends in a longitudinal direction corresponding to the direction of the fold line. 30 35 40

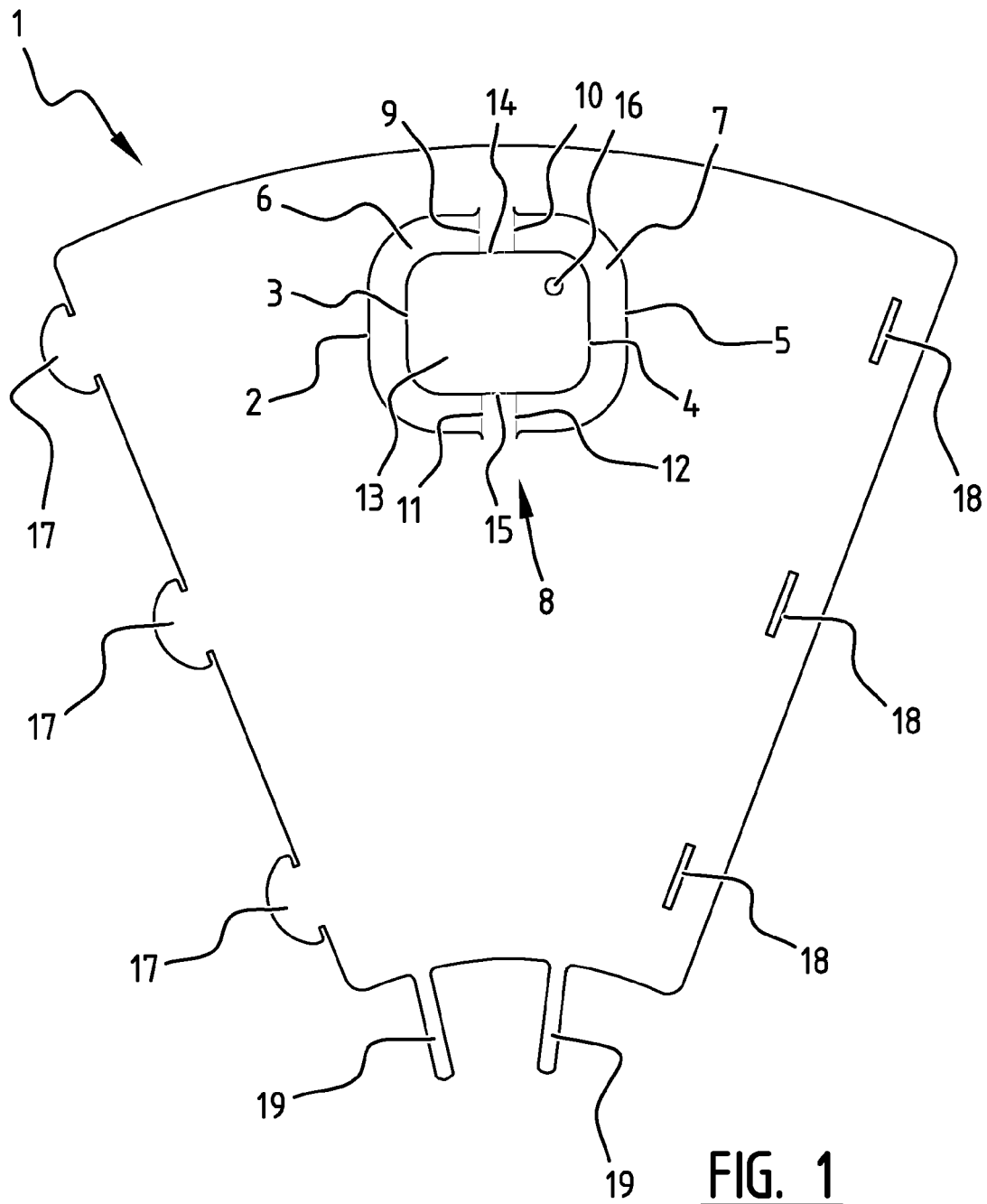
13. Device as claimed in claim 12, wherein the sheet comprises on an edge thereof a tongue extending beyond the edge, and wherein an opposite edge of the sheet comprises a slot which can co-act with the tongue to hold the sheet in the sleeve form. 45

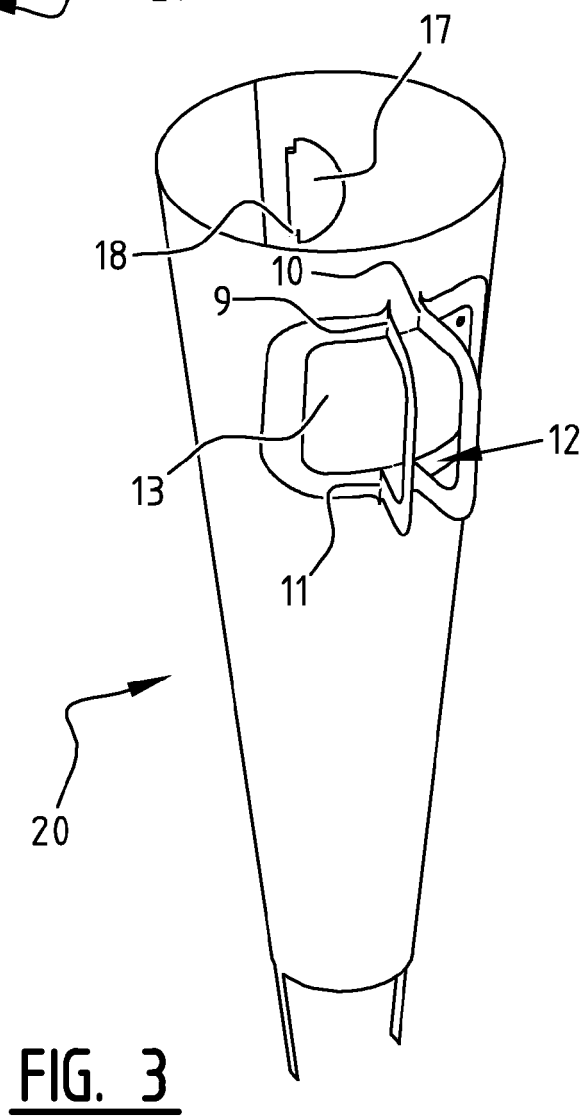
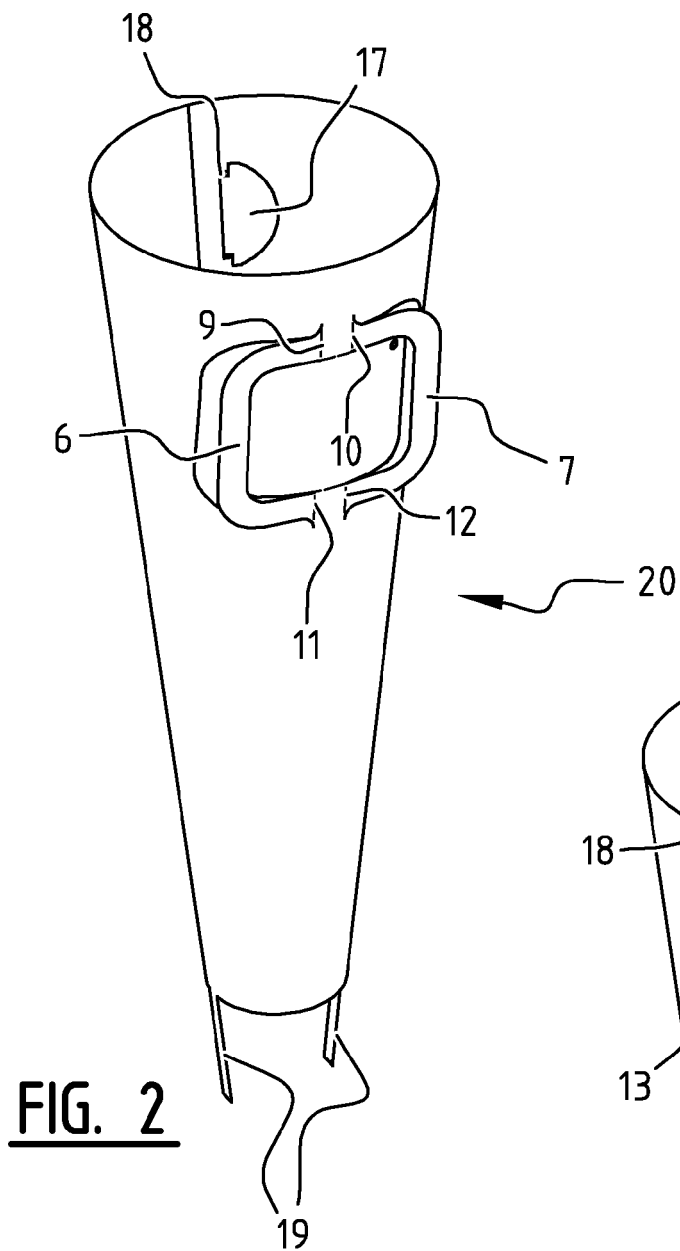
14. Flower sleeve, comprising the device as claimed in any of the claims 1-13 bent into sleeve form. 50

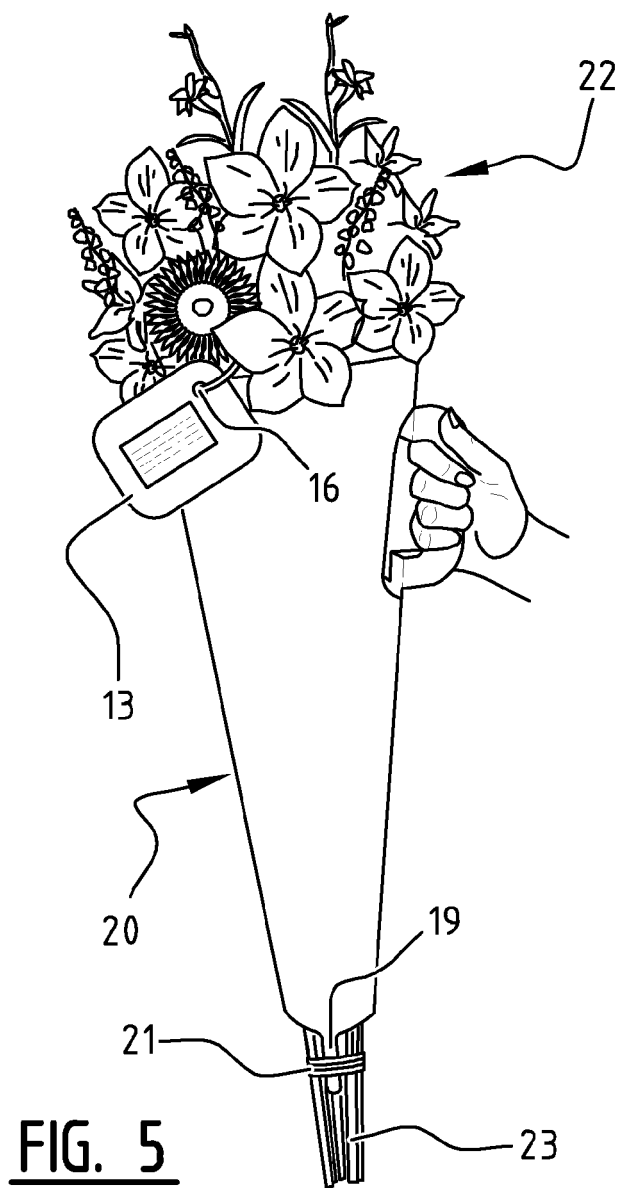
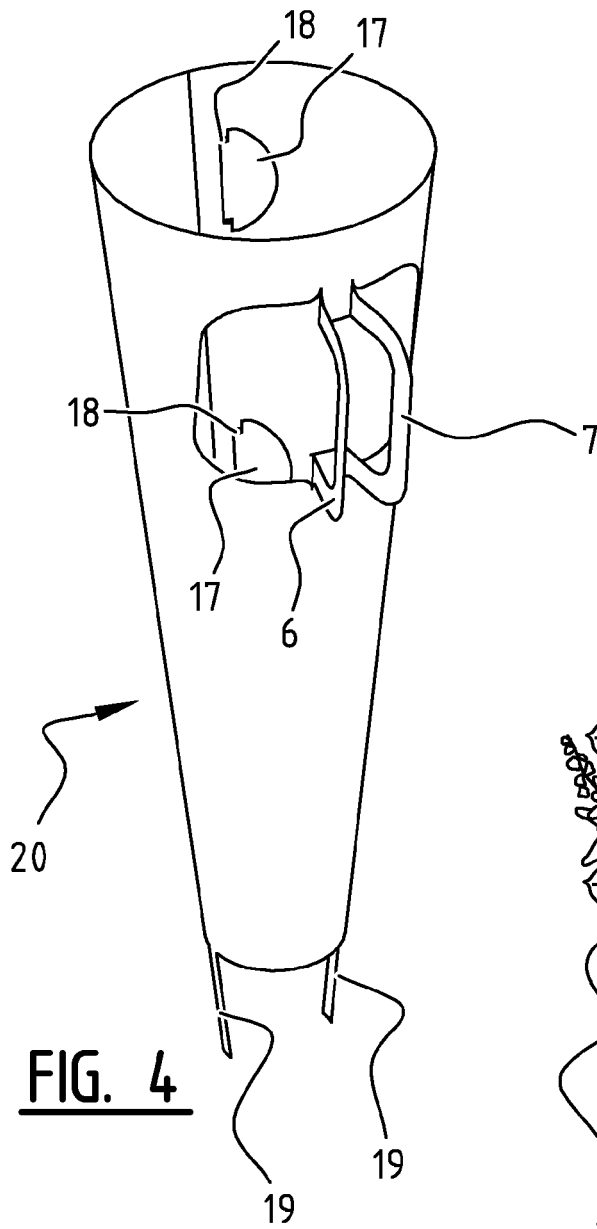
15. Method for packaging flowers, comprising of:

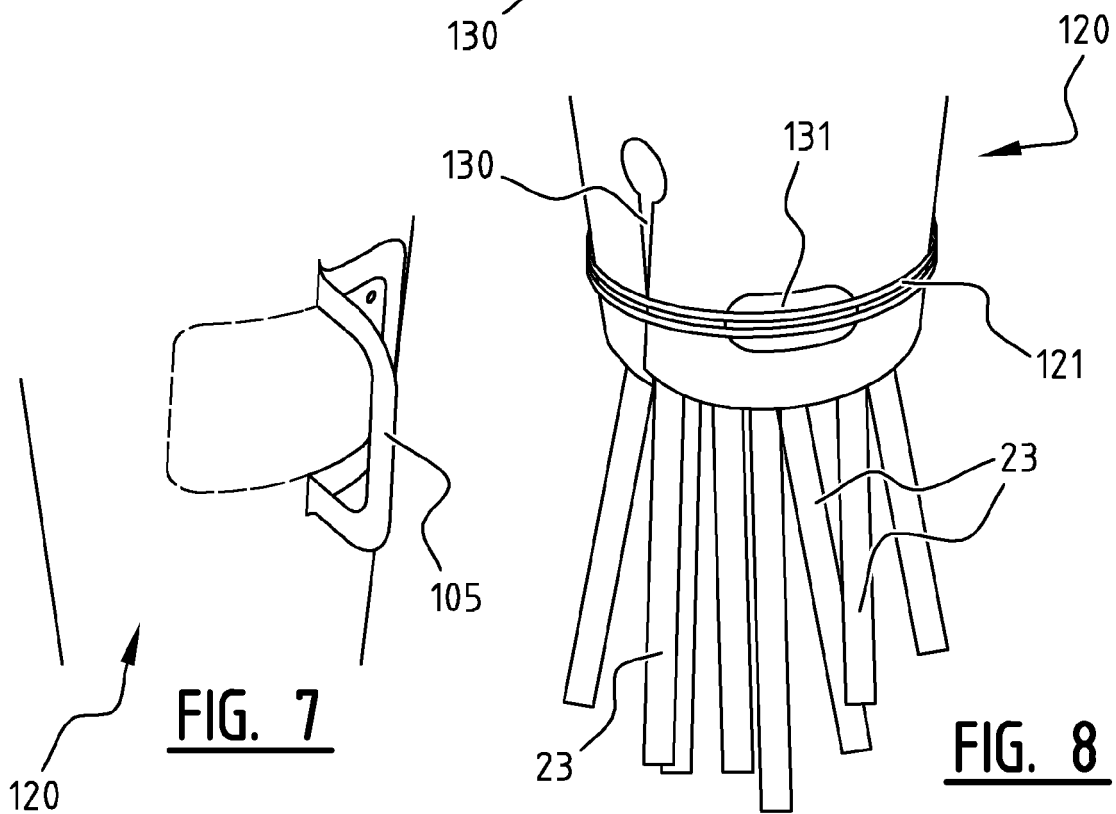
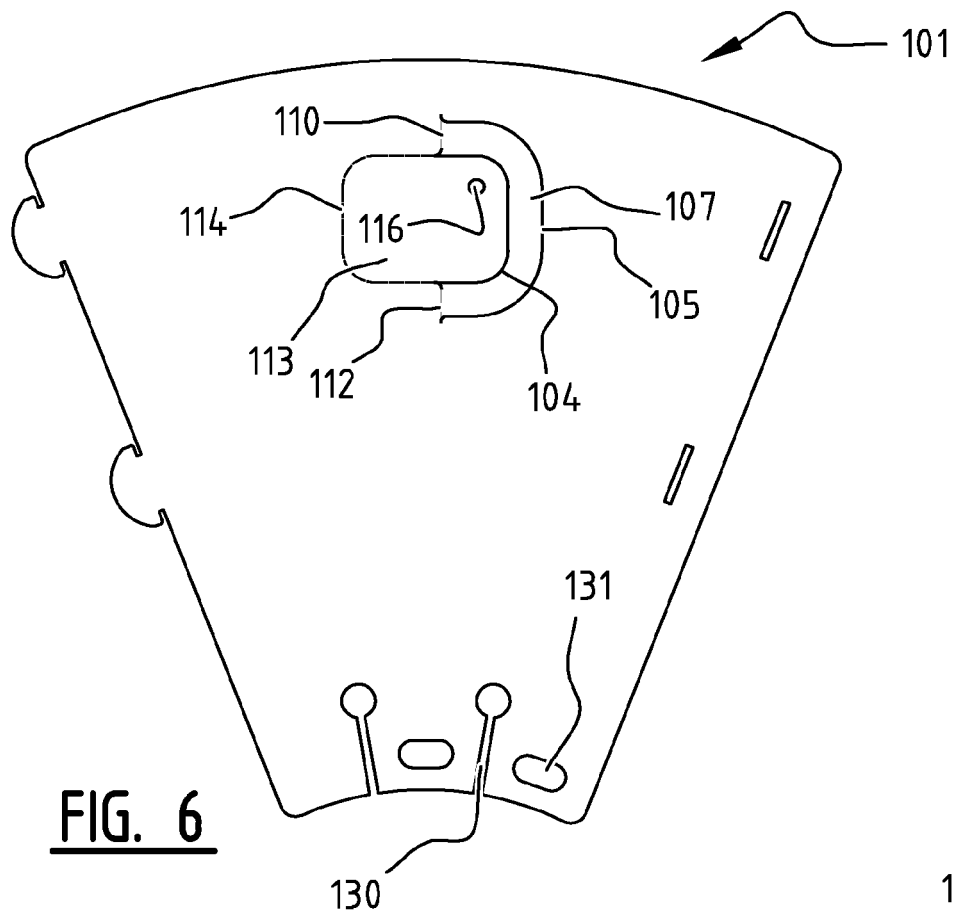
providing a device for forming a sleeve for flowers as defined according to any of the claims 1-13, to the extent dependent on claim 2; 55
bending the sheet to a sleeve form;
coupling the coupling means so as to retain the

sleeve form;
placing flowers in the sleeve; and
attaching stalks of the flowers to the elongate part using an attaching means.









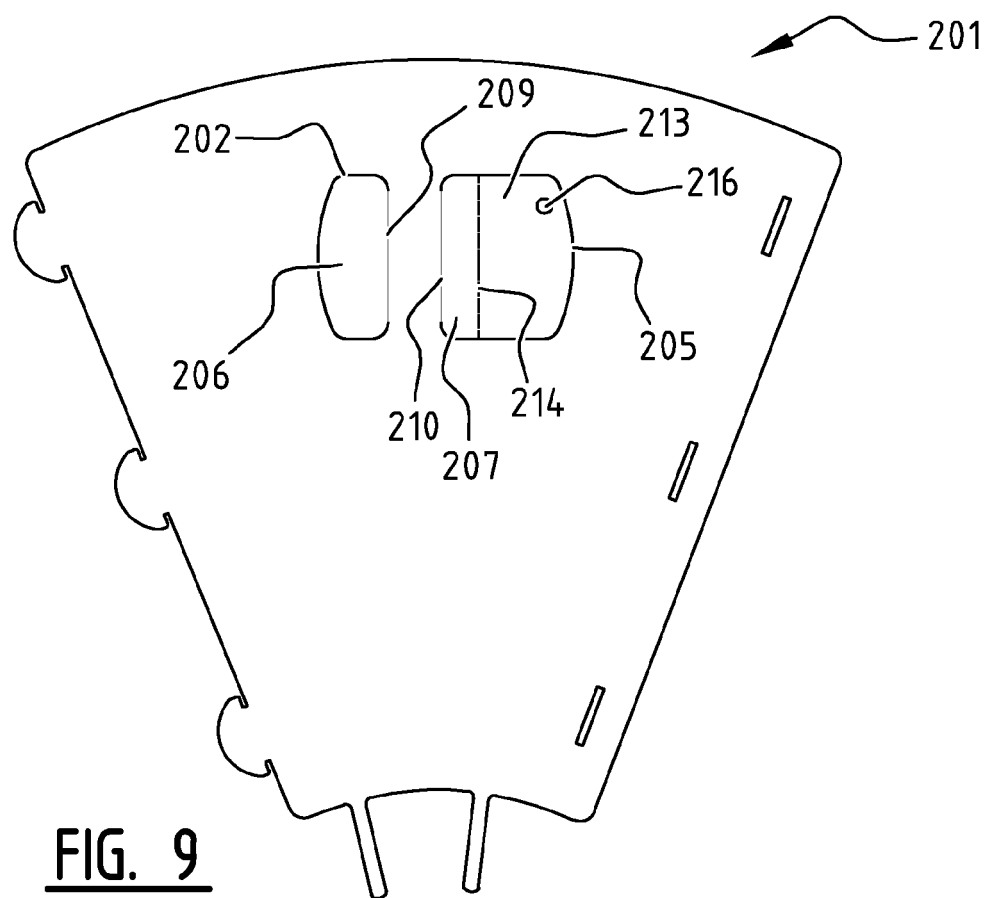


FIG. 9

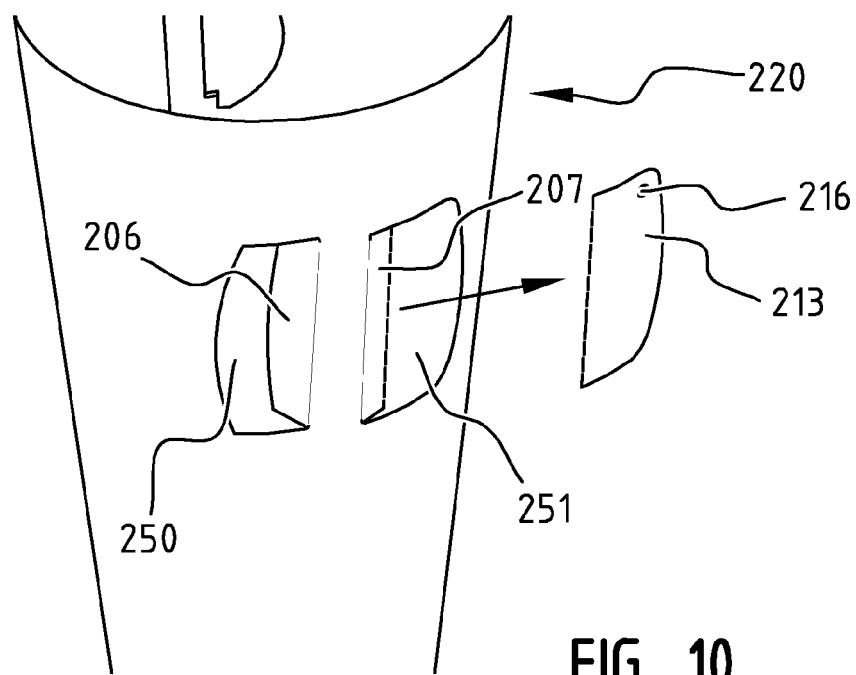


FIG. 10



EUROPEAN SEARCH REPORT

Application Number
EP 11 19 0175

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 20 2010 002266 U1 (SIEBECK PEER [DE]) 17 June 2010 (2010-06-17)	1,3,6,7,12	INV. B65D85/50
Y	* paragraph [0011]; figures 1,2 *	2,4,5,13	
Y	NL 1 026 911 C2 (DENLOP NATURAL ARTS [NL]) 28 February 2006 (2006-02-28) * figure 3 *	2	
Y	US 5 335 476 A (WEDER DONALD E [US]) 9 August 1994 (1994-08-09)	4,5	
A	* column 4, line 61 - column 5, line 3 *	1	
Y	FR 2 740 433 A1 (PYRENEES CARTON [FR]) 30 April 1997 (1997-04-30) * figure 6 *	13	
A	FR 2 863 596 A1 (INTELPACK [FR]) 17 June 2005 (2005-06-17) * claim 1; figures 1-4 *	1	
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 1 March 2012	Examiner Balz, Oliver
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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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 11 19 0175

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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01-03-2012

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