



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 280 123 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
29.01.2003 Bulletin 2003/05

(51) Int Cl.7: **G09F 1/06**, A01G 9/02,
G09F 3/20

(21) Application number: **02078070.6**

(22) Date of filing: **26.07.2002**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
IE IT LI LU MC NL PT SE SK TR**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventors:
• **The inventor has agreed to waive his entitlement
to designation.**

(74) Representative:
**Brookhuis, Hendrik Jan Arnold et al
Exter Polak & Charlouis B.V.
P.O. Box 3241
2280 GE Rijswijk (NL)**

(30) Priority: **27.07.2001 NL 1018652**

(71) Applicant: **Moor-Arkesteijn, Petronella Elisabeth
2286 KD Rijswijk (NL)**

(54) **Display device, use of the display device, series of plants provided with the display device,
and display element**

(57) A display device for presenting information for a number of plants positioned in at least one carrier comprises a number of connected display elements. Each display element comprises a display section for presenting information and a securing section which is connected to the display section. The securing section also com-

prises securing means for securing the securing section to or around the at least one carrier. The securing section and the display section may be substantially planar. Each display section and the associated securing section may be connected to one another with an acute angle between their surfaces.

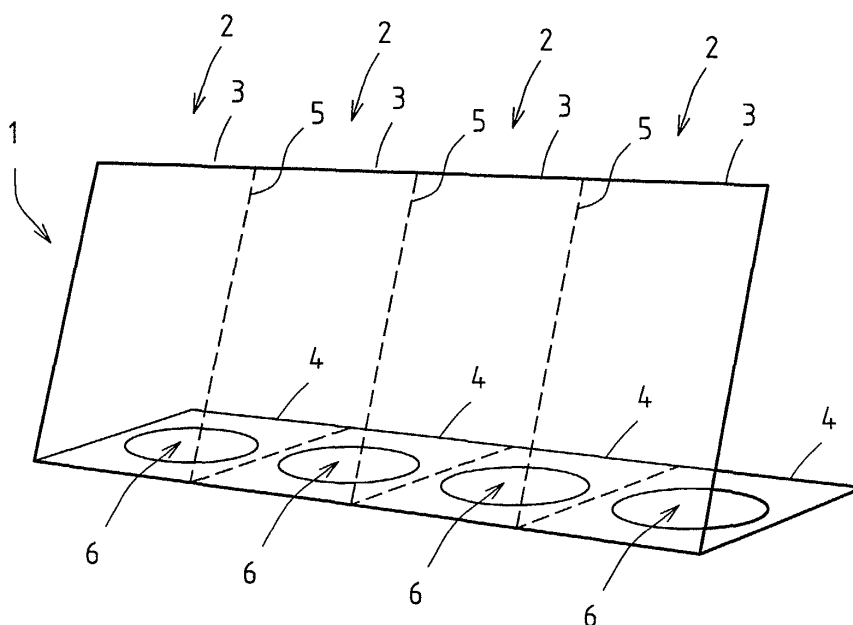


FIG. 1

EP 1 280 123 A1

Description

[0001] The invention relates to a display device for presenting information for a number of plants which are positioned in at least one carrier. The invention also relates to the use of a display device for this type. The invention also relates to a number of plants provided with a display device of this type and to a display element clearly separated from a display device of this type.

[0002] A push-in card for presenting information of a plant is known. The push-in card is usually planar and comprises a first section which may be of any desired shape and is used to present information and a pointed section which is pushed into the soil next to the plant. The display card may be added to a plant, for example by a grower or market gardener, by being pushed into a quantity of soil located in a pot which bears the plant. The display device may comprise information about the plant, such as the plant name, plant data and information on care, an image and/or a trade name or other information to indicate the grower, distributor or any other information. It should be noted that in the context of the present document, the term soil is also to be understood as meaning any other substrate, such as water-retaining beads or foam.

[0003] A drawback of a display device of this type is that it is easily lost when the plant is transported. Since the plants usually cover a long distance from the grower to the final purchaser, and many parties may be involved in the interim, such as an auction, a wholesaler, a haulier and a florist, and since the plant is usually transported a large number of times over this period, the risk of the display device being lost or removed or falling out of the pot during transport is high. Where transporting the plant usually involves the use of trolleys which are provided with wheels, such as Danish trolleys, in which shocks and vibrations occur during travel over uneven ground, having an adverse effect on the connection between the display device and the soil, the risk of the card being lost before reaching the end user is increased further.

[0004] It is an object of the invention to provide a display device which is connected to a plant in a stable way.

[0005] To achieve this object and further objects, the display device according to the invention is characterized by a or a number of connected display elements, each comprising a display section for information to be represented on, and a securing section, which is connected to the display section and is provided with securing means for securing the securing section to or around the at least one carrier. One advantage is that each display element is secured in a stable way, since the display elements are connected to one another and each of the connected display elements is connected to the carrier for a plant. The result is an assembly of a number, such as a row, of display elements which are not only easy to produce as a single unit but also, in combination with a row of plants, offer an extremely attractive and

decorative appearance. A further advantage is that if one or more of the number of plants is removed, the display device is held in place by the remaining plants and the remaining carrier(s), and the display device is prevented from coming loose, and also that even when one or more plants have been removed the number of connected display elements continue to form an attractive and decorative unit, so that the absence of plants, for example in a presentation for sale, is not considered to be disruptive factor. By way of example, the plants may each be positioned in a separate carrier or may be positioned in a tray comprising preshaped cavities for plants or separate carriers holding plants to be positioned in.

[0006] The securing section and the display section are preferably substantially planar. This makes the display device easy to produce, for example from a sheet of board, metal, plastic, wood or other material, and makes it easy to present information on the display sections.

[0007] It is preferable for each display section and the associated securing section to be connected to one another with an acute angle between their surfaces. It is thus possible, in a simple way, to produce a display device with angled display sections, so that it is easy to present and read the information situated on them. The securing sections and display sections may be connected to one another at an acute angle, such as a sharp corner, but it is also possible for the securing sections and display sections to be connected to one another with a gradual transition, such as a curve in the display element.

[0008] To allow the use of separate and therefore exchangeable images, each display section may comprise fixing means for securing an image. The images may, for example, comprise a card or an information leaflet. The fixing means may comprise a folded-over end of the display section, facing away from the securing section, so that the image can be clamped or fitted behind the folded-over end. If the dimensions of the images are selected appropriately, they can then be clamped, by means of another end facing towards the securing section, into a groove which is formed by an acute angle between the display section and the securing section.

[0009] The connections between the display elements are preferably detachable, for example by means of a perforated line, so that separate display elements can be added for a separate plant, for example when the plants are each handed over to a different end user.

[0010] In the case of at least 3 connected display elements, it is preferable for a first edge of a first display element to be connected to an edge of a second, adjoining display element and for a second edge, which lies opposite the first edge, of the first display element to be connected with an edge of a third display element which adjoins this edge. One advantage is that the display elements can be produced extremely easily as a single unit and the adjacent display elements, for exam-

ple when they are secured to the front side of a row of plants, form a decorative and attractive assembly.

[0011] The said edges may be located at the display section and/or the securing section of each display element, depending on the shape, dimensions and the like. If the edges are located, for example, at the securing sections and the display section which is connected to each securing section can be moved to a certain extent independently of the adjoining display sections, it is easily possible to remove a plant from the row of plants by, for example, bending or folding the relevant display section away slightly. If the edges are located at the display sections, positioning and removing plants becomes easier if the display sections, depending on the materials selected and their shape, allow a certain freedom of deformation or bending thereof with respect to one another.

[0012] The securing means may comprise a cutout in the securing section. This results in simple and extremely stable securing of each securing section of a carrier of a plant. If the carriers of the plants taper towards the bottom, for example are frustoconical in shape, the securing sections are held in place by the carriers which are to be placed into the cutouts in the securing sections, and if the dimensions of the cutouts are selected to be such that at least in part they closely surround the tapering carriers, the weight of the carriers and the plants positioned therein, together with the soil, as a result of the downwardly tapering shape of the carriers, counteracts upwards displacement of the securing sections. If the carriers with the securing sections which are at least partially surrounding the carriers are then placed into a tray, for example, which comprises cutouts surrounding a section of the tapering carriers which adjoins the underside, the securing sections can in this way be easily and effectively enclosed between the tray and the carriers. Obviously, other securing means, such as one or more clamps or clips, one or more segments which closely surround the at least one carrier or other types of means for securing a securing section to the at least one carrier are also possible.

[0013] The cutout in the securing section may be round or slot-shaped, so that simple and stable securing to, for example, a carrier of a plant, which carrier is, for example, round in cross section, is simple and the display device can be fitted and removed by simple operations. Obviously, the cutout may also have a different shape. If the shape substantially matches the shape of a section of a carrier which is at least partially surrounded by the cutout, it is in this way possible to produce stable securing.

[0014] The cutout in the securing section may comprise an edge which is provided with elongate, deformable fingers which project substantially transversely with respect to the edge. This results in a clamping action, since the projecting fingers, which are produced from a preferably elastically deformable material, bring about clamping securing to the carrier.

[0015] At least one of the display elements may be at least partially transparent, so that also when the display elements are positioned on a viewing side of the row of plants the view of the plants is not impeded by the display elements. The image may comprise an image of a flowering section of a plant. In this way it is possible, even when the plants are not yet flowering, to create the illusion of a flowering unit, since an image on a display section comprises, for example, flowers, while the remaining section of a plant positioned behind it is visible through a transparent section of the display device.

[0016] Furthermore, the invention comprises the use of a display device of this type for displaying information on a number of plants.

[0017] The invention also comprises a number of plants provided with a display device of this type.

[0018] Further aspects and advantage of the invention will become clear with reference to the appended drawings, which show a non-limiting exemplary embodiment and in which:

Fig. 1 shows a perspective view of a display device according to the invention;

Fig. 2 shows a side view, partially in cross section, of a display element according to the invention; and
Figs. 3a and 3b show a front view and a side view of another display device according to the invention.

[0019] In the figures, identical reference numerals denote identical or similar elements.

[0020] Fig. 1 shows a display device 1 which comprises four display elements 2. In this embodiment, the display elements are produced from a transparent material, such as a transparent plastic. The display elements 2 each comprise a display section 3 and a securing section 4. The display sections in this case form a surface for displaying information. The display sections and the securing sections can be separated from one another along a perforated line 5, so that if desired the separate display elements can be detached from one another. To be secured to a plant which is positioned in a carrier, such as for example a plant pot or a container, each securing element 4 is provided with a round hole 6, the diameter of which is selected in such a manner that the hole 6 closely adjoins a plant pot which is to be used.

[0021] Fig. 2 shows a display element 2 with a display section 3 which is inclined upwards and a horizontally positioned securing section 4. The securing section 4 has an opening in which a plant pot 24 holding a plant 25 is positioned. The angle between the display section 3 and the securing section 4 is less than 90°, so that the display section 3 will adopt an inclined upright position and it is possible for the display section 3 to be supported against the pot 24 or the plant 25 in order to achieve a stable position thereof. In this example, the plant pot 24 is positioned in a tray, of which a section 26 is shown. The tray 26 comprises a row of cavities 27 for plants in pots to be positioned in, for example the plant 25 in the

pot 24 which is shown in the drawing. If the distances between the cavities 27 in the tray 26 correspond to the distances between the holes 6 in the row of securing devices 4, the display device 1 can be secured in a simple and stable way in the row of plants 25 by positioning a pot 24 in each cavity 27 in the tray 26, in such a manner that the respective securing section 4 is clamped onto the section of the tray 26 which surrounds the cavity 27 by the plant pot 24. In this way, the display device 1 is very well protected against loss, since the weight of each pot 24, the plant 25 positioned therein and the soil located in the pot 24, on account of the frustoconical shape of the pot 24, in the position shown in the figure exerts a downward force on the securing section 4, so that the display device, given suitably selected dimensions of the pot 24, the cavity 27 in the tray 26 and the cutout in the securing section 4, is clamped in place. With the display device 1 which is thus shown, it is possible to remove a separate plant 25 together with a pot 24 from the row of plants, while the remaining plants 25 in the pots 24 continue to hold the display device 1 in a stable way.

[0022] Fig. 3a and Fig. 3b show a tray 26 provided with a number of preshaped cavities 27 in which a number of plants 25 have been positioned. A display device 1, of which a number of display elements 2 are shown in Fig. 3a, is secured to the tray 26, which functions as a carrier for the plants 25. The display elements 2 each comprise a display section 3, which in this example is transparent. The display elements 2 also comprise a number of securing sections 4 which are shown in Fig. 3b and are each secured around a cavity 27. For this purpose, the securing sections 4 may, for example, each be provided with a cutout of suitably selected dimensions, so that the cutouts in the securing sections 4 can be secured around the cavities 27 in the tray 26, for example by clamping or in some other known way. The display elements 2 are connected to one another by means of interconnected securing sections 4. The tray 26 with the display device 1 secured to it may, for example, be positioned in such a manner that the display sections 3 are situated on a viewing side. As shown in Fig. 3a, the display sections 3 are separate from one another, and if at least the display sections 3 are produced from a flexible material, a single display section 3 can easily be bent out of the way in order for a plant 25 behind it to be removed from the tray 26. When a plant 25 has been removed from the tray 26, an attractive and decorative unit remains in place on account of the display sections 3 located in front of the remaining plants 25. Obviously, in the example shown in Fig. 3a and Fig. 3b, it is also possible for separate carriers to be positioned in each cavity 27 in the tray 26, in each of which carriers in each case one or, for example in the case of what are known as bedding plants, more plants 25 are positioned, or for a plurality of plants to be positioned in each cavity 27.

[0023] The display sections 3 may each show the

same image, but it is also possible for each display section 3 to show a different image or a number of images positioned next to one another, or for the display sections 3 to show a repeating series of a few different images. In this way it is possible, for example, for each display section to comprise a plurality of images, for example positioned next to one another, which are each positioned at a plurality of plants positioned in a carrier. The image on the front side may, for example, show a picture of the plant or information in the form of pictograms, text and the like. It is also possible for this and other information to be applied to the securing section. For example, a decorative image of the corresponding plant (for example in full bloom) may be printed on the display section, while further information about planting distance, care and flowering is printed on the securing section. If the display device 1 is produced from a transparent material, an extremely decorative and extremely stably secured display device is formed, making it possible to look at the row of plants through the row of display sections.

[0024] The display device 1 as shown in Figs. 1, 2 and 3 may also be used separately, i.e. without being secured to a carrier, so that the display device, for example for decorative or promotional purposes, can be positioned loosely on, for example, a counter or in a sales-room if, for example, the plants associated with the display device have all been sold.

[0025] It is also possible, if the display device 1 is produced from a non-transparent material, for example for an image to be displayed on the front side of the display section 3 and further information, for example about the plant, to be displayed on the rear side of each display section 3.

Furthermore it is possible, for example, to simplify the fitting of the display device to a tray filled with a row of plants by providing each of the securing sections 4 not with a round hole 6 but with a slot, so that the securing sections 4 can easily be secured around the row of pots 24 positioned in the tray 26 by arranging the slots in the securing sections around the pots 24. It is also possible for the display sections of the display devices shown to extend substantially downwards instead of upwards, so that a reduction in the readability as a result of the display sections bending downwards out of a desired position under the force of gravity is avoided.

[0026] The separate display elements can easily be broken open or torn off by means of perforations, a cut edge or some other type of connection in which the elements are only connected to one another over a very small section.

[0027] Obviously, the display elements and in particular the display sections may be in all kinds of shapes, for example with rounded corners, in the shape of a plant, a logo or the like. It is also possible for one or more display sections to comprise openings, so that the associated plant is provided with sufficient light and/or so that the view of the plant is increased.

Claims

1. Display device for presenting information for a number of plants which are positioned in at least one carrier, which display device is **characterized by** a or a number of connected display elements, each comprising a display section for information to be represented on, and a securing section, which is connected to the display section and is provided with securing means for securing the securing section to or around the at least one carrier.
2. Display device according to claim 1, **characterized in that** the securing section and the display section are substantially planar.
3. Display device according to claim 2, **characterized in that** each display section and the associated securing section are connected to one another with an acute angle between their surfaces.
4. Display device according to one of the preceding claims, **characterized in that** each display device comprises fixing means for securing an image.
5. Display device according to claim 4, **characterized in that** the fixing means comprise a folded-over end of the display section which faces away from the securing section.
6. Display device according to one of the preceding claims, **characterized in that** the connections between the display elements are detachable.
7. Display device according to claim 6, **characterized in that** the connections comprise a perforated line.
8. Display device according to one of the preceding claims, comprising at least 3 connected display elements, a first edge of a first display element being connected to an edge of a second, adjoining display element, and a second edge, which lies opposite the first edge, of the first display element being connected to an edge of a third display element which adjoins this edge.
9. Display device according to claim 8, **characterized in that** the said edges are located at the display section of each display element.
10. Display device according to claim 8, **characterized in that** the said edges are located at the securing section of each display element.
11. Display device according to one of the preceding claims, **characterized in that** the securing means comprise a cutout in the securing section.
12. Display device according to claim 11, **characterized in that** the cutout in the securing section is round.
13. Display device according to claim 11, **characterized in that** the cutout in the securing section is slot-shaped.
14. Display device according to claim 11 or 12, **characterized in that** the cutout in the securing section comprises an edge which is provided with elongate, deformable fingers which project substantially transversely with respect to the edge.
15. Display device according to one of the preceding claims, **characterized in that** at least one of the display elements is at least partially transparent.
16. Display device according to claim 15, **characterized in that** the image comprises an image of a flowering section of a plant.
17. Use of a display device according to one of the preceding claims for displaying information for a number of plants.
18. A number of plants provided with a display device according to one of claims 1-16.
19. Display element clearly separated from a display device according to one of claims 6-16.

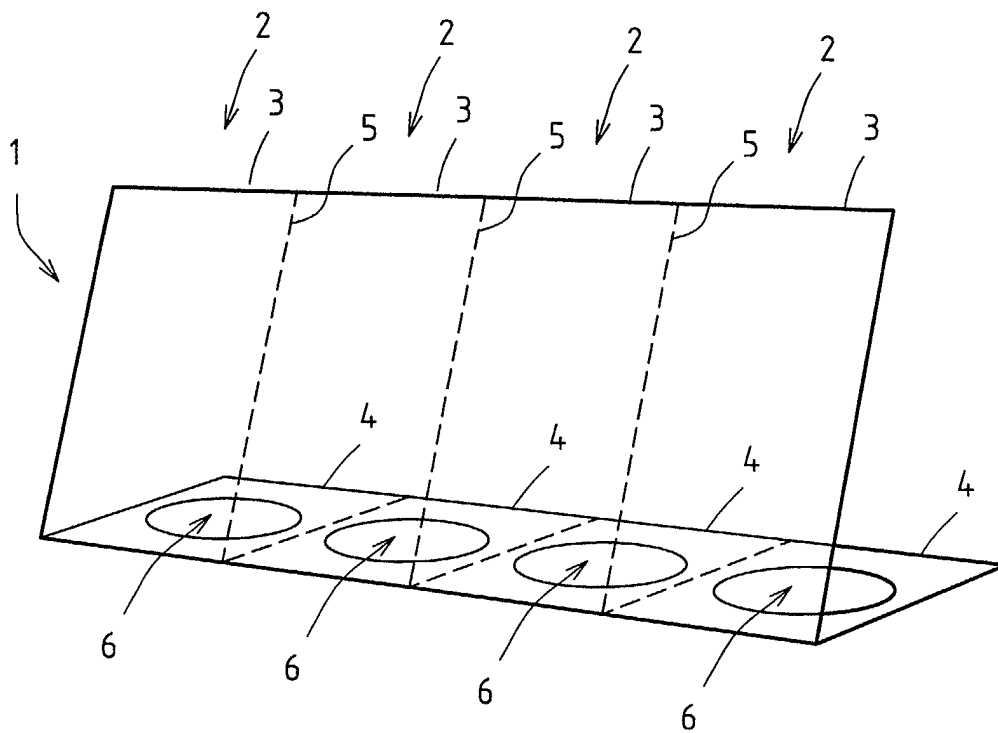


FIG. 1

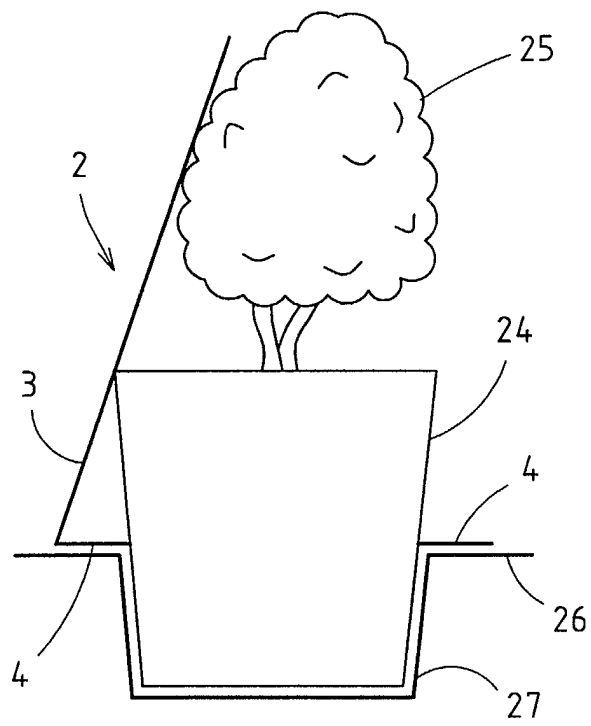


FIG. 2

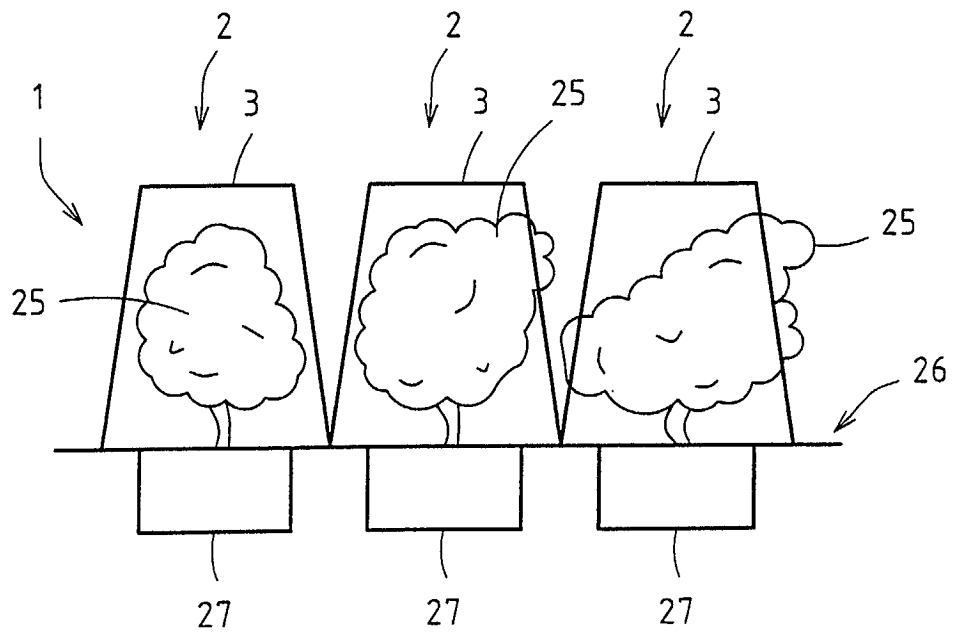


FIG. 3a

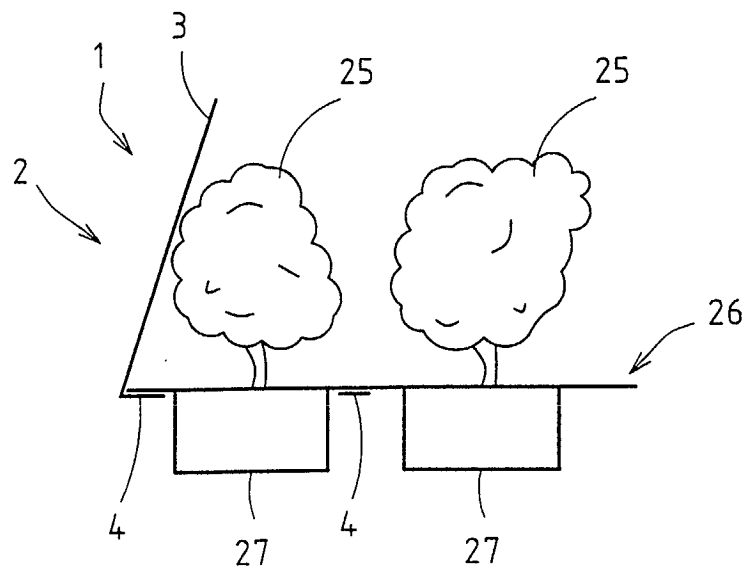


FIG. 3b



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 02 07 8070

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	GB 2 260 308 A (HORTICULTURAL PRINT SERVICES L) 14 April 1993 (1993-04-14) * the whole document *	1,2,4,6, 17,19	G09F1/06 A01G9/02 G09F3/20
A	GB 2 257 109 A (TARBATT JOHN EVERAD) 6 January 1993 (1993-01-06) * the whole document *	1-18	
A	FR 2 641 937 A (PROUTEAU FRERES GRPT AGRIC EXP) 27 July 1990 (1990-07-27) * the whole document *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G09F
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		30 September 2002	Gallo, G
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			

EPO FORM 1503 03 82 (P/MC01)

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

EP 02 07 8070

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

30-09-2002

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2260308	A	14-04-1993	NONE	
GB 2257109	A	06-01-1993	NONE	
FR 2641937	A	27-07-1990	FR 2641937 A1	27-07-1990