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(71) Applicant: **WEAVERSVALE ENTERPRISES LIMITED**
8 Moatfield Park St. Brendans Estate
Coolock Dublin 5(IE)

(72) Inventor: **Walker, Thomas**
8 Moatfield Park St. Brendans Estate
Coolock Dublin 5(IE)

(74) Representative: **Chettle, Adrian John et al**
Withers & Rogers 4, Dyer's Buildings
Holborn London EC1N 2JT(GB)

(54) A tray.

(57) A tray (1) of plastics material formed by vacuum moulding comprises a plate member (2) having a downwardly extending peripheral wall (5) comprises a plurality of glass holding recesses (8), a change holding recess (12) and a pad supporting surface (10) in a relatively shallow recess (22). Protuberances (17), (28) and (40) corresponding to the recesses (8), (22) and (12) extend from the bottom surface (4) of the plate member (2). Side walls of the recesses (8), (22) and (12) converge downwardly from the plate member (2) so that the protuberances (17), (28) and (40) may engage corresponding recesses (10), (22) and (12) to permit like empty trays to be nested one within the other.

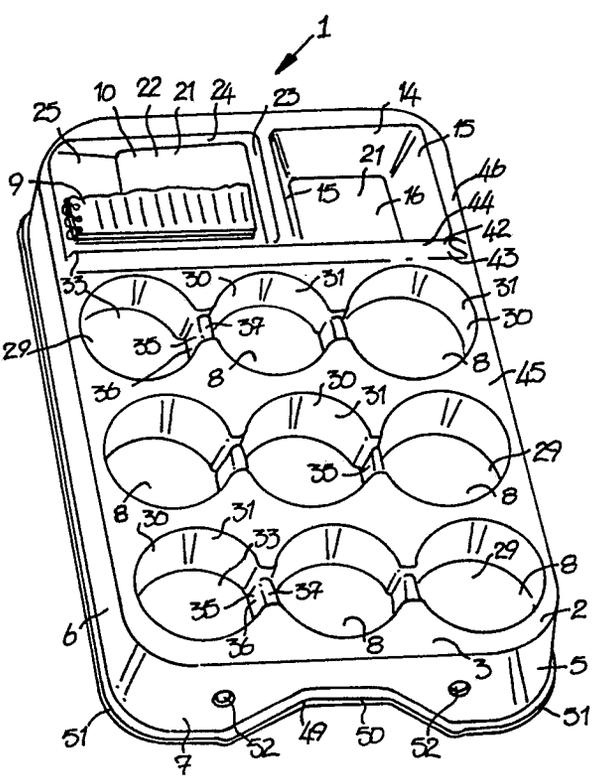

Fig. 1

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A TRAY

The present invention relates to a tray of the type for carrying glasses, bottles and the like. Hereinafter in the specification and claims, for convenience the terms glass and glasses are used to mean as well as drinking glasses, other drinking containers, such as, for example, bottles, cups, mugs, tankards and the like.

Trays are extensively used in the bar and catering trade and for domestic purposes. In general, trays comprise a base having a flat top surface and a pair of handles at opposite ends of the base. While such trays are adequate for limited use, and in particular, for domestic use, they are inadequate for many purposes. In particular, they are inadequate for use in the bar trade for serving drinks in glasses or bottles. Because of the fact that the base defines a substantially flat surface, glasses and bottles can slide relatively easily over the base, and furthermore, where drink is spilt on the base, the possibility of glasses sliding is even greater. This becomes a serious problem in relatively crowded bars where it is quite common for individuals to bump into either a tray with glasses or a barmaid or barman carrying a tray with glasses. In general, such a collision causes a considerable loss of drinks, and in many cases breakage of the glasses.

A further problem with such trays when used in the bar trade is that change is carried on the top surface of the tray base. The change becomes mixed up with the glasses, and where drink has been spilt on the tray, the change needless to say gets wet. This is unpleasant and indeed considerably unsatisfactory.

There is therefore a need for a tray which overcomes these problems.

The present invention is directed towards providing such a tray.

The tray according to the invention overcomes the problems of known trays by virtue of the fact that the tray comprises a plurality of glass holding means and a discrete change holding means.

The advantages of the invention are many. By virtue of the fact that a discrete change holding means is provided, change may be kept in the change holding means, and therefore is segregated from the glasses. By virtue of the fact that glass holding means are provided, the glasses are prevented from sliding on the tray.

Preferably, the tray comprises a plate member having a top surface and a bottom surface, the change holding means being formed by a change holding recess extending from the top surface of the plate member.

The advantage of this feature of the invention is that it provides a relatively convenient type of change holding means which is relatively easy to construct.

Advantageously, the change holding recess is formed by side walls, the side walls extending from the plate member in a generally converging direction. Preferably, the side walls terminate in a base. Advantageously, the change holding recess is of substantially rectangular shape.

The advantage of these features of the invention is that a change holding recess is provided which is convenient to use and from which it is relatively easy to withdraw change.

In one embodiment of the invention, a protuberance corresponding to the change holding recess extends from the bottom surface of the plate member, the outer surfaces of the protuberance being adapted to engage the change holding recess of another tray to permit like empty trays to be nested one within another, and preferably, the side walls forming the change holding recess form the protuberance.

The advantage of this feature of the invention is that it permits a plurality of like empty trays to be nested one within the other.

In another embodiment of the invention, each glass holding means is provided by a glass holding recess extending from the top surface of the plate member. Preferably, each glass holding recess is formed by at least portion of a circular side wall.

The advantage of this feature of the invention is that it provides a relatively convenient form of glass holding means, and also a form of glass holding means which is relatively easy to construct in a tray.

Advantageously, the circular side wall extends from the plate member in a generally converging direction, and preferably, the circular side wall terminates in a base.

The advantage of this feature of the invention is that it provides a relatively simple, inexpensive and convenient form of tray to manufacture and to use.

In a further embodiment of the invention, a protuberance corresponding to each glass holding recess extends from the bottom surface of the plate member, and advantageously, the surface of each protuberance corresponding to a glass holding recess is adapted to engage a glass holding recess of another tray to permit like empty trays to be nested one within another, and preferably, the side walls forming the glass holding recesses form respective protuberances.

The advantage of this feature of the invention is that it permits a plurality of like empty trays to

be nested one within the other.

In another embodiment of the invention, the glass holding recesses are provided in groups of at least two glass holding recesses, adjacent glass holding recesses of each group being separated from each other by a dividing wall.

The advantage of this feature of the invention is that it provides a tray which is relatively easy and inexpensive to produce.

Preferably, each dividing wall is of double leaf construction having a pair of spaced apart leaves, each leaf of each wall extending upwardly from a base of an adjacent glass holding recess and the leaves of each wall being joined by a top cross wall.

The advantage of this feature of the invention is that it provides a tray which may be relatively easily and inexpensively manufactured.

In another embodiment of the invention, the tray comprises a pad supporting means for supporting a notepad.

The advantage of this feature of the invention is that it provides a specific location for supporting a notepad to permit a person to take notes, and in particular where the tray is used, for example, in a bar or the like, the pad may be used for taking a customer's order.

Preferably, the pad supporting means is provided by a relatively flat pad supporting surface provided on the plate member, and advantageously, the pad supporting surface is recessed into the top surface of the plate member.

The advantage of this feature of the invention is that it provides a tray which is relatively easy and inexpensive to construct.

In another embodiment of the invention, at least one glass holding means is provided in the pad supporting means.

The advantage of this feature of the invention is that it provides additional carrying space for glasses, should this be desired.

In another embodiment of the invention, a notepad is bonded to the pad supporting means.

The advantage of this feature of the invention is that it avoids the possibility of a notepad being lost or falling from a tray.

In a further embodiment of the invention, each glass holding means is provided by a plurality of spaced apart bollards extending upwardly from a top surface of the plate member.

The advantage of this feature of the invention is that it provides a tray which comprises glass receiving means which is relatively easy and inexpensive to produce.

Preferably, each bollard is slidably mounted on the plate member.

The advantage of this feature of the invention is that it permits the positioning of the bollards to be varied to accommodate different sizes and numbers of glasses on a tray.

In a further embodiment of the invention, the tray comprises a saucer holding means. Preferably, the saucer holding means is provided by a saucer holding recess extending into the top surface of the plate member. In one embodiment of the invention, the saucer holding recess co-incides with the notepad holding recess forming the notepad support and merges therewith.

The advantage of providing a saucer holding means on the tray is that it provides means for carrying a saucer and/or a cup and saucer on the tray which substantially reduces the possibility of the saucer being dislodged from the tray. Where the saucer holding means is provided by a recess, a particular advantage is achieved in that the saucer is held relatively stable on the tray, while at the same time, the saucer can readily easily be gripped by the peripheral edge of the saucer for removal. Where the saucer holding recess is provided co-inciding with the pad support surface formed by the pad holding recess, a particular advantage is achieved in that the available space on the tray is utilised to advantage.

Additionally, the invention comprises a tray comprising a plate member having a top surface and a bottom surface, a peripheral wall extending upwardly from the top surface of the plate member, a plurality of recesses of different sizes being formed by a plurality of intermediate walls extending upwardly from the plate member, the plate member forming the base of the recesses.

The advantage of a tray having a plurality of recesses of different sizes is that it permits different articles to be accommodated on the tray and prevents the articles sliding on the tray.

Preferably, each recess is formed partly by the peripheral wall and partly by an intermediate wall, and advantageously, the plate member is of rectangular shape, a first recess being formed by one side of the peripheral wall and portion of an end of the peripheral wall and the intermediate wall.

The advantage of this feature of the invention is that it provides a tray which is relatively easy and inexpensive to produce and also a tray which is convenient and easy to use.

The invention will be more clearly understood from the following description of some preferred embodiments thereof, given by way of example only, with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view of a tray according to the invention,

Fig. 2 is an underneath perspective view of the tray of Fig. 1,

Fig. 3 is a plan view of the tray of Fig. 1,

Fig. 4 is a cross sectional elevational view of

the tray of Fig. 1 on the line IV-IV of Fig. 3,

Fig. 5 is a sectional end elevational view of the tray of Fig. 1 on the line V-V of Fig. 3,

Fig. 6 is a sectional front elevational view of the tray of Fig. 1 on the lines VI-VI of Fig. 3,

Fig. 7 is a sectional end elevational view of the tray of Fig. 1 on the line VII-VII of Fig. 3,

Fig. 8 is a perspective view of a detail of the tray of Fig. 1,

Fig. 9 is a perspective view of a tray according to another embodiment of the invention,

Fig. 10 is a perspective view of a tray according to a further embodiment of the invention,

Fig. 11 is a perspective view of a tray according to a still further embodiment of the invention,

Fig. 12 is a perspective view of a tray according to a still further embodiment of the invention,

Fig. 13 is a perspective view of a tray according to a still further embodiment of the invention,

Fig. 14 is a perspective view of a tray according to a still further embodiment of the invention,

Fig. 15 is a plan view of the tray of Fig. 14,

Fig. 16 is a sectional side view of the tray of Fig. 14 on the line XVI-XVI of Fig. 15,

Fig. 17 is a sectional perspective view of a detail of the tray of Fig. 14,

Fig. 18 is a plan view of a tray according to another embodiment of the invention,

Fig. 19 is a sectional elevational view of the tray of Fig. 18 on the line XIX-XIX of Fig. 18,

Fig. 20 is a perspective view of a tray also according to the invention, and

Fig. 21 is a cross sectional end elevational view of the tray of Fig. 20 on the line XXI-XXI of Fig. 20.

Referring to the drawings, and initially to Figs. 1 to 8 there is illustrated a tray according to the invention indicated generally by the reference numeral 1. The tray 1 is of plastics material and is integrally formed in one piece by a vacuum forming process. The tray 1 is adapted so that like empty trays can be nested one within the other as will be described below. The tray 1 comprises a plate member 2 of substantially rectangular shape having a top surface 3 and a bottom surface 4. A plurality of glass holding means for holding glasses steady on the tray and preventing them from sliding are provided by nine glass holding recesses 8 formed in the plate member 2 which extend from the top surface 3 of the plate member 2. The glass holding recesses 8 are described in more detail below. A pad supporting means for supporting a notepad 9 is provided by a relatively flat pad supporting surface 10, see Fig. 1. The pad supporting surface 10 is described in more detail below. A change holding means for holding change is provided by a discrete change holding recess 12 also formed in the plate member 2 and extending from the top surface 3 of the plate member 2.

A peripheral side wall 5 extends around and downwardly from the periphery of the plate member 2 and comprises a pair of opposite side walls 6 and end walls 7. The respective side walls 6 and end walls 7 diverge from each other from the plate member 2 to permit like empty trays to be nested one within the other.

The change holding recess 12 is of rectangular shape and is formed by side and end walls 14 and 15 respectively which extend downwardly from the plate member 2 and terminate in a base 16. The side and end walls 14 and 15 and the base 16 which form the change holding recess 12 also form a protuberance 17 extending from the bottom surface 4 of the plate member 2. The side and end walls 14 and 15 extend in a generally converging direction from the plate member 2 so that the protuberance 17 of one tray can engage the change holding recess 12 of another tray to permit like empty trays to be nested one within the other.

The notepad supporting surface 10 is formed by a base 21 of a shallow recess 22. The surface 10 is of substantially rectangular shape, and an end wall 23 and side walls 24 extend from the plate member 2 to join the base portion 21 to the plate member 2. An end wall 25 also joins the plate member 2 and the base 21. The base 21, side walls 24 and end walls 23 and 25 form a protuberance 28 extending from the bottom surface 4 of the plate member 2. The side walls 24 converge from the plate member 2 to the base 21 as do the end walls 23 and 25 thereby permitting the protuberance 28 of one tray to nest in the recess 22 of another tray to permit like empty trays to be nested one within the other. As can be seen, the slope of the end wall 25 is substantially less than the slope of the end wall 23. The notepad 9 is bonded by a releasable adhesive to the end wall 25.

Returning now to the glass holding recesses 8, the glass holding recesses 8 are arranged in groups 29 of three, and each recess 8 is formed by portion 30 of a circular wall 31 which extends from the plate member 2 and terminates in a base 33. Adjacent recesses 8 of the groups 29 are separated by a dividing wall 35 of double leaf construction formed by spaced apart leaves 36 joined by a top cross wall 37. Each leaf 36 extends upwardly from a base 33 of an adjacent glass holding recess 8 to a position intermediate the base 33 and top surface 3 of the plate member 2. The portions 30 of the circular wall 31 and the leaf 36 of the dividing wall 35 forming each recess 8 form a protuberance 40 corresponding to the recess 8.

The portions 30 of the circular walls 31 and the adjacent leaf 36 extend downwardly in a generally converging direction so that each protuberance 40 can engage a corresponding glass holding recess 8 of another tray to permit like empty trays to be nested one within the other.

A wall 42 also of double leaf construction having a pair of spaced apart leaves 43 joined by a top cross wall 44 extends from the top surface 3 of the plate member 2 to divide portion 45 of the plate member 2 which comprises the glass holding recesses 8 from portion 46 of the plate member 2 which comprises the pad supporting surface 10 and the change holding recess 12 to minimise the possibility of spilt drink seeping into the change holding recess 12 and the pad supporting surface 10. The leaves 43 of the top wall 42 extend in a generally upwardly converging direction from the top surface 3 and define with each other a recess 47 from the bottom surface 4 so that the wall 42 of one tray can engage a corresponding recess 47 of another tray to permit like empty trays to be nested one within the other.

Handles are formed in the end walls 7 of the wall 5 by hand grip openings 49. A portion 50 extends outwardly of the end walls 7 extend outwardly to form the hand grip. The ends of the side and end wall 6 and 7 extend slightly outwardly at 51 for strengthening the wall 5. Two holes 52 are formed in the end walls 7 at each end of the handle opening 49 for securing a harness or other suitable strap arrangement to the tray to permit the tray to be supported on a strap worn around a person's neck.

In this particular embodiment of the invention, the glass holding recesses 8 are of shape and size to accommodate the lower portion of a one pint size glass, and as can be seen in the drawings, each glass holding recess 8 substantially defines a lower portion of a one pint size glass (not shown).

In use, glasses are carried in the glass holding recess 8. Change is carried in the change holding recess 12 and a pad 9 as already described is bonded on the end wall 25 of the pad supporting recess 22 by a suitable releasable adhesive. A barmaid or barman carries the tray 1 by the handle openings 49. A barman or barmaid while holding the tray in one hand can write details of an order on the notepad 9 with the other hand. Likewise, while holding the tray in one hand, change can be selected from the change holding recess 12.

Alternatively, the tray 1 may be connected to a harness (not shown) by securing the harness to the end walls 7 using the holes 52. In which case, the harness would be worn around the barman or barmaid's neck, and the tray accordingly supported.

Referring now to Fig. 9 there is illustrated a tray 55 according to another embodiment of the invention. The tray 55 is substantially similar to the tray 1 of Figs. 1 to 8 and similar components are identified by the same reference numeral. The main difference between this tray 55 and the tray 1 is that four glass holding recesses 56 extend from the pad supporting surface 10 in the recess 22. The recesses 56 are of circular shape and are formed by circular side walls 57 which converge downwardly towards a base 58. The side walls 57 and base 58 of each recess 56 forms a protuberance (not shown) which extends from the bottom surface 4 of the plate member 2. Each protuberance (not shown) can nest into corresponding recesses 56 of another like empty tray to permit nesting of like empty trays in similar fashion to that already described with reference to the tray 1 of Figs. 1 to 8. The benefit of providing the additional glass holding recesses 56 in the pad holding surface 10 is that if one wishes, they may use the pad holding surface 10 for holding a notepad 9, or alternatively for carrying glasses in the recesses 56 as desired. Use of this tray is identical to the tray 1.

Referring now to Fig. 10 there is illustrated a tray 60 according to another embodiment of the invention. The tray 60 is substantially similar to the tray 1 of Figs. 1 to 8 and similar components are identified by the same reference numeral. In this case, the tray 60 is of a slightly smaller size and comprises only four glass holding recesses 63 which are not formed in groups. The glass holding recesses 63 are each formed by a completely circular side wall 61 which converges towards a base 62. The side wall 61 and base 62 form protuberances (not shown) extending from the bottom surface 4 of the plate member 2 which engage corresponding recesses 63 in another like tray to permit like empty trays to nest, as already been described with reference to the tray 1 of Figs. 1 to 8.

Additionally, the pad supporting surface 10 in the tray is not recessed, rather it is provided on the same level as the top surface 3 of the plate member 2. Three glass holding recesses 64 extend into the pad supporting surface 10 in substantially similar fashion as the recesses 56 extend into the pad supporting surface 10 of the tray 55. The recesses 64 are formed by side walls 65 which converge downwardly from the plate member 2 to a base 66. The side wall 65 and base 66 of each recess 63 form a protuberance (not shown) extending from the bottom surface 4 of the plate member 2 which nests into a corresponding recess 64 of a like empty tray for nesting purposes as already described. A wall 68 of similar construction to the wall 42 extends from the wall 42 between the pad supporting surface 10 and the change holding recess 12. In this particular embodiment of the inven-

tion, the recesses 63 are of size suitable for engaging the lower portion of a one pint size glass. The recesses 64 are suitable for smaller glasses.

Referring now to Fig. 11 there is illustrated a tray 70 according to a further embodiment of the invention. The tray 70 is substantially similar to the tray 1 of Figs. 1 to 8 and similar components are identified by the same reference numeral. The main difference between the tray and the tray 1 is that two change holding recesses 12 are provided, and the glass holding recesses 8 are arranged in two groups 29, each group 29 having five recesses 8. The pad supporting surface 10 has been dispensed with, although if desired surfaces 71 of the plate member 2 may be used for supporting a notepad. Indeed, it is envisaged in certain cases that one of the change holding recesses 12 may be used for other purposes than for holding change. For example, it may be used for holding other items which a customer may require, such as for example peanuts, crisps and the like. Otherwise, use of this tray is identical to the use of the tray 1 of Figs. 1 to 8.

Referring now to Fig. 12 there is illustrated a tray 75 according to a still further embodiment of the invention. This tray 75 is substantially similar to the tray 1 of Figs. 1 to 8 and similar components are identified by the same reference numeral. The main difference between this tray 75 and the tray 1 is that the plate member 2 is of circular shape. One group 29 comprising seven glass holding recesses 8 are arranged around the plate member 2. The cash holding recess 12 is provided between the end glass holding recesses 8 of the group 29. Also in this embodiment of the invention, the pad holding surface is not recessed, however, in similar fashion to the tray 55 glass holding recesses, in this case three glass holding recesses 76 extend into the pad holding surface for holding smaller glasses than the glass holding recesses 8. The glass holding recesses 76 are substantially identical to the glass holding recesses 56 of the tray 55, and the recesses 76 form protuberances (not shown) which engage corresponding recesses 76 of another like tray to permit nesting of like empty trays one within the other.

Otherwise, use of this tray is identical to that of the tray 1.

Referring now to Fig. 13 there is illustrated a tray 80 according to a still further embodiment of the invention. The tray 80 is substantially similar to the tray 1 of Figs. 1 to 8, and similar components are identified by the same reference numeral. In this case, the plate member 2 of the tray 80 is circular and a single group 29 of glass holding recesses 8 for holding glasses of one pint size are provided. The pad holding surface 10 has been dispensed with. Three change holding recesses 12 are provided. Otherwise, use of this tray is identical to the tray 1. In practice, it is envisaged that two of the change holding recesses 12 will be used for other purposes besides holding change, for example for carrying other items which a customer may require, such as, for example, peanuts, crisps and the like.

Referring now to Figs. 14 to 16, there is illustrated a tray 110 according to a still further embodiment of the invention. The tray 110 is somewhat similar to the tray 1 of Figs. 1 to 8 and similar components are identified by the same reference numeral. The main difference between the tray 110 and the tray 1 is in the portion 45 of the plate member. The portion 45 is formed by a plate member 112 which is recessed and which is joined to the plate member 2 by side and end walls 114 and 115 respectively. The plate member 112 and side and end walls 114 and 115 form a protuberance 117 extending from the bottom surface 4 of the plate member 2. The side and end walls 114 and 115 respectively converge towards the plate member 112 to permit the protuberance 117 to nest in a corresponding recess 118 formed by the side and end walls 114, 115 and the plate member 112 so that like empty trays 110 nest one within the other. In this embodiment of the invention, glass holding means are provided by a plurality of bollards 120 which are slidably mounted in tracks 121 formed in the plate member 112, see Fig. 17. Each bollard 120 is secured to the plate member 112 by a corresponding screw 122 held captive in and slidable in tracks 121 of inverted T-shaped cross-section. Each screw 122 comprises a head 124 of square shape for keying the screw 122 in the track 121 to prevent rotation of the screw 122. A threaded bore 125 in each bollard 120 receives the screw. By loosening a bollard 120 on a screw 122, the bollard and screw combination may be moved along the tracks 121 and may be moved from one track 121 to another track 121 to permit the bollards 120 to be located in desired locations to accommodate different sizes of glass.

Fig. 15 illustrates one arrangement of the bollards 120 on the tray 110 retaining glasses the outline of which is indicated by broken lines 127.

In use, the bollards 120 are loosened on the screws 122 and are moved along the tracks 121 to the desired locations for engaging glasses to be carried on the tray to prevent the glasses sliding thereon. The bollards 120 are then tightened on the screws 122 and the tray is ready for use. Needless to say, if one wishes to carry glasses of different sizes, then the positioning of the bollards may be readjusted to accommodate different sizes and positioning of glasses. A notepad 9 is carried on the notepad support surface 10 and change is carried in the change holding recess 12.

While in this embodiment of the invention, the tray 110 has been described as comprising a plurality of bollards 120 which are slidably mounted in tracks 121, it is envisaged in many cases that trays substantially similar to the tray 110 may be provided with bollards integrally injection moulded with the plate member 112. In which case, the bollards would be fixed in position on the tray.

Referring now to Figs. 18 and 19, there is illustrated a tray 130 according to another embodiment of the invention. The tray 130 is substantially similar to the tray 1 of Figs. 1 to 8 and similar components are identified by the same reference numeral. In this case, the tray 130 comprises a saucer holding means which is provided by a saucer holding recess 131. The saucer holding recess is formed in the top surface 3 of the plate member 2 on the side 46 of the wall 42 and coincides with the recess 22 which forms the notepad supporting surface 10. The saucer holding recess 131 is formed by two concave portions 132 which merge into the recess 22 to form in combination with portion of the recess 22 the saucer holding recess 131. Accordingly, in use a pad may be supported on the notepad supporting surface 10, or alternatively, if desired, the notepad may be removed from the surface 10 and a saucer placed in the saucer holding recess 131.

The advantage of providing a saucer holding recess 131 in the tray 130 is that it permits a cup and saucer to be carried on the tray, and the possibility of the saucer being dislodged from the tray is substantially reduced. Indeed, it will be appreciated that while the saucer holding recess 131 has been provided in combination with the notepad supporting recess 22, the saucer holding recess could be provided in any other suitable location on the tray, and may if desired be provided on its own separately from other holding and supporting means, or in combination with holding and supporting means. Indeed, it is envisaged in certain cases that a curved or circular or partly circular wall similar to the wall 42 may be provided around the saucer holding recess 131 or instead of the saucer holding recess 131 for holding a saucer on the tray. Needless to say, where a wall similar to the wall 42 is used, the wall may be provided in any other suitable location on the tray.

Referring now to Figs. 20 and 21 there is illustrated a tray 85 also according to the invention. The tray 85 is of plastics material formed by vacuum moulding and comprises a substantially rectangular plate member 86 having a top surface 83 and a bottom surface 84. The plate member 86 forms a base 87. A peripheral wall 88 extends upwardly from and around the periphery of the plate member 86 and comprises a pair of side walls 89 joined by end walls 90. The side and end walls 89 and 90 are of double leaf construction formed by a pair of spaced apart leaves 91 and 92 joined by a top cross wall 93. The leaves 91 extend upwardly from the plate member 86 and both leaves 91 and 92 diverge in a generally downward direction from the top wall 93 to permit like empty trays 85 to be nested one within the other. Five recesses 94 to 98 of different size and shape are formed by intermediate walls 99 to 101 of arcuate shape, and an intermediate wall 102. The base 87 formed by the plate member 86 acts as a base for each of the five recesses 94 to 98. The recess 94, namely a first recess 94 is a relatively large recess for receiving a plate or other relatively large item. This recess 94 is formed by one of the side walls 89 and part of an end wall 90 and the intermediate wall 99. Two second recesses 95 and 96 of different size but of substantially similar shape are formed by portions of a side and end wall 89 and 90 and the intermediate walls 100 and 101 respectively. As can be seen, the second recesses 95 and 96 are provided in opposite corners of the tray 85. It is envisaged that the second recess 95 would normally be used for carrying a glass while the second recess 96 may be used for carrying a cup and saucer or the like. The recess 97, namely, a third recess 97, is for carrying cutlery and is formed by the intermediate wall 102 and portion of one of the side walls 89. The remaining recess 98 may be used for carrying other items as desired.

In this particular embodiment of the invention, the intermediate walls 99 to 102 are of double leaf construction having spaced apart leaves 104 which extend in a generally upward direction from the base 87 and converge towards a top cross wall 106. The leaves 104 and top wall 106 of the intermediate walls 99 to 102 each form a recess 107 extending from the bottom surface 84 of the plate member 86. Accordingly, intermediate walls 99 to 102 may engage corresponding recesses 107 respectively to permit like empty trays to nest one within the other.

Handle openings 108 are provided in the leaves 92 of the end walls 90 for carrying the tray 85 similar to the handle openings 49 in the tray 1.

In use, articles are placed in the recesses 94 to 98 as desired and the tray is carried by gripping the leaves 92 of the end walls 90 at the handle openings 108.

The trays according to the invention have many advantages over known trays. In particular, the trays of Figs. 1 to 19 have a very important advantage over known trays in that each tray comprises as well as glass holding means change holding recesses. This is a particularly important advantage in that it permits one to readily easily carry change on a tray and keep it in a discrete location where it doesn't get mixed up with the

glasses, and further where it may be kept dry away from the danger of drink being spilt thereon.

A further advantage of the invention is achieved where the trays according to the invention comprise a pad supporting surface. This is particularly important in that it facilitates easy notetaking, for example, ease of recording a customer's order or the like.

The tray of Figs. 20 and 21 also provides a significant advantages over known trays in that the tray of Figs. 20 and 21 comprises a plurality of recesses for holding different sizes and shapes of articles. Indeed, in many cases, it is envisaged that one of the recesses may be used for holding change, for example the recess 95.

While the trays have been described as being of plastics material formed by a vacuum moulding process, the trays could be formed by any other process and indeed could be of any other suitable material. In fact, it is envisaged that the trays may be formed by an injection moulding process and may be of any suitable plastics material, for example polypropylene, polystyrene or the like. Indeed, it is envisaged that while the trays described are suitable for forming by a plastics injection moulding process, it is envisaged that the tray of Figs. 14 to 17 would be particularly suitable for injection moulding, whether moulded with the bollards in fixed positions, or moulded with tracks to receive the bollards and screws.

It is also envisaged that the trays may be constructed of sheet metal and may be fabricated, pressed or formed by any other construction method.

Further, it will be appreciated that while particular numbers, sizes and shapes of glass holding recesses have been described, any other number, shape or size of glass holding recess could be provided. Similarly, other shapes and sizes of change holding recesses could be used without departing from the scope of the invention. Indeed, any number of change holding recesses may be provided. It is envisaged in certain cases that a change holding recess with further recesses for segregating coins of different denomination may be used. Additionally, it is envisaged that other suitable glass holding means besides recesses and bollards could be used without departing from the scope of the invention.

Needless to say, it will be appreciated that glass holding recesses of any other shape and size may be used without departing from the scope of the invention. Similarly, bollards of other shape and size may be used. Indeed, where bollards are used, it is envisaged that if desired they may be provided directly on the plate member 2, in other words the recess formed by the plate member 112 and the walls 114 and 115 would be omitted. Further, it is envisaged that where the bollards are slidably mounted, any other suitable slidable mounting means besides the tracks illustrated and described may be used. Indeed, any other suitable form of tracks or sliding means may be used to slidably support the bollards without departing from the scope of the invention. It is also envisaged that more or less tracks may be provided, and in certain cases, it is envisaged that the tracks may be equi-spaced or spaced at different distances than those described. Indeed, in certain cases, it is envisaged that only longitudinal tracks may be provided, or on the other hand, only transverse tracks may be provided.

Alternatively, it is envisaged that the glass holding means may be provided by apertures or openings formed in the plate member to receive glasses. Indeed, in certain cases, it is envisaged that the tray may be formed by two spaced apart plate members, one plate member comprising a plurality of openings forming glass holding means, and the second plate member being provided beneath the plate member with the openings to receive the base of the glasses.

Needless to say, where the glass holding means are provided by recesses, openings could be provided in the bottom of the recesses if desired. Such openings may be used for draining away spilt drink or the like.

It is further envisaged that other suitable change holding means besides change holding recesses could be provided. Additionally, it is envisaged that other suitable pad supporting means besides a relatively flat surface may be used without departing from the scope of the invention.

While it is advantageous that the trays should nest when empty, this is not essential, and it will therefore be appreciated that it is not necessary in all cases for the side walls forming the various recesses to converge downwardly, and needless to say, it is envisaged that the protuberances extending from the plate member may be dispensed with, for example, this may arise if the recesses were formed in a plate member of relatively thick material, and protuberances accommodating the recesses would not be necessary.

Other suitable handle means may be used, and indeed, the handle openings may be dispensed with altogether. Further, other means of engaging a strap or harness may be used, and indeed the strap or harness engaging means may be dispensed with altogether if desired.

Further, while the glass holding means have been described for holding glasses, they could also be used for holding bottles, cups or any other containers as desired. Further, it will be appreciated that while the glass holding recesses have been described as being of particular sizes, they

may be of any other shape and size. In general, it is envisaged that they will substantially define the outer surface of the lower portion of a glass, bottle, cup or other container which they are intended to hold. Indeed, it is envisaged that some of the smaller recesses, particularly those extending into the pad supporting surface would be ideally suited for holding bottles of soft drink mixers. In which cases, it is envisaged that the circular wall will converge at a relatively small angle to the vertical just sufficient to enable the trays to nest, while at the same time substantially defining the outer surface of the lower portion of such a bottle.

Claims

1. A tray of the type for carrying glasses, bottles and the like characterised in that the tray comprises a plurality of glass holding means (8) and a discrete change holding means (12).

2. A tray as claimed in Claim 1 characterised in that the tray (1) comprises a plate member (2) having a top surface (3) and a bottom surface (4), the change holding means (12) being formed by a change holding recess (12) extending from the top surface (3) of the plate member (2).

3. A tray as claimed in Claim 2 characterised in that the change holding recess (12) is of substantially rectangular shape, and is formed by side and end walls (14) and (15) extending from the plate member (2) in a generally converging direction to a base (16).

4. A tray as claimed in Claim 2 or 3 characterised in that a protuberance (17) corresponding to the change holding recess (12) extends from the bottom surface (4) of the plate member (2), the outer surfaces of the protuberance (17) being adapted to engage the change holding recess (12) of another tray (1) to permit like empty trays (1) to be nested one within the other.

5. A tray as claimed in any preceding claim characterised in that the tray (1) comprises a pad supporting means (10) for supporting a notepad (9).

6. A tray as claimed in any of Claims 2 to 4 in which each glass holdings means (8) is provided by a glass holding recess (8) extending from the top surface (3) of the plate member (2), each glass holding recess (8) being formed by at least portion (30) of a circular side wall (31), the circular side wall (31) extending from the plate member (2) in a generally converging direction to terminate in a base (33).

7. A tray as claimed in Claim 6 characterised in that a protuberance (40) corresponding to each glass holding recess (8) extends from the bottom surface (3) of the plate member (2), each protuberance (40) being adapted to engage a corresponding glass holding recess (8) of another tray (1) to permit like empty trays (1) to be nested one within the other.

8. A tray as claimed in Claim 6 or 7 characterised in that the glass holding recesses (8) are provided in groups (29) of at least two glass holding recesses (8), adjacent glass holding recesses (8) of each group (29) being separated from each other by a dividing wall (35) extending from the base (33) of each recess (8) to a position intermediate the base (33) and the top surface (3) of the plate member (2), each dividing wall (35) being of double leaf construction having a pair of spaced apart leaves (36), each leaf (36) extending upwardly from the base (33) of an adjacent glass holding recess (8) and the leaves (36) of each dividing wall (35) being joined by a top cross wall (37).

9. A tray as claimed in any of Claims 2 to 5 characterised in that each glass holding means (8) is provided by a plurality of spaced apart bollards (20) extending upwardly from a top surface (3) of the plate member (2,112).

10. A tray comprising a plate member (86) have a top surface (83) and a bottom surface (84), a peripheral wall (88) extending upwardly from the top surface (83) of the plate member (86), a plurality of recesses (94,95,96,97,98) of different sizes being formed by a plurality of intermediate walls (99,100,101,102) extending upwardly from the plate member (86), the plate member (86) forming the base (87) of the recesses (94,95,96,97,98).

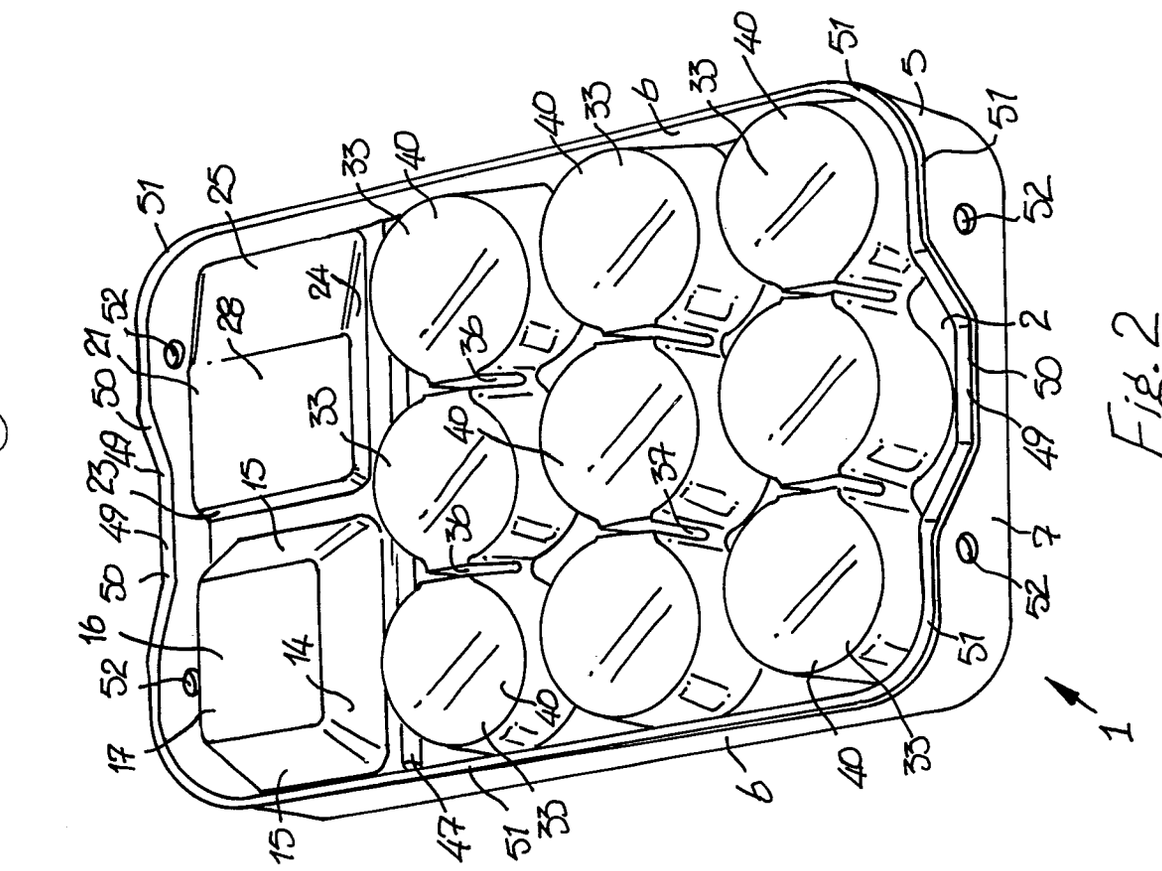

Fig. 2

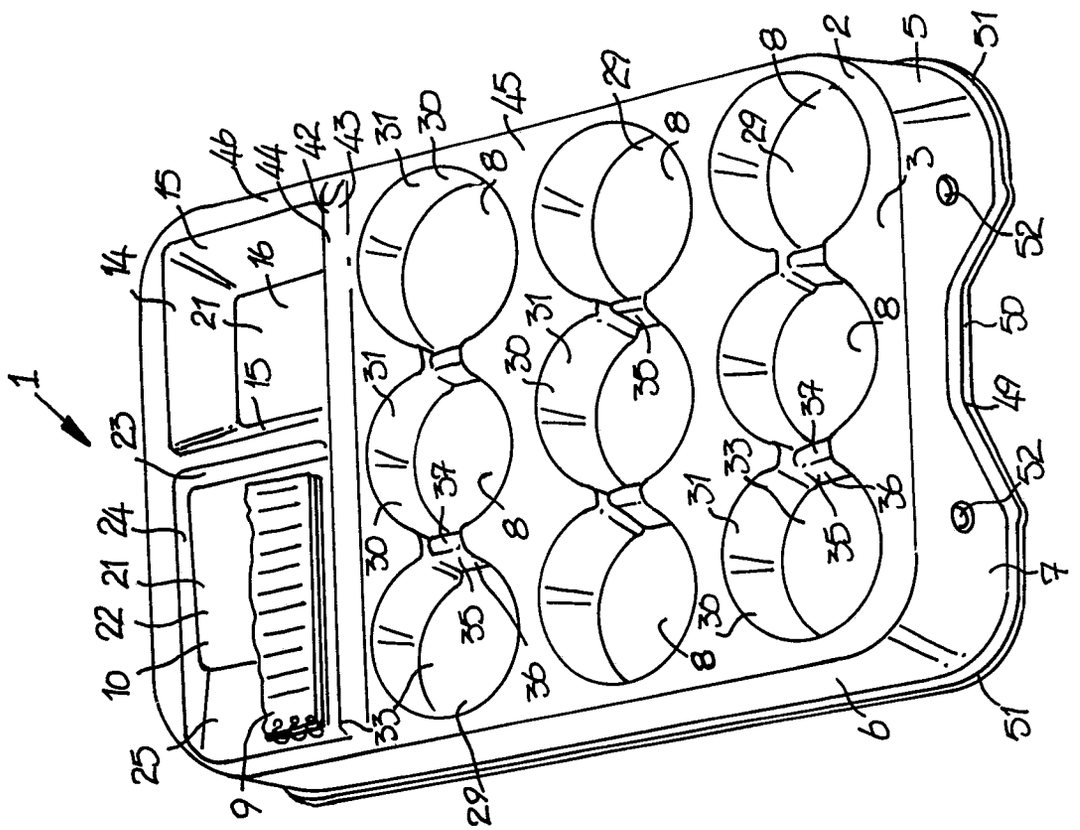

Fig. 1

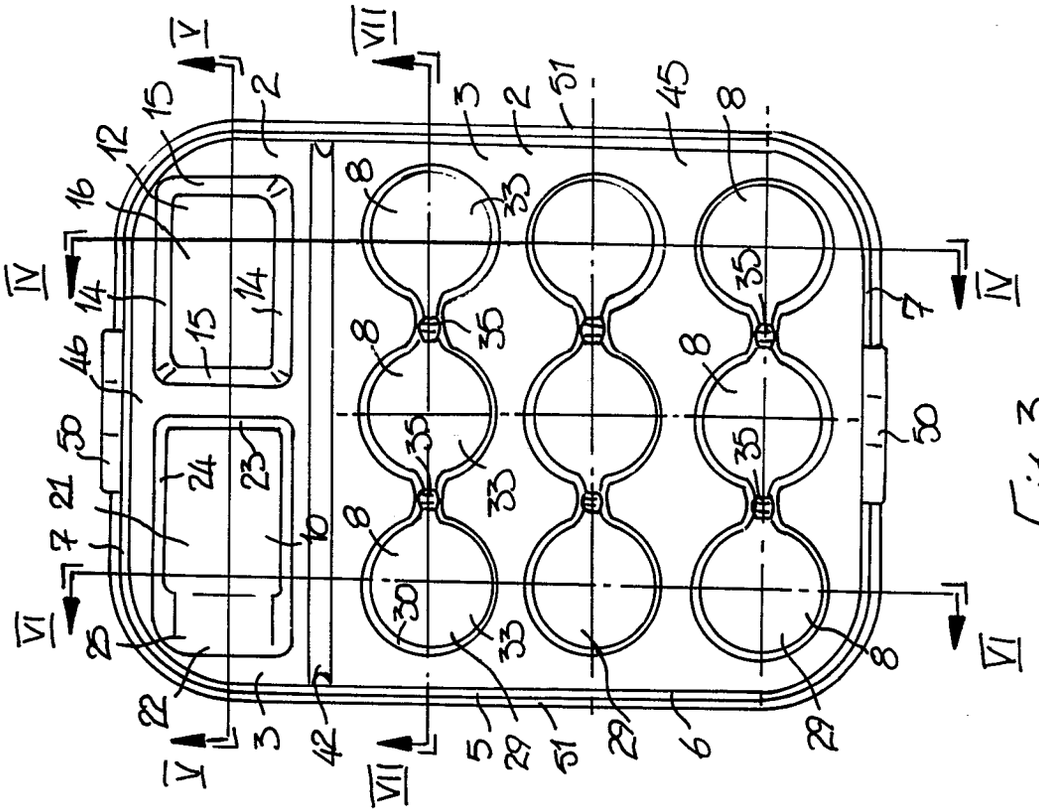

Fig. 3

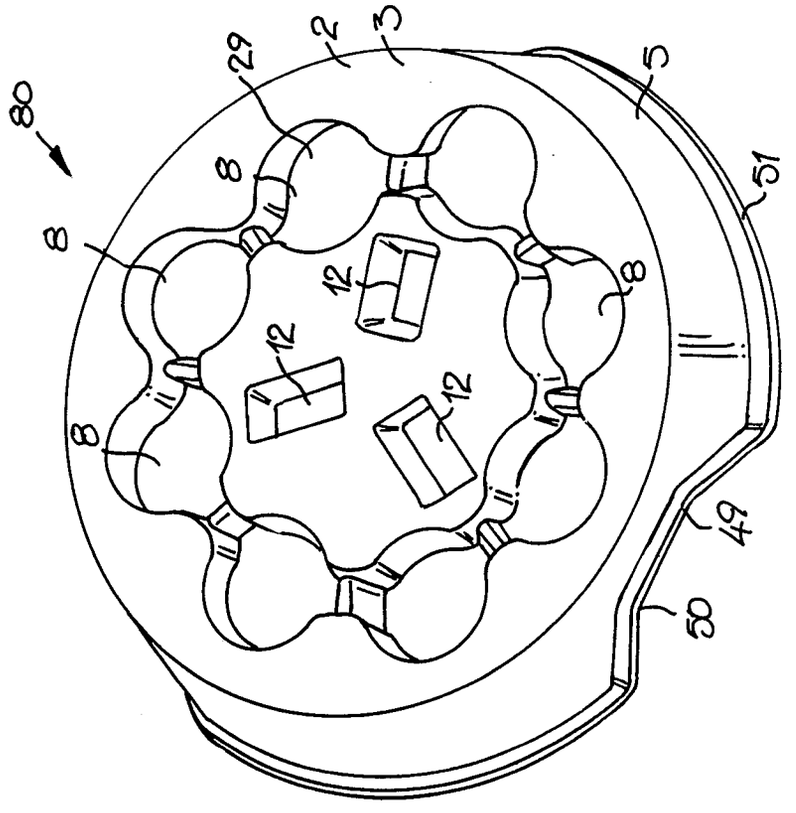

Fig. 13

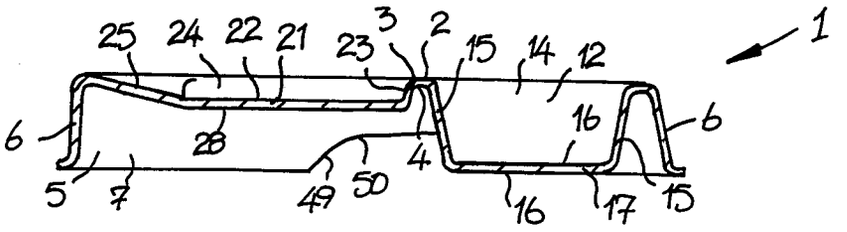

Fig. 5

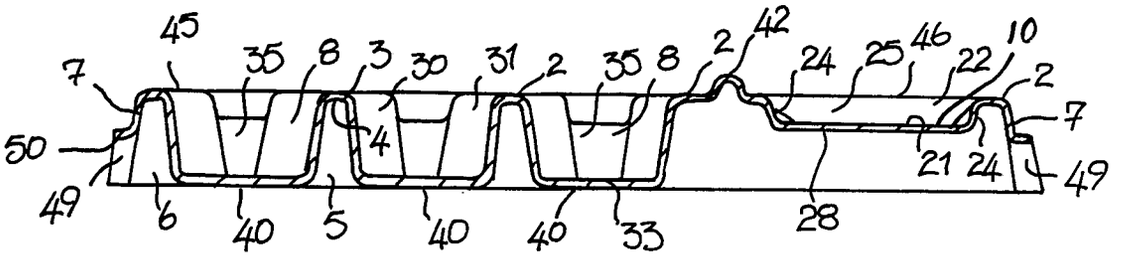

Fig. 6

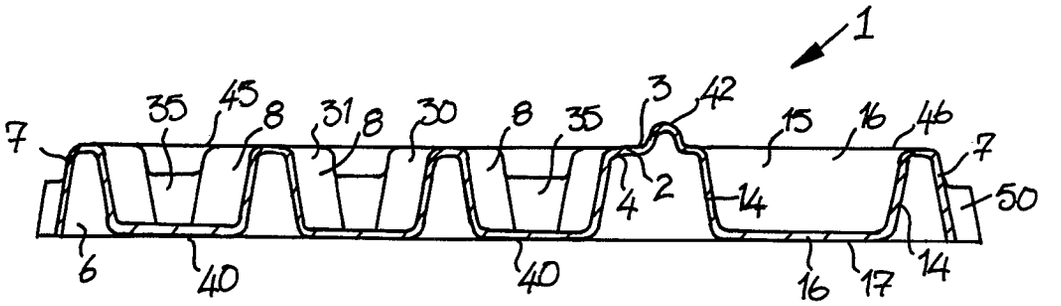

Fig. 4

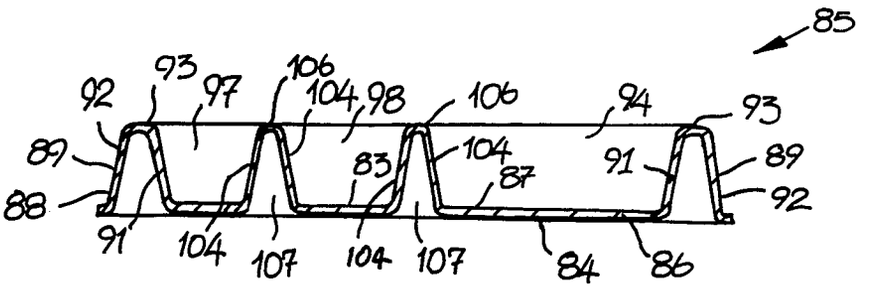

Fig. 21

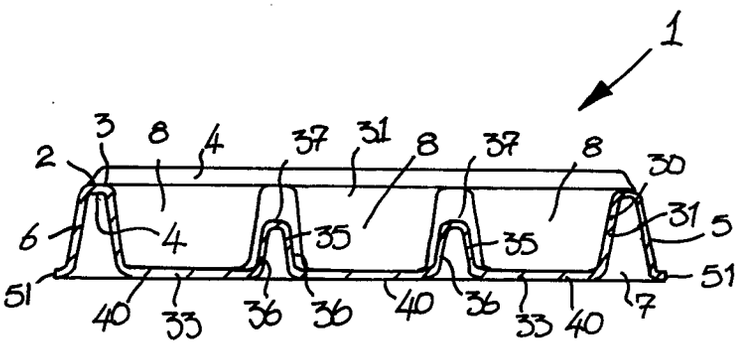

Fig. 7

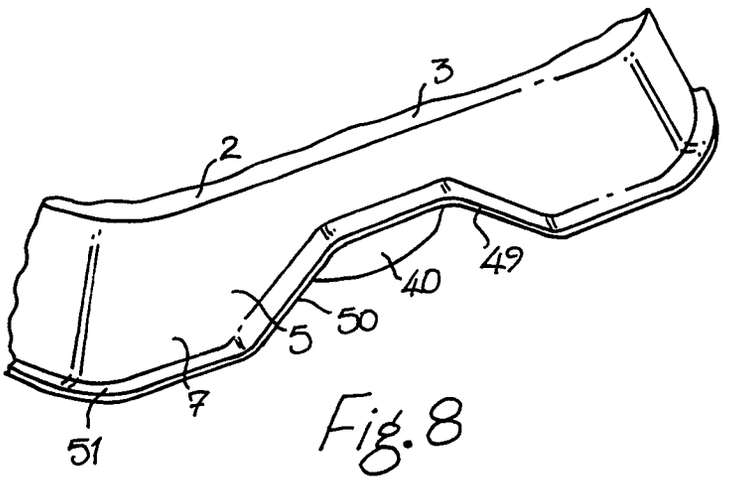

Fig. 8

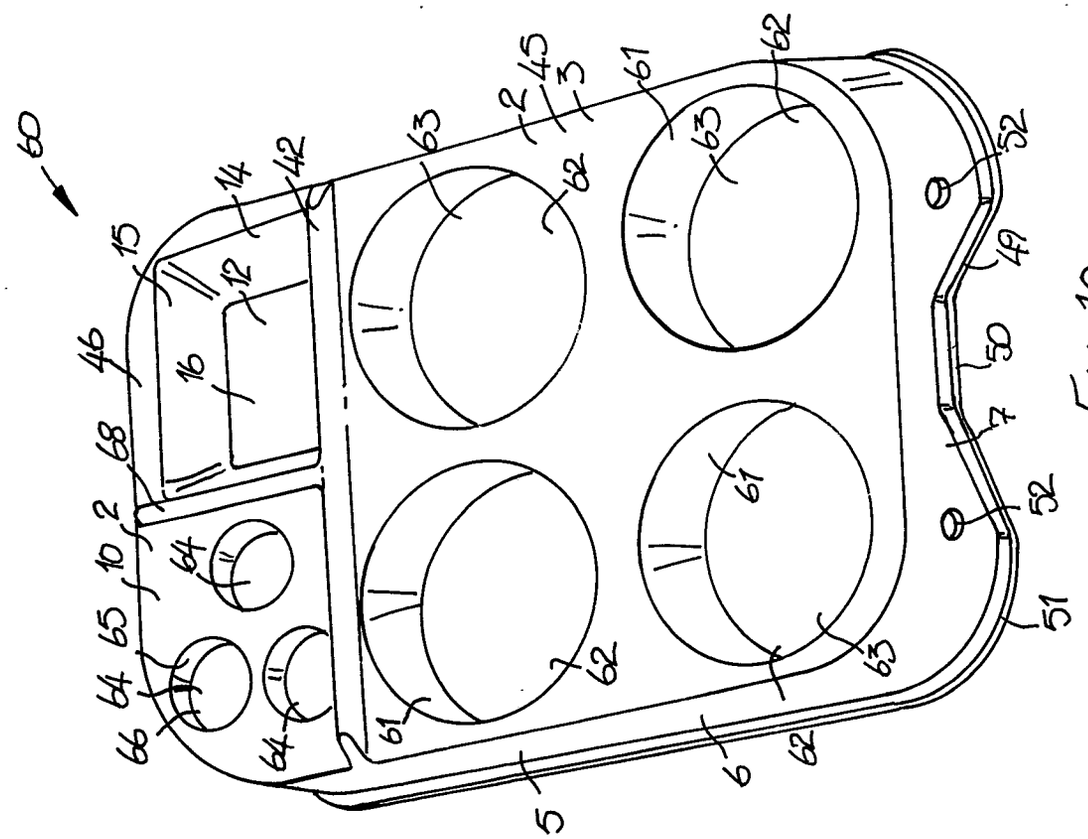

Fig. 10

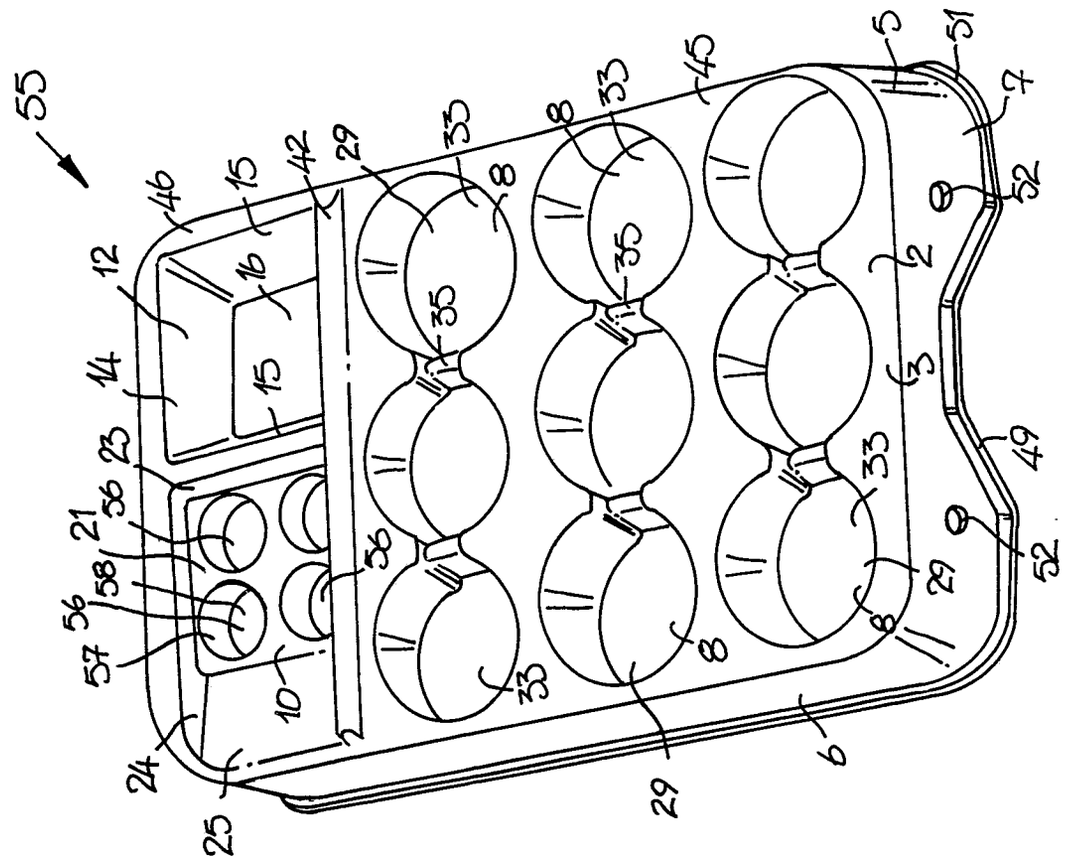

Fig. 9

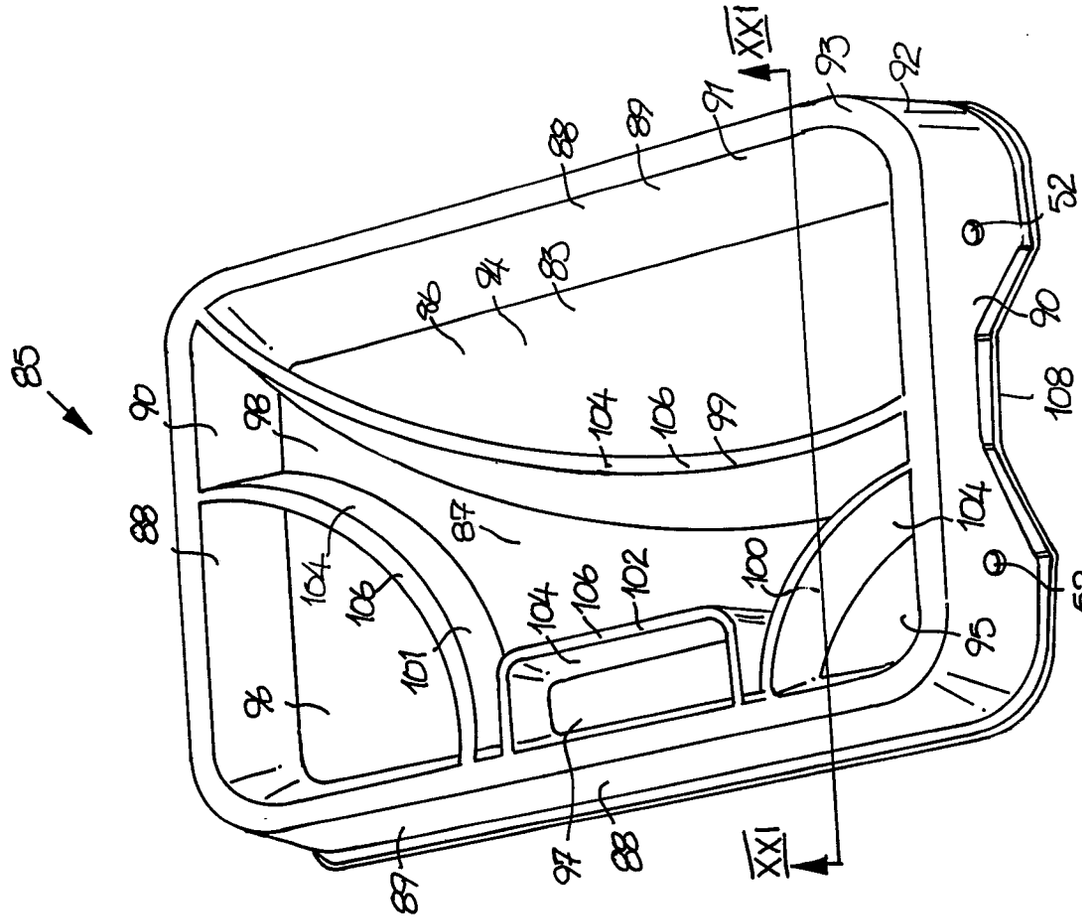

Fig. 20

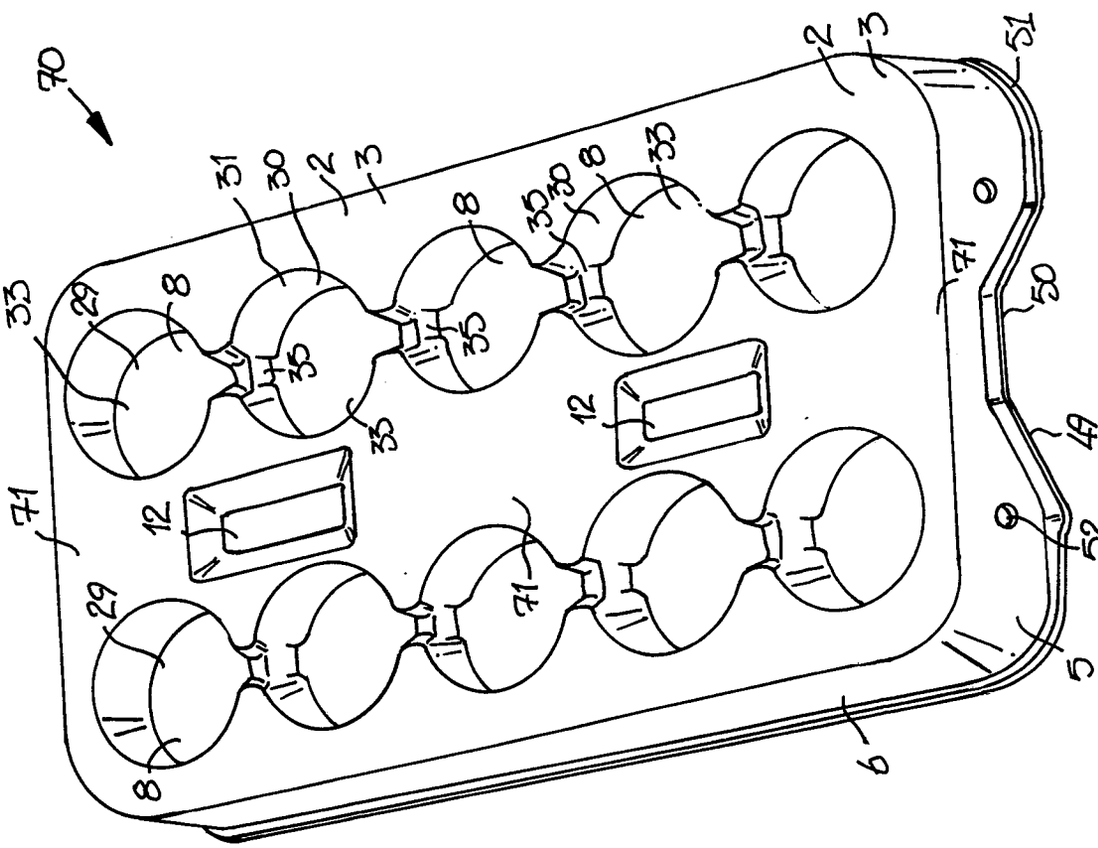

Fig. 11

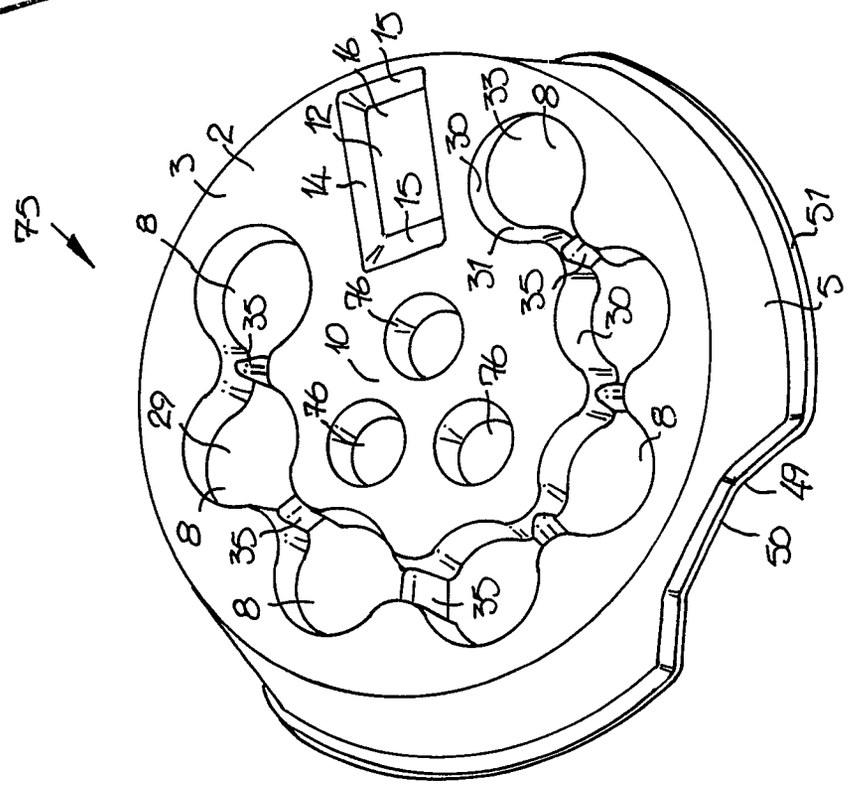

Fig. 12

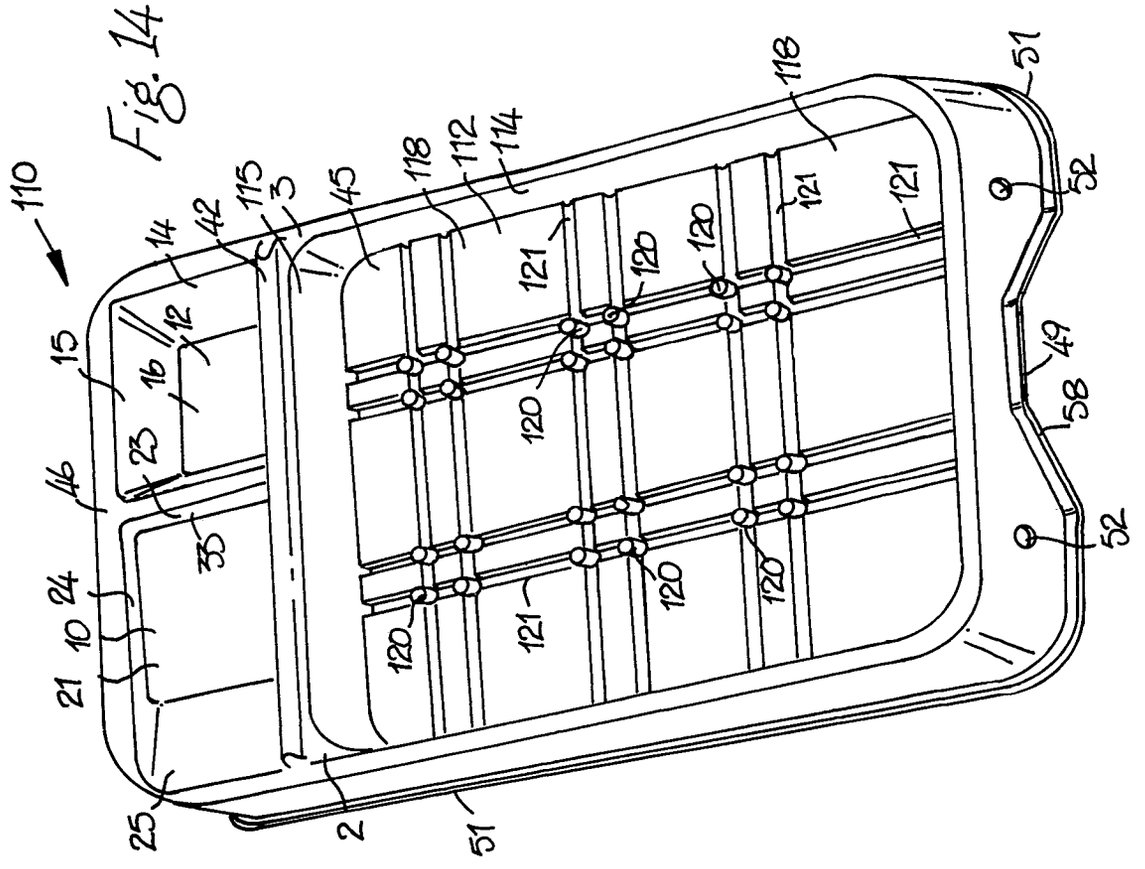

Fig. 14

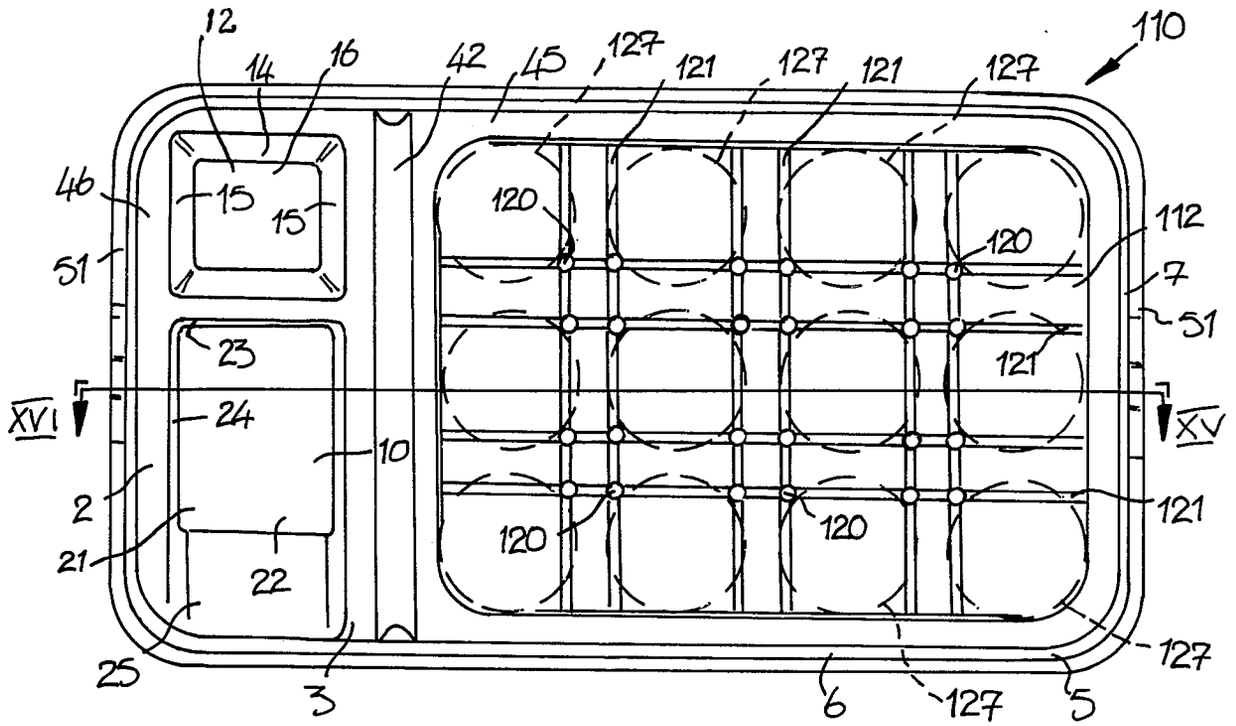

Fig. 15

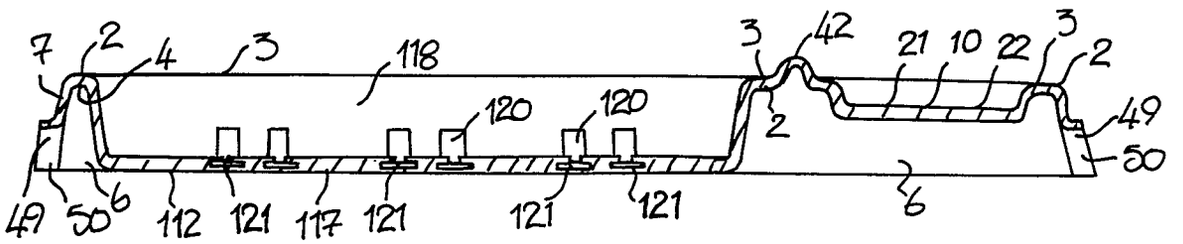

Fig. 16

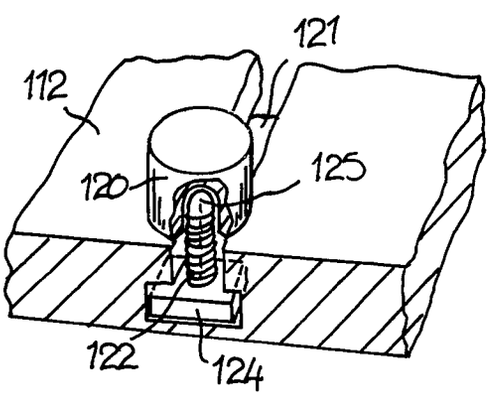

Fig. 17

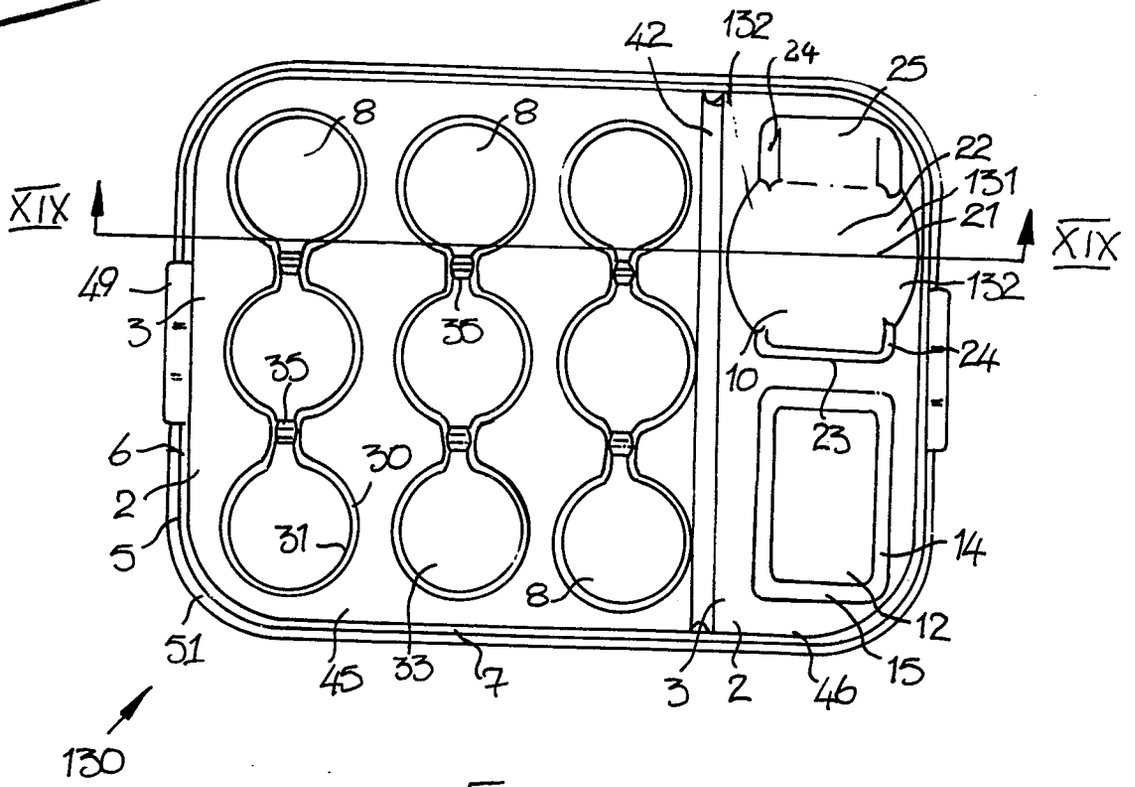

Fig. 18

Fig. 19