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(54) **Transport and display tray**

Transport- und Präsentationstablett

Plateau de transport et présentation

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Description

[0001] The present invention relates to a transport and display tray, particularly for potted plants, comprising a bottom and circumferential side walls, two opposite side walls being provided with legs hinged on the side wall with a hinge axis extending at right angles to the side wall and with abutments for the legs, the legs being pivotal between the abutments about the hinge axis between a leg position in which part of the leg extends down below the level of the bottom, and a handle position.

[0002] In the distribution of flowers and plants, such as potted plants, from producer to retailer it is known to use carts with shelves on which the producer places the potted plants, whereupon the entire cart is transported, for example by lorry, to the retailer. At the retailer's, the cart can be used for moving the plants about in the shop area. When the plants on the cart have been sold, the cart is returned to the producer. The retailer may want to remove the plants from the cart to display them in a more attractive manner in his shop. The retailer may also need to move the plants regularly, for example so that the plants are in one place during the business hours of the shop, and in another place outside business hours.

[0003] DE-B-1 191 530 describes a tray as described in the introduction in the form of a serving tray with two U-shaped bows fastened pivotal at their ends to opposite side walls of the tray by means of fastening devices capable of holding the bows in two positions, viz., a position in which the bows extend down below the tray to serve as legs, and another position in which the bows extend up above the tray so that the bottoms of the U's meet to serve as a joined handle. It is not possible for the bows to assume positions in which the branches of the U's extend along the respective side walls because the bottom of the U's will always make the bows project past the periphery of the side walls.

[0004] The object of the invention is to provide a tray to facilitate the handling of plants.

[0005] This is obtained by a transport and display tray which is characterized in that the legs have a free end and another end hinged onto the side wall, the legs each being pivotal between the leg position and the handle position, in which the leg extends along the side wall above the level of the bottom to serve as a handle. Thereby, the tray may be designed with a bottom without projecting elements that prevent the tray from being pushed onto or out from a shelf, which will usually be provided with an upright edge to prevent trays on the shelf from falling off. Also the tray with plants can be raised from a surface, such as a table, or be placed in an inclined position on the table to provide a more attractive sales display by means of the legs when four or two legs are swung into the leg position. When the legs are in the handle position extending along the side wall, they contribute to facilitating the handling of the actual tray with contents without projecting past the periphery of the side wall.

[0006] The bottom is preferably rectangular, and preferably there are four side walls arranged in opposite

pairs. Such a tray may most practically be placed on a shelf in a cart, in which several trays will usually be placed beside each other.

[0007] Preferably each of the side walls provided with legs has two legs. In this way, the legs can be placed symmetrically, and the tray can be inclined in one direction when a pair of legs on the same side wall are swung into the leg position, and in another direction when two legs on opposite side walls are swung into the leg position while the other legs are placed in the handle position.

[0008] Two legs on a side wall may be designed so that they can overlap when they are in their handle position. Thereby, they may form an unbroken handle in the middle area of the relevant side wall, and the legs can be longer than they could otherwise be.

[0009] In a preferred embodiment, the abutments of the leg position of the respective legs are each constituted by a flap extending out from the side wall and parallel therewith for a distance to overlap the leg in its leg position. The leg is thereby held stably in its leg position.

[0010] The hinge axes and the abutments of the handle position are preferably placed in the upper half of the respective side wall, particularly at the upper edge of the respective side wall. In that way, the legs in their handle position will extend in parallel with the upper edge of the side wall near the latter, which is convenient when the legs are used as a handle. The abutment may moreover be constituted by a reinforcement at the upper edge of the side wall.

[0011] The legs are preferably formed from L-profile members. This will easily make the legs sufficiently strong while allowing them to overlap without together projecting excessively far from the side wall.

[0012] Preferably, a sign plate is fastened swingably at the upper edge of at least one side wall for swinging about said upper edge. In this way, the sign plate can be placed inside the tray during transportation to be out of the way, and at the retailer's it may be placed on the outside of the tray to carry information on the contents of the tray, such as species and price.

[0013] The tray is preferably watertight from the bottom and up to at least half the height of the side walls, and at least one side wall is provided with a drain hole with a removable stopper in the watertight area. This allows the tray to serve as a watering tray as it is possible to water plants in the tray without the water running away until the stopper is removed.

[0014] The tray may be provided with a divider insert. This makes it possible to place a pot in each space in the divider or to plant separate plants directly in the tray instead of in pots or conventional plant trays.

[0015] The invention will now be described in more detail below by means of an example of an embodiment and with reference to the schematic drawing, in which Fig. 1 is a perspective view of a transport and display tray according to the invention,

Fig. 2 is an end view of the tray of Fig. 1,

Fig. 3 shows a section along the line III-III in Fig. 2, Fig. 4 shows a sign plate, Fig. 5 shows a section along the line V-V in Fig. 4, Fig. 6 is a view corresponding to that of Fig. 3, but showing a variant; and Fig. 7 shows the transport and display tray provided with a divider insert.

[0016] Figs. 1 to 3 show a tray 1 with a rectangular bottom 2 and four side walls 3, 4, 5 and 6. The bottom is flat apart from criss-crossing, coherent, shallow watering channels 7. Two opposite side walls 3 and 5 are each provided with two legs 8 and 9. The side walls 3 to 6 incline outwards so that the tray is stackable. The upper edges of the side walls 3 to 6 are provided with a circumferential reinforcement bead 10.

[0017] The tray 1 may be made of metal plate, the reinforcement bead 10 being formed of metal wire about which the metal plate has been arranged. In that case, the watering channels 7 may be pressed or stamped in the bottom. Alternatively, the tray 1 may be made of plastics or any other suitable material.

[0018] The legs 8, 9 are made of L-profile members, the long leg 11 of the L lying in parallel with the respective side wall, and the short leg 12 of the L extending outwards from the side wall. The legs 8, 9 are fastened by rivets 13, which extend through the respective side walls and act as pivots about which the legs 8, 9 can turn between a leg position, cf. the leg 8 in Fig. 2, and a handle position, cf. the leg 9 in Figs. 2 and 3.

[0019] The leg position of the respective legs 8, 9 is determined by abutments 14 in the form of small cranked plate members. The plate members have a first, plane section 15 fastened to the respective side wall 3, a second section 16 extending out from the side wall 3, and a third, plane section 17 extending in parallel with the side wall 3 to overlap the long leg 11 of the L-profile when the leg 8, 9 is in its leg position.

[0020] The reinforcement bead 10 acts as an abutment for the legs 8, 9 for determining the handle position.

[0021] In the embodiment shown, the legs 8, 9 are of such length relative to the width of the tray that the legs 8, 9 partly overlap when they are in the handle position, as shown in Fig. 1. To facilitate the shift of the legs to the handle position, a spacer may be arranged between the leg 8 and the side wall 3 so that the leg 8 is lifted slightly out from the side wall 3 relative to the leg 9.

[0022] In other embodiments, not shown, the tray is so wide that the legs do not overlap in the handle position.

[0023] The tray 1 of Fig. 1 is provided with sign plates 18 fastened by means of rings 19 extending through holes in the side walls 4, 6 just below the reinforcement bead 10. The sign plates 18 can thus be swung about the reinforcement bead for placement on the outer side of the tray 1 as shown in Fig. 1, or inside the tray 1 abutting the respective side wall 4, 6.

[0024] Figs. 4 and 5 show the design of the sign plates 18. They consist of a plate member bent into a flat C-profile (see Fig. 5) with two grooves 20 and an interme-

mediate writing field 21. The sign plate 18 has three holes 22 for passing through the rings 19. The grooves 20 are adapted to hold, for example, a cardboard sign between them in the same way as a shelf front in a supermarket.

The writing field 21 has a board surface so that it can be provided with erasable writing with, for example, chalk or a white-board marker.

[0025] The side walls 3 and 5 provided with legs may also be provided with sign plates 18. This is illustrated in Fig. 6. In such case, the legs are formed so that the short leg 12' of the L-profile does not extend so far out that it prevents the sign plate 18' from hanging down on the outer side of the side wall 3'. In such case, a fastening ring 19' may moreover act as a spacer between the leg 8' and the reinforcement bead 10' when the leg 8' is in its handle position.

[0026] The tray 1 is designed so as to be watertight up to the holes for the rings 19. To provide a drainage possibility, the tray 1 is provided with a drain hole 23 (or several), which can be closed with a stopper 24.

[0027] In its corners, below the reinforcement bead 10, the tray 1 is provided with holes 25 for passing through, for example, a hook for suspension purposes.

[0028] As mentioned in the introduction, the tray is above all intended to be used in the distribution of potted plants, as the pots may be filled into the tray by the producer, whereupon the tray is placed on a shelf in a cart, which is transported to a retailer. The tray is therefore dimensioned so that it fits such carts currently used in the market. The tray may therefore have a width so that, for example, two, three, four or five trays may stand beside each other on a shelf.

[0029] The trays have flat bottoms so that they can easily be pulled out over or pushed in over an edge encompassing the shelf in the cart. The projections under the bottom of the tray formed by the watering channels 7 make a flat, even pattern that does not prevent this possibility.

[0030] During transportation, the legs will be in the handle position and will not be in the way. On the contrary, they make it easy to get hold of the tray to lift it. The sign plates will also be placed inside the tray to be out of the way.

[0031] At the retailer's, the tray may be used directly for display of the potted plants. By means of the legs, the tray may be elevated by placing the legs in the leg position, or be inclined if only one pair of legs is placed in the leg position. Moreover, the tray may be suspended by the holes 25 at the corners. It is thus possible to design an attractive sales display with several trays in various positions.

[0032] At the retailer's, the sign plates will be swung to the outer side of the tray to be provided with information on, for example, price and/or species of the tray contents.

[0033] Potted plants in the tray may be watered by filling water into the tray, the watering channels 7 allowing the water to spread under the pots. By subsequently removing the stopper 24, the tray may be drained to avoid

over-watering.

[0034] In this way, the tray according to the invention may facilitate the handling of potted plants from the producer to sale from a retailer.

[0035] It should be understood, however, that the invention is not restricted to any particular use of the tray.

[0036] As an alternative to the arrangement of plants in pots in the tray, Fig. 7 shows the tray 1 provided with a divider insert 26. The divider consists of longitudinal ribs 27 and transverse ribs 28, which may be made of, for example, paperboard and divide the inside of the tray into cells 29. A potted plant or flower may be placed in each cell 29, thus obviating the plastic trays otherwise used, or soil or growth medium may be filled into the cells in the tray, and plants may be planted or sown directly in the tray, for example one plant per cell, thus also obviating the use of pots.

Claims

1. A transport and display tray (1), particularly for potted plants, comprising a bottom (2) and circumferential side walls (3, 4, 5, 6), two opposite side walls (3, 5) being provided with legs (8, 9) hinged on the side wall (3, 5) with a hinge axis (13) extending at right angles to the side wall and with abutments (10, 14) for the legs, the legs (8, 9) being pivotal between the abutments about the hinge axis between a leg position in which part of the leg (8, 9) extends down below the level of the bottom (2), and a handle position, **characterized in that** the legs (8, 9) have a free end and another end hinged onto the side wall (3, 5), the legs (8, 9) each being pivotal between the leg position and the handle position, in which the leg extends along the side wall (3, 5) above the level of the bottom to serve as a handle.
2. A transport and display tray according to claim 1, **characterized in that** the bottom (2) is rectangular, and that there are four side walls (3, 4, 5, 6) arranged in opposite pairs.
3. A transport and display tray according to claim 1 or 2, **characterized in that** the side walls (3, 5) provided with legs are each provided with two legs (8, 9).
4. A transport and display tray according to claim 3, **characterized in that** the two legs (8, 9) on a side wall overlap when they are in their handle position.
5. A transport and display tray according to any one of claims 1 to 4, **characterized in that** the abutments (14) of the leg position of the respective legs (8, 9) are each constituted by a flap extending out from the side wall (3, 5) and parallel therewith for a distance to overlap the leg (8, 9) in its the leg position.

6. A transport and display tray according to any one of claims 1 to 5, **characterized in that** the hinge axes (13) and the abutments (10) of the handle position are placed in the upper half of the respective side wall (3, 5), particularly at the upper edge of the respective side wall.
7. A transport and display tray according to any one of claims 1 to 6, **characterized in that** the legs (8, 9) are formed by L-profile members.
8. A transport and display tray according to any one of claims 1 to 7, **characterized in that** a sign plate (18) is fastened swingably at the upper edge of at least one side wall (4, 6) for swinging about said upper edge.
9. A transport and display tray according to any one of claims 1 to 8, **characterized in that** the tray (1) is watertight from the bottom (2) and up to at least half the height of the side walls (3, 4, 5, 6), and that a side wall (4) is provided with a drain hole (23) with a removable stopper (24) in the watertight area.
10. A transport and display tray according to any one of claims 1 to 9, **characterized in** being provided with a divider insert (26).

Patentansprüche

1. Transport- und Präsentationstablett (1) für insbesondere Topfpflanzen, umfassend einen Boden (2) und Umfangsseitenwände (3, 4, 5, 6), zwei gegenüberliegende Seitenwände (3, 5), mit drehbar an den Seitenwänden (3, 5) befestigten Beinen (8, 9) mit einer Drehachse (13), die sich im rechten Winkel zu den Seitenwänden erstreckt, und mit einem Anschlag (10, 14) für die Beine, wobei die Beine (8, 9) zwischen den Anschlägen um die Drehachse zwischen einer Beinstellung, in welcher sich ein Teil des Beins (8, 9) unter dem Level des Bodens (2) erstreckt, und einer Griffstellung drehbar sind, **dadurch gekennzeichnet, dass** die Beine (8, 9) ein freies Ende haben und ein anderes an der Seitenwand (3, 5) angelenktes Ende haben und dass die Beine (8, 9) drehbar sind zwischen der Beinstellung und der Griffstellung, in welcher die Beine sich entlang der Seitenwände (3, 5) über dem Level des Bodens erstrecken, um als Griff zu dienen.
2. Transport- und Präsentationstablett nach Anspruch 1, **dadurch gekennzeichnet, dass** der Boden (2) rechteckig ausgebildet ist und dass dort vier Seitenwände (3, 4, 5, 6) als gegenüberliegende Paare vorgesehen sind.
3. Transport- und Präsentationstablett nach Anspruch

- 1 oder 2, **dadurch gekennzeichnet, dass** die Seitenwände (3, 5) mit jeweils zwei Beinen (8, 9) versehen sind.
4. Transport- und Präsentationstablett nach Anspruch 3, **dadurch gekennzeichnet, dass** die zwei Beine (8, 9) sich an der Seitenwand überlappen, wenn sie sich in ihrer Griffstellung befinden. 5
5. Transport- und Präsentationstablett nach einem der Ansprüche 1 bis 4, **dadurch gekennzeichnet, dass** die Anschläge (14) der Beinstellung der jeweiligen Beine (8, 9) durch eine Lasche gebildet sind, die von der Seitenwand (3, 5) ausgeht und parallel mit dieser ist über eine Distanz, um die Beine (8, 9) in ihrer Beinstellung zu überlappen. 10 15
6. Transport- und Präsentationstablett nach einem der Ansprüche 1 bis 5, **dadurch gekennzeichnet, dass** die Drehachse (13) und die Anschläge (10) in der Griffstellung in der oberen Hälfte der jeweiligen Seitenwand (3, 5) vorgesehen sind, insbesondere an der oberen Kante der jeweiligen Seitenwand. 20
7. Transport- und Präsentationstablett nach einem der Ansprüche 1 bis 6, **dadurch gekennzeichnet, dass** die Beine (8, 9) durch ein L-Profilteil gebildet sind. 25
8. Transport- und Präsentationstablett nach einem der Ansprüche 1 bis 7, **dadurch gekennzeichnet, dass** eine Schildplatte (18) an der oberen Kante an mindestens einer Seitenwand (4, 6) ausschwenkbar befestigt ist zum Schwenken an besagter oberer Kante. 30
9. Transport- und Präsentationstablett nach einem der Ansprüche 1 bis 8, **dadurch gekennzeichnet, dass** das Tablett (1) von dem Boden (2) und hoch zu mindestens der Hälfte der Höhe der Seitenwände (3, 4, 5, 6) wasserdicht ausgebildet ist und dass eine Seitenwand (4) mit einem Abflussloch (23) mit einem herausnehmbaren Stopfen (24) in dem wasserdichten Bereich ausgebildet ist. 35 40
10. Transport- und Präsentationstablett nach einem der Ansprüche 1 bis 9, **dadurch gekennzeichnet, dass** ein Teilungseinsatz (26) vorgesehen ist. 45
- butées autour de l'axe charnière entre une position de piètement dans laquelle une partie du pied (8, 9) s'étend vers le bas sous le niveau du fond (2), et une position formant poignée, **caractérisé en ce que** les pieds (8, 9) ont une extrémité libre et une autre extrémité articulée sur la paroi latérale (3, 5), les pieds (8, 9) pouvant chacun pivoter entre la position de piètement et la position formant poignée dans laquelle le pied s'étend le long de la paroi latérale (3, 5) au-dessus du niveau du fond pour servir de poignée.
2. Plateau de transport et de présentation selon la revendication 1, **caractérisé en ce que** le fond (2) est rectangulaire, et **en ce qu'il** y a quatre parois latérales (3, 4, 5, 6) disposées en paires opposées.
3. Plateau de transport et de présentation selon la revendication 1 ou 2, **caractérisé en ce que** les parois latérales (3, 5) dotées de pieds sont chacune dotées de deux pieds (8, 9).
4. Plateau de transport et de présentation selon la revendication 3, **caractérisé en ce que** les deux pieds (8, 9) sur une paroi latérale se chevauchent lorsqu'ils sont dans leur position formant poignée.
5. Plateau de transport et de présentation selon l'une quelconque des revendications 1 à 4, **caractérisé en ce que** les butées (14) de la position de piètement des pieds (8, 9) respectifs sont chacune constituées d'un rabat s'étendant à partir de la paroi latérale (3, 5) et parallèlement à celle-ci sur une certaine distance pour chevaucher le pied (8, 9) dans la position de piètement.
6. Plateau de transport et de présentation selon l'une quelconque des revendications 1 à 5, **caractérisé en ce que** les axes charnières (13) et les butées (10) de la position formant poignée sont placés dans la moitié supérieure de la paroi latérale (3, 5) respective, notamment au bord supérieur de la paroi latérale respective.
7. Plateau de transport et de présentation selon l'une quelconque des revendications 1 à 6, **caractérisé en ce que** les pieds (8, 9) sont formés par des éléments profilés en L.
8. Plateau de transport et de présentation selon l'une quelconque des revendications 1 à 7, **caractérisé en ce qu'une** plaque-enseigne (18) est fixée de manière pivotante au bord supérieur d'au moins une paroi latérale (4, 6) pour pivoter autour dudit bord supérieur.
9. Plateau de transport et de présentation selon l'une quelconque des revendications 1 à 8, **caractérisé**

Revendications

1. Plateau de transport et de présentation (1), notamment pour des plantes en pot, comprenant un fond (2) et des parois latérales circonférentielles (3, 4, 5, 6), deux parois latérales opposées (3, 5) étant dotées de pieds (8, 9) articulés sur la paroi latérale (3, 5) avec un axe charnière (13) s'étendant à angles droits vers la paroi latérale et de butées (10, 14) pour les pieds, les pieds (8, 9) pouvant pivoter entre les

en ce que le plateau (1) est étanche à partir de son fond et jusqu'à au moins la moitié de la hauteur des parois latérales (3, 4, 5, 6), et **en ce qu'**une paroi latérale (4) est dotée d'un orifice de vidange (23) avec un bouchon amovible (24) dans la zone étanche. 5

10. Plateau de transport et de présentation selon l'une quelconque des revendications 1 à 9, **caractérisé en ce qu'**il est doté d'une pièce de division (26). 10

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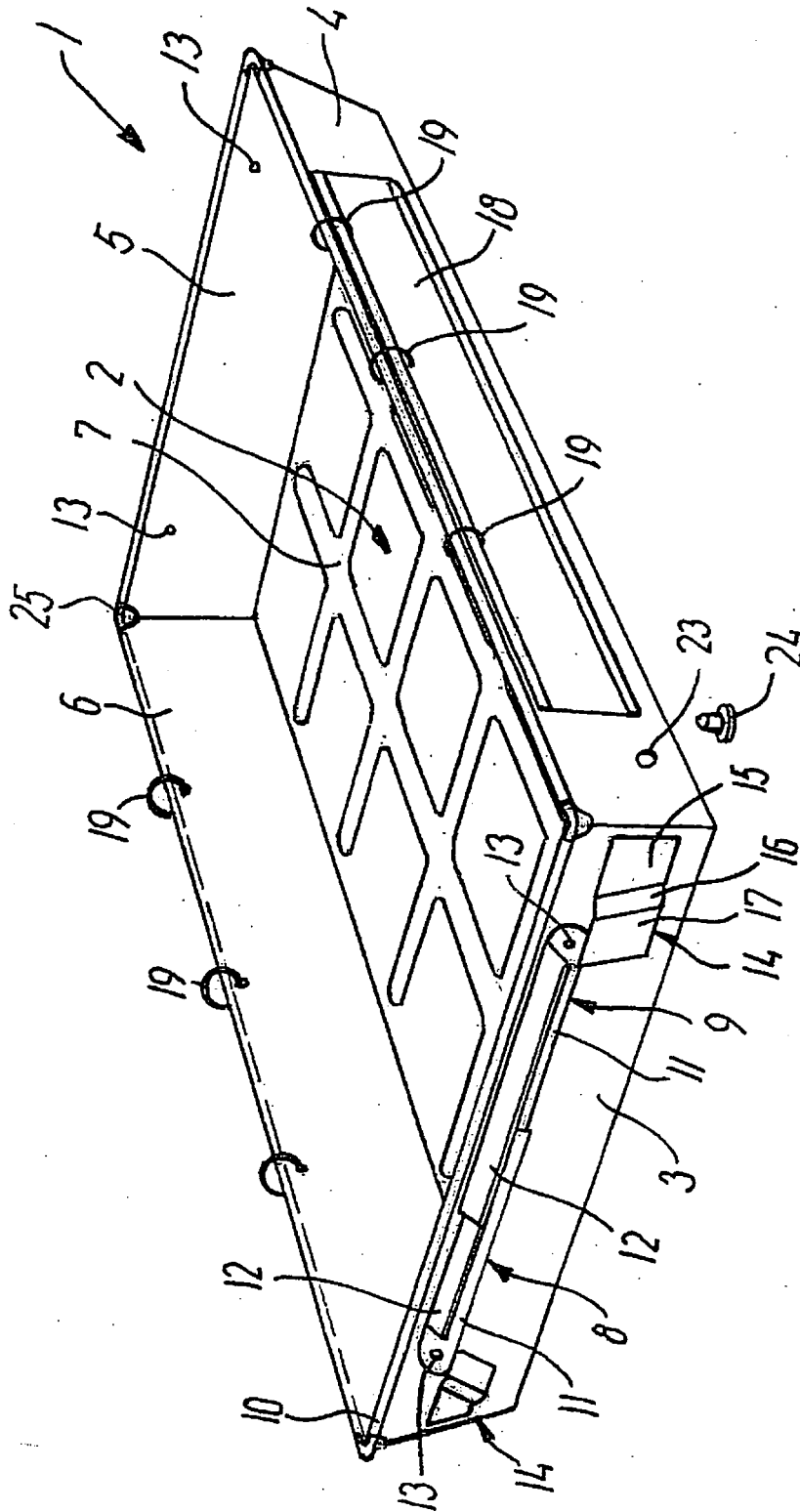


FIG. 1

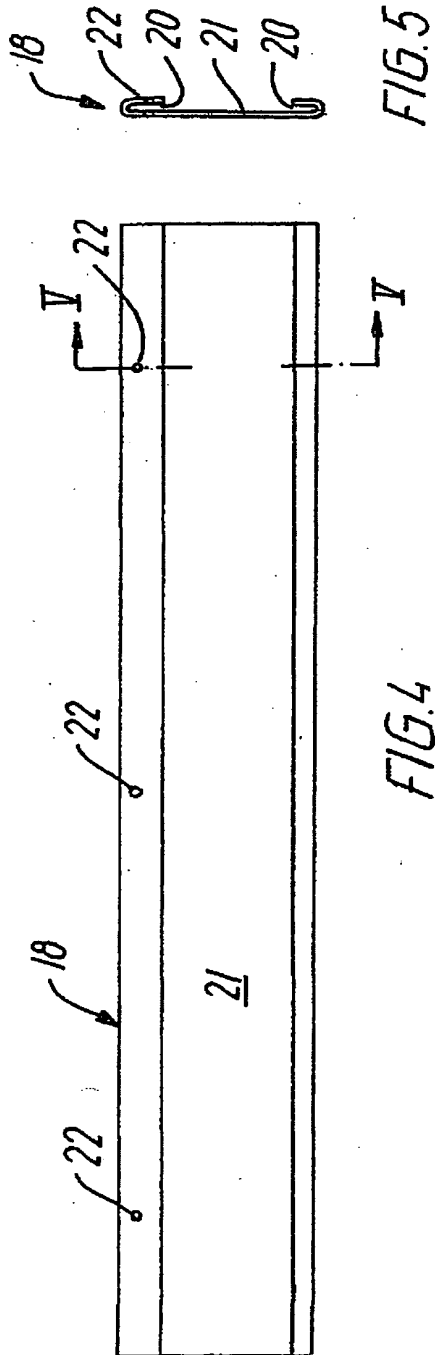


FIG. 5

FIG. 4

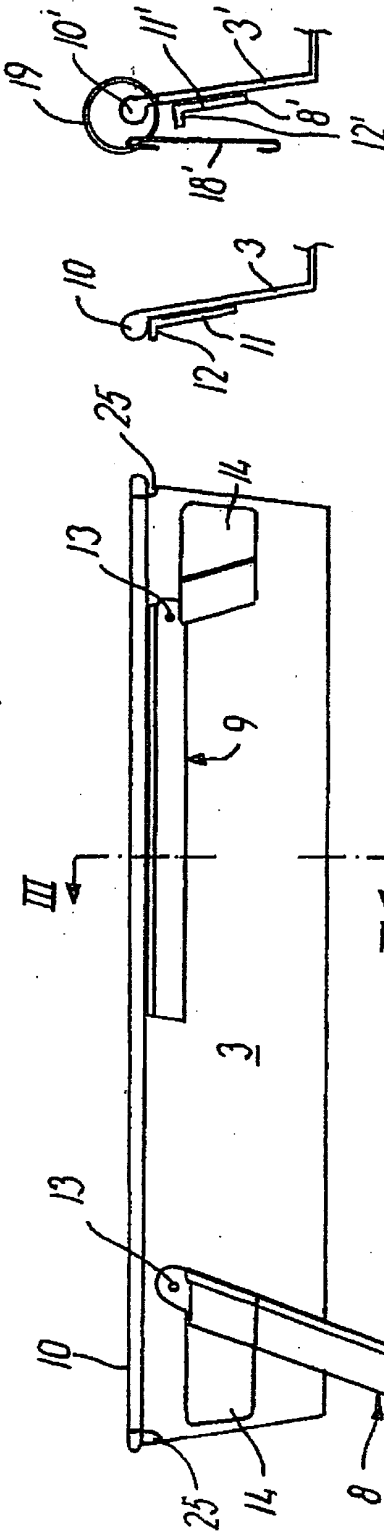


FIG. 3

FIG. 6

FIG. 2

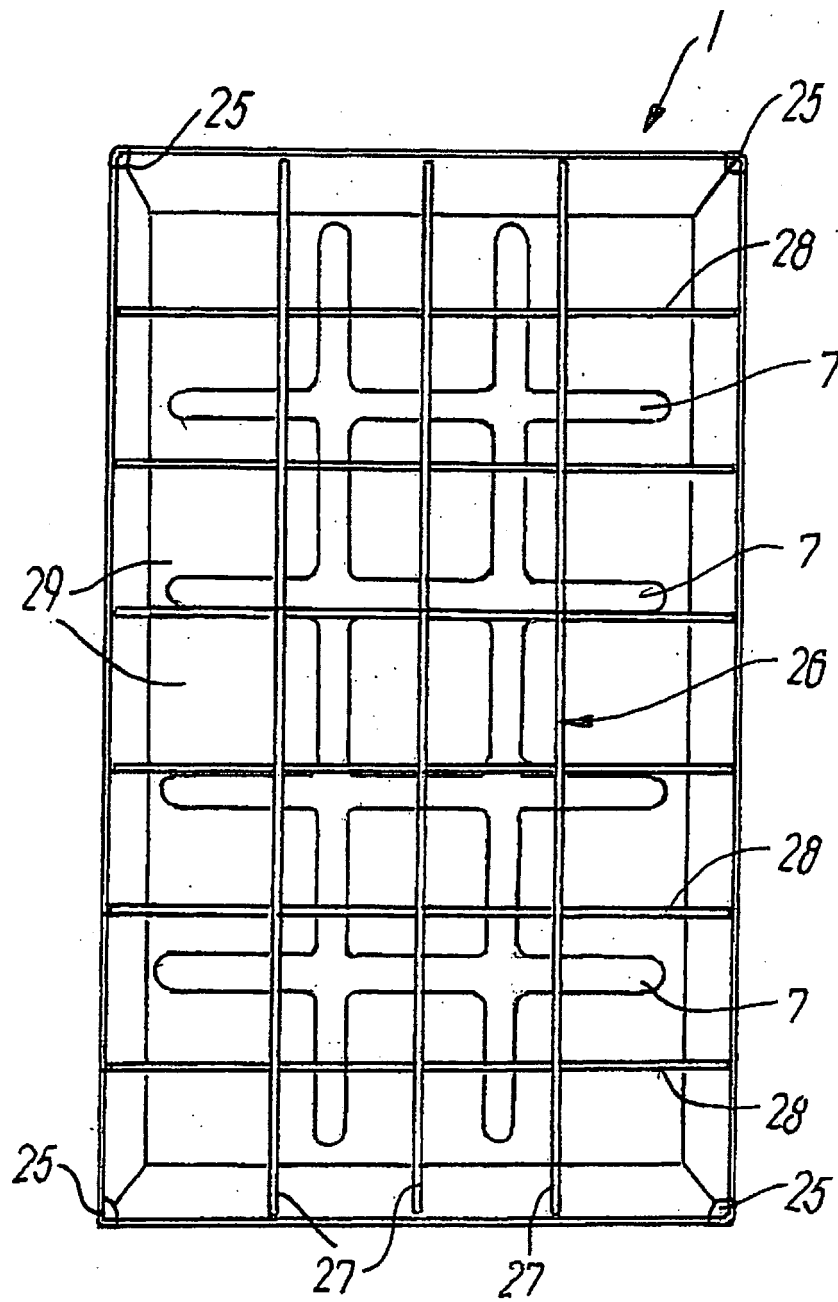


FIG. 7

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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