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J. M. FALK ET AL

2,454,438

HOLDER AND CARRIER FOR BOTTLES AND THE LIKE

Filed April 30, 1945

2 Sheets-Sheet 1

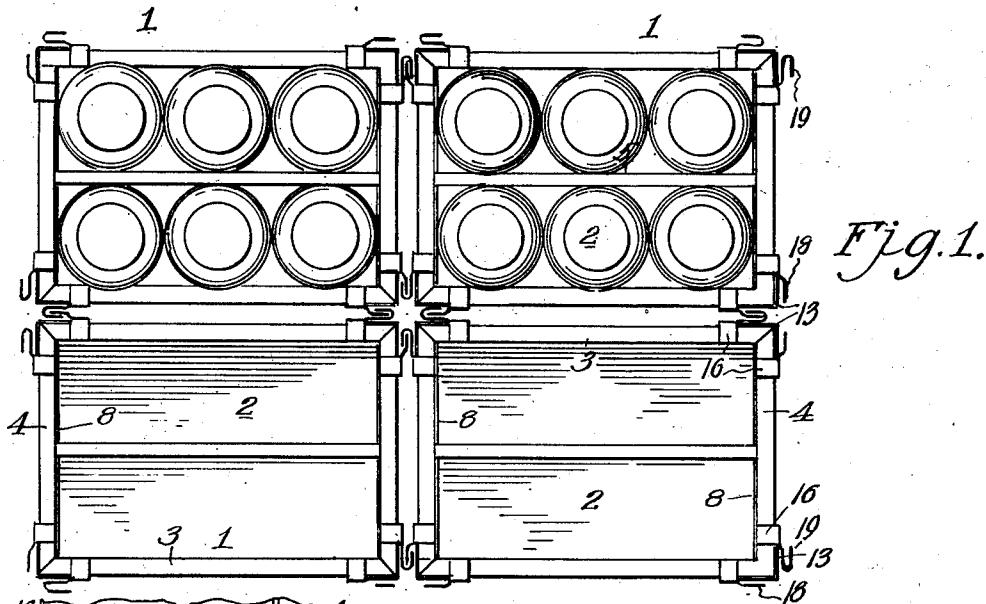


Fig. 1.

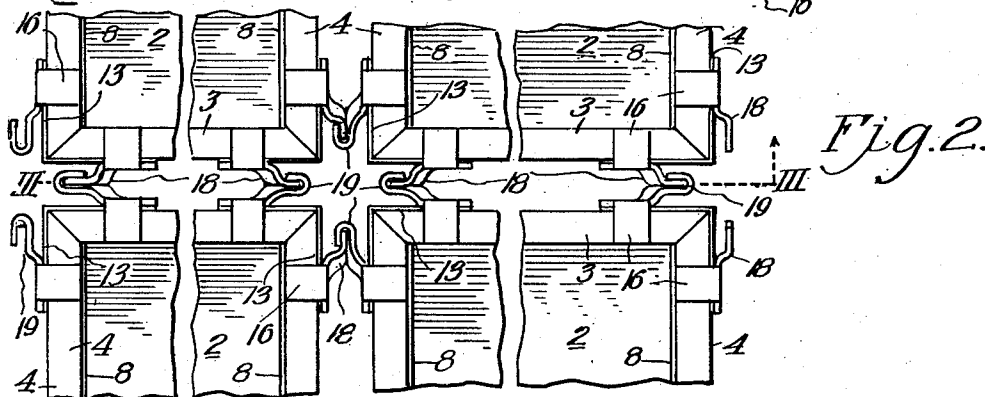


Fig. 2.

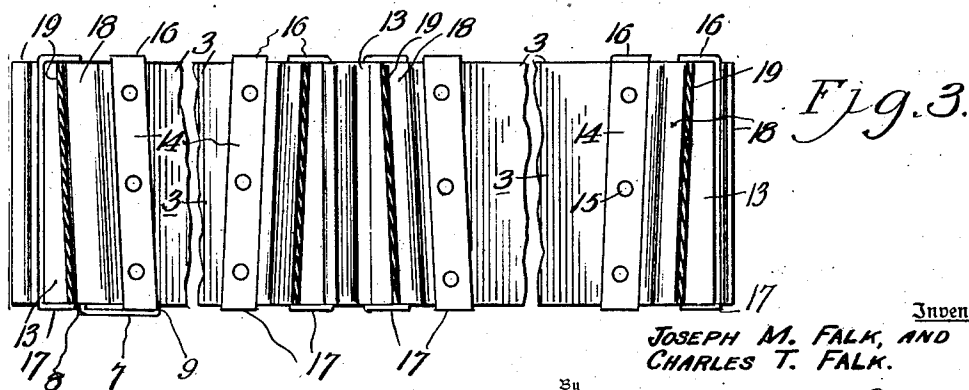


Fig. 3.

Inventor

JOSEPH M. FALK, AND
CHARLES T. FALK.

By

George J. Thorpe
Attorney

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Fig. 4.

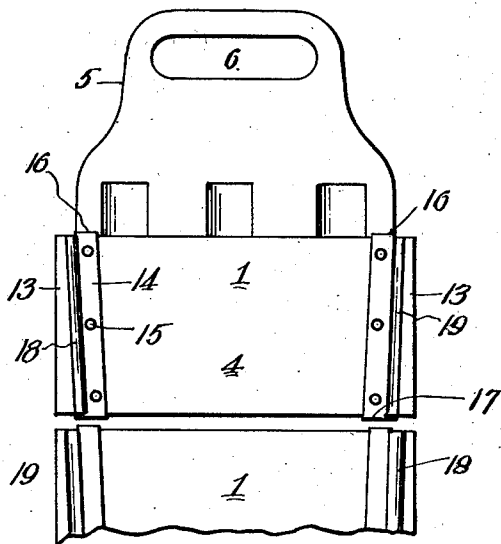


Fig. 6.

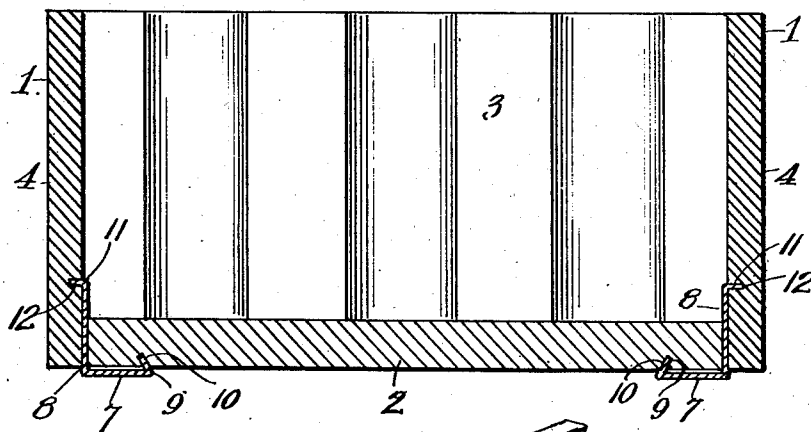
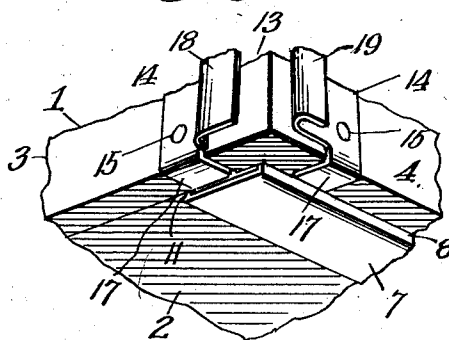


Fig. 5.

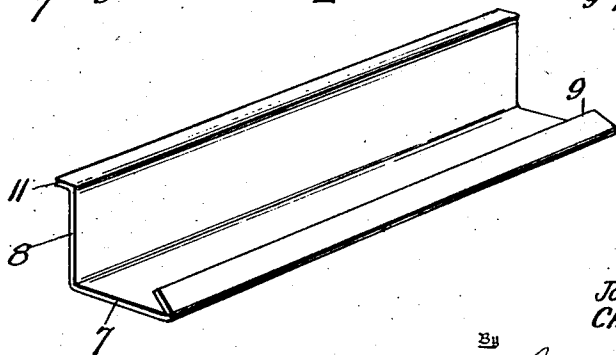


Fig. 7.

Inventor
JOSEPH M. FALK, AND
CHARLES T. FALK

By

George J. Thorpe
Attorney

UNITED STATES PATENT OFFICE

2,454,438

HOLDER AND CARRIER FOR BOTTLES
AND THE LIKEJoseph M. Falk and Charles T. Falk,
Kansas City, Mo.

Application April 30, 1945, Serial No. 591,212

1 Claim. (Cl. 217-13)

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This invention relates to box units for consumer use in holding and carrying a case of six or more bottles, or the like, and capable of being assembled in interlocked relation to form a holder or carrier for a plurality of bottles constituting a case of twenty-four, for delivery by a distributor to a retailer, or for the returning by the retailer to the distributor of the empty bottles.

One object of the invention is to provide a holder or carrier composed of several units, each capable of properly holding an even number of bottles or the like, and adapted for being assembled and so interlocked together that a person can, by grasping one of the units, support and retain the others in interlocked relation with each other and with the one in the grip of the operator.

More specifically, our object is to produce a rectangular or box-shaped unit for holding a set number of bottles, each unit having corner interlocking elements composed of upright tongues and hooks providing grooves, one tongue and one groove at the outer side of each side wall and each end wall, or a pair of tongues and a pair of grooves for opposite walls, the elements associated with the walls converging relatively downward from the top to the bottom of the unit at corresponding angles, the arrangement being such that the end and side wall elements of one unit are adapted for telescopic engagement respectively, with the elements at an end or side of an adjacent unit.

Another object is to provide a unit having an upstanding handle between and balancing the weight of an equal number of bottles at each side, for service in holding or carrying the unit, the handle being rigid and preferably of slightly less height than the bottles for convenience in stacking one unit or case upon another for conservation of space.

Another object is to produce a holder of wood, plastic or the like, having reinforced cross-angle plates at the ends of the bottom, for tying the latter to the end walls, and for upholding the bottom spaced slightly above a wet or damp underlying support and thus minimizing the chance of warping or distortion thereof.

A still further object is to produce a holder of simple, strong, durable and inexpensive construction of character to provide an incentive for the return of the units to the retailer by the consumers.

Heretofore it has been customary for a distributor of bottled goods, especially of soft drink character, to employ boxes capable of holding

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four card-board holders of six bottle capacity, to fill orders from retailers, and upon delivery removing such holders from and carrying the boxes away for recharging for further use, a custom unduly expensive in the cost of such boxes for a distributor doing a large business. Furthermore the use of paper cartoons or holders is expensive in the loss of such cartons, due to the fact that the consumers have but little incentive to return such cartons as of small value. With a holder of the character forming the subject matter of this invention, there is an incentive for their return, especially where an advance deposit relating thereto, is required when the contents is purchased.

With the objects named in view, the invention consists in certain new and useful features of construction and organization of parts as hereinafter described and claimed; and in order that it may be fully understood, reference is to be had to the accompanying drawings, in which:

Figure 1 is a plan view of four unit holders embodying the invention, arranged in proper relation to constitute a case for the reception of twenty-four bottles, only six of the latter being shown, and some of the corner connections being omitted.

Figure 2 is an enlarged plan view of fragmentary and foreshortened character, but disclosing the four adjacent corners of a set of four holders with the corner connecting elements therefor.

Figure 3 is a fragmentary foreshortened central vertical longitudinal section taken on the broken line III-III of Figure 2.

Figure 4 is a side elevation of two holders, one fragmentary, disposed at two levels preliminary to interlocking them together side by side, the handle of the lower holder being omitted.

Figure 5 is a vertical longitudinal section of a unit with the handle and corner connections omitted because clearly disclosed in Figures 2, 6 and 7.

Figure 6 is a fragmentary perspective view of the corner of a unit as viewed from the under side.

Figure 7 is a perspective view of one of the cross plates connecting the bottom and the end walls of the unit.

To avoid unnecessary duplication certain parts clearly appearing in Figures 1, 2, 3 and 6 are omitted from Figures 4 and 5.

Referring now to the drawings in detail, in which corresponding parts are identified by like reference characters, in all of the views, 1 indicates a rectangular holder or unit composed of

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a bottom 2, sides 3, ends 4 and a central partition 5, the latter having an elongated horizontal opening 6, and serving as a handle for convenience in carrying and for securing each unit in operative relation to one or more similar units or for effecting separation therefrom, and the material of which the body of the unit is made is of substantially rigid character to prevent distortion under strain or deformation from a wetting.

In the preferred construction, the bottom is reinforced and secured to the ends by angle plates consisting of horizontal arms 7 and vertical arms 8. Arms 7 have flanges 9 extending upward and outward and engaging cross grooves 10 in the underside of the bottom, and the arms 8 at their upper margins have outturned flanges 11 engaging grooves 12 in the inner sides of the ends 4. The angle straps thus serve to prevent upward movement of the ends from the bottom and horizontal separation of the ends and bottom by warpage or distortion, it being also noted the arms 7 space the bottom from any support upon which the unit is placed.

The holder or unit is provided with equipment for making connection with other similar units. Such equipment comprises vertical angle plates 13 engaging the ends and sides of the unit, vertical strips 14 fitting and spot-welded as at 15, or otherwise secured to the end and side arms of the angle plates and flanged at their upper and lower ends over the upper and lower edges of the ends and sides as at 16 and 17 respectively. The strips 14 are formed at their outer margins with either upright tongues 18 or with rebent portions or hooks 19 providing grooves opening reversely to the direction in which the tongues face. As shown each wall of a unit is equipped with a tongue and a hook, but it will be apparent that one wall may have two tongues and the opposite wall have two hooks.

All four corner plates 13 of a holder or unit are identical in form and size and therefore interchangeable. There are eight upright strips 14, four provided with tongues 18, and four with hooks 19, and the tongues face outwardly and the hooks 19 face inwardly, the arrangement being such that by sliding two units together vertically disposed in parallel relation end to end or side to side, the adjacent arms and hooks of the two units are telescoped together and thus interlocked as regards separation in a lateral direction.

To interlock the two units together as regards accidental vertical separation when supported in an upright position, the pair of tongues 18 at one end of the unit as illustrated, converge downward at corresponding angles, and the pair of hooks at the opposite ends of the same unit, converge downwardly at the same angles, a similar arrangement being followed at the opposite side walls of the unit. The distances between the upper ends of the elements of opposite side walls are equal, and the same statement applies as regards their lower ends, though by reason of the inclination of the elements, the distances between the lower ends will be wider.

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In fitting two units end to end or side to side, the tongues at one end or at one side of one unit, and the hooks 19 at the adjacent end or side of the second unit, are slid into interlocked relation, the arms entering the grooves provided by the hooks. Because of the converging relation between the tongues and the like relation between the hooks, and the spacing mentioned, the establishing of the interlocking relation between the two units is easily and quickly effected, the telescopic action ending as the two units occupy the same level. The units are readily separated by reversing the telescopic action.

From the foregoing taken in connection with the drawings, it will be apparent that we have produced a construction embodying the features of advantage set forth as the objects of the invention, and while the construction shown and described, indicates a wood body provided with metal corner plates, strips and tongues and hooks, it is to be understood that the structure may be cast or may be formed or molded of plastic material within the spirit and scope of the appended claim.

We claim:

A rectangular box having parallel vertical side walls and parallel vertical end walls, abutted together at their ends and forming right-angle corners, and a horizontal bottom fitting and secured between said side and end walls, a right-angle vertical plate externally of and secured to each corner of the box and extending from the top of the walls to the bottom of the box, a pair of upright strips secured externally to each wall adjacent the respective corners of the box and the said right-angle shaped vertical plates and having inturned flanges or arms upon the top and against the bottom of the respective walls; the strips at one end of each side and end wall having their edge portions offset outwardly to form tongues and the strips at the other end of each side and end wall having their edge portions offset outwardly and reversely bent to form hooks; the hooks and tongues at opposite sides and ends of the box being equal distances from the adjacent corners of the latter.

JOSEPH M. FALK.
CHARLES T. FALK.

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