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(54) **TOP-GRIPPING BEVERAGE CAN CARRIER, AND CAN AND CARRIER ASSEMBLY**

OBERGRIFFTRÄGER FÜR GETRÄNKEDOSE UND ANORDNUNG VON GETRÄNKEDOSE UND TRÄGER

SUPPORT DE CANETTE DE BOISSON À PRÉHENSION PAR LE HAUT ET ENSEMBLE CANETTE ET SUPPORT

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Description

[0001] The invention relates to beverage can carriers, in particular can carriers for carrying multiple beverage cans.

[0002] Different can carriers are known, and they are often used to form multipacks, such as six-packs of beverage cans or so-called drink cans.

[0003] A first known type of beverage can carriers is formed by plastic six-pack rings, which comprises six interconnected flexible plastic rings. A first disadvantage of such plastic six-packs rings may lie in their environmental impact, for instance as animals may become entrapped in the plastic rings when they are not properly disposed. Another disadvantage may lie in that such plastic six-pack rings do not provide much space for printing, such as for marketing or promotional purposes.

[0004] Also relatively hard, injection molded plastic multipack can carriers are known, such as for instance marketed by the company PakTech. A disadvantage may lie in that such carriers comprise relatively large amounts of plastic material, and do still not provide relatively large surfaces for branding or the like.

[0005] Further it is known to pack multiple beverage cans together by means of plastic shrink-filled overwraps. Although such shrink wrapped packs of cans can provide relatively much space for printing, a disadvantage may lie in that they are made of plastic, which may have a relatively large environmental impact and/or a relatively bad image.

[0006] Also cardboard beverage can carriers or so-called multipack cartons are known. For example, paperboard basket type can carriers are known. Applying such basket type carriers for packing multiple beverage cans may be relatively costly, for instance as they may be relatively complex to manufacture and/or relatively difficult to fill with beverage cans. Further, such basket type carriers may include relatively much cardboard material, which may not be beneficial to their environmental impact.

[0007] Another type of known can carriers is formed by paperboard overwraps. Although they may provide for relatively much surface space for branding or other printing, they may also use relatively much cardboard material. Besides, the paperboard overwraps may be relatively difficult to manufacture and/or to assemble around a multiplicity of cans.

[0008] Further, paper-based top-gripping beverage can carriers are known. A known paper-based top-gripping beverage can carrier has a main panel with substantially round can receiving apertures with a so-called crown style attachment mechanism including a series of locking tabs arranged around the periphery of the receiving aperture and radially extending towards the center of the receiving aperture. When a can is inserted into such a so-called sunburst type of can receiving opening, the locking tabs are deflected upwards and engage an underside of the lid or the so-called end of the can. A dis-

advantage may lie in that such a sunburst type of can receiving opening may not always retain the cans securely, as a result of which beverage cans may accidentally fall out of the carrier. Additionally or alternatively, as a result of not being retained securely in the carrier, a beverage can may unintentionally rotate about its central axis, which for example may result in that a certain portion of said can, for example comprising branding, may then no longer be visible, to for example a potential consumer, and/or which for example may result in that a certain portion of the can, for example a portion provided with a bar code, which for instance may relate to the price of a single can instead of the price of an entire multipack, may be accidentally displayed, whereas it initially might have been intentionally hidden from view by another one of the cans held by the carrier.

[0009] For instance thereto, the can carrier may be adhered to the cans, for instance by means of hot melt. It is also possible to glue the bodies of multiple cans onto each other by means of hot melt or other adhesives. However, using such hot melt or other adhesives may be undesirable from an environmental point of view. Additionally or alternatively, a disadvantage of using an adhesive may lie in that, after releasing a beverage can, the hot melt or other adhesive may stay behind on the beverage can, for instance at or near an area of the can lid at which a drinking opening or pouring opening is to be formed, which may be disadvantageous, for example in view of hygiene and/or taste perception. Additionally or alternatively, using an adhesive may make assembling a carrier and/or assembling a multipack comprising a carrier and multiple cans for example relatively complicated, relatively time consuming and/or relatively error prone.

[0010] United States Patent 3,722,945 discloses a carrier for flanged articles, which includes a carrier for elongated flanged articles comprising a base panel, a pair of side walls foldably joined respectively to the side edges of said base panel and extending upwardly therefrom, a pair of top wall panels foldably joined respectively to the top edges of said side walls and extending inwardly therefrom, a pair of support panels foldably joined respectively to the inner edges of said top wall panels and extending downwardly and inwardly therefrom, a pair of anchoring panels foldably joined respectively to the inner edges of said support panels and disposed in flat face contacting relation with the upper surface of said base panel, at least one flange receiving slit formed at the junction between each of said top wall panels and its associated support panel, at least a pair of stabilizing flaps struck from said base panel in areas thereof adjacent said side walls respectively and each flap being folded upwardly to occupy a position adjacent its associated side wall, said flaps defining article receiving apertures in said base panel, and a flange receiving slit formed in each of said stabilizing flaps and arranged to cooperate with the corresponding slit in the junction between the associated top wall panel and support panel for receiving diametrically opposite edge portions of the flange of an article disposed

in the associated aperture.

[0011] United States Patent 5,415,278 discloses a carrier for articles such as beverage cans of the type that grip the top portions of the cans so as to suspend them from the carrier, wherein the carrier is comprised of a top panel connected to a bottom panel by side panels, wherein the upper ends of the cans extend through apertures in the bottom panel of the carrier, and the chimes or lips of the cans are engaged by locking tabs surrounding the aperture, wherein one of the side panels is connected to a glue flap to be glued to the top flap.

[0012] It is an object of the invention to provide an alternative beverage can multipack and/or an alternative beverage can carrier. In particular, it can be an object of the invention to provide a beverage can carrier, wherein at least one of the disadvantages of a prior art beverage can carrier is counteracted. More in particular, the invention may aim to provide a beverage can carrier, wherein at least one of the disadvantages mentioned above is counteracted. In embodiments, the invention aims at providing an alternative paper-based top-gripping beverage can carrier, especially an alternative paper-based top-gripping beverage can carrier which may facilitate that cans can be retained therein relatively well.

[0013] Thereto, the invention provides for a top-gripping beverage can carrier, comprising a main panel of cardboard sheet material having at least one, and preferably multiple, can receiving apertures, wherein the main panel is provided with a series of locking tabs hingedly connected to the main panel by means of a respective tab fold line, and disposed around the can receiving aperture, wherein each locking tab extends from the respective tab fold line towards a retaining edge for engaging an underside of a radially protruding portion of a beverage can to be received in the can receiving aperture, said radially protruding portion of the can being formed by a lid of said can, wherein said retaining edge is located more inwardly with respect to the can receiving aperture than said tab fold line, wherein each locking tab can pivot about the respective tab fold line from an initial position of the respective locking tab, in which said respective locking tab lies substantially in line with the main panel, towards a folded up position in which said locking tab is under an angle with the main panel, wherein the carrier further comprises a first cover panel for at least partly covering at least one first lid of at least a first one of the one or multiple cans to be held by the carrier, wherein the first cover panel is hingedly connected to the main panel via a first intermediate panel, wherein the first intermediate panel is hingedly connected to the main panel by means of a first cover fold line, and wherein the first intermediate panel is hingedly connected to the first cover panel by means of a second cover fold line, wherein the carrier further comprises a first connector panel which is hingedly connected to the first cover panel by means of a third cover fold line, wherein the first connector panel is arranged to snap below the first lid of the first can in order to hold the first cover panel in place in its covering

position.

[0014] By providing the carrier with the first cover panel, it can be facilitated that at least a part of at least one lid of one or more cans to be held by the carrier can be covered. This may for example counteract contamination on a lid, in particular at the location at which a drinking opening or pouring opening is to be formed by the user, for instance by means of a pop-tab mechanism of the can. Hence, the cover panel may facilitate that the carrier can facilitate a relatively hygienical use of the carrier and/or the one or more cans to be carried by said carrier.

[0015] By arranging the carrier such that the first cover panel is hingedly connected to the main panel via the first intermediate panel, wherein the first intermediate panel is hingedly connected to the main panel by means of the first cover fold line, and wherein the first intermediate panel is hingedly connected to the first cover panel by means of the second cover fold line, it can be facilitated that the cover panel may during use extend substantially parallel with the upper side of the can, in particular substantially parallel with the lid of the can, as a result of which it can be facilitated that the cover panel is abutting an outer rim of the lid relatively well, which then may counteract that dust and/or other contamination may unintentionally get on top of the lid, in particular at the location at which a drinking opening or pouring opening is to be formed by the user.

[0016] By further providing the carrier with the first connector panel, which is hingedly connected to the first cover panel by means of a third cover fold line, and wherein the first connector panel is arranged to snap below the first lid of the first can in order to hold the first cover panel in place in its covering position, it can be facilitated that the cover panel can be installed and/or secured in its covering position, in which said cover panel can cover at least a part of at least one lid of the one or more cans to be held by the carrier, in a relatively simple and/or relatively swift and/or relatively foolproof manner.

[0017] Additionally or alternatively, as a result of snapping or clamping the cover panel below the lid of the can, it can be facilitated that no adhesive needs to be used to hold the cover panel in its covering position. In embodiments, the carrier may also be free of other connectors to install and/or hold the cover panel in its covering position, and the carrier may thus for example be free of insertion tabs and corresponding insertions slits to connect the connector panel to the main panel of the carrier. Using no glue or any other adhesive may for example facilitate that the carrier and/or the multipack can be assembled in a relatively simple and/or relatively swift and/or relatively foolproof manner. Additionally or alternatively, using no adhesive to install the cover panel in place may be relatively environmentally friendly and/or counteract that portions of the can, for instance at the location of the pouring opening to be formed, may become contaminated with adhesive.

[0018] Additionally or alternatively, by snapping the connector panel below the lid of the can, at least in em-

bodiments the can may be clamped relatively well by the carrier, as a result of which the can may be retained in said carrier relatively well.

[0019] Additionally or alternatively, the cover panel, which can cover the lid at least partly during use of the carrier, can counteract relatively well that the can held in the can receiving aperture may tilt with respect to the central axis of said can. This may for example counteract that a can held by the carrier may unintentionally become detached, and can thus facilitate that the can may be retained in the carrier relatively well.

[0020] Additionally or alternatively, a result of that the cover panel can counteract that the cans could tilt relatively simple, may for example lie in that it can also be counteracted that, when a multipack including said carrier and multiple beverage can is held on its side or upside down, the cans, which initially may be abutting and may extend with their central axes parallelly such as to form a relatively compact bundle, may flower out at their free ends. Hence, such so-called flowering effect, which is usually undesirable, may thus be counteracted due to the cover panel.

[0021] Additionally or alternatively, the cover panel, in particular when it is held relatively firmly against the upper end side of the can, may counteract in a relatively elegant manner that the can may unintentionally rotate about its central axis. As a result, one can deliberately position the cans in a certain manner, for example in a manner in which the branding of multiple cans is neatly aligned, and/or in a manner in which certain information, such as for example the bar code of the can, is shielded by another can held in the carrier such that such bar code or other information is hidden from view. This may for example counteract that one could accidentally scan the bar code of a single can instead of scanning a bar code belonging to the multipack, which for example may be provided on the carrier.

[0022] Advantageously, the first connector panel can be provided with a first connector edge formed by a first cut or slit, which can be clicked or clamped beneath the first can's first radially protruding portion formed by the first lid of said first can in order to lock the first cover panel in its covering position. This may enable that the connector panel can be snapped and clamped below the lid of the can relatively well and/or relatively firmly.

[0023] In embodiments, the carrier may be arranged such that in the use position of the carrier, the first connector panel, the first cover panel, the first intermediate panel and a respective portion of the main panel provided with at least the first can receiving aperture, together substantially define a shaft, which, when seen in a direction substantially parallel to the first cover fold line, has a cross-section substantially formed as an acute trapezium. The outer edge of the connector panel may then be abutting the upwardly facing side of the main panel of the carrier. As a result, a relatively firm construction may be formed, which may facilitate that the cans may be retained relatively well and/or which may counteract that

the carrier may sag and/or deform.

[0024] In advantageous embodiments, the main panel may comprise at least two, and preferably more, can receiving apertures, which may be provided in at least one straight row. Preferably, the main panel may comprise at least four, and for example six, can receiving apertures which, in embodiments, may be provided in parallel rows, for instance two parallel rows, which for instance may each have two, three or four can receiving openings.

[0025] In embodiments, the centers of two adjacent can receiving apertures may be spaced apart over an interspace corresponding with the diameter at the widest point of the body of the cans to be held by the carrier. For example, when the said widest point of the body of the can is about 66 mm, said interspace may then for instance also be about 66 mm. As a result, adjacent cans held in the carrier may substantially abut, which may counteract that they may shift and/or which may facilitate that the cans may be held in a relatively compact arrangement.

[0026] In embodiments, the carrier may comprise a second cover panel for at least partly covering at least one second lid of at least one second one of the cans to be held by the carrier, wherein the second cover panel is hingedly connected to the main panel via a second intermediate panel, wherein the second intermediate panel is hingedly connected to the main panel by means of a fourth cover fold line, and wherein the second intermediate panel is hingedly connected to the second cover panel by means of a fifth cover fold line, wherein the carrier further comprises a second connector panel which is hingedly connected to the second cover panel by means of a sixth cover fold line, wherein the second connector panel is arranged to snap below the second lid of said second can in order to hold the second cover panel in place in its covering position. For example, the carrier may comprise two parallel rows of can receiving apertures, wherein the carrier comprises two cover panels, each of which during use covers at least partly the lids of the cans held in a respective one of said two rows.

[0027] Advantageously, the carrier is arranged such that, in a use position of the carrier, a first outer edge of the first connector panel and a second outer edge of the second connector panel can abut against each other, and preferably also abut against the upwardly facing side of the main panel. By abutting against each other, the two connector panels can clamp each other and can facilitate that the connectors panels can be kept in place during use, thereby facilitating that a relatively strong structure can be formed, in particular in a relatively simple and/or relatively elegant manner, for instance without the need of any adhesive and/or any further connector means for holding the connector panels in place.

[0028] In preferred embodiments, the first cover panel can be formed out of the same sheet of cardboard material as the main panel, and preferably also the first intermediate panel and the first connector panel may then be formed out of the same sheet of cardboard material

as the main panel. Additionally or alternatively, the second cover panel can be formed out of the same sheet of cardboard material as the main panel, and preferably then also the second intermediate panel and the second connector panel may be formed out of the same sheet of cardboard material as the main panel.

[0029] Advantageously, said sheet of cardboard material from which the main panel is formed is a sheet of corrugated fiberboard. However, other types of cardboard sheet material may be possible, such as compressed paperboard material or other paperboard material.

[0030] Although different kinds of cardboard sheet material may be used, such as for instance paperboard, especially compressed paperboard material, it has been found that it may be advantageous to form at least the main panel out of corrugated fiberboard material, preferably a single sheet of corrugated fiberboard. In particular, the corrugated fiberboard may have a thickness of between 0.8 mm and 2.0 mm, for instance about 1.5 mm, or less.

[0031] Advantageously, at least the main panel and the series of locking tabs are, and preferably substantially the entire carrier is, formed out of a single sheet of corrugated fiberboard.

[0032] By arranging the carrier such that the locking tabs are spread over the perimeter of the can receiving aperture such that the largest angle between two adjacent locking tabs of the series of locking tabs is less than 120°, it can be counteracted that a can, once held by the locking tabs, may move sidewardly without encountering a locking tab.

[0033] In embodiments, the main panel can be arranged such as to include a series of neck support sections being integral parts of the main panel and defining neck support edges being located more inwardly with respect to the can receiving opening than the fold lines of the locking tabs, or so-called locking tab fold lines, wherein, at least in the initial position of the locking tabs, the retaining edges of the locking tabs extend more inwardly with respect to the can receiving opening than the neck support edges. By providing the neck support sections that are integral parts of the main panel, and which during use of the can carrier are located more inwardly with respect to the can receiving opening than the fold lines about which the locking tabs are pivoted upwards, a beverage can having its protruding end edge supported by said locking tabs at a height level above the main panel can at the height level of the main panel be additionally supported by said neck support sections. In particular, the neck support sections can rest against a neck of the can and may counteract that the can may shift sidewardly within the receiving opening. Therefore, it may be facilitated that the can may be secured relatively well in the top-gripping can carrier. This may form an advantage over known paper-based top gripping beverage can carriers, which often have substantially round can receiving apertures with a so-called crown style at-

tachment mechanism including a series of locking tabs arranged around the periphery of the receiving aperture and radially extending towards the center of the receiving aperture, which usually will require extremely narrow aperture-to-can tolerances.

[0034] Additionally or alternatively, by arranging the carrier such that the neck support sections are spread over the perimeter of the can receiving aperture in such a manner that the largest angle between two adjacent locking tabs of the series of locking tabs is less than 120°, it can be counteracted that the can may move in radial or sideward direction at the height level of the main panel, thereby facilitating that the can may be secured relatively well.

[0035] At least in embodiments, the locking tab fold lines can be formed as prefabricated fold lines, for instance by means of one or more scores, slits, and/or embossments, which may facilitate that the locking tabs pivot at the intended location.

[0036] Advantageously, at least one, and preferably multiple, especially each, of the neck support sections may have a depth being smaller than its width, preferably said depth being less than half of said width. As a result, the neck support section may be relatively rigid and it can be counteracted that it may unintentionally bend or fold, for instance when a beverage can, which is held in the aperture confined partly by means of said support section, applies a sideward or radial force onto said neck support section, thereby facilitating that the can may be secured relatively well.

[0037] By arranging the carrier such that at least one of the main panel's neck support sections, and preferably multiple, especially each, of them has a depth, which may be measured in the radial direction, being at most four times as large as the thickness of said neck support section, and preferably even smaller, such as at most three times as large, the neck support sections, which may thus be relatively thick compared to their depth, may be relatively rigid, which may counteract that it may accidentally bend or fold, which thus may facilitate that the can may be secured relatively well.

[0038] By arranging that the at least one of the neck support sections of the main panel, and preferably multiple or all of them, have a depth being larger than the thickness of an adjacent locking tab, preferably at least one and a half time as large, such as for instance about twice as large, it can be facilitated relatively easily that the neck support edge defined by the neck support section may be located further inwardly than a can facing side of a bottom end section of a folded up locking tab supporting said can. Hence, the neck support sections may support the neck of the can relatively well.

[0039] In embodiments, at least one of the neck support sections may have a depth being at least a quarter of the depth of at least one locking tab being adjacent to the respective neck support section, preferably wherein said depth of the neck support section is at least a third, such as for instance about half, of the depth of the locking

tab.

[0040] In embodiments, the can carrier may hold at least one, and preferably multiple, beverage cans within a respective one of the one or more can receiving apertures of the carrier.

[0041] Advantageously, the can receiving aperture, when the locking tabs are folded away towards their folded up positions, may leave open a passage having a passage diameter being at least substantially equal to, and preferably wider than, the diameter of a lid of the beverage can to be held within said receiving aperture. For instance in case the diameter of the lid of the beverage can is about 53 mm, said passage diameter may be at least about 53 mm, such as for example about 54 mm.

[0042] Further advantageous embodiments according to the invention are described in the appended claims.

[0043] By way of non-limiting examples only, embodiments of the present invention will now be described with reference to the accompanying figures in which:

Fig. 1 shows a schematic perspective view of a first embodiment of a top-gripping beverage can carrier according to an aspect of the invention in a use state thereof in which it is holding beverage cans;

Fig. 2 shows a schematic top view of an embodiment of a top-gripping beverage can according to an aspect of the invention in a flat state thereof; and

Fig. 3 shows a schematic partly cut away cross sectional view of a detail of the can holding carrier of Fig. 1 during use.

[0044] It is noted that the figures show merely preferred embodiments according to the invention. In the figures, the same or similar reference signs or numbers refer to equal or corresponding parts.

[0045] Figure 1 shows an embodiment of a top-gripping beverage can carrier 1 according to the invention in its use position in which it is used to form a multipack including multiple beverage cans 6, and Figure 2 shows an embodiment of a blank of a top-gripping carrier 1 in an initial flat state. As is the case in the here shown embodiments, the carrier 1 may preferably be formed from a single blank of cardboard sheet material.

[0046] Said can carrier 1, which may also be considered to form a so-called neck-through carrier, is intended to hold one or multiple beverage cans 6, for instance such as depicted in Figure 1, which thus shows an assembly including the can carrier 1 and multiple cans 6.

[0047] It will be appreciated that the carrier 1 may be for forming a multipack, such as for example a six-pack, which is the case in the here shown embodiment. However, in alternative embodiments, the carrier 1 may be arranged to hold another number of beverage cans 6 or so-called drink cans 6, which may contain a drink or beverage, such as for instance soft drink, in particular carbonated soft drink, an alcoholic drink, such as beer, wine or a mixed drink, such as for instance an alcopop, fruit juice, water, tea, herbal tea, energy drink, etc.

[0048] In the here shown embodiments, a main panel 2 of the carrier 1 is provided with six can receiving apertures 3. However, in other embodiments the main panel 2 may have another number, preferably a multiple number, of can receiving apertures 3 or so-called receiving openings 3, such as for instance one, two, three, four or eight can receiving apertures 3 which, in embodiments, may be provided in parallel rows, for instance two parallel rows 300a, 300b, wherein each row for instance may each have two, three or four can receiving apertures for holding a respective row of cans 600a, 600b.

[0049] Further, the main panel 2 is provided with a series of locking tabs 4 hingedly connected to the main panel 2 by means of a respective fold line 5, i.e. a locking tab fold line 5, in particular a prefabricated fold line. Here, the prefabricated fold line 5 is formed by a score. However, it may be formed in any other suitable manner, for instance by means of multiple scores and/or one or more slits, and/or embossments or the like. The locking tabs 4 can thus be formed from the same sheet of material, in particular corrugated fiberboard material, as the panel to which they are connected.

[0050] Each of the locking tabs 4, which are intended and arranged for retaining a can 6 in the receiving aperture 3, extends from the respective fold line 5 towards a retaining edge 40. In particular, the fold line 5 is located at a first or proximal end of the locking tab 4, while the retaining edge 40 is located at an opposite second end of the locking tab 4. Said retaining edge 40 is for engaging an underside of a radially protruding portion 60 of a beverage can 6 to be received in the can receiving aperture 3, as for instance can be seen in the schematic partly cut away cross sectional view of Figure 3. Said radially protruding portion 60 of the can is formed by a lid 61, usually called an end 61, of the can 6, which may be attached to a main body 62 of said can 6.

[0051] The locking tabs 4 can pivot about their respective fold lines 5 from an initial position of the respective locking tab 4, in which said respective locking tab 4 lies substantially in line with the main panel 2, towards a folded up position in which said locking tab is under an angle with the main panel 2, as for instance is the case in Figure 1 and Figure 3. In the initial position of the locking tab 4, it may thus be substantially flush with the main panel 2. Preferably, the locking tab 4, for instance at least after folding up to a certain extent, may be biased in a direction substantially back to its initial position.

[0052] As for instance can be seen in Figure 2, at least in the initial position of the locking tab 4, the retaining edge 40 is located more inwardly with respect to the can receiving aperture 3 than said fold line 5. In other words, at least in its initial position, the locking tab 4 can extend from the fold line 5 into the can receiving aperture 3, preferably in a substantially radial direction.

[0053] In the here shown embodiments, the main panel 2 includes a series of neck support sections 20, which may be for supporting against the neck 63 of the beverage can 6. These neck support sections 20 form sections

20 or areas 20 of the main panel 2 and are integral parts of the main panel 2. Contrary to the locking tabs 4, the neck support sections 20 are here thus not formed as tabs hingedly connected to the main panel 2, but are integral parts of said main panel 2. In particular, the neck support sections 20 may be intended and/or arranged for supporting against a neck 63 of the beverage can 6. The neck support sections 20 define neck support edges 21, which are for supporting against the neck 63 of the can 6, and which during use may abut against the neck 63 or so-called neck portion 63 of the can held within the respective can receiving aperture 3 of the carrier 1. Providing the carrier with such neck support sections 20 may be advantageous, as such an arrangement may facilitate that cans 6 can be secured relatively well in the carrier 1.

[0054] Further, in advantageous embodiments, the neck support edges 21 may be curved, in particular concave, more preferably substantially arc-shaped, such as to facilitate a proper fit with the neck 63 of the can 6. In particular, multiple neck support edges 21, preferably all neck support edges 21, defining parts of the boundary of a respective can receiving aperture 3, may be located substantially on a virtual circle 210.

[0055] The can receiving aperture 3, when the locking tabs 4 are folded away towards their folded up positions, leaves a passage open for letting pass at least an upper part of a can 6. Said passage and/or the vertical circle 210 on which the neck support edges 21 may be located may have a passage diameter D210 being at least substantially equal to, and preferably wider than, the diameter D60 of the lid 61 of the beverage can 6 to be held within said receiving aperture 3, such that the lid 61 or so-called end 61 of the can 6 can be inserted into the can receiving aperture 3 without substantially folding up or flexing the neck support sections 20 of the main panel 2. In particular, especially as beverage cans 6 often have an end 61 or lid 61 with a diameter D60 of about 52 mm or about 53 mm, said passage diameter D210 may be at least about 52 mm, preferably at least about 53 mm, such as about 54 mm.

[0056] As for instance can be seen in Figure 2, the neck support edges 21, if any, can preferably be located more inwardly with respect to the can receiving opening 3 than the fold lines 5 of the locking tabs 4.

[0057] At least in the initial position of the locking tabs 4, multiple ones of, and preferably all of, the retaining edges 40 of the locking tabs 4, which retaining edges 40 may be curved, in particular concave, more preferably substantially arc-shaped, for instance such as to facilitate a proper fit with the end 61 of the can 6, may be located substantially on a virtual circle 400.

[0058] At least in the initial position of the locking tabs 4, the retaining edges 40 of the locking tabs 4, may extend more inwardly with respect to the can receiving opening 3 than the neck support edges 21. In particular, when the locking tabs 4 are in their initial positions, the area of the can receiving aperture 3 not blocked by the locking tabs 4 then extending into said aperture 3, which unblocked

area at least in embodiments may be considered as the area enclosed by the virtual circle 400 on which the respective retaining edges 40 are substantially located, may have a diameter D400 smaller than the outer diameter D60 of the lid 61 or so-called end 61 of the beverage can 6 to be held within said receiving aperture 3. At least in the initial position of the locking tabs 4, in particular in case the diameter D60 of the lid 61 of the beverage can 6 is about 53 mm and/or in particular in case the passage diameter D210 is at least 53 mm, the diameter D400 of said unblocked area may in embodiments be smaller than 53 mm, preferably smaller than 51 mm, such as about 50 mm, about 49 mm, about 48 mm, about 47 mm or about 46 mm.

[0059] It will be appreciated that the locking tabs 4 may be disposed around the can receiving aperture 3, in particular in a manner in which the locking tabs 4, at least in their initial positions in which they lie substantially flush with the main panel 2, are spaced apart from each other. More in particular, the locking tabs 4 can be entirely spaced apart from each other, both at their first, outer ends at which their fold lines 5 are located, as well as at their opposite, second ends that form the retaining edges 40, as well as at any other portion of the side edges of the locking tabs 4.

[0060] In embodiments, the locking tabs 4 may be substantially evenly distributed along the periphery of said can receiving aperture 3. However, as can be seen in the here shown embodiment, at certain positions 23, such as for instance relatively near an edge 22 of the main panel 2, a relatively large part of the perimeter of the aperture 3 may be free of such locking tab 4. This may be considered as that at such position 23, a locking tab 4 may be omitted, in particular to counteract that otherwise the main panel 2 could be weakened to a relatively large extent by an incision extending which would otherwise extend relatively close to the edge 22 of the panel. This means that at such locations 23, the respective neck support section 20' of the main panel 2 may thus be relatively wide.

[0061] In embodiments, as is the case in the exemplary embodiment shown in Figure 2, for instance at such locations 23, one or more additional tabs 44 may be hingedly connected to the main panel. In embodiments, contrary to the here shown embodiments, the inner edges 47 of such additional tabs 44 may extend more inwardly with respect to the can receiving aperture 3 than the retaining edges 40 of the locking tabs 4 do. For example, the additional tab 44 may have a depth which is arranged such that the inner edge 44 of the additional tab 44 forms an additional retaining edge engaging the radially protruding portion 60 of the can 6 be formed by a lid 61.

[0062] In the embodiment shown in Figure 2, eight locking tabs 4, and also two additional tabs 44, are provided at each aperture 3. However, in alternative embodiments, another number of locking tabs 4 may be provided at one or more of the can receiving apertures 3. Preferably, at least three locking tabs 4 are provided at the

respective can receiving aperture 3, especially in order to counteract movements of the can in radial direction, and more preferably at least four locking tabs 4, such as for instance between five and twenty locking tabs 4 can be provided.

[0063] In embodiments, each neck support section 20 may extend between two adjacent locking tabs 4, and/or each locking tab 4 may extend between two adjacent neck support sections 20. It will be appreciated by the person skilled in the art that the number of neck support sections 20 may correspond with the number of locking tabs 4, and may, as is the case in the here shown embodiments, be eight. However, in alternative embodiments, other numbers of neck support sections 20 are possible, for instance at least three, at least four, and/or between five and twenty neck support sections 20 at a respective can receiving aperture 3.

[0064] Advantageously, the locking tabs 4 may be spread over the perimeter of the can receiving aperture 3 in such a manner that the largest angle α_{44} between two adjacent locking tabs 4 of the series of locking tabs 4 is less than 120° . Said angle α_{44} , which may be measured from the facing ends of the retaining edges 40, may preferably be smaller than 90° .

[0065] Additionally or alternatively, the largest angle α_{28} over which a neck support edge 21, in particular the widest one of the neck support edges 21, extends may be less than 120° , preferably less than 90° . In this context, it is noted that such neck support edge 21, which may be formed by a cut line 21', may in embodiments be formed by a folded edge, or may be formed by one or more cut lines 21'' and one or more folded edges 21''' together.

[0066] Further, it is noted that the neck support sections 20 may be spread over the perimeter of the can receiving aperture 3 in such a manner that the largest angle α_{28} between two neck support sections of the series of neck support sections is less than 120° . In particular, said angle α_{28} , which may be measured from a first lateral end of the respective neck support edge 21 up to its opposite, second later end, may preferably be smaller than 90° .

[0067] It is noted that a respective one of the neck support sections 20, in circumferential direction of the can receiving aperture 3, can be located between two adjacent locking tabs 4, and that the fold lines 5 of said two adjacent locking tabs 4 may be substantially located on a virtual circle 500 extending around the center 30 of the can receiving aperture 3. Said respective one of the neck support sections 20 can then have a depth 24 which extends, seen in the radial direction of the can receiving aperture 3, from the neck support edge 21 of the respective neck support section 2 up to said virtual circle 500 on which the fold lines 5 of said two adjacent locking tabs 4 substantially are located.

[0068] It is noted that, at least one, and preferably multiple, especially each, of the neck support sections 20 may have a depth 24 being smaller than its largest width

25 and/or said width 25 measured at the location between the two adjacent fold lines 5, preferably said depth 24 being less than half of such width 25. As a result, the neck support section 20 may be relatively rigid and it can be counteracted that it may unintentionally bend or fold, for instance when a beverage can 6, which is held in the aperture 3 confined partly by means of said support section 20, applies sideward or radial forces onto said neck support section 20, thereby facilitating that the can 6 may be secured relatively well.

[0069] Additionally or alternatively, at least one of the neck support sections 20 can have a depth 24 which is at least a quarter of the depth 45 of at least one of the locking tabs 4 adjacent to the respective neck support section 20. Preferably, said depth 24 of the neck support section 20 can be at least a third, such as for instance about half, of the depth 45 of the locking tab 4.

[0070] It is noted that said depth 45 of the locking tab 4 may be measured in the radial direction of the can receiving aperture 3, and may be measured from the fold line 5 up to the retaining edge 40, and may for instance be measured between the outermost virtual circle 500 and the innermost virtual circle 400.

[0071] Furthermore, it is noted that the central virtual circle 210, on which the neck support edges 21 may substantially lie, may be located between the outermost virtual circle 500 and the innermost virtual circle 400. In particular, the radial distance between the central virtual circle 210 and the outermost virtual circle 500 may not be more than 50% larger or smaller than the radial distance between said central virtual circle 210 and the innermost virtual circle 400. For example, both radial distances between the two respective virtual circles 210, 400; 210, 500 may be substantially equal, for instance both about 3 mm.

[0072] In embodiments, the radial distance between the central virtual circle 210 and the outermost virtual circle 500 may for instance be between 1.5 mm and 5 mm, such as about 2 mm, about 4 mm or in particular about 3 mm. Additionally or alternatively, the radial distance between the central virtual circle 210 and the innermost virtual circle 400 may for instance be between 1.5 mm and 5 mm, such as about 2 mm, about 4 mm or in particular about 3 mm.

[0073] Furthermore, at least one, and preferably multiple or each, of the neck support sections 20 of the main panel 2 may have a depth 24 being larger than the thickness of an adjacent locking tab 4, which may be measured in a direction transverse to the drawing in Figure 2. Preferably, said depth 24 may be at least one and a half time as large, such as for instance about twice as large, as said thickness. For example, the main panel 2 may have a thickness of about 1.5 mm and the neck support section 20 may have a depth 24 of about 3 mm. Since the locking tab 4 may advantageously only comprise a single layer of sheet material, which may be the same sheet material from which the main panel 2 is made, and since the sheet of material may be substantially equally

thick over substantially the entire surface of the main panel 2, this may mean that the neck support section 20 may have a depth 24 being larger than its thickness. When the locking tab 4 is in its folded up position, the neck support section 20 may thus, at the height level of the main panel 2, extend, in a direction towards the can 6, beyond the locking tab 4, as can be seen in Figure 3. In other words, during use, when the locking tab 4 is in its folded up position, the neck support section 20 may thus extend inwardly beyond a lower portion of the locking tab 4.

[0074] Additionally or alternatively, the depth 24 of the neck support section 20 may be such that it is at most four times as large as the thickness of said neck support section 20. Preferably, said depth 24 of the neck support section 20 may be no more than three times its thickness, such as for instance about twice as large.

[0075] As mentioned above, the main panel 2 may comprise multiple receiving apertures 3. Advantageously, the centers 30 of two adjacent can receiving apertures 3 can then be spaced apart over an interspace 33 which corresponds with the diameter at the widest point of the body 62 of the cans 6 to be held by the carrier 1. In particular, for instance as many more or less standardly sized drink cans 6 have a widest body diameter of about 66 mm, said interspace 33 may for example be about 66 mm. As a result, adjacent cans 6 held by the carrier 1 can abut each other, as for instance is the case in the embodiment shown in Figure 1.

[0076] In embodiments, one or more dimensions of the main panel 2 and/or one more dimensions of the carrier 1, such as for instance the respective length 27 and/or the respective width 29, may be chosen such that it does not exceed, and/or substantially corresponds with, the combined length or width of the cans held in that direction. Hence, it may be facilitated that the carriers 1 do not prevent that cans 6 of two adjacently placed carriers 1 cannot be placed next to each other in an abutting manner and/or it can counteract that the carrier 1 prevents placement of the cans in a certain box, a certain compartment of a shelf display, etc., in which the cans would have fitted when they would be placed in the same formation, but without the carrier.

[0077] For example, in case the carrier comprises two can receiving apertures 3, or two rows 300a, 300b of can receiving apertures 3, next to each other, the respective dimension of the carrier 1, e.g. its width 29, in particular in its use position, and/or the width 2' of the main panel 2, may be such that it not substantially exceeds 132 mm, and preferably is substantially 132 mm. Additionally or alternatively, in case of three apertures 3, or three rows of apertures 3, the respective dimension of the carrier 1, e.g. its length 27, in particular in its use position, and/or the length 2" of the main panel, may in embodiments be no larger than about 198 mm or may be about 198 mm.

[0078] For instance in such case in which only a relatively small border section 23, 26 of the main panel 2 extends between the can receiving aperture 3 and the

edge 22 of the main panel 2, the locking tabs 4 may be disposed in a manner in which no locking tab is located at a position 23, 26 where the distance, between the main panels outer edge 22 and the virtual circle 210 on which the neck support edges 21 may be located, is the smallest, as for instance can be seen in Figure 2, where there, both in the width direction and the length direction a respective neck support section of the main panel 2 is present.

[0079] As is the case in the here shown embodiments, the carrier 1 can be provided with one or more, e.g. two, finger holes 9. For example, the main panel 2 may be provided with finger hole tabs 90, which may be hingedly connected to the main panel 2 by a prefabricated fold line 91 or so-called finger hole fold line 91. The finger hole tabs 90, which initially may lay substantially flush with the main panel 2, may facilitate that printing, for instance for marketing or promotional purposes, may initially extend over the finger holes 9, for instance until a user pushes these finger hole tabs 90 downwards to a position such as shown in Figure 1.

[0080] According to an aspect of the invention, the carrier 1 further comprises at least one cover panel 7 for covering at least a part of at least one of the cans 6 to be held by the carrier 1. In particular, such cover panel 7 covers one or multiple can lids 61 at least partly, and preferably substantially entirely. It is noted that such a cover panel 7 may be advantageously. For example, the cover panel 7 may counteract contamination on the lids 61, in particular at the location at which a drinking opening or pouring opening is to be formed by the user, for instance by means of a pop-tab mechanism. Hence, the cover panel 7 may provide for relatively hygienically carriers.

[0081] Advantageously, the cover panel 7 may be formed out of the same sheet of cardboard material as the main panel.

[0082] The cover panel 7 is hingedly connected to the main panel 2 via an intermediate panel 81, here formed as a strip 81, which may extend in the length direction of the main panel 2. The intermediate panel 81 is hingedly connected to the main panel 2 by means of a first cover fold line 811 and is hingedly connected to the cover panel 7 by means of a second cover fold line 812. Said first cover fold line 811 and/or said second cover fold line 812 may preferably be formed as a prefabricated fold line, in particular by means of slits 83 and/or scores 84, such as for instance a scored perforated line 811, 812.

[0083] Further, the cover panel 7 is provided with a connector to lock the cover panel 7 in its position in which it covers one or more lids 61 at least partly. In particular, as can be seen in Figure 1 and Figure 2, a connector panel 82 is hingedly connected to the cover panel 7 by means of a third cover fold line 813, which may be located at substantially the opposite side of the cover panel 7 as at which the second cover fold line 812 is located. Preferably, the second cover fold line 812 may extend substantially parallel with the third cover fold line 813, which

for example may be formed as a composed fold line comprising multiple segments 813a, 813b, 813c, 813d interrupted by cover panel protrusion portions 70, as can be seen for instance in Figure 1.

[0084] The connector panel 82 may be provided with a connector edge 832, which may be formed by a slit 830 or cut 830 in the sheet material, in particular at a location between said connector panel 82 and the cover panel 7. Preferably, said cut 830 or slit 830 may be curved, for instance substantially arc-shaped, such that the formed connector edge 832 may correspond with the shape and/or the size of the lid 61 of the can 6, and can be clicked or clamped beneath the protruding edge 60 of said lid 61 in order to lock the cover panel 7 in its covering position.

[0085] As can be seen in Figures 1 and 2, such cut 830 or slit 830 may be formed in the connector panel 82 and both ends thereof may preferably extend at least up to the third cover fold line 813.

[0086] For instance then, said cut 830 or slit 830 may cut a portion 820 out of the connector panel 82, which portion 820 may form a portion 70 protruding from the cover panel 7, and which portion 70, 820 may cover a part of the lid 61 of the can 6 during use of the carrier 1. It will be appreciated that although a so formed portion 70, 820 may be hingedly connected to the cover panel 7, said portion 70, 820 may in embodiments form an integral part of the cover panel 7 along which the third cover fold line 813 does not need to extend. As mentioned above, the third cover fold line 813 can thus be interrupted by such portions 70 protruding at a side of the cover panel 7.

[0087] As can be seen in Figures 1 and 2, the connector panel 82 may be provided with preformed openings or cut-outs 94 which during use may be positioned substantially above the finger holes 9 in the main panel 2, as can be seen in Figure 1.

[0088] Preferably, the carrier 1 does not only comprise a first cover panel 7' for covering at least one first can 6' at least partly, wherein said first cover panel 7' is at one side hingedly connected to the main panel 2 via a first intermediate panel 81' and is at another side hingedly connected to a first connector panel 82', but the carrier 1 may preferably also comprise a second cover panel 7" for at least partly covering at least one second lid of at least one second one of the cans to be held by the carrier 1, in particular for at least partly covering a second row 600b of cans 6 to be held by the carrier 1. Said second cover panel 7" may be hingedly connected to the main panel 2 via a second intermediate panel 81", which can be hingedly connected to the main panel 2 by means of a fourth cover fold line 814. The second intermediate panel 81" can be hingedly connected to the second cover panel 7" by means of a fifth cover fold line 815. The carrier 1 may further comprise a second connector panel 82" which can be hingedly connected to the second cover panel 7" by means of a sixth cover fold line 816, wherein the second connector panel 82" can then be arranged to

snap below the second lid of said second can 6" in order to hold the second cover panel 7" in place in its covering position.

[0089] It will be appreciated that the connector edge 832 which may engage under the protruding edge 60 of the lid 61 of the can 6 may be formed in particular by the cut side of the cardboard sheet material, and not by the upper face of the cardboard sheet material. Said connector edge 832 may thus be considered to form an upper edge of a portion of an upwardly extending, preferably upwardly sloping, connector panel 82.

[0090] Preferably, an outer edge 820 of the respective connector panel 82 may during use rest on the top side 2a of the main panel 2, which for example may enable that at least parts of forces exerted by a can 6 onto a connector edge 832 formed by a cut 830 in said connector panel 82 may be directed onto said main panel 2, as can be understood from Figure 1.

[0091] Additionally or alternatively, in a use position of the carrier 1, a first outer edge 820' of the first connector panel 82' and a second outer edge 820" of the second connector panel 82 may abut against each other. As a result, a respective one of the two connector panels 82 may support the other one of the connector panels when for instance a can 6 is exerting forces on said respective connector panel. Preferably, said outer edges 820', 820" may clampingly engage, and can clamp together or clamp each other to at least some extent, thereby for instance facilitating that the connector panels 82 and/or the cover panels 7 can be kept in place during use of the carrier 1.

[0092] Advantageously, in the use position of the carrier 1, the first connector panel 82', the first cover panel 7', the first intermediate panel 81' and a respective portion of the main panel 2 provided with at least the first can receiving aperture 3' for receiving the first can 6', can, as can be seen in Figure 1, together substantially define a shaft. When seen in a direction substantially parallel to the first cover fold line 811, can have a cross-section substantially formed as an acute trapezoid (American English) or so-called acute trapezium (British English). The outer edge 820' of the first connector panel 82 may abut against the upwardly facing side 2a of the main panel 2 of the carrier a. As a result, in particular when the first connector panel 82 is secured to a certain extent by means of one or more cans 6 behind which said first connector panel 82 has been hooked and/or by means of a second connector panel 82" abutting said first connector panel 82', a relatively firm construction may be formed. This may for example facilitate that the cans may be retained relatively well and/or which may counteract that the carrier may sag and/or deform.

[0093] For instance due to such acute trapezoid (American English) or so-called acute trapezium (British English) shaped structure, the lid of a respective can 6 may be pressed relatively firmly against the cover panel 2. This may for example counteract that said can 6 may rotate about its central axis A6, as it may significantly

increase the friction between the can and the carrier. Additionally, or alternatively, the cover panel 2 pressing against the top end side of the can 6 may counteract that the can 6 may substantially tilt with respect to its central axis A6, i.e. tilt in a direction about a tilting axis extending substantially traverse to the central axis A6 of said can 6.

[0094] It is noted that the cover panel 7 can thus be held in place by means of the connector panel 82 that may snap below one or more can lids 61. In embodiments, the cover panel 7 may additionally be held in place by other means. For example, one or more lock tabs may be provided, which may for instance be hingedly connected to the cover panel 7, and/or which may for instance can be locked in one or more slots or openings which may be provided in the carrier 1, in particular in its main panel 2. In embodiments, the cover panel 7 may be adhered or glued to be held in place, for example by gluing it to the main panel 2, for instance by means of hot melt. However, for instance from an environmental point of view, it may be preferred to refrain from using hot melt, or other glue or adhesive. In particular, a design wherein one or more connector edges 832 of one or more cover panels 7 can engage beneath one or more can lid edges 60 may be relatively advantageously. Such designs may not only facilitate omitting using an adhesive, but may additionally, or alternatively, have the advantage that the one or more cover panels 7, 7" can be mounted in their covering positions relatively easily, for instance in contrast to designs in which pivotable locking tabs need to be neatly inserted into slot-shaped openings.

[0095] It is noted that the can carrier 1, in different embodiments, may comprise a main panel 2 of cardboard sheet material, preferably died, especially die cut, from a sheet cardboard sheet material. Advantageously, the entire carrier 1 may be made of cardboard, preferably cardboard sheet material, more preferably corrugated fiberboard material. Although different kinds of cardboard sheet material may be used, such as for instance paperboard, especially compressed paperboard material, it has been found that it may advantageous to form at least the main panel 2 out of corrugated fiberboard material, preferably single sheet of corrugated fiberboard. In particular, the corrugated fiberboard may have a thickness of between 0.8 mm and 2.0 mm, for instance about 1.5 mm, or less.

[0096] It is noted that for the purpose of clarity and a concise description features are described herein as part of the same or separate embodiments, however, it will be appreciated that the invention may include embodiments having combinations of all or some of the features described as long as they remain within the scope of the following claims.

[0097] Further, it is noted that the invention is not restricted to the embodiments described herein. It will be understood that many variants are possible.

[0098] For example, the can carrier may be provided with printing, for instance at least at a surface facing upwards and/or outwards during use.

[0099] As another example, the can carrier may be provided with one or more handles, which can be used to carry the can carrier, and which preferably can be made from the same sheet of cardboard material as its main panel.

[0100] As yet another example, the can carrier, in particular its main panel, may be provided with one or more perforation lines, that can form part of a zip release or pull tab, which may allow a user to tear off a part of the main panel in a relatively easy manner in order to break the can receiving aperture into an opening which is open at one of its sides, and no longer enclosed by the main panel, thereby enabling that the beverage can may be removed relatively easily by sliding it substantially side-wardly out of the opening in the remaining part of the main panel.

[0101] Such and other variants that are within the scope of the following claims will be apparent for the person skilled in the art

Claims

1. Top-gripping beverage can carrier (1), comprising a main panel (2) of cardboard sheet material having at least one can receiving aperture (3), wherein the main panel (2) is provided with a series of locking tabs (4) hingedly connected to the main panel (4) by means of a respective tab fold line (5), and disposed around the can receiving aperture (3), wherein each locking tab (4) extends from the respective tab fold line (5) towards a retaining edge (40) for engaging an underside of a radially protruding portion (60) of a beverage can (6') to be received in the can receiving aperture (3), said radially protruding portion (60) of the can (6) being formed by a lid (61) of said can (6), wherein said retaining edge (40) is located more inwardly with respect to the can receiving aperture (3) than said tab fold line (5), wherein each locking tab (4) can pivot about the respective tab fold line (5) from an initial position of the respective locking tab (4), in which said respective locking tab (4) lies substantially in line with the main panel (2), towards a folded up position in which said locking tab (4) is under an angle with the main panel (2), wherein the carrier (1) further comprises a first cover panel (7) for at least partly covering at least one first lid (61) of at least a first one (6, 6') of the one or multiple cans (6) to be held by the carrier (1), wherein the first cover panel (7) is hingedly connected to the main panel (2) via a first intermediate panel (81, 81'), wherein the first intermediate panel (81, 81') is hingedly connected to the main panel (2) by means of a first cover fold line (811), and wherein the first intermediate panel (81, 81') is hingedly connected to the first cover panel (7) by means of a second cover fold line (812), wherein the carrier (1) further comprises a first connector panel (82, 82') which is

hingedly connected to the first cover panel (7, 7') by means of a third cover fold line (813), wherein the first connector panel (82, 82') is arranged to snap below the first lid (61) of the first can (6) in order to hold the first cover panel (7, 7') in place in its covering position.

2. Carrier (1) according to claim 1, wherein the first connector panel (82, 82') is provided with a first connector edge (832) formed by a first cut (830) or slit (830), which can be clicked or clamped beneath the first can's first radially protruding portion (60) formed by the first lid (61) of said first (6) can in order to lock the first cover panel (7, 7') in its covering position.

3. Carrier (1) according to claim 1 or 2, wherein the carrier (1) further comprises a second cover panel (7, 7'') for at least partly covering at least one second lid (61) of at least one second one (6'') of the cans (6) to be held by the carrier (1), wherein the second cover panel (7, 7'') is hingedly connected to the main panel (2) via a second intermediate panel (81, 81''), wherein the second intermediate panel (81, 81'') is hingedly connected to the main panel (2) by means of a fourth cover fold line (814), and wherein the second intermediate panel (81, 81'') is hingedly connected to the second cover panel (7, 7'') by means of a fifth cover fold line (815), wherein the carrier (1) further comprises a second connector panel (82, 82'') which is hingedly connected to the second cover panel (7, 7'') by means of a sixth cover fold line (816), wherein the second connector panel (82, 82'') is arranged to snap below the second lid (61) of said second can (6, 6'') in order to hold the second cover panel (7, 7'') in place in its covering position.

4. Carrier (1) according to claim 3,

wherein the second connector panel (82, 82'') is provided with a second connector edge (832) formed by a second cut (830) or slit (830), which can be clicked or clamped beneath the second can's second radially protruding portion (60) formed by the second lid (61) of said second can (6, 6'') in order to lock the second cover panel (82, 82'') in its covering position; and/or wherein the carrier (1) is arranged such that, in a use position of the carrier (1), a first outer edge (820, 820') of the first connector panel (82, 82') and a second outer edge (820, 820'') of the second connector panel (82, 82'') may abut against each other, and may preferably clamp each other to at least some extent.

5. Carrier (1) according to one of the preceding claims, wherein the first can receiving aperture (3, 3') for receiving therein the first can (6, 6') is part of a first row (300a) of multiple can receiving apertures (3),

and wherein the first cover panel (7, 7') is for at least partly covering the respective lids (61) of the cans (6, 600a) to be held by said first row (300a) of can receiving apertures (3).

6. Carrier (1) according to claim 5, wherein the first connector panel (82, 82') is provided with multiple connector edges (832), each of them formed by a respective cut (830) or slit (830), which can be clicked or clamped beneath a respective radially protruding portion (60) formed by a respective lid (61) of a respective can (6) to be held by a respective one (3, 3') of said first row (300a) of can receiving apertures (3, 3').

7. Carrier (1) according to one of the preceding claims, wherein the second can receiving aperture (3, 3'') for receiving therein the second can (6, 6'') is part of a second row (300b) of multiple can receiving apertures (3), and wherein the second cover panel (7, 7'') is for at least partly covering the respective lids (61) of the cans (6) to be held by said second row (300b) of can receiving apertures (3, 3'').

8. Carrier (1) according to claim 3, wherein the second connector panel (82, 82'') is provided with multiple connector edges (832), each of them formed by a respective cut (830) or slit (830), which can be clicked or clamped beneath a respective radially protruding portion (60) formed by a respective lid (61) of a respective can (6) to be held by a respective one (3, 3'') said second row (300b) of can receiving apertures (3, 3'').

9. Carrier (1) according to one of the preceding claims, wherein the first cover panel (7, 7') is formed out of the same sheet of cardboard material as the main panel (2), and preferably wherein also the first intermediate panel (81, 81') and the first connector panel (7, 7') are formed out of the same sheet of cardboard material as the main panel (2).

10. Carrier (1) according to one of the preceding claims, wherein the second cover panel (7, 7'') is formed out of the same sheet of cardboard material as the main panel (2), and preferably wherein also the second intermediate panel (81, 81'') and the second connector panel (82, 82'') are formed out of the same sheet of cardboard material as the main panel (2).

11. Carrier (1) according to one of the preceding claims, wherein said sheet of cardboard material from which the main panel (2) is formed is a sheet of corrugated fiberboard.

12. Carrier (1) according to one of the preceding claims, wherein, in the use position of the carrier (1), the first connector panel (82, 82'), the first cover panel (7,

7'), the first intermediate panel (81, 81') and a respective portion of the main panel (2) provided with at least the first can receiving aperture (3, 3'), together substantially define a shaft, which, when seen in a direction substantially parallel to the first cover fold line (811), has a cross-section substantially formed as an acute trapezium.

13. Carrier (1) according to one of the preceding claims, wherein the center (30) of the first can receiving aperture (3, 3') for receiving the first can (6, 6') and the center (30) of the second can receiving opening (3, 3'') for receiving the second can (6, 6'') are spaced apart over an interspace (33) corresponding with the diameter at the widest point of the body (62) of the cans (6) to be held by the carrier (1), preferably said interspace (33) for instance being about 66 mm.
14. Carrier (1) according to one of the preceding claims, wherein the centers (30) of two adjacent ones (3, 3'') of the can receiving apertures (3) of a respective row (300a, 300b) of can receiving openings (3, 3', 3'') are spaced apart over an interspace corresponding with the diameter at the widest point of the body (62) of the cans (6) to be held by the carrier (1), preferably said interspace for instance being about 66 mm.
15. Assembly, comprising a carrier (1) according to one of the preceding claims, wherein the assembly further comprises at least one beverage can (6) which is held within a respective can receiving aperture (3) of said carrier (1).

Patentansprüche

1. Obergreifträger für Getränkedose (1), umfassend eine Hauptplatte (2) aus Kartonbogenmaterial mit mindestens einer Dosenaufnahmeöffnung (3), wobei die Hauptplatte (2) mit einer Reihe von Verriegelungslaschen (4) bereitgestellt ist, die mit der Hauptplatte (4) mittels einer jeweiligen Laschenfaltlinie (5) gelenkig verbunden sind und um die Dosenaufnahmeöffnung (3) herum angeordnet sind, wobei sich jede Verriegelungslasche (4) von der jeweiligen Laschenfaltlinie (5) zu einer Haltekante (40) erstreckt, um mit einer Unterseite eines radial vorstehenden Abschnitts (60) einer in der Dosenaufnahmeöffnung (3) aufzunehmenden Getränkedose (6') in Eingriff zu kommen, wobei der radial vorstehende Abschnitt (60) der Dose (6) durch einen Deckel (61) der Dose (6) gebildet ist, wobei die Haltekante (40) weiter innen in Bezug auf die Dosenaufnahmeöffnung (3) angeordnet ist als die Laschenfaltlinie (5), wobei jede Verriegelungslasche (4) um die jeweilige Laschenfaltlinie (5) von einer Ausgangsposition der jeweiligen Verriegelungslasche (4), in der die jeweilige Ver-

riegelungslasche (4) im Wesentlichen in einer Linie mit der Hauptplatte (2) liegt, in eine hochgeklappte Position schwenken kann, in der die Verriegelungslasche (4) in einem Winkel zu der Hauptplatte (2) steht, wobei der Träger (1) ferner eine erste Abdeckplatte (7) umfasst, um mindestens einen ersten Deckel (61) von mindestens einer ersten (6, 6') der von dem Träger (1) zu haltenden einen oder mehreren Dosen (6) zumindest teilweise abzudecken, wobei die erste Abdeckplatte (7) über eine erste Zwischenplatte (81, 81') gelenkig mit der Hauptplatte (2) verbunden ist, wobei die erste Zwischenplatte (81, 81') mittels einer ersten Abdeckfaltlinie (811) gelenkig mit der Hauptplatte (2) verbunden ist und wobei die erste Zwischenplatte (81, 81') mittels einer zweiten Abdeckfaltlinie (812) gelenkig mit der ersten Abdeckplatte (7) verbunden ist, wobei der Träger (1) ferner eine erste Verbindungsplatte (82, 82') umfasst, die mittels einer dritten Abdeckfaltlinie (813) gelenkig mit der ersten Abdeckplatte (7, 7') verbunden ist, wobei die erste Verbindungsplatte (82, 82') zum Einrasten unter dem ersten Deckel (61) der ersten Dose (6) angeordnet ist, um die erste Abdeckplatte (7, 7') in ihrer Abdeckposition zu halten.

2. Träger (1) nach Anspruch 1, wobei die erste Verbindungsplatte (82, 82') mit einer ersten Verbindungskante (832) bereitgestellt ist, die durch einen ersten Schnitt (830) oder Schlitz (830) gebildet ist, der unter den durch den ersten Deckel (61) der ersten Dose (6) gebildeten ersten radial vorstehenden Abschnitt (60) der ersten Dose geklickt oder geklemmt werden kann, um die erste Abdeckplatte (7, 7') in ihrer Abdeckposition zu verriegeln.

3. Träger (1) nach Anspruch 1 oder 2, wobei der Träger (1) ferner eine zweite Abdeckplatte (7, 7'') umfasst, um mindestens einen zweiten Deckel (61) von mindestens einer zweiten (6) der von dem Träger (1) zu haltenden Dosen (6) zumindest teilweise abzudecken, wobei die zweite Abdeckplatte (7, 7'') über eine zweite Zwischenplatte (81, 81'') gelenkig mit der Hauptplatte (2) verbunden ist, wobei die zweite Zwischenplatte (81, 81'') mittels einer vierten Abdeckfaltlinie (814) gelenkig mit der Hauptplatte (2) verbunden ist, und wobei die zweite Zwischenplatte (81, 81'') gelenkig mit der zweiten Abdeckplatte (7, 7'') mittels einer fünften Abdeckfaltlinie (815) verbunden ist, wobei der Träger (1) ferner eine zweite Verbindungsplatte (82, 82'') umfasst, die gelenkig mit der zweiten Abdeckplatte (7, 7'') mittels einer sechsten Abdeckfaltlinie (816) verbunden ist, wobei die zweite Verbindungsplatte (82, 82'') zum Einrasten unter dem zweiten Deckel (61) der zweiten Dose (6, 6'') angeordnet ist, um die zweite Abdeckplatte (7, 7'') in ihrer Abdeckposition zu halten.

4. Träger (1) nach Anspruch 3,

- wobei die zweite Verbindungsplatte (82, 82'') mit einer zweiten Verbindungskante (832) bereitgestellt ist, die durch einen zweiten Schnitt (830) oder Schlitz (830) gebildet ist, der unter den durch den zweiten Deckel (61) der zweiten Dose (6, 6'') gebildeten zweiten radial vorstehenden Abschnitt (60) der zweiten Dose geklickt oder geklemmt werden kann, um die zweite Abdeckplatte (82, 82'') in ihrer Abdeckposition zu verriegeln; und/oder wobei der Träger (1) so angeordnet ist, dass in einer Verwendungsposition des Trägers (1) eine erste Außenkante (820, 820') der ersten Verbindungsplatte (82, 82') und eine zweite Außenkante (820, 820'') der zweiten Verbindungsplatte (82, 82'') aneinander anliegen können und sich vorzugsweise zumindest in gewissem Maße gegenseitig festklemmen können.
5. Träger (1) nach einem der vorstehenden Ansprüche, wobei die erste Dosenaufnahmeöffnung (3, 3') zum Aufnehmen der ersten Dose (6, 6') Teil einer ersten Reihe (300a) von einer Vielzahl von Dosenaufnahmeöffnungen (3) ist, und wobei die erste Abdeckplatte (7, 7') dazu dient, die jeweiligen Deckel (61) der von der ersten Reihe (300a) von Dosenaufnahmeöffnungen (3) zu haltenden Dosen (6, 600a) zumindest teilweise abzudecken.
6. Träger (1) nach Anspruch 5, wobei die erste Verbindungsplatte (82, 82') mit einer Vielzahl von Verbindungskanten (832) bereitgestellt ist, von denen jede durch einen jeweiligen Schnitt (830) oder Schlitz (830) gebildet ist, die unter einen durch einen jeweiligen Deckel (61) einer jeweiligen Dose (6) gebildeten, radial vorstehenden Abschnitt (60) geklickt oder geklemmt werden können, um durch eine jeweilige (3, 3') der ersten Reihe (300a) von Dosenaufnahmeöffnungen (3, 3') gehalten zu werden.
7. Träger (1) nach einem der vorstehenden Ansprüche, wobei die zweite Dosenaufnahmeöffnung (3, 3'') zum Aufnehmen der zweiten Dose (6, 6'') Teil einer zweiten Reihe (300b) von einer Vielzahl von Dosenaufnahmeöffnungen (3) ist, und wobei die zweite Abdeckplatte (7, 7'') dazu dient, die jeweiligen Deckel (61) der von der zweiten Reihe (300b) von Dosenaufnahmeöffnungen (3, 3'') zu haltenden Dosen (6) zumindest teilweise abzudecken.
8. Träger (1) nach Anspruch 3, wobei die zweite Verbindungsplatte (82, 82'') mit einer Vielzahl von Verbindungskanten (832) bereitgestellt ist, von denen jede durch einen jeweiligen Schnitt (830) oder Schlitz (830) gebildet ist, die unter einen durch einen jeweiligen Deckel (61) einer jeweiligen Dose (6) gebildeten, radial vorstehenden Abschnitt (60) geklickt oder geklemmt werden können, um durch eine jeweilige (3, 3'') der zweiten Reihe (300b) von Dosenaufnahmeöffnungen (3, 3'') gehalten zu werden.
9. Träger (1) nach einem der vorstehenden Ansprüche, wobei die erste Abdeckplatte (7, 7') aus demselben Bogen Kartonmaterial wie die Hauptplatte (2) gebildet ist, und wobei vorzugsweise auch die erste Zwischenplatte (81, 81') und die erste Verbindungsplatte (7, 7') aus demselben Bogen Kartonmaterial wie die Hauptplatte (2) gebildet sind.
10. Träger (1) nach einem der vorstehenden Ansprüche, wobei die zweite Abdeckplatte (7, 7'') aus demselben Bogen Kartonmaterial wie die Hauptplatte (2) gebildet ist, und wobei vorzugsweise auch die zweite Zwischenplatte (81, 81'') und die zweite Verbindungsplatte (82, 82') aus demselben Bogen Kartonmaterial wie die Hauptplatte (2) gebildet sind.
11. Träger (1) nach einem der vorstehenden Ansprüche, wobei der Bogen Kartonmaterial, aus dem die Hauptplatte (2) gebildet ist, ein Bogen Wellpappe ist.
12. Träger (1) nach einem der vorstehenden Ansprüche, wobei in der Verwendungsposition des Trägers (1) die erste Verbindungsplatte (82, 82'), die erste Abdeckplatte (7, 7'), die erste Zwischenplatte (81, 81') und ein entsprechender Abschnitt der Hauptplatte (2), der mit mindestens der ersten Dosenöffnungsöffnung (3, 3') bereitgestellt ist, zusammen im Wesentlichen einen Schacht definieren, der, in einer Richtung im Wesentlichen parallel zu der ersten Abdeckfaltlinie (811) gesehen, einen im Wesentlichen als spitzes Trapez geformten Querschnitt aufweist.
13. Träger (1) nach einem der vorstehenden Ansprüche, wobei die Mitte (30) der ersten Dosenaufnahmeöffnung (3, 3') zum Aufnehmen der ersten Dose (6, 6') und die Mitte (30) der zweiten Dosenaufnahmeöffnung (3, 3'') zum Aufnehmen der zweiten Dose (6, 6'') über einen Zwischenraum (33) beabstandet sind, der dem Durchmesser an dem breitesten Punkt des Körpers (62) der von dem Träger (1) zu haltenden Dosen (6) entspricht, wobei der Zwischenraum (33) vorzugsweise beispielsweise etwa 66 mm beträgt.
14. Träger (1) nach einem der vorstehenden Ansprüche, wobei die Mitten (30) von zwei benachbarten (3', 3'') der Dosenaufnahmeöffnungen (3) einer jeweiligen Reihe (300a, 300b) von Dosenaufnahmeöffnungen (3, 3', 3'') über einen Zwischenraum beabstandet sind, der dem Durchmesser an dem breitesten Punkt des Körpers (62) der von dem Träger (1) zu haltenden Dosen (6) entspricht, wobei der Zwischenraum vorzugsweise beispielsweise etwa 66 mm beträgt.
15. Anordnung, umfassend einen Träger (1) nach einem der vorstehenden Ansprüche, wobei die Anordnung

ferner mindestens eine Getränkedose (6) umfasst, die in einer entsprechenden Dosenaufnahmeöffnung (3) des Trägers (1) gehalten wird.

Revendications

1. Emballage de transport de canettes de boisson à préhension par le haut (1), comprenant un panneau principal (2) de matériau en feuille de carton ayant au moins une ouverture (3) de réception de canette, dans lequel le panneau principal (2) est pourvu d'une série de languettes de verrouillage (4) reliées de manière articulée au panneau principal (2) au moyen d'une ligne de pliage de languette (5) respective, et disposées autour de l'ouverture (3) de réception de canette, dans lequel chaque languette de verrouillage (4) s'étend à partir de la ligne de pliage de languette (5) respective vers un bord de retenue (40) pour venir en prise avec une face inférieure d'une partie faisant saillie radialement (60) d'une canette de boisson (6') pour être reçue dans l'ouverture (3) de réception de canette, ladite partie faisant saillie radialement (60) de la canette étant formée par un couvercle (61) de ladite canette (6), dans lequel ledit bord de retenue (40) est situé plus vers l'intérieur par rapport à l'ouverture (3) de réception de canette que ladite ligne de pliage de languette (5) dans lequel chaque languette de verrouillage (4) peut pivoter autour de la ligne de pliage de languette (5) respective à partir d'une position initiale de la languette de verrouillage (4) respective, dans laquelle ladite languette de verrouillage (4) respective se trouve sensiblement en ligne avec le panneau principal (2), vers une position repliée vers le haut dans laquelle ladite languette de verrouillage (4) est sous un angle avec le panneau principal (2), dans lequel l'emballage de transport (1) comprend en outre un premier panneau de recouvrement (7) pour recouvrir au moins partiellement au moins un premier couvercle (61) d'au moins une première (6, 6') parmi l'une ou de multiples canettes destinées à être maintenues par l'emballage de transport (1), dans lequel le premier panneau de recouvrement (7) est relié de manière articulée au panneau principal (2) par l'intermédiaire d'un premier panneau intermédiaire (81, 81'), dans lequel le premier panneau intermédiaire (81, 81') est relié de manière articulée au panneau principal (2) au moyen d'une première ligne de pliage de recouvrement (811), et dans lequel le premier panneau intermédiaire (81, 81') est relié de manière articulée au premier panneau de recouvrement (7) au moyen d'une deuxième ligne de pliage de recouvrement (812), dans lequel l'emballage de transport (1) comprend en outre un premier panneau de raccordement (82, 82') qui est relié de manière articulée au premier panneau de recouvrement (7, 7') au moyen d'une troisième ligne de pliage de recouvrement (813),

dans lequel le premier panneau de raccordement (82, 82') est agencé pour s'encliqueter sous le premier couvercle (61) de la première canette (6) afin de maintenir le premier panneau de recouvrement (7, 7') en place dans sa position de recouvrement.

2. Emballage de transport (1) selon la revendication 1, dans lequel le premier panneau de raccordement (82, 82') est pourvu d'un premier bord de raccordement (832) formé par une première découpe (830) ou fente (830), qui peut être cliqué ou serré sous la première partie radialement saillante (60) de la première canette formée par le premier couvercle (61) de ladite première canette (6) afin de verrouiller le premier panneau de recouvrement (7, 7') dans sa position de recouvrement.
3. Emballage de transport (1) selon la revendication 1 ou 2, dans lequel l'emballage de transport (1) comprend en outre un deuxième panneau de recouvrement (7, 7'') pour recouvrir au moins partiellement au moins un deuxième couvercle (61) d'au moins une deuxième (6'') des canettes (6) destinées à être maintenues par l'emballage de transport (1), dans lequel le deuxième panneau de recouvrement (7, 7'') est relié de manière articulée au panneau principal (2) par l'intermédiaire d'un deuxième panneau intermédiaire (81, 81''), dans lequel le deuxième panneau intermédiaire (81, 81'') est relié de manière articulée au panneau principal (2) au moyen d'une quatrième ligne de pliage de recouvrement (814), et dans lequel le deuxième panneau intermédiaire (81, 81'') est relié de manière articulée au deuxième panneau de recouvrement (7, 7'') au moyen d'une cinquième ligne de pliage de recouvrement (815), dans lequel l'emballage de transport (1) comprend en outre un deuxième panneau de raccordement (82, 82'') qui est relié de manière articulée au deuxième panneau de recouvrement (7, 7'') au moyen d'une sixième ligne de pliage de recouvrement (816), dans lequel le deuxième panneau de raccordement (82, 82'') est agencé pour s'encliqueter sous le deuxième couvercle (61) de ladite deuxième canette (6, 6'') afin de maintenir le deuxième panneau de recouvrement (7, 7'') en place dans sa position de recouvrement.
4. Emballage de transport (1) selon la revendication 3, dans lequel le deuxième panneau de raccordement (82, 82'') est pourvu d'un deuxième bord de raccordement (832) formé par une deuxième découpe (830) ou fente (830), qui peut être cliqué ou serré sous la deuxième partie radialement saillante (60) de la deuxième canette formée par le deuxième couvercle (61) de ladite deuxième canette (6, 6'') afin de verrouiller le deuxième panneau de recouvrement (82, 82'') dans sa position de recouvrement, et/ou

- dans lequel l'emballage de transport (1) est agencé de telle sorte que, dans une position d'utilisation de l'emballage de transport (1), un premier bord extérieur (820, 820') du premier panneau de raccordement (82, 82') et un deuxième bord extérieur (820, 820'') du deuxième panneau de raccordement (82, 82'') peuvent venir en butée l'un contre l'autre, et peut de préférence se serrer au moins dans une certaine mesure.
5. Emballage de transport (1) selon l'une des revendications précédentes, dans lequel la première ouverture de réception de canette (3, 3') pour recevoir dans celle-ci la première canette (6, 6') fait partie d'une première rangée (300a) de multiples ouvertures (3) de réception de canette, et dans lequel le premier panneau de recouvrement (7, 7') est destiné à recouvrir au moins partiellement les couvercles (61) respectifs des canettes (6, 600a) devant être maintenues par ladite première rangée (300a) d'ouvertures (3) de réception de canette.
 6. Emballage de transport (1) selon la revendication 5, dans lequel le premier panneau de raccordement (82, 82') est pourvu de multiples bords de raccordement (832), chacun d'eux étant formé par une découpe (830) ou une fente (830) respective, qui peut être cliqué ou serré au-dessous d'une partie faisant saillie radialement (60) respective formée par un couvercle (61) respectif d'une canette respective (6) pour être maintenu par une première rangée respective (3, 3') de ladite première rangée (300a) d'ouvertures (3, 3') de réception de canette.
 7. Emballage de transport (1) selon l'une des revendications précédentes, dans lequel la deuxième ouverture (3, 3'') de réception de canette pour recevoir dans celle-ci la deuxième canette (6, 6'') fait partie d'une deuxième rangée (300b) de multiples ouvertures (3) de réception de canette, et dans lequel le deuxième panneau de recouvrement (7, 7'') est destiné à recouvrir au moins partiellement un couvercle respectif (61) d'une canette respective (6) destinée à être maintenue par ladite deuxième rangée (300b) d'ouvertures (3, 3'') de réception de canette.
 8. Emballage de transport (1) selon la revendication 3, dans lequel le deuxième panneau de raccordement (82, 82'') est pourvu de multiples bords de raccordement (832), chacun d'eux étant formé par une découpe (830) ou une fente (830) respective, qui peut être cliqué ou serré au-dessous d'une partie faisant saillie radialement (60) respective formée par un couvercle respectif (61) d'une canette respective (6) pour être maintenu par une première rangée respective (3, 3 » ») de ladite deuxième rangée (300b) d'ouvertures (3, 3'') de réception de canette.
 9. Emballage de transport (1) selon l'une des revendications précédentes, dans lequel le premier panneau de recouvrement (7, 7') est formé de la même feuille de matériau en carton que le panneau principal (2), et de préférence dans lequel également le premier panneau intermédiaire (81, 81') et le premier panneau de raccordement (7, 7') sont formés à partir de la même feuille de matériau en carton que le panneau principal (2).
 10. Emballage de transport (1) selon l'une des revendications précédentes, dans lequel le deuxième panneau de recouvrement (7, 7'') est formé de la même feuille de matériau en carton que le panneau principal (2), et de préférence dans lequel également le deuxième panneau intermédiaire (81, 81'') et le deuxième panneau de raccordement (82, 82'') sont formés à partir de la même feuille de matériau en carton que le panneau principal (2).
 11. Emballage de transport (1) selon l'une des revendications précédentes, dans lequel ladite feuille de matériau en carton à partir de laquelle le panneau principal (2) est formé est une feuille de carton ondulé.
 12. Emballage de transport (1) selon l'une des revendications précédentes, dans lequel, dans la position d'utilisation de l'emballage de transport (1), le premier panneau de raccordement (82, 82'), le premier panneau de recouvrement (7, 7'), le premier panneau intermédiaire (81, 81') et une partie respective du panneau principal (2) pourvue d'au moins la première ouverture (3, 3') de réception de canette définissent ensemble sensiblement un arbre, qui, lorsqu'elle est vue dans une direction sensiblement parallèle à la première ligne de pliage de recouvrement (811), présente une section transversale sensiblement formée sous la forme d'un trapèze aigu.
 13. Emballage de transport (1) selon l'une des revendications précédentes, dans lequel le centre (30) de la première ouverture (3, 3') de réception de canette pour recevoir la première canette (6, 6') et le centre (30) de la deuxième ouverture (3, 3'') de réception de canette pour recevoir la deuxième canette (6, 6'') sont espacés sur un espace intermédiaire (33) correspondant au diamètre au point le plus large du corps (62) des canettes (6) destinées à être maintenues par l'emballage de transport (1), de préférence ledit espace intermédiaire (33) étant par exemple d'environ 66 mm.
 14. Emballage de transport (1) selon l'une des revendications précédentes, dans lequel les centres (30) de deux ouvertures (3, 3'') adjacentes des ouvertures

(3) de réception de canette d'une rangée respective (300a, 300b) d'ouvertures (3, 3', 3'') de réception de canette sont espacés sur un espace intermédiaire correspondant au diamètre au niveau du point le plus large du corps (62) des canettes (6) destinées à être maintenues par l'emballage de transport (1), de préférence ledit espace intermédiaire étant par exemple d'environ 66 mm

15. Ensemble, comprenant un emballage de transport (1) selon l'une des revendications précédentes, dans lequel l'ensemble comprend en outre au moins une canette de boisson (6) qui est maintenue à l'intérieur d'une ouverture (3) de réception de canette respective dudit emballage de transport (1).

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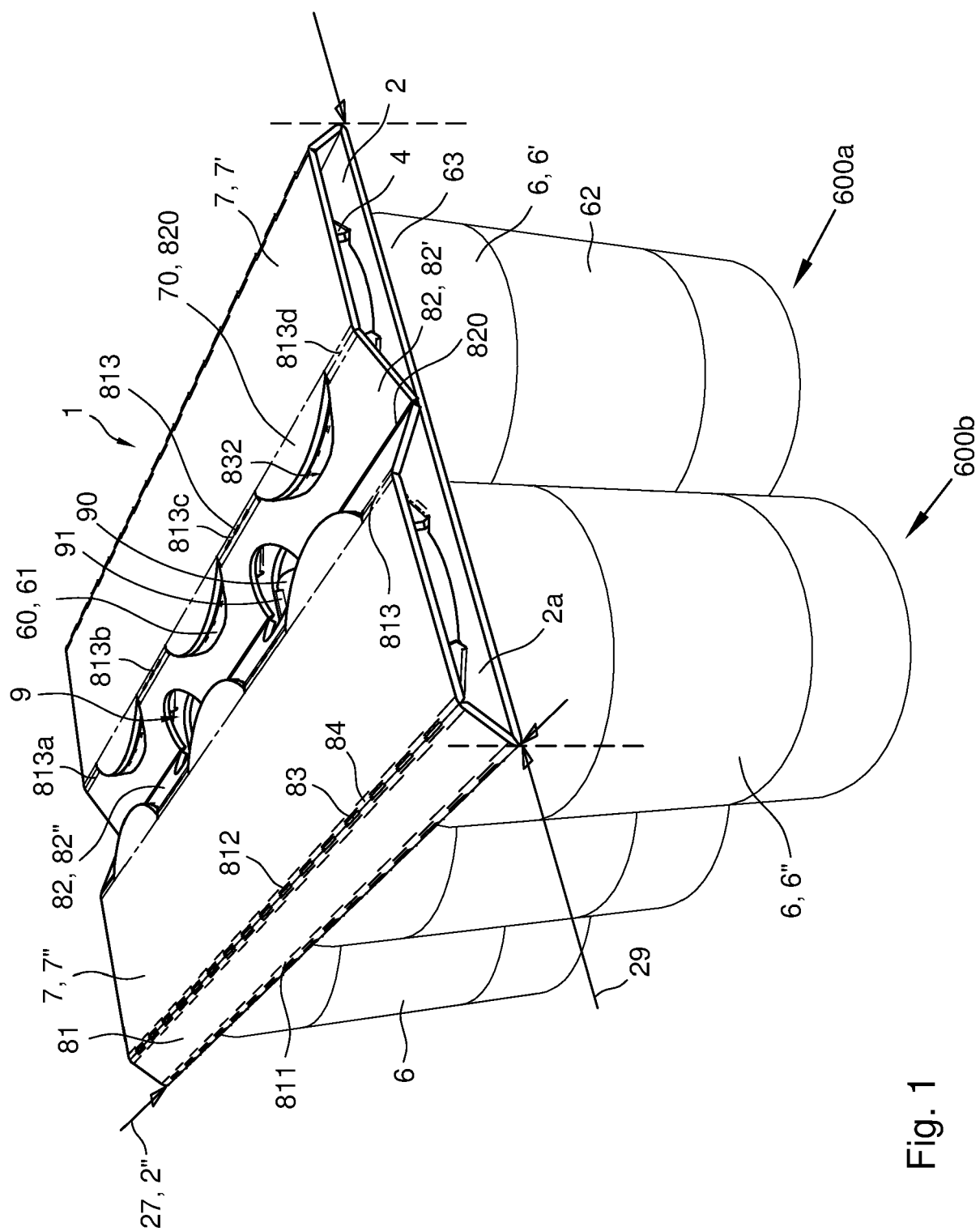
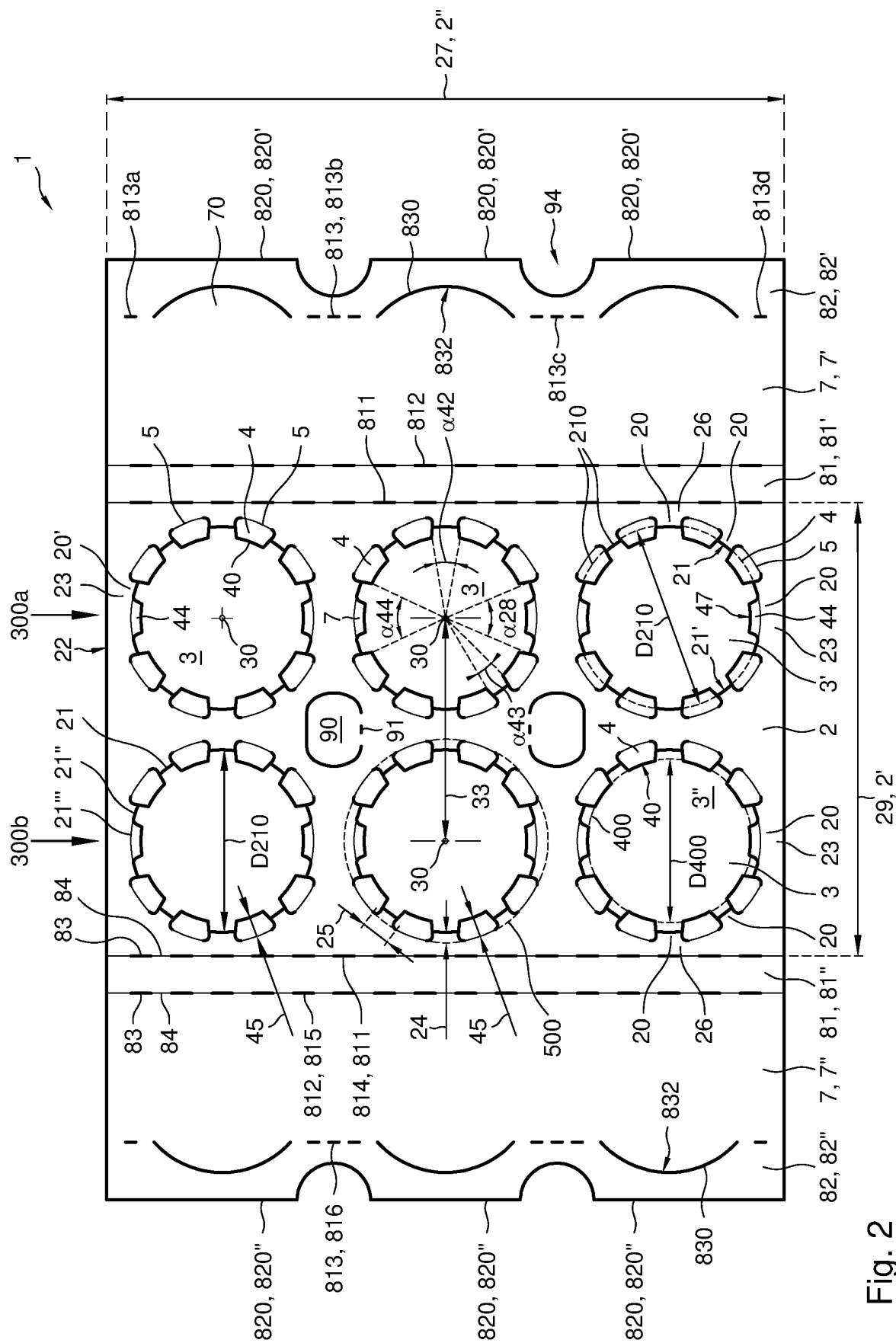


Fig. 1



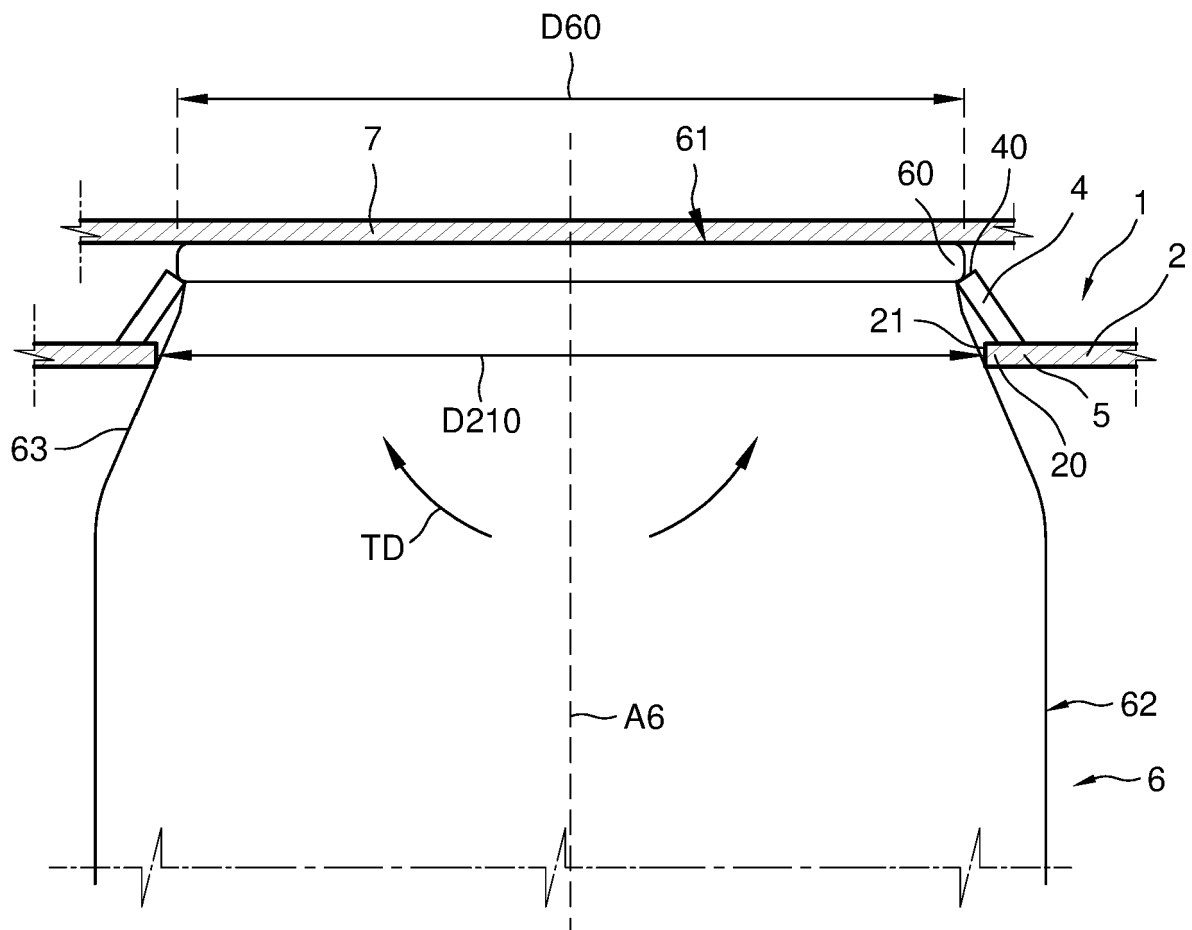


Fig. 3

REFERENCES CITED IN THE DESCRIPTION

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