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(54) **Carrier**

(57) The present invention relates to a carrier, and more particularly to a carrier of the type used for carrying beverage containers, particularly open containers such as beer and wine glasses. We describe a stackable car-

rier having a structural integrity which is not compromised by wetting.

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Description

[0001] The present invention relates to a carrier, and more particularly to a carrier of the type used for carrying beverage containers, particularly open containers such as beer and wine glasses.

[0002] Cardboard trays having a boxed construction with holes in a top surface for receipt of beverage containers are used in fast food outlets and coffee shops. In use, a beverage-containing cup, usually complete with a lid, is inserted through an aperture in a top surface and into the body of the container, such that the bottom of the cup sits upon the bottom surface of the boxed structure, with the top surface of the carrier acting against the sides of the cup to provide support thereto. Such carriers are designed to be stored flat and expanded to an assembled state by pushing the respective flat-packed sides of the carrier together. Carriers of this kind of design may also be provided with a centrally located handle.

[0003] Pulp tray carriers, analogous to cardboard egg cartons and in which a beverage container is held around its base are also known. These kind of containers are commonly used for 'take-away' orders from coffee shops and cafés. They too suffer many of the disadvantages mentioned above. Removal of cups wedged into this kind of carrier is often difficult and can result in spillage of the beverage.

[0004] At large sporting or musical events there are often short periods between breaks in performances in which demand for drinks is very high. This can result in bars being overwhelmed and many customers either not being served, or missing parts of the event once demand tails off and the scheduled break periods end. Pre-pouring and stacking drinks partially solves this problem, although the drinks are generally stacked on conventional trays and still must be transferred to the customer one at a time. It is therefore desirable to produce a stackable drinks carrier which allows drinks to be pre-poured, which enables a number of drinks to be simultaneously served, and which leads to a reduction in the time required for service at a bar.

[0005] It is also desirable, to produce a drinks carrier compatible with Multi-Head Dispense Units (MDUs) which are frequently utilised in high demand environments.

[0006] MDUs typically comprise up to 12 dispensing heads and pourers capable of delivering a dozen pints of beer in around 30 seconds. In order for such systems to be effective, loading and unloading of the glasses or plastic beakers immediately adjacent the dispensing heads must be swift. However, such environments are inherently wet as drink is spilt as a consequence of the rapid dispense of large volumes of drink. Therefore, drinks carriers as described above are not suitable for use in such environments. With such a system it is also desirable to unload multiple drinks from the dispensing unit and serve a customer in a single step to optimise speed of service.

[0007] Therefore, there exists a need for a carrier capable of use for simultaneously carrying a number of filled open beverage containers, preferably with a single hand, in which the structural integrity of the carrier is not compromised by wetting. There also exists a need to provide a carrier suitable for stacking. It is further desirable to produce a carrier that is MDU compatible.

[0008] In its broadest sense, the present invention provides a carrier for beverage containers, in which the carrier is formed from a unitary blank and comprises a first handle portion formed with a first sidewall, which extends downwardly to a base portion comprising a plurality of container receiving holes, wherein the base portion is provided at an opposite side thereof with an upwardly extending second sidewall which comprises a second handle portion at an end thereof, wherein the first handle portion comprises two elongate slots and the second handle portion comprises a single elongate slot overlapable with an elongate slot of the first handle portion.

[0009] Preferably, the carrier further comprises a handle-latching portion to engage latching the first and second handle portions. Preferably, the handle-latching element comprises a flap located at an extreme end of the carrier blank. Preferably, the handle-latching element is complementary in shape to the elongate slots of the first and second handle portions.

[0010] Suitably, the sidewalls are further provided with holes positioned such that, in use, an uppermost portion of a beverage container accommodated within the carrier passes through a portion of the sidewall. Preferably, the sidewalls are provided with a hole for each beverage container.

[0011] Alternatively, the sidewalls comprise an upper and lower portion, divided by a fold-line positioned substantially adjacent the uppermost edge of a beverage container when accommodated within the carrier.

[0012] Optionally, the container-receiving portions each comprise a plurality of deformable flaps.

[0013] Optionally, container-retaining barriers are provided at open ends of the carrier in an assembled configuration.

[0014] Preferably, the carrier is collapsible for storage and/or transportation.

[0015] The present invention also comprises a blank for a carrier as described above.

[0016] The above and other aspects of the present invention will now be described in further detail, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 is a plan view of a blank of a first embodiment of a carrier in accordance with the present invention;

Figure 2 is a perspective side view from a first end of a carrier formed from the blank of Figure 1;

Figure 3 is a perspective side view from a second end

- of two stacked carriers formed from blanks of Figure 1;
- Figure 4 is a plan view of a blank of a second embodiment of a carrier in accordance with the present invention;
- Figure 5 is a perspective side view along from a first end of a carrier formed from the blank of Figure 4;
- Figure 6 is a perspective side view from a first end of two stacked carriers formed from blanks of Figure 4;
- Figure 7 is a plan view of a blank of a third embodiment of a carrier in accordance with the present invention;
- Figure 8 is a plan view of a blank of a fourth embodiment of a carrier in accordance with the present invention; and
- Figure 9 is a plan view of a blank of a fifth embodiment of a carrier in accordance with the present invention.

[0017] With reference to Figures 1 to 3, a single piece blank 10 is shown, from which a completed 2 x 2 carrier 11 (for carrying four beverages in a two-by-two arrangement) may be formed through folding. The carrier blank 10 comprises a single elongate piece of a material and includes regions corresponding to a handle portion 12, a handle locking element in the form of a flap 13, sidewalls 14 and a base 15.

[0018] Handle locking element 13 is formed at a first end of the elongate blank 10 and is attached, opposite a fold-line 20, to a first adjoins connects to a base portion 15 through fold-line 21. Base portion 15 in turn adjoins a second sidewall 14', through fold-line 22. Towards a second end of blank 10 is a pair of handle portions 12'. The arrangement of handle portions 12 and 12' is such that in an assembled configuration for carrying, as shown in Figure 2, handle portion 12 overlaps the handle portion 12' which lies closest to the second end of the blank. Fold-lines 20, 21 and 22 are substantially parallel. Optionally, but not essentially, intermediate fold-lines 121 and 122 (dot-dash lines) may also be provided.

[0019] This arrangement allows the handle locking element flap 13 to be folded back through the handle portion 12 to lock the carrier and provide a comfortable handle grip through which a user may place their hand for holding the carrier 11. It will be recognised by the skilled person that flap 13 may alternatively be formed on the second end of blank 10 or formed with the first handle portion 12, wherein only a part of the handle portion 12 is cut out and the straight side of the handle portion 12 nearest the first end of the blank is a fold-line (not shown).

An advantage of this handle arrangement is that it also allows a filled carrier to be stacked on top of a like-filled carrier, as seen in Figure 3, such that the user can simply pick the carrier 11 up without the need for pre-assembling the handle. In use, there is sufficient distance between the fold-lines 21,22 of base 15 and the handle portions 12,12' that a person's fingers can slip between the handle portions 12,12' and lift the carrier in a single step.

[0020] The base 15 also comprises a plurality of circular cut-out regions 23 for receipt of respective beverage containers 25. In the embodiment of Figures 1 to 3, a two by two arrangement is shown although alternative arrangements, such as 2 x 3, 1 x 2, 1 x 3, 1 x 4 and 2 x 4 and so on, will readily be apparent to the skilled person.

[0021] Additionally, sidewalls 14 each further comprise cut-out portions 24 of generally triangular shape, through which an upper portion of each beverage container 25 held in the carrier 11 will pass in use, as illustrated in Figure 2. It will be recognised that alternative shaped cut-outs will also be suitable. This arrangement reduces the inwardly pulling effect of sidewalls 14 upon the upper portion of containers 25, which occurs when the carrier is in use, and prevents the upper portions of containers 25 from being forced together in a manner which may lead to unnecessary spillage of drinks contained therein. The cut-outs 24 also support a beverage container 25 so inserted around the area of its rim and prevent adjacently placed containers 25 from knocking against each other when the carrier is in use.

[0022] Blank 10 may also include separator flaps (not shown) formed in the base portion 15, to reduce cross-contamination of different adjacently-located drinks. The separator flaps may be formed as extensions of respective cut-out regions 23, which will be retained along a fold-line in the base of the carrier, to form a barrier between adjacent beverage containers.

[0023] The carrier 11 requires no gluing and is formed from a single piece blank. Preferably formed from card material having excellent wet tear strength, the simplicity of the carrier design allows rapid and cheap production by conventional methods and produces a carrier which can be stored flat and assembled in minimum time.

[0024] In the operative configuration, as seen in Figures 2 and 3, the carrier 11 is capable of receiving and accommodating a number of beverage containers, and can be carried in a single hand. Carriers according to this invention allow a customer comfortably and safely to carry a large number of drinks, whilst minimising the risk of spillage. Additionally, due to the high specification of the material from which the carriers are preferably constructed, the carriers can be reused a number of times without the risk of the carrier failing, even if the carrier has been exposed to liquids.

[0025] Referring now to Figures 4 to 6, there is shown a second embodiment of the present invention for a 1 x 4 drinks carrier 30. The carrier 30 is constructed as above with handle portions 31, handle locking element 32, sidewalls 33, a base 34, fold-lines 35 and 40, and cut-out

sections 41, and further comprises intermediate fold-lines 42 such that sidewalls 33 are formed from upper and lower sidewall portions 43 and 44 respectively. In this alternative embodiment cut-outs (24 of Figures 1 to 3) are not provided as intermediate fold-lines 42 act to reduce the inwardly directing force exerted upon beverage containers 25 which results when the carrier is in use. An advantage of this particular carrier configuration is that the carrier is compatible with Multi-Head Dispense Units (MDUs) and so provides a convenient and suitable loading/unloading, storage, and carrying means for use with such systems.

[0026] Figure 7 illustrates a blank of a third embodiment of the present invention in the form of a 1 x 2 drinks carrier having the features as described above in relation to the embodiment illustrated in Figures 4 to 6.

[0027] Referring to Figures 8 and 9 there are shown blanks 50, 50' for a carrier compatible for use with Multi-Head Dispense Units (MDUs). In particular, carriers formed from the illustrated blanks are capable of being filled with pre-poured beverage containers and subsequently stacked. These carriers have an alternative handle arrangement provided by handle portions 51 which partially overlap in a stacked arrangement and which allow a user to pick-up a filled carrier with ease. Both of the handle portions 51 may be formed from cut-out regions (Figure 8) or, alternatively, one of the handle portions may comprise a flap 52 formed from a partial cut-out region along fold-line 53 (Figure 9). In use the flap 52 is passed through and engages with the handle portion at the opposite side of the carrier. This arrangement helps to prevent one of the handle portions from slipping from a user's grip.

[0028] The carrier is suitably formed from a corrugated board material, suitably card or a plastics equivalent. Preferably, the material has excellent wet and tear strength properties having improved water resistance with low Cobb values, as determined by the Cobb test (ISO535) for establishing water absorptiveness of paper-based materials. It is desirable to use materials having Cobb values of between 30 and 70 g/m², more preferably 45-55 g/m², examples materials having such properties being Carrier Kote®, Frövi Carry®.

[0029] In preferred embodiments a card material of between 250 and 600 g/m², more preferably between 300 and 400 g/m² is used.

[0030] As may be seen, therefore, the present invention provides numerous advantages. It may be assembled easily and inexpensively, and is capable of accommodating beverage containers of a range of different sizes and shapes. It may also be formed with a single die, using conventional manufacturing equipment.

Claims

1. A carrier for beverage containers, in which the carrier is formed from a unitary blank and comprises a first

handle portion formed with a first sidewall, which extends downwardly to a base portion comprising a plurality of container receiving holes, wherein the base portion is provided at an opposite side thereof with an upwardly extending second sidewall which comprises a second handle portion at an end thereof, wherein the first handle portion comprises two elongate slots and the second handle portion comprises a single elongate slot overlappable with an elongate slot of the first handle portion.

2. A carrier as claimed in Claim 1 further comprising a handle-latching portion to engage latchingly the first and second handle portions.

3. A carrier as claimed in Claim 2 in which the handle-latching portion comprises a flap located at an extreme end of the carrier blank.

4. A carrier as claimed in Claim 2 or Claim 3 in which the handle-latching portion is complementary in shape to the elongate slots of the first and second handle portions.

5. A carrier as claimed in any one of claims 1 to 4 in which the sidewalls further comprise at least one hole positioned such that, in use, an uppermost portion of a beverage container accommodated within the carrier passes through a portion of the at least one hole.

6. A carrier as claimed in Claim 5 in which the sidewalls comprise a hole for each beverage container.

7. A carrier as claimed in any one of claims 1 to 4 in which the sidewalls comprise an upper and lower portion, divided by a fold line positioned substantially adjacent an uppermost edge of a beverage container when accommodated within the carrier.

8. A carrier as claimed in any one of claims 1 to 7 in which the container-receiving portions each comprise a plurality of deformable flaps.

9. A carrier as claimed in any one of claims 1 to 8 in which container-retaining barriers are provided at open ends of the carrier in an assembled configuration.

10. A carrier as claimed in any one of claims 1 to 9 in which the carrier is collapsible for storage and/or transportation.

11. A carrier as claimed in any one of claims 1 to 10 wherein the carrier is formed from a card or board material.

12. A carrier as claimed in Claim 11 wherein the card or

board material has a Cobb value of from 30 to 70 g/m², preferably from 45 to 55 g/m²

13. A blank for a carrier as claimed in any one of claims 1 to 12.

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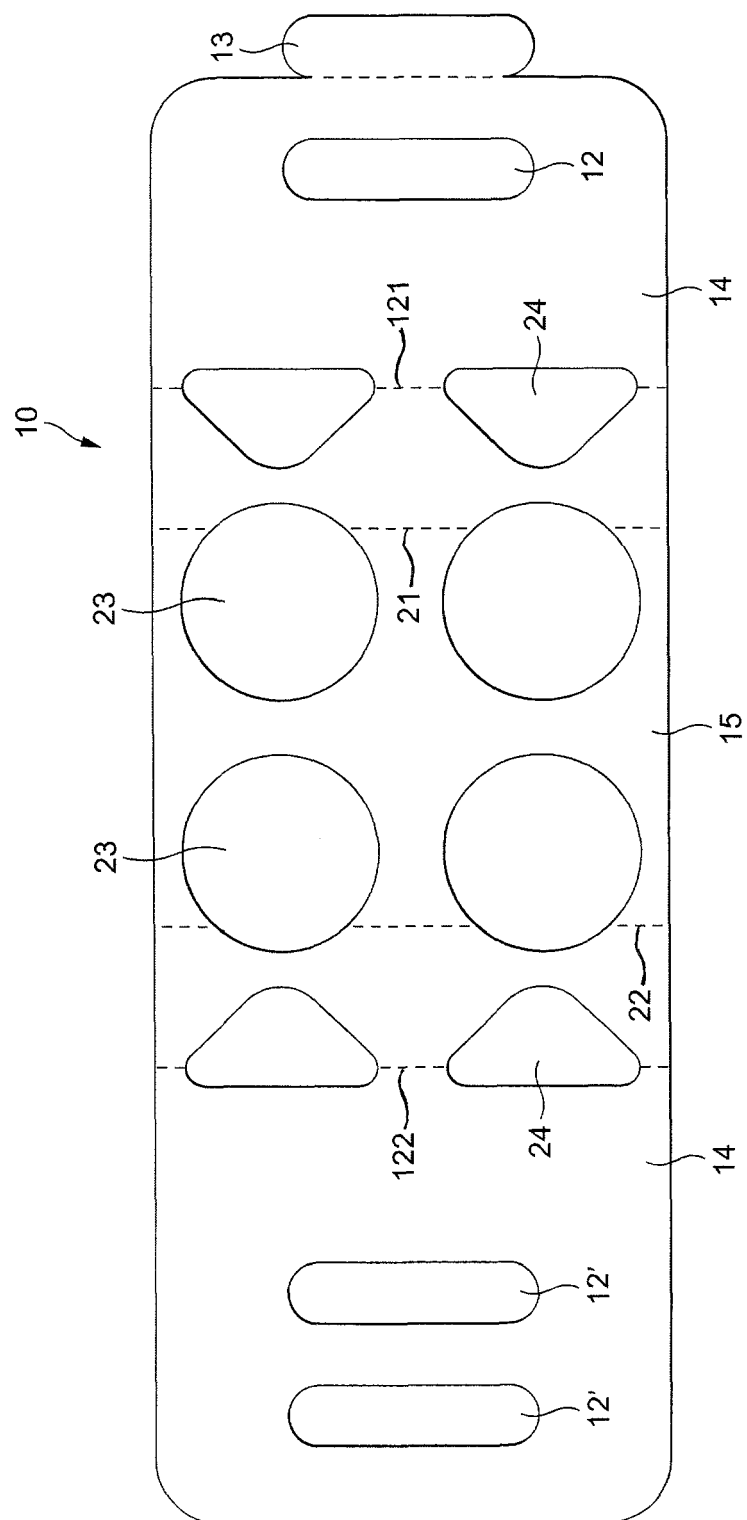


FIG. 1

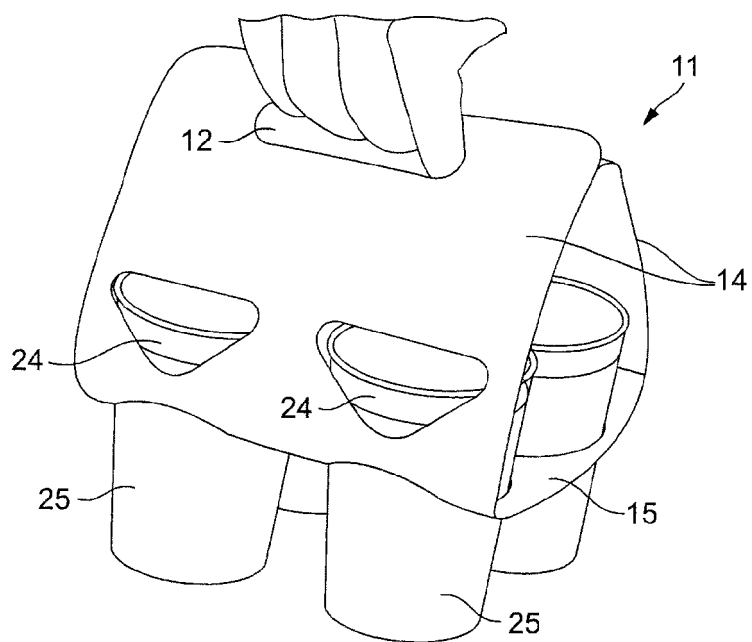


FIG. 2

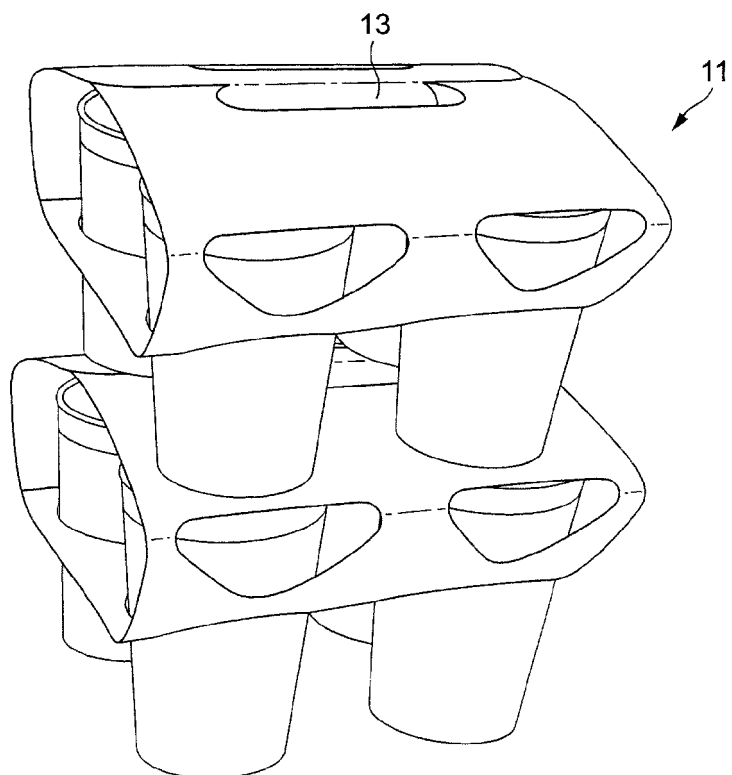


FIG. 3

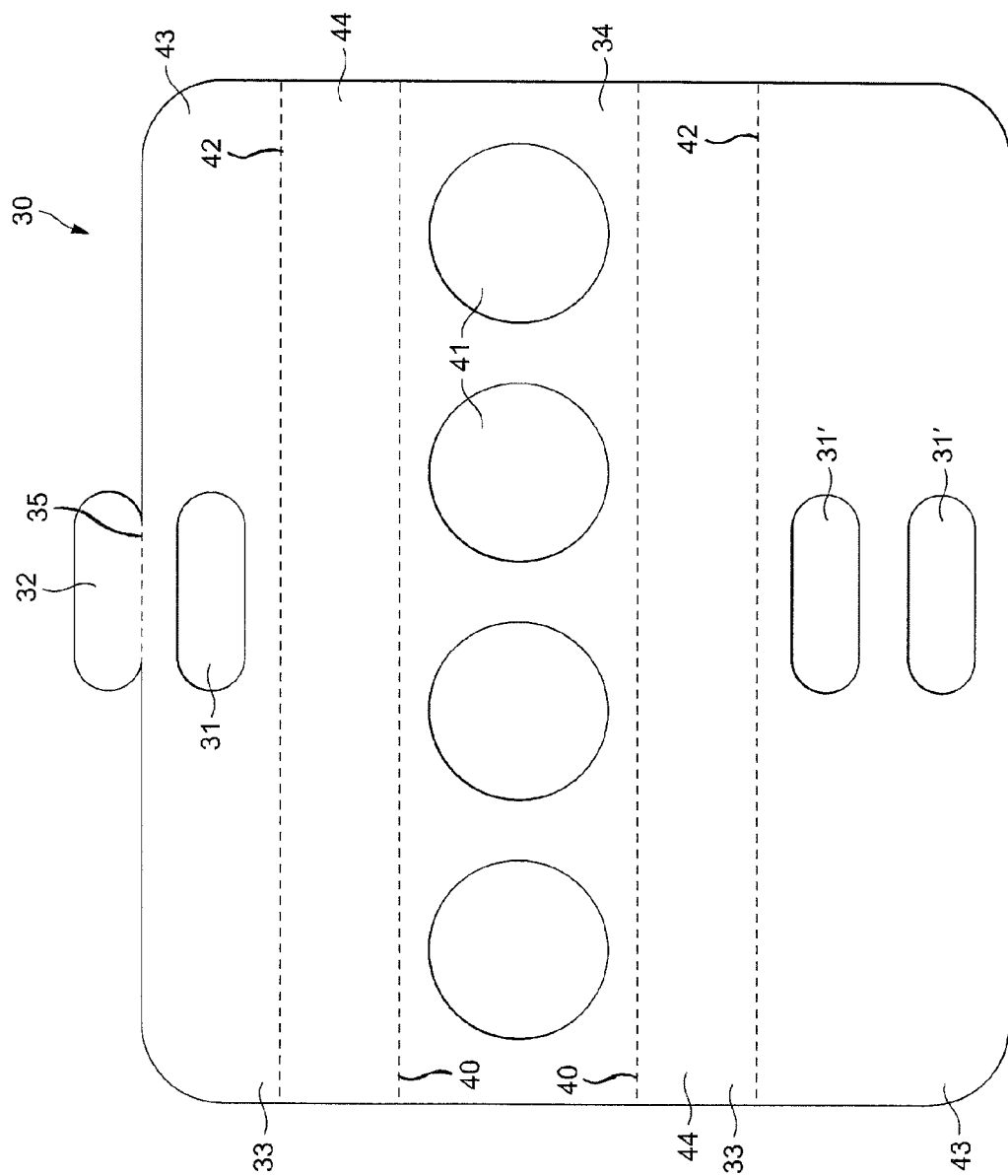


FIG. 4

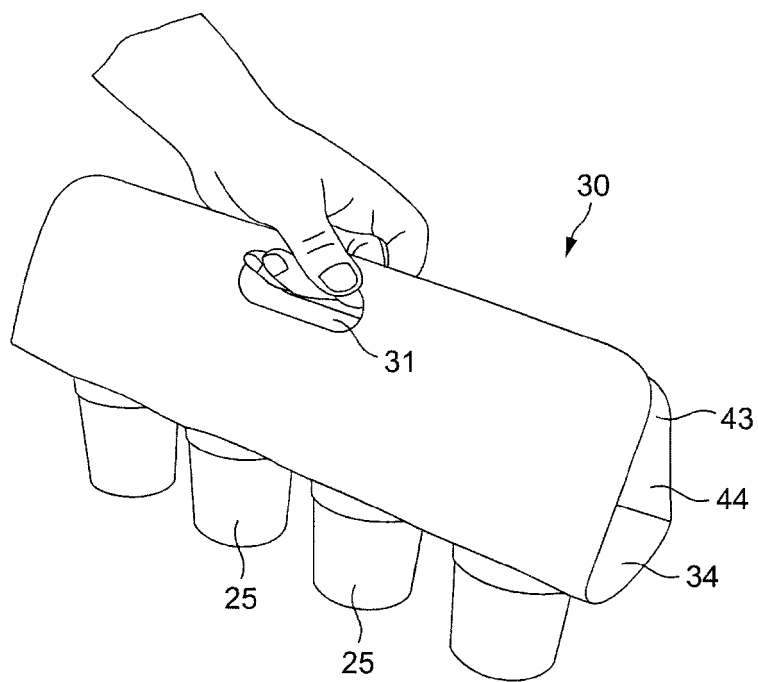


FIG. 5

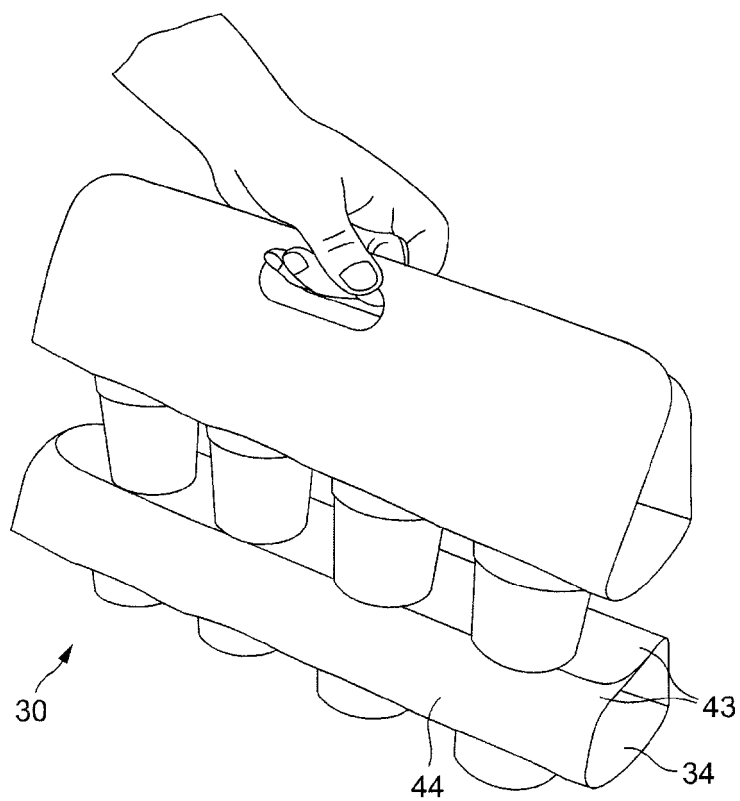


FIG. 6

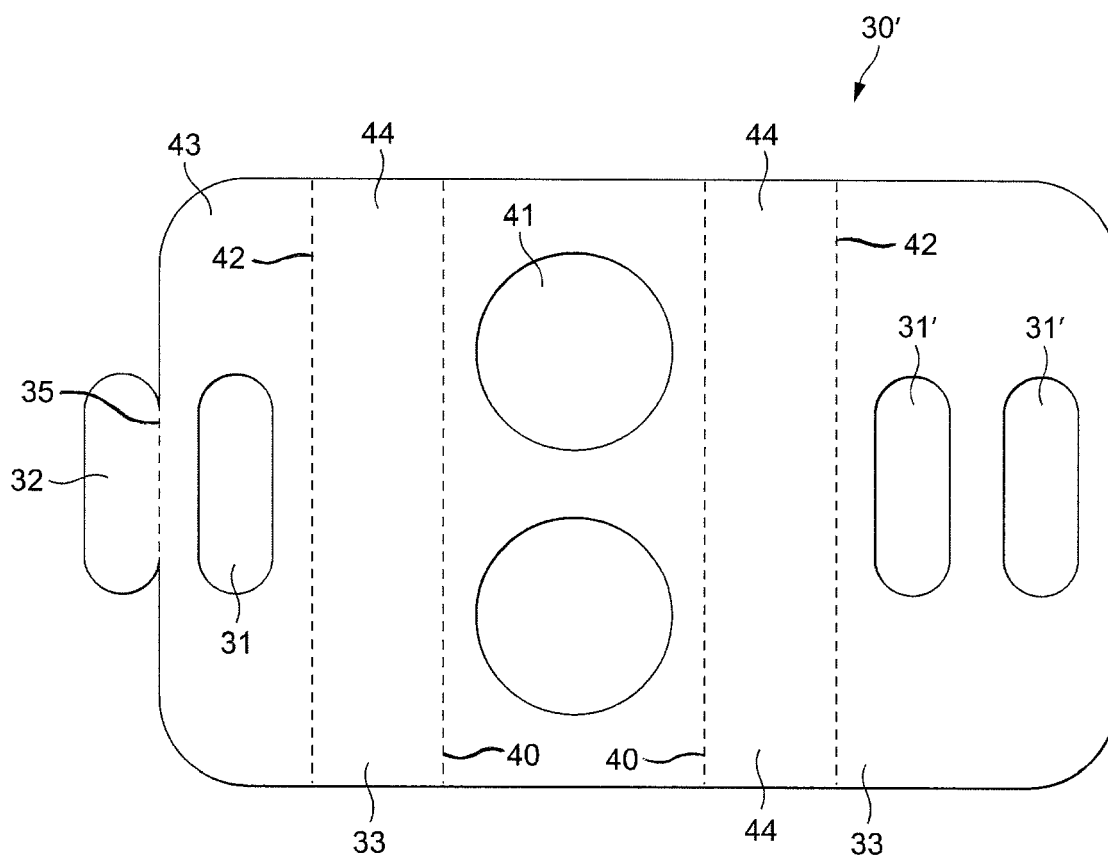


FIG. 7

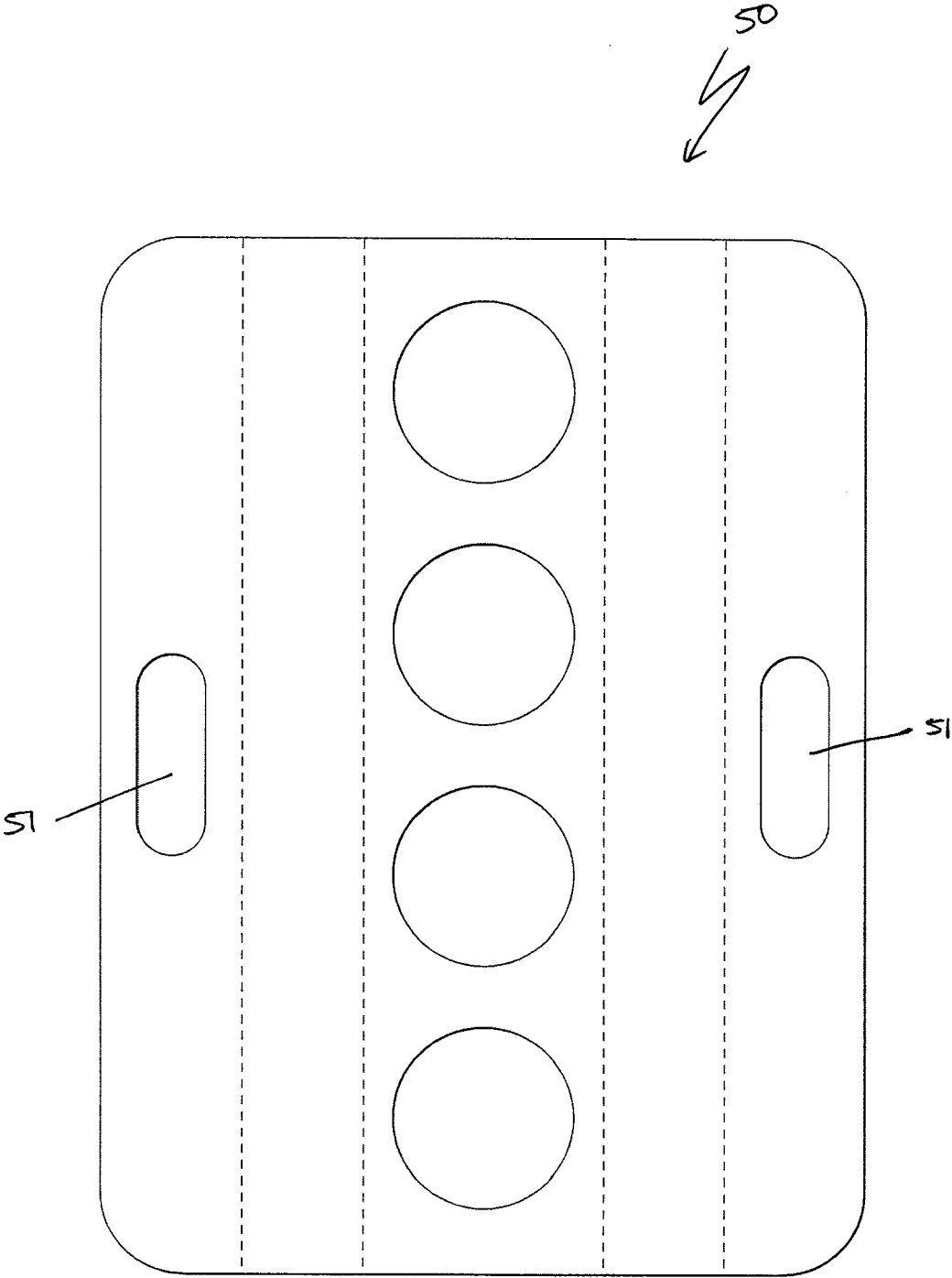
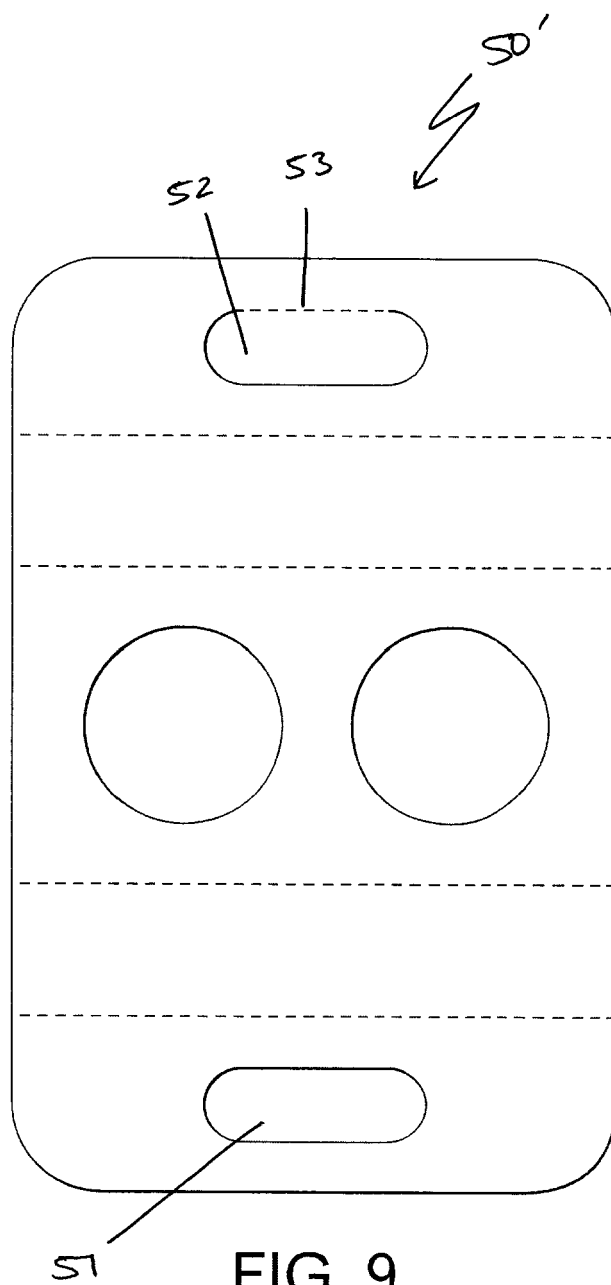


FIG. 8





DOCUMENTS CONSIDERED TO BE RELEVANT			
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Y	* page 1 - page 2; figures 1,4 * -----	7	
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Y	WO 01/66435 A (TAYLOR CLARE LOUISE [GB]) 13 September 2001 (2001-09-13) * figure 1 * -----	7	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
Place of search		Date of completion of the search	Examiner
Munich		29 March 2007	Bevilacqua, Vincenzo
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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

EP 06 12 3737

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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29-03-2007

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