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(54) **Basket-type carrier**

(57) There is provided a basket type carrier device having a lengthwise extending central wall (12), article receiving compartments (14) on both sides of the central wall (12) and a handle portion. Each receiving compartment (14) is defined by a base wall section (26, 27), a side wall (22, 24) which is substantially parallel to the

central wall (12), and end walls (23, 25) which extend between the side walls (22, 24) at each lengthwise end of the device and which are connected to the central wall (12). Connections means (28, 31) are provided between the central wall (12) and the base panel sections (26, 27).

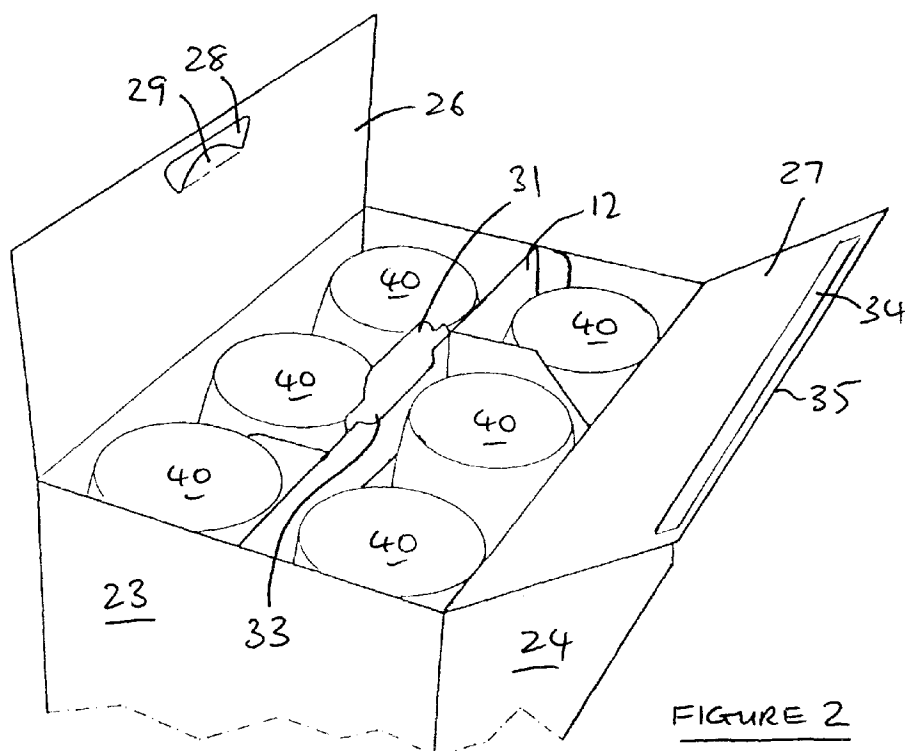


FIGURE 2

Description

This invention relates to containers for articles and more particularly to basket style containers usually for carrying bottles.

Basket style containers are known and normally have a central wall which may lead into an upstanding handle portion. On each side of the central wall is an open topped compartment section for receiving a number of bottles. Further divider walls may also be provided inside each compartment section so as to define individual pockets for each bottle. When fully erected, the container has a base, a pair of end walls generally perpendicular to the central wall and a pair of side walls generally parallel to the central wall and hingedly connected to the end walls.

It is common for the containers to be supplied to an end user, such as a beverage manufacturer, in a flat condition either fully glued or glued except for closing two base panels. The end user then runs the containers on a packing machine which opens the containers, closes the base panels and inserts the bottles.

According to a first aspect of the present invention there is provided a basket type carrier device having a lengthwise extending central wall, article receiving compartments on both sides of the central wall and a handle portion, each receiving compartment being defined by a base wall section, a side wall substantially parallel to the central wall and end walls extending between the side walls at each lengthwise end of the device and connected to the central wall, connection means being provided between the central wall and the base panel sections.

Preferably the end walls are hingedly connected to the central wall and to the side walls.

It is a preferred feature that each base wall section comprises a base wall panel hingedly connected to its associated side wall.

In one construction a projection is hingedly connected to the central wall and is folded over and glued to one base panel, and the other base panel is secured to the projection and to the first base panel.

In a preferred construction a projection is hingedly connected to the central wall, which projection extends through an aperture provided in one of the base wall panels and is bent over by said one base wall panel, the other base wall panel being folded over and adhesively secured to the projection and the first base wall panel.

Conveniently the projection incorporates a further section on the opposite side of the hinge with the central wall, which section remains above the first base wall panel. Preferably the further section is cut from the central wall.

In some arrangements the first base wall panel has a tab which projects into the aperture from the side opposite the free edge of the first base wall panel thereby narrowing the aperture, and effecting the bending over of the projection. In some cases the tab is arcuate.

Preferably the projection is located centrally along the lengthwise axis of the device. Further projection/apertures combinations may be provided along the lengthwise axis.

In some preferred arrangements compartment dividers are folded out from the central wall and are adhesively secured to the side walls.

It is a further preferred feature that the central wall incorporates handle aperture means remote from the base.

According to a second aspect of the present invention there is provided a paperboard blank for producing the above-described devices.

An embodiment of the prior art and of the present invention will now be described in more detail with reference to and as illustrated in the accompanying drawings in which:

Figure 1 shows a blank for producing a device according to the present invention;

Figure 2 is a perspective view of the underside part of the device in an inverted, partially formed state, Figure 3 is a perspective view similar to figure 2 in a more advanced stage of formation,

Figure 4 is a perspective view similar to figure 2 in a further advanced stage of formation.

Figure 5 is a perspective view of the fully formed device in an inverted state,

Figure 6 is a perspective view of an embodiment of the type of device according to the present invention,

Figure 7 shows an alternative blank for producing a device according to the present invention, and

Figures 8 to 10 are perspective views of the underside part of the device during various stages of formation.

Figure 1 shows a paperboard blank 10 for producing a basket-type carrier device. One such device 11 is shown in figure 6. The device 11 has a central wall 12, a handle aperture 13 in the central wall 12 and an open-topped compartment 14 on each side of the central wall 12. Each compartment 14 is optionally sub-divided by using divider panels 18 which are cut and folded from the central wall 12. In use each compartment receives a number of bottles, cans or other articles 40. In the illustrated embodiments six articles are received in two rows of three but it will be appreciated that other numbers could be accommodated with suitable alterations to the blank.

Referring more specifically to the blank 10 shown in figure 1 there are provided two central walls 12 hingedly connected by a fold 16. A glue panel 17 is hingedly connected to one of the central walls 12. Each central wall 12 has a handle aperture 13 and a pair of divider panels 18 which are hingedly connected at folds 19 to the associated central wall 12 and which have a glue flap 20.

One of the central panels 12 is hingedly connected to a first end wall panel 21, which is hingedly connected to a first side wall 22, which is hingedly connected to a second end wall 23, which is hingedly connected to a second side wall 24, which is finally hingedly connected to another first end wall panel 25. All the walls or panels 12, 21, 22, 23, 24 and 25 are connected in series. Also provided are first and second base panels 26, 27 which are hingedly connected to respective side walls 22, 24.

In the first base panel 26 is an aperture 28 which is narrowed in its central region by an arcuate tab 29 which projects into the aperture 28 in the direction of the free edge 30 of the first base panel 26. The aperture 28 is located generally centrally of the lengthwise dimension of the device.

Located generally centrally of the central wall 12 connected to the first end wall panel 21 is a projection 31 which is hingedly connected to the central wall 12 by way of folds 32. The projection 31 also has a further section 33 which is cut from the central wall 12 and is oppositely disposed relative to the folds 32.

In use of the blank 10, it may be part-assembled and supplied in a flat-folded condition. To achieve such a condition the central walls 12 are folded about the fold 16 and adhered together. Adhesive is applied to the glue panel 17 and to the glue flaps 20 of the divider panels 18 and the end walls and side walls are folded around the central walls 12 with the glue flaps 20 adhering to the respective side walls 22, 24 and the glue panel 17 adhering to the second end wall 23. Finally the further first end wall panel 25 is adhered to the first end wall panel 21. The two base panels 26, 27 remain unconnected at this stage. The device is, at this stage, in a flat folded condition which, when opened (see figure 2) produces the open-topped compartments 14 on each side of the combined central wall 12.

The base panels 26, 27 can then be actuated to form the bases of the compartments 14, although in figures 2 to 5 the bottles 40 are shown already inserted to illustrate their location in the end product. It would, however, be possible to adapt the closing and insertion processes in a number of ways.

To close the base, the first base panel 26 is folded down toward its ultimate position which is generally perpendicular to the central wall 12. The projection 31 passes through the aperture 28 as shown in figure 3 but at a certain angular rotation of the first base panel 26, the arcuate tab 29 engages the projection and forces it to hinge about the folds 32. This is because the distance of the furthest point of the tab 29 from the first side wall is greater than the distance from the central wall to the first side wall. When the first base panel 26 is folded generally flat with the projection 31 also flattened and held there by the tab 29 as shown in figure 4, then the second base panel 27 is folded towards its ultimate position after a line of adhesive 34 is applied adjacent its free edge 35 remote from the second side wall 24. The location of the adhesive strip is such that it engages the

folded down projection 31 and the first base panel 26.

The two base panels 26, 27 are, therefore, clearly secured together. In addition, however, both base panels 26, 27 are prevented from sagging relative to the central wall 12 by virtue of the interconnection of the projection 31 and the aperture 28 and the adhesive connection of the second base panel 27 with the projection 31 and the first base panel 26. This prevention of sagging improves the strength, integrity and appearance of the basket-type carrying device in use.

In figure 7 there is shown a blank 110 which is similar to the blank 10 in most respects and so similar parts have been given the same reference numerals. In blank 110 there is no aperture 28 in the first base panel 26 and the projection 31 is in the form of a simple flap hingedly connected to the edge of the central wall. The first base panel 26 is also of a width just sufficient to reach the central panel 12 when folded over.

Assembly up to the stage shown in figure 8 is similar to that of the first embodiment. The first base panel 26 is folded down so that its free edge 30 lies adjacent the projection 31 (figure 8). The projection 31 is then folded down and glued to the first base panel 26 (figure 10). The second base panel 27 with its line of adhesive 34 is then folded over and secured to the first base panel 26 and to the projection 31. Again, this arrangement provides secure prevention against the base sagging.

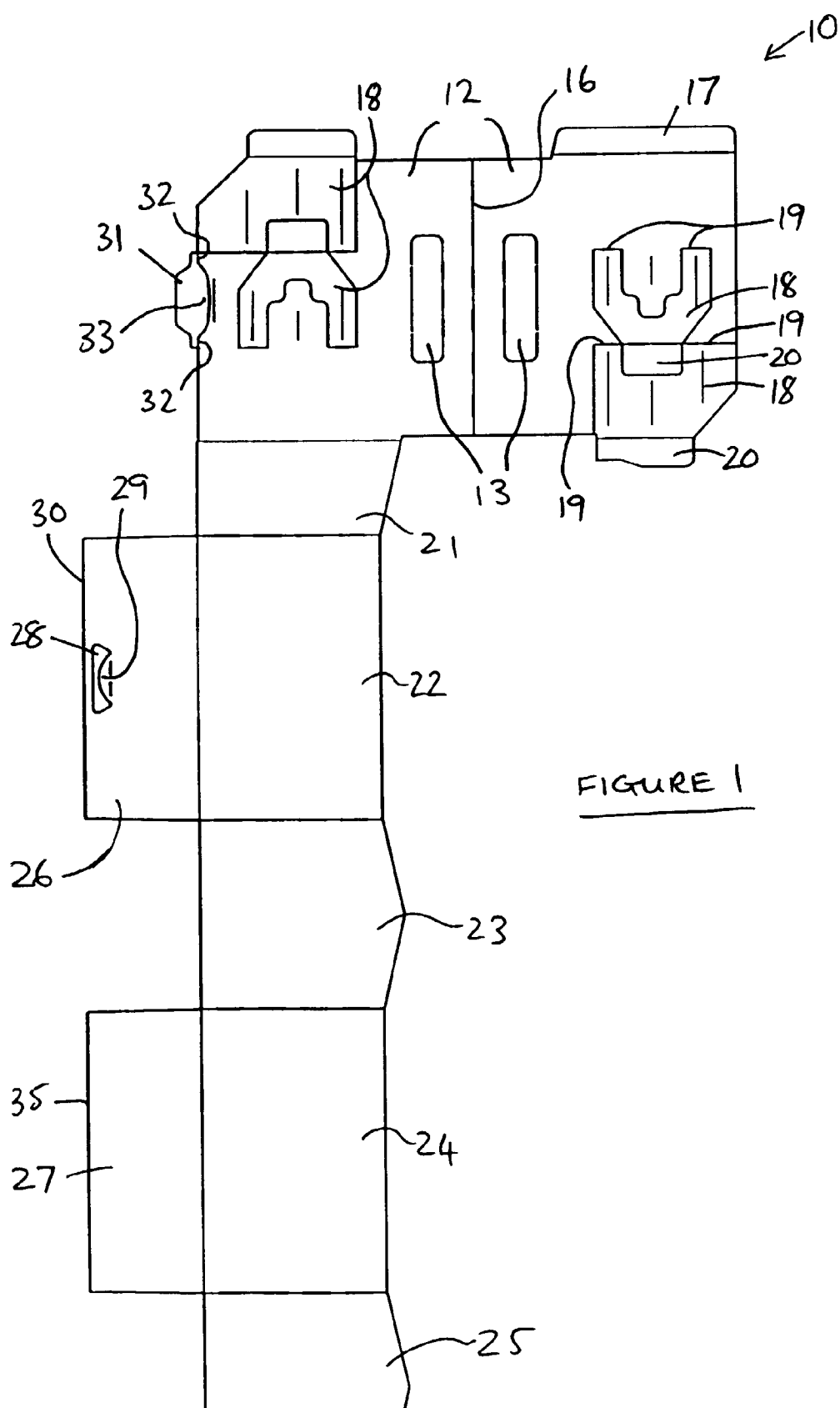
It will be clear to the skilled reader that the precise location, form and indeed number of aperture/projection combinations is a matter of design choice. Also adhesive could be applied inside the first base panel 26 so as to adhesively secure the further section 33 of the projection 31 to the first base panel 26. Further strength and pack integrity could be achieved this way.

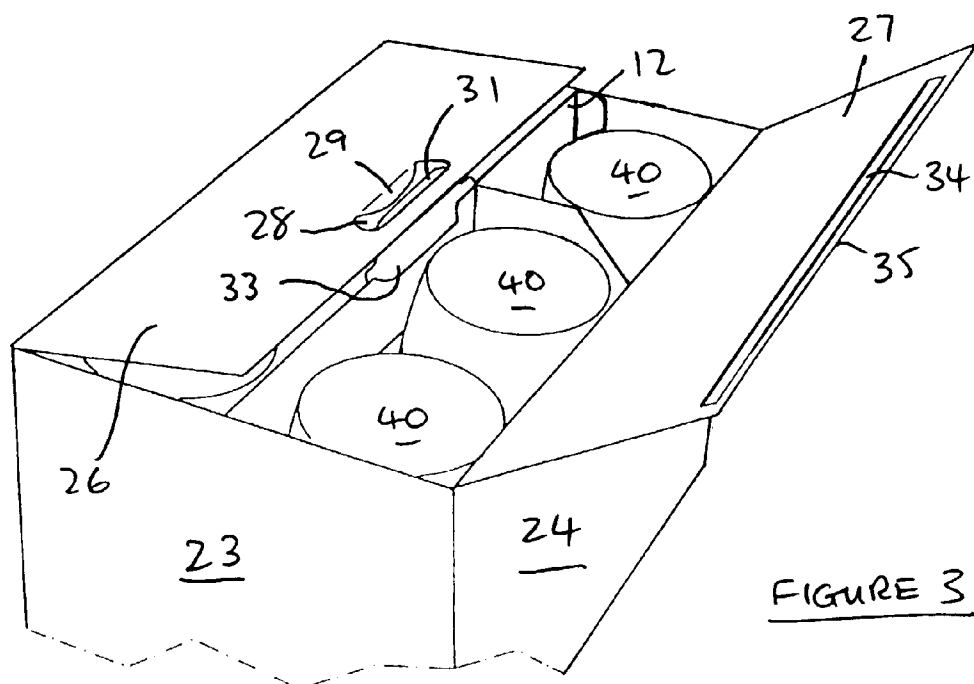
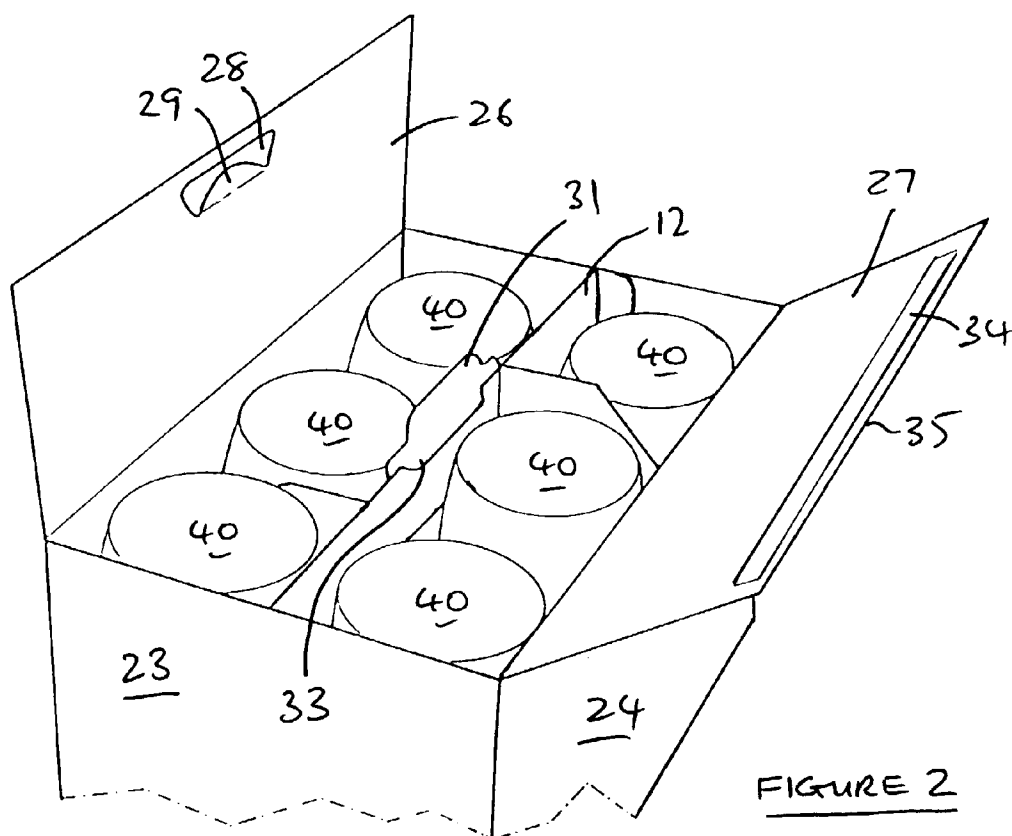
The above described arrangement could also be applied to other forms of basket type container made from different shaped blanks as long as two base panels were provided to close off the bottom of the compartments.

Claims

1. A basket type carrier device having a lengthwise extending central wall, article receiving compartments on both sides of the central wall and a handle portion, each receiving compartment being defined by a base wall section, a side wall substantially parallel to the central wall and end walls extending between the side walls at each lengthwise end of the device and connected to the central wall, connection means being provided between the central wall and the base wall sections.
2. A carrier device as claimed in claim 1, wherein the end walls are hingedly connected to the central wall and to the side walls.

3. A carrier device as claimed in claim 1 or 2, wherein each base wall section comprises a base wall panel hingedly connected to its associated side wall.
4. A carrier device as claimed in claim 3, wherein a projection is hingedly connected to the central wall and is folded over and glued to one base wall panel, and the other base wall panel is secured to the projection and to the first base wall panel. 5
10
5. A carrier device as claimed in claim 3, wherein a projection is hingedly connected to the central wall, which projection extends through an aperture provided in one of the base wall panels and is bent over by said one base wall panel, the other base wall panel being folded over and adhesively secured to the projection and the first base wall panel. 15
6. A carrier device as claimed in claim 5, wherein the projection incorporates a further section on the opposite side of the hinge with the central wall, which section remains above the first base wall panel. 20
7. A carrier device as claimed in claim 6, wherein the further section is cut from the central wall. 25
8. A carrier device as claimed in any one of claims 5 to 7, wherein the first base wall panel has a tab which projects into the aperture from the side opposite the free edge of the first base wall panel thereby narrowing the aperture, and effecting the bending over of the projection. 30
9. A carrier device as claimed in claim 8, wherein the tab is arcuate. 35
10. A carrier device as claimed in any one of claims 4 to 9, wherein the projection is located centrally along the lengthwise axis of the device. 40
11. A carrier device as claimed in any one of claims 4 to 10, wherein further projection/apertures combinations may be provided along the lengthwise axis.
12. A carrier device as claimed in any one of the preceding claims, wherein compartment dividers are folded out from the central wall and are adhesively secured to the side walls. 45
13. A carrier device as claimed in any one of the preceding claims, wherein the central wall incorporates handle aperture means remote from the base. 50
14. A paperboard blank for producing the device as claimed in any one of claims 1 to 13. 55





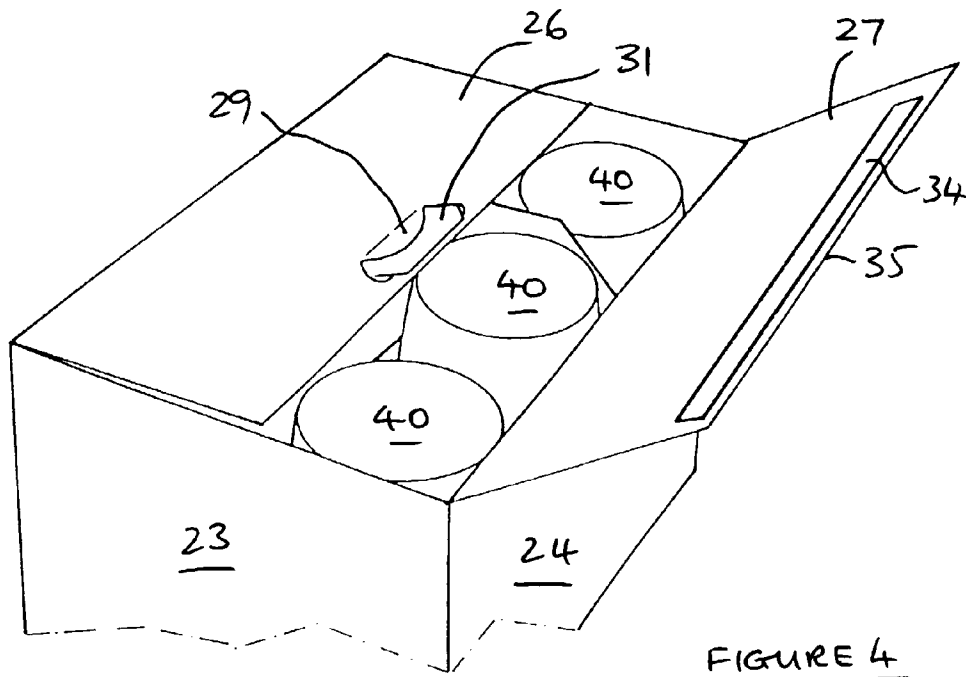


FIGURE 4

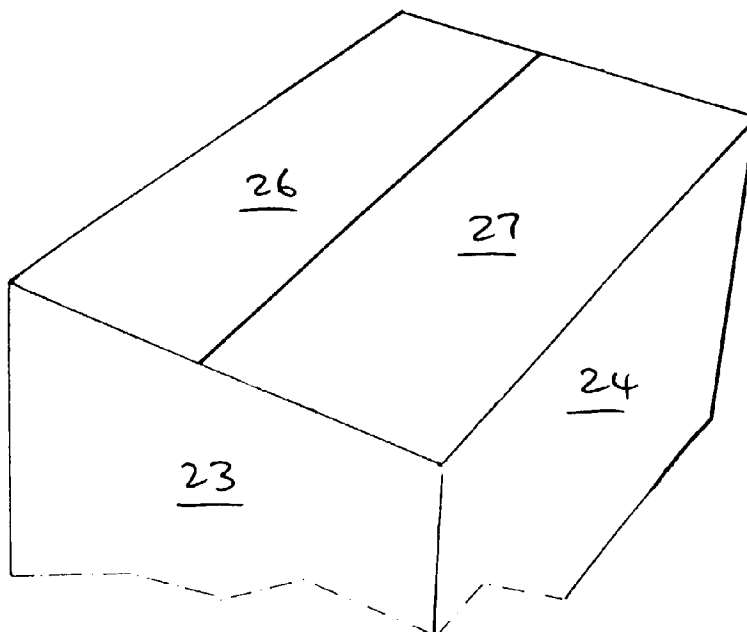


FIGURE 5

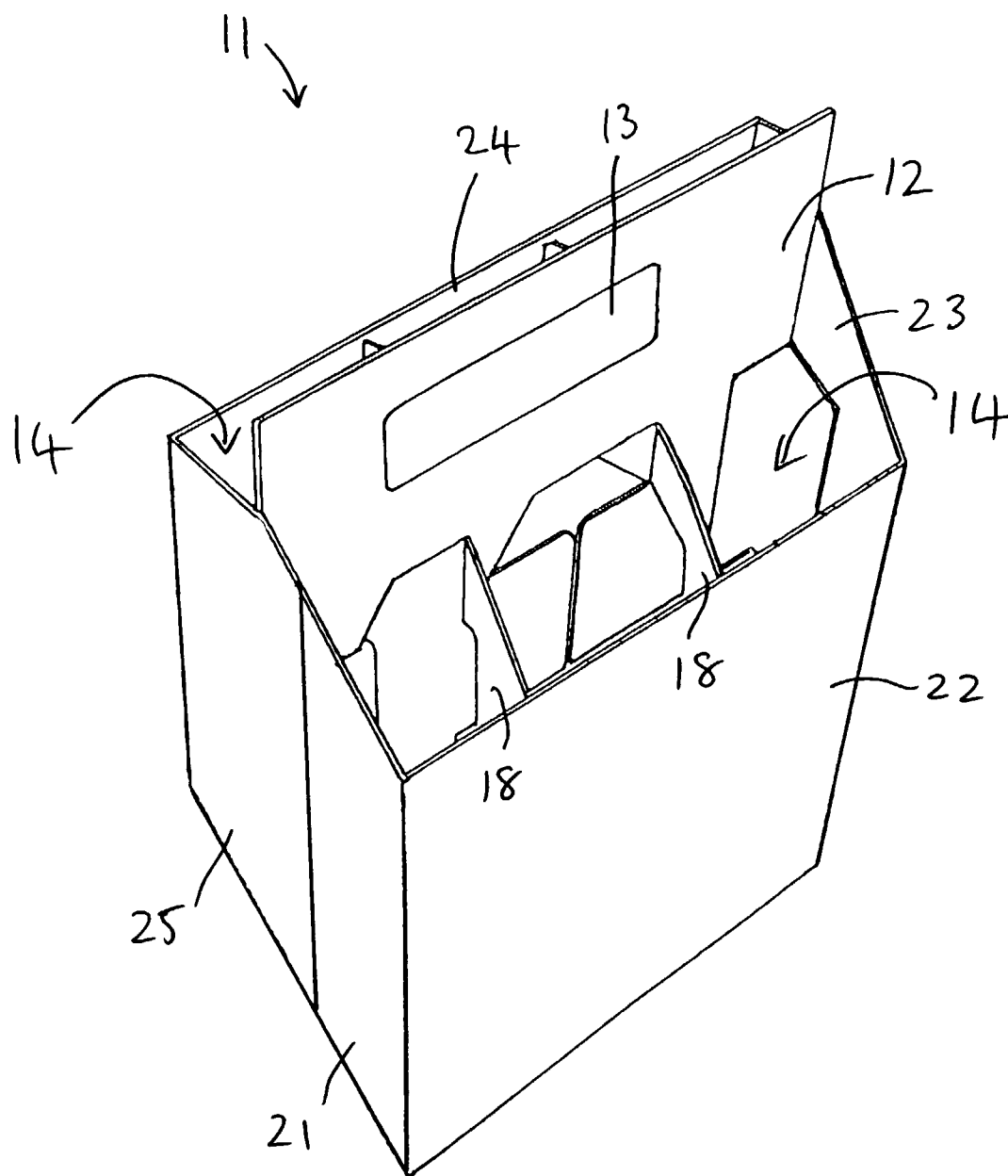
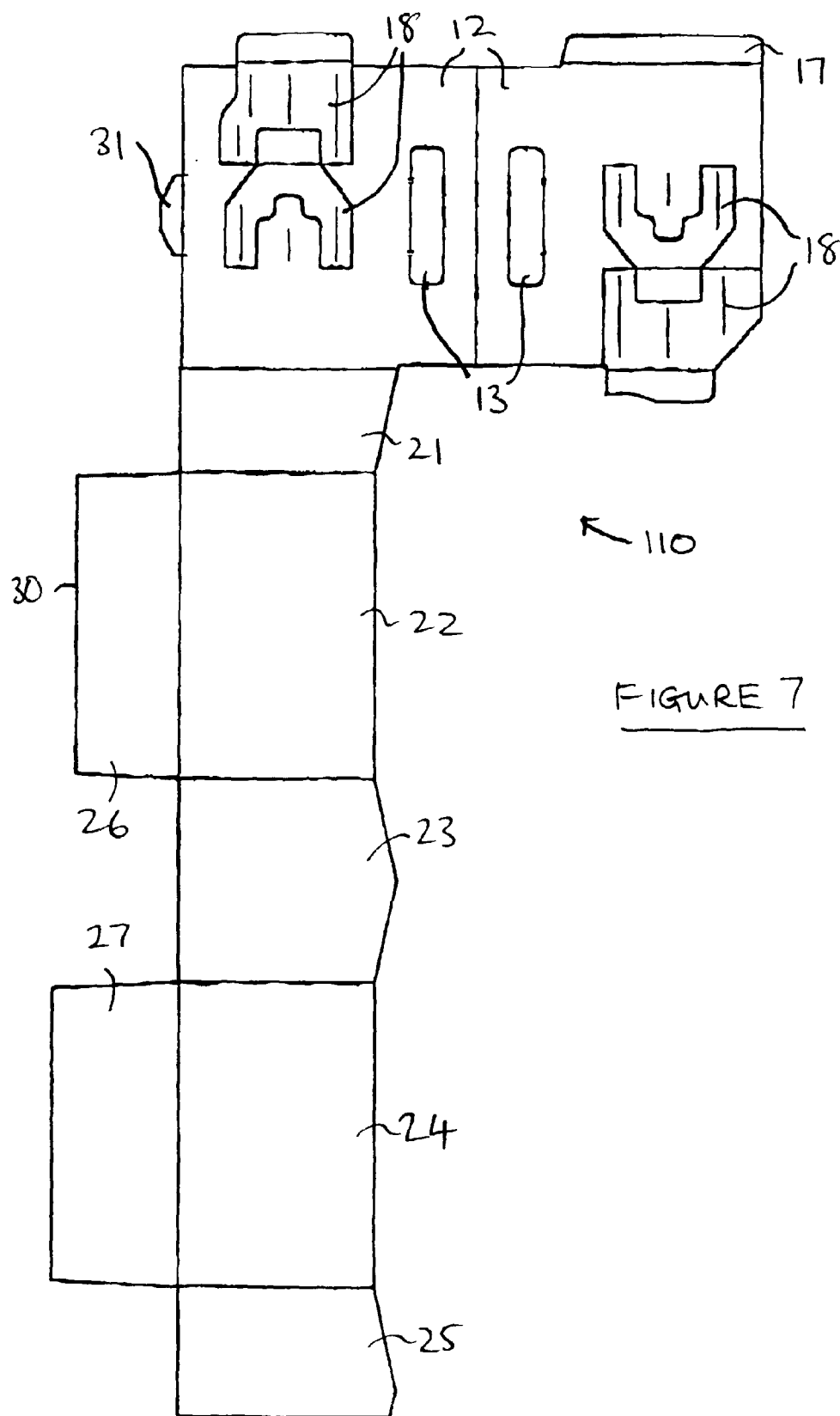


FIGURE 6



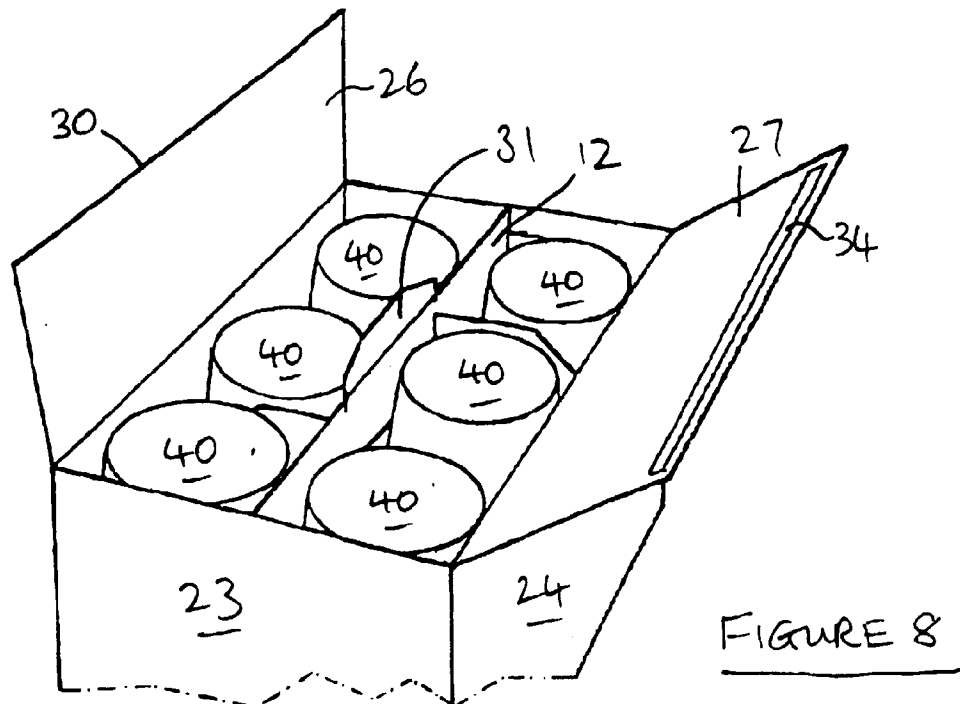


FIGURE 8

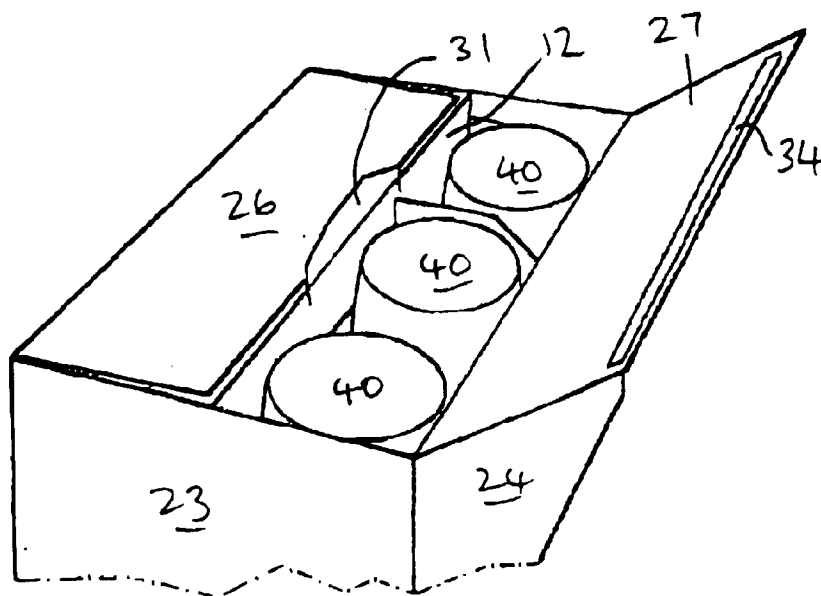


FIGURE 9

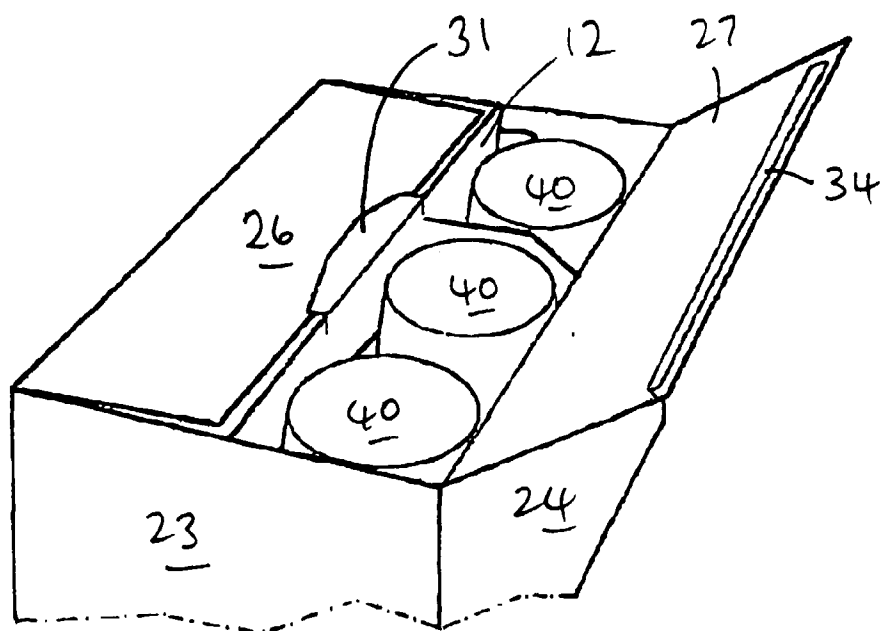


FIGURE 10



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EUROPEAN SEARCH REPORT

Application Number
EP 97 30 5482

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	GB 1 185 711 A (FIBREBOARD)	1-3, 12-14	B65D71/58
A	* page 2, line 125 - page 3, line 69; figures 1-4 *	4	
A	DE 30 15 769 A (OSTHUSHENRICH KG)	1-3, 12-14	
	* page 8, line 6 - page 9, last line; figures *		
A	EP 0 282 299 A (FEDERAL PAPER BOARD CO INC)	1-3, 12-14	
	* claims; figures *		
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B65D
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		17 November 1997	SERRANO GALARRAGA, J
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