

(12) **UK Patent Application** (19) **GB** (11) **2 212 375**<sup>(13)</sup> **A**  
 (43) Date of A publication 26.07.1989

(21) Application No 8729145.6

(22) Date of filing 14.12.1987

(71) Applicant  
 John Tebbitt Batley  
 132 Millfields Road, London, E5 0AD, United Kingdom

(72) Inventor  
 John Tebbitt Batley

(74) Agent and/or Address for Service  
 John Tebbitt Batley  
 132 Millfields Road, London, E5 0AD, United Kingdom

(51) INT CL<sup>4</sup>  
 A01G 9/02

(52) UK CL (Edition J)  
 A1E EAKX EK19 EK21 EK22

(56) Documents cited  
 GB 1287296 A EP 0142471 A2

(58) Field of search  
 UK CL (Edition J) A1E EAKA EAKX, B8P PA PS  
 INT CL<sup>4</sup> A01G, B65D

(54) Tiered container for plants

(57) A stackable tiered container comprises a base tier 2 defining a base 4 within an upstanding frame 5 and a plurality of further tiers 3 stackable, one upon the other, each further tier defining a frame 7 which may be received upon the upstanding frame of an underlying tier such that regions of the frame extend beyond or overhang the frame of the underlying tier, the overhanging regions incorporating webs 8 to form a horizontal surface between the frame of the underlying tier and the frame of the further tier such that plants may be received within the overhanging regions.

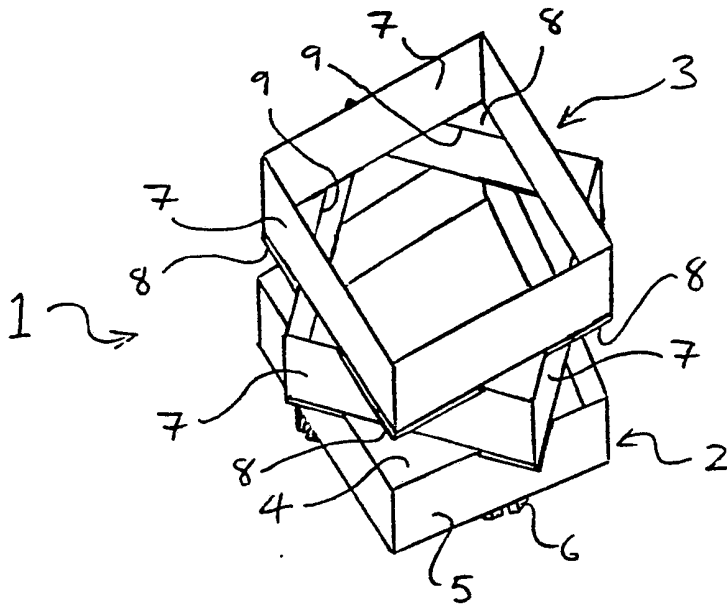


Figure 1

GB 2 212 375 A

2212375

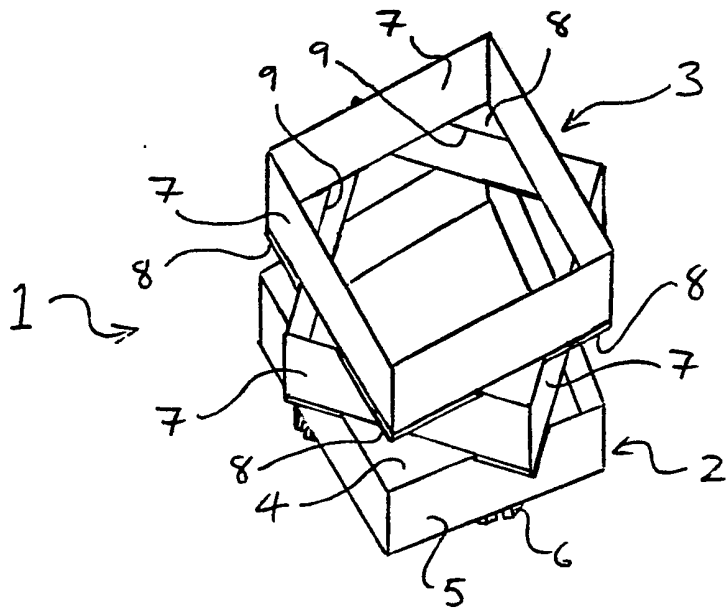


Figure 1

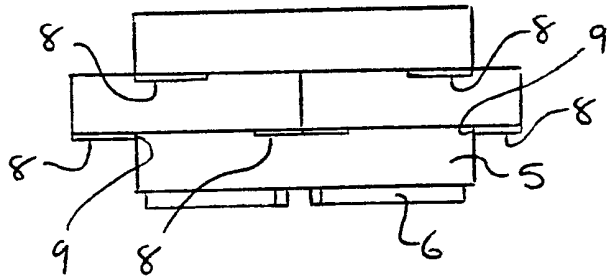


Figure 2

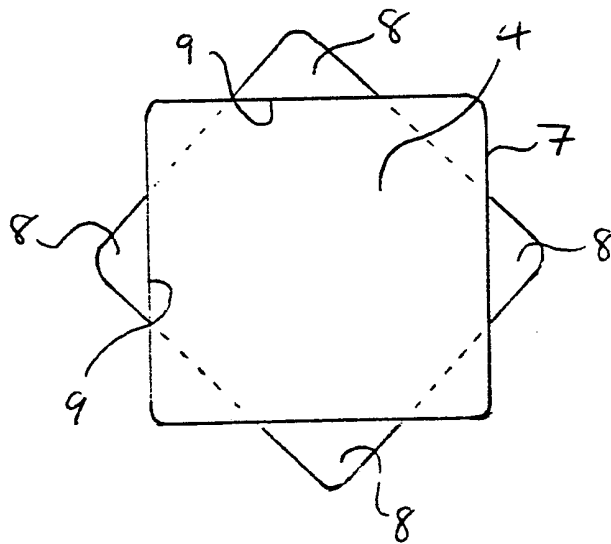
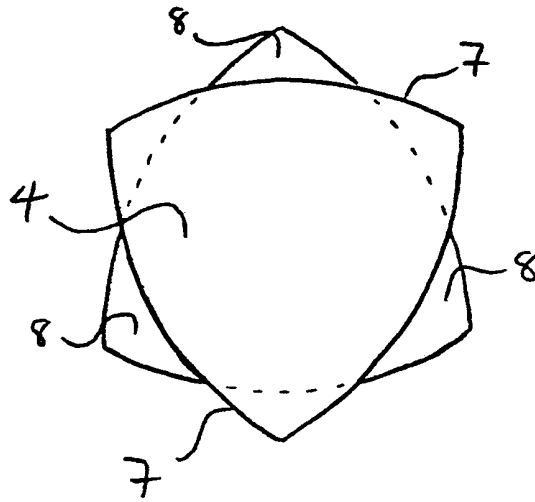


Figure 3



2212375

Figure 4

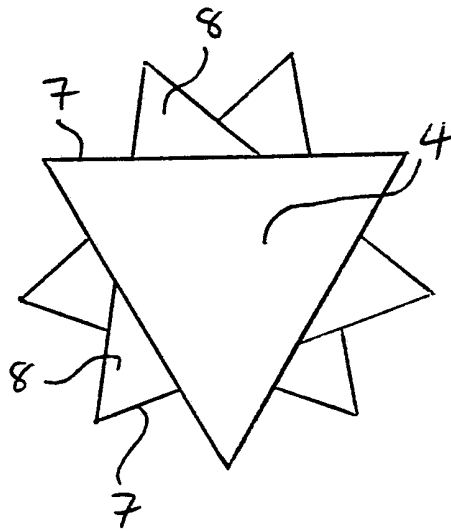


Figure 5

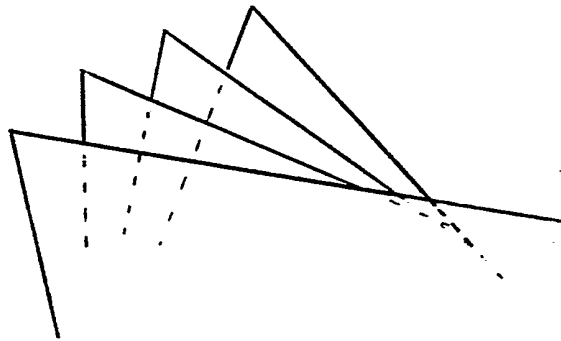
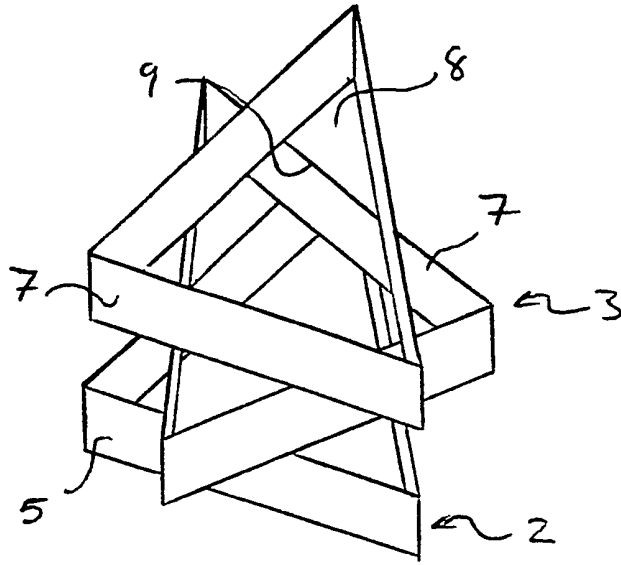


Figure 6

2212375

Figure 7



2212375

Title: Improvements in or relating to a Container

5 The present invention relates to a container and more particularly to a container suitable for receiving soil within which plants may be grown. Such containers are commonly referred to as planters and this term, when used in the present document, is intended to refer to such containers.

10 The present invention seeks to provide an improved planter which may be used for the growing of a large number of plants and which provides an attractive and intriguing container.

15 According to one aspect of the present invention there is provided a container for plants, said container being of tiered construction and comprising a base tier defining a base within an upstanding frame, and one or more further tiers stackable upon the base tier, each  
20 further tier defining a frame received upon the upstanding frame of the base tier such that regions of the frame of the further tier extend beyond or overhang the frame of the base tier, said overhanging regions incorporating substantially horizontal webs such that a  
25 substantially horizontal surface extends between the frame of the base tier and the frame of the further tier in said overhanging regions.

30 Preferably said webs are formed on the frame of said further tier.

Conveniently said upstanding frame of the base tier and the frame of the or each further tier are of the same overall configuration.

5 Preferably said container comprises a plurality of said further tiers, the further tiers being stacked one upon the other such that regions of the frame of each tier extend beyond or overhang the frame of an adjacent tier, substantially horizontal webs being provided  
10 within said overhanging regions such that a substantially horizontal surface extends between the frames of adjacent further tiers, the arrangement being such that the frame of at least one further tier is aligned with and overlies the frame of the base tier.

15 Conveniently the frames of alternate further tiers are aligned and overlie each other.

Said further tiers may be handed such that one  
20 further tier is a mirror image of another further tier.

Advantageously the frames of the base tier and each further tier are polygonal and said webs are provided at the junction between each wall of the polygonal frames.

25 Said frames maybe substantially square, and each tier maybe rotated through approximately 45 degrees relative to an adjacent tier, such that alternate tiers are aligned.

30 Preferably said base tier is provided, on its underside, with feet.

35 Conveniently said container is formed from a plastics material.

The present invention also provides a kit of parts for forming a container, said kit of parts comprising a base and at least one frame member provided with web means so that if said frame member is superimposed upon a further identical frame member regions of said frame member overhang said further frame member and said web means provide a substantially horizontal surface in said overhanging regions.

10 Preferably at least two said frame members are provided one said frame member being a mirror image of another frame member.

15 In order that the present invention may be more readily understood and so that further features thereof may be appreciated, the invention will now be described by way of example, with reference to the accompanying drawings in which:

20 Figure 1 is a perspective view of a container in accordance with the present invention;

Figure 2 is a side view of the container shown in Figure 1;

25

Figure 3 is a plan view of a slightly modified version of the container shown in Figure 1;

30 Figure 4 is a plan view of an alternative embodiment of container in accordance with the present invention;

35 Figure 5 is a plan view of a further alternative embodiment of a container according to the present invention;

Figure 6 is a plan view of part of another embodiment of container according to the present invention; and

5 Figure 7 is a perspective view of a modified arrangement of the embodiment shown in Figure 5.

Referring to the accompanying drawings, Figure 1 illustrates a planter 1 which is of tiered construction, the planter comprising a base tier 2 upon which a plurality of further tiers 3 are received in a stacking manner, each tier being rotated relative to the adjacent tier upon which it is stacked.

15 The base tier 2 comprises a substantially square horizontal base 4 provided, along each of its four sides, with rectangular, upstanding walls 5, which define a substantially square upstanding frame. Four feet 6 are provided on the underside of the base 4 of the base tier, the feet 6 being in the form of strips, each strip extending between approximately the mid point of two adjacent edges of the square base.

25 Each further tier 3 is in the form of a substantially square, upstanding frame formed from four rectangular walls 7. The height of each wall 7 is the same as the height of each wall 5 of the base tier, although this is not essential. A triangular web 8 is secured to the underside of the frame defined by the four walls 7 at each corner thereof. Each triangular web 8 includes a right angle which is aligned with the right angled corner of the frame, such that the two sides of the web which include the right angle extend along the underside of two walls 7. Each web 8 forms a horizontal platform or surface in each corner within the frame and has one edge 35 9 facing inwardly towards the centre of the frame.



The webs 8 are dimensioned such that the tier 3 may be rotated through 45 degrees relative to the base tier 2 and then placed upon the upper edges of the frame formed by the walls 5 of the base tier 2 with the inwardly facing edges 9 of the webs 8 being received snugly against the outside of the walls 5, in a central region thereof. A further tier 3 may be positioned on top of the tier already received upon the base tier 2 by rotating this additional tier through 45 degrees relative to the tier upon which it is to be mounted and similarly locating the tier on the upper edges of the walls 7 forming the frame of the further tier 3. The inwardly facing edges 9 of the webs 8 will again be received outside of the walls 7 in a snug fitting manner. Further tiers 3 may be added in a similar manner.

It will be readily appreciated that when the tiers are stacked in this fashion, the corner regions of each tier extend beyond or overhang the frame of the tier immediately below. Each overhanging corner region is provided with a web 8 which serves to block off the gap which would otherwise exist in the corner regions of the frame between the lower edge of one tier and the upper edge of the tier immediately below. In addition, the webs 8 reinforce the corners of each frame and serve to support the walls which form the frame of the tier below. The webs 8 also ensure correct alignment of each tier so that a stack of tiers is balanced and has a vertically extending central axis.

The corners of each frame may be rounded, as illustrated in Figure 3 of the drawings, in order to enhance the appearance of the planter.

In use the planter is filled with soil, the soil being distributed over the complete area of each tier, so that soil is received in the corner regions of each frame

which overhang the frame immediately below. This enables plants to be planted in the corner regions of each frame and to extend upwardly out of the frame adjacent the outside of the wall 7 forming the frame above. As  
5 mentioned above it is intended that each tier should be snugly received upon the tier below.

It is possible that, for example, due to inaccuracies in manufacture, small gaps may exist between the  
10 inwardly directed edge 9 of a web 8 and the external face of an adjacent wall 7. If such a gap exists then this may be plugged with an appropriate filler. Alternatively a strip, such as a rubber or plastics strip maybe introduced into the gap in order to fill the gap. As a further  
15 alternative the gap may be blocked by placing a length of adhesive tape over the gap. The resulting structure provides an appealing and intriguing planter.

It will be appreciated that the planter may take a  
20 variety of shapes, and Figures 4 and 5 illustrate planters having the same stacking arrangement with corner regions of one tier overhanging the lower adjacent tier, but which are of different shapes. The example illustrated in Figure 4 comprises tiers having a substantially  
25 triangular frame, where the side walls of the frame are convex in plan view. The side walls could, of course, be concave if desired. With the embodiment of Figure 4 each tier is rotated through approximately 60 degrees relative to the adjacent tier. Webs are again provided on the  
30 underside of each overhanging corner region of each tier in order to fill the gap between the overhanging corner region of one tier and the outside face of the wall of the tier below. With the arrangement shown in Figure 4 each alternate tier would be aligned. However, this is  
35 not essential, but depends upon the angle through which each tier is rotated relative to the adjacent tier.

Figure 5 illustrates an embodiment of the invention in which the frames of each tier are of equilateral triangular configuration, each tier being rotated in an anti-clockwise direction through an angle of approximately 40 degrees relative to the tier below. This results in the alignment of every third tier. Where the frames of each tier are all of equal depth, this allows for a greater height between the aligned overhanging corner regions of each frame. This may prove advantageous for the growing of plants which tend to grow upwardly rather than outwardly.

The equilateral triangular frames illustrated in Figure 5 may be rotated through a smaller angle such that alignment occurs for every fourth tier or such that, for a limited number of tiers, no alignment of the tiers occurs (see Figure 6).

It will be appreciated that in all of the embodiments described, each tier above the base is identical. Thus, manufacturing costs are kept to a minimum. However, it is not necessary for each tier to be identical and it would be possible, for example, to provide handed tiers. Referring again to Figure 5, this concept of handed tiers might be used to produce a modified embodiment in which the uppermost tier, instead of being aligned with neither of the tiers below, is aligned with the base tier. Figure 7 illustrates this modified arrangement in perspective view. Thus the modified top tier of Figure 7 would effectively be a mirror image of the illustrated top tier of Figure 5. With this particular embodiment prospective customers would be able to purchase any number of identical or handed tiers together with a base tier and then construct their own design of planter.

It is envisaged that the components of the container will be formed as moulded plastic components.

However, the components could be formed from any suitable material, such as metal or a ceramic material. The planter may be used either indoors or outdoors and thus, it may be desirable to form the planter from wood which has an attractive finish, where the planter is intended for indoor use and will not be exposed to the effects of weathering.

It will be appreciated that various minor modifications and alterations may be made to the above described embodiments within the scope of the present invention. As mentioned, the frames for each tier maybe of any design, shape or configuration and the depth of each tier may be varied in order to give a greater distance between aligned tiers. The upstanding walls 5, 7 of the base tier and each further tier may be inclined slightly to the vertical in order to facilitate manufacture where the components are formed as plastics mouldings.

CLAIMS

1. A container for plants, said container being of tiered construction and comprising a base tier defining a base within an upstanding frame, and one or more further tiers stackable upon the base tier, each further tier defining a frame received upon the upstanding frame of the base tier such that regions of the frame of the further tier extend beyond or overhang the frame of the base tier, said overhanging regions incorporating substantially horizontal webs such that a substantially horizontal surface extends between the frame of the base tier and the frame of the further tier in said overhanging regions.

2. A container according to Claim 1, wherein said webs are formed on the frame of said further tier.

3. A container according to Claim 1 or Claim 2, wherein said upstanding frame of the base tier and the frame of the or each further tier are of the same overall configuration.

4. A container according to any one of Claims 1 to 3, wherein said container comprises a plurality of said further tiers, the further tiers being stacked one upon the other such that regions of the frame of each tier extend beyond or overhang the frame of an adjacent tier, substantially horizontal webs being provided within said overhanging regions such that a substantially horizontal surface extends between the frames of adjacent further tiers, the arrangement being such that the frame of at least one further tier is aligned with and overlies the frame of the base tier.

5. A container according to Claim 4 wherein the frames of alternate further tiers are aligned and overlie each other.

5 6. A container according to Claim 4 or Claim 5 wherein said further tiers are handed such that one further tier is a mirror image of another further tier.

10 7. A container according to any one of the preceding Claims, wherein the frames of the base tier and each further tier are polygonal and said webs are provided at the junction between each wall of the polygonal frames.

15 8. A container according to Claim 7, wherein said frames are substantially square.

20 9. A container according to Claim 8 wherein each tier is rotated through approximately 45 degrees relative to an adjacent tier, such that alternate tiers are aligned.

10 10. A container according to any one of the preceding Claims, wherein said base tier is provided, on its underside, with feet.

25 11. A container according to any one of the preceding claims, wherein said container is formed from a plastics material.

30 12. A kit of parts for forming a container, said kit of parts comprising a base and at least one frame member provided with web means so that if said frame member is superimposed upon a further identical frame member regions of said frame member overhang said further frame member and said web means provide a substantially  
35 horizontal surface in said overhanging regions.

13. A kit of parts according to Claim 12, wherein at least two said frame members are provided one said frame member being a mirror image of another frame member.

5 14. A container substantially as herein described, with reference to and as shown in the accompanying drawings.

10 15. Any novel feature or combination of features disclosed herein.