

Oct. 11, 1966

A. J. WEISS

3,278,075

BOTTLE CARTON WITH END IDENTIFICATION PANEL

Filed Feb. 15, 1961

4 Sheets-Sheet 1

FIG. 1

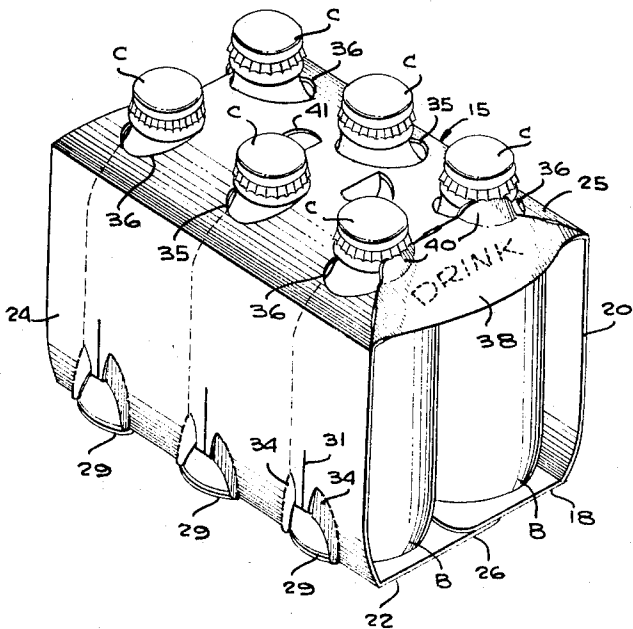


FIG. 2

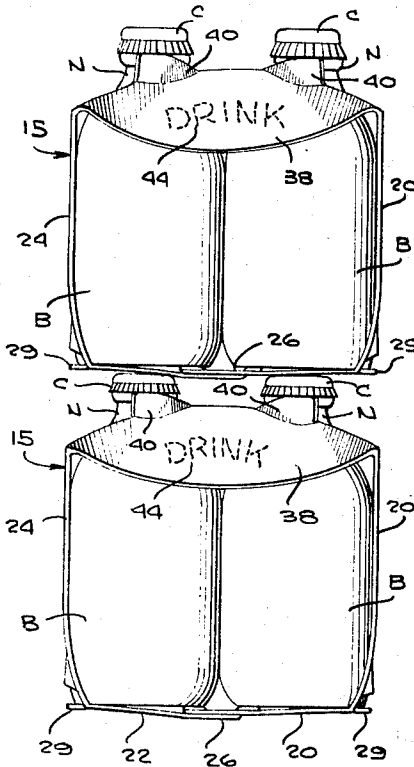
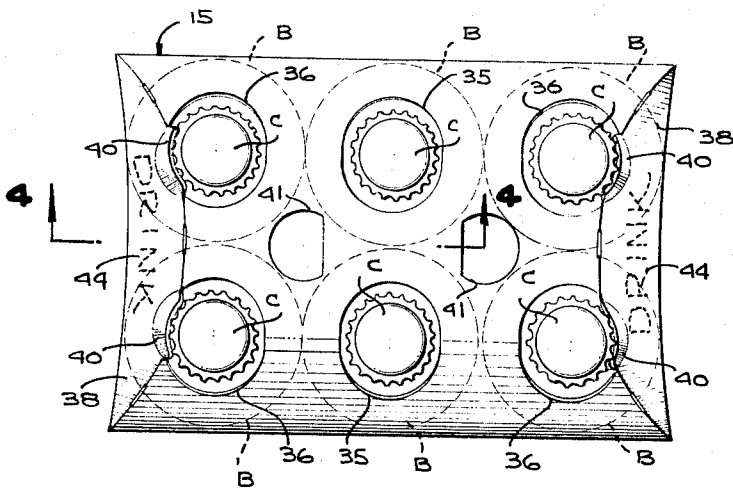


FIG. 3



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FIG. 4

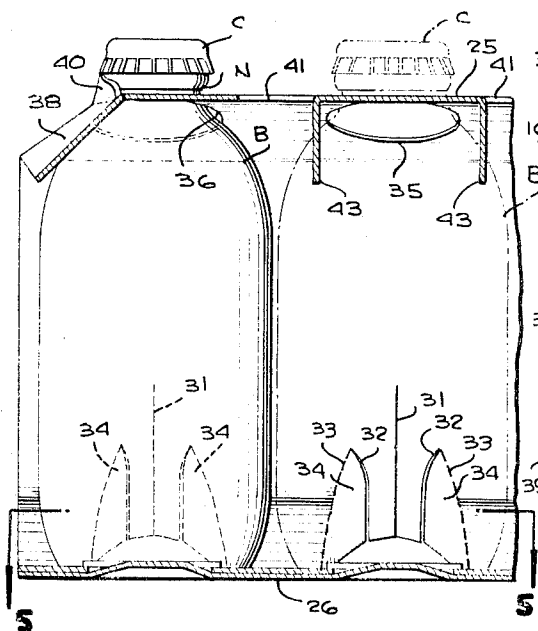


FIG. 5

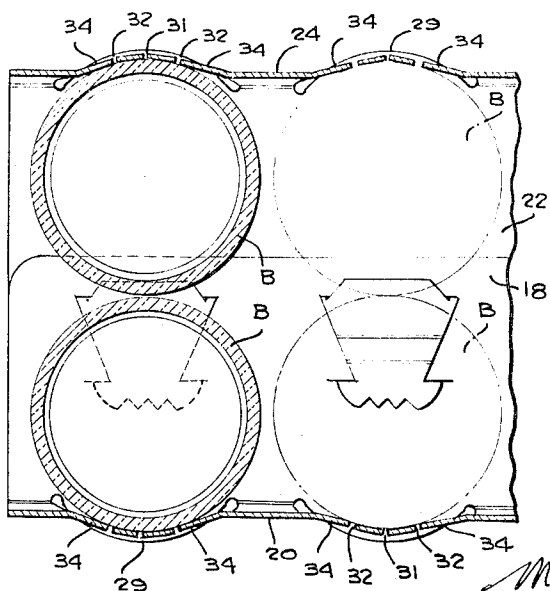
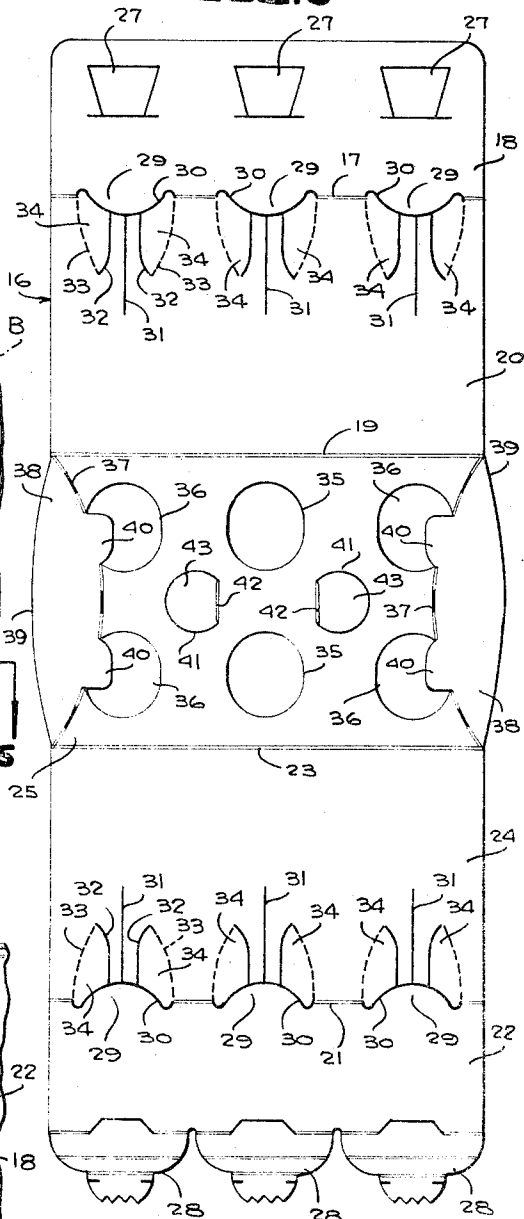


FIG. 6



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FIG. 7

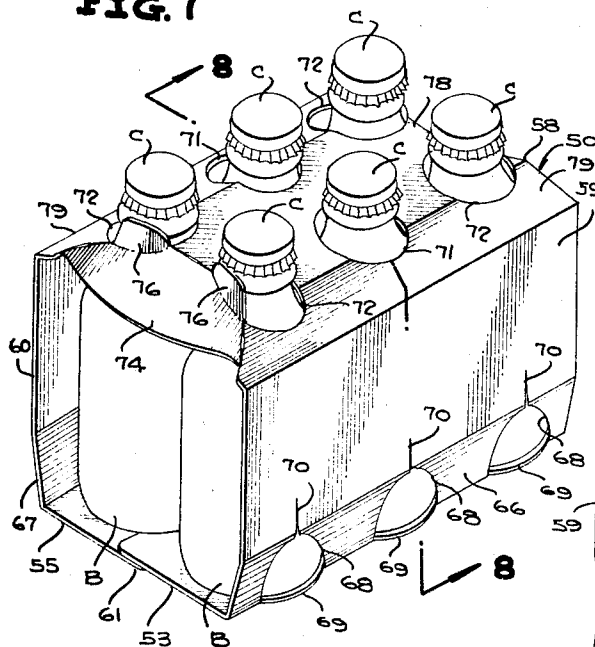


FIG. 9

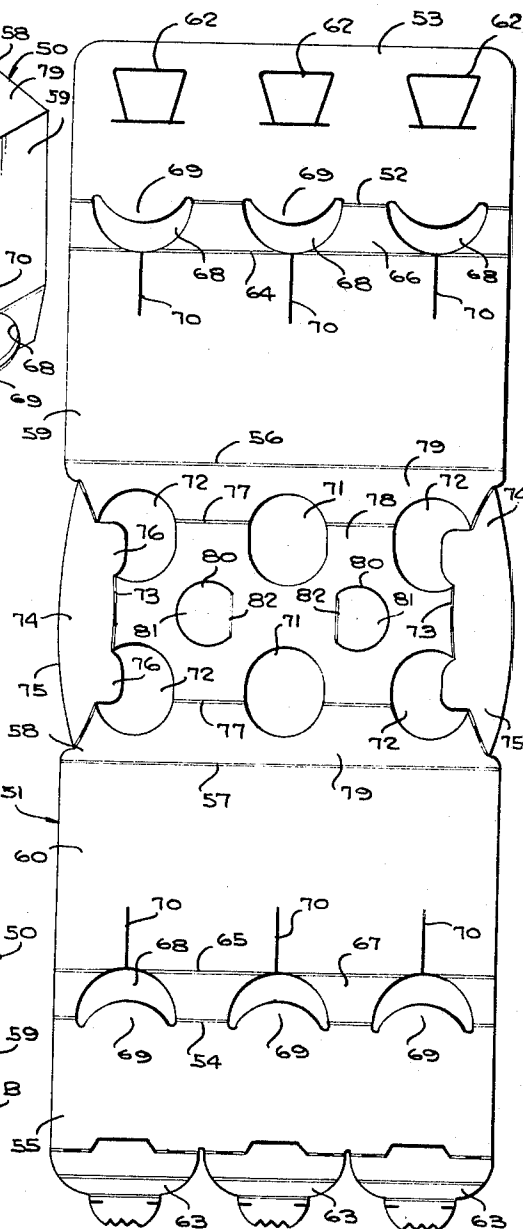
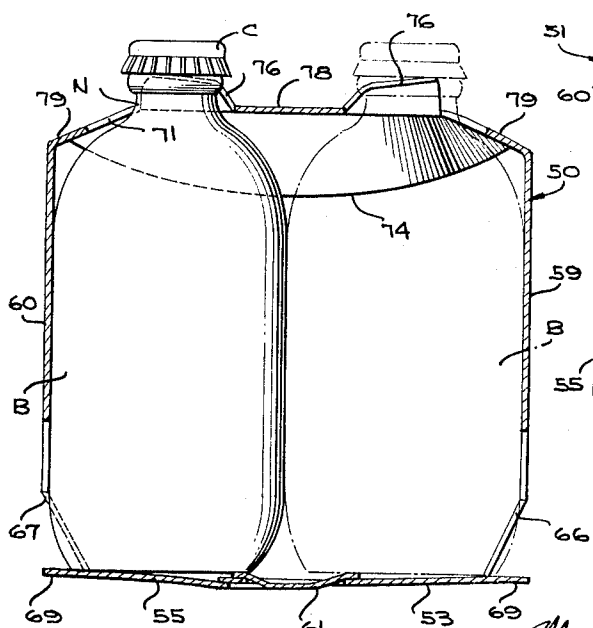


FIG. 8



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FIG. 10

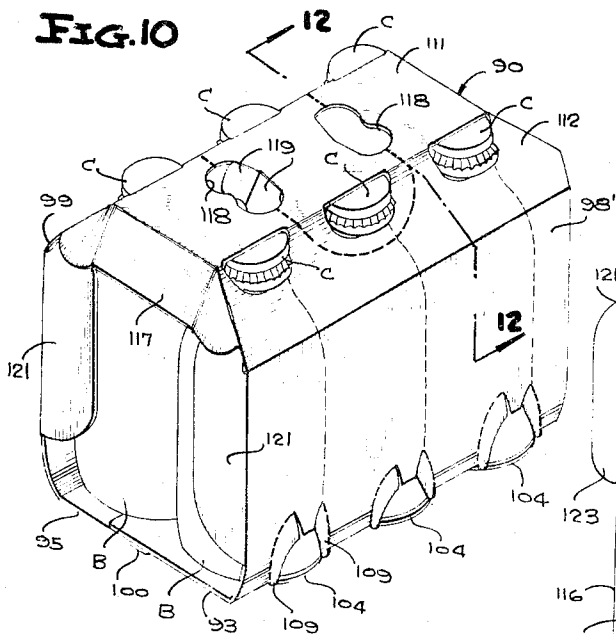


FIG. 11

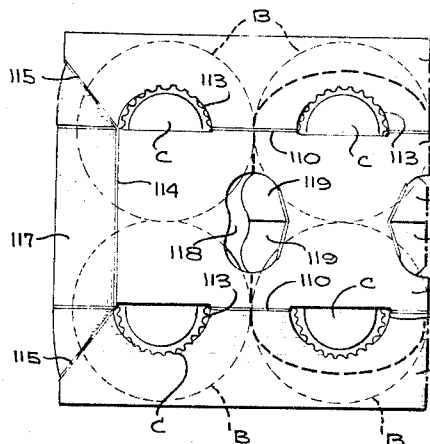


FIG. 13

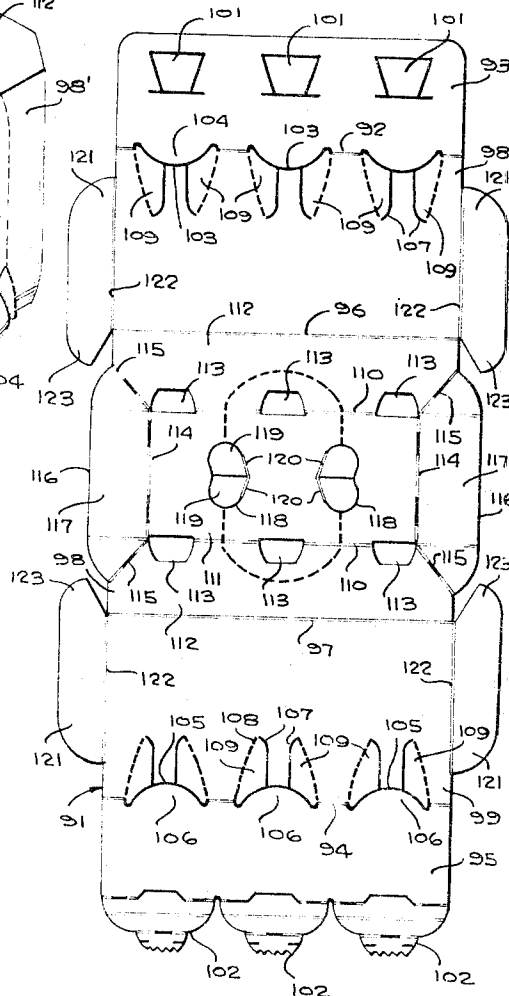
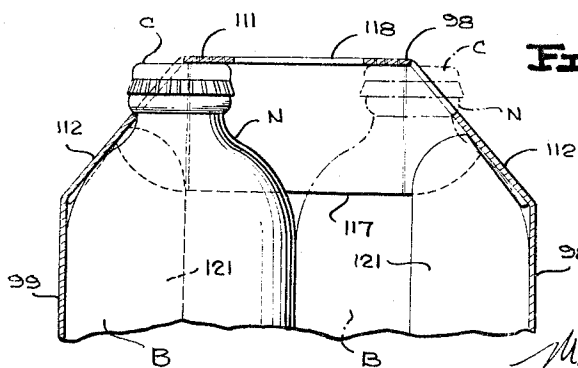


FIG. 12



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BOTTLE CARTON WITH END IDENTIFICATION PANEL

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8 Claims. (Cl. 220-112)

This invention relates in general to new and useful improvements in bottle cartons, and more particularly relates to improvements in bottle cartons of the wrap-around paperboard type.

When bottles packaged in cartons are stacked, at the present time, it is necessary to stack the cartons so that a side of each carton is disposed forwardmost in order to identify the contents of the carton. However, in many instances, it is highly desirable to stack or otherwise store cartons of bottles with the ends of the cartons being exposed. It is therefore the primary object of this invention to provide a bottle carton with an identification panel at at least one end thereof, the identification panel being of a sufficient size to receive the necessary identifying indicia.

Another object of this invention is to provide a novel bottle carton of the wrap-around type for use in conjunction having a top wall which has the ends thereof formed to define identification panels which are snapped down when the bottle carton is formed about a plurality of bottles so that the identification panels assume generally upright positions at the normally open ends of the bottle cartons to thus permit the identification of the cartons from the exposed ends thereof.

Another object of this invention is to provide a novel bottle carton of the wrap-around type for use in conjunction with bottles having caps, the bottle carton being provided with means on the top wall thereof for engaging beneath the caps of certain of the bottles whereby when lift means on the top wall of the bottle carton are engaged and the bottle carton and bottles contained therein lifted thereby, the means on the top wall will engage beneath the caps of the certain of the bottles to effect a direct lifting effort on the bottles from the top wall, thereby reducing the pressure on the bottom of the bottle carton, which bottom is normally formed of interlocked panels.

Another object of this invention is to provide a bottle carton of the wrap-around type, the bottle carton having a top wall formed with a plurality of openings through which necks and caps of bottles pass, and the top wall being provided with end identification panels which in the filled condition of the carton extend downwardly at the normally open ends of the bottle carton for the purpose of identifying the contents of the bottle carton, each of the identification panels being provided with means projecting into the endmost ones of the openings for engagement by necks of bottles as the bottles pass therethrough to snap the identification panels downwardly, the means on the identification panels being engageable beneath the ends of the bottles in the endmost openings to transfer the weights of the endmost bottles directly to the top wall of the carton when the bottle carton is lifted by the top wall.

Another object of the invention is to provide a novel bottle carton which is provided with identification means at the normally open ends thereof, the identification means being in the form of a pair of flaps hingedly connected to the ends of the sides of the bottle carton and an identification panel extending downwardly from the top

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wall of the bottle carton, the flaps having upper extensions engaged behind the identification panel with the identification panel holding the flaps generally in the plane of the end of the carton.

In the normal construction of a bottle carton of the wrap-around type, the bottle carton is provided with openings in the top wall thereof for the passage of the necks of bottles. While this permits the construction of a rigid package, it necessitates the resting of the next upper carton upon the relatively small bottle caps when cartons are stacked. This does not provide a very stable support for the upper carton. It is therefore a further object of this invention to provide a novel bottle carton wherein the bottle carton has a top wall provided with openings therein for the partial passage of bottle caps and necks, and at the same time, the top wall includes a central panel which partially overlies the caps and forms an adequate support for the bottom of a next upper carton when the cartons are stacked, the passage of the cap and neck of the bottle out through each opening forming the necessary interlock between the upper part of the bottle and the upper part of the bottle carton to prevent shifting of the bottle within the carton.

A still further object of this invention is to provide a novel blank from which a bottle carton of the wrap-around type may be formed, the blank being generally rectangular in outline and having portions thereon defining identification panels formed as part of the top wall panel of the blank and being adapted to be folded out of the plane of the top wall panel into depending positions for indicating the contents of the carton when the carton is viewed from one of its ends.

With the above, and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims and the several views illustrated in the accompanying drawings:

In the drawings:

FIGURE 1 is a perspective view of a bottle carton formed in accordance with the invention, the bottle cartons containing bottles to form a readily handleable package.

FIGURE 2 is an end elevational view showing two of the bottle cartons of FIGURE 1 in a stacked relation and showing the manner in which the contents of the bottle cartons may be identified from the ends thereof.

FIGURE 3 is a plan view of the bottle carton of FIGURE 1, and shows the general relationship of the bottle carton with respect to the bottles.

FIGURE 4 is an enlarged fragmentary longitudinal vertical sectional view taken through the center of the bottle carton along the line 4-4 of FIGURE 3, and shows the specific relationship between the bottles and portions of the bottle carton.

FIGURE 5 is an enlarged fragmentary horizontal sectional view, taken along the line 5-5 of FIGURE 4, and shows the relationship of the bases of the bottles with respect to the bottle carton.

FIGURE 6 is a plan view of the blank from which the bottle carton is formed.

FIGURE 7 is a perspective view of another form of bottle carton, with the bottle carton having bottles disposed therein.

FIGURE 8 is an enlarged transverse vertical sectional view, taken through the center of the bottle carton of FIGURE 7, and shows the general cross-section of the bottle carton, one-half of the bottles in the carton being shown in phantom lines to show the details of the relation-

ship of an identification panel of the bottle carton with respect to the bottles.

FIGURE 9 is a plan view of the blank from which the bottle carton of FIGURE 7 is formed.

FIGURE 10 is a perspective view of still another form of bottle carton, the bottle carton being illustrated with bottles therein.

FIGURE 11 is a fragmentary plan view of the bottle carton of FIGURE 10, and shows the general relationship of the bottle carton with respect to the bottles therein.

FIGURE 12 is an enlarged fragmentary transverse vertical sectional view taken along the line 12—12 of FIGURE 10 and shows the relationship of the upper portion of the bottle carton with respect to the upper portions of the bottles disposed therein, one of the bottles being shown in full lines and the other of the bottles being shown in phantom lines to clearly illustrate the relationship.

FIGURE 13 is a plan view on a reduced scale of the blank from which the bottle carton of FIGURE 10 is formed.

Reference is now made to the drawings in detail, wherein a first form of bottle carton, generally referred to by the numeral 15, is illustrated in FIGURES 1 through 6. The bottle carton 15 is particularly adapted for holding six conventional bottles B of the type having relatively short necks N and removable caps C of the crown type. The general details of the bottle carton 15 are best described by reference to FIGURE 6, wherein a blank, generally referred to by the numeral 16, from which the bottle carton 15 is formed, is illustrated.

The blank 16 is preferably formed of a sheet of paper-board which is of an elongated, generally rectangular outline. The blank 16 is divided into a plurality of panels by fold lines. These fold lines include a fold line 17 which extends transversely of the blank 16 and sets off a first terminal panel 18. A fold line 19 is spaced from the fold line 17 and the area of the blank 16 between the fold lines 17 and 19 is in the form of an intermediate panel which is a side panel 20. The opposite end of the blank 16 is provided with a transverse fold line 21 which corresponds to the fold line 17 and sets off a second terminal panel 22. The fold lines of the blank 16 also include a fold line 23 which corresponds to the fold line 19. The area of the blank 16 between the fold lines 21 and 23 defines a second intermediate panel 24. That portion of the blank 16 between the fold lines 19 and 23 is in the form of a top wall panel 25.

In the forming of the bottle carton 15 from the blank 16, the blank 16 is folded along the fold lines 17, 19, 21 and 23. The terminal panels 18 and 22 combine to define a bottom wall 26 of the carton 15, as is best shown in FIGURE 1. The panel 22 is disposed lowermost and there is a slight overlap of the panels 18 and 22. The panel 18 is provided with a plurality of openings 27 while the panel 22 is provided with a plurality of tabs 28. The tabs 28 cooperate with the openings 27 in a conventional manner to rigidly connect the panels 18 and 22 to define a rigid bottom 26. Therefore, the specific details of the tabs 28 will not be described here.

The over-all width of the bottom 26 is less than the combined widths of two bottles B. As a result, each of the panels 18 and 22 is provided with a plurality of projecting portions 29, there being one projecting portion 29 for each bottle in the two rows of bottles carried by the bottle carton 15. Each of the projecting portions 29 is defined by an arcuate cut line 30 which is primarily formed in a respective one of the side panels 20, 24 and which intersects a respective one of the fold lines 17, 21. It is also necessary that each of the side panels 20, 24 have the bottom portion thereof bulge outwardly in the manner best illustrated in FIGURE 5. To this end, each of the panels 20, 24 is provided with an elongated slit 31 which extends longitudinally of the blank 16 and which terminates at its intersection with the arcuate cut

line 30 with which it is associated. For each of the slits 31, there is provided a pair of slits 32, one slit 32 being disposed on each side of the corresponding slit 31. Each of the slits 32 is shorter than the slit 31 and terminates at its intersection with the arcuate cut line 30. A fold line 33 extends from the end of each slit 32 remote from the arcuate cut line 30 to the intersection of the associated arcuate cut line 30 with the respective one of the fold lines 17, 21, with each of the slits 32 and fold lines 33, in conjunction with the associated arcuate cut line 30 defining a small panel 34 which may be outwardly expanded when the bottle carton 15 has bottles B therein, as is best illustrated in FIGURE 5.

The top wall panel 25 is provided with a plurality of bottle neck receiving openings, the bottle neck receiving openings being arranged in pairs and rows and including a central pair of openings 35 and two endmost pairs of openings 36.

The top wall panel 25 is provided adjacent each end thereof with an arcuate fold line 37 which extends from a respective end of the fold line 19 to a respective end of the fold line 23 and intersecting respective ones of the openings 36 in two places. The arcuate fold line 37 is discontinuous and terminates at its intersection with each of the openings 36. Each arcuate fold line 37 sets off an identification panel 38, the identification panel 38 projecting slightly outwardly of the general side line of the blank 16 and having an arcuate free edge 39 which is convexly curved, the edge 39 extending from a respective end of the fold line 19 to a respective end of the fold line 23.

The identification panel 38 is provided with a pair of tabs 40, each tab 40 being connected to the identification panel 38 along the interrupted portion of the arcuate fold line 37, there being one tab 40 for each of the openings 36. Each tab 40 projects into its respective one of the openings 36.

The top wall panel 25 is also provided with a pair of finger receiving openings 41 which are spaced along a line which extends transversely of the blank 16 but is a longitudinal center line of the top wall panel 25, the finger receiving openings 41 being disposed symmetrically about a line which is a transverse center line of the top wall panel 25 and which extends longitudinally of the blank 16. Each finger receiving opening 41 is defined by an arcuate cut line which terminates at its opposite ends in a fold line 42, and that portion of the top wall panel 25 defined by each arcuate cut line and the fold line 42 being in the form of a flap 43 which is folded inwardly, as is best shown in FIGURE 4, to define the finger opening 41.

The bottle carton 15 is assembled with the six bottles B illustrated in FIGURE 1 in a customary manner. This normally is accomplished by a machine which takes the blank 16 and places the top wall panel 25 thereof over the six bottles B with the caps and necks of the bottles B passing through the openings 35 and 36. The sides 20, 24 are then wrapped down around the sides of the bottles B, after which the terminal panels 18 and 22 are passed beneath the bottoms of the bottles B and interlocked together to define the bottom wall 26. As the caps C and necks N of the endmost bottles B pass through the openings 26, the caps C engage the tabs 40 and urge the tabs upwardly. As a result, the tabs 40, which are integrally connected to the identification panels 38, result in the downward snapping of the identification panels to the positions illustrated in FIGURES 1, 2, 3 and 4. This is in part aided by the fact that the top wall panel 25 is upwardly arched, due to the heights of the bottles as compared to the heights of the side panels 20, 24. The downwardly directed identification panels 38 aid in the maintaining of the arched condition of the top wall panel 25.

When the bottles B are fully seated with respect to the top wall panel 25, the tabs 40 have slipped below the caps C of their respective ones of the bottles B, with the result that the tabs 40 closely engage the necks N of the

bottles B beneath the caps C. Although the tabs 40 may be slightly spaced below the caps C, when the carton 15 is lifted by placing one's fingers through the openings 41 and lifting up on the top wall panel 25, the top wall panel 25 will move upwardly slightly with respect to the bottles B, with the result that the tabs 40 will engage beneath the caps C of the endmost ones of the bottles B and the endmost ones of the bottles will be directly lifted by the top wall panel 25. This reduces the pressure normally exerted downwardly on the bottom wall 26 by the bottles contained within the carton 15 during the carrying thereof, thus eliminating the possibility of the separation of the panels 18 and 22 which would result in the releasing of the bottles B from the carton 15.

Reference is now made to FIGURE 2 in particular wherein it will be apparent that when the cartons 15 are stacked, and the cartons are viewed from the ends thereof, the identification panels 38 will project generally into the normally open ends of the cartons 15 and any indicia, such as the indicia 44, imprinted thereon, will be readily visible so that the contents of the cartons 15 may be readily ascertained even though the ends only thereof are visible. This permits the cartons 15 to be stacked as desired, whereas cartons heretofore provided could be stacked only with the sides thereof visible for identification purposes.

Reference is now made to FIGURES 7, 8 and 9, wherein a bottle carton, generally referred to by the numeral 50, is illustrated. The bottle carton 50 is illustrated as holding six bottles B, each of which, as is best illustrated in FIGURE 8, has a relatively short neck N and is provided with a cap C of the crown cap type. The carton 50 is formed from a paperboard blank, generally referred to by the numeral 51, and is best described by first describing the details of the blank 51.

The blank 51 is of an elongated rectangular configuration and is divided into a plurality of panels by a plurality of fold lines which extend transversely of the blank. These fold lines include a fold line 52 which sets off at one end of the blank 51 a first terminal panel 53. A similar fold line 54 sets off at the opposite end of the blank 51 a second terminal panel 55. The fold lines also include a pair of central fold lines 56 and 57 which set off a centrally located top wall panel 58. That portion of the blank 51 between the fold lines 52 and 56 is in the form of a side panel 59; that portion of the blank 51 between the fold lines 54 and 57 is in the form of a side panel 60.

When the carton 50 is formed from the blank 51, the terminal panels 53 and 55 combine to define a bottom wall 61 of the carton 50. The panel 55 is disposed lowermost, and the panels 53 and 55 have overlapping edge portions. The panel 53 is provided with a plurality of openings 62 which cooperate with a like number of locking tabs 63 which project from a free edge of the panel 55 to form an interlock between the panels 53 and 55 in a conventional manner. Since the interlock is conventional, specific details of the openings 62 and the tabs 63 will not be described here.

The side panels 59 and 60 are provided with fold lines 64 and 65, respectively, which are disposed adjacent the fold lines 52 and 54, respectively. The fold lines 52 and 64 set off a panel 66, whereas the fold lines 54 and 65 set off a similar panel 67, the panels 66 and 67 being relatively narrow. The panels 66 and 67 are provided with generally half-moon-shaped openings 68 which face towards the fold lines 52 and 54 and which intersect the respective ones of the fold lines 52, 64, 54 and 65. The openings 68 define projecting portions 69 on the panels 53 and 55 for supporting the bottoms of the bottles B in the manner best illustrated in FIGURES 7 and 8.

It is to be noted that associated with each of the openings 68 is a slit 70 which extends longitudinally of the blank 51 and which terminates at the respective one of the openings 68. The slits 70 permit expansion of the

side panels 59, 60 as is necessary in the reception of the bottles B within the bottle carton 50.

Reference is now made to FIGURES 7 and 8 wherein it is shown that when the bottles B are disposed within the carton 50, the panels 66 and 67 slope upwardly and outwardly from the bottom wall 61, and the openings 68 are substantially entirely formed within the panels 66 and 67. The openings 68 permit the outward projection of lower portions of the bottles B. Further, the openings 68 cooperate with the slits 70 in the outward bulging of the side panels or side walls 59, 60 of the bottle carton 50.

The top wall panel 58 is provided with two rows of openings, the openings being disposed on opposite sides of a centerline of the top wall panel 58 which extends longitudinally of the top wall panel, but transversely of the blank 51. The openings include a pair of central openings 71 and two pairs of endmost openings 72. The openings 71, 72 are intended to receive the caps C and necks N of the bottles B.

The ends of the top wall panel 58 are provided with arcuate interrupted fold lines 73 which open through the ends of the top wall panel 58 and which intersect each of the associated pair of endmost openings 72 at two points, each fold line 73 being interrupted between its points of intersection with each opening 72. Each of the fold lines 73 sets off an identification panel 74 which has a convexly curved free edge 75 which terminates at its intersection with its respective one of the curved fold lines 73, the intersections between the edge 75 and the respective fold lines 73 being recessed inwardly of the side edges of the blank 51. Each of the identification panels 74 is provided with a pair of tabs 76, the tabs 76 projecting into the respective ones of the openings 72 for engagement by bottle caps and necks when the bottle carton 50 is assembled with the bottles B.

The bottle carton 50 is assembled with the bottles B by passing the top wall panel 58 down over the upper ends of the bottles B with the bottle caps C and necks N passing through the openings 71 and 72. When the bottle caps C pass through the openings 72, they engage the tabs 76 and urge the tabs 76 upwardly with the resultant downward snapping or folding of the identification panels 74 along the curved fold lines 73. As the top wall panel 58 is continued to be moved down over the bottles B, and the side panels 59, 60 are pulled downwardly around the sides of the bottles B, the top wall panel 58 assumes an upwardly arched shape, as is best shown in FIGURE 8, by folding along a pair of interrupted fold lines 77 which extend between the openings 72 and the openings 71. The fold lines 77 are generally aligned with the intersections of the fold lines 73 with the outer portions of the openings 72. The fold lines 77 divide the top wall panel 58 generally into a central panel 78 and outer panels 79. The outer panels 79 slope downwardly and outwardly, as is best shown in FIGURE 8, while the central panel 78 is generally horizontally disposed.

When the bottle carton 50 is completely assembled about the bottles B, the tabs 76 engage the necks N of the endmost ones of the bottles B below the caps C. When there is any tendency whatsoever for the top wall panel 58 to move upwardly, as is the case when the bottle carton 50 is lifted by placing one's fingers through a pair of finger openings 80 which are formed by pressing inwardly on a pair of tabs 81 connected to the top wall panel 58 along fold lines 82, the upward movement of the top wall panel 58 results in the engagement of the tabs 76 under the bottle caps C and the application of a lifting force on the endmost bottles B so that a major portion of the weights of the endmost bottles B is transferred to the top wall panel 58 and there is a reduction of loading on the bottom wall 61, thereby eliminating failure of the connection between the bottom wall forming panels 53 and 55.

In the normal positions of the bottles B within the bottle carton 50, the tabs 76 are retained in their generally

upwardly directed positions with the result that the identification panels 74 are retained in their depending positions. Thus, the identification panels 74 aid in maintaining the upward arched relation of the top wall panel 58, and the identification panels 74 remain exposed where they may be viewed from the normally open ends of the carton 50, and when the identification panels 74 are provided with proper indicia, the contents of the bottle carton 50 may be determined when viewing one end only thereof. This permits the bottle cartons 50 to be stacked in any desired arrangement and still the contents thereof remain identifiable.

In FIGURES 10 through 13, inclusive, there are illustrated the details of a bottle carton, generally referred to by the numeral 90. The bottle carton 90 is of the wrap-around type and is particularly adapted to hold six bottles B, although by modification, it could be adapted to hold other numbers of bottles. Each bottle B is of a conventional short neck type including a neck N and a cap C of the crown cap type. The bottle carton 90 is formed from a paperboard blank which is generally referred to by the numeral 91.

The details of the bottle carton 90 may be best understood by first describing the details of the blank 91. The blank 91 is formed from a single sheet of paperboard and has a generally elongated rectangular outline. The blank 91 is provided with a plurality of fold lines which extend transversely of the length of the blank, and divide the blank into a plurality of separate panels. The fold lines include an interrupted fold line 92 which sets off a first terminal panel 93. A similar fold line 94 sets off a second terminal panel 95. A pair of centrally located fold lines 96 and 97 set off a centrally located top wall panel 98. The portion of the blank 91 disposed between the fold lines 92 and 96 defines a side panel 98', while the portion of the blank 91 between the fold lines 94 and 97 defines a side panel 99. In the formation of the carton 90 from the blank 91, the blank 91 is folded along the fold lines 92, 94, 96 and 97 to have a generally rectangular cross-section and with the first and second terminal panels 93 and 95 combining to define a bottom wall 100 of the bottle carton 90.

In the formation of the bottom wall 100, the panels 93, 95 are partially overlapped, as is best illustrated in FIGURE 10, with the panel 93 overlying the panel 95. The panels 93 and 95 are interconnected by a tab and slot connection which includes a plurality of slots or openings 101 formed in the panel 93 and a similar number of tabs 102 projecting from the panel 95. Since the tab and slot connections are conventional, the details of neither the slots 101 nor the tabs 102 will be described here.

The fold line 92 is interrupted by a plurality of generally C-shaped cuts 103 which are formed primarily within the side panel 98', but which extend slightly into the terminal panel 93. The cuts 103 define arcuate projections 104 which, in the folded condition of the bottle carton 90, project outwardly of the side panel 98' and form rests for the bottoms of the bottles B, as is best shown in FIGURE 10. The fold line 94 is also interrupted by C-shaped cuts 105 which are identical with the cuts 103 and which project primarily into the side panel 99. The cuts 105 define arcuate projections 106 which function in the same manner as the arcuate projections 103.

The width of the bottom wall 100 is less than the combined diameters of two of the bottles B. As a result, the lower portions of the bottles B project out through the lower portions of the side panels 98', 99, as is clearly shown in FIGURE 10. In order to permit this, each of the side panels 98', 99 is provided with cuts 107 which extend into the respective one of the side panels 98', 99 from the respective one of the C-shaped cuts 103, 105. The outer end of each of the cuts 107 is joined to a terminal end of an associated one of the C-shaped cuts 103, 105 by a fold line 108 to define a plurality of small flaps 109 which may swing out of the plane of the associated

one of the side panels 98', 99 to permit the outward projection of the bottles B through the side panels 98', 99.

The top wall panel 98 is provided with two centrally located fold lines 110 which extend longitudinally of the top wall panel 98, but transversely of the blank 91. The fold lines 110 divide the top wall panel 98 into a central panel 111 and a pair of outer panels 112. Three openings 113 are formed along each of the fold lines 110, the openings 113 having spacings corresponding to the spacings of the bottles B. It is to be noted that the openings 113 interrupt the fold lines 110 and project slightly into the central panel 111. Each opening 113 is of a generally trapezoidal outline and has a maximum width in the central panel 111.

The top wall panel 98 is also provided with a pair of fold lines 114. Each fold line 114 extends transversely of the top wall panel 98 and generally longitudinally of the blank 91. Each of the fold lines 114 extends between the fold lines 110 and intersects the fold lines 110 at the outermost corners of the outermost ones of the openings 113. A diagonal fold line 115 extends from the end of each of the fold lines 114 with each pair of fold lines 115 diverging and extending to the edges of the blank 91 at the respective end of the top wall panel 98. That portion of the top wall panel 98 between the ends of the fold lines 115 is longer than the remainder of the top wall panel. The bulged portion of the top wall panel 98 at each end thereof is defined by a line 116 which extends outwardly and then longitudinally of the blank 91 from the outer ends of the respective fold lines 115. The lines 114, 115 and 116 define an identification panel 117 at each end of the top wall panel 98.

The central portion of the central panel 111 is provided with a pair of finger receiving openings 118 through which one's fingers may be passed to lift the bottle carton 90 when filled with the bottles B for carrying. Each of the finger receiving openings 118 is defined by a pair of flaps 119 which are movable down into the confines of the bottle carton 90 between adjacent ones of the bottles B. The flaps 119 are connected to the central panel 111 along fold lines 120.

Each of the side panels 98', 99 has a flap 121 connected thereto at each end thereof along a fold line 122 which is coextensive with the side edge of the respective one of the side panels 98', 99. Each of the flaps 121 has a projection 123 which projects beyond the associated side panel and is disposed adjacent a respective one of the outer panels 112.

In the assembling of the bottle carton 90 with the bottles B, the blank 91 is placed over the six bottles B in alignment therewith, and the top wall panel 98 is brought into engagement with the bottle caps C, with the bottle caps C and portions of the necks N of the bottles B passing through the respective ones of the openings 113 and with edge portions of the central panel 111 resting on the bottle caps C in the manner best illustrated in FIGURE 10. The side panels 98', 99 are then folded down around the bottles B with the result that the outer panels 112 assume downwardly sloping positions, such as is illustrated in FIGURE 12, and the side panels 98', 99 closely engage the outer surfaces of the bottles B. The terminal panels 93, 95 are then wrapped around the bottoms of the bottles B and are interlocked in the conventional manner. The flaps 121, which are identification flaps, are then folded inwardly into the planes of the ends of the bottle carton 90, after which the identification panels 117 are snapped down to the positions illustrated in FIGURE 10. The identification panels 117 overlap the extensions 123 of the flaps 121 to retain the flaps 121 in position.

It is to be noted that the outer panels 112 underlie the outer portions of the caps C and when an upward pull is directed on the central panel 111, as would occur in the lifting of the bottle carton 10 by placing one's fingers through the finger receiving openings 118, the outer panels 112 engage beneath the bottle caps C and effect an up-

ward force on the bottle caps C to effect the suspension of the bottle B at least in part from the top wall panel 98. This eliminates the usual pressures exerted on the connections between the panels forming the bottom wall 100 of the bottle carton 90.

The identification panels 117 and the identification flaps 121 are provided with suitable indicia (not shown) to identify the contents of the bottle carton 90. Thus the bottle cartons 90 may be stacked in any desired arrangement, and the contents thereof identifiable even when only the ends of the cartons are visible.

It is to be noted that the entire central panel 111 of the top wall panel 98 is disposed above the bottles B and form a flat surface on which a next upper bottle carton 90 may be rested. Thus the specific arrangement of the bottle carton 90 with respect to the bottles B facilitates the stacking of the bottle cartons, as is desirable in displays.

It will be readily apparent that the bottle cartons disclosed herein have two desirable features. The first of these is the provision of identification panels at the opposite ends of the bottle cartons whereby the contents of the bottle cartons may be ascertained even when only the ends thereof are visible. The other desirable feature of this invention is the interlocking of the top wall panels of the bottle cartons beneath the caps of certain of the bottles, particularly the endmost bottles, whereby the usual entire weight of the bottles on the bottom wall connection no longer exists. This makes a much more rigid package and eliminates the tearing of the tab and slot connections joining together the terminal panels of the blank to form the bottom wall of the carton.

From the foregoing, it will be seen that novel and advantageous provision has been made for carrying out the desired end. However, attention is again directed to the fact that variations may be made in the example bottle cartons disclosed herein without departing from the spirit and scope of the invention, as defined in the appended claims.

I claim:

1. A wrap around bottle carton comprising a bottom wall, upstanding side walls, a top wall and open ends, said top wall having bottle receiving openings arranged in rows, said top wall further having an identification panel at at least one end thereof, said identification panel being foldably connected to the respective end of said top wall and extending downwardly from said top wall at the one end of said carton in a generally vertically disposed position whereby the contents of the carton may be readily determined when the carton is stacked with other cartons and only the end thereof is exposed, said top wall being generally arched shaped and cooperating with said identification panel to retain said identification panel in the generally vertically disposed position and said upstanding walls having end identification flaps foldably connected to the ends thereof at the one end of said carton and projecting transversely across said carton into the one of said open ends, said end flaps having upper portions engaged behind said identification panel and held in place thereby.

2. A bottle carton of the wraparound type for holding a plurality of capped bottles, said bottle carton comprising a bottom wall, upstanding sides and a top wall connected to said sides, said top wall being upwardly arched and including an uppermost central panel and downwardly sloping outer panels connected to said central panel along longitudinal fold lines, a plurality of openings formed primarily in said outer panels along said fold lines for receiving portions only of caps and necks of bottles with portions of the caps underlying said central panel, said central panel having means for facilitating the carrying of bottle carriers with bottles therein and said outer panels having portions immediately adjacent said openings for engaging beneath bottle caps to directly transfer the weight of bottles within said bottle

carton to said central panel, a transverse fold line extending between said longitudinal fold lines adjacent each end of said central panel and adjacent endmost ones of said openings and a pair of diverging fold lines extending from the ends of each transverse fold line to ends of said outer panels combining to define an identification panel at each end of said top wall connected to each outer panel by a single panel extension, each identification panel being downwardly directed whereby the contents of said carton may be identified when said carton is stacked with other cartons and only the end thereof is exposed.

3. The bottle carton of claim 2 wherein said sides have flaps hinged thereto and extending partially across the ends of said carton, each flap having an upper portion underlying an associated one of said identification panels to hold said flaps in place.

4. A blank for forming a bottle carton comprising an elongated generally rectangular paperboard sheet, fold lines extending transversely of said sheet dividing said sheet into first and second terminal bottom wall panels, intermediate side panels and a top wall panel, said bottom wall panels having cooperating interlocking means for connecting together free ends of the blank in the formation of a bottle carton, said top wall panel having a pair of fold lines extending transversely of said entire blank and dividing said top wall panel into a central panel and two outer panels, a plurality of openings formed primarily in said outer panels along said pair of fold lines, each opening being generally trapezoidal in outline and of a size less than the usual bottle cap whereby said openings are adapted to receive only a portion of a bottle neck and cap, a longitudinal fold line extending between said pair of fold lines adjacent each end of said central panel and adjacent endmost ones of said openings, and a pair of diverging fold lines extending from the ends of each longitudinal fold line to ends of said outer panels combining to define an identification panel at each end of said top wall panel connected to each of said outer panels by a single extension panel.

5. The blank of claim 4 together with flaps hinged to ends of said side panels and having portions extending coextensive with and spaced from ends of said outer panels.

6. A blank for forming a bottle carton comprising an elongated generally rectangular paperboard sheet, fold lines extending transversely of said sheet dividing said sheet into first and second terminal bottom wall panels, intermediate side panels and a top wall panel, said bottom wall panels having cooperating interlocking means for connecting together free ends of the blank in the formation of a bottle carton, said top wall panel having a pair of fold lines extending transversely of said entire blank and dividing said top wall panel into a central panel and two outer panels, a plurality of openings formed primarily in said outer panels along said pair of fold lines, each opening adapted to receive at least a portion of a bottle neck and cap, a generally longitudinal fold line extending in its entirety across said top wall panel adjacent each end of said top wall, each of said generally longitudinal fold lines including a longitudinal central portion extending across said central panel and diverging outer portions extending across said outer panels, at least one portion of each of said generally longitudinal fold lines being disposed entirely between the ends of said side walls.

7. A wraparound bottle carton comprising a bottom wall, upstanding side walls, a top wall and open ends, said top wall having bottle neck receiving openings arranged in rows with openings in adjacent rows being transversely aligned, said top wall one end having a downwardly directed identification panel for identifying the contents of the carton when the carton is stacked with other cartons and only one end of the carton is exposed, said top wall being upwardly arched and including

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an uppermost central panel and sloping outer panels connected to said central panel along spaced parallel longitudinal fold lines, and each diverging fold line in nected to said top wall along a transverse fold line ex-
tending across said central panel two diverging fold
lines extending across said outer panels, said diverging
fold lines intersecting said transverse fold line along said
longitudinal fold lines, and each diverging fold line in
cooperation with an adjacent one of said longitudinal
fold lines defining a single panel extension of said identi-
fication panel directly connected to a respective one of
said top wall outer panels.

8. The blank of claim 6 together with flaps hinged to
ends of said side panels and having portions extending
coextensive with and spaced from the ends of said outer
panels.

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References Cited by the Examiner

UNITED STATES PATENTS

Re. 24,925	1/1961	Fisher	206—65
2,801,001	7/1957	Wolowicz	206—65
2,811,250	10/1957	Arneson	206—65
2,877,894	3/1959	Forrer	206—65
2,899,051	8/1959	Barnby	220—116 X
2,931,490	4/1960	McGihon	206—65
2,936,069	5/1960	Dunning	206—65
2,985,294	5/1961	Arneson	206—65

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