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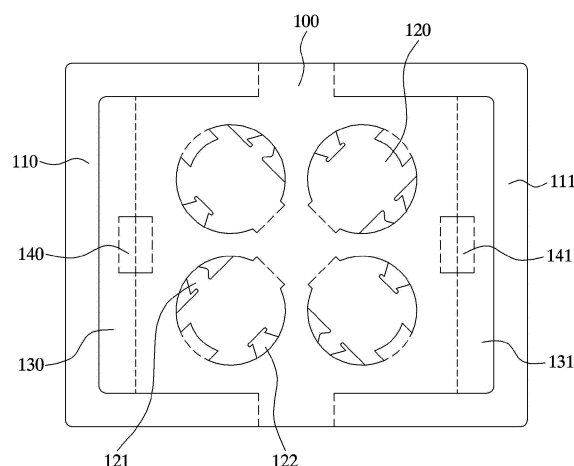
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(54) **ENVIRONMENTAL-FRIENDLY PAPER CARRIER FOR TAKEOUT CUP**

(57) Disclosed is a cup carrier that is capable of simultaneously receiving and carrying a plurality of cups. The cup carrier includes a rectangular cup carrier, which constitutes the bottom thereof, a pair of grip units formed at opposite edges of the cup carrier, each of the grip units being formed by incision in the form of a band so as to be folded upward, a pair of bending pieces formed at the opposite edges of the cup carrier, at which the grip units are formed by incision, so as to be folded downward, a portion of the middle of each of the bending pieces being partially formed by incision to define a horizontal straw receiving hole, and a plurality of leg units formed by incision in the cup carrier so as to define a plurality of circular holes and bent 90 degrees downward so as to be supported from a surface. The cup carrier is made of a single sheet of paperboard, whereby it is possible to reduce paper usage, and the four leg units are coupled to each other in order to more stably support cups through a simple and secure structure. In addition, various kinds of straws can be simultaneously received in addition to the cups, whereby it is possible to easily carry the straws without losing the straws.

[Fig 1]



Description

[Technical Field]

[0001] The present invention relates to a cup carrier, and more particularly, to an eco-friendly paper carrier for takeout cups that is capable of simultaneously carrying a plurality of cups in the state in which the cups are received therein.

[Background Art]

[0002] Disposable cups have come to be used for various purposes due to the advantage thereof in that the disposable cup is convenient to use. For example, the disposable cup is used as a beverage cup, a coffee cup, a cup for noodles, or a cup for other foods. For this reason, the disposable cup has come to be one of the necessities of life.

[0003] Busy modern people not only drink coffee in coffee shops but also take out coffee from coffee shops in order to drink the coffee at other places.

[0004] In addition to a general coffee selling system, in which customers order coffee in coffee shops and drink the coffee while seated in the coffee shops, a take-out coffee shop, in which no seats for customers to drink coffee are provided and at which a customer merely orders coffee, a seller provides the ordered coffee to the customer in the state of being received in a disposable cup, and the customer takes the coffee away from the coffee shop and then drinks the coffee at another place that is not provided by the seller, has been popularized. At this time, a disposable paper cup is used as a coffee cup. Since it is inconvenient for a customer to carry two or more cups of coffee, however, a coffee carrier is manufactured and provided to the customer.

[0005] That is, in the take-out coffee shop, one or more cups of coffee are sold to a customer according to the order of the customer. However, it is difficult for the customer to move while holding hot cups of coffee. In particular, it is difficult for one person to carry two or more cups of hot coffee while holding them in his/her hands.

[0006] For this reason, a cup carrier configured to carry a plurality of cups that contains hot contents has come to be used.

[0007] A generally used disposable cup carrier has a box-shaped or a tray-shaped structure that is formed by assembling sheets of paperboard using glue or adhesive, or has a tray-shaped structure that is formed by pouring pulp into a mold and hardening the pulp in the same manner as when manufacturing an egg container. In this case, however, the amount of raw materials necessary to manufacture the cup carrier is large, and the manufacturing process is complicated, with the result that cost of manufacturing the cup carrier is high. In addition, other expenses, such as a packing charge, a transportation fee, and a storage fee, are also increased.

[0008] Furthermore, cups and straws cannot be re-

ceived together in the conventional cup carrier. As a result, the cups and the straws must be separately carried, which is inconvenient, and the straws may be easily lost.

5 [Disclosure]

[Technical Problem]

10 **[0009]** The present invention has been made in order to solve the above problems with the conventional art, and it is an object of the present invention to provide a cup carrier that is capable of more stably supporting cups through a simple and secure structure while saving material.

15 **[0010]** It is another object of the present invention to provide a cup carrier that is capable of simultaneously receiving cups and straws, whereby it is possible to easily carry the cups and straws without losing the cups or straws.

20 **[0011]** It is a further object of the present invention to provide a cup carrier having leg units, which are bottom supports that are fastened so as not to be separated downward from cups when the cup carrier is put down on a surface.

25 [Technical Solution]

30 **[0012]** In order to achieve the above objects, the present invention provides an eco-friendly paper carrier for takeout cups including a rectangular cup carrier, which constitutes the bottom thereof, a pair of grip units formed at opposite edges of the cup carrier, each of the grip units being formed by incision in the form of a band so as to be folded upward, a pair of bending pieces formed at the opposite edges of the cup carrier, at which the grip units are formed by incision, so as to be folded downward, a portion of the middle of each of the bending pieces being partially formed by incision to define a horizontal straw receiving hole, and a plurality of leg units formed by incision in the cup carrier so as to define a plurality of circular holes and bent 90 degrees downward so as to be supported from a surface.

35 **[0013]** Each of the leg units may include a protruding piece formed at one side thereof in a protruding fashion and an insertion recess formed at the other side thereof such that the protruding piece is inserted into the insertion recess, whereby a protruding piece formed at one of the leg units is inserted into an insertion recess formed in another of the leg units such that adjacent different leg units are coupled to each other.

40 **[0014]** In addition, a plurality of vertical straw receiving recesses may be further formed in each edge of the cup carrier at which the bending pieces are not formed.

45 **[0015]** The present invention provides an eco-friendly paper carrier for takeout cups having four or fewer cup holders formed therein.

[Advantageous Effects]

[0016] In the eco-friendly paper carrier for takeout cups having the above structure according to the present invention, the cup carrier is made of a single sheet of paperboard, whereby it is possible to reduce paper usage, and the four leg units are coupled to each other in order to more stably support cups through a simple and secure structure.

[0017] In addition, various kinds of straws can be simultaneously received in addition to the cups, whereby it is possible to easily carry the straws without losing the straws.

[Description of Drawings]

[0018]

FIG. 1 is a plan view showing an eco-friendly paper carrier for takeout cups according to a preferred embodiment of the present invention;

FIG. 2 is a perspective view showing the eco-friendly paper carrier for takeout cups of FIG. 1;

FIG. 3 is a perspective view showing the state in which grip units of the cup carrier of FIG. 1 are folded upward;

FIG. 4 is a perspective view showing the state in which bending pieces and leg units of the cup carrier of FIG. 3 are folded downward;

FIG. 5 is a front view showing the cup carrier of FIG. 4;

FIG. 6 is a side view showing the cup carrier of FIG. 4;

FIG. 7 is a perspective view showing the state in which a plurality of cups is received in a cup carrier according to an embodiment of the present invention;

FIG. 8 is a perspective view showing the state in which straws are received in the cup carrier of FIG. 7;

FIG. 9 is a perspective view showing the state in which a plurality of straws is received in a cup carrier according to another embodiment of the present invention; and

FIGS. 10 to 17 are views showing the state in which cup carriers according to other embodiments of the present invention are used.

[Best Mode]

[0019] The present invention has several embodiments and various modifications. Specific ones of the embodiments will be described in more detail through the following detailed description given with reference to the drawings. In the following description of the present invention, a detailed description of well-known common technology incorporated herein will be omitted when it may obscure the subject matter of the present invention.

[0020] Hereinafter, a preferred embodiment of the present invention will be described in detail with refer-

ence to the accompanying drawings.

[0021] As shown, the preferred embodiment of the present invention includes a cup carrier 100, a pair of grip units 110, a pair of bending pieces 130, in each of which a horizontal straw receiving hole 140 is formed, and a plurality of leg units 120.

[0022] The cup carrier of the present invention is configured to securely and stably support coffee cups while minimizing paper usage, and is characterized in that the cup carrier is completed through folding and insertion without using an adhesive.

[0023] In particular, the present invention provides a cup carrier made of a sheet of rectangular paper in order to reduce paper usage. To this end, the cup carrier 100 is made of a sheet of rectangular paper, which constitutes the bottom thereof.

[0024] In addition, the grip units 110 are formed at opposite edges of the cup carrier 100, and each of the grip units is formed by incision in the form of a band so as to be folded upward.

[0025] The bending pieces 130 are formed at the opposite edges of the cup carrier 100, at which the grip units 110 are formed by incision, so as to be folded downward. A portion of the middle of each of the bending pieces is partially formed by incision to define a horizontal straw receiving hole 140.

[0026] In addition, the leg units 120 are formed by incision in the cup carrier 100 so as to define a plurality of circular holes (cup holders) 160, and are bent 90 degrees downward so as to be supported from a surface.

[0027] The structure in which the leg units 120, which are formed by incision so as to define a plurality of circular holes and which are bent about 90 degrees downward so as to be supported from a surface, are formed at the cup carrier 100 is included within the scope of the present invention.

[0028] In particularly, each of the leg units 120 includes a protruding piece 121 formed at one side thereof in a protruding fashion and an insertion recess 122 formed at the other side thereof such that the protruding piece is inserted into the insertion recess.

[0029] Consequently, the present invention is characterized in that a protruding piece 121 formed at one of the leg units 120 is inserted into an insertion recess 122 formed in another of the leg units 120 such that adjacent different leg units 120 can be securely coupled to each other. In addition, an auxiliary leg 152 is further formed at each of the leg units 120 so as to stand on a surface.

[0030] Consequently, the cup carrier is made of a single sheet of paperboard, whereby it is possible to reduce paper usage, and the four leg units 120 are coupled to each other in order to more stably support cups through a simple and secure structure.

[0031] Also, various kinds of straws can be simultaneously received in the horizontal straw receiving holes 140, in addition to the cups, whereby it is possible to easily carry the straws without losing the straws.

[0032] FIG. 7 is a perspective view showing the state

in which a plurality of cups is received in a cup carrier according to an embodiment of the present invention, and FIG. 8 is a perspective view showing the state in which straws are received in the cup carrier of FIG. 7.

[0033] As shown, the cup carrier according to the preferred embodiment of the present invention includes a cup carrier 100, which constitutes the bottom thereof, a pair of grip units 110 formed at opposite edges of the cup carrier 100, each of the grip units being formed by incision in the form of a band so as to be folded upward, a pair of bending pieces 130 formed at the opposite edges of the cup carrier 100, at which the grip units 110 are formed by incision, so as to be folded downward, a portion of the middle of each of the bending pieces being partially formed by incision to define a horizontal straw receiving hole 140, and a plurality of leg units 120 formed by incision in the cup carrier 100 so as to define a plurality of circular holes and bent 90 degrees downward so as to be supported from a surface.

[0034] Consequently, the cup carrier is made of a single sheet of paperboard, whereby it is possible to reduce paper usage, and the four leg units 120 are coupled to each other in order to more stably support cups through a simple and secure structure. In addition, various kinds of straws can be simultaneously received in the horizontal straw receiving holes 140, whereby it is possible to easily carry the straws without losing the straws.

[0035] FIG. 9 is a perspective view showing the state in which a plurality of straws is received in a cup carrier according to another embodiment of the present invention.

[0036] As shown, the cup carrier according to the preferred embodiment of the present invention includes a cup carrier 100, which constitutes the bottom thereof, a pair of grip units 110 formed at opposite edges of the cup carrier 100, each of the grip units being formed by incision in the form of a band so as to be folded upward, a pair of bending pieces 130 formed at the opposite edges of the cup carrier 100, at which the grip units 110 are formed by incision, so as to be folded downward, a portion of the middle of each of the bending pieces being partially formed by incision to define a horizontal straw receiving hole 140, and a plurality of leg units 120 formed by incision in the cup carrier 100 so as to define a plurality of circular holes (cup holders) and bent 90 degrees downward so as to be supported from a surface, as previously described.

[0037] In this embodiment of the present invention, however, a plurality of vertical straw receiving recesses 112 may be further formed in each edge of the cup carrier 100 at which the bending pieces 130 are not formed.

[0038] Another embodiment of the present invention shown in FIG. 10 is characterized in that a straw insertion hole is formed through the center of the cup carrier 100 and in that auxiliary cup supports 150 are formed at the cup carrier 100 such that the auxiliary cup supports are bent downward when the cup carrier is incised so as to form a plurality of circular holes to support cups.

[0039] Consequently, the cup carrier is made of a single sheet of paperboard, whereby it is possible to reduce paper usage, and the four leg units 120 are coupled to each other in order to more stably support cups through a simple and secure structure. Also, various kinds of straws can be simultaneously received in the vertical straw receiving recesses 112 in addition to cups, whereby it is possible to easily carry the straws without losing the straws.

[0040] As shown in FIGS. 11 to 17, the cup carrier 100 of the present invention is formed such that a square or rectangular board is cut and folded. As illustrated, the present invention provides an optimized structure in which cups are supported using a square or rectangular board so as not to be inclined while minimizing a wasted portion of the board.

[0041] To this end, the cup carrier 100 is configured such that one or more pairs of holders 110 for holding cups are formed in the middle of the square or rectangular board, such that two pairs of leg units 120a and 120b, which form pillars for supporting the lower sides of the cups inserted into the holders, are formed in the middle of the square or rectangular board, and such that grips 130 are formed at opposite edges of the board so as to be folded upward toward a point above the middle of the board. Consequently, the cups are supported by the leg units 120a and 120b, whereby it is possible to stably carry the cups. In addition, a cutout portion of the board is minimized, whereby it is possible to prevent waste of resources.

[0042] The cup carrier 100 is generally configured to simultaneously carry two cups or four cups. The shape or the structure of the board is changed depending on whether the cup carrier 100 is configured to carry two cups or four cups.

[0043] That is, in the case in which a pair of holders 110 are formed at opposite sides of the board in order to carry a pair of cups, as shown in FIGS. 11 to 15, as an embodiment, the board is formed in a rectangular form, and the leg units 120a and 120b are formed so as to be folded downward from the inside of the respective holders and from the front and the rear of the board between the holders. In the case in which two pairs of holders 110 are formed in a symmetrical fashion in order to carry four cups, as shown in FIGS. 16 and 17, as another embodiment, the board is formed in a square form, and the leg units 120a and 120b are formed so as to be folded downward from the inside of the respective holders.

[0044] In the above structure, the portions of the board that correspond to the inside of the holders are not torn off in order to form the holders 110, but the portions of the board that correspond to the inside of the holders are utilized as the leg units 120a and 120b, which is distinguished from the structure of conventional cup carriers, in which the holder portions into which cups are inserted are torn off or cut out.

[0045] Of the leg units 120a and 120b, one pair of leg units 120a that are opposite each other are provided at

opposite sides thereof with insertion protrusions 121, and another pair of leg units are provided at opposite sides thereof with insertion recesses 122, into which the upper parts of the insertion protrusions are inserted. Consequently, easy assembly is achieved through the connection structure of the leg units 120a and 120b. As shown in FIGS. 13 to 15, the two pairs of leg units 120a and 120b are configured such that the insertion protrusions 121 and the insertion recesses 122 are formed so as to be easily connected to each other and such that the insertion protrusions and the insertion recesses are prevented from being easily disengaged from each other in the state of being connected to each other.

[0046] In addition, the lower ends of the leg units 120a, at which the insertion protrusions 121 are formed, protrude further downward than the lower ends of the leg units 120b, in which the insertion recesses 122 are formed, such that the lower ends of the leg units 120a stand on a surface. That is, as shown in FIGS. 14 and 15, the lower ends of the leg units 120a, at which the insertion protrusions 121 are formed, stand on a surface in the state of being in contact with the surface.

[0047] The board is provided at opposite sides thereof with bending pieces 140, and a horizontal straw receiving hole 150, configured to be widened such that a straw can be inserted through the horizontal straw receiving hole when each bending piece is folded, is formed at a boundary at which each bending piece is bent. As shown in the figures, each bending piece 140 is configured such that the horizontal straw receiving hole is widened upward at the time that each bending piece is folded. Consequently, it is possible to safely insert a straw through each horizontal straw receiving hole, as shown in the figures.

[0048] A perforated line for bending is formed at a boundary line for forming each bending piece 140 and at a boundary line for forming each horizontal straw receiving hole 150. By forming such a perforated line, the horizontal straw receiving holes 150 are smoothly formed when the bending pieces 140 are folded.

[0049] According to the present invention having the above structure, it is possible to provide a structure optimized to minimize a wasted portion, thereby saving paper material. In addition, since the pillars are formed at the lower parts of the middle of the leg units, cups are stably supported when in use, thereby preventing the cups from being inclined. Consequently, the present invention is more convenient to use and also saves resources.

Claims

1. An eco-friendly paper carrier for takeout cups comprising a cup carrier having a plurality of circular holes (cup holders) formed to support cups and a pair of grip units formed at opposite edges of the cup carrier, each of the grip units being formed by incision in a form of a band so as to be folded upward, wherein

the eco-friendly paper carrier for takeout cups further comprises:

a pair of bending pieces formed at the opposite edges of the cup carrier, at which the grip units are formed by incision, so as to be folded, a portion of a middle of each of the bending pieces being partially formed by incision to define a horizontal straw receiving hole; and a plurality of leg units formed by incision in the cup carrier so as to define a plurality of circular holes and bent downward so as to be supported from a surface, and wherein

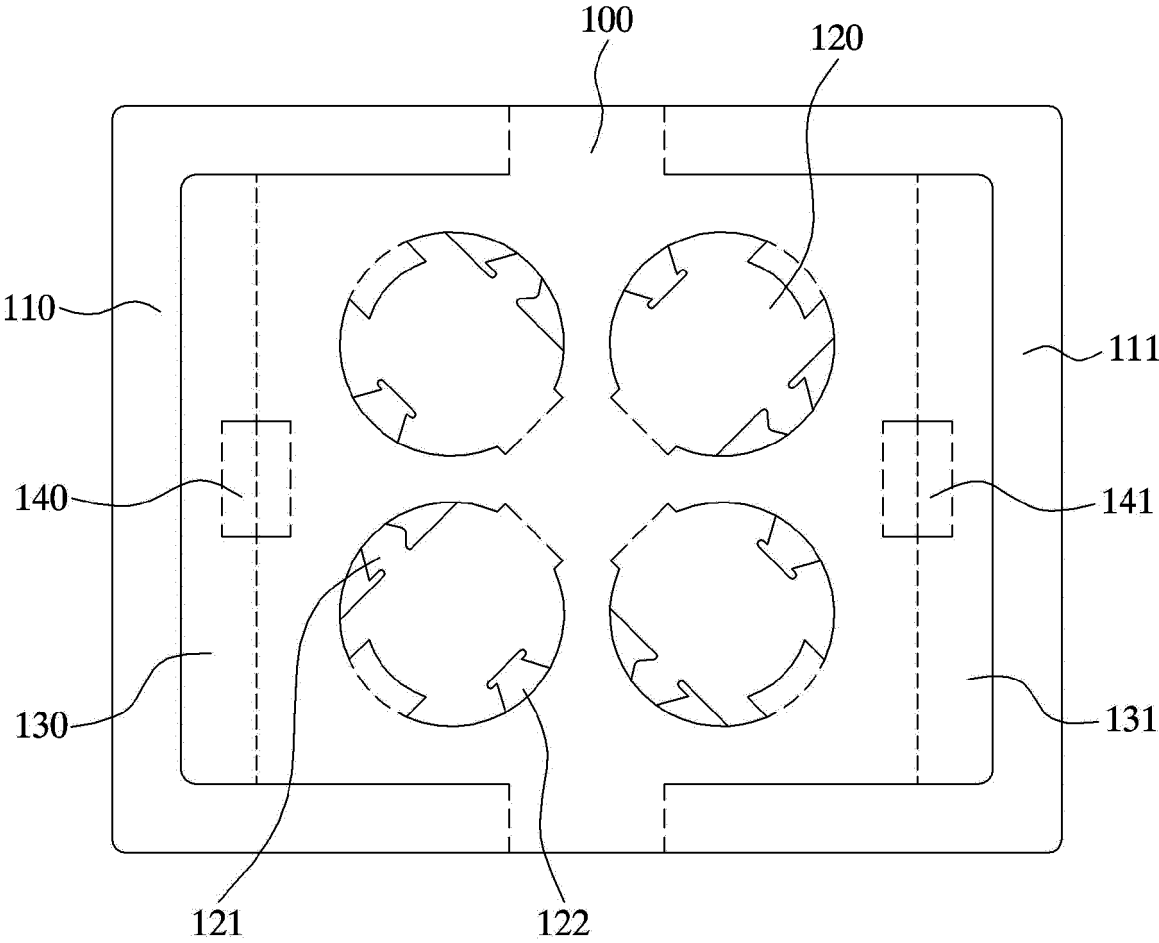
each of the leg units comprises a protruding piece formed at one side thereof in a protruding fashion and an insertion recess formed at the other side thereof such that the protruding piece is inserted into the insertion recess, whereby a protruding piece formed at one of the leg units is inserted into an insertion recess formed in another of the leg units such that adjacent different leg units are coupled to each other.

2. The eco-friendly paper carrier for takeout cups according to claim 1, wherein a plurality of vertical straw receiving recesses is further formed in each edge of the cup carrier at which the bending pieces are not formed.
3. The eco-friendly paper carrier for takeout cups according to claim 1, wherein a straw insertion hole is formed through a center of the cup carrier.
4. The eco-friendly paper carrier for takeout cups according to claim 1, wherein an auxiliary leg is further formed at each of the leg units so as to stand on a surface.
5. The eco-friendly paper carrier for takeout cups according to claim 1, wherein auxiliary cup supports are formed at the cup carrier such that the auxiliary cup supports are bent downward to support cups when the cup carrier is incised so as to form a plurality of circular holes (cup holders).
6. An eco-friendly paper carrier for takeout cups comprising a cup carrier having a plurality of cup holders formed to support cups and a pair of grip units formed at opposite edges of the cup carrier, each of the grip units being formed by incision in a form of a band so as to be folded upward, wherein the cup carrier is configured such that a square or rectangular board is cut so as to be foldable, such that one or more pairs of circular holders, through which cups are inserted so as to be held by the holders, are formed in a middle of the board, such that two pairs of leg units, which are folded downward to form pillars for supporting lower sides of the cups

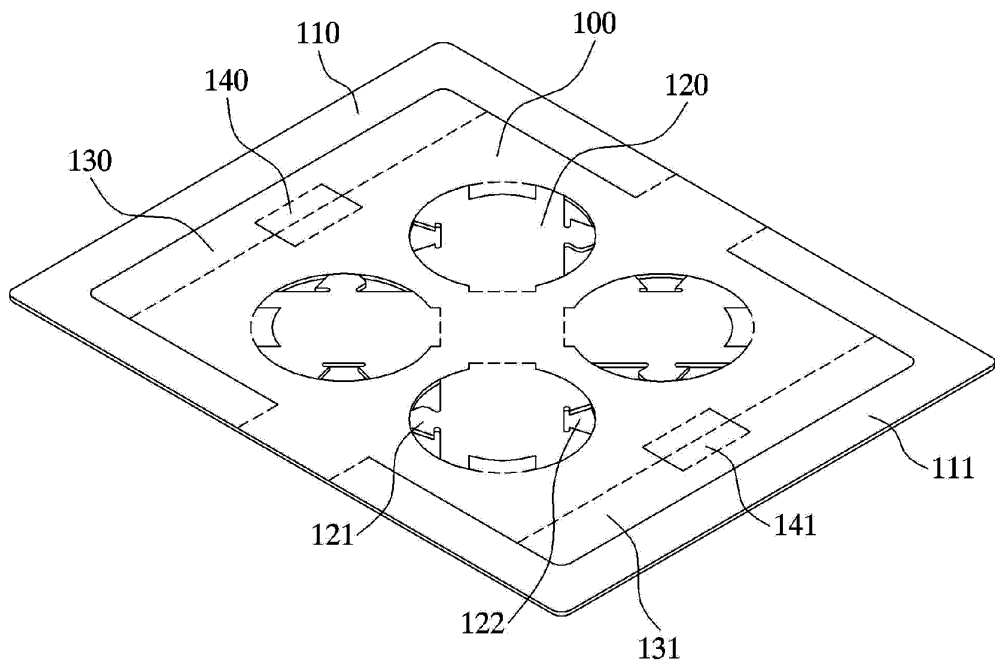
inserted into the holders, are formed in the middle of the board, such that grips are formed at opposite edges of the board so as to be folded upward toward a point above the middle of the board, such that one pair of leg units that are opposite each other are provided at opposite sides thereof with insertion protrusions, and such that another pair of leg units are provided at opposite sides thereof with insertion recesses, into which the insertion protrusions are inserted.

7. The eco-friendly paper carrier for takeout cups according to claim 6, wherein the cup carrier is provided at opposite sides thereof with bending pieces, and wherein a horizontal straw receiving hole, configured to be widened such that a straw can be inserted through the horizontal straw receiving hole when each bending piece is folded, is formed at a boundary between each bending piece and the board.
8. The eco-friendly paper carrier for takeout cups according to claim 7, wherein a perforated line for bending is formed at a boundary line for forming each bending piece and at a boundary line for forming each horizontal straw receiving hole.
9. The eco-friendly paper carrier for takeout cups according to claim 6, wherein the cup holders are formed at opposite sides of the board, and wherein the leg units are formed so as to be folded downward from an inside of the respective holders and from a front and a rear of the board between the holders.
10. The eco-friendly paper carrier for takeout cups according to claim 6, wherein two pairs of the cup holders are formed at opposite sides of the board in a symmetrical fashion, and wherein the leg units are formed so as to be folded downward from an inside of the respective holders.
11. The eco-friendly paper carrier for takeout cups according to claim 6, wherein lower ends of the one pair of leg units at which the insertion protrusions are formed protrude further downward than lower ends of the another pair of leg units at which the insertion recesses are formed such that the lower ends of the one pair of leg units at which the insertion protrusions are formed stand on a surface.

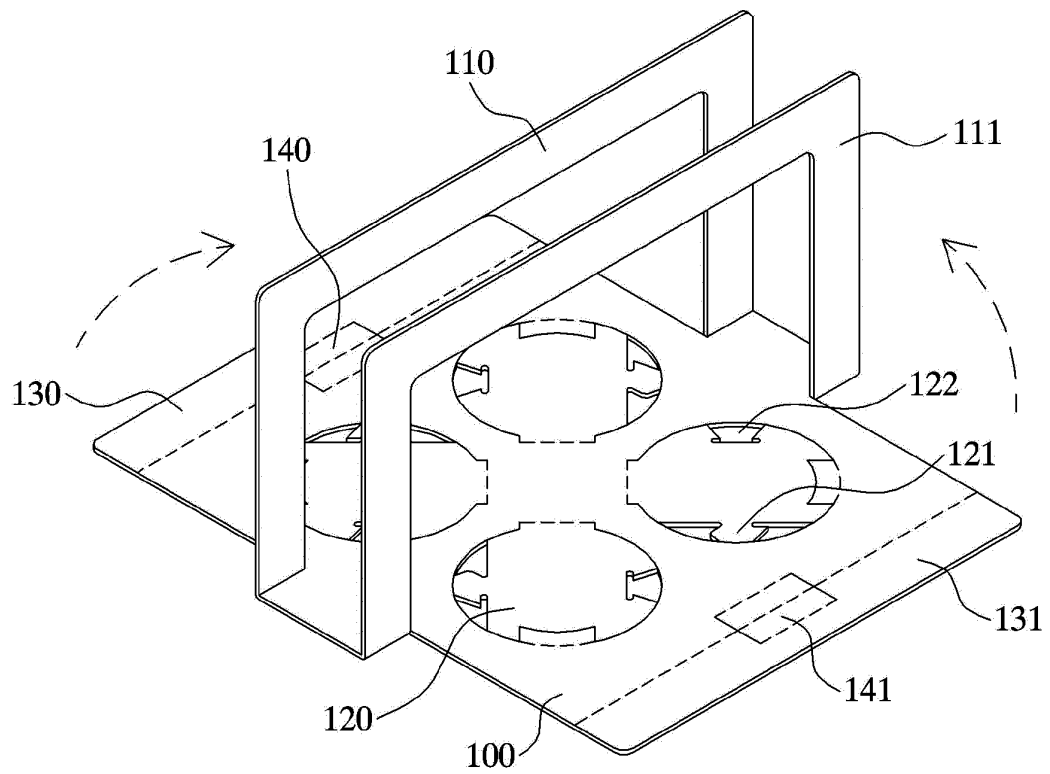
[Fig 1]



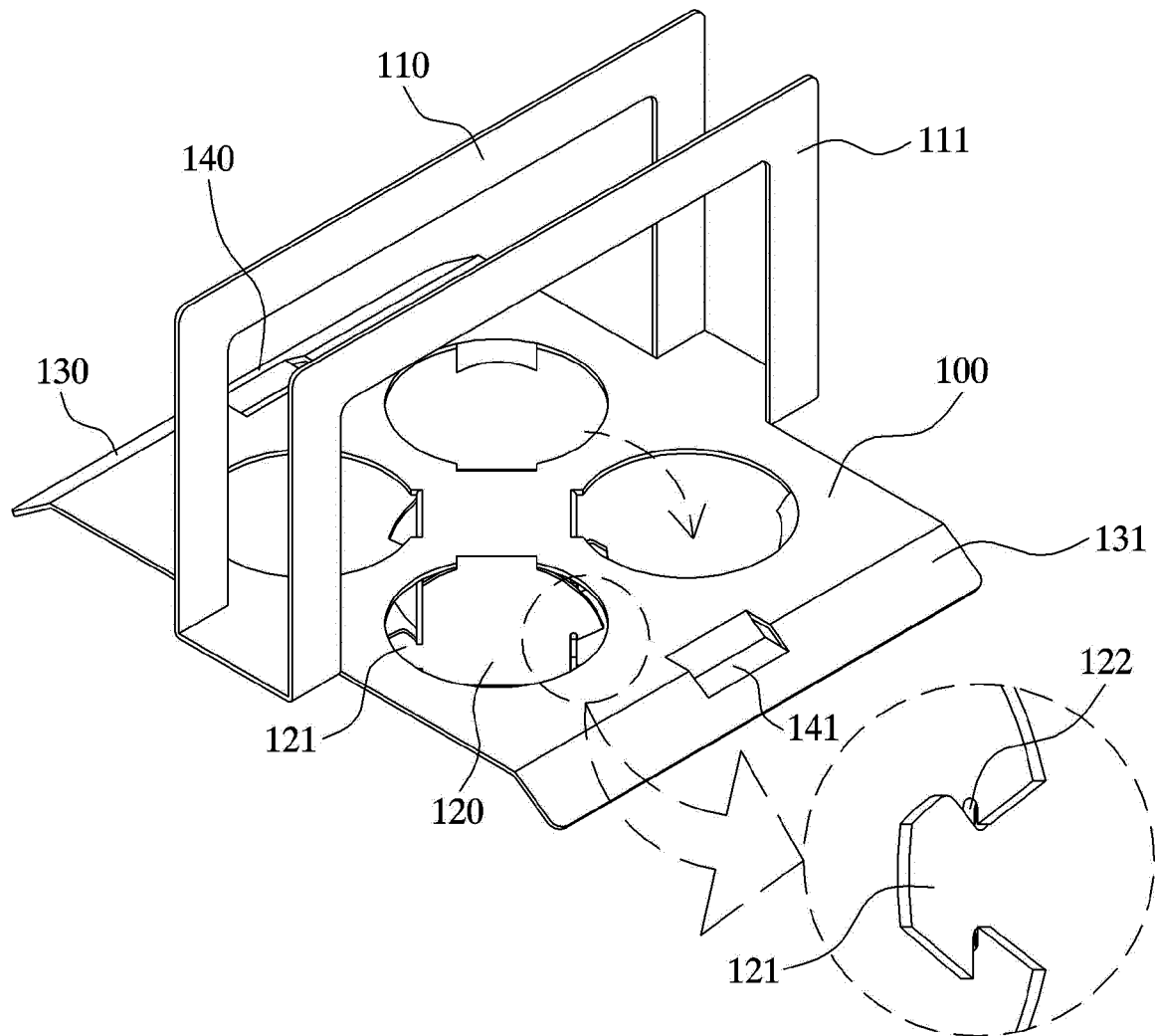
[Fig 2]



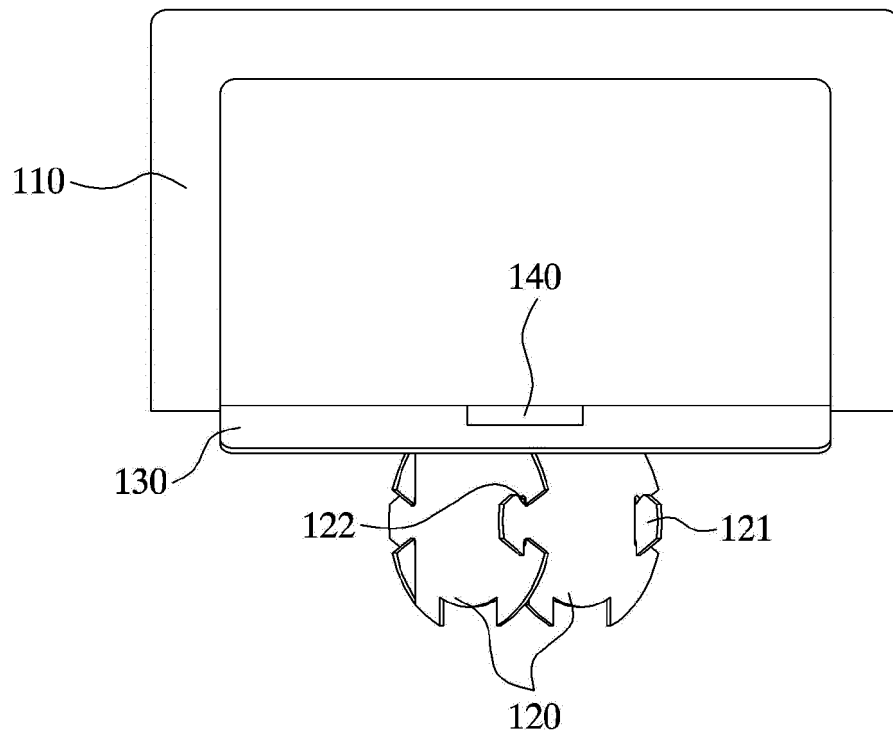
[Fig 3]



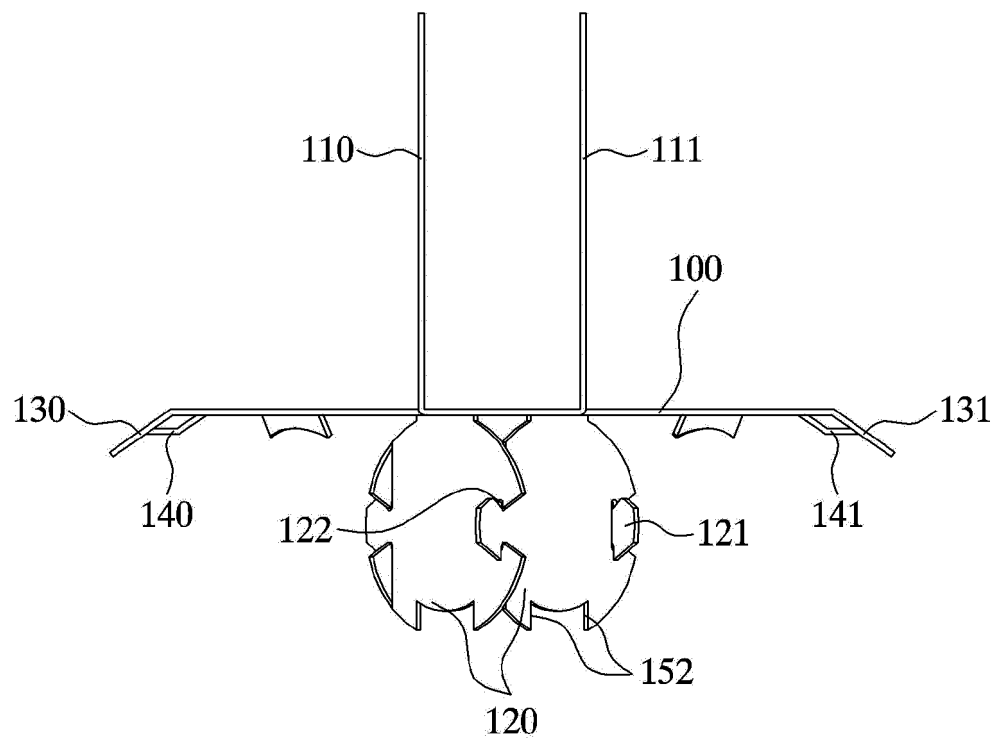
[Fig 4]



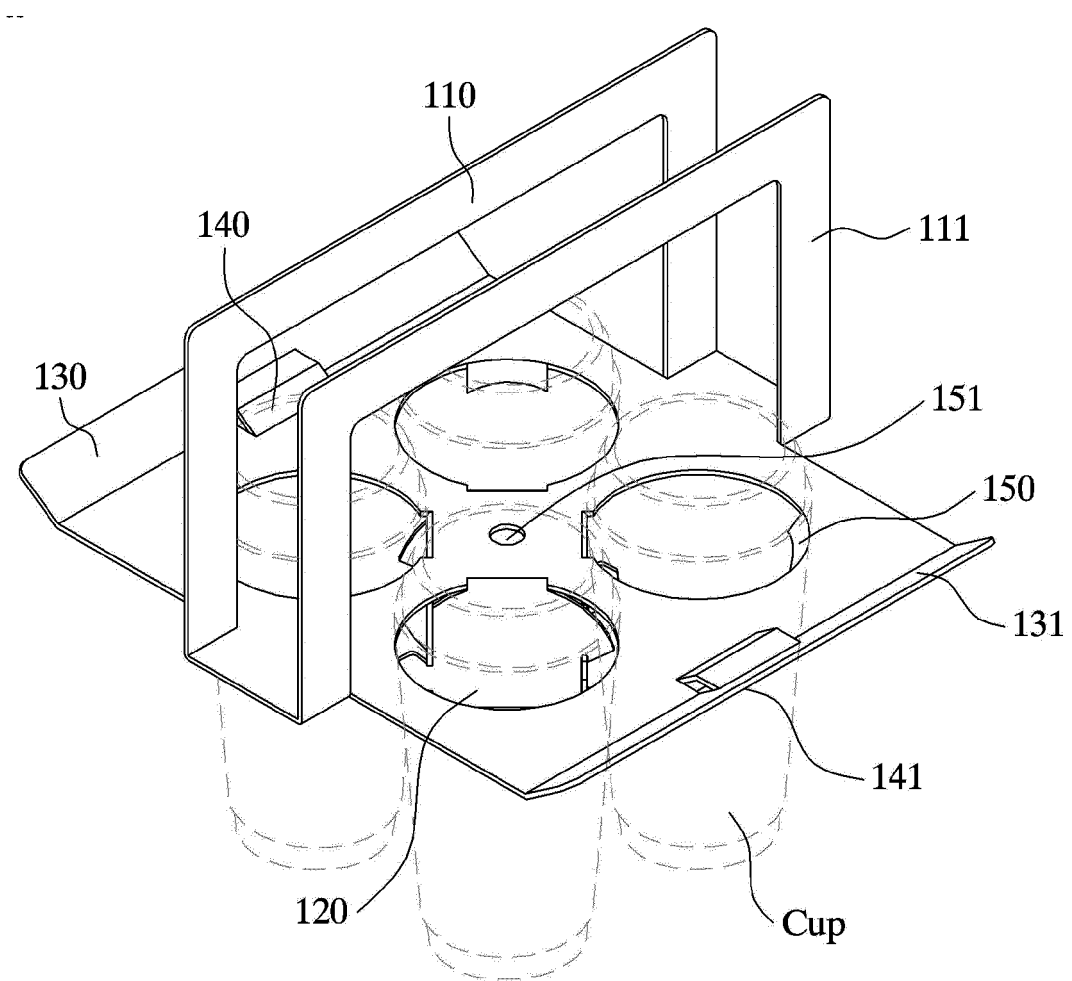
[Fig 5]



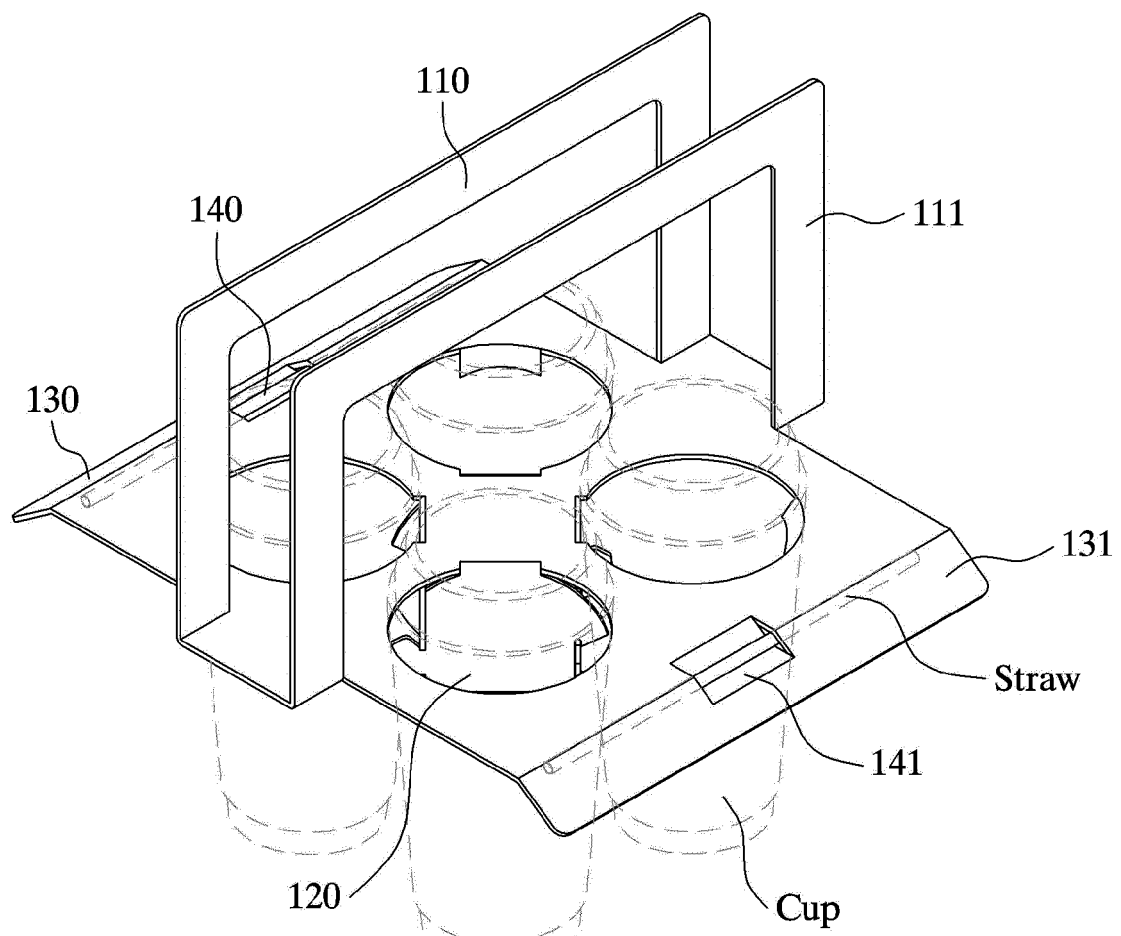
[Fig 6]



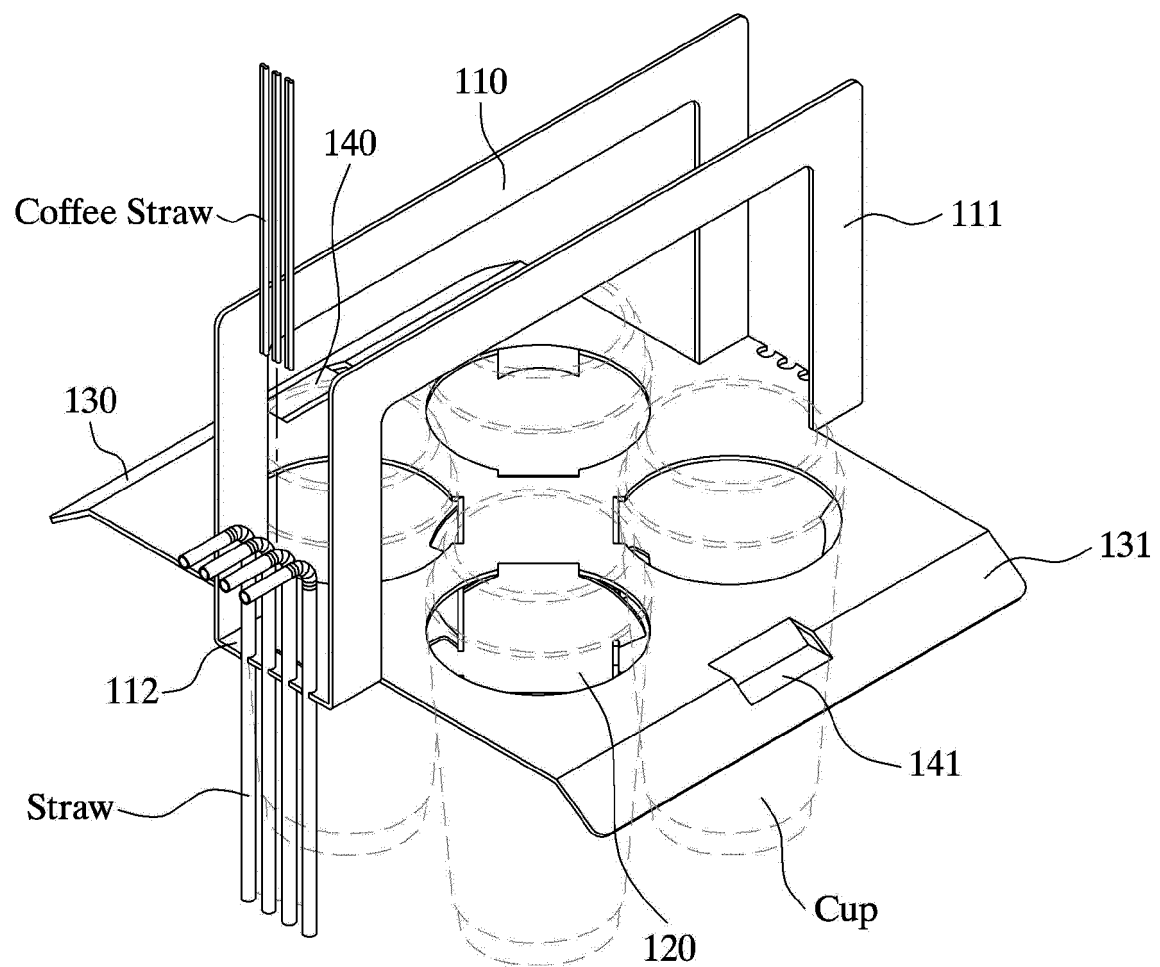
[Fig 7]



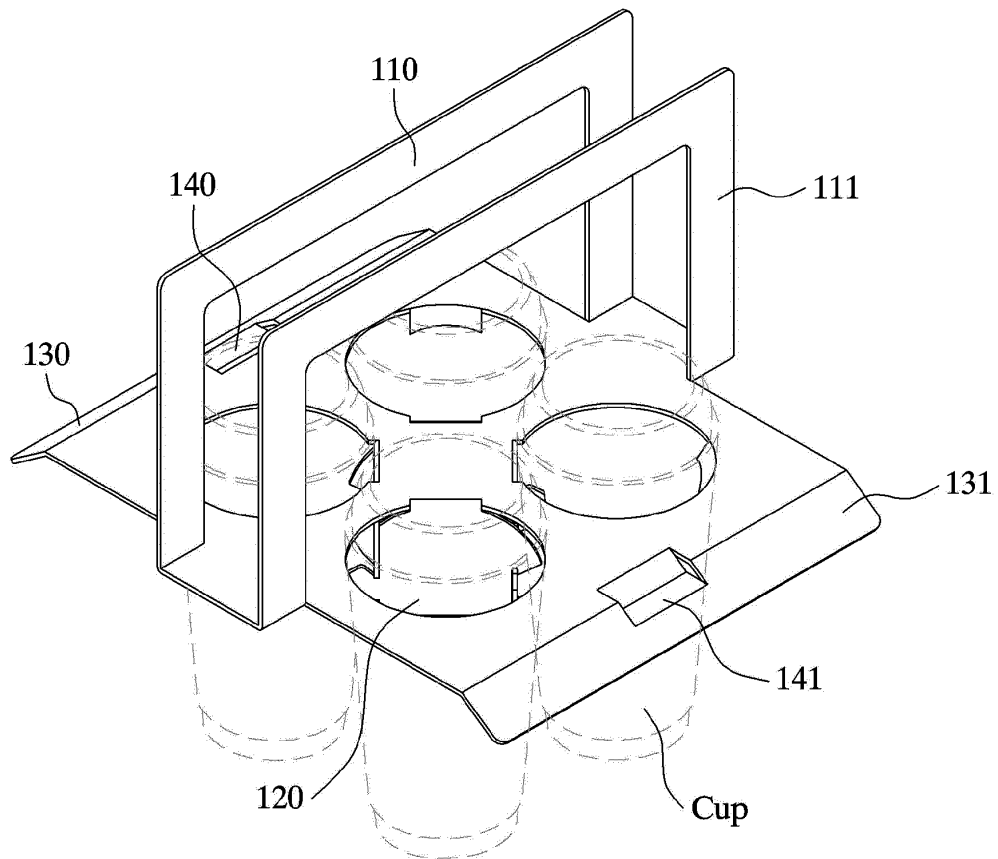
[Fig 8]



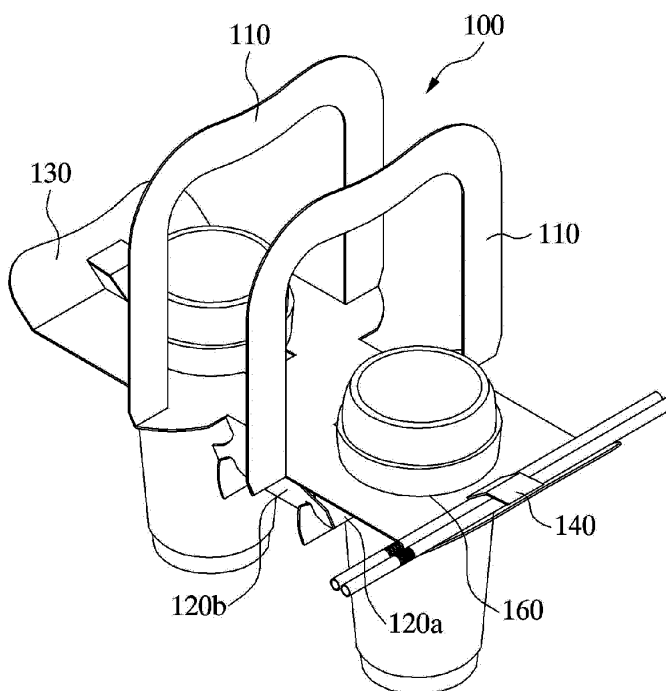
[Fig 9]



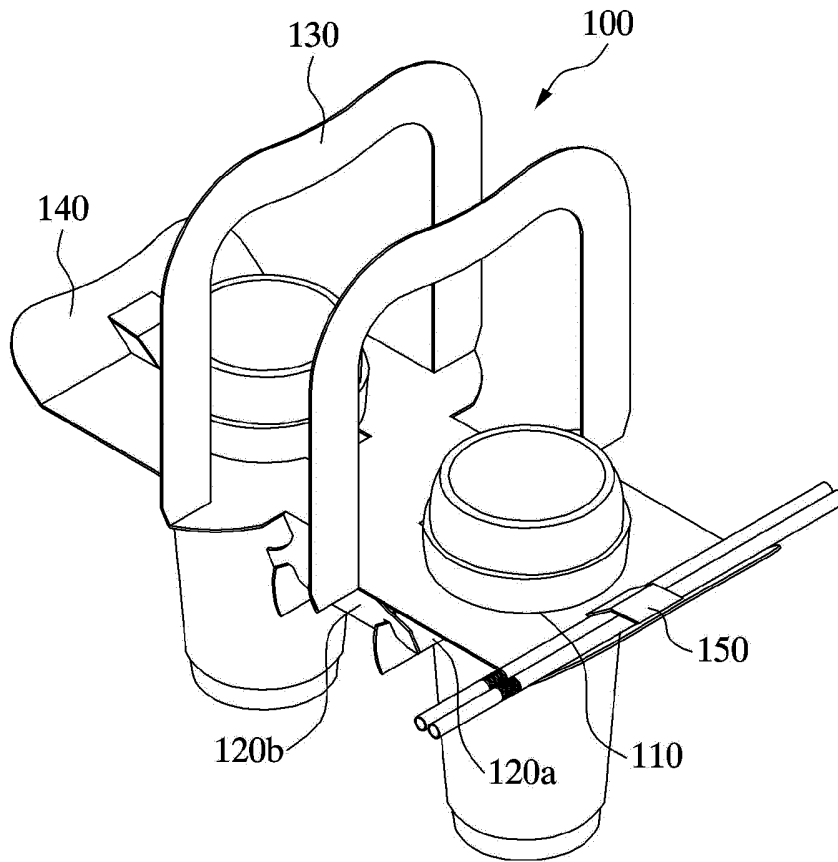
[Fig 10]



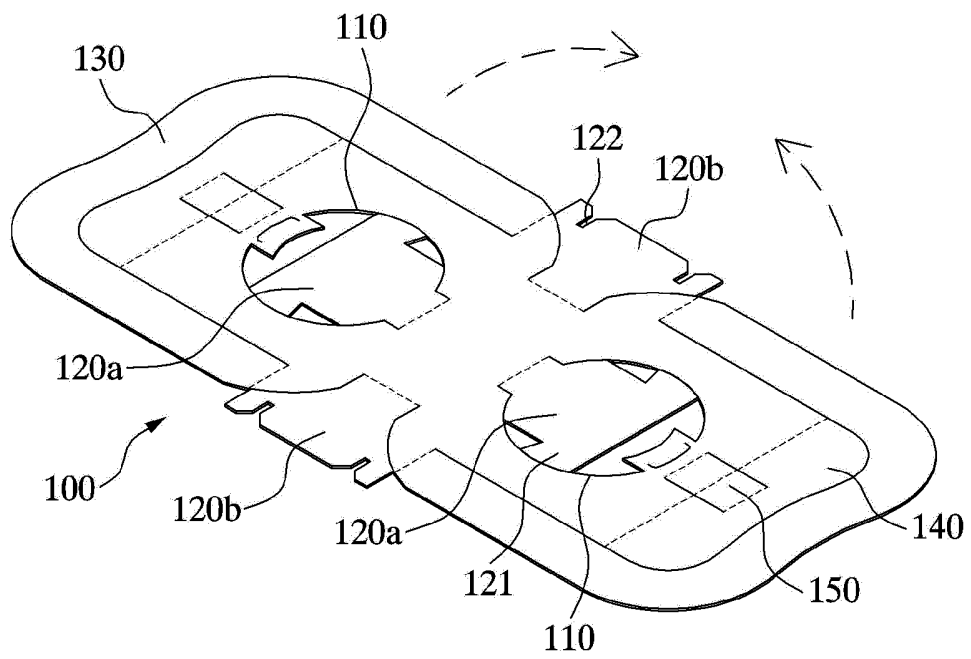
[Fig 11]



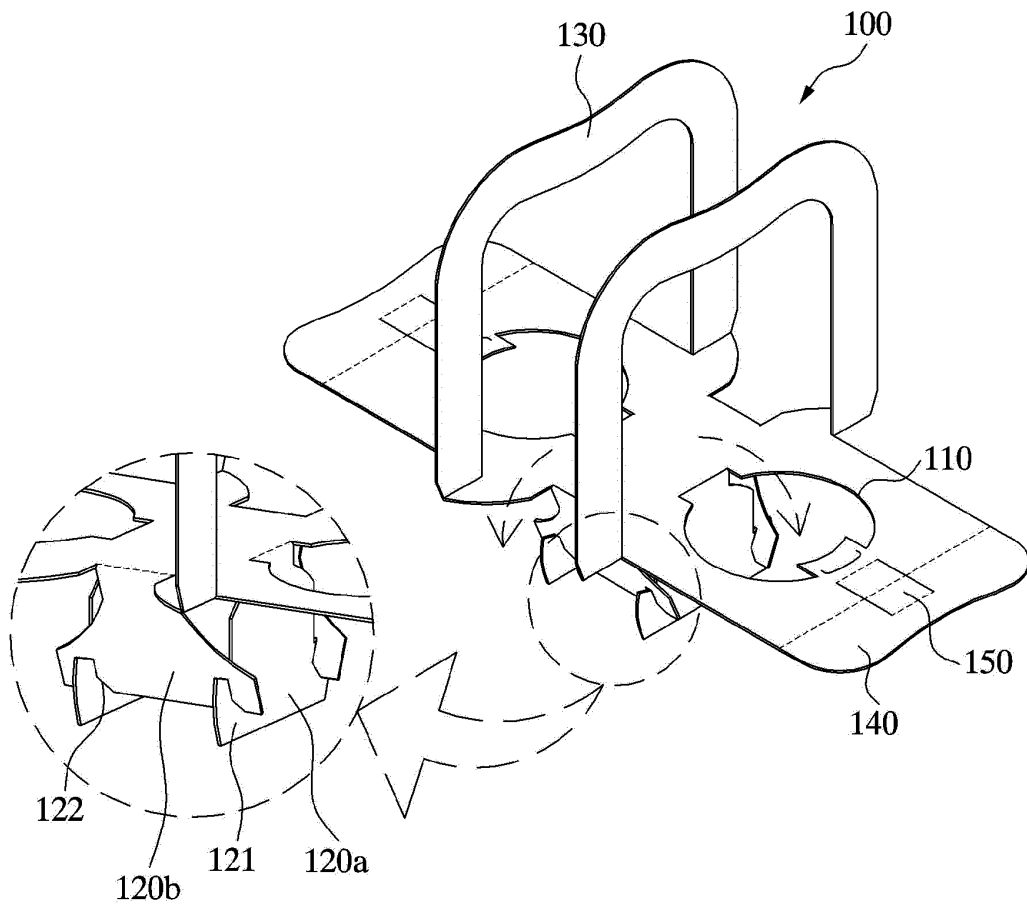
[Fig 12]



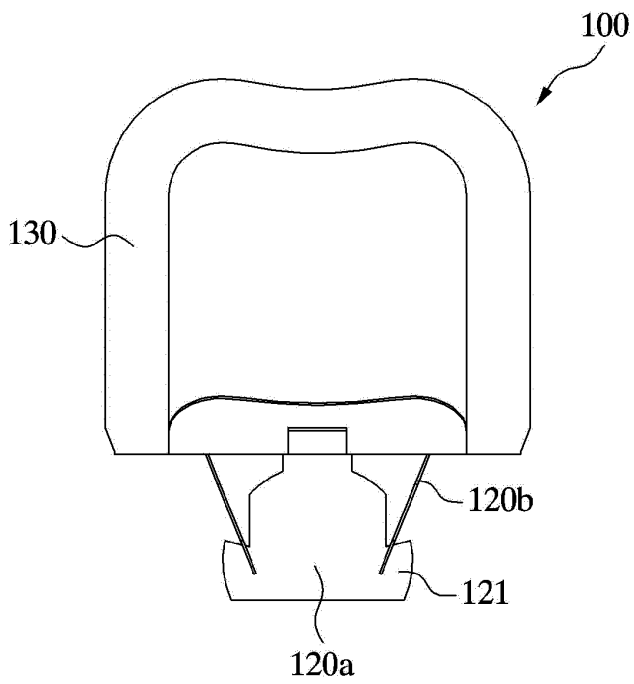
[Fig 13]



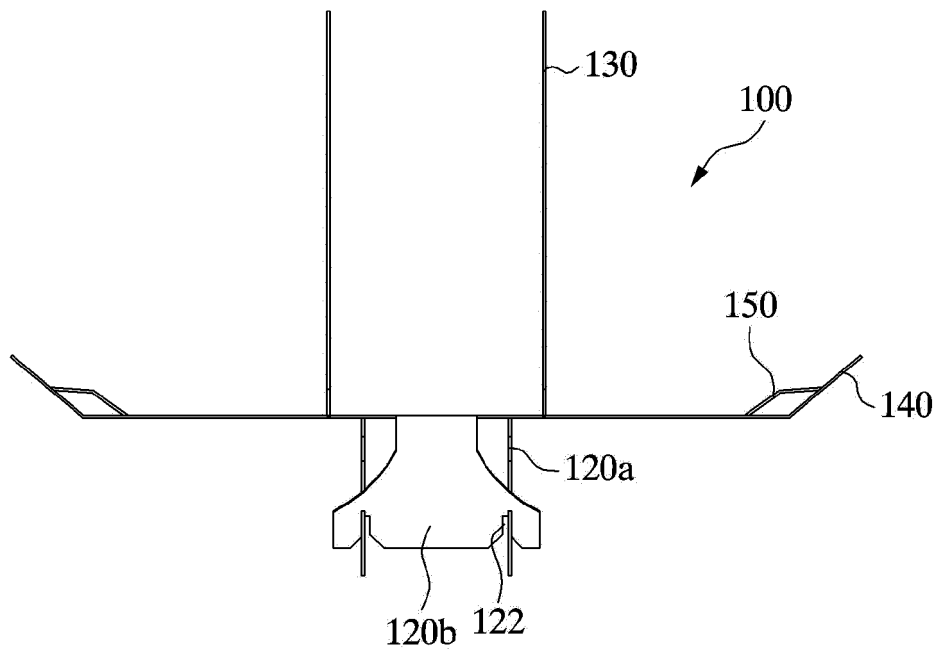
[Fig 14]



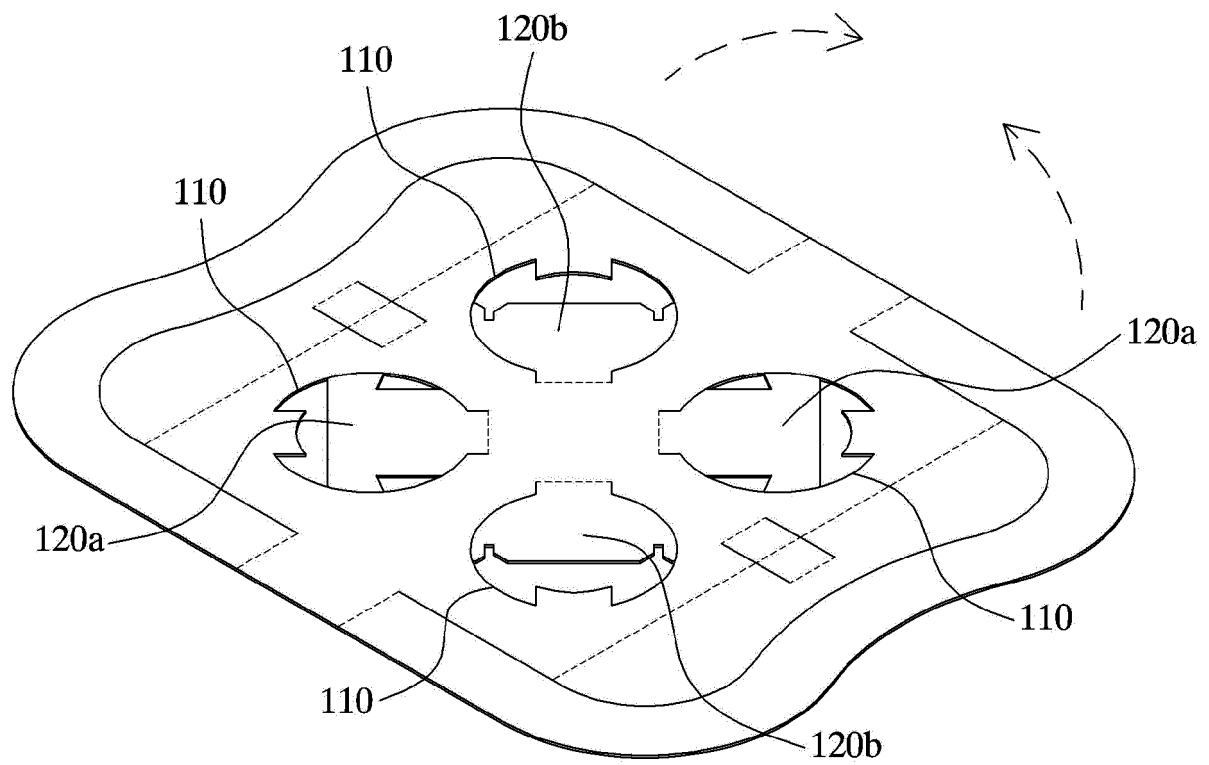
[Fig 15]



[Fig 16]



[Fig 17]



INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2016/004979

A. CLASSIFICATION OF SUBJECT MATTER

B65D 71/40(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B65D 71/40; A47G 23/02; B65D 71/70; B65D 71/32; B65D 71/12; B65D 71/16; B65D 71/52

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility models: IPC as above

Japanese Utility models and applications for Utility models: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS (KIPO internal) & Keywords: cup, paper, carrier, grip part, bent piece, horizontal storage hole for straw, leg part, protruding piece, insertion groove

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 20-0473961 Y1 (CDU PARTNERS) 12 August 2014 See claim 1 and figures 1-6.	1-11
A	KR 10-2013-0051059 A (EUN, Gyoung Min) 20 May 2013 See claims 1, 3 and figures 1-3.	1-11
A	KR 10-2014-0055449 A (KWON, Young - Moon) 09 May 2014 See paragraph [0010] and figure 3.	1-11
A	KR 10-2014-0136723 A (RYU, Gil Ho) 01 December 2014 See paragraphs [0062]-[0065] and figures 1-4.	1-11
A	KR 20-0471304 Y1 (KIM, Seul Bi) 14 February 2014 See claims 1-3 and figures 1-13.	1-11

☐ Further documents are listed in the continuation of Box C.
 ☒ See patent family annex.

* Special categories of cited documents:

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