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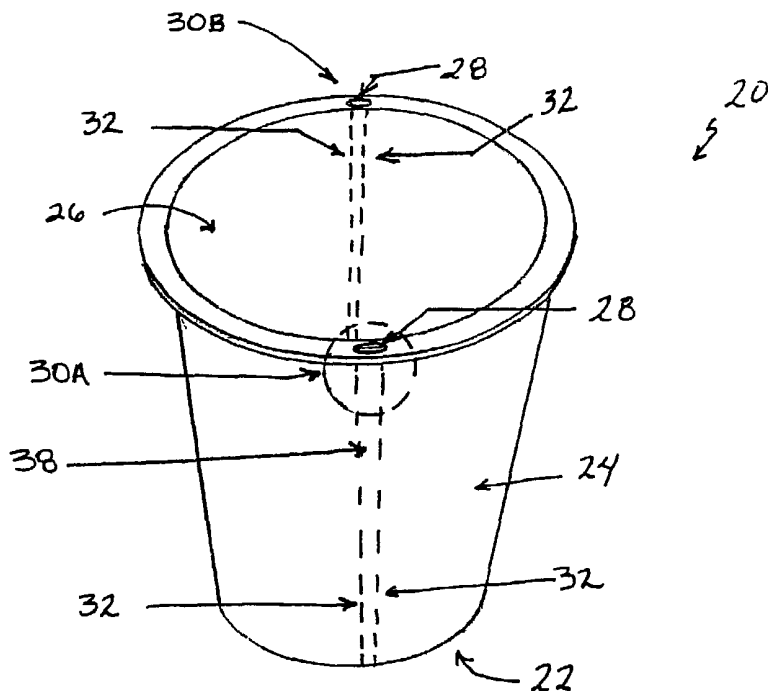
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(54) Title: REMOVABLE PLANT CONTAINER AND METHOD OF USE



(57) Abstract: A removable plant container (20) for growing and transporting plants having a base member (22) in communication with a lateral support wall (24). The base member (22) and lateral support wall (24) define a receiving aperture (26), having a volume V, for receiving the plant and growing media therein. At least one removal device (30A, 30B) is in communication with the lateral support wall (24), the base member (22), or both. Actuation of the at least one removal device (30A, 30B) results in an increase in the volume of the receiving aperture (26) from volume V to volume V', thereby permitting the removal of the plant and growing media without damage to the plant root system of root ball.

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## REMOVABLE PLANT CONTAINER AND METHOD OF USE

### CROSS REFERENCE TO RELATED APPLICATIONS

**[0001]** The entire contents of U.S. Provisional Patent Application No. 60/248,870, entitled "Removable Plant Container", filed on November 14, 2000, naming Michael Banhagel as inventor, is hereby incorporated by this reference in its entirety.

### BACKGROUND OF THE INVENTION

**[0002]** Agricultural pots, containers, and cans are traditionally used for the containment of soil or other growing media useful in growing plants or shrubs. Typically, these devices, herein referred to as "plant pots", form a containment vessel capable of protecting the plant root structure located within the growing medium from damage during shipping. In addition, these plant pots enable the continued development of a plant prior to permanent implantation.

**[0003]** Currently, a wide variety of plant pots are available in a plurality of forms and configurations for general or specialized use. As shown in Figure 1, these plant pots 1 include a pot base member 3 in communication with a lateral support wall 5. A soil receiving aperture 7 is formed by the lateral support member 5 and the pot base member 3. Additionally, these plant pots 1 may include a watering plate 9, which is capable of detachably engaging the pot base member 3 of the plant pot 1. The pot base member 3 or the lateral support wall 5 may have at least one drainage hole 11 formed therein to permit the drainage of excess water from the growing media.

**[0004]** Commonly, plant pots are manufactured from a variety of materials including, for example, various clays, cements, metals, ceramics, and plastics. Disposable plastic plant pots are frequently used in the nursery industry due to their relative low cost. These disposable plastic plant pots must be capable of withstanding the rigors of shipping and handling while providing adequate support to the soil or growing media and encourage continued plant development. One shortcoming associated with these disposable plastic plant pots relates to removing the plant from the plant pot for replanting or implantation. Over time, the soil or growing media

containing the plant root system may become entrenched within the disposable plant pot, making the removal of the plant root system from the disposable plastic plant pot difficult if not impossible. Typically, the plant removal process results in substantially if not irreversible damage to the plant root system.

**[0005]** Thus, there is a need for a plant pot device capable of providing sufficient support to soil or a growing media while enabling the removal of the plant and growing media therefrom without damaging the plant root system or root ball.

#### BRIEF SUMMARY OF THE INVENTION

**[0006]** The present invention is directed to a plant container useful in growing and transporting plants. Those skilled in the art will appreciate that the present invention enables a user to easily remove a plant from the container without damaging the plant root system or root ball located within a plant growing media.

**[0007]** In one aspect, the present invention comprises a base member, a lateral support wall defining a receiving aperture in communication with the base member, and at least one removal device located on the container. Prior to the actuation of the at least one removal device, the receiving aperture defines a volume  $V$ . The at least one removal device is separable from the container, wherein the separation of the at least one removal device results in the volume of the receiving aperture increasing from volume  $V$  to volume  $V'$ . The increase in the volume of the at least one receiving aperture permits the easy removal of a plant from the container. Those skilled in the art will appreciate that the present invention may be manufactured from a plurality of materials, including, for example, various plastics, acrylics, metals, ceramics, clays, and wood-pulp based materials such as paper.

**[0008]** In another embodiment of the present invention, the removable plant container comprises a base member, a lateral support wall in communication with the base member, a receiving aperture formed by the base member and the lateral support wall, and at least one tear member in communication with and separable from the base member and lateral support wall. Prior to the actuation of the at least one tear member, the receiving aperture defines a volume  $V$ . The at least one tear member is positioned on and defines a first portion and a second portion on the lateral

support wall, wherein the separation of the at least one tear member from the lateral support wall results in the volume of the receiving aperture increasing from volume  $V$  to volume  $V'$ . At least one finger hole may be in communication with the at least one tear member.

**[0009]** The present invention also provides a method of removing a plant from a plant container which includes providing a plant container comprising a receiving aperture having a volume  $V$ , the receiving aperture formed by a base member in communication with a lateral support wall, providing at least one tear member in communication with the container, actuating said at least one tear member in communication with said container, increasing the diameter of the receiving aperture from volume  $V$  to volume  $V'$ , and removing said plant from said receiving aperture.

**[0010]** Other objects, features, and advantages of the present invention will become apparent from a consideration of the following detailed description.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0011]** The apparatus of the present invention will be explained in more detail by way of the accompanying drawings, wherein:

**[0012]** Fig. 1 shows a perspective view of a prior art plant container;

**[0013]** Fig. 2 shows a perspective view of the removable plant container of the present invention;

**[0014]** Fig. 3 shows a side view of the at least one removal device of the present invention;

**[0015]** Fig. 4A shows a side view of an alternate embodiment of the at least one removal device of the present invention;

**[0016]** Fig. 4B shows a side view of another embodiment of the at least one removal device of the present invention wherein the at least one removal device comprises at least one v-groove or channel formed in the lateral support wall;

**[0017]** Fig. 5 shows a perspective view of the at least one removal device positioned on the lateral support wall of the present invention;

**[0018]** Fig. 6 shows a perspective view of an alternate embodiment of the removable plant container of the present invention;

**[0019]** Fig. 7 shows a perspective view of the at least one finger hole located on the lateral support wall of the present invention;

**[0020]** Fig. 8 shows a perspective view of yet another embodiment of the removable plant container of the present invention having at least one removal slot formed on the lateral support wall;

**[0021]** Fig. 9 shows a perspective view of the at least one finger hole located proximate to the at least one removal slot formed on the lateral support wall of the present invention;

**[0022]** Fig. 10 shows a perspective view of another embodiment of the removable plant container of the present invention having a removal channel formed on the lateral support wall;

**[0023]** Fig. 11 shows a perspective view of the at least one finger hole located proximate to the at least one removal slot formed on the lateral support wall of the present invention;

**[0024]** Fig. 12 shows a perspective view of yet another embodiment of the removable plant container of the present invention wherein the at least one tear strip continues laterally around the lateral support wall;

**[0025]** Fig. 13 shows a perspective view of yet another embodiment of the removable plant container of the present invention wherein the at least one tear strip is in communication with the base member;

**[0026]** Fig. 14 shows a perspective view of a plant and growing media positioned within the receiving aperture of the present invention;

**[0027]** Fig. 15 shows a perspective view of the removal of a plant from an embodiment of the present invention wherein the at least one tear strip is being actuated;

**[0028]** Fig. 16 shows a perspective view of the removal of a plant from an embodiment of the present invention wherein the at least one tear strip is being advanced towards the base member;

**[0029]** Fig. 17 shows a perspective view of the removal of a plant from an embodiment of the present invention wherein the at least one tear strip is fully actuated;

**[0030]** Fig. 18 shows a perspective view of the removal of a plant from an embodiment of the present invention wherein the lateral support wall is forced apart thereby releasing the plant and growing media;

**[0031]** Fig. 19 shows a perspective view of a plant and growing media positioned within the receiving aperture of another embodiment of the present invention;

**[0032]** Fig. 20 shows a perspective view of the removal of a plant from another embodiment of the present invention wherein the at least one retention bridge is cut by the user;

**[0033]** Fig. 21 shows a perspective view of the removal of a plant from another embodiment of the present invention wherein all retention bridges have been severed; and

**[0034]** Fig. 22 shows a perspective view of the removal of a plant from another embodiment of the present invention wherein the lateral support wall is forced apart thereby releasing the plant and growing media.

#### DETAILED DESCRIPTION OF THE INVENTION

**[0035]** Disclosed herein is a detailed description of various illustrated embodiments of the present invention. This description is not to be taken in a limiting sense, but is made merely for the purpose of illustrating the general principles of the

invention. The section titles and overall organization of the present detailed description are for the purpose of convenience only and are not intended to limit the present invention.

**[0036]** The removable plant container of the present invention is capable of receiving and containing plant soil or other plant growing media therein while permitting the user to easily remove the plant root system therefrom without damage. As those skilled in the art will appreciate, the present invention is simple and inexpensive to manufacture and may be constructed in a plurality of shapes and sizes.

**[0037]** A conventional plant pot is shown in Figure 1. As shown, the conventional plant pot 1 comprises a pot base member 3 in communication with a lateral support wall 5 which defines a soil receiving aperture 7. The base member 3 of the plant pot 1 may be capable of engaging and retaining a watering plate 9 thereon. At least one drainage hole 11 may be formed on the lateral support wall 5, on the base member 3, or the lateral support wall 5 and the base member 3 to permit the flow of material therethrough. During use, plant soil or other growing media is contained within the receiving aperture 7. Thereafter, a plant root system or root ball is inserted into the plant soil, wherein the plant soil provides support to the plant root system and plant, if present. As shown in Figure 1, the lateral support wall 5 of the plant pot 1 forms a generally conical shape. However, commonly plant pots 1 are manufactured in a plurality of shapes and sizes.

**[0038]** Figures 2-3 show the removable plant pot of the present invention. As shown in Figure 2, the removable plant container 20 comprises a base member 22 in communication with a lateral support wall 24 which defines a receiving aperture 26. At least one finger hole 28 may be formed in the lateral support wall 24. The at least one finger hole 28 is positioned proximate to at least one removal device 30A, 30B, formed in or disposed on the lateral support wall 24. As shown in Figures 2 and 3, the at least one removal device 30A, 30B may comprise one or more tear members 38 positioned proximate to or defined by at least one tear strip 32 formed in the lateral support wall 24. Those skilled in the art appreciate that the at least one removal device may comprise perforated slits; slots, retention bridges, hook and loop devices, buttons, straps, zippers or other devices embedded in or otherwise incorporated into the lateral support wall 24, the base member 22, or both. Figure 3 shows a more detailed side

view of the at least one removal device 30A. In one embodiment, the at least one tear strip 32 may comprise a plurality of tear perforations 34 formed in the lateral support wall 24. Those skilled in the art will appreciate that the present invention may be manufactured from a plurality of materials, including, for example, various plastics, acrylics, metals, ceramics, clays, and wood-pulp based materials such as paper. In an alternate embodiment, a plurality of materials or materials having a variety of physical characteristics may be used to manufacture the present invention. For example, the at least one tear member 38 may be manufactured from a plastic material having a thickness of about .0625 inch while the lateral support wall 24 may be manufactured from a plastic material having a thickness of about .125 inch.

**[0039]** Figures 4A and 4B show alternate embodiments of the present invention having one or more tear members 38 located proximate to at least one tear strip 32. As shown in Figure 4A, the at least one tear strip 32 may comprise at least one tear device 34' positioned on or otherwise incorporated into the lateral support wall 24. Those skilled in the art will appreciate that the exemplary tear devices 34' may include, without limitation, wires, strings, or lines embedded or otherwise incorporated into the lateral support wall 24. Figure 4B shows another embodiment wherein the at least one tear device 34' comprises at least one groove or channel formed in the lateral support wall 24. Those skilled in the art will appreciate that the at least one groove or channel may be formed by thinning or otherwise providing thinner material within the at least one groove or channel relative to the lateral support wall 24 or the base member 22, or both. The at least one groove or channel may be of continuous width and/or depth. Alternately, the at least one groove or channel may vary in width and/or depth as desired. In addition, the at least one groove or channel may be continuous or may be formed intermittently upon the lateral support wall 24 or the base member 22.

**[0040]** Figure 5 shows a perspective view of a removal device 30A of the present invention. As shown, the removable plant container 20 may include a flange 40 in communication with the lateral support wall 24. The flange 40 may provide a gripping surface for the removable plant container 20. In an alternate embodiment, the flange 40 may include a handle (not shown) or other gripping device attached thereto to enhance the handling of the present invention. The at least one finger hole 28 may be



positioned on the flange 40 proximate to the at least one tear starter 36, which are in communication with the at least one tear strip 32 defining at least one tear member 38.

**[0041]** Figures 6 and 7 show an alternate embodiment of the removable plant container 20 of the present invention. The reference numerals shown in Figures 6 and 7 have analogous meanings to the reference numerals identifying the features of the previous embodiments as shown in Figures 1-5. In the present embodiment, the removable plant container 20 may be manufactured without a flange 40. The at least one finger hole 28 may be positioned proximal to at least one tear starter 36 which is in communication with at least one tear strip 32. Figure 6 shows the at least one finger hole 28 positioned between two tear starters 36. A stiffening ridge 42 may be formed in or otherwise positioned on the lateral support wall 24. The stiffening ridge 42, which intersects the at least one tear strip 32 prevents the accidental release of a plant from the plant container 20.

**[0042]** Figures 8 and 9 show yet another embodiment of the removable plant container 20 of the present invention. The reference numerals shown in Figures 8 and 9 have analogous meanings to the reference numerals identifying the features of the previous embodiments as shown in the preceding figures. In the present embodiment, the lateral support wall 24 of the removable plant container 20 may include at least one removal slot 44 formed therein. As shown, the removal slot 44 is positioned on the lateral support wall 24 co-axially aligned with the longitudinal axis of the removable plant container 20, proximate to the at least one finger hole 28. One or more retention members 46 may traverse the at least one removal slot 44. Figure 9 shows the at least one finger hole 28 positioned proximate to the removal slot 44.

**[0043]** Figures 10 and 11 show yet another embodiment of the removable plant container 20 of the present invention. The reference numerals shown in Figures 10 and 11 have analogous meanings to the reference numerals identifying the features of the previous embodiments as shown in the preceding figures. In the present embodiment, the lateral support wall of the removable plant container 20 may include at least one removal channel 48 formed therein. As shown, the removal channel 48 is positioned on the lateral support wall 24 co-axially aligned along the longitudinal axis of the removable plant container 20, proximate to the at least one finger hole 28. At

least one retention bridge 50 traverses the at least one removal channel 48. Figure 11 shows the finger loop 28 positioned proximate to the removal channel 48.

**[0044]** Figures 12 and 13 show yet another embodiment of the removable plant container 20. The reference numerals shown in Figures 12 and 13 have analogous meanings to the reference numerals identifying the features of the previous embodiments as shown in the preceding figures. As shown in Figure 12, the lateral support wall 24 of the present invention may include at least one longitudinal tear strip 32 in communication with at least one lateral tear strip 32'. The at least one lateral tear strip 32' may be located proximate to the base member 22 to effectuate removal of a plant from the removable plant container 20. Figure 13 shows another embodiment of the present invention having at least one longitudinal tear strip 32 positioned on the lateral support wall 24 in communication with at least one lateral tear strip 32' located on the base member 22. Like the previous embodiment shown in Figure 12, the at least one lateral tear strip 32' located on the base member 22 effectuates removal of a plant from the removable plant container 20. As shown in Figures 12 and 13, one or more drainage holes 48 may be located on the lateral side wall 24, the base member 22, or both to permit the irrigation of the plant within the plant container 20.

**[0045]** The present invention further discloses a method of removing a plant and plant soil or other growing media from the removable plant container 20 of the present invention. More particularly, the method practicing the present invention disclosed herein enables a user to easily remove a plant from a removable plant container 20 with out damaging the plant root system or root ball located within the plant soil or growing media.

**[0046]** Figures 14-18 show one method of removing a plant 50 located within plant soil 52 from the removal plant container in accordance with the present invention. As shown in Figures 14-15, the user separates the material tap 54 positioned proximate to or defined by at least one tear strip 32 from the lateral support wall 24. Thereafter, the user engages the at least one finger hole 28 and forces the at least one finger hole 28 outwardly away from the lateral support wall 24 and downwardly towards the base member 22. As shown in Figure 16, the application of the outward and downward force results in the at least one tear strip 32 to separate from the lateral support wall

24, thereby allowing the at least one tear member 38 to detach from the lateral support wall 24. The continued application of an outward and downward force results in the increased separation of at least one tear member 38 from the lateral support wall 24. Figure 17 shows the at least one tear member 38 attached only to the base member. As a result, the lateral support wall 24 comprises a first portion 56A and a second portion 56B. As shown in Figure 18, the user can easily separate the first and second portions 56A, 56B, thereby increasing the volume of the receiving aperture 26 and releasing the plant and plant soil from the removable plant container 20 without damage to the plant root system or root ball.

**[0047]** Figures 19-22 show an alternate method of practicing the present invention which permits the user to cut away the removable plant container 20 to remove the plant 50 and plant soil 52. Those skilled in the art will appreciate that the present method of practice is particularly useful with embodiments of the removable plant containers shown in Figures 8-11. As shown in Figures 19-20, the user may use a cutting device to sever or cut the at least one retention member 46 or retention bridge 50 traversing the removal channel 48. As shown in Figures 21-22, the plant 50 and the plant soil 52 may be removed once the at least one retention member 46 or retention bridge 50 traversing the removal channel 48 has been cut and the first and second portion 56A, 56B have been separated to increase the volume of the receiving aperture 26

**[0048]** In closing it is understood that the embodiments of the invention disclosed herein are illustrative of the principles of the invention. Other modifications may be employed which are within the scope of the invention; thus, by way of example but not of limitation, alternate container shapes, alternative container sizes, and alternative materials. Accordingly, the present invention is not limited to that precisely as shown and described in the present invention.

What is claimed is:

1. A container for holding plants, comprising:  
a base member;  
a lateral support wall in communication with said base member;  
a receiving aperture formed by said base member and said lateral support wall, said receiving aperture having a volume  $V$ ; and  
at least one removal device located on and separable from said container, wherein separation of said at least one removal device from said container results in said receiving aperture having a volume  $V'$ , wherein volume  $V'$  is larger than volume  $V$ .
2. The device of claim 1 wherein said container is formed in a shape selected from a group consisting of conical, square, rectangular, circular, or cylindrical.
3. The device of claim 1 wherein said base member further comprises at least one hole formed therein.
4. The device of claim 1 wherein said lateral support wall further comprises at least one hole formed therein.
5. The device of claim 1 wherein said at least one removal device is located on said lateral support wall.
6. The device of claim 1 wherein said at least one removal device is located on said base member.
7. The device of claim 1 wherein said at least one removal device is located on said lateral support wall and said base member.
8. The device of claim 1 wherein said at least one removal device is selected from the group consisting of perforated slits, slots, retention bridges, hook and loop devices, buttons, straps, zippers, grooves, or channels.
9. The device of claim 1 wherein said at least one removal device comprises at least one tear strip, said tear strip comprising at least one tear perforation formed in said container.

10. The device of claim 1 wherein said at least one removal device comprises at least one tear device in communication with said container.
11. The device of claim 10 wherein said at least one tear device is embedded in said container.
12. The device of claim 10 wherein said at least one tear device is a material selected from a group consisting of a thread, string, or wire.
13. The device of claim 1 wherein said at least one removal device further comprises at least one tear starter positioned on said container.
14. The device of claim 1 wherein said lateral support wall further comprises at least one finger hole positioned proximate to said at least one removal device.
15. The device of claim 1 further comprising a flange in communication with said lateral support wall.
16. The device of claim 15 wherein said flange further comprises at least one finger hole formed thereon, said finger hole positioned proximate to said at least one removal device.
17. The device of claim 15 wherein said flange further comprises at least one handle formed thereon.
18. The device of claim 1 wherein said container is manufactured from a material selected from the group consisting of plastic, acrylic, thermoplastic, metal, clay, ceramic, fabric, paper, or wood-based product
19. A container for holding plants, comprising:
  - a base member;
  - a lateral support wall in communication with said base member, said lateral support wall comprising a first portion and a second portion;
  - a receiving aperture formed by said base member and said lateral support wall, said receiving aperture having a volume V;
  - at least one tear member in communication with and separable from said first portion and said second portion of said lateral support wall, wherein separation of

said at least one tear member from said lateral support wall results in said receiving aperture having a volume  $V'$ , wherein volume  $V'$  is larger than volume  $V$ ; and

at least one finger hole formed in said lateral support wall, said at least one finger hole in communication with at least one removal device.

20. A method of removing a plant from a plant container, comprising:  
providing a plant container comprising a receiving aperture having a volume  $V$ , said receiving aperture formed by a base member in communication with a lateral support wall;  
providing at least one removal device in communication with said container, said at least one removal device capable of increasing the volume of said at least one receiving aperture from  $V$  to  $V'$ ;  
actuating said at least one removal device in communication with said container;  
increasing said volume of said receiving aperture from  $V$  to  $V'$ ; and  
removing said plant from said receiving aperture.

21. A container for holding plants comprising:  
a base;  
a wall extending upwardly from said base;  
said wall having a substantially uniform tensile strength;  
a separation zone extending along substantially a length of said wall;  
said separation zone having a tensile strength less than said substantially uniform tensile strength of said wall.

22. A method of removing a plant from a container comprising:  
providing a container having a plant disposed within a substantially continuous wall of said container;  
exerting a force on a wall of said container such that a zone along substantially a length of said container wall yields so as to disrupt said substantially continuous wall and expose said plant.

Fig. 1

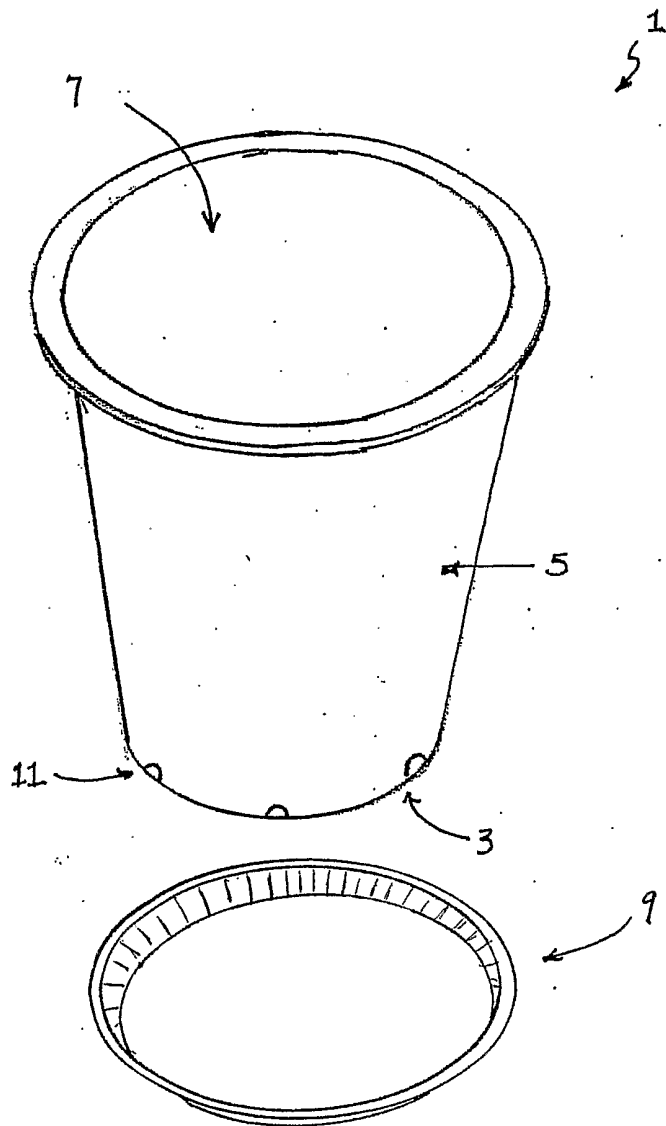


Fig. 2

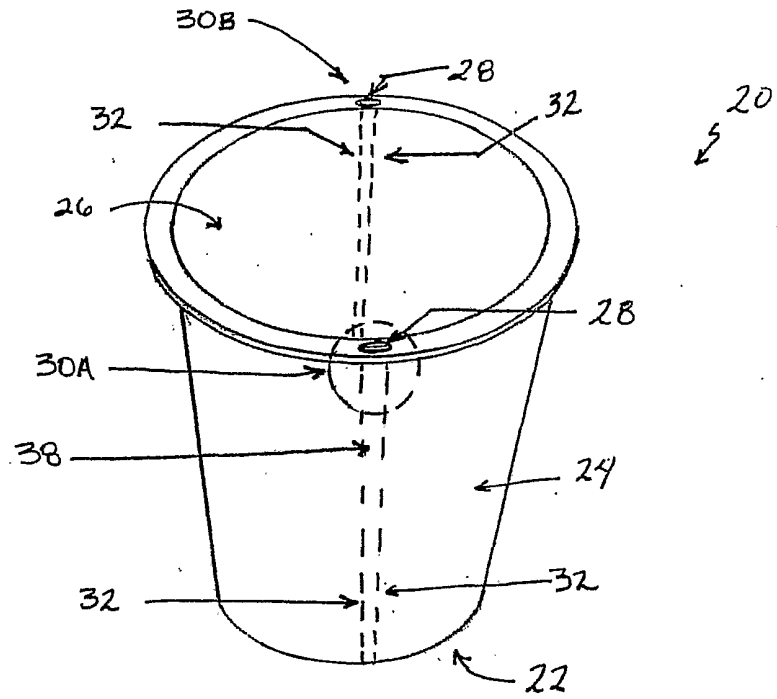


Fig. 3

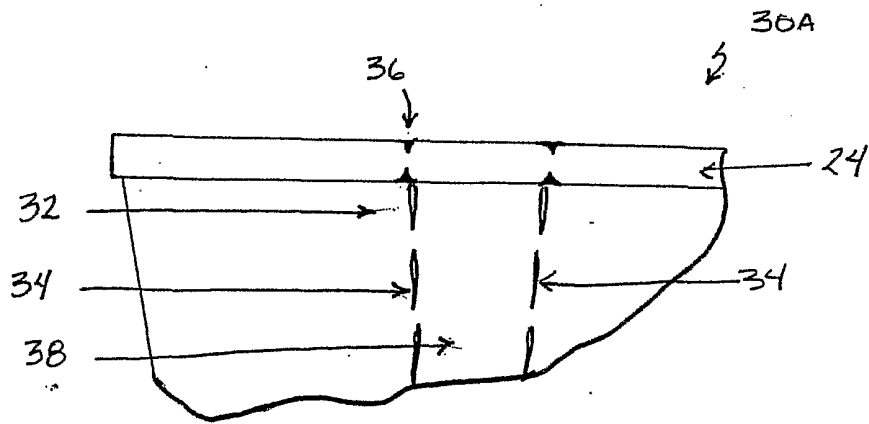


Fig. 4A

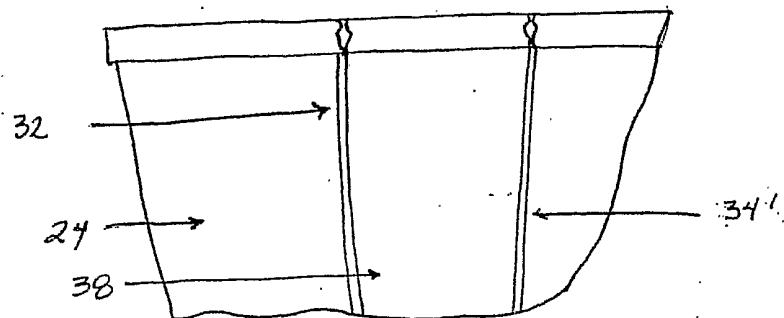




Fig. 4B

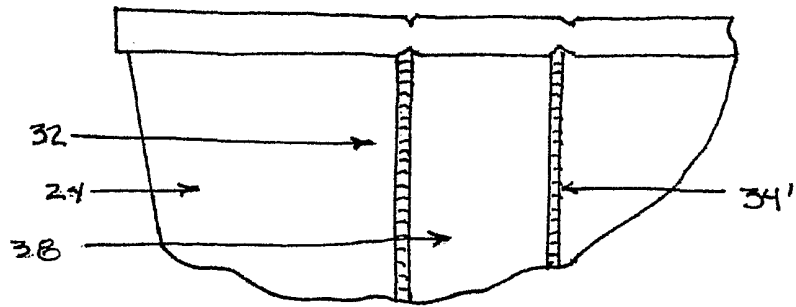
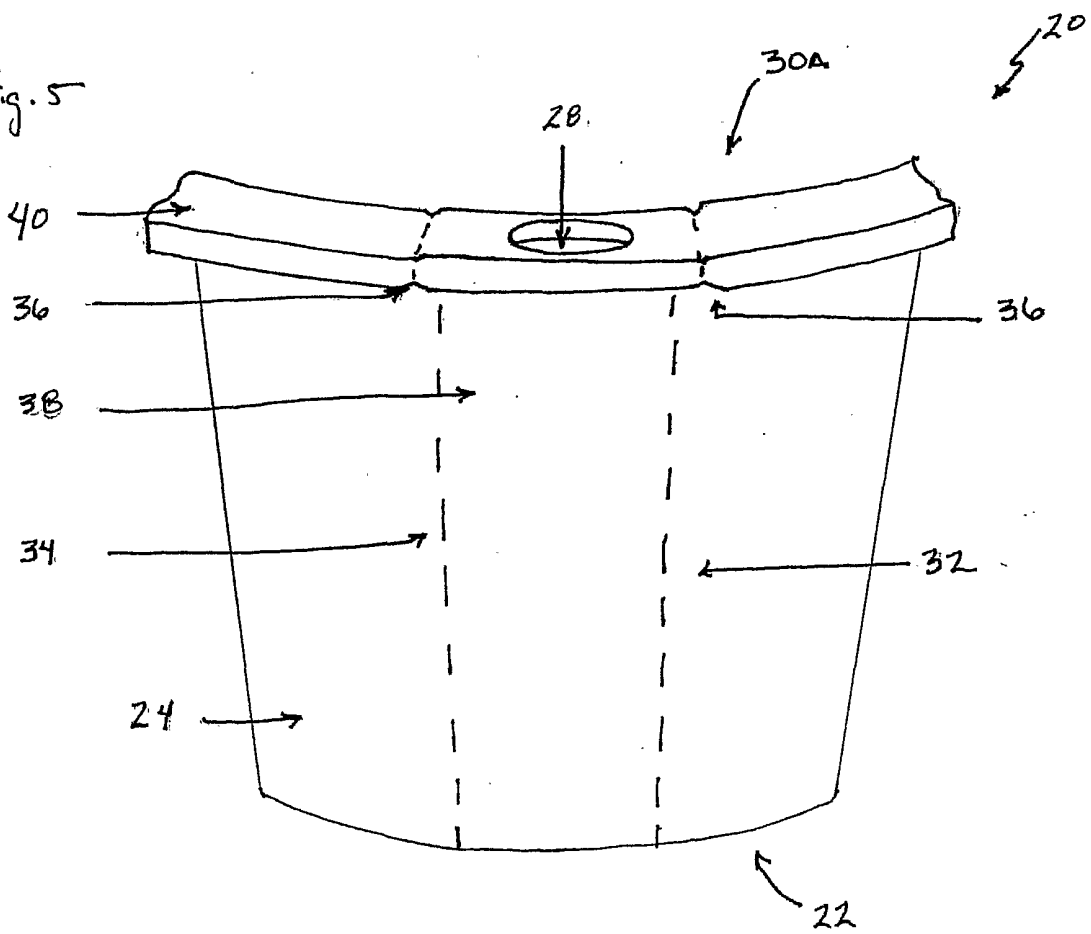


Fig. 5



21.

Fig. 6

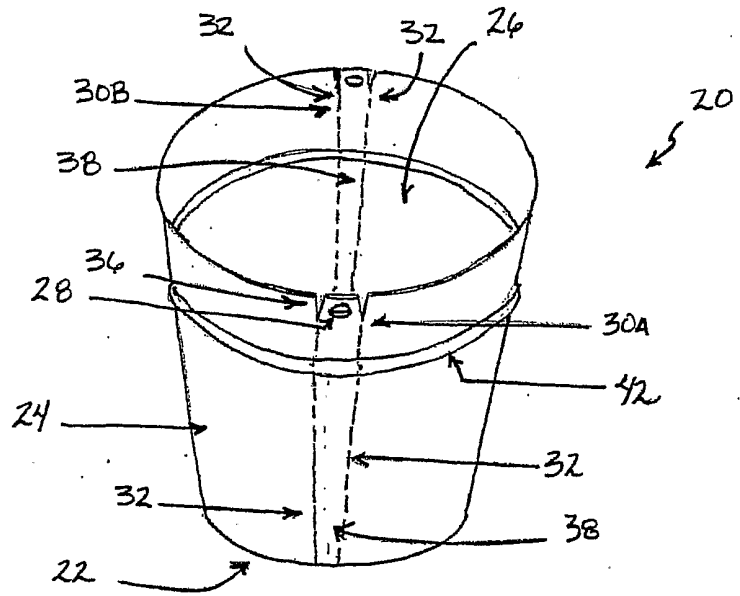


Fig. 7

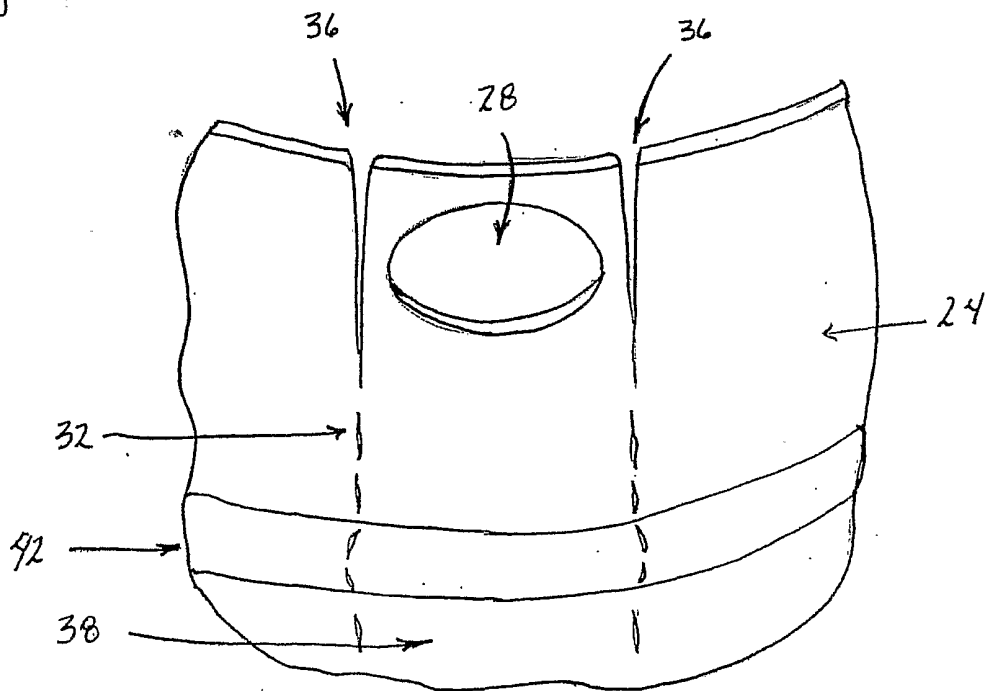


Fig. 8

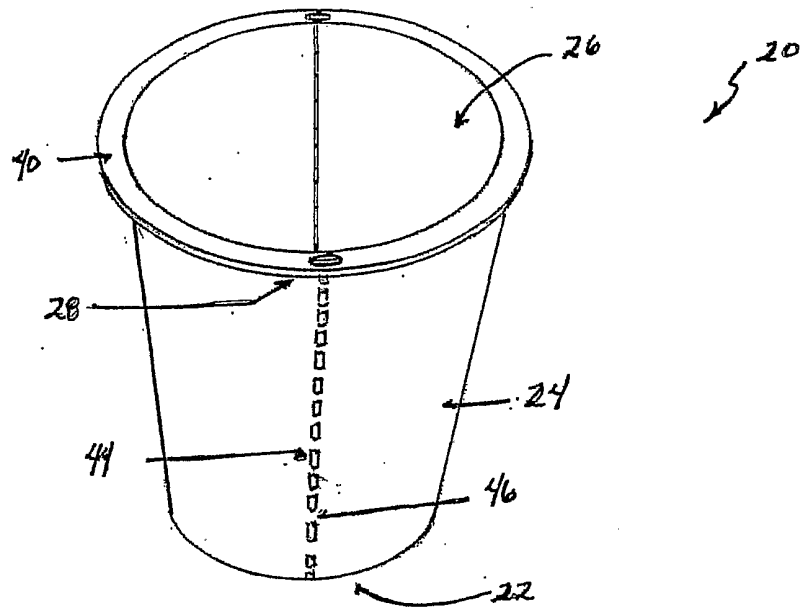


Fig. 9

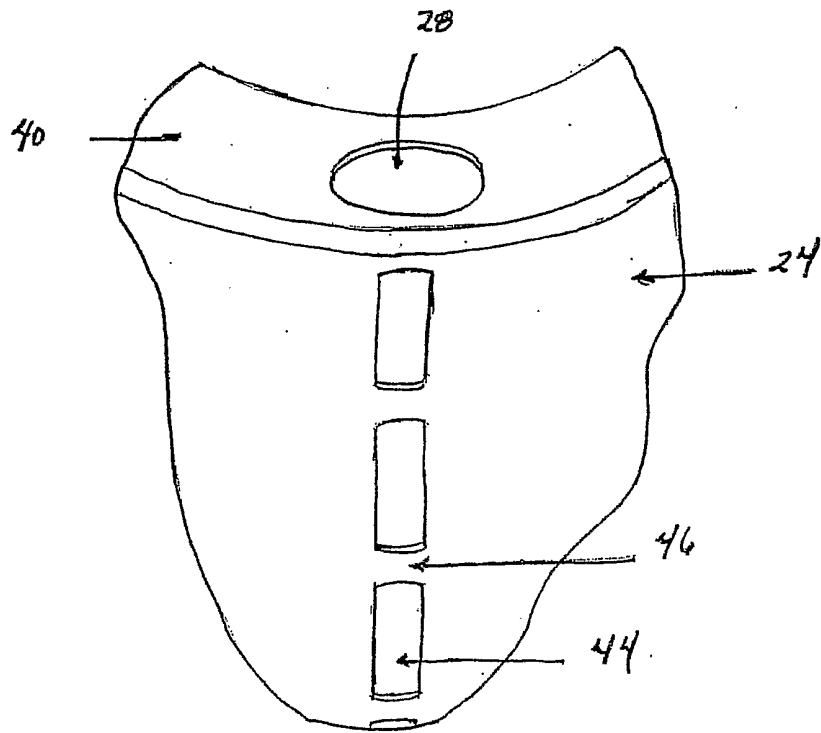


Fig 10

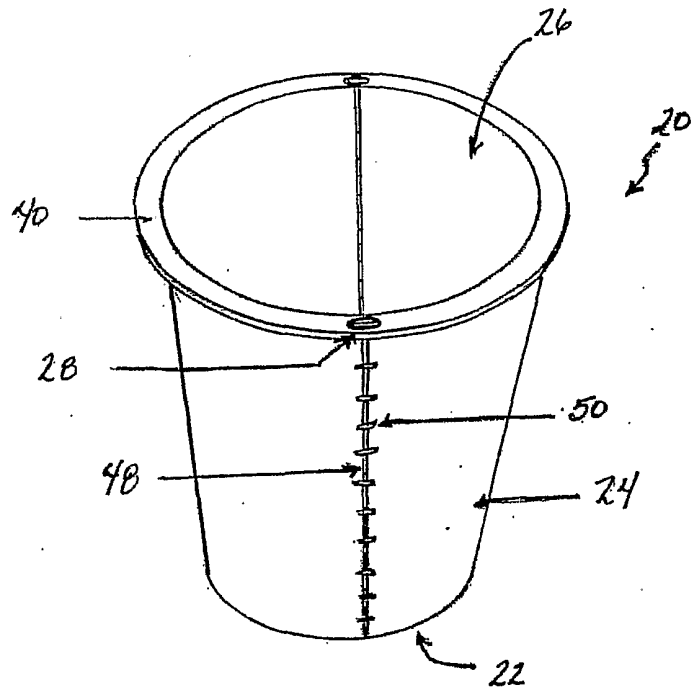


Fig.11

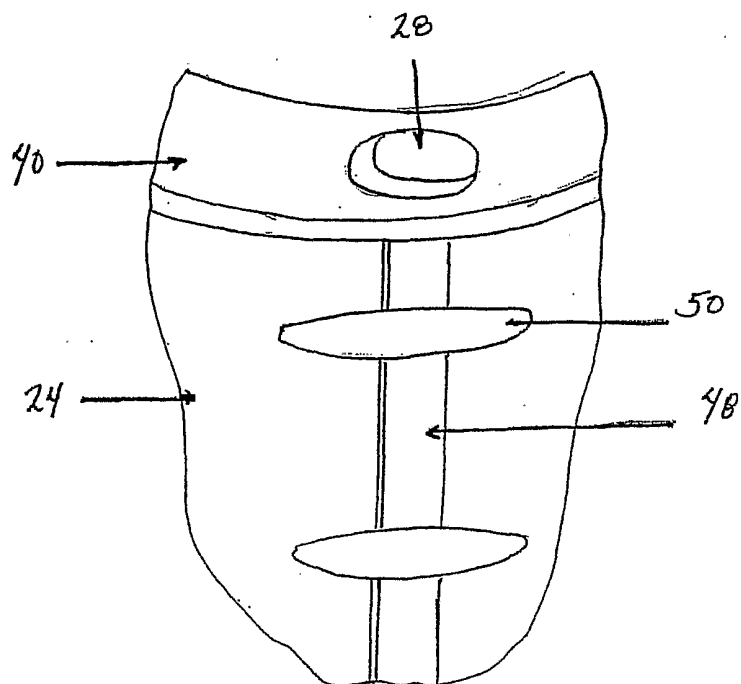


Fig. 12

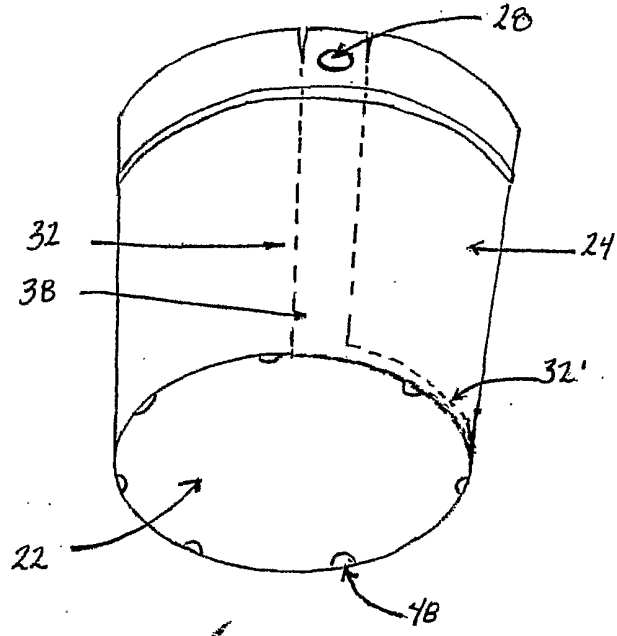


Fig. 13

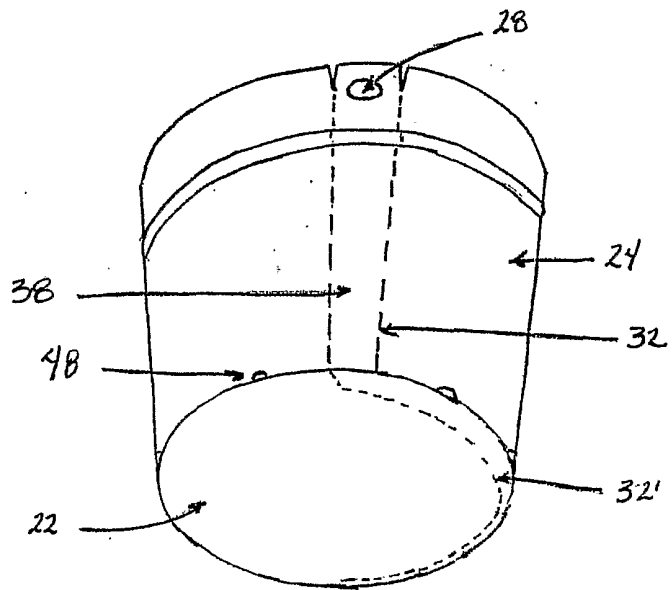


Fig. 14

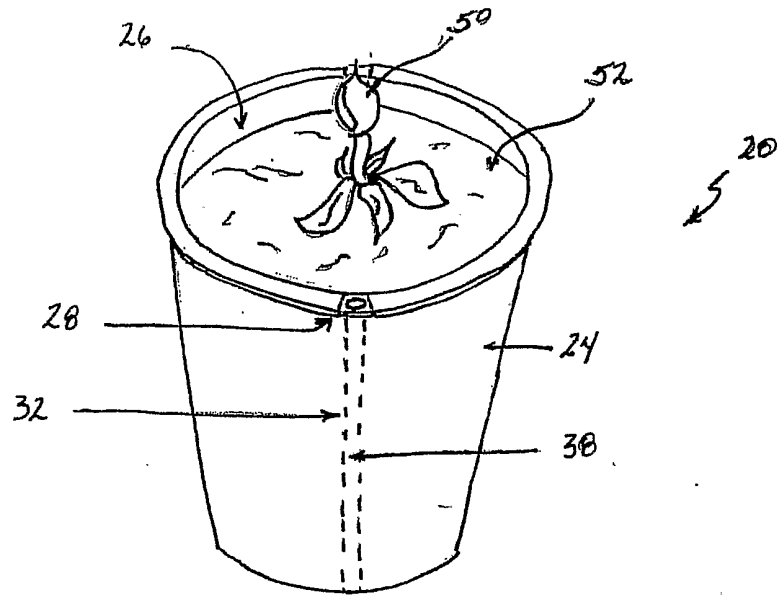


Fig. 15

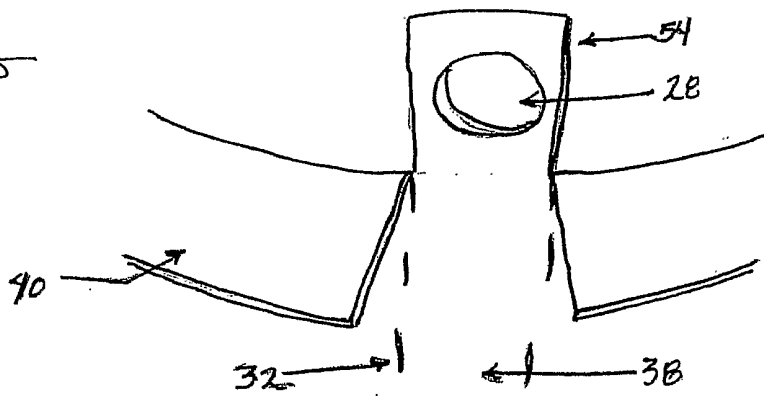


Fig. 16

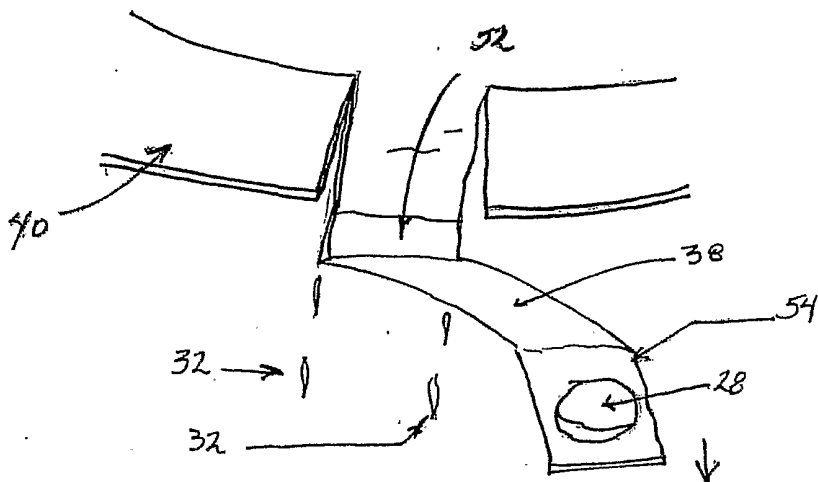


Fig. 17

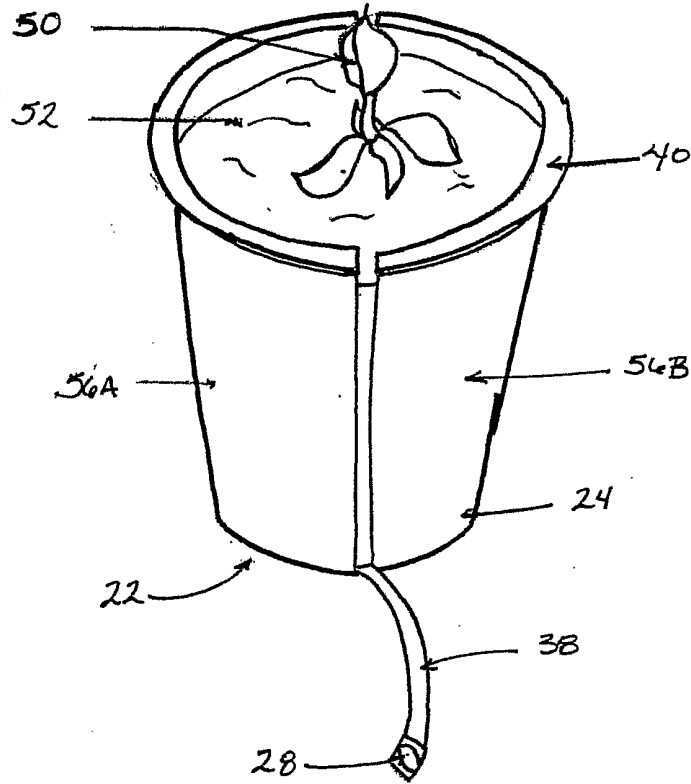


Fig. 18

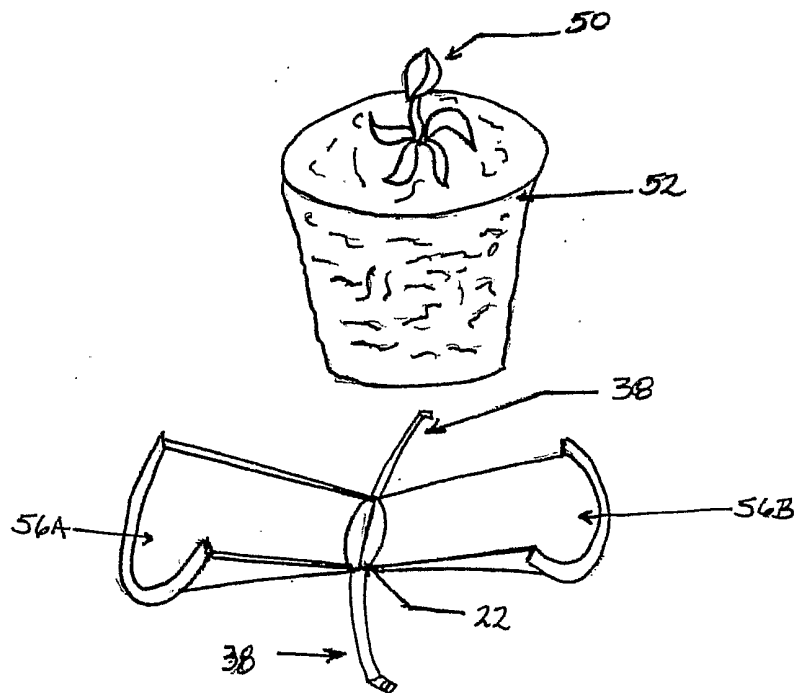


Fig. 19

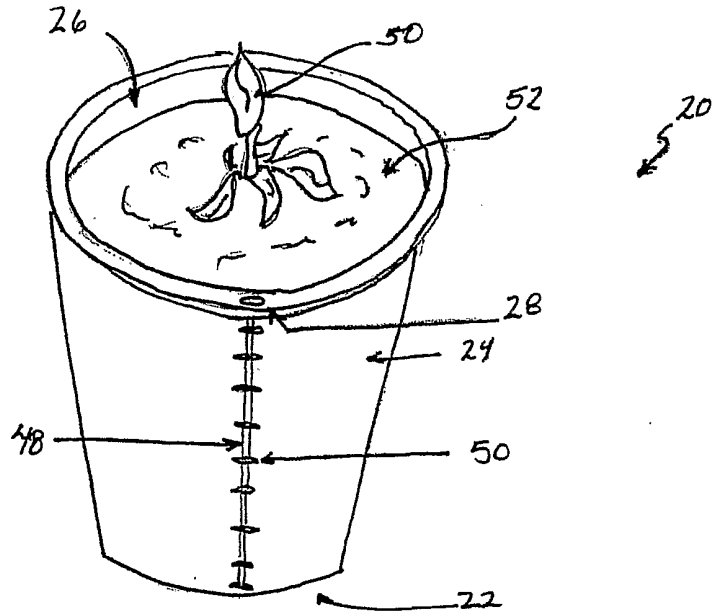


Fig. 20

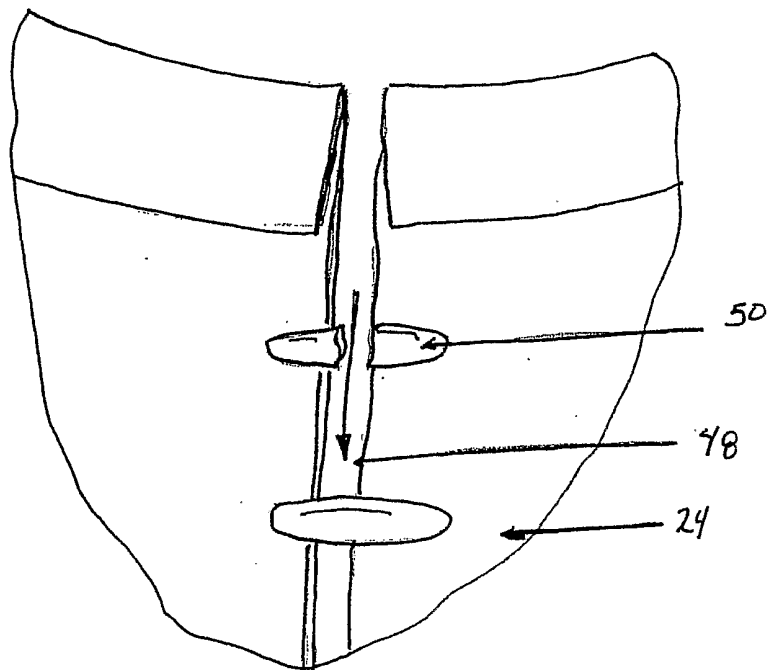




Fig. 21

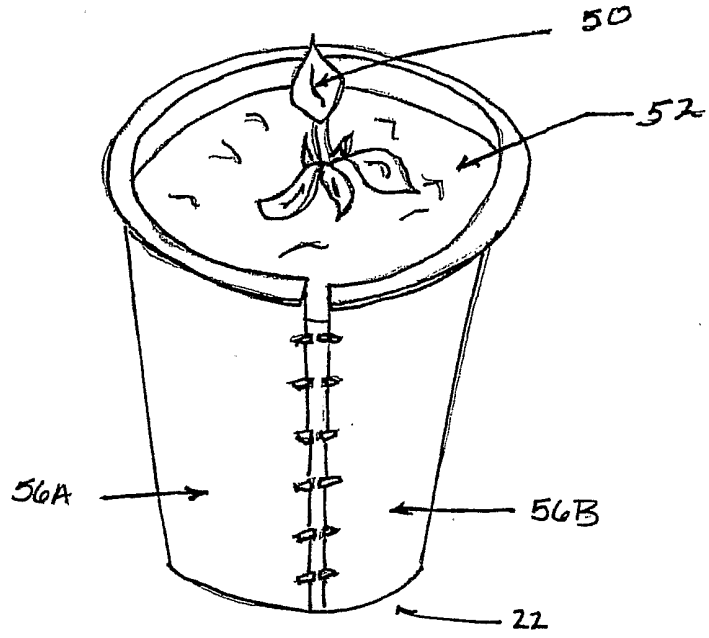
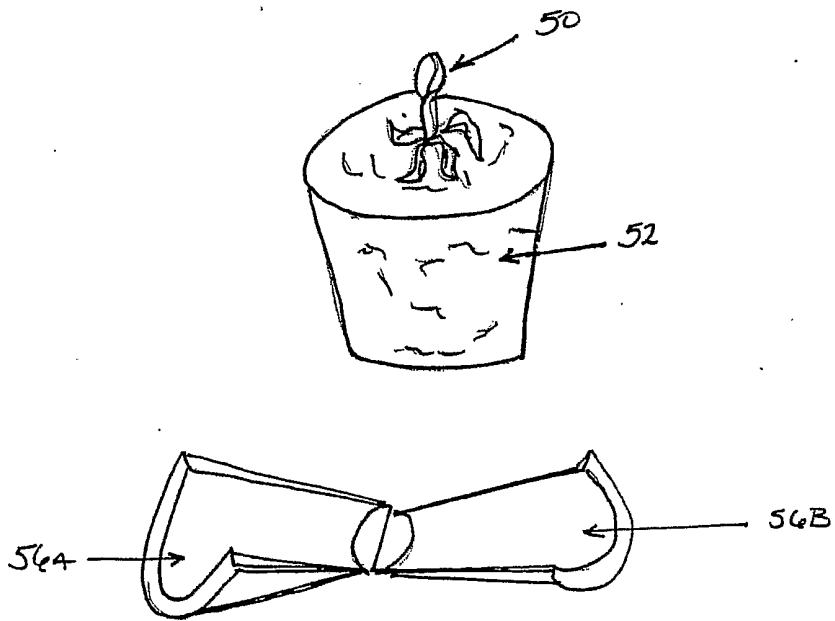


Fig. 22



INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US01/43993

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : A01G 9/10  
US CL : 220/677

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 220/677, 676, 693, 601; 229/101, 201, 240, 243, 244; 47/73

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,099,607 A (LAWTON) 31 March 1992, figs, 2, 6 - 9	1 - 8, 18, 20, 22
Y	US 3,580,484 A (SCHNEIDER) 25 May 1971, Fig. 1, 2	9 - 17, 19, 21
Y	US 2,023,030 A (PLUNKETT) 03 December 1935, Fig. 2	11, 12
Y	US 1,234,730 A (CHAPMAN) 31 July 1917, Fig. 1	14 - 17
A	US 4,939,865 A (WHITCOMB, et. al.) 10 July 1990	
A	US 3,552,082 A (HOWARD) 05 January 1971	

Further documents are listed in the continuation of Box C.  See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

15 MARCH 2002

Date of mailing of the international search report

18 APR 2002

Name and mailing address of the ISA/US  
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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US01/43993

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 938,497 A (MOONEY) 02 November 1909	
Y	US 5,865,367 A (BENHAM) 02 February 1999	