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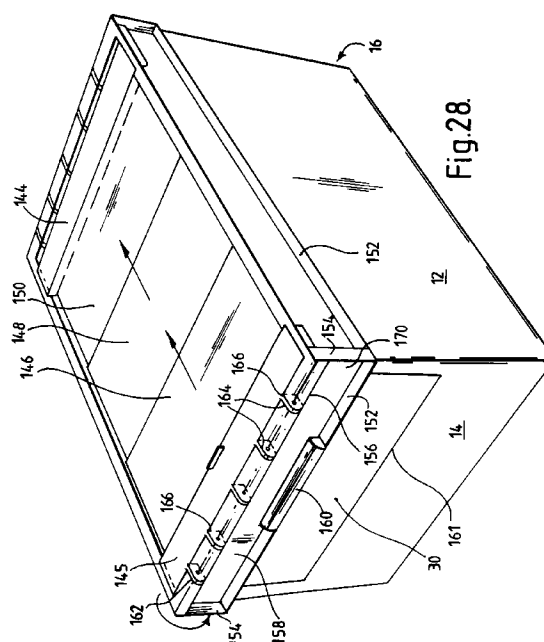
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(54) **A nestable container.**

(57) A nestable container 10 comprises a top flap which is arranged to lie over an opening in the container 10 into which a further identical container can be nested. The top flap is in three parts 146, 148, 150 which are arranged to slide into one another. The top flap is hingedly connected to an end wall 16 of the container 10 so that it can be hinged around to lie adjacent the end wall 16 of the container 10. By sliding of the parts 146, 148, 150, the length of the top flap is reduced so that it does not interfere with the nesting of the container 10 into another identical container. The container is of the type which nests in one orientation and stacks in another orientation. The container 10 includes a hinged access flap 30 in one end wall 14 to allow access to the interior of the container.



The invention relates to a nestable container.

Nestable containers are known. It is useful to be able to nest containers so that they take up less space when they are empty. Where a container includes a lid, when such containers are nested, the lids obviously must be pivoted out and tend to protrude a significant distance from the side of the container thus reducing the number of empty containers which can be stored in a given volume.

According to one aspect of the invention there is provided a nestable container comprising a top flap which is arranged to lie over an opening in the container into which a further identical container can be nested, the top flap being arranged to lie adjacent a side wall of the container such that it does not interfere with the nesting of the container into another identical container.

By arranging the top flap to lie adjacent a side wall of the container it does not protrude to a significant extent in the manner of prior containers and means that a more compact arrangement of nested containers can be provided.

Preferably the top flap lies parallel to the side wall of the container or vertically.

The top flap may be such that it can be manipulated to reduce the length over which it extends down the side of the container. The top flap may comprise two or more parts which are arranged to slide over one another to reduce the length of the top flap. In another embodiment, the top flap may include at least one hinge and may be arranged to fold at least once to reduce its length. The fold or the first fold preferably folds the top flap inwards in relation to the wall of the container. This arrangement is more compact. Preferably, where the top flap is longer than the height of the walls of the container, the top flap may be manipulated to reduce the length to less than the height of the walls of the container. Where the top flap is longer than the part of the height of the walls of the container which is not covered when the container is nested in another container, the top flap may be manipulable to reduce its length to less than that height. The top flap may comprise two or three manipulable parts in a preferred embodiment.

The container may be of the type which can stack on rather than nest in an identical container when rotated through 180° about a vertical axis. The container may nest to any suitable degree and may nest to half its height.

The top flap may be connected to the container in any suitable way. In one embodiment, the top flap is hingedly fixed to the top of a wall of the container. In another embodiment, the top flap is pivotally fixed to a slide element which is arranged such that the inner edge of the top flap can slide adjacent the side wall of the container. The top flap is conveniently pivotally mounted in a plastics snap-in mounting.

The top flap may cover the entire top opening. In

that case, the top flap is preferably provided on an end wall of the container. In another embodiment, two said top flaps may be provided to cover the container opening. In that case the top flaps are preferably provided on opposite walls preferably side walls.

The container may be symmetrical about a vertical plane.

Containers are known which are open topped and have a half-open front with the front end wall sloping. These known containers may be stackable. The open front allows access to the interior of the container even when it is stacked.

Another known container has upright walls of the same height and can be stacked or nested with another identical container depending upon the orientation of the containers. In one orientation the containers nest and in an alternative orientation in which one of the containers is rotated through 180° about a vertical axis, the containers will stack. There is no access to the interior of the containers when they are stacked normally. A plurality of the containers have been arranged with a base container on a sloping support and further containers stacked on it in a vertical column so that there is a gap between the front of a lower container and the front of an upper container providing access to the interior of the lower container. This arrangement may be unstable however and is not compact.

According to another aspect of the invention there is provided a nestable container including an access flap in a wall which is openable to allow access to the interior of the container.

Thus, by means of the invention a container which can be nested for compact storage is provided which also allows access via the access flap in a side wall to the interior of the container.

Preferably, a further identical container can be stacked on the container. Even in a stack then the interior of the container can be accessed through the access flap. Preferably, the container is of the type which nests in one orientation and stacks in another orientation in which the container has been rotated through 180° about a vertical axis.

An edge of the access flap may define an edge of the nesting opening of the container.

The access flap may be openable by hinging or may slide, or may hinge and slide. Where the access flap is hinged, it may be hinged at any orientation but conveniently is hinged horizontally. In particular where the container is of the stacking and nesting type, the hinge is preferably provided just above the level reached by the top of another similar container into which the container is nested. The hinge may be provided at substantially half the height of the container. The access flap may be hinged at its base to pivot downwardly. The access flap may extend over the majority of one half of the container wall and preferably extends over substantially the whole of one half

of the container wall. The access flap preferably extends between corner pillars of the container.

The access flap may be provided in any wall of the container and preferably is provided in an end wall of the container.

Preferably, the access flap is arranged to pivot to lie adjacent a container wall, preferably the same container wall to which it is pivotally attached. This provides a compact arrangement. In a preferred embodiment, the nestable container can nest with the access flap open. This is useful in situations where the access flap will only need to be closed occasionally and the access flap can be left open when the container is normally in use or nested for storage.

According to a further aspect of the invention there is provided a container according to both the previous aspects of the invention.

Where the access flap defines an edge of the nesting opening of the container, the access flap may include an extension which covers or partly covers the nesting opening of the container. The access flap may be connected to the wall of the container or may be connected to the top flap. The top flap is preferably connected to the opposite wall of the container from the wall in which the access flap is provided. Preferably the access flap is provided in an end wall and the top flap is connected to the opposite end wall. In this way a plurality of containers can be stacked and/or placed side by side to be filled or emptied through the access flap openings. As the containers are end-on, a greater number can be accessed, and as the top flaps lie adjacent the back walls of the containers they are out of the way and the containers can lie closely side-by-side.

Sixteen embodiments of the invention will now be described by way of example and with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view of a container in a first embodiment of the invention;

Fig. 2 is a side elevation half in section of the container of Fig. 1;

Fig. 3 is a partial top plan view and a partial base plan view of the container of Fig. 1;

Fig. 4 is an end elevation half in cross section of the container of Fig. 1;

Fig. 5 is a plan view of a folded lid flap for use with the container of Fig. 1;

Fig. 6 is a plan view of the access flap of the container of Fig. 1;

Fig. 7 is a perspective view of a container in a second embodiment of the invention which is similar to the first and in which the lid flaps and access flap are closed;

Fig. 8 is a perspective of the container of Fig. 7 with the access flap and the lid flaps open;

Fig. 9 is a perspective of a container in a third embodiment of the invention with the lid closed;

Fig. 10 is the view of Fig. 9 with the lid partially

open;

Fig. 11 is the view of Fig. 9 with the lid fully open; Fig. 12 is a side elevation in cross section of the container of Fig. 9 with the lid closed;

Fig. 13 is the view of Fig. 12 with the lid partly folded;

Fig. 14 is the view of Fig. 12 with the lid completely folded;

Fig. 15 is the view of Fig. 12 with the lid folded and stored;

Fig. 16 is a perspective view of a container in a fourth embodiment of the invention with the flaps closed;

Fig. 17 is a perspective view of a container in a fifth embodiment of the invention with the top flaps closed;

Fig. 18 is a perspective view of a container in a sixth embodiment of the invention with the top flaps closed;

Fig. 19 is a detail end elevation of the lid of the container of Fig. 18;

Fig. 20 is a perspective view of a container in a seventh embodiment of the invention;

Fig. 21 is a detail perspective view of an eighth embodiment of the invention;

Fig. 22 is a detail perspective view of a ninth embodiment of the invention;

Fig. 23 is a perspective view of a container in a tenth embodiment of the invention;

Fig. 24 is a perspective view of a container in a eleventh embodiment of the invention;

Fig. 25 is a perspective view of a container in a twelfth embodiment of the invention;

Fig. 26 is a perspective view of a container in a thirteenth embodiment of the invention;

Fig. 27 is a perspective view of a container in a fourteenth embodiment of the invention;

Fig. 28 is a perspective view of a container in a fifteenth embodiment of the invention;

Fig. 29 is a perspective view of the container of Fig. 28 with the access flaps open and the lid flaps partly open;

Fig. 30 is a perspective view of the container of Fig. 28 with the access flap open and the lid flaps fully open;

Fig. 31 is an end elevation of a container in a sixteenth embodiment of the invention with the access flaps closed;

Fig. 32 is a side elevation of the container of Fig. 31 with the access flaps closed;

Fig. 33 is an end elevation of the container of Fig. 31 with the access flaps open; and,

Fig. 34 is a side elevation of the container of Fig. 31 with the access flaps open.

In the first embodiment a container 10 includes two side walls 12, two end walls 14, 16 and a base 18. On each side wall 12 adjacent the rear end wall 16 are provided five upright outwardly extending ribs which

extend from the base of each side wall 12 to a transverse rib 22 which extends around the side and end walls 12, 14, 16 of the container at a height of substantially half the height of the container 10. A set of four upright ribs 24 is provided spaced from the front wall 14 of the container on each side wall 12. The ribs 24 extend from the base of the container to the height of the transverse rib 22. On each side within the container 10 offset towards the centre of the container from the ribs 20, a wide channel 26 is defined in the wall 12 of the container. The wide channel 26 extends from the transverse rib 22 to the top edge of each side wall 12. On each side a wider channel 28 is provided inside the container in the side wall 12 adjacent the front end wall 14 of the container 10 and offset from the ribs 24. The channels 28 extend from the transverse rib 12 to the top of the container 10.

An identical container can be stacked on the container 10 by placing it on top of the container 10 in the same orientation. The ribs 20, 24 will abut the top of the container 10 between the channels 26, 28 and prevent nesting of the containers. If the further container 10 is rotated through 180° about a vertical axis and placed on top of the container 10 then the ribs 20, 24 will be received in the channels 26, 28 and the containers will nest to half their height.

The upper half of the front wall 14 of the container 10 forms an access flap 30. The flap 30 is hinged at its lower horizontal edge at the height of the transverse rib 22 and can pivot outwardly and downwardly to lie alongside the lower half of the front wall 14 of the container 10. This will allow access to the interior of the container when another identical container is stacked on top of it.

A container 10 includes hinges 38 along its upper side wall edges which connect to lid flaps 32. Each lid flap 32 terminates in a series of trapezium shaped projections 34 which interdigitate to close off the top of the container 10. Each flap 32 is hinged substantially halfway between the end of the projections 34 and the edge hinges 38. Each flap 32 can thus be folded about the centre hinge 36 and folded about the edge hinge 38 outwardly and downwardly to lie alongside the side wall 12 of the container. Because the side flap 32 is folded about the centre hinge 36, the side flap 32 does not extend below the transverse rib 22 and a further identical container can be nested into the first container 10 without the side flaps 32 of either container interfering with the other.

Figs. 7 and 8 show a very similar embodiment and equivalent features carry the same reference numerals. Fig. 7 shows the access flap 30 closed and the lid flaps 32 closed with the projections 34 interdigitating. It is clear that flaps 32 and 34 completely close the container 10. Fig. 8 shows the access flap 30 folded down adjacent the lower half of the front wall 14 of the container 10 and shows the lid flaps 32 folded in half and folded down adjacent the upper half

of the side wall 12 of the container. The upper and lower halves of the container are sized such that nesting can still take place even with the access flap 30 pivoted open.

Fig. 9 shows a further embodiment of the invention. A container 50 comprises a generally rectangular base 52 and walls 54, 56, 58. A container lid 60 is provided which comprises six panels 62 hinged together in series. The container 50 is open at the top and is generally rectangular but cut away at the front face to give a sloping face. The front wall 56 is just less than half the height of the container 50. There are also two projecting wings 64 at the rear of the container 50. Each wing 64 extends rearwardly as an extension of the upper half of a side wall 54 and is rectangular in shape. The wings are connected by a flange 65 which extends between their lower edges. Each side wall includes a transverse rib 66 at half the height of the container 50. Beneath the transverse rib 66 are provided four pairs of upright ribs 68. The pairs of ribs 68 are spaced along the side wall 54 of the container 50. Each pair of ribs includes a short cross member 70 connecting the ribs at the base and a tongue 72 extending downwardly from the rib 70. Within the container 50 directly above each pair of ribs 68 a channel 74 is defined in the side of the container which extends from the top of the container to the transverse rib 66. At the same spacing as the channel 74 there are four upwardly facing pockets 76 at the top edge of the side wall 54 of the container 50.

Thus, when the lid 60 is opened, if two identical containers 50 are arranged one on top of the other, the ribs 68 will be received in the channel 74 and the containers will nest. If two identical containers are arranged slightly offset from one another, the tongue 72 can be received in the pockets 76 so that the containers stack.

The lid 60 comprises six panels of equal width. The first four panels 62 lie horizontally when the lid is closed and the other two panels 62 lie on the slanting front face of the container. The container 50 is completely closed off by the lid 60. Each panel 62 includes two opposed cut-outs which in the first four panels 62 receive a pocket 76.

As shown in Fig. 10, the front two panels 62 can be folded back onto the other panels 62 to open the front of the container 50 and allow access to the interior thereof. In this sense they are equivalent to the access flap 30 of the first embodiment. Figs. 12 to 15 show how the lid is stored when the container is fully open. The lid 60 is folded concertina fashion at the hinges between the individual panels 62. The panels fold so as to lie parallel to one another and are connected to the container only through the rear hinge 78 of the rear panel 62 which is connected to the upper edge of the rear wall 58 of the container 50. Thus, the folded panel 62 can be pivoted about the rear hinge 78 to lie between the wings 64. It is clear that the con-

tainer 50 can be stacked or nested with the lid 60 in the stored position.

Fig. 16 shows an embodiment which is similar to the embodiments of Figs. 7 and 8. Equivalent features carry the same reference numerals.

In this embodiment each lid flap 32 is mounted by a bar 80 which is slidable in upright grooves 82 defined in the corner pillars 84 of the container between the transverse rib 22 and the top edge of the side wall 12. In this way, on each side the bar 80 can be slid down the grooves 82 to adjacent the transverse rib 22, the flap 32 folded and pivoted alongside the side wall 12.

Fig. 17 is a perspective view of an embodiment which is similar the embodiment of Figs. 7 and 8.

Equivalent features carry the same reference numerals.

The access flap 30 is narrower than in the embodiments of Figs. 7 and 8 and includes an extension 86 at its upper edge which covers part of the upper nesting opening of the container 10. The extension 86 is of the same width as the access flap 30 and extends about a third of the length of the container 10. The extension 86 covers a gap left in the lid flaps 32 and is supported on shoulders provided on the lid flaps 32 around the edge of the gap. The end of the extension 86 includes shallow crenellations 90. The extension 86 is connected to the main part of the access flap 30 through a hinge 88 such that the extension 86 can be pivoted around the edge to lie against the main part of the access flap 30 and the main part and extension 86 can be pivoted together to lie adjacent the front wall 14 of the container 10.

This arrangement allows a larger access opening for the container 10.

Fig. 18 shows a further embodiment in which the container is a two thirds nesting container. The container 10 includes a shoulder 92 in each side wall one third of the height of the side wall from the base. Two thirds of the height of the side wall from the base there is provided on each side wall a rib 94. Extending between the rib 94 and the upper edge of the container are four equi-spaced upright ribs 96, the end ribs 96 being at the ends of the side wall 12.

In the front end face 14 of the container is a rectangular access flap 30 which is hinged at its lower edge. The hinge is provided at the same height as the rib 94 and the access flap 30 extends to define the upper edge of the container nesting opening. At the top of each side wall is hingedly connected a lid flap 32. Each lid flap includes a series of trapezium shaped projections 34 which interdigitate to close off the top of the container 10 in the same way as in the embodiment of Figs. 7 and 8. While, in that embodiment, the lid flaps included hinges so that they could be folded in half, in this embodiment, each lid flap 32 is divided into an inner part 98 and an outer part 100 with the outer part 100 being larger than the inner part 98 to

slidably receive the inner part 98 as shown in Fig. 19. In use, then, to nest the containers the inner lid part 98 is slid into the outer lid part 100 and the slid together lid flap 32 is pivoted about its hinge to lie adjacent the side wall 12 of the container.

Fig. 20 shows a further embodiment. In this embodiment the container 10 includes a shoulder 102 at half height around its side walls 12 and end walls 14 so that the container 10 tapers downwardly by means of this step. The upper half of the front end wall 14 of the container forms an access flap 30. Bail arms 104 are provided inside the container 10 adjacent the side walls 12 of the container. Each bail arm 104 comprises a bent metal rod. Each end of the rod is received in a blind bore just above the shoulder 102 in the end wall 14 next to a side wall 12. From the blind bore the rod is bent through 90° upwardly and adjacent the upper edge of the container is bent through 90° again to extend parallel to the upper edge of the container. The blind bores are positioned such that the bail arm 104 can rest stably against the inner surface of the side wall in one position and can be pulled inwardly to rest against a stop 106 provided as a projection from the interior surface of the end wall 14 at a shallow angle to the side wall. In this position another similar container can stack on top of the bail arms 104 while when the bail arms 104 are resting against the inner surface of the side wall, another similar container can nest within the top half of the container 10. The access flap 30 includes a transversely elongate rectangular aperture 108 and a similar aperture 108 is provided in the same central position in the other end wall of the container.

These apertures 108 form hand holds for manual movement of the container 10.

In the embodiment of Fig. 20, the access flap 30 is hinged at its lower edge and pivots downwardly through 180° to lie adjacent the lower part of the end wall 14. The embodiment of Fig. 21 is the same as the embodiment of Fig. 20 except that the access flap 30 includes pins 110 extending outwardly from sides adjacent the top to be received in upright slots 112 defined in the side walls 12 of the container 10 so that the access flap 30 can slide downwardly to lie adjacent the lower part of the end wall 14. The access flap 30 is held in the raised position by movement past a narrow plastic constriction (not shown).

In the embodiment of Fig. 22 the container is again the same as in Fig. 20 but the access flap 30 is different again. The access flap 30 is slidably mounted as in the embodiment of Fig. 21, but is in two parts separated by a hinge 114 and includes further pins 110 projecting from its end faces adjacent its bottom edge which are received in the same upright slots 112. The two parts of the access flap 30 are hinged horizontally so that the flap 30 can concertina downwardly folding onto itself to open the access aperture. The containers of Figs. 20, 21 and 22 may

be provided with a separate lid if required.

Fig. 23 shows an embodiment which incorporates plastic bail arms 116. The container 10 tapers to the base on side walls 12 and end walls 14 and includes a shoulder 118 at about 70% of the height of the container from the base. The shoulder 118 steps outwardly and is continuous around the side walls 12 and end walls 14 of the container. The container 10 includes an access flap 30 in the front end wall 14 which is horizontally hinged at half the height of the end wall. The access flap 30 is not as wide as the end wall 14 and provides about 42% access through the end wall. The access flap 30 can be folded to lie adjacent the lower part of the end wall 14. The container 10 incorporates plastic bail arms 116 hingedly connected to the top of each side wall 12. The bail arms 116 are relatively short and when folded inwardly rest on projections from the interior surface of the container 10. Each bail arm 116 includes a roller blind style cover 120 which can be pulled across the top opening of the container 10 and connected to the opposite cover 120 from the other bail arm 116 to cover the top of the container.

Fig. 24 shows an embodiment which is similar to the embodiment of Fig. 23 and only the differences from that embodiment will be described. The roller blind style covers 120 of the embodiment of Fig. 23 are not provided but instead a lid 122 is provided which is hingedly connected to the opposite end wall 16 to the end wall 14 in which the access flap 30 is provided. The lid is supported on the bail arms when closing the container. The lid 122 is in two parts 124, 126 and the part 124 adjacent the access flap 30 slides within the part 126 adjacent the lid hinge 128 so that the lid 122 can be pivoted about its hinge 128 to lie at the back of the container adjacent the back end wall 16.

Fig. 25 shows a further embodiment. The container 10 is arranged to nest to two thirds height and includes tapered pillars 130 in the side walls 12 which define channels on the interior of the container to receive the pillars of another similar container when the containers are nested. An access flap 30 is provided in the front end wall 14 of the container 10 and extends from about half the height of the container 10 to the upper edge where it is hinged to the lid 132. The lid 132 is hinged to the upper edge of the opposite end wall 16 of the container 10 and is in three parts 134, 136, 138 which slide into one another. The part 134 to which the access flap 30 is hingedly connected is the largest part and receives the other two parts 136, 138. The largest part 134 includes a recess 140 in its upper surface to receive the access flap 30. To open the lid 132 then the access flap 30 is folded about its hinge into the recess 140 in the largest part 134 of the lid. That part 134 is then slid towards the lid hinge 142 thus slidably receiving the other two parts 136, 138 of the lid. The compacted lid 132 with

the access flap 30 is then folded around the hinge 142 to lie adjacent the back end wall 16 of the container 10.

Fig. 26 shows a further embodiment. In this embodiment, like the embodiment of Fig. 25, the lid is in three parts 134, 136, 138 and is hingedly connected to the back end wall 16 at one end and to the access flap 30 at the other end. The access flap 30 is also slidably connected to the lid 132 so that the access flap 30 can be pivoted to lie in the same plane as the lid and slid within the end lid part 134. The end lid part 134 slidably receives the central lid part 136 which is hingedly connected to the first lid part 138 so that the compacted access flap, the central lid part 134 and end lid part 136 are pivoted to lie on the first lid part 138 and the whole is then pivoted to lie adjacent the back end wall 16 of the container 10.

Fig. 27 shows a further embodiment. In this embodiment the container is arranged to a nest to about half of its height and includes bail arms 144, 145 hingedly connected to the upper edge of each end wall 14, 16. The bail arm 144 connected to the back end wall 16 mounts a three part lid 146, 148, 150 which can be connected to the other bail arm 145. The end part 146 of the three part lid is the largest part and can slidably receive the middle part 148 and first part 150 following which the lid and bail arm 144 can be pivoted around the back wall upper edge to lie adjacent the back wall 16 of the container 10. An access flap 30 is provided in the front end wall 14 of the container 10 and comprises the entirety of the upper part of the front end wall 14. The access flap 30 is hinged at its lower edge and is the form of a shallow tray such that the bail arm 145 which is attached to its upper edge can be pivoted around to lie within the tray and tray can then be pivoted down against the lower half of the front end wall 14.

Fig. 28, 29 and 30 show a further embodiment which is very similar to the embodiment of Fig. 27. While the embodiment of Fig. 27 is arranged to nest about half its height, the embodiment of Figs. 28, 29 and 30 is arranged to nest to about 75% of its height. The container 10 is tapered and includes a rib 152 at about three quarters of its height from the base around the side walls 12 and end walls 14, 16 of the container 10. The bail arms 144, 145 and three part lid 146, 148, 150 are the same as in the embodiment of Fig. 27 but the access panel 30 is of a different shape. The access panel 30 is in a wide T-shape. Thus the top of the access panel includes the rib 152 which extends over the entire width of the end wall 14 and this rib 152 together with two upright ribs 154 and a rib 156 at the top of the end wall 14 form a rectangular tray 158 which is slightly larger than the bail arm 145 to which the access flap 30 is hingedly connected so that the bail arm 145 can be pivoted to be received in the tray 158. The rib 152 includes a very shallow downwardly facing recess 160 centrally of the access

flap 30 to form a hand hold. The access flap 30 then narrows to less than the entire width of the end wall 14 to form a lower part of the T-shape. The access flap 30 is hingedly connected to a horizontal hinge 161 at about half the height of the container 10. The access flap 30 provides about 42% access through the front end wall 14 of the container 10. The bail arm hinges 162 are mechanical hinges. Thus, each bail arm 144, 145 includes a plurality of apertured lugs 164 which are received in slots 166 in the upper edges of the end walls 14, 16 of the container 10 and a rod extends through the lug apertures to form a hinge 162. The access flap hinge 161 is a live hinge. The access flap 30 includes inwards projections 168 from the arms 170 of the T which are received in corresponding slots 172 in the side walls 12 of the container 10 to retain the access flap 30 in the closed position. The bail arms 144, 145 are retained in the same manner. As shown in Fig. 30, recesses 174 are provided at the upper edges of the side walls 12 of the container 10 to receive the ends of the bail arms 144, 145 and support them in a horizontal position. The floor of each recess 174 includes a rectangular projection 176 which is received in a corresponding slot (not shown) in each bail arm 144, 145. Also as shown in Fig. 30, the lid does not lie against or parallel to the back end wall of the container but "wings" out slightly. As this is at the back of the container, it does not affect efficient side-by-side arrangement of the containers 10.

Figs. 31 to 34 show an alternative access flap arrangement for the container of Figs. 28 to 30. In this container, the access flap 30 includes a mechanical hinge 178 at about a third of the height of the container from the base and also includes a live hinge 180 at about one third of the height of the access flap 30 from the mechanical hinge 178. The live hinge 180 acts in the opposite direction to the mechanical hinge 178 so that the access flap 30 can be folded to the position shown in Figs. 33 and 34 in which the lower part 182 lies adjacent the lower part of the front end wall 14 of the container 10 and the upper part 184 of the access flap 30 lies against the lower part 182 of the access flap 30.

Clearly, various features of the containers described could be interchanged between the different containers without affecting the nature of the containers and their manner of operation and use.

Claims

1. A nestable container comprising a top flap which is arranged to lie over an opening in the container into which a further identical container can be nested, the top flap being arranged to lie adjacent a side wall at an end of the container such that it does not interfere with the nesting of the container into another identical container.

2. A container as claimed in claim 1, wherein the top flap is arranged to be manipulated to reduce the length over which it extends down the side wall of the container.

3. A container as claimed in claim 2, wherein the top flap is arranged to be manipulated at least partly by translation to reduce the length of the top flap.

4. A container as claimed in claim 3, wherein the top flap comprises two or more parts which are arranged to slide over one another to reduce the length of the top flap.

5. A container as claimed in claim 2, wherein the top flap includes at least one hinge and is arranged to fold at least once to reduce its length.

6. A container as claimed in claim 5, wherein the fold or the first fold folds the top flap inwards in relation to the wall of the container.

7. A nestable container comprising a top flap which is arranged to lie over an opening in the container into which a further identical container can be nested, the top flap including at least one hinge dividing the top flap into relatively manipulable parts, the top flap being arranged to lie adjacent a side wall of the container with the top flap folded inwards in relation to said side wall about the hinge such that the top flap does not interfere with the nesting of the container into another identical container.

8. A nestable container comprising a top flap which is arranged to lie over an opening in the container into which a further identical container can be nested, the top flap being arranged to lie adjacent a side wall of the container and the top flap being arranged to be manipulated at least partly by translation to reduce the length of the top flap so that the top flap does not interfere with the nesting of the container into another identical container.

9. A container as claimed in any of claims 2 to 8, wherein where the top flap is longer than the part of the height of the walls of the container which is not covered when the container is nested in another container, the top flap is manipulable to reduce its length to less than that height.

10. A container as claimed in any of claims 2 to 9, wherein the top flap comprises two or three manipulable parts.

11. A container as claimed in any preceding claim, wherein the container is of the type which can

stack on rather than nest in an identical container when rotated through 180° about a vertical axis.

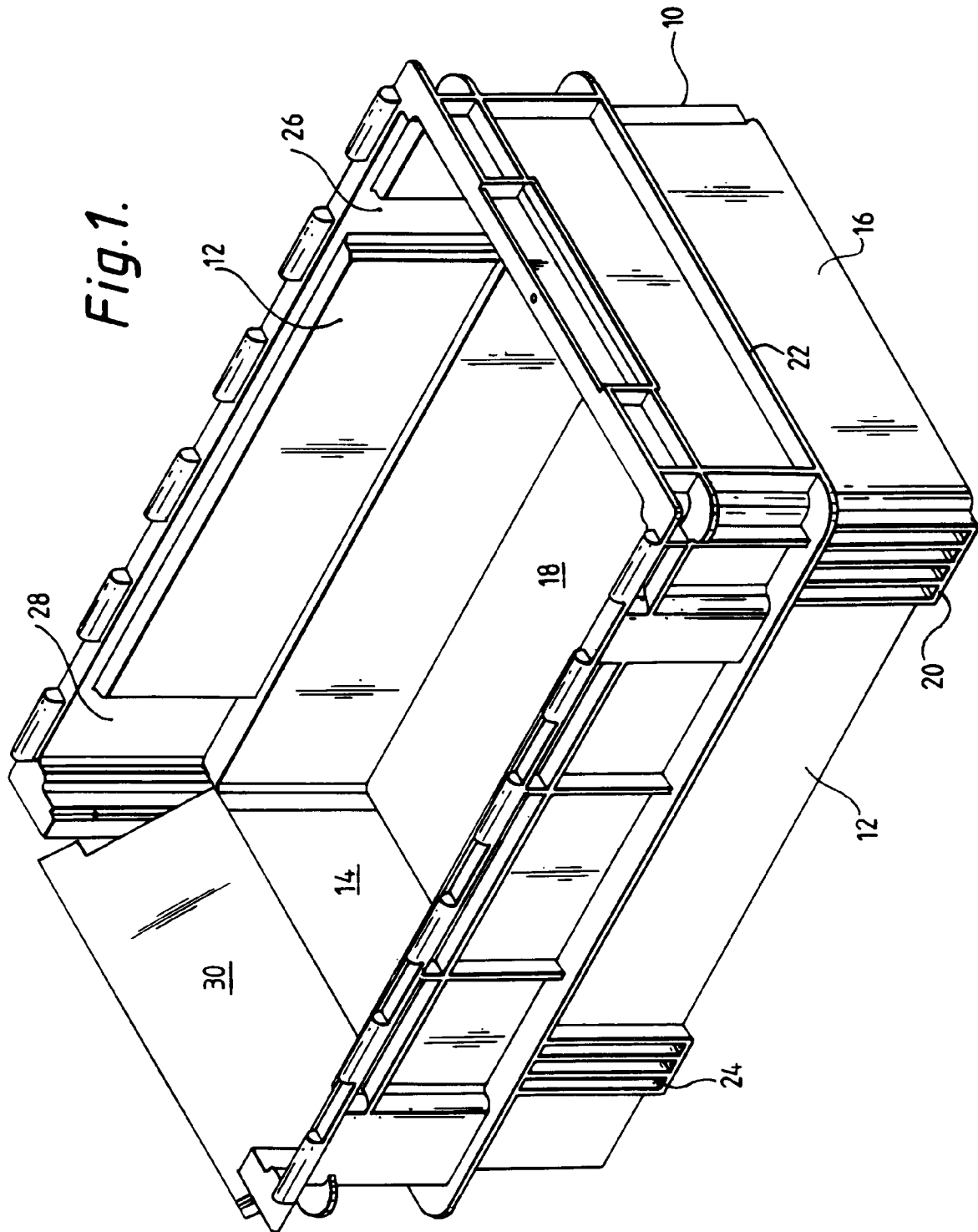
12. A container as claimed in any preceding claim, wherein the container is arranged to nest to half its height. 5
13. A container as claimed in any preceding claim, wherein the top flap is hinged fixed to the top of a wall of the container. 10
14. A container as claimed in any of claims 1 to 12, wherein the top flap is pivotally fixed to a slide element which is arranged such that the inner edge of the top flap can slide adjacent the side wall of the container. 15
15. A container as claimed in any preceding claim, wherein the top flap is arranged to cover the entire top opening and is provided on a wall at an end of the container. 20
16. A container as claimed in any of claims 1 to 14, wherein two said top flaps are provided to cover the container opening and the top flaps are provided on opposite side walls. 25
17. A nestable container including an access flap in a side wall which is openable to allow access to the interior of the container. 30
18. A container as claimed in claim 17, wherein the container is of the type which nests in one orientation and stacks in another orientation in which the container has been rotated through 180° about a vertical axis. 35
19. A container as claimed in claim 17 or claim 18, wherein an edge of the access flap defines an edge of the nesting opening of the container. 40
20. A container as claimed in any of claims 17 to 19, wherein the access flap is hinged horizontally.
21. A container as claimed in claim 20 when dependent on claim 19, wherein the hinge is provided just above the level reached by the top of another similar container into which the container is nested. 45
50
22. A container as claimed in any of claims 17 to 21, wherein the access flap extends over substantially the whole of one half of the container side wall.
23. A container as claimed in any of claims 17 to 22, wherein the access flap is provided in a side wall at one end of the container. 55

24. A container as claimed in any of claims 17 to 23, wherein the nestable container is arranged to be nestable with the access flap open.

25. A container as claimed in any of claims 1 to 16 and as claimed in any of claims 17 to 24.

26. A container as claimed in claim 25, wherein where the access flap defines an edge of the nesting opening of the container, the access flap includes an extension which covers or partly covers the nesting opening of the container.

27. A container as claimed in claim 25 or 26 wherein the top flap is connected to the opposite wall of the container from the wall in which the access flap is provided.



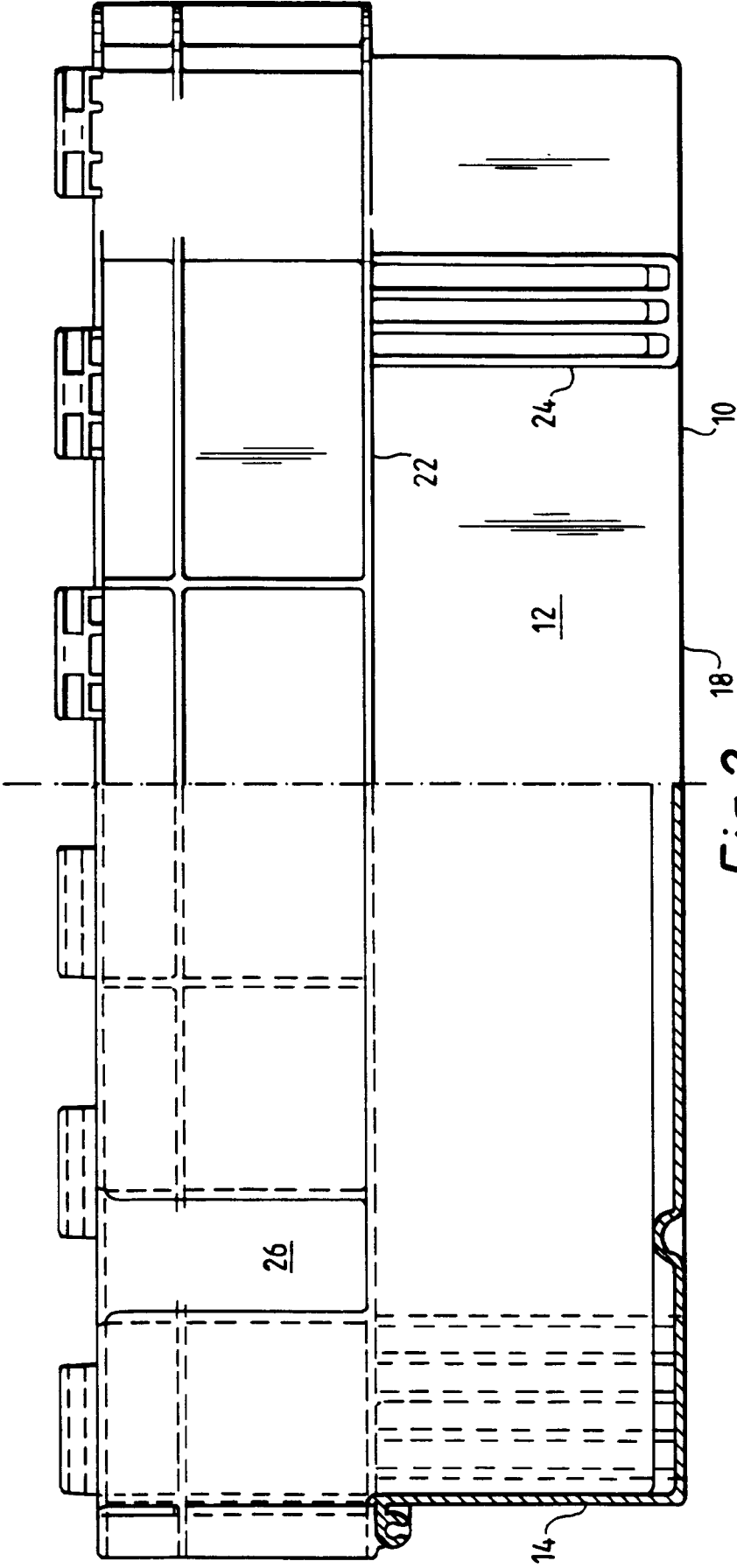
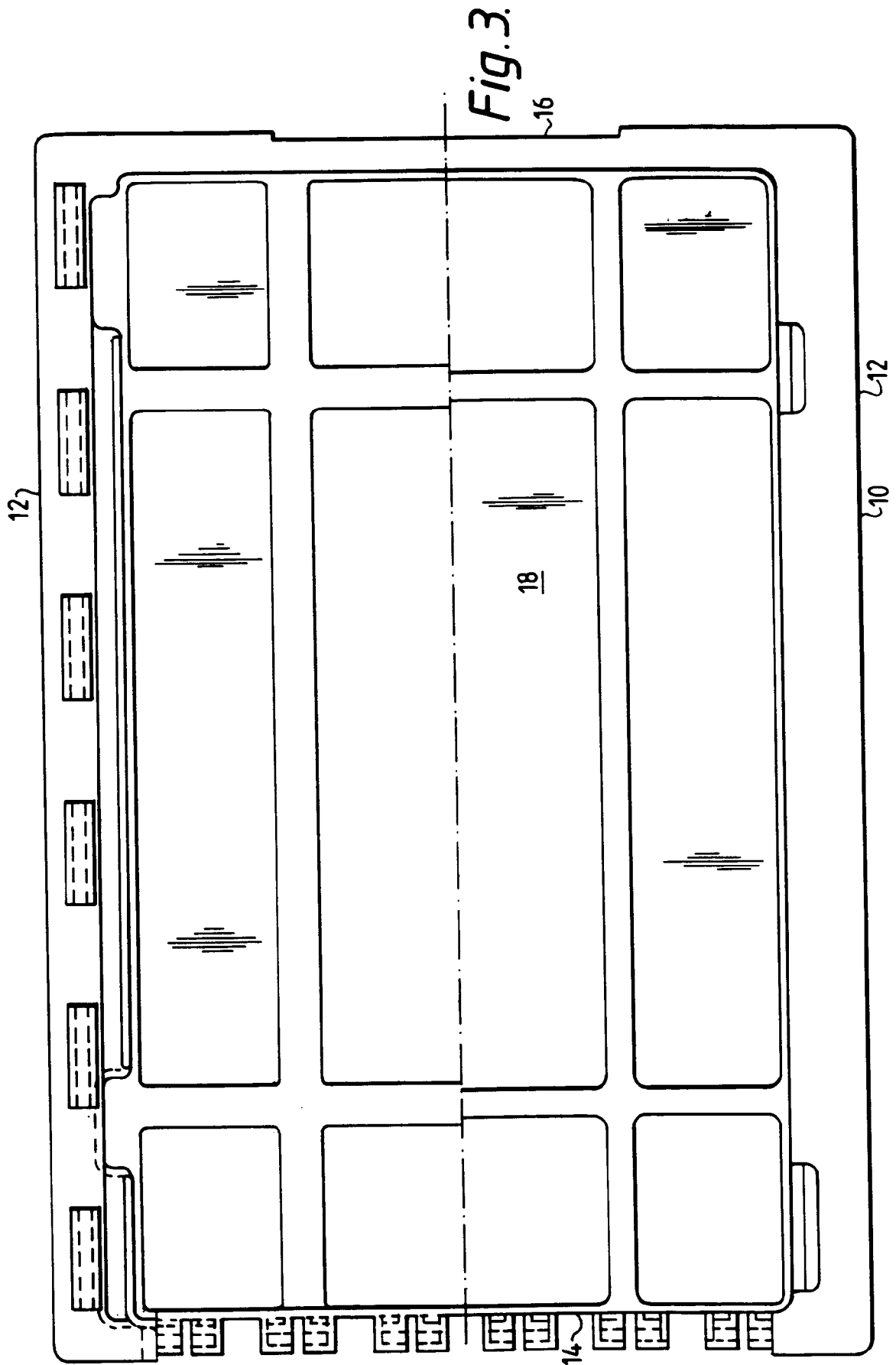


Fig. 2.



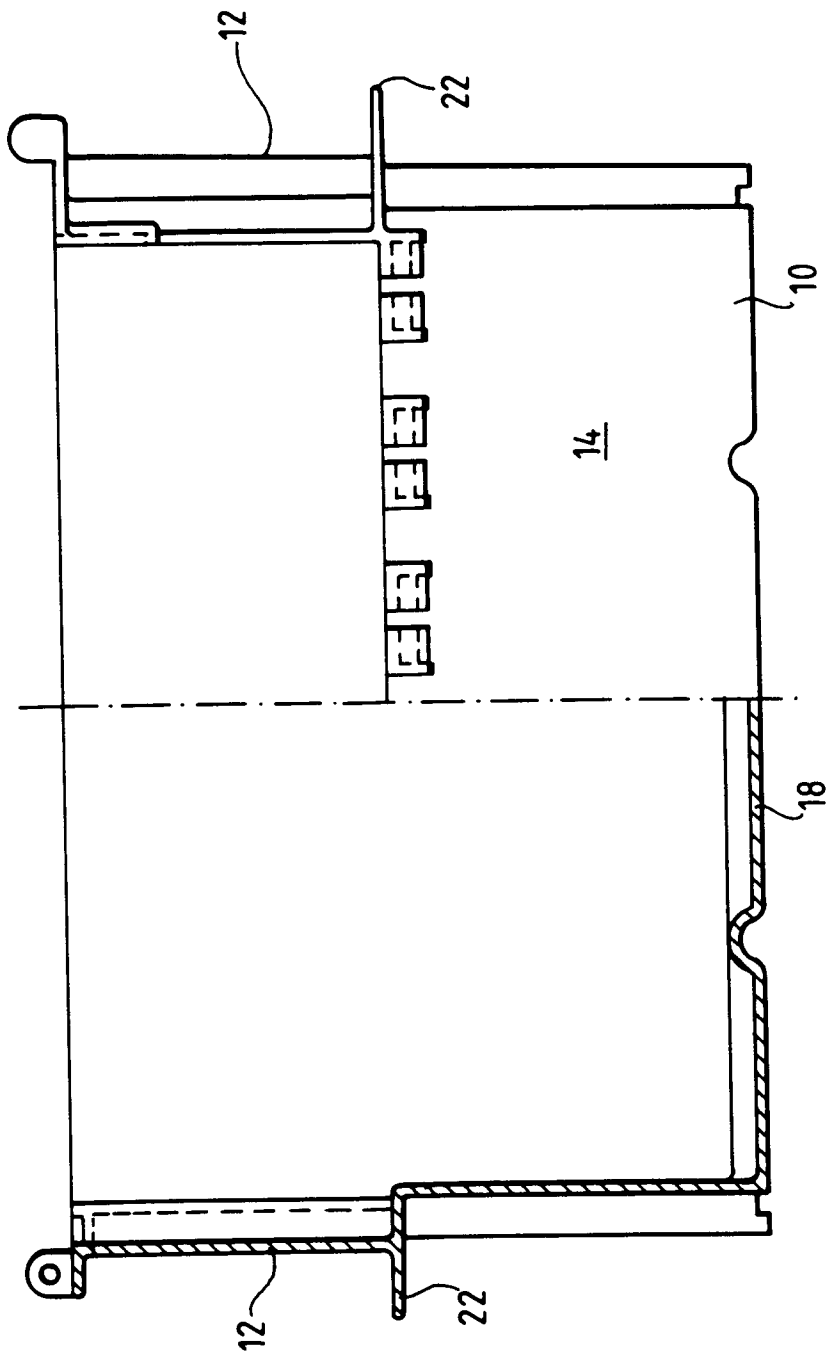


Fig.4.

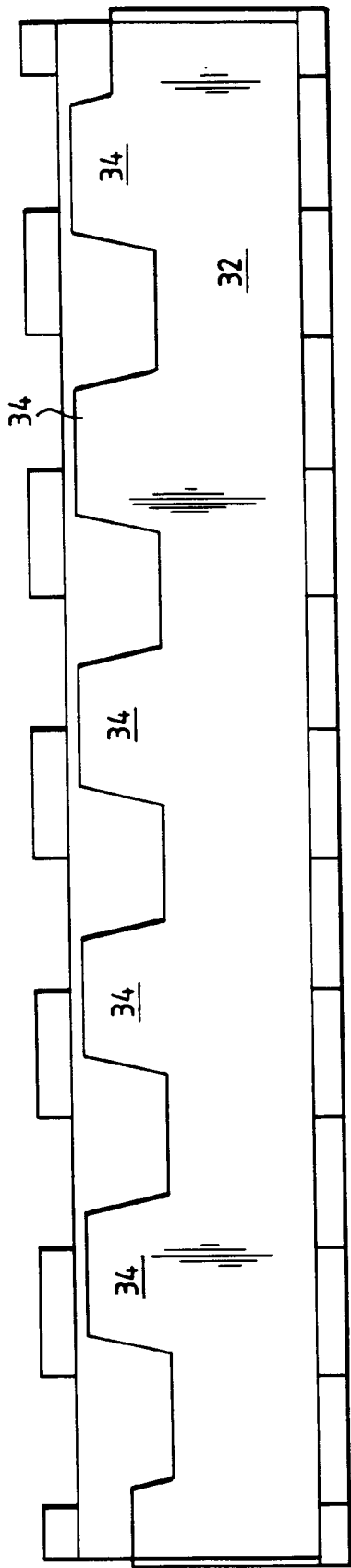


Fig. 5.

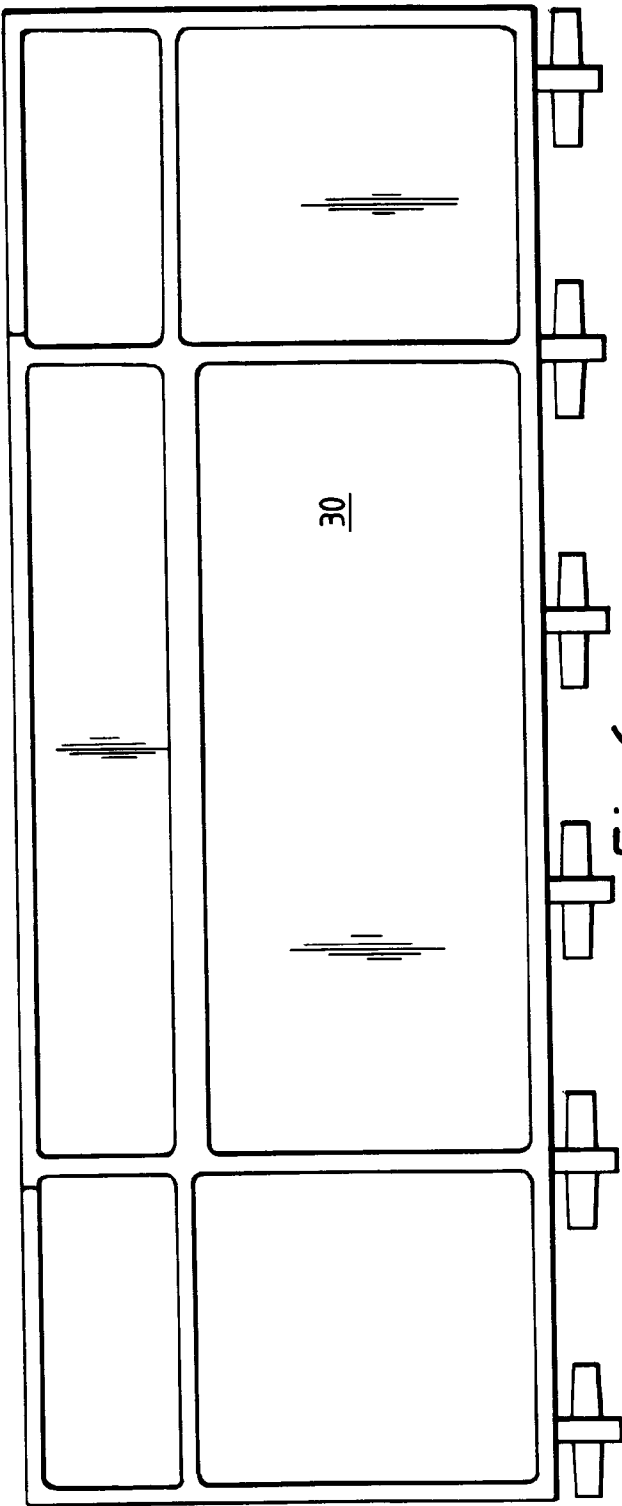
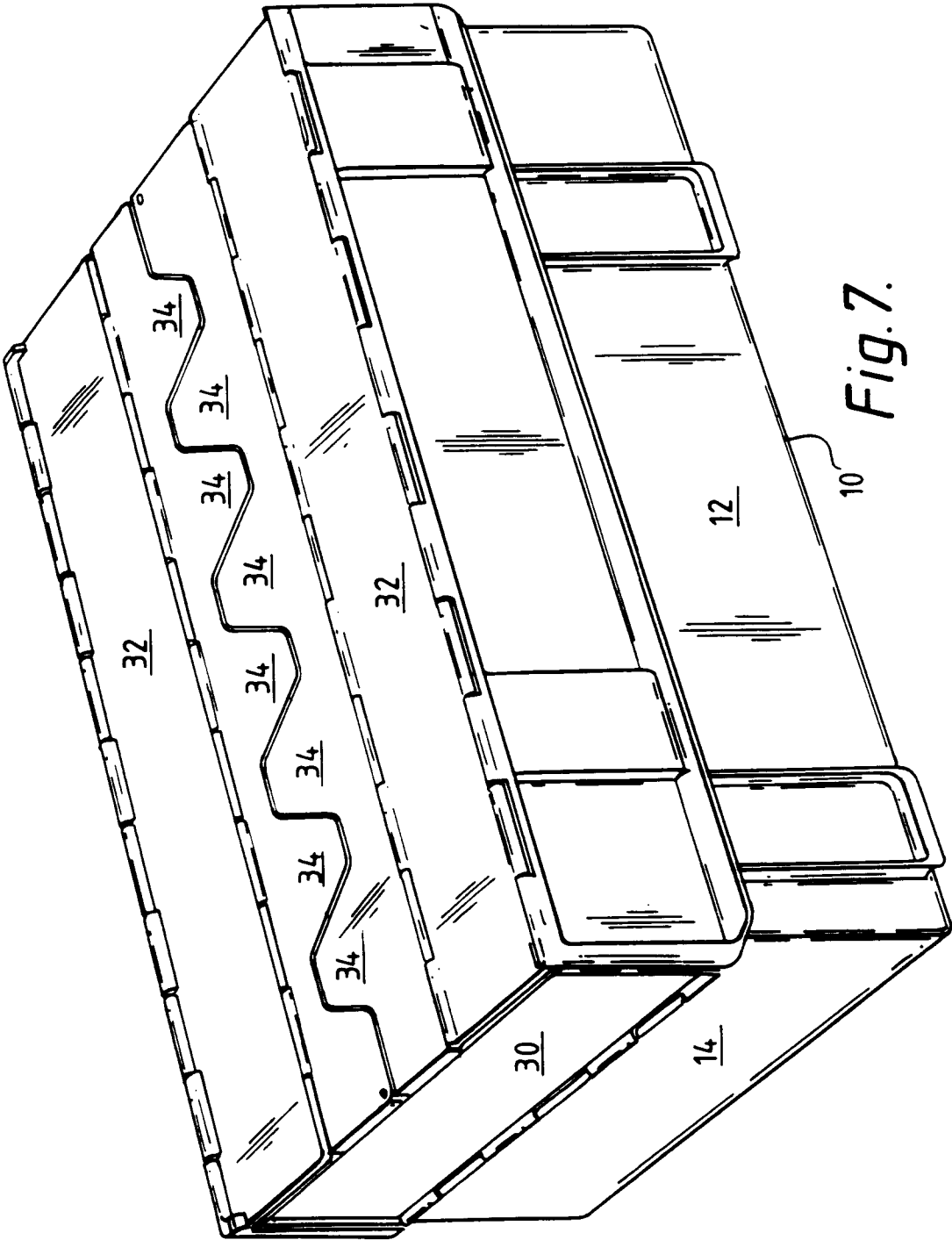
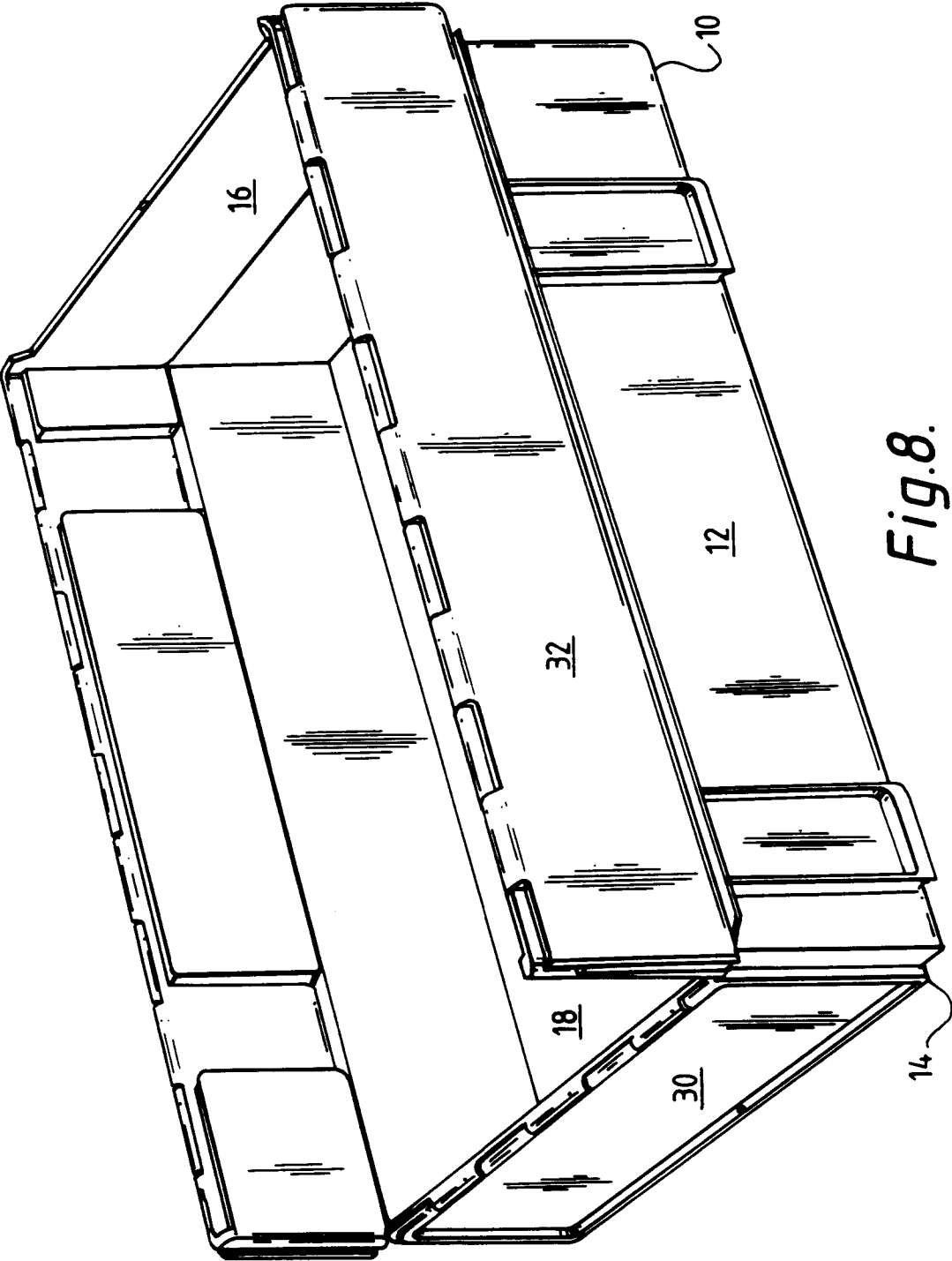


Fig. 6.





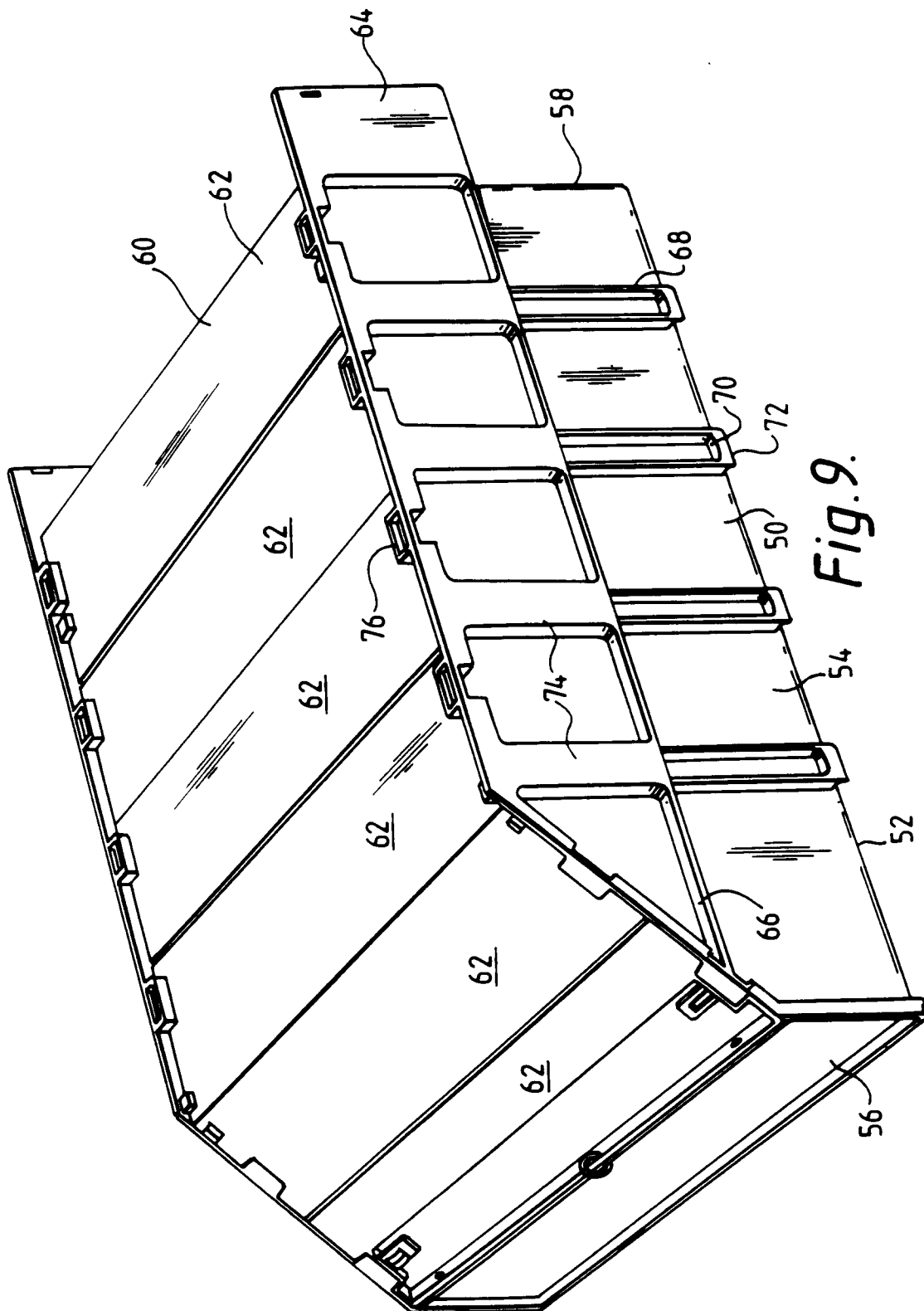


Fig. 9.

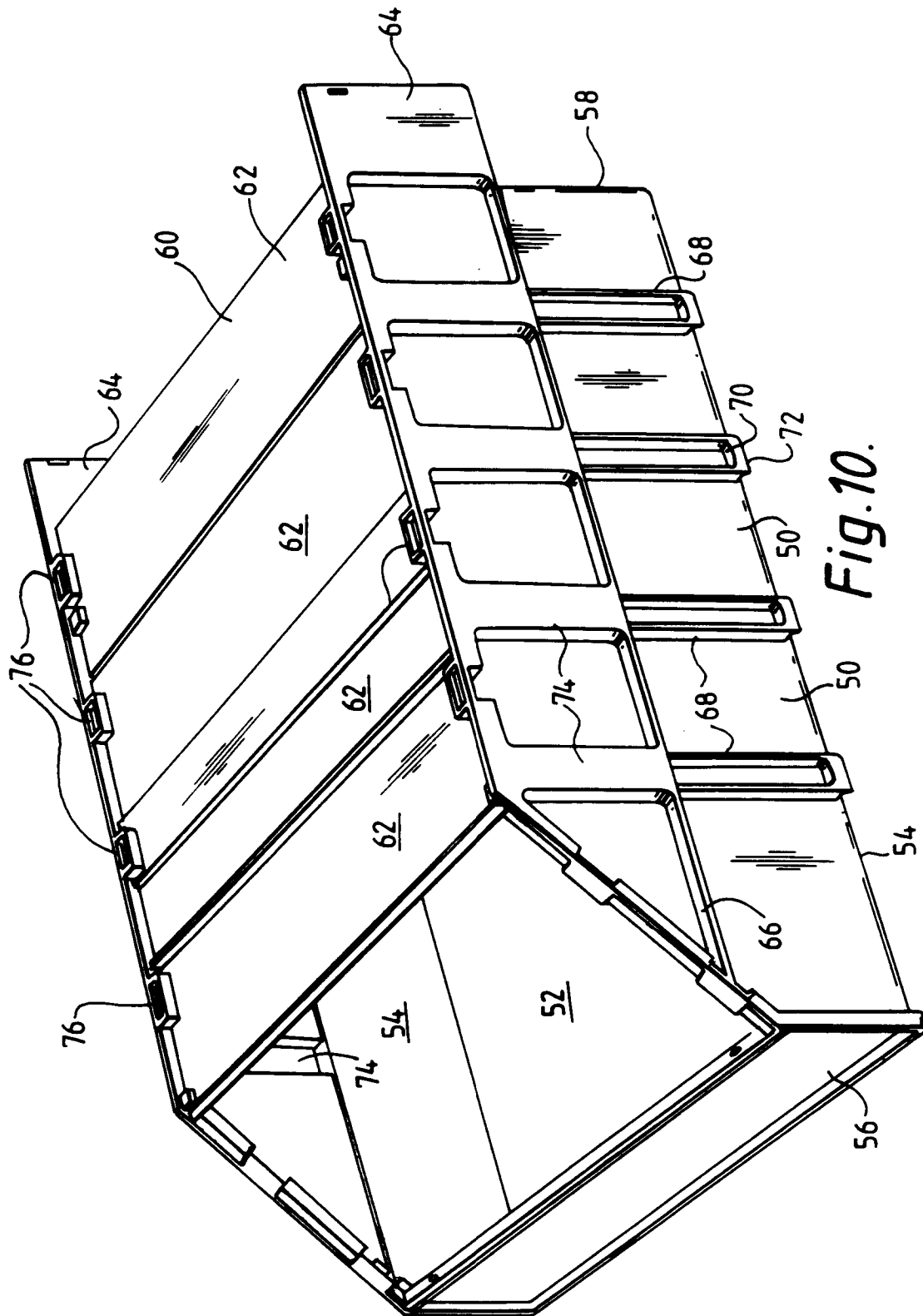


Fig. 10.

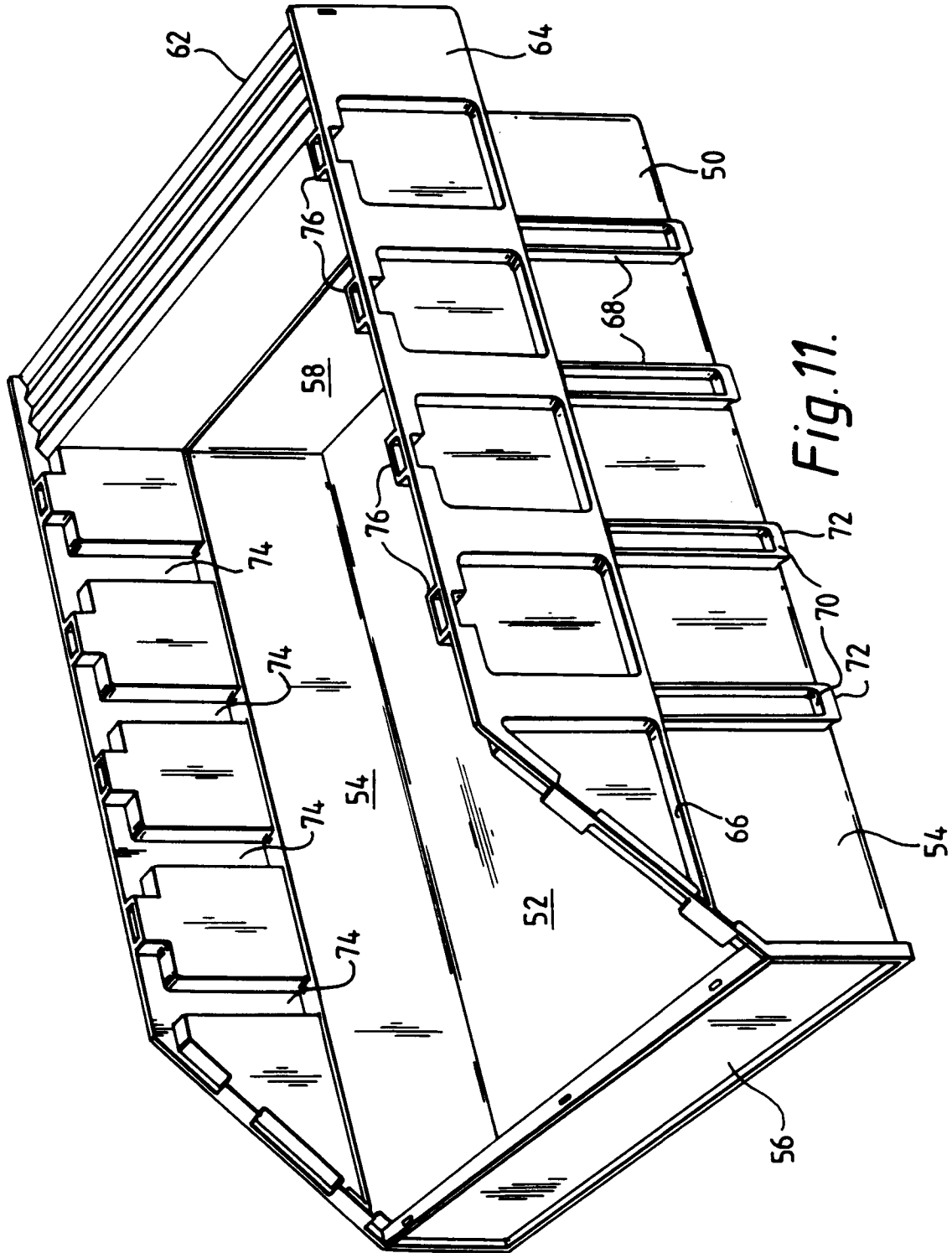


Fig. 11.

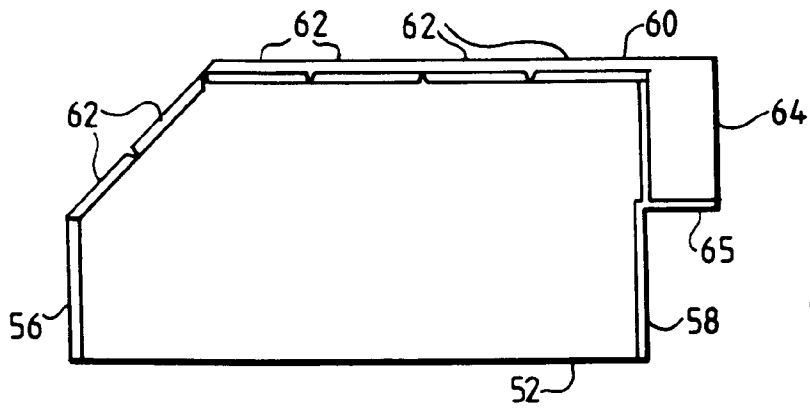


Fig.12.

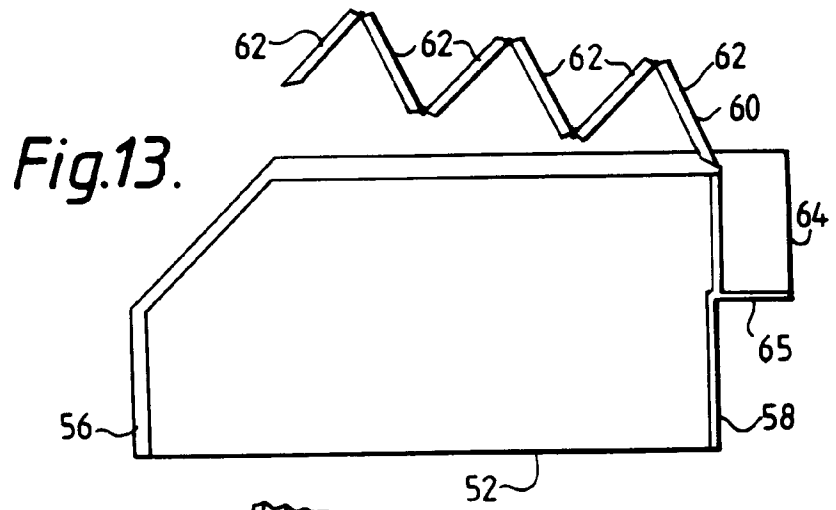


Fig.13.

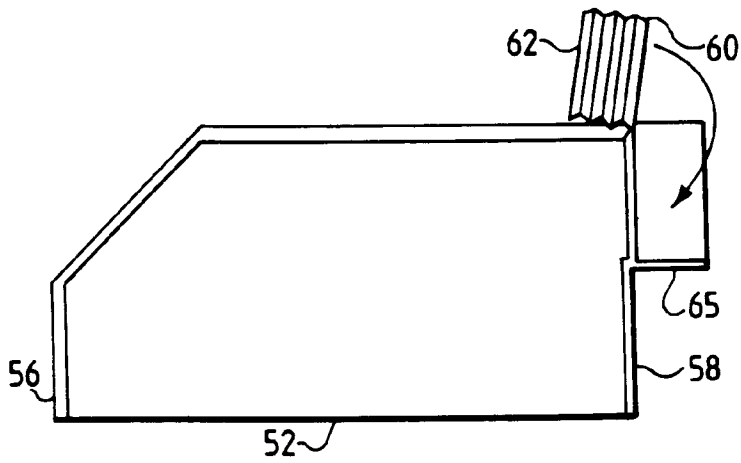


Fig.14.

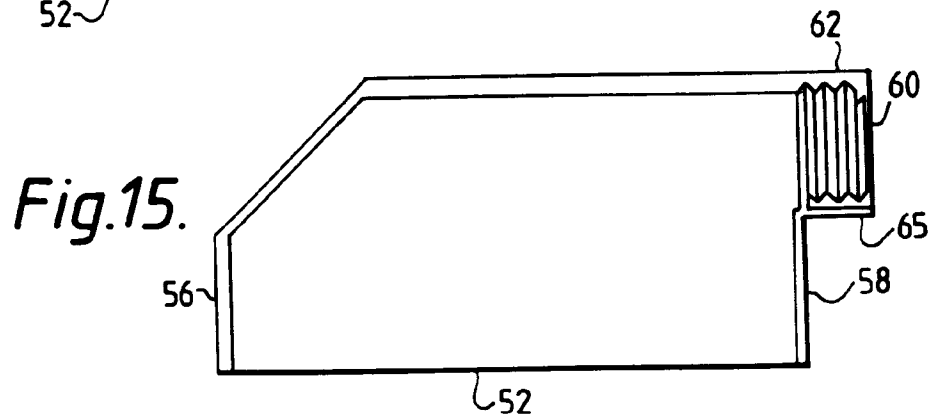


Fig.15.

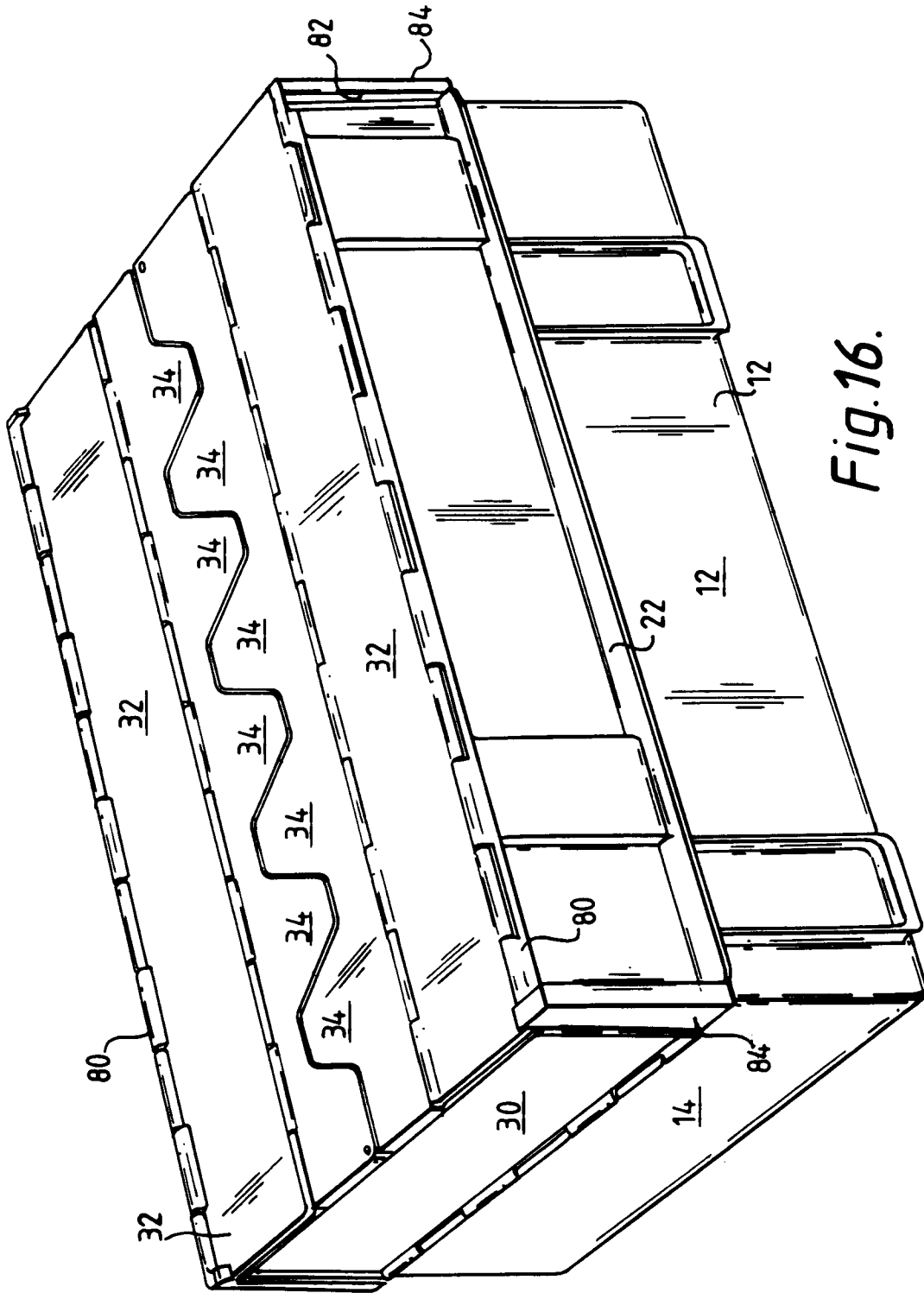


Fig. 16.

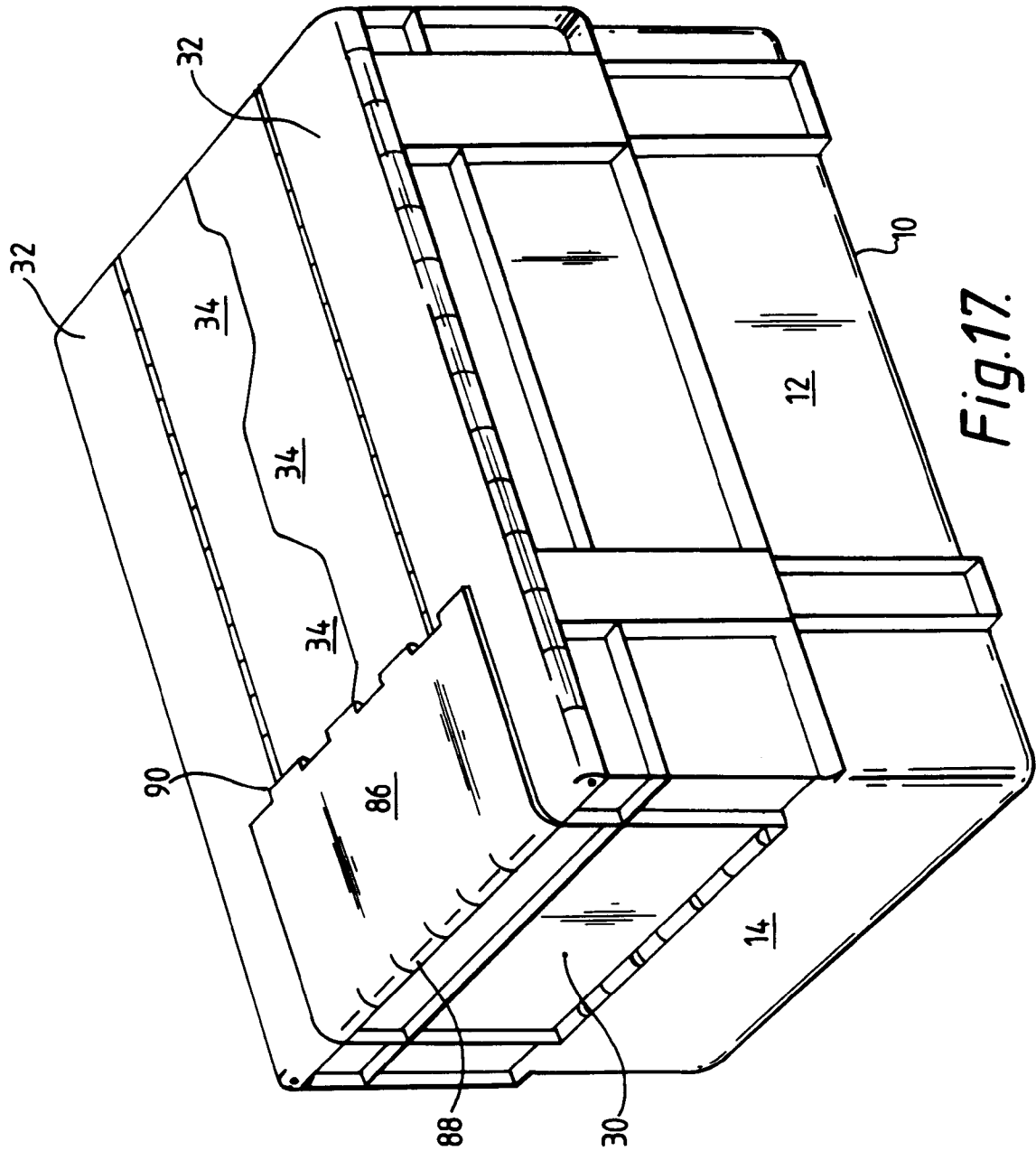
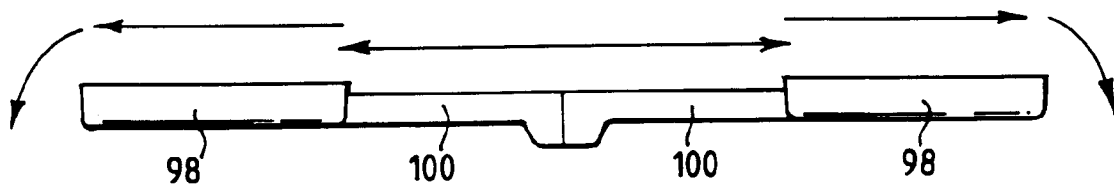
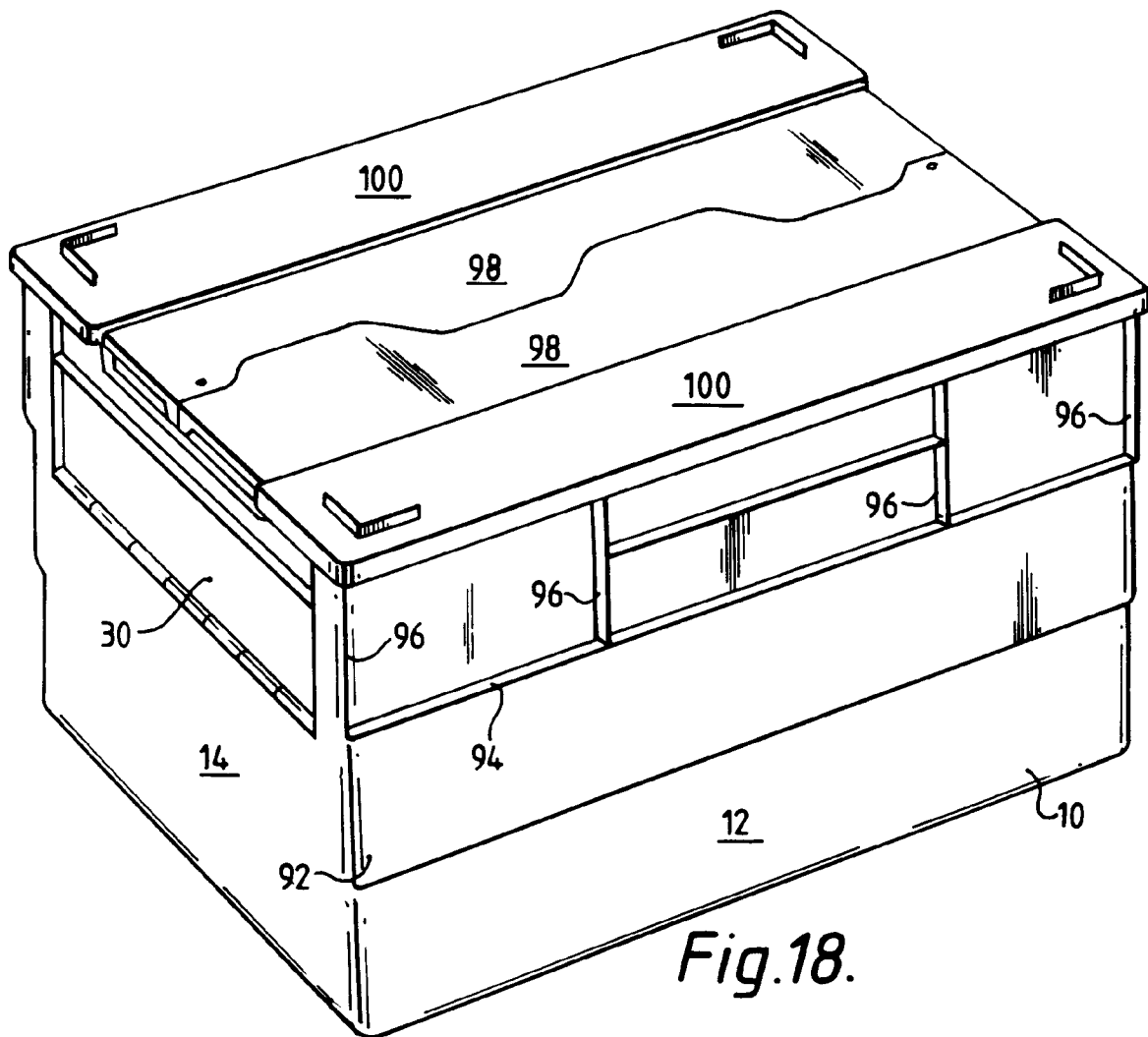
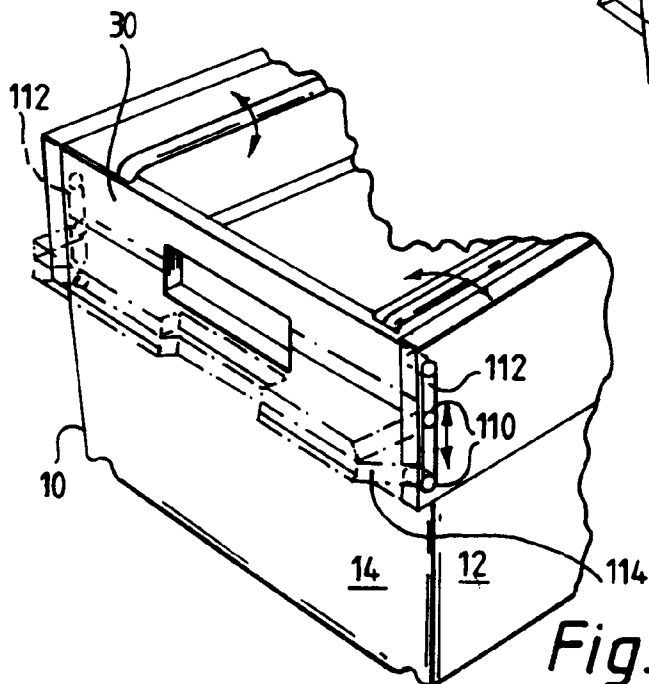
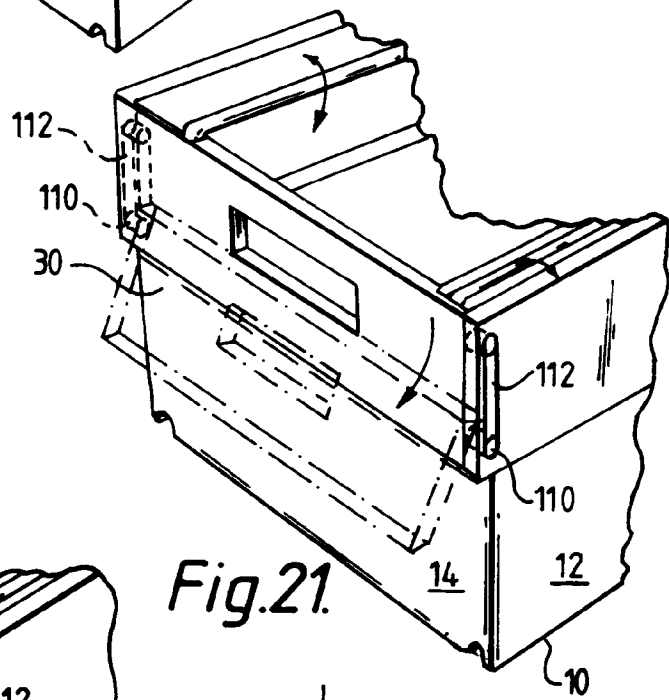
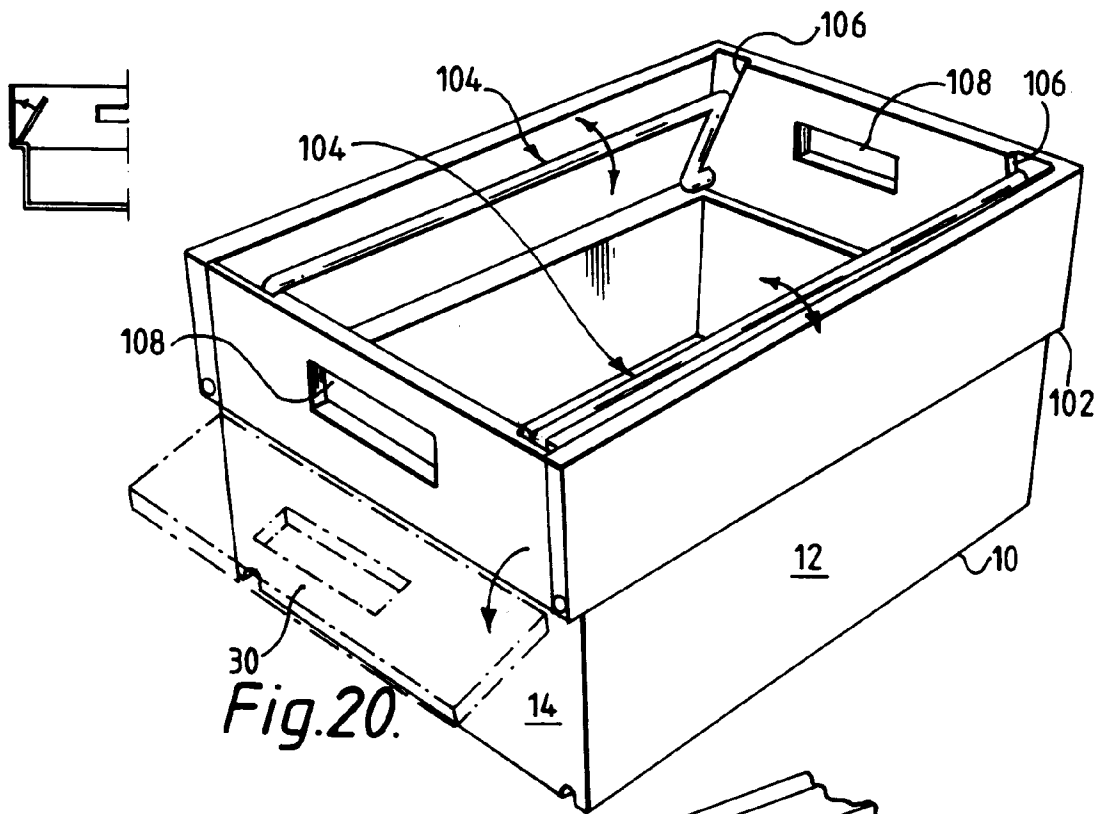
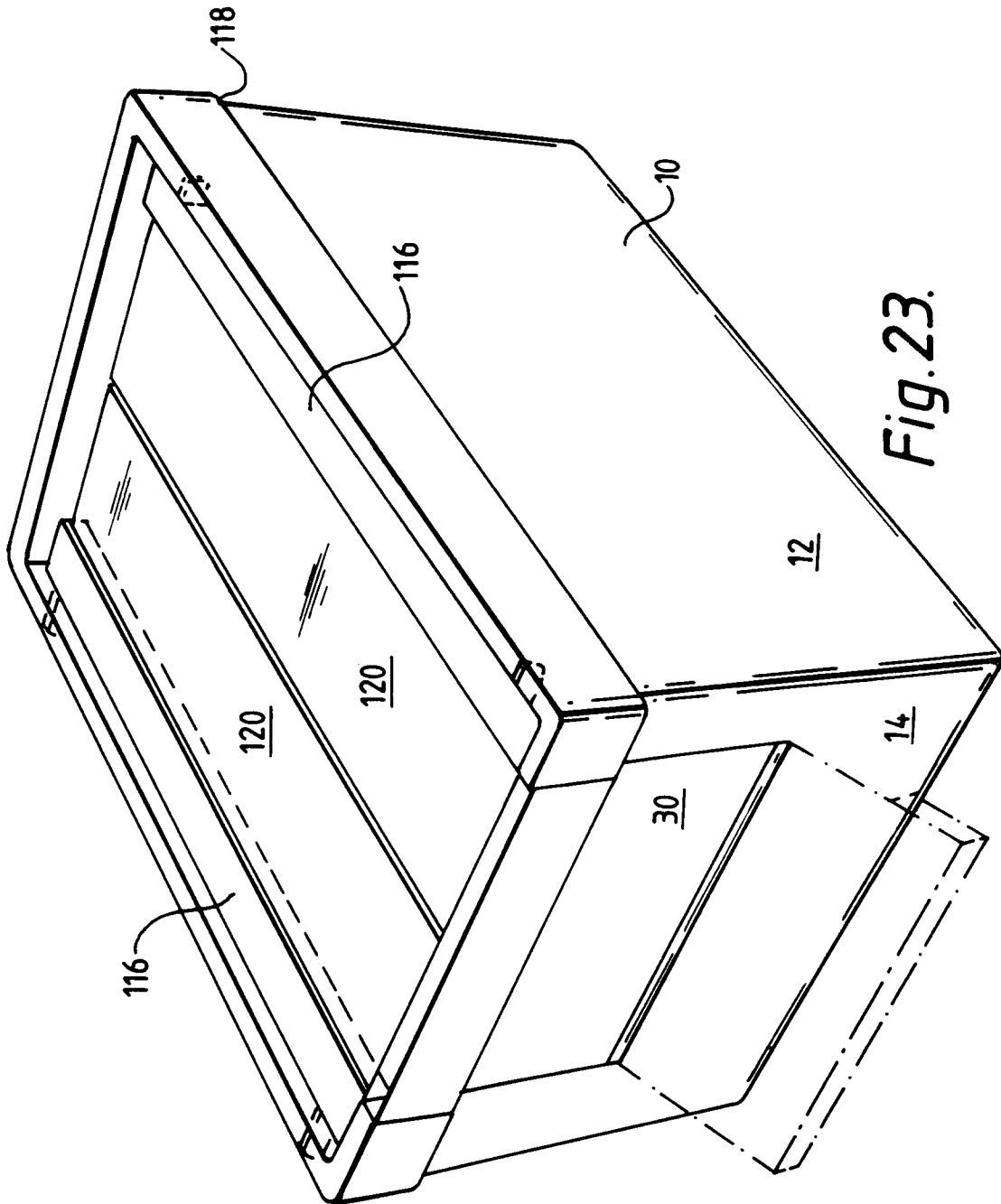
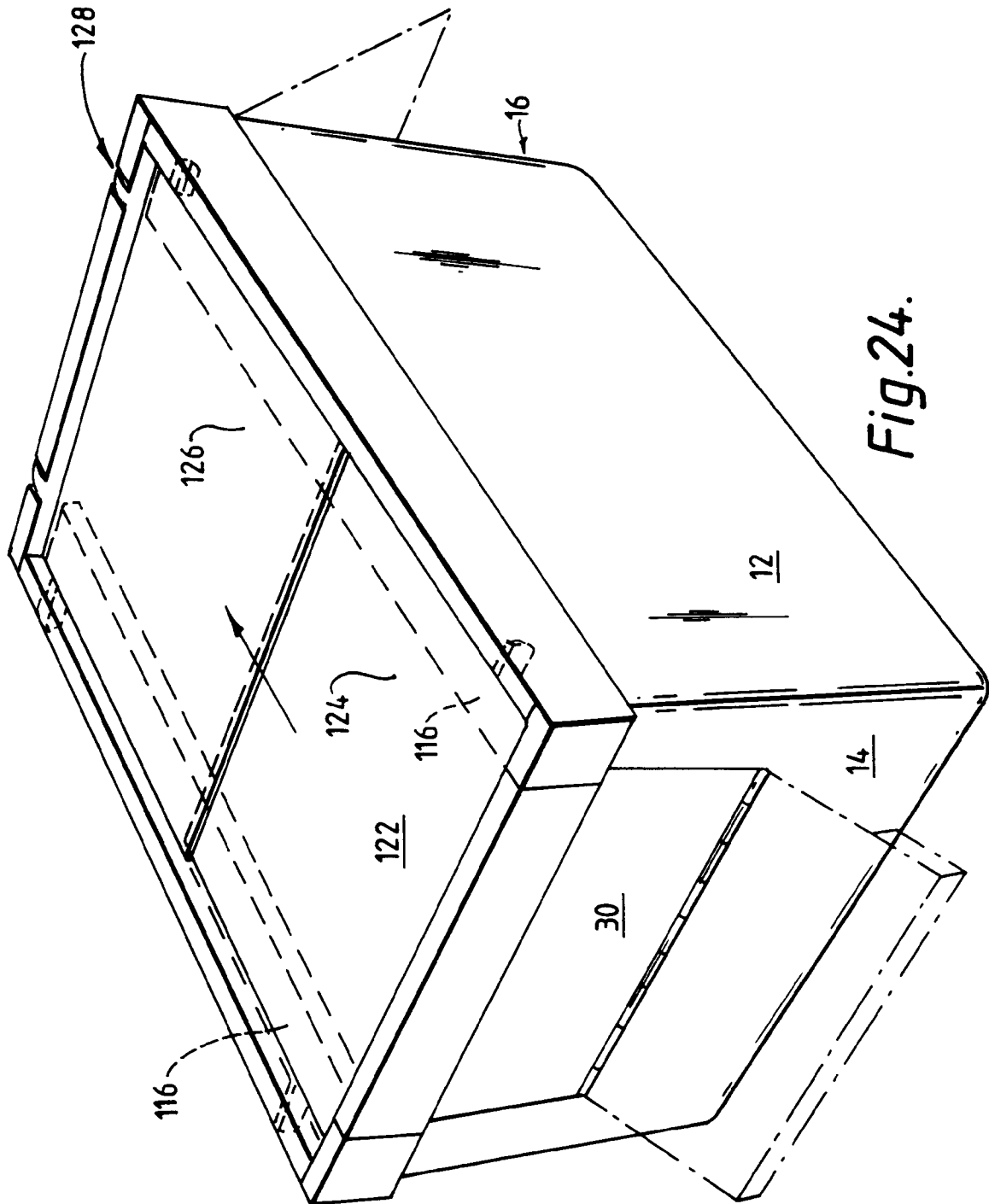


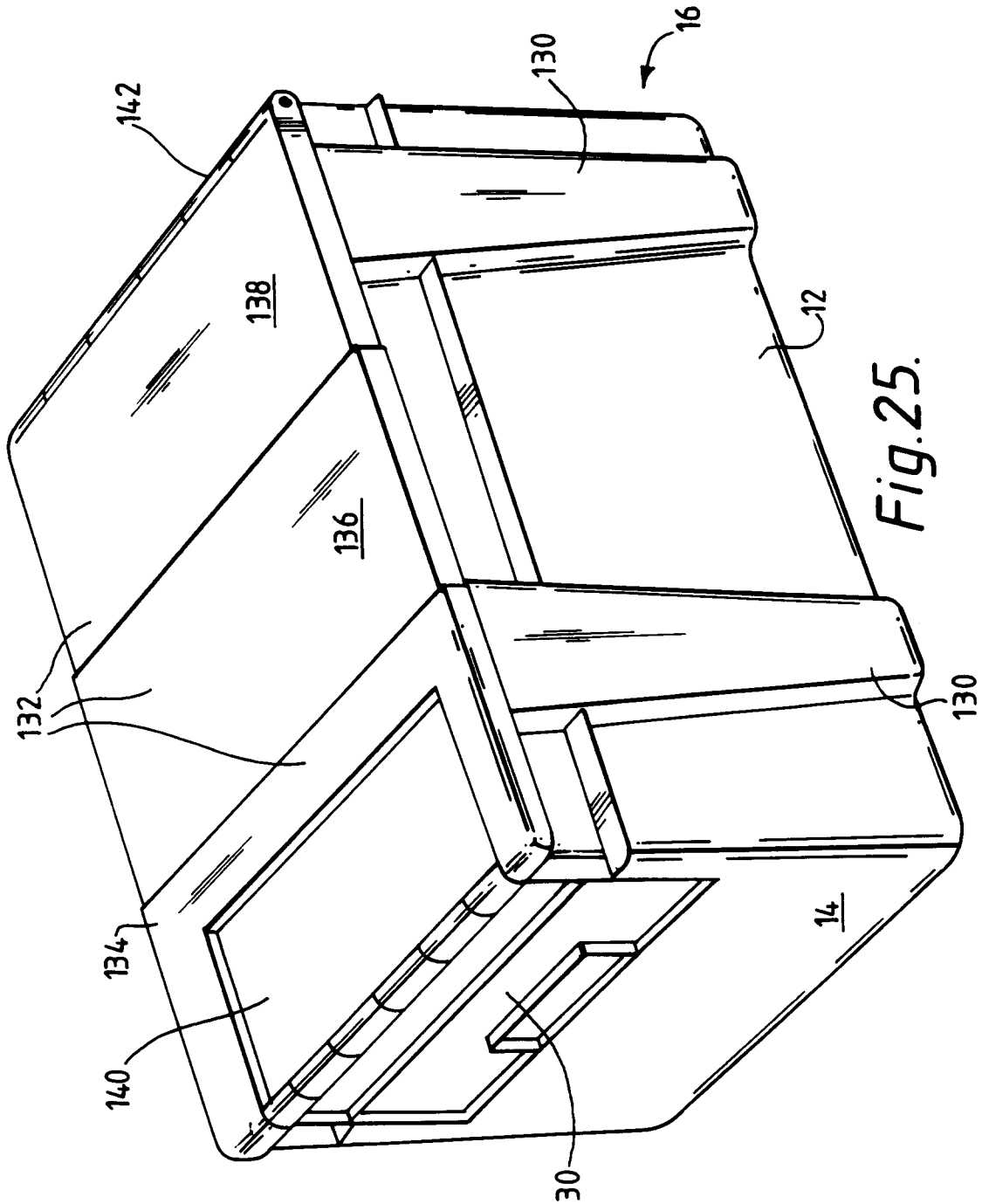
Fig. 17.

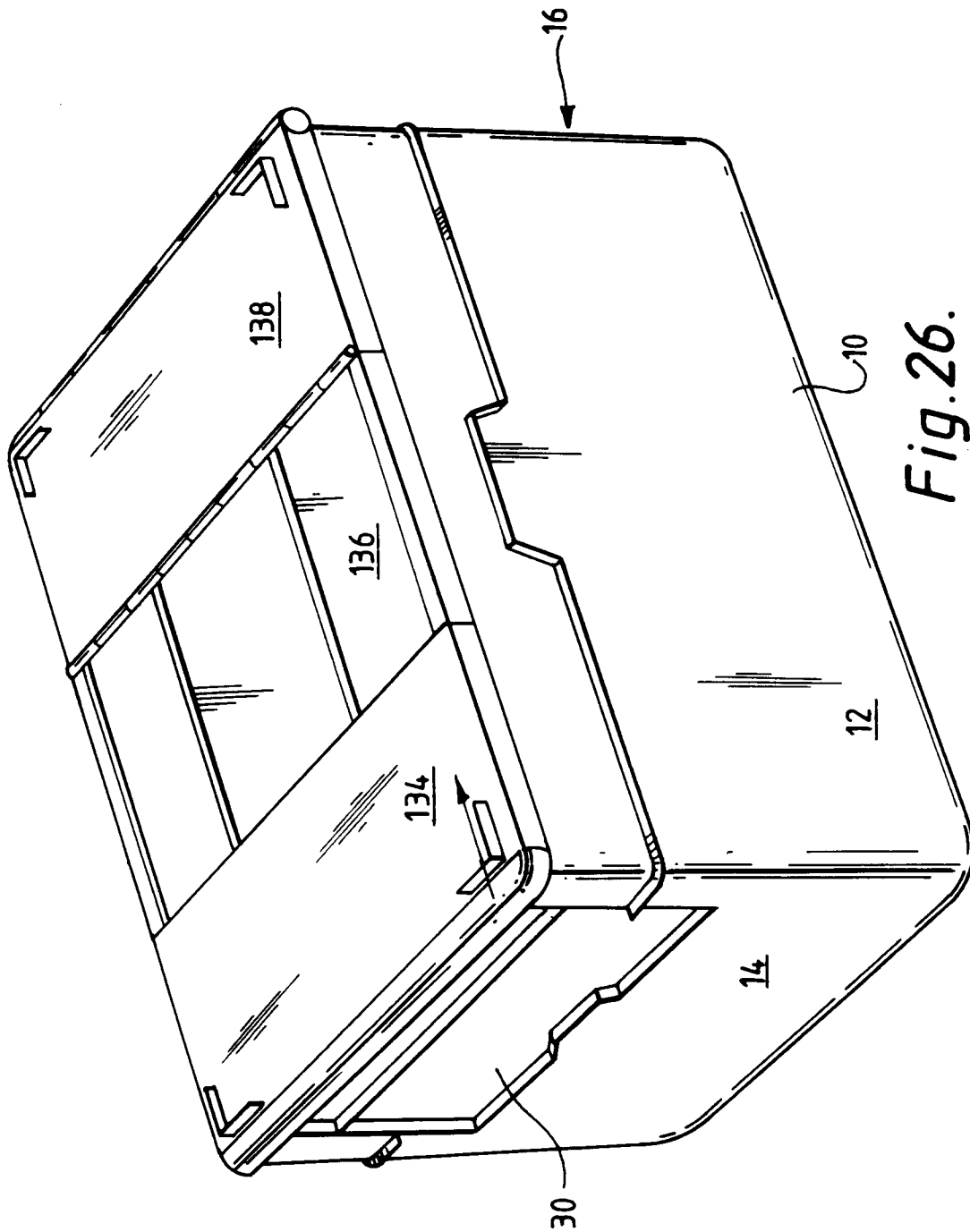


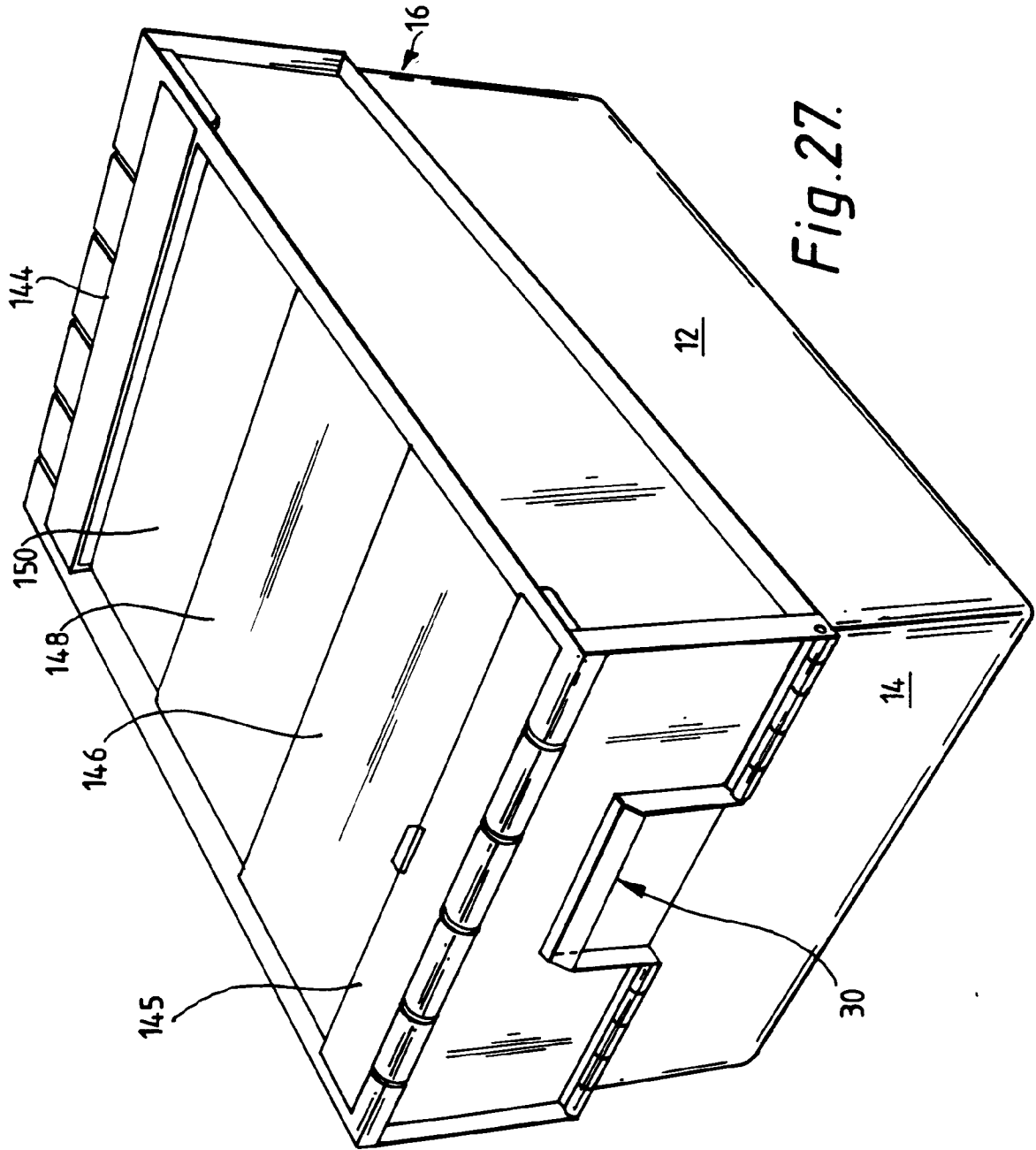












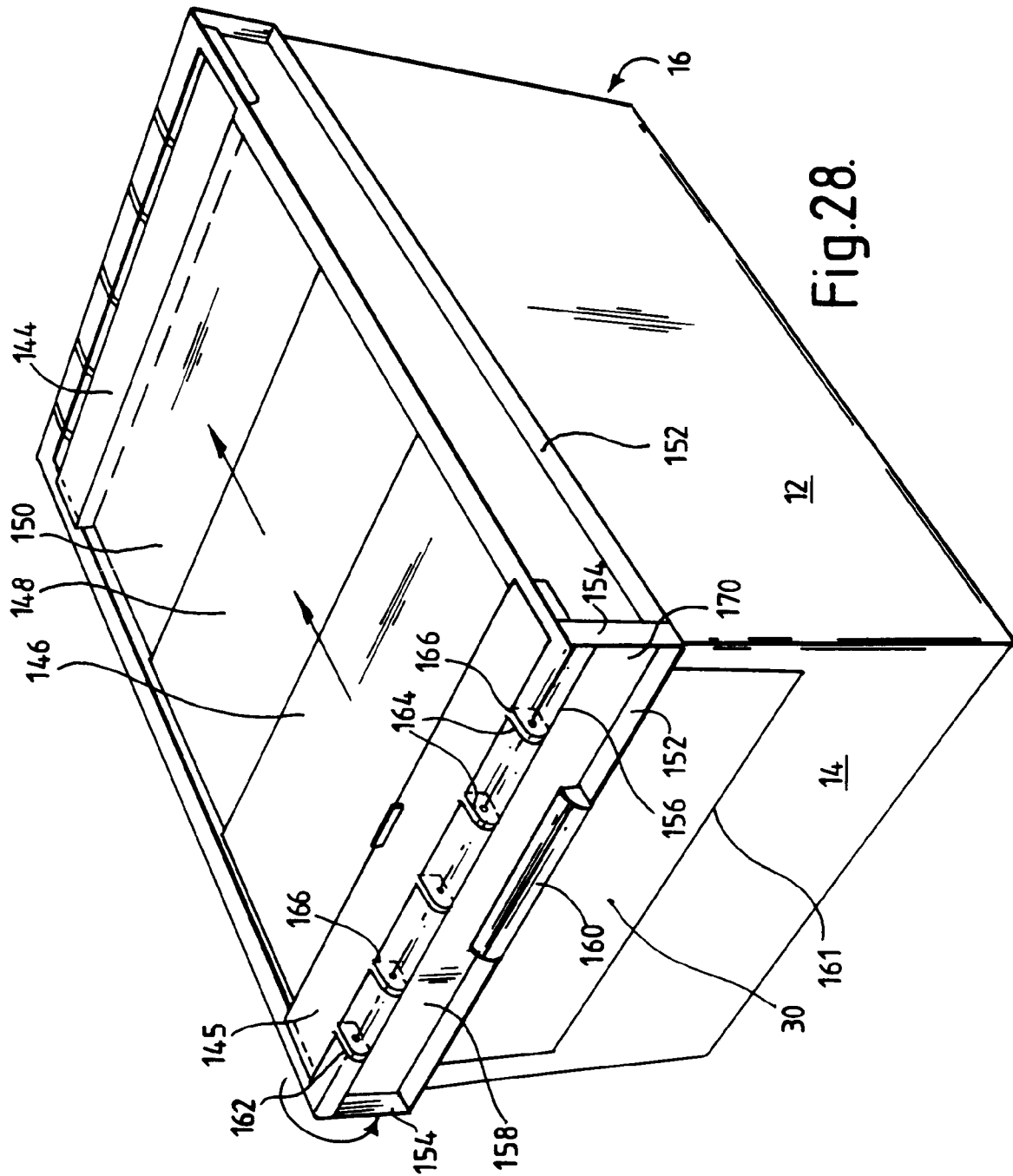


Fig. 28.

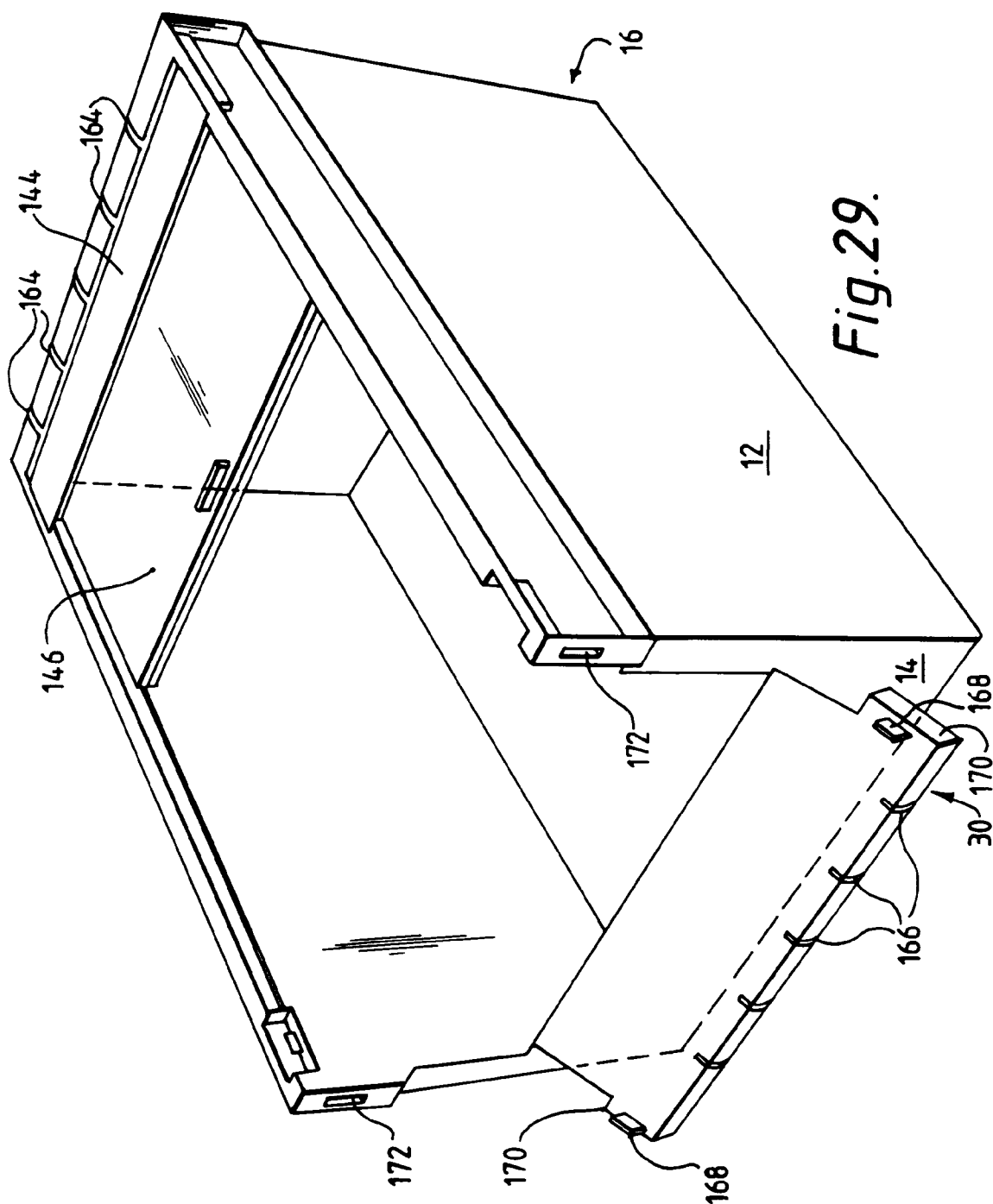


Fig. 29.

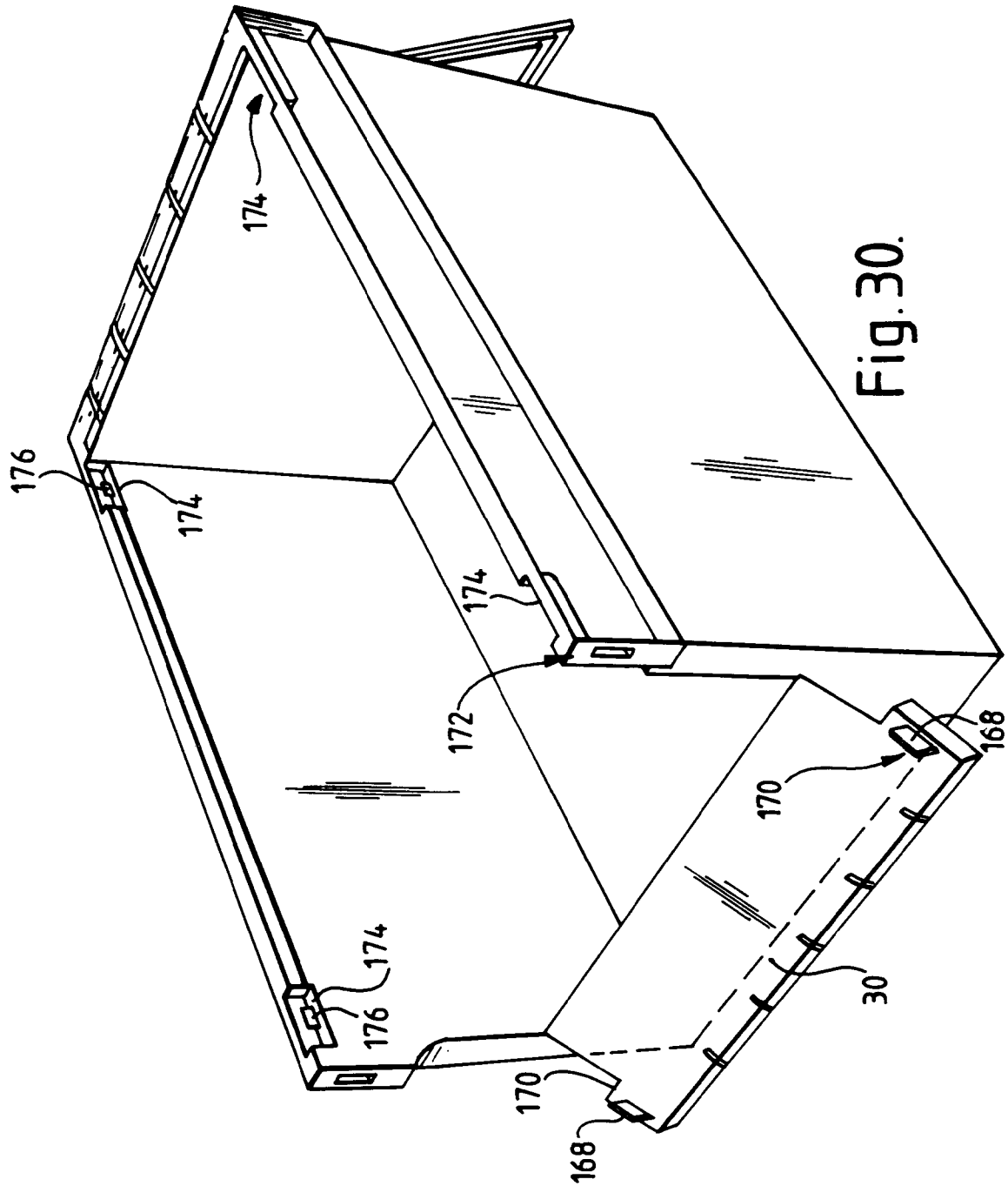


Fig. 30.

