Dec. 31, 1946. J. K. DARRAGH ET AL 2,413,315

COMBINED BOTTLE CARRIER AND CARTON

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Fig. 1.

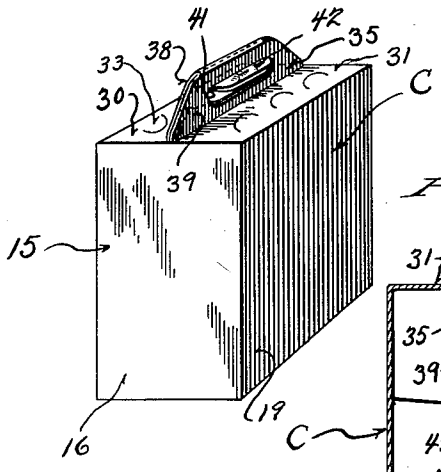


Fig. 2.

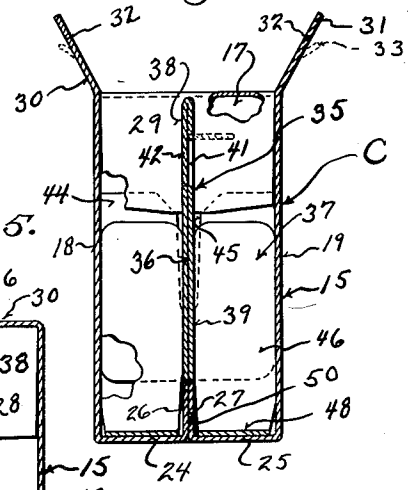


Fig. 5.

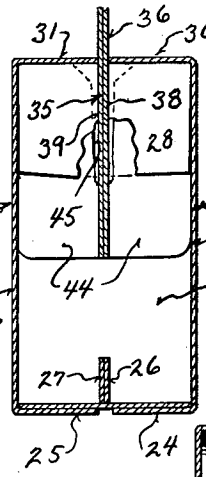


Fig. 3.

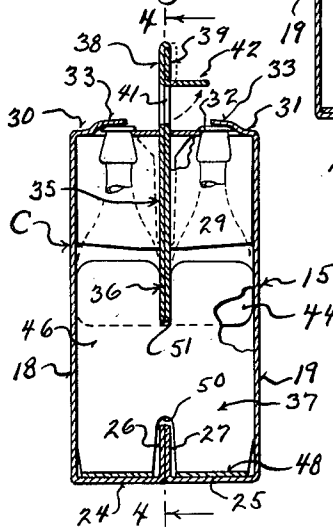


Fig. 4.

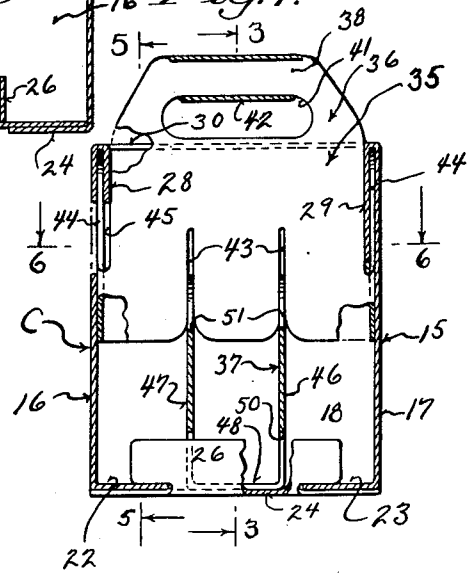
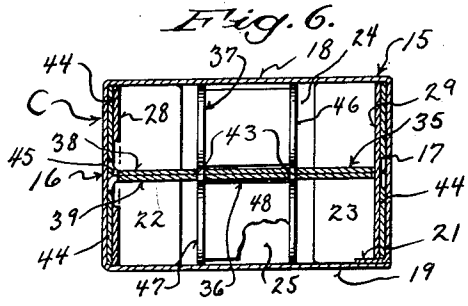


Fig. 6.



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Fig. 7.

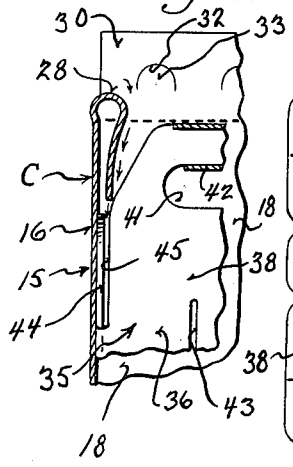


Fig. 10.

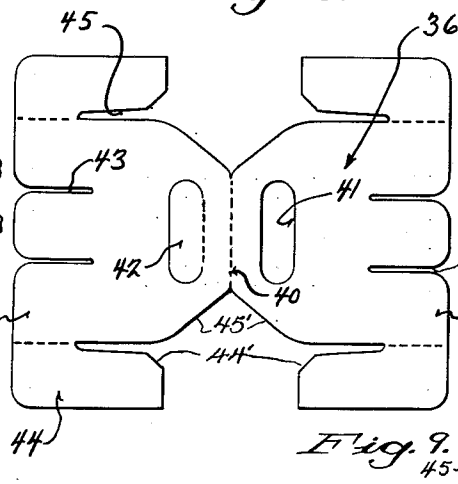


Fig. 8.

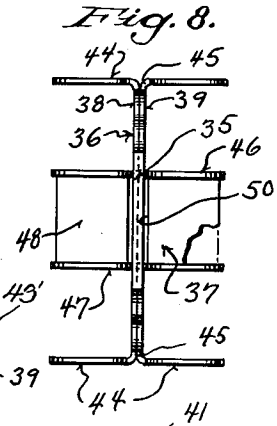


Fig. 9.

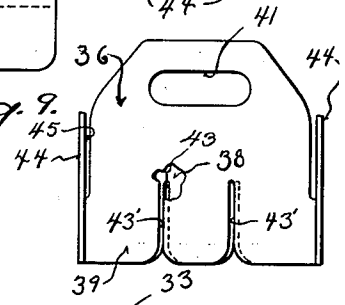


Fig. 11.

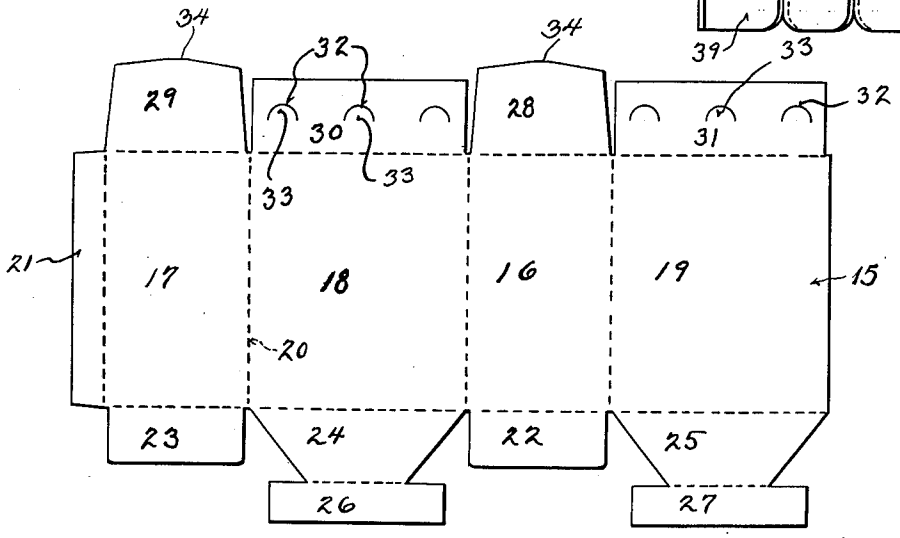
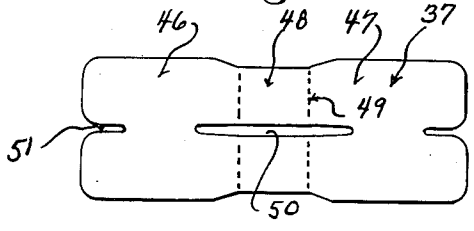


Fig. 12.



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Patented Dec. 31, 1946

2,413,315

UNITED STATES PATENT OFFICE

2,413,315

COMBINED BOTTLE CARRIER AND CARTON

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Application April 8, 1942, Serial No. 438,054

7 Claims. (Cl. 229—28)

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This invention appertains to boxes or containers, and more particularly to a novel bottle carton for dispensing beverages from retail stores.

One of the primary objects of our invention is to provide a combined carton and carrier for bottles embodying an outer case and an inner cell partition for the bottles having a carrying handle, with novel means for detachably connecting the partition or insert with the outer case, whereby the entire carton with the bottles can be conveniently carried by a customer.

Another salient object of our invention is to provide novel means for constructing the insert or partition, whereby the same will cooperate with certain parts of the outer case in a novel manner and in such a way that the case and partition will effectively brace one another and form an interlocking connection to permit the carton to be safely and easily carried as a unit with the bottles from a handle formed on the partition.

A further object of our invention is to provide a sliding interlocking connection between the insert or partition and the outer case, whereby normally the insert or partition and its handle will be below the cover flaps, so that the cartons can be stacked one upon the other without damage to the handles or bottles, and whereby the insert or partition can be slid upwardly a limited distance relative to the outer case to dispose the handle above the cover flaps, so that the handle can be effectively used to carry the carton.

A further important object of the invention is to provide a novel inner bottle partition or insert, which can be inexpensively formed from a single blank of material, and which is provided with laterally extending end wings for engaging the end walls of the case, the wings being so formed as to permit the interlocking thereof with the case by the mere folding of the ordinary end wall flaps downwardly inside the case.

A still further object of the invention is to provide a combined bottle carton and carrying case in which the weight of the bottles is carried by the outer case in the ordinary way, so that undue strains on the bottle partition or insert will be eliminated, and whereby such strains will be distributed throughout the entire carton when the carton is being carried by the handle.

With these and other objects in view, the invention consists in the novel construction, arrangement, and formation of parts, as will be hereinafter more specifically described, claimed,

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and illustrated in the accompanying drawings, in which drawings:

Figure 1 is a perspective view of the novel carton and carrying case for bottles, the view showing the handle disposed exteriorly of the outer case for facilitating the carrying of the carton by a customer.

Figure 2 is a transverse sectional view through the complete carton, with the bottle partition or insert in its lowered position, and with the side cover flaps in a raised position, and the end cover flaps folded inside the carton into locking engagement with the bottle partition or insert.

Figure 3 is a transverse sectional view through the carton, taken on the line 3—3 of Figure 4, looking in the direction of the arrows, and showing the side wall cover flaps in their lowered position and the insert raised to dispose the handle exteriorly of the case to facilitate the carrying of the carton.

Figure 4 is a vertical, longitudinal, sectional view through the complete carton, taken on the line 4—4 of Figure 3, looking in the direction of the arrows.

Figure 5 is a view similar to Figure 3, but taken on the line 5—5 of Figure 4, looking in the direction of the arrows.

Figure 6 is a horizontal sectional view through the carton, taken on the line 6—6 of Figure 4, looking in the direction of the arrows.

Figure 7 is a detail, fragmentary, longitudinal, sectional view through the carton, showing one of the end wall flaps being folded down inside the case into interlocking engagement with the bottle partition filler or insert.

Figure 8 is a top plan view of the bottle partition filler or insert.

Figure 9 is a side elevational view of the main section of the bottle partition filler or insert.

Figure 10 is a plan view showing the blank from which the main body portion of the bottle partition or insert is made.

Figure 11 is a plan view illustrating the blank from which the outer case is formed.

Figure 12 is a plan view of the blank from which the transverse walls of the partition filler are formed.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter C generally indicates the novel carton, and the same includes an outer case or container 15 and an inner bottle partition filler or insert 35.

The case or container 15 can be of the ordinary or any preferred construction, and of a size

to conveniently hold six bottles of a beverage. However, both the outer case 15 and the bottle partition filler or insert 35 are preferably of such a construction that the entire device can be shipped in a knockdown or flat condition, and then readily assembled at the point of use.

The outer case 15 is preferably constructed from a single blank of sheet material, such as cardboard or equivalent material. This blank is shown in detail in Figure 1, and the case includes end walls 16 and 17, and side walls 18 and 19. The material is scored, as at 20, to define these walls. The end wall 16 can have formed on one longitudinal edge a sealing lip 21, which can be securely fastened to the side wall 19 by a suitable adhesive or clips to form the body of the case. The bottom wall of the case preferably includes bottom wall flaps 22 and 23, which are formed on the lower edges of the end walls 16 and 17, and side bottom wall flaps 24 and 25. The material can be scored to facilitate the folding of these flaps on the end and side walls. The side wall bottom flaps 24 and 25 are preferably tapered toward their outer ends and terminate in longitudinally extending locking tongues 26 and 27. These tongues extend beyond the side edges of the bottom wall flaps 24 and 25, and these tongues are adapted to be folded at right angles to said bottom wall flaps and into abutting engagement with one another when the case is in its assembled position.

The ends of the tongues 26 are adapted to fit over and engage the end bottom wall flaps 22 and 23, as can be clearly seen by referring to Figures 4 and 5 of the drawings. Obviously, this holds the case in its assembled form, and the tongues 26 and 27 define an upstanding longitudinally extending rib in said case.

The upper edges of the end walls 16 and 17 have formed thereon end top flaps 28 and 29, and these end flaps 28 and 29 cooperate with the partition filler or insert 35 in a novel manner, as will be later described. The side walls 18 and 19 have formed thereon the side top wall closure flaps 30 and 31. These flaps 30 and 31 are each provided with a row of semicircular slits 32, which define tongues 33. By referring to Figure 3, it can be seen that when the side closure top flaps 30 and 31 are folded down over the bottles placed in the cartons, the necks of the bottles will protrude slightly through the cover flaps and push up on the tongues 33. The edges of the semicircular slits 32 will catch under the caps of the bottles, and, hence, hold the top cover flaps 30 and 31 in their lowered closed position.

As in the usual construction of boxes or containers of this type, the end top flaps 28 and 29 can be folded down over the contents, after which the side cover flaps 30 and 31 can be folded down over the end cover flaps. However, in the present instance, the end cover flaps 28 and 29 will be folded inside the case, and these flaps cooperate with the novel bottle partition filler or insert 35, as will be later described. The end cover flaps 28 and 29 are of a special shape (see Figure 11), and, hence, the outer edges of the flaps gradually incline to their side edges from a central straight bearing portion 34. Likewise, the flaps 28 and 29 can gradually taper toward their outer ends.

Referring more particularly to the insert or bottle partition filler, it can be seen that the same includes a main body section 36 and an auxiliary section 37, which forms transverse partition walls.

The main body partition or insert can be formed from a single blank of sheet material, such as cardboard, as is clearly shown in Figure 10 of the drawings. This body includes companion side walls 38 and 39, which can be integrally joined at their upper edges, and these walls 38 and 39 are adapted to be folded on a central score line 40 into intimate engagement with one another. The upper ends of the walls are provided with registering slots 41 to provide a handle, and the upper edges of the walls can be shaped so as to define a hand grip. The material struck out from one of the slots 41 can be folded through the slots, as at 42 (see Figure 3 of the drawings), which will provide a bearing for the fingers of the customer when the carton is being carried.

A pair of kerfs or slots 43 is formed in the wall 38, and a similar pair of slots 43' is formed in the wall 39, and these slots extend inwardly from the outer edges of the blank and are adapted to receive and hold the auxiliary section 37, as will be later set forth. It will be noted (see Figure 9) that when the walls 38 and 39 are folded into engagement with one another, the slots 43 and 43' are out of direct alinement with one another. This is important, as will be seen as the description proceeds. The slots 43' can also be slightly longer than the slots 43.

Formed on the end edges of the walls 38 and 39 are foldable wings 44, and these wings are adapted to be bent laterally at right angles to the walls 38 and 39, when the main insert is in its set-up condition. At the juncture point of the wings 44 with the walls 38 and 39, downwardly extending slots 45 are cut into the blank, and the purpose of these slots will be more clearly set forth. The inner edges of the wings 44 can incline, as at 44', toward the slots 45, and it is to be noted that the side edges of the walls 38 and 39 incline, as at 45', from the handle toward the slots 45.

The auxiliary portion 37 of the insert includes transverse partition walls 46 and 47, which are connected by a bottom wall portion 48. Score lines 49 can be provided at the points of juncture of the transverse partition walls 46 and 47 with the bottom wall 48 to facilitate the bending of such walls. A longitudinally extending slot 50 is formed in the bottom wall 48, and this slot extends into the transverse partition walls 46 and 47, and this slot is adapted to receive the locking tongues 26 and 27 of the bottom wall of the outer case 15 when the various parts are in their assembled condition. The upper edge of each partition wall 46 and 47 is provided with relatively short inwardly directed notches 51, which cooperate with the slots or notches 43 and 43' formed in the walls 38 and 39 of the main body portion of the partition to permit the interconnection of these parts.

By referring to Figures 4 and 8, it can be seen that, when the auxiliary portion 37 is associated with the main portion 36, a bottle partition filler or insert is formed, and that the walls 38 and 39 combine to form a central partition wall for the insert, and the walls 46 and 47 form the transverse walls for the insert. This insert is adapted to be placed bodily within the outer case 15, with the wings 44 in sliding contact with the end walls 16 and 17 of the case, and these wings preferably extend from one side wall 18 to the other side wall 19, and the bottom wall 48 of the auxiliary partition portion rests upon said bottom wall, with the locking tongues 26 and 27 of the bottom wall extending into the slot 50.

After the auxiliary section 37 is folded, so that

the walls 46 and 47 extend parallel to one another, the section 37 is held so that the walls 46 and 47 extend at right angles to the walls 38 and 39 of the main section 36, and the walls 46 and 47 are slid into the slots 43 and 43', and the walls 38 and 39 are slid into the slots 51. As the slots 43 and 43' are not in direct transverse alinement, the walls of these slots create a frictional bind on the section 37 to hold said section in place on the main section 36.

Hence, the entire insert 35 can be readily handled as a single unit. This facilitates the placing of the insert in the outer case 15 and allows the free use of one hand of the operator to manipulate the flaps 28, 29, 30, and 31 during the placing of the insert in said case.

At the bottling plant, the outer cases 15 are folded and set up, and the inserts 35 are assembled and placed in the cases, after which the end cover flaps 28 and 29 are folded down into the outer case (see Figure 7) over the wings (see Figure 2) and into the notches or slots 45. The folding of the flaps 28 and 29 into position is facilitated due to the shape of the outer edges of the flaps and the shape of the side edges 45' of the walls 38 and 39 of the insert.

By referring to Figure 7, it can be seen that the straight bearing edges or lands 34 engage the inclined edges 45' of the wals 38 and 39 of the insert. Hence, these edges guide the flaps 28 and 29 into the slots 45. The fact that the flaps themselves taper to a certain degree also facilitates the insertion of the flaps into the case. When the flaps are inserted, the same rest over the wings 44 (see Figure 2), and, hence, disconnection of the flaps from the wings is prevented. The engagement of the flaps with the insert provides the desired interlocking connection between the insert and the outer case.

In use of the case, a number of the same are placed in a shipping carton, and the side flaps 31 and 30 are folded down on the outside of the case against the outer surfaces of the side walls 18 and 19. Naturally, these flaps are held in this position by the engagement of the cases one with the other and with the inner surfaces of the shipping carton. The cases can now be conveniently filled with the bottles from a bottle loading machine, as it can be seen that the top of the cases are entirely clear of all obstructions.

The carton with the filled cases can be shipped to the retailer. The retailer can leave the cases in the carton or the cases can be removed and stacked one upon the other.

When a customer purchases a half-dozen bottles of a beverage, the container is given to the customer, and the handle portion of the insert is grasped and pulled upwardly. This slides the main portion of the insert within the case, and the handle portion will be disposed exteriorly of the case, whereby the container can be conveniently carried by the purchaser.

When the main portion 36 of the insert is slid upwardly, the upper edges of the wings 44 will strike the score lines for the flaps 28 and 29, and the upper edges of the wings will rest against the points of juncture of the flaps with their end walls 16 and 17. Obviously, further upward movement of the insert is now prevented. Due to the weight of the two central bottles, the auxiliary portion 37 of the insert will be held down in its lowered position.

The side cover flaps 30 and 31 can now be folded down over the tops of the bottles, and the upper ends of the bottles will ride through

the slits 32, as heretofore described. The container and the bottles can now be conveniently carried by the handle portion of the insert. Hence, a compact and durable structure is had.

When the bottle partition filler or insert is placed within the outer case, six cells or compartments will be provided for six bottles, and the bottles will rest on the bottom wall structure of the outer case. Actually, the two intermediate bottles will rest on the connecting wall 48 of the auxiliary partition member 37. As this connecting wall 48 rests directly upon the bottom wall structure, these two intermediate bottles will also, in effect, rest upon the bottom wall structure, or will be supported directly by said bottom wall structure. Obviously, the proportions of the insert and case can be changed so that any desired number of bottles can be accommodated.

The insert is of such a height that normally the handle portion thereof will lie within the upper edges of the side and end walls of the case, and, hence, the top of the case is normally clear.

With the structure as shown and described, the weight of the bottles is carried by the outer case 15 itself, and the weight of the bottles is distributed through the case and to the insert, due to the connection of the case with the insert by the end flaps 28 and 29.

The carton can be returned by the customer with the empty bottles, and, thus, the carton can be used many times over by the dealer.

Various changes in details may be made, which do not depart from the spirit and scope of the claims, and what we claim as new is:

1. A combined bottle carrier and carton comprising, an outer case having side and end walls, a removable bottle partition filler slidably fitted in said case including a central partition wall and laterally extending wings said wings being parallel with the walls of the case and engaging the inner faces of said end walls, the wings and central partition having notches open at their upper ends at the points of juncture of the wings with the central partition, and said case also including cover flaps foldable inside the case parallel with the wings and the end walls of the case and into engagement with the wings to form with the end walls slideways for the wings, the lower ends of the flaps being received in said notches to permit sliding movement of the filler relative to the case.

2. A combined bottle carrier and carton comprising, an outer case having side and end walls, a removable bottle partition filler slidably fitted in said case and movable independently of the bottles in said case, a carrying handle formed on the upper end of said filler, said filler also including a longitudinal partition wall and laterally extending end wings, the wings having sliding engagement with the end walls of the case, said filler also having upwardly opening notches formed therein at the points of juncture of the wings with the partition, and bendable end cover flaps carried by the end walls of the case folded inside said case parallel with the wings and the end walls of the case and into engagement with said wings and received in said notches the flaps and end walls forming slideways for the wings, whereby a sliding connection will be had between the filler and said case.

3. A combined bottle carrier and carton comprising, an outer case having side walls, end walls, a bottom wall structure including centrally

disposed upstanding locking tongues, and a top wall structure including bendable end flaps formed on the end walls, a removable bottle partition filler slidably fitted in said case and movable independently of bottles disposed in said case, said filler including a central partition wall adapted to engage the locking tongues when the filler is in one position, and laterally extending end wings slidably engaging the inner faces of the end walls of the case, said filler having notches opened at their upper ends at the points of juncture of the wings with the partition, and said end flaps being foldable into the case parallel with the wings and the end walls of the case and into engagement with the wings and into said notches, said flaps being disposed on the inside of said wings and forming with the end walls slideways for the wings, whereby upon upward movement of the partition filler in said case and the wings in said slideways the upper edges of said wings will engage the flaps at the points of juncture of the flaps with the case.

4. A combined bottle carrier and carton comprising, an outer case including side walls, end walls, a bottom wall structure having centrally disposed upstanding locking tongues, and a top wall structure including bendable end flaps formed on the end walls, a bottle partition filler removably associated with the case including a main body portion having a central longitudinal partition, having a handle formed on its upper end and upwardly extending notches on its lower end, laterally extending wings carried by the ends of the central partition slidably engaging the end walls, said end flaps being foldable inside the case over and into parallel relation with the wings and the end walls of the case and in engagement with said wings to form an interlocking connection between the case and main partition and to define, in conjunction with the end walls, slideways for the wings, and an auxiliary partition member including spaced transverse partition walls and a connecting bottom wall, the upper edges of the transverse walls being notched for slidably receiving the notched portion of the central partition, and said connecting bottom wall being provided with a slot for receiving the upstanding locking tongues, the central partition being adapted to abut the upstanding locking tongues when the main body portion is in its lowered position to limit the downward sliding movement thereof.

5. A combined bottle carrier and carton comprising, an outer case having side and end walls, a removable bottle partition filler fitted in said case including a central partition wall and laterally extending wings engaging the end walls, the wings and central partition having notches open at their upper ends at the points of juncture of the wings with the central partition, and said case including cover flaps defining, in conjunction with the end walls, slideways for the wings foldable inside the case parallel with the wings

and the end walls of the case and into engagement with the wings, the lower ends of the flaps being received in said notches to permit sliding movement of the filler relative to the case, said flaps having sufficient length to overlie the wings at all times, whereby to prevent disconnection of said wings and flaps.

6. A combined bottle carrier and container comprising, an outer case including side walls, end walls, and bendable end flaps formed on the end walls foldable inside said case, a removable bottle partition filler fitted in said case and movable independently of the bottles in said case, including a longitudinal partition wall and laterally extending wings, the wings having sliding engagement with the walls of the case, said filler also having upwardly opening slots formed therein at the points of juncture of the wings with the longitudinal partition wall, said bendable end flaps being insertible in said slots over and into engagement with the inner faces of the wings and parallel with said wings and the end walls of the case defining in conjunction with said end walls slideways for the wings, a carrying handle formed on the upper end of the partition wall, the edges of said partition wall being inclined downwardly and outwardly toward the upper ends of said slots, and said flaps being slightly tapered toward their outer ends and having straight bearing edges for engaging the inclined edges of the partition wall, whereby upon the bending and folding of said flaps inside said case, said straight bearing portions will engage said inclined edges of the partition wall to facilitate the guiding of said flaps in said slots.

7. A combined bottle carrier and container comprising, an outer case having side walls, end walls, and bendable end flaps, a bottle partition filler removably associated with the case, including a main body portion having a central longitudinal partition wall, and laterally extending wings formed on the ends of the partition wall, a carrying handle formed on the upper end of said partition wall, and said partition wall having upwardly extending notches on its lower end, said end flaps being foldable inside the case parallel with the wings and the end walls of the case and into engagement with said wings to form an interlocking connection between the case and main partition, side flaps forming in conjunction with the end walls slideways for the wings and an auxiliary partition member including spaced transverse partition walls and a connecting bottom wall, the upper edges of the transverse walls being notched for receiving the notched portion of the central partition wall, the connecting bottom wall of the auxiliary partition member normally resting on the bottom wall of the outer case and forming a guide for the main body portion of the filler during the raising and lowering movement thereof in the case.

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