



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 0 782 832 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention
of the grant of the patent:
21.08.2002 Bulletin 2002/34

(51) Int Cl.7: **A47G 7/07**

(21) Application number: **96830287.7**

(22) Date of filing: **17.05.1996**

(54) **Vase for the correct preservation of flowers during the picking, storing, transport and sales phases**

Vase zur korrekten Konservierung von Blumen während der Pflück-, Aufbewahrungs-, Transport- und Verkaufsstufen

Vase pour la conservation correcte des fleurs pendant les phases de cueillette, de stockage, de transport et de vente

(84) Designated Contracting States:
ES IT NL

(30) Priority: **19.05.1995 IT AN950028**

(43) Date of publication of application:
09.07.1997 Bulletin 1997/28

(73) Proprietors:
• **Lucy Plast S.p.A.**
06026 Pietralunga (PG) (IT)
• **Mammini, Roberto**
Lucca (IT)

(72) Inventors:
• **Fiorucci, Sandro**
Pietralunga (PG) (IT)
• **Mammini, Roberto**
55100 Lucca (IT)

(74) Representative: **Baldi, Claudio et al**
Piazza Ghislieri, 3
60035 Jesi (Ancona) (IT)

EP 0 782 832 B1

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

Description

[0001] This patent application concerns a vase for the preservation of flowers after picking and during storage, delivery and sale.

[0002] The item in question was designed for the precise purpose of resolving a very difficult problem for flower farmers, namely that of preserving flowers for the time after picking to their arrival at the florists.

[0003] To date the cut flowers have mostly been packaged horizontally in large cardboard boxes in which they are transported.

[0004] Regardless of how short the transport may be, it is quite obvious that flowers packaged in this way will remain for at least some time without water, whereas it is just as evident that in order to preserve cut flowers their stalks must be kept in water.

[0005] Consequently flowers which are stored and transported in this way often reach destination in a precarious state of preservation, and are no longer very fresh.

[0006] Document GB-A-848 940 discloses a vase for preserving flowers after picking and during storage, delivery and sales, the same consisting of:

- a container moulded in plastic consisting of a hollow casing, having a perimeter edge on the bottom wall; moreover said container also features at its mouth an "L"-shaped perimeter edge with a vertical wing turned upwards;
- a lid moulded in plastic consisting of a hollow body having a series of holes; said lid being fitted with a bottom aperture whose surface area is almost identical to that of the mouth of the underlying container, which has an edge along the perimeter whose width is almost identical to that of the horizontal wing of the edge around the mouth of the container.

[0007] As mentioned above, the purpose of the invention in question is to find a serious solution to the various problems of the prior art; more precisely, the invention is a vase that allows keeping flower stalks immersed in water from the time it is picked to the time the florist delivers it to the end purchaser.

[0008] The all plastic moulded vase according to the invention consists of two different components which are assembled securely together: a container for the water in which the flower stalks are immersed and an upper lid having external circular cavities whose purpose is not only to support the flower corollas but to protect them from jolting.

[0009] In particular, the above bottom container has a substantially upside down truncated pyramid shape even if in fact the bottom area has a deep upside down "V" shaped centre groove running upwards from the bottom which permits forming two separate legs on said container, which also have an upside down truncated pyramid shape.

[0010] This feature is designed to reduce the internal volume of the container in question and consequently limit its weight once it is filled with water.

5 [0011] During use, said container is filled only in part, in other words only up to the above two legs so as to improve its self stabilising capacity in view of the fact that in this way most of the weight is concentrated towards the supporting base.

10 [0012] The fact that the item is designed so that the water occupies only the volume inside the two legs of the container in question ensures less splashing and reduces accidental loss of water - during handling and delivery of the item according to the invention.

15 [0013] The reduced weight of the container as well as its excellent self-stabilising capacity are particularly appreciable features, especially during transport.

[0014] The lid of the vase in question features a truncated pyramid structure on whose walls the above circular cavities are realised at different height which ensures that the item in question can contain a large number of flowers.

20 [0015] In particular, each of said cavities has a hole on the bottom in which the cut flower stalk is pushed until the corolla of the flower is completely housed in its respective cavity.

25 [0016] During this operation the flower stalk slides gradually into the lid until it is completely immersed in the water in the container below with which the lid in question is joined securely.

30 [0017] It is obvious that once the flower has been housed in the vase in question, the same may be stored before shipment, delivered or even displayed for retail sale purposes, without the need for any further precautions in that the vase according to the invention not only ensures that the stalk has water at all times but also that the flower as a whole is correctly supported in an almost vertical position while its corolla is protected entirely.

35 [0018] In addition, to facilitate transport, the vase in question is designed to abut securely next to other vases of the same type in order to optimise storage, thereby saving space and ensuring that the vases support each other against jolting that inevitably occurs during transport.

40 [0019] In order to further optimise storage of the new item according to the invention, the same is designed so that each vase may be stacked very securely on another identical vase thanks to a vertical edge projecting downwards around the bottom wall of the two legs of the container, said edge being capable of clasping the top of the truncated pyramid shaped lid beneath the item.

45 [0020] In this regard, it should be mentioned that if it is not necessary to stack the vases, the above edge acts as the actual supporting base of the vase according to the invention.

50 [0021] For major clarity the description according to the invention continues with reference to the enclosed drawings which are intended for purposes of illustration and not in a limiting sense, whereby:

- figure 1 is a half view and half cross-section of an example of the item in question;
- figure 2 is a cross-section - with partial illustration - of two examples of the vase according to the invention in stacked position.

[0022] With reference to the enclosed figures, the new vase in question which is moulded in plastic consists of a container (1) and an upper lid (2) which can be assembled together securely.

[0023] In particular, container (1) consists of a hollow upside down truncated pyramid shaped body having a deep upside down "V" shaped groove at the centre which gives rise to two identical legs (1a) also having an upside truncated pyramid shape, featuring respective vertical edges (3) projecting downwards along the perimeter of the bottom wall.

[0024] The mouth of said container (1) features an "L" shaped perimeter edge (4) whose vertical wing (4a) is turned upwards; on this same edge (4) but more internally with respect to the above vertical wing (4a) there are various elastic pins (5) with widened head (5a) having a centre diametric notch (5b).

[0025] The lid (2) consists of a hollow truncated pyramid shaped body; the upper horizontal wall (2a) of said lid having a surface which is identical to that of the bottom area of the container (1), while its wide bottom aperture has a surface area almost identical to that of the mouth of the container below (1).

[0026] Around said aperture, a horizontal projecting edge (6) is provided, which, during assembly of the two components of the vase in question - positions itself exactly above the horizontal wing of the above "L" shaped edge (4) around the mouth of container (1) and fits precisely in the vertical wing (4a) of the same (4).

[0027] In addition, said perimeter edge (6) of lid (2) features a series of through holes (7) in which the pins (5) projecting vertically from the perimeter edge (4) of container (1) snap fit into place.

[0028] The coupling between the pins (5) and the holes (7) make the coupling between the container (1) and the lid (2) particularly stable; said coupling is however easily released when separating the two components of the vase according to the invention, simply by pulling the lid (2) upwards firmly.

[0029] An alternative closing system between the lid and the container to that described above could also consist of a series of press studs positioned appropriately between the two components.

[0030] With regard to said lid (2), the same features a series of cavities (8) on its two side walls for housing the corollas, featuring holes (8a) on the bottom into which the flower stalks are pushed.

[0031] Figure 2 shows how two vases according to the invention are stacked; the vertical edge (3) realised along the perimeter of the bottom of the container (1) of the vase above, holds the upper area of the lid (2) of the underlying vase.

Claims

1. A vase for preserving flowers after picking and during storage, delivery and sales, the same consisting of:

- a container (1) moulded in plastic consisting of a hollow upside down truncated pyramid shaped casing, having at the centre a deep upside down "V"-shaped groove running upwards which gives rise to two identical legs (1a) also featuring an upside down truncated pyramid shape, having respective vertical edges (3) projecting downwards along the perimeter edge of the bottom wall; moreover said container (1) also features at its mouth an "L"-shaped perimeter edge (4) with a vertical wing (4a) turned upwards;
- a lid (2) moulded in plastic consisting of a hollow truncated pyramid shaped body having a series of almost circular cavities (8) on its two side walls, featuring respective holes (8a); said lid (2) being fitted with an upper horizontal wall (2a) whose surface area is identical to that of the bottom area of the container (1) and a bottom aperture whose surface area is almost identical to that of the mouth of the underlying container (1), which has a horizontal edge (6) along the perimeter whose width is almost identical to that of the horizontal wing of the edge (4) around the mouth of the container (1); said horizontal edge (6) running along the mouth of lid (2) and on the horizontal wing of edge (4) along the mouth of container (1) feature means which ensure a secure coupling between the lid (2) and the container (1).

2. A vase according to claim 1, **characterised in that** the means for the stable coupling of the lid (2) on the underlying container (1) consist of a series of elastic pins (5) having widened head (5a) and diametric notch (5b) realised during the same moulding phase and with the same material on the horizontal wing of the edge (4) running around the mouth of the container (1), which are capable of snap fitting into a corresponding series of through holes (7) realised on the horizontal edge (6) around the mouth of lid (2).

3. A vase according to claim 1, **characterised in that** the means for the secure coupling of the lid (2) on the underlying container (1) consist of a series of press studs whose components are realised in part on the horizontal wing of the edge (4) around the mouth of the container (1) and in part on the horizontal edge (6) around the mouth of the lid (2).

Patentansprüche

1. Vase zur Aufbewahrung von Schnittblumen nach dem Schneiden sowie während der Lagerung, Auslieferung und des Verkaufs, bestehend aus:

- einem Behälter (1), der aus Kunststoff geformt ist, bestehend aus einem Hohlkörper in Form eines umgekehrten Pyramidenstumpfes, in dessen Mitte sich ein tiefer, von unten nach oben führender Einschnitt in Form eines umgekehrten V befindet, der zwei identische Beine (1a) bildet, welche ebenfalls die Form eines umgekehrten Pyramidenstumpfes aufweisen und am Rand ihres Bodens vertikale Wände (3) besitzen, die nach unten herausragen, wobei vorgesehen ist, dass der Behälter (1) an seiner Öffnung einen L-förmigen, umlaufenden Rand (4) mit einem nach oben weisenden, vertikalen Flügel (4a) aufweist;
- einem Deckel (2), der aus Kunststoff geformt ist, bestehend aus einem Hohlkörper in Form eines Pyramidenstumpfes, der an seinen Seitenwänden eine Reihe von beinahe kreisförmigen Kavitäten (8) aufweist, die am Boden mit entsprechenden Löchern (8a) versehen sind, wobei vorgesehen ist, dass dieser Deckel (2) eine obere horizontale Wand (2a) gleicher Fläche wie die Bodenfläche des Behälters (1) und eine untere Öffnung beinahe gleicher Größe wie die Öffnung des darunter befindlichen Behälters (1) besitzt ist, welche einen umlaufenden, horizontalen Rand (6) von beinahe gleicher Breite wie der horizontale Flügel des Randes (4) aufweist, der an der Öffnung des besagten Behälters (1) vorgesehen ist, wobei vorgesehen ist, dass auf dem rund um die Öffnung des Deckels (2) führenden horizontalen Rand (6) und auf dem horizontalen Flügel des um die Öffnung des Behälters (1) führenden Randes (4) Vorrichtungen geschaffen werden, die in der Zusammenwirkung eine stabile Verbindung zwischen dem Deckel (2) und dem Behälter (1) gewährleisten.

2. Vase gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die Vorrichtungen zur stabilen Verbindung des Deckels (2) mit dem darunter befindlichen Behälter (1) aus einer Reihe von elastisch verformbaren Dornen (5) mit einem breiteren Kopf (5a) und einem diametralen Einschnitt (5b) bestehen, die in derselben Phase und aus demselben Material wie der horizontale Flügel des Randes (4) hergestellt werden, der rund um die Öffnung des Behälters (1) geführt ist und die in der Lage sind, in eine Reihe von durchgehenden Löchern (7) einzurasten, die auf dem horizontalen Rand (6) geschaffen wurden, der rund um die Öffnung des Deckels (2) vorgese-

hen ist.

3. Vase gemäß Anspruch 1, in einer bevorzugten Ausführung **dadurch gekennzeichnet, dass** die Vorrichtungen zur stabilen Verbindung des Deckels (2) mit dem darunter befindlichen Behälter (1) aus einer Reihe von Druckknöpfen bestehen, deren Bestandteile zum Teil auf dem horizontalen Flügel des rund um die Öffnung des Behälters (1) vorgesehenen Randes (4) und zum Teil auf dem rund um die Öffnung des Deckels (2) vorgesehenen horizontalen Rand (6) realisiert werden.

15 Revendications

1. Vase pour la bonne conservation des fleurs pendant les phases de cueillette, stockage, transport et vente, constitué de :

- un récipient (1) moulé dans des matériaux plastiques, constitué d'un corps cave de structure tronco-pyramidale renversée, au centre de laquelle est réalisée, du bas vers le haut, une profonde entaille en forme de "V" renversé qui origine la formation de deux tiges (1a) identiques, ayant elles aussi une structure tronco-pyramidale renversée et présentant en correspondance du bord de périmètre de leur paroi de fond des respectifs petits rebords verticaux (3) forjetants vers le bas ; étant prévu que ce récipient (1) présente, en correspondance de son embouchure, un bord de périmètre (4) en forme de "L" avec une aile verticale (4a) tournée vers le haut;
- un couvercle (2), moulé dans des matériaux plastiques, constitué d'un corps cave de structure tronco-pyramidale présentant, en correspondance de ses parois latérales, une série de cavités de forme quasi circulaire (8) dotées sur le fond de respectifs perçages (8a) ; étant prévu que ledit couvercle (2) soit doté d'une paroi horizontale supérieure (2a) dont la surface est identique à celle de la zone de fond du récipient (1) et d'une ouverture inférieure dont l'extension de la surface est quasi identique à celle de l'embouchure du sous-jacent récipient (1), ladite embouchure présentant sur son périmètre un bord horizontal (6) dont la largeur est quasi identique à celle de l'aile horizontale du bord (4) prévu autour de l'embouchure du susdit récipient (1) ; étant prévu que sur le bord horizontal (6) présent autour de l'embouchure du couvercle (2) et sur l'aile horizontale du bord (4) présent autour de l'embouchure du récipient (1) soient réalisés des moyens aptes à coopérer pour effectuer le blocage stable du couvercle (2) sur le récipient (1).

2. Vase, selon la revendication 1, **caractérisé en ce que** les moyens pour le blocage stable du couvercle (2) sur le sous-jacent récipient (1) sont constitués d'une série de chevilles se déformant de manière élastique (5) ayant une tête évasée (5a) et une entaille de diamètre (5b) réalisées, pendant la même phase et dans le même matériel de moulage, sur l'aile horizontale du bord (4) présent autour de l'embouchure du récipient (1), en mesure de pénétrer à dé clic dans une correspondante série de perçages passants (7) pratiqués sur le bord horizontal (6) prévu autour de l'embouchure du couvercle (2). 5 10
3. Vase, selon la revendication 1, **caractérisé**, dans une forme préférée de réalisation, en ce que les moyens pour le blocage stable du couvercle (2) sur le sous-jacent récipient (1) sont constitués d'une série de boutons automatiques, dont les composants sont réalisés en partie sur l'aile horizontale du bord (4) prévu autour de l'embouchure du récipient (1) et en partie sur le bord horizontal (6) prévu autour de l'embouchure du couvercle (2). 15 20

25

30

35

40

45

50

55

