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(54) A spillage containment member

(57) Transportation of flowers in buckets or similar vessels using general courier cargo vans has a problem with respect to water spillage. A containment member is either secured or integrally formed with a bucket or vase

or other vessel. If the vessel topples the flared shaping of the containment member retains liquid within the body of the vessel, so preventing spillage. The containment member has a central aperture through which the flower stems extend.

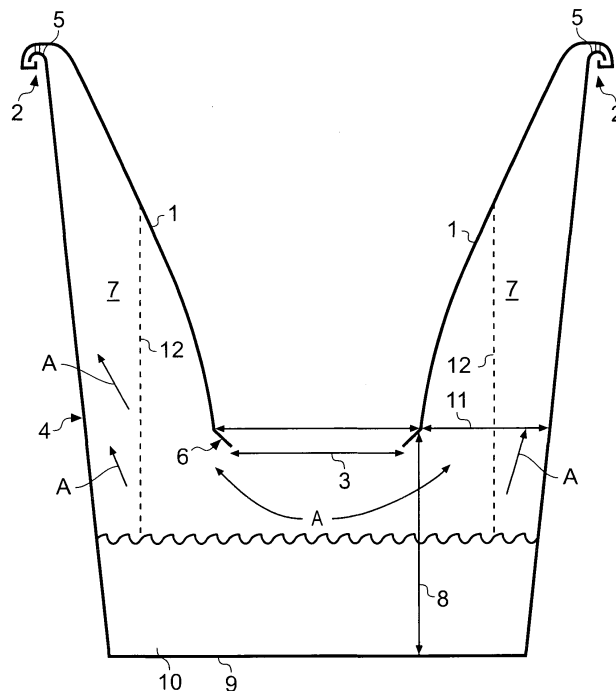


Fig. 1

Description

[0001] The present invention relates to spillage containment members and more particularly to such members utilised in assembly with vessels such as tubs, buckets and vases for transportation of cut flowers.

[0002] Increasing preference for home delivery of goods and services through the use of postal and courier services has created potential problems with respect to transportation of goods such as cut flowers. Cut flowers must be transported in a tub, bucket or vase with a volume of water to maintain the quality of those flowers until delivered. Relatively fragile and delicate flowers cannot be overly constricted or confined whilst inherently open buckets if tipped will release the water contained within the bucket.

[0003] Use of courier and postal services means that any one particular delivery van or other transport may be carrying a range of goods including high value electronic and other goods which will be damaged by spilt water. Thus, increasingly couriers and postal services are either refusing to carry cut flowers in vessels such as buckets with water or add a significant delivery premium to such delivery and so additional costs which are a deterrent to customers accepting delivery in this manner. Private purchasers of flowers will also be disadvantaged by spilt water so they tend to take cut flowers home without water, possibly causing deterioration in the quality of the flowers during transport.

[0004] In accordance with the present invention there is provided a vessel assembly for transport of a product including a fluid, the assembly comprising a vessel and a spillage containment member including a flared part, the containment member engaging the vessel to form a seal against a wall of the vessel such that a cavity is formed between the wall of the vessel and the flared part within which in use a volume of fluid in the vessel can be confined if the vessel is toppled from an upright orientation despite there being an opening in the flared insert.

[0005] Typically, the flared part extends into the vessel.

[0006] Normally the spillage containment member is secured directly to the vessel. Possibly the spillage containment member is permanently secured to the vessel. Advantageously the spillage containment member is integral with the vessel.

[0007] Additionally in accordance with the present invention there is provided a method of preventing fluid spillage from a vessel assembly having an opening when toppled from an upright orientation to a lateral orientation, the method comprising

- a) placing a spillage containment member including a flared part with an opening into a vessel used to contain a volume of fluid,
- b) causing an association between a wall of the vessel and the spillage containment member to form a seal with a cavity between the flared part and the vessel, and

c) retaining the seal whereby in use a volume of fluid in the vessel can be confined if the vessel is toppled from an upright orientation despite there being an opening in the flared part.

[0008] It will be understood that the flared part may be a cone or have a rectangular or triangular cross-section funnel-like shape extending inwardly from an edge of the vessel or spillage containment member. Furthermore, the flared part may have curved surfaces extending into the opening. Alternatively, the flared part may have substantially flat slopes extending to the opening.

[0009] Also in accordance with the present invention there is provided a spillage containment member for a vessel, the member comprising a flared insert which in use overlays walls of a vessel to form a cavity between the insert and the vessel, the flared insert having an opening and arranged to confine a fluid when secured to a vessel if toppled from an upright orientation.

[0010] Typically, the opening includes a flap to close about flowers in use to restrict the free area of the opening. Generally, the flap is serrated with fingers to embrace the flower stems for stability but with limited compression.

[0011] Generally the flared insert forms a stepped inward vortex for more central presentation of the opening and/or greater water wash volume within the cavity. Generally, the opening is spaced from the base such that it is above a wash height for the water in use when displaced from an upright condition within the vessel. Possibly, the member is secured to the lip rim to form a seal between the spillage containment member and a part of a vessel wall at or below the lip rim. Preferably, the spillage containment member includes radial sealing means to form a watertight seal.

[0012] Preferably, the radial seal comprises a rib raised upon an outer surface of the flared insert. Possibly, an edge of the rib is rendered more compliant than the remainder of the rib to facilitate formation of the seal. Generally, the spillage containment member includes clips to force and/or retain engagement between the radial seal and the bucket. Normally, the clips overhang the rim to force engagement between the clip and part of the radial seal. Generally, the clip and the radial seal overlap over a portion of the radial seal sufficient to cause adequate seal engagement by all of the radial seal.

[0013] Typically, the sealing means overhangs the lip rim. Possibly, the sealing means includes a hook portion to secure the spillage containment member upon the lip rim. Alternatively, the sealing means includes dog tooth detents to secure the spillage containment member upon the lip rim.

Possibly, the sealing means includes fins to seal in use adjacent a wall of a bucket and/or to a top edge of a bucket.

[0014] Possibly, the spillage containment member is flexible underlying the walls to absorb water wash for reduced back wash in use.

[0015] Normally, the spillage containment member is

formed from a plastics material.

[0016] Possibly, the spillage containment member has surface lugs to separate the spillage containment member from other members when stacked together.

[0017] The present invention also includes a transport vessel for products with liquids incorporating a spillage containment member as described above.

[0018] Possibly, the spillage containment member is integral with the vessel. Normally, the vessel is a tub, bucket or vase.

[0019] Embodiments of the present invention will now be described by way of example only with reference to the accompanying drawings in which:

Fig. 1 is a schematic cross-section of a spillage containment member in accordance with a first embodiment of the present invention secured to a bucket;

Fig. 2 is a schematic cross-section of a containment member in accordance with the present invention as secured to a bucket in an upright position;

Fig. 3 is a schematic cross-section illustrating the member and bucket with flowers depicted in Fig. 2 in a toppled orientation;

Fig. 4 illustrates a first seal arrangement for securing the spillage containment member adjacent a lip rim of a bucket;

Fig. 5 illustrates the sealing arrangement depicted in Fig. 4 when secured upon a bucket lip rim;

Fig. 6 illustrates a second sealing arrangement for securing a spillage containment member to a bucket lip rim just prior to securing;

Fig. 7 illustrates the second seal arrangement depicted in Fig. 6 when secured upon a lip rim;

Fig. 8 illustrates a schematic cross-section of a third sealing arrangement for securing a spillage containment member in accordance with the present invention to a bucket lip rim just prior to securing;

Fig. 9 illustrates the third sealing arrangement depicted in Fig. 8 when secured upon a lip rim;

Fig. 10 illustrates a preferred combination of a spillage containment member secured within a transport vessel such as a bucket, tube or vase to form a vessel assembly in accordance with the present invention;

Fig. 11 is a front view of the preferred spillage containment member;

Fig. 12 is a plan view of the member depicted in Fig. 13; and

Fig. 13 is a front view illustrating entry of the preferred containment member depicted in Figs. 11 to 12 into a transport vessel to form a vessel assembly.

[0020] Previously, vessels such as buckets were used in transportation of cut flowers with the flowers placed into the open bucket and water placed in the bucket in order to feed and maintain the quality of the flowers as presented for delivery. These buckets are typically formed from plastic and have a capacity of 10 litres. Although the bucket will not generally be filled with 10 litres of water it will be appreciated that a substantial amount of water will be placed in the bucket so that if the bucket is toppled from an upright orientation that water will be distributed within and about the packages adjacent the bucket. This is unacceptable to many carriers who may in the same load have high value products and electrical equipment.

[0021] The present invention provides a spillage containment member which is generally secured about and/or from a lip rim of a bucket to form an assembly but the spillage containment member could be integrally formed with the bucket. Although the member may be integrally formed with the bucket during manufacture typically spillage prevention members in accordance with the present invention will be a retrofit as required for flower transportation in order to utilise the already available stock of buckets, tubs and vases.

[0022] Fig. 1 provides a schematic cross-section of a basic spillage prevention member 1 in accordance with the present invention associated with a bucket 4. The spillage prevention member 1 is secured to a lip rim 5 of the bucket 4 through a seal 2. As can be seen generally the seal 2 overhangs the lip rim 5 in order to create a watertight seal. At the other end of the member 1 an opening 3 is provided centrally within the bucket 4 with flaps 6 extending inwardly of the opening 3. It will be noted that the sides of the member 1 essentially overlay walls of the bucket 4 in order to create a cavity 7 between them.

[0023] The flaps 6 extend inwardly to engage flower stems in use in order to reduce and limit the available open free area of the opening 3 during transportation.

[0024] The position of the opening 3 is determined relative to spacing 8 between that opening 3 and a base 9 of the bucket 4. It will be understood in use a volume of water 10 will be located within the bucket such that in the upright position depicted in Fig. 1 that water has a level as depicted. However, if the bucket 4 topples it will be appreciated that this volume of water 10 will wash dependent upon the side of topple in one direction of the arrowheads A upon the side walls of the bucket 4 and if not confined will wash over the lip edge 5. However, in accordance with the present invention the spillage containment member 1 acts to contain the wash of the volume of water 10 and so prevents that water exiting the cavity 7 and bucket 4 in total. It will be understood that if the spacing 8 is too narrow then the wash height created

during topple may exceed the spacing 8 and so lead to release of some water although not all of the water through the opening 3. Furthermore, if the central positioning in terms of spacing 11 is too low then similarly the level of water 12 shown by broken line 12 may be close to or above the flaps 6 again leading to some water release through the opening 3. In such circumstances specific choice of the spacing 8 and height 11 will be dependent upon bucket 4 size and required volume of water. Typically for a 10 litre bucket the spacing 8 will be in the order of 100 mm. Similarly, the opening 3 will have a diameter in the order of 90 mm in order to accommodate without too much restriction a bunch of cut flowers required for transportation. As will be described later, the flaps 6 may be serrated with fingers to embrace flower stems.

[0025] It will be noted that the spillage containment member 1 has a generally flared shape and is typically a cone extending from the lip rim 5 to the opening 3. This flared shape may have the form of a smooth curved descent into the opening 3 or other funnel like cross-sections such as pyramidal with flat sloping walls etc. provided an appropriate presentation of the opening 3 is achieved with spacing and height relative to the base and side walls of the bucket sufficient to prevent water wash release during topple from an upright orientation. However, preferably as will be described later with regard to the preferred embodiment, the cone shape will be stepped to increase the wash capacity in terms of wash depth and wave splash when toppled.

[0026] Normally, the spillage containment member 1 will be formed from a relatively rigid plastic material in order to ensure that the seal 2 provided about the lip rim 5 is adequately robust to contain water within the combination of member 1 and bucket 4. However, where desirable at least a portion of the spillage containment member 1 may be rendered flexible in order to absorb a water wash wave and so reduce backwash which may cause release of water through the opening 3. In any event the member 1 will ensure sufficient containment of water within the bucket 4 such that if there is release of water it is of a minor and insignificant nature.

[0027] Figs. 2 and 3 illustrate a basic functional spillage containment member secured to a bucket respectively with the bucket in an upright (Fig. 2) and a toppled (Fig. 3) situation.

[0028] The bucket 24 is in an upright condition in Fig. 2 upon a base 29. In this upright condition water 30 is retained above the base 29 in order to provide water for flowers 20 presented through an opening 23. A spillage containment member 21 is secured adjacent a bucket lip rim 25 through a seal 22 in order to present an opening 23 within the bucket 24 through which the flowers and in particular their stems extend into the water 30. In this upright position the water level 28 is well below the opening 23 and therefore release of water is not possible without severe jostling.

[0029] In Fig. 3 the bucket 24 including the spillage

containment member 21 is turned over such that the base 29 extends in an upward direction and the whole assembly lies substantially laterally on the surface that the bucket originally stood upon upright. In such situations the flowers 20 are still presented through the opening 23 but the water is displaced from its original position depicted by broken line 28 (Fig. 2) to a new situation where the volume of water 30 now lies against a side surface of the bucket 24 and is confined between the seal 22 near the lip rim 25 and the inner surface of the member 21, the side wall of the bucket 24 and the base 29. In such circumstances the water level 38 is well below the flaps 26 such that water cannot be released through the opening 23. It will be appreciated in this condition that it is essential that the spillage containment member 21 through the seal 22 creates a watertight seal in order to prevent release of water. In such circumstances as indicated above a cavity 27 is substantially defined within which the water 30 is confined to prevent release in the toppled condition depicted in Fig. 3. It will also be understood that the bucket 24 may roll and so the containment member 21 must be able to accommodate such sloshing and movement of the water.

[0030] From the above it will be appreciated that creation of the watertight seal is essential in order to prevent leakage of the volume of water confined by the cavity created between the spillage confinement member and the bucket. Figs. 4 to 9 illustrate three basic alternative sealing arrangements to create the watertight seal about the rim of a bucket or similar vessel such as a vase.

[0031] Figs. 4 and 5 illustrate a first seal arrangement in which a spillage containment member 51 defines a seal through an overhanging hook section 52 to engage a lip rim 55 for securing the member 51 relative to a bucket 54. Fins 53 are provided in order to create a watertight seal. Fig. 4 illustrates the first seal arrangement just prior to securing the spillage containment member 51 upon the lip rim 55 whilst Fig. 5 illustrates an assembled condition with the hook segment 52 extending over the lip rim 55 to secure location of the member 51. The fins 53 engage parts of the bucket 54 wall in order to create a watertight seal. In such circumstances the fins 53 create a watertight seal whilst the overhanging section 52 acts as a clip to create a pocket seal about the lip 55 for secure location.

[0032] Figs. 6 and 7 illustrate a second seal arrangement to secure a spillage containment member 71 about a bucket lip rim 75. Again an overhanging clip 72 is provided to engage the lip rim 75 whilst fins 73 act to create a watertight seal. Fig. 6 illustrates the seal arrangement just prior to assembly upon the lip rim 75. Thus the member 71 will be displaced in the direction of arrowhead Y such that the hook clip 72 engages the lip rim 75 bringing the fins 73 into engagement with the top of the rim 75. Fig. 7 illustrates an assembled condition for the second seal arrangement. Thus, as can be seen the hook clip 72 engages the lip rim 75 with fins 73 turned in opposing directions in order to create a watertight seal about the

lip rim 75 with the remainder of the spillage containment member 71 projected downwardly in order to create the cavity as described previously.

[0033] Figs. 8 and 9 illustrate a third seal arrangement in accordance with the present invention to secure a spillage containment member 91 about a lip rim 95 of a bucket 94. Thus, dog tooth members 92 are provided such that they engage the lip rim 95 whilst fins 93 are brought into compressive engagement with an upper part of the lip rim 95 in order to create a watertight seal. Fig. 8 illustrates the third seal arrangement in a condition just prior to assembly such that the member 91 is displaced in the direction of arrowhead Z whereby as illustrated in Fig. 9 in the assembled condition the dog teeth 92 have engaged the rim 95 in order to create a bucket seal to secure the member 91 whilst the fins 93 are displaced in generally opposite directions in order to create the watertight seal about the lip rim 95. Such a seal arrangement provides a collective clip action not requiring all the dog teeth 92 to be engaged or fully engaged to achieve an adequate seal or engagement. Thus, the third seal arrangement provides some adaptability with regard to variations in vessel size.

[0034] As described above a spillage containment member in accordance with the present invention may be integrally formed with a bucket during moulding manufacture or other production process such as through use of an adhesive to secure the containment member. However, normally the spillage containment member will be removable in order to allow the buckets and/or the spillage containment members to be nested one inside the other for ease of transportation if required.

[0035] An unfortunate consequence of the above basic form of spillage prevention members is that each size of bucket must have its own sized spillage prevention member. This is inconvenient particularly if there are variations in buckets nominally of the same size but from different manufacturers. The problem is addressed in the preferred embodiment described below.

[0036] As indicated above typical vessels in accordance with the present invention will be in the form of vases or buckets for flowers. These vases or buckets may be of different sizes and even when nominally of the same size as provided by different manufacturers may be sufficiently different such that their size and/or shape vary to an extent that it is difficult to provide a universal mechanism for sealing about the rim of the bucket or vessel adequately. The preferred embodiment described below attempts to provide a more universal fitting over at least a single nominal size range.

[0037] As indicated above, the problem with respect to providing sealing about the actual rim of the bucket or other transport vessel is the requirement that the spill containment member must be sized appropriately for each bucket or vessel. Such an approach would require a wide inventory of spillage containment members for all variants of bucket size/shape and so would at least be inconvenient.

[0038] In the preferred embodiment depicted in Figs. 10 to 13, the basic form of spillage containment member is refined by provision of a seal rib positioned part way down the flared insert, that is to say the cone or funnel of the member away from an upper edge. Thus, as the spillage containment member is forced downwards into a bucket, this rib enters into engagement with a wall part of a vessel such as a bucket below the rim of that bucket. In such circumstances due to the taper created by the flared insert of the spillage containment member, a narrow range of diameters of bucket or tub or vase can be accommodated. Sealing engagement is retained between the rim and the vessel wall by use of clips which extend into hook engagement with the rim of the bucket. Generally, a clip achieves compressive engagement with the rim such that the rim is forced into sealing engagement with an inner surface of the bucket. For seal stability normally at least two clips are provided at opposed locations about the rim in order to retain the sealing engagement between the rib and the bucket.

[0039] The clips are associated with relatively large outwardly projecting handles to enable easy assembly and dis-assembly of the spillage containment member into association with a bucket. Furthermore, the clips will extend for a sufficient arc length of the bucket rim to ensure appropriate compressive engagement by the rib against the inner surface of the bucket as well as to provide stability.

[0040] Referring to Fig. 10, a cross section of the preferred embodiment is illustrated. Thus, a containment member 200 is secured in a bucket 201 with a rib 203 formed in a tapered shoulder portion 202 of a stepped conical or funnel shape flared centre of the spillage containment member. Thus, as depicted, the spillage containment member 200 includes the shoulder portion 202 and a step to a central conical funnel part 204 which then extends down to a central opening 205. This central opening 205 is serrated and incorporates fingers which are configured to embrace flower stems in use with close association but without undue compression or difficulty with regard to insertion of a bunch of flowers.

[0041] As described above, a cavity 207 is created between the opposed parts of the conical funnel and side wall of the bucket 201. This cavity 207 will accommodate the water when a bucket and member 200 assembly is toppled. Due to the shoulder portion 202 to the flared conical funnel, it will be appreciated that the volume capacity of the cavity between the opposed surfaces of the flared conical funnel and the wall is greater than a simple smooth flared funnel which extends from the bucket rim as shown in the basic embodiment described above with regard to figures 1 to 9. In such circumstances, the potential for leakage is significantly reduced as a wash height of the water in the internal cavity 207 is lowered.

[0042] Figs. 11 and 12 respectively depict a front view and plan view of the spillage containment member 200. The shoulder portion 202 incorporates the rib 203 such that the rib 203 in use as described above will engage

an inner wall surface of the bucket to create a seal. The flared conical form extends down to the serrated end with fingers, which as described previously will generally be relatively flaccid to enable the opening to embrace the bunch of flowers in a non compressive manner.

[0043] The top edge of the containment member will generally be rounded to overlay a bucket rim, but incorporates clip retainers at positions to secure the member to a bucket in use with compressive engagement between the rib and the inner surface of the bucket. It will be noted that the clips extend for a proportion of the circumference of the containment member to provide a robust engagement with the bucket as well as resist twist or askew presentation of the member 200 upon the bucket.

[0044] It will be appreciated at least for storage, if not for transportation, the members 200 can be nested into stacks. In, such circumstances, radial tags or lugs 210 will be provided so that the members do not come into too close association which may through vacuum engagement render removal of one member from the stack difficult.

[0045] In order to ensure that engagement and disengagement of the clips is easy, handles 211 are provided so that there is a pivot lever action for release of the clip in engagement with the rim of a bucket. Again, the handles will be relatively large for ease of operation.

[0046] The situation just prior to assembly of a preferred spillage containment member 200 with a bucket is illustrated with regard to Fig. 13. Thus, the member 200 is moved in a generally axial downward direction indicated by arrowhead X such that the rib 203 is brought into compressive engagement with a surface of the bucket 201. Generally, in such circumstances the clips will be snap fit about the rim of the bucket with the necessary compressive force provided by a downward action upon the handles. In this assembled state the rib 203 provides a radial circumferential seal against a bucket wall surface just below the rim of the bucket but of sufficient strength to ensure that there is no water leakage from a toppled assembly of the member 200 and bucket 201.

[0047] Dis-assembly is achieved by upward pivot of the handles to displace the detent of the clip from engagement with the rim of the bucket and at the same time an upward lift of the member in the opposite direction to arrowhead X.

[0048] The axial dimensions and sizes of the spillage containment member and bucket as indicated previously will be dependent upon necessary performance. However, typically for a bucket height of approximately 264 millimetres with a similar diameter, a containment member will be provided which has an overlay collar with an outer radius in the order of 274 millimetres and a stepped as well as flared conical funnel with an opening of approximately 90 millimetres diameter with fingers which extend inwardly to an edge of 55 millimetres diameter and at an angle downward into the bucket from a projection radius for the opening of approximately 13 millimetres.

[0049] As indicated above, preferably the spillage containment member is a separate item secured to a bucket or other vessel. However, it will be appreciated that the spillage containment member may be formed integrally with the vessel or permanently fixed to the bucket either during a two part moulding process or by subsequent processes including adhesive connection through the rib to the bucket surface. In such circumstances, generally after use, the one-piece bucket and spillage containment member will be disposed of. As also indicated, association between the bucket and spillage containment member may be through an operationally permanent snap-fit association of clips upon the rim of the bucket. As an alternative to immediate disposal, it will be understood that the vessel and containment member, whether separate or one-piece, could be decorated or designed to be attractive so that users may wish to use the assembly as a display vase for the flowers transported. Decoration may include colour, patterning and shaping as well as wording and branding for product recognition.

[0050] Typically, a spillage containment member will be designed in order to create tension or compression about the seal arrangement formed with or below the lip rim of the bucket. It will be appreciated by use of such compression or tension provision of a watertight seal may be more easily achieved. This pressure may be achieved simply through slightly over-sizing the spillage containment member relative to the rim dimensions of the bucket.

[0051] Although described relative to transportation of cut flowers it will be appreciated that a spillage prevention member in accordance with the present invention may be utilised with respect to buckets and vases used to transport other goods such as live fish and eels or products which must be kept under a liquid for preservation or otherwise.

[0052] As indicated above generally flaps are provided in order to create a slight inward restriction upon the cut flowers in order to reduce the free area available during topple in order to reduce splash release of water. These flaps may be further augmented by placing rings into the flared part of the containment member. These rings may be secured within the opening in order to vary the size of the opening aperture dependent upon the number and nature of flower stems presented through the opening but retaining sufficient loose presentation of those flowers to avoid damage.

[0053] Modifications and alterations to the embodiments of the present invention described above will be appreciated by those skilled in the art. Thus, for example in addition to fins provided in the seal arrangement to achieve a watertight seal about the lip rim it will be understood that sealing compounds etc. may be used for creating a tighter interference fit about the lip rim in order to achieve the desired watertight seal. Furthermore, presenter members may be provided beneath the containment member in order to adjust the presentational angle of the spillage containment member in use for best effect

relative to the flower stems presented through the opening.

[0054] As indicated above mostly in accordance with the present invention there will be provided a separate spillage containment member which will be associated with an existing bucket or vase. However, it may be possible to produce an integral assembly where required.

[0055] As described above the present invention may also be used as a transport vessel for other products such as live fish or shell fish, and the opening in the flared insert may then be partially closed with a vented plug, but in any event as will be described later, spillage through the vent will be prevented by the configuration of the flared insert part.

[0056] In order to further reduce the water level 38 in the topple condition and therefore the potential for water wash back projecting water through the opening 23, an absorbent material may be located on an inner surface 32 (Figure 3) of the member 21 but care must be taken that there is a genuine reduction in water level 28 in use. The absorbent weight and expansion of this absorbent material may also help within the sealing effect as well as inhibit toppled bucket roll motions and water wash wave motions.

[0057] Whilst endeavoring in the foregoing specification to draw attention to those features of the invention believed to be of particular importance it should be understood that the Applicant claims protection in respect of any patentable feature or combination of features hereinbefore referred to and/or shown in the drawings whether or not particular emphasis has been placed thereon.

Claims

1. A vessel assembly for transport of a product including a fluid, the assembly comprising a vessel and a spillage containment member including a flared part, the containment member engaging the vessel to form a seal against a wall of the vessel such that a cavity is formed between the wall of the vessel and the flared part within which in use a volume of fluid in the vessel can be confined if the vessel is toppled from an upright orientation despite there being an opening in the flared insert.
2. A vessel as claimed in claim 1, wherein the flared part extends into the vessel.
3. A vessel as claimed in claim 1 or claim 2, wherein the spillage containment member is secured directly to the vessel.
4. A vessel as claimed in any preceding claim, wherein the spillage containment member is integral with the vessel.
5. A vessel as claimed in any preceding claim, wherein

the flared part may be a cone or have a rectangular or triangular cross-section funnel-like shape extending inwardly from an edge of the vessel or spillage containment member.

6. A method of preventing fluid spillage from a vessel assembly having an opening when toppled from an upright orientation to a lateral orientation, the method comprising
 - a) placing a spillage containment member including a flared part with an opening into a vessel used to contain a volume of fluid,
 - b) causing an association between a wall of the vessel and the spillage containment member to form a seal with a cavity between the flared part and the vessel, and
 - c) retaining the seal whereby in use a volume of fluid in the vessel can be confined if the vessel is toppled from an upright orientation despite there being an opening in the flared part.
7. A spillage containment member for a vessel, the member comprising a flared insert which in use overlays walls of a vessel to form a cavity between the insert and the vessel, the flared insert having an opening and arranged to confine a fluid when secured to a vessel if toppled from an upright orientation.
8. A containment member as claimed in claim 7, wherein the opening includes a flap to close about flowers in use to restrict the free area of the opening.
9. A containment member as claimed in claim 8, wherein the flap is serrated with fingers to embrace the flower stems for stability but with limited compression.
10. A containment member as claimed in any of claims 7 to 9, wherein the member is secured to the lip rim to form a seal between the spillage containment member and a part of a vessel wall at or below the lip rim.
11. A containment member as claimed in claims 17 to 10, wherein the spillage containment member includes a radial seal means to form a watertight seal.
12. A containment member as claimed in claim 11, wherein the radial seal comprises a rib raised upon an outer surface of the flared insert.
13. A containment member as claimed in any of claims 11 to 27, wherein the spillage containment member has surface lugs to separate the spillage containment member from other members when stacked together.

14. A transport vessel for products with liquids incorporating a spillage containment member as claimed in any of claims 7 to 13.
15. A transport vessel as claimed in claim 13, wherein the spillage containment member is integral with the vessel. 5
16. A containment vessel as claimed in claim 15, wherein the vessel is a tub, bucket or vase. 10

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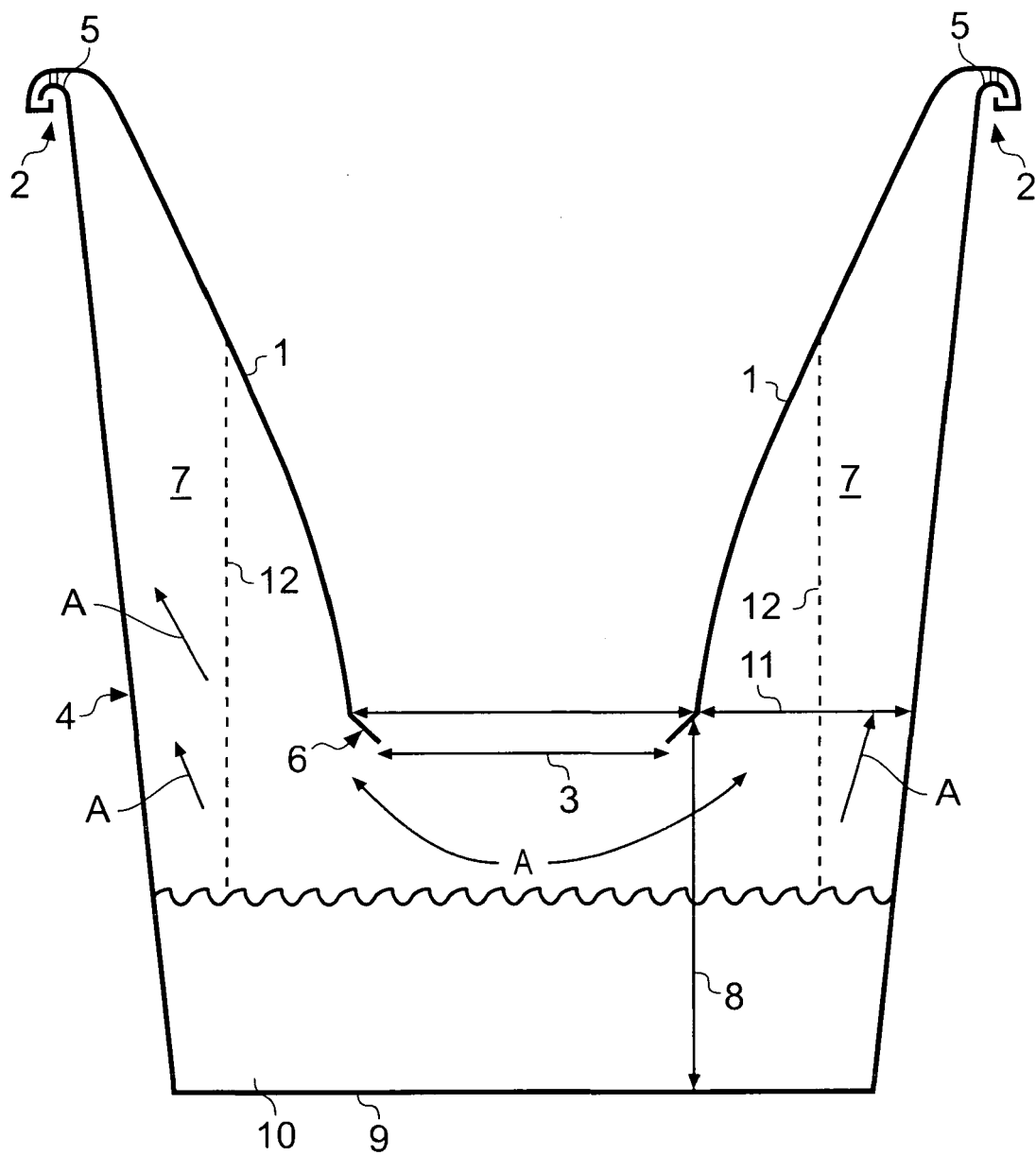


Fig. 1

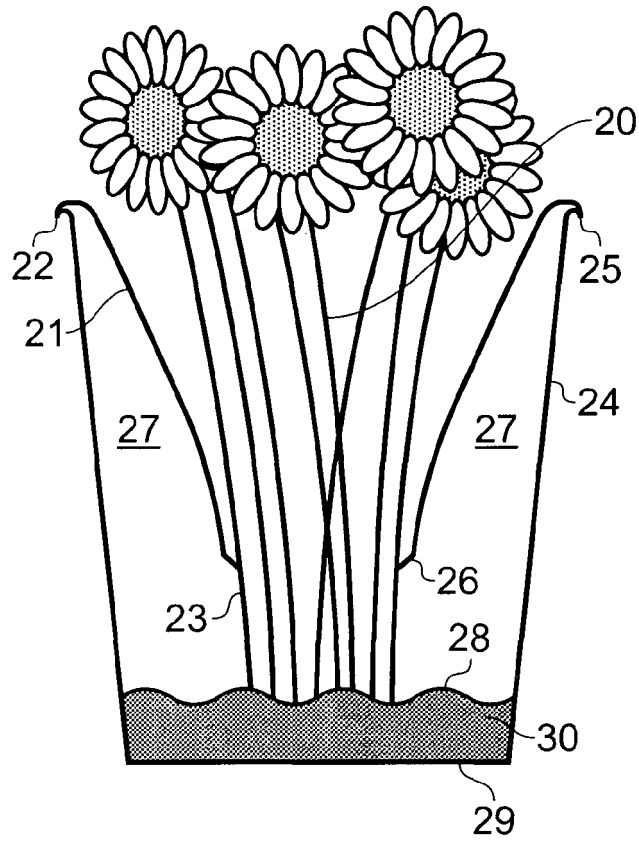


Fig. 2

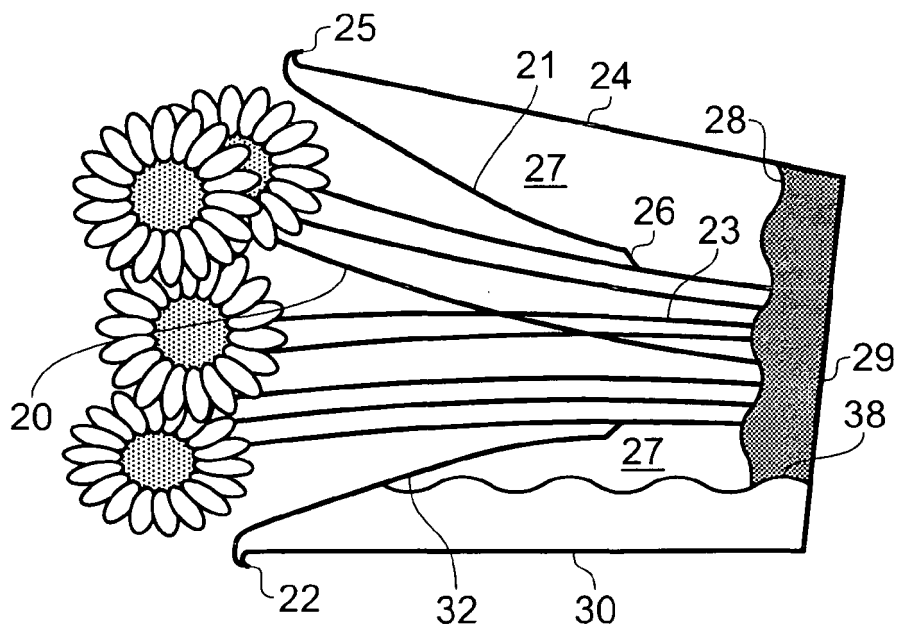


Fig. 3

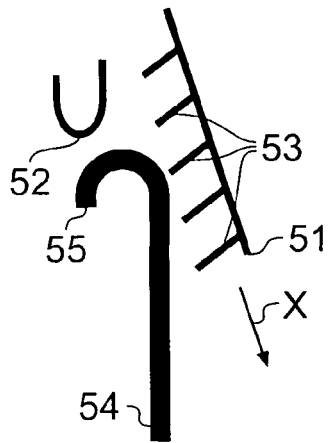


Fig. 4

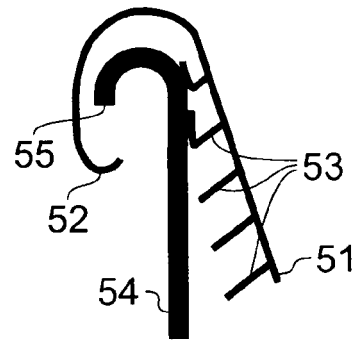


Fig. 5

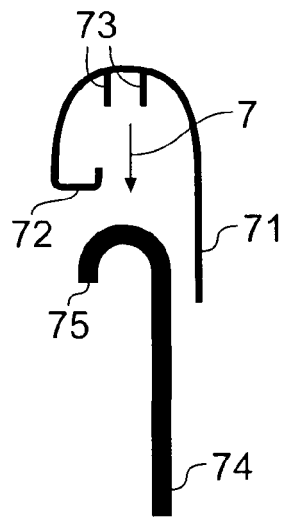


Fig. 6

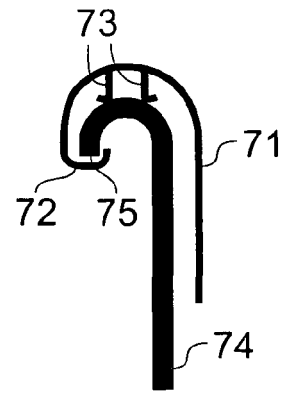


Fig. 7

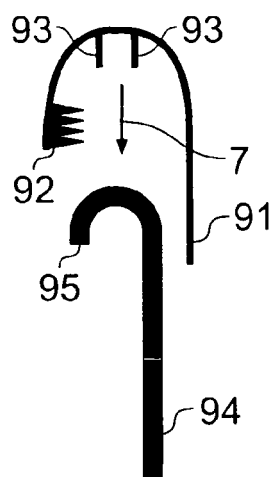


Fig. 8

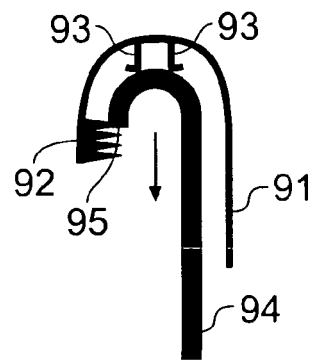


Fig. 9

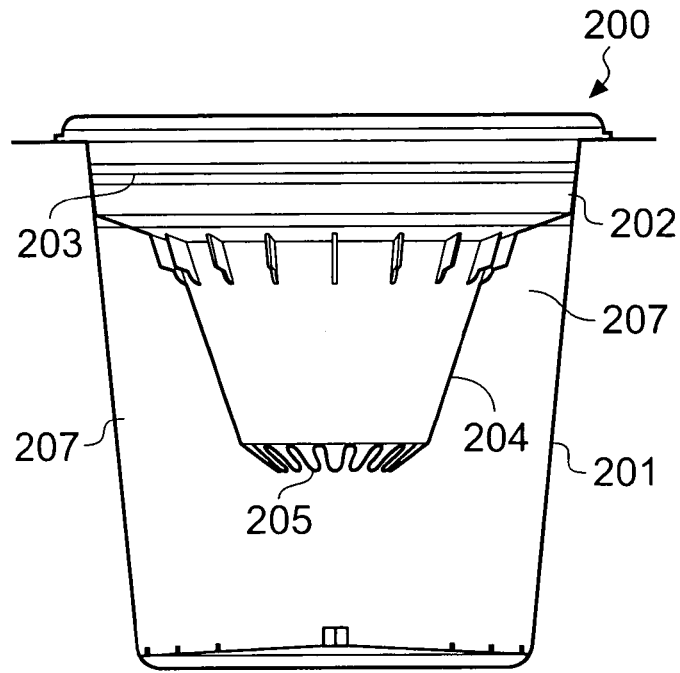


Fig. 10

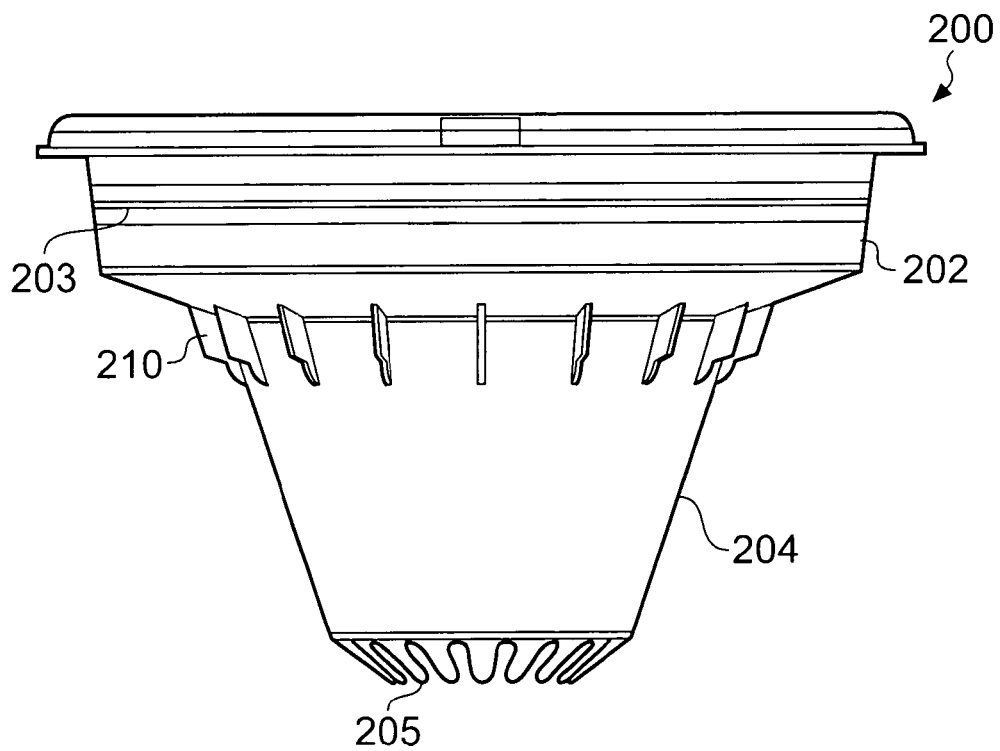


Fig. 11

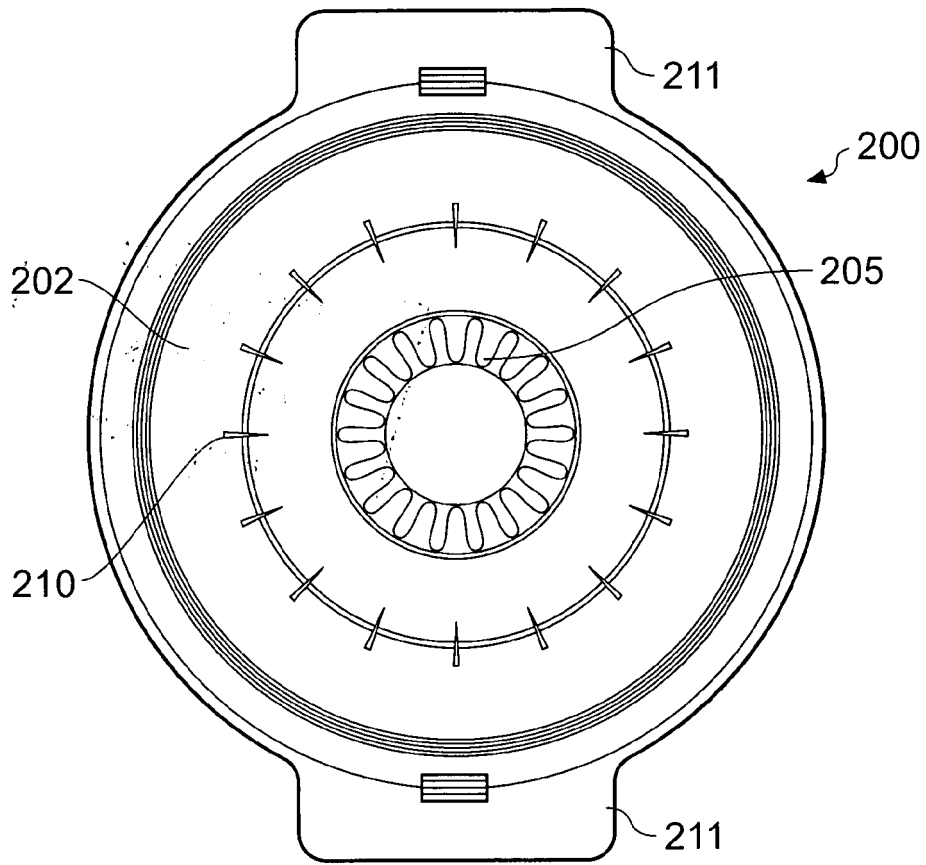


Fig. 12

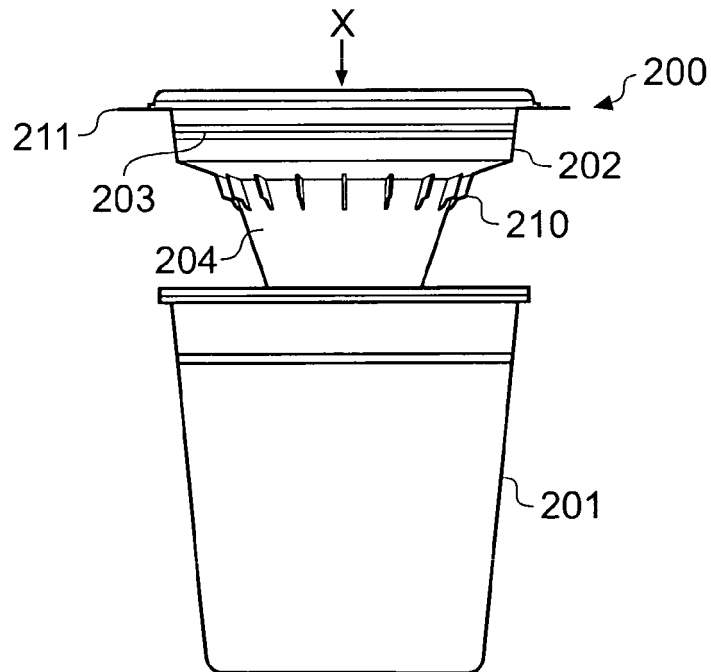


Fig. 13



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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 5 491 929 A (PEACOCK ET AL) 20 February 1996 (1996-02-20)	1-3,5-7, 10-12,14	B65D85/52 B65D85/50
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			B65D A47G A01G
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 16 December 2005	Examiner Bevilacqua, V
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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**ANNEX TO THE EUROPEAN SEARCH REPORT
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16-12-2005

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