

July 12, 1960

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2,944,713

DETACHABLE AND FOLDABLE CONTAINER CARRIER

Filed Oct. 7, 1957

2 Sheets-Sheet 1

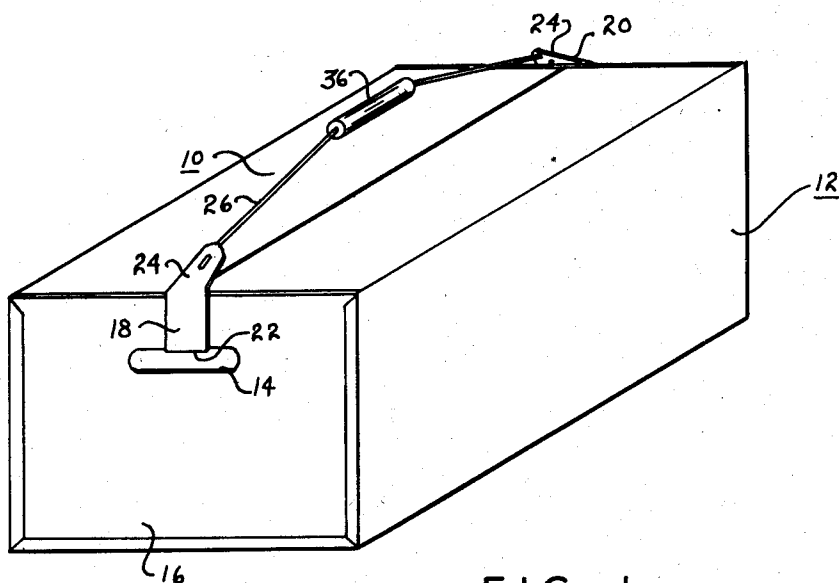


FIG. 1

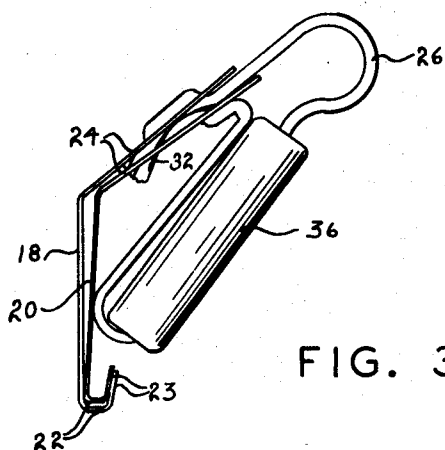


FIG. 3

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2 Sheets-Sheet 2

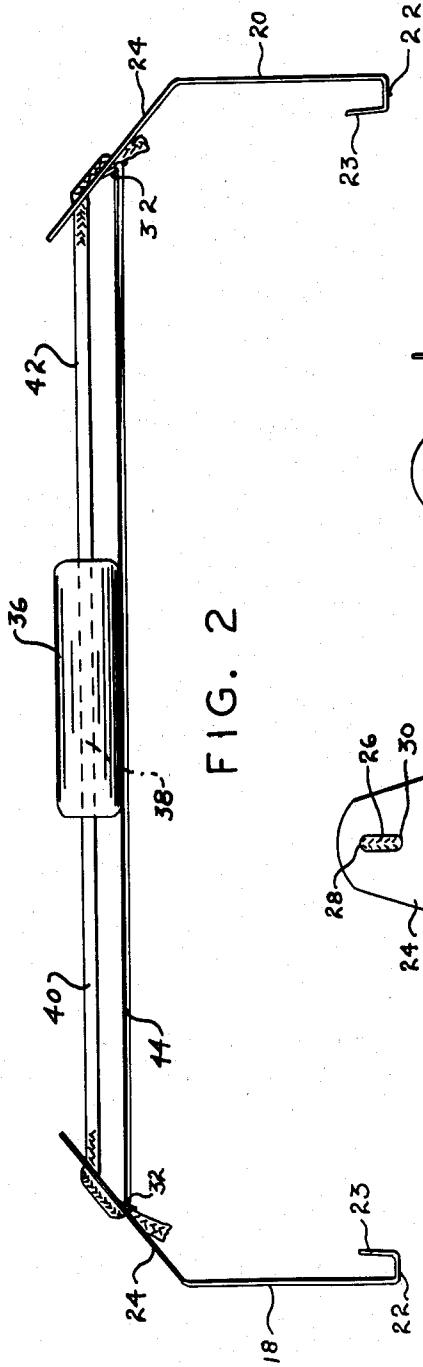


FIG. 2

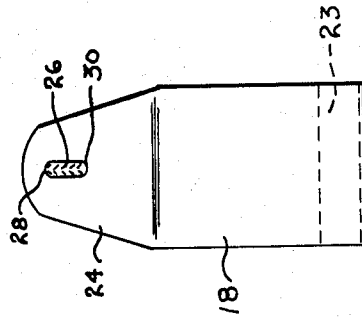


FIG. 4

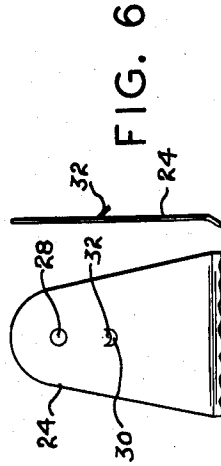


FIG. 6

FIG. 5

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DETACHABLE AND FOLDABLE CONTAINER CARRIER

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Filed Oct. 7, 1957, Ser. No. 688,634

3 Claims. (Cl. 224-45)

The present invention relates to container carrying devices, and more particularly to a detachable and foldable carrying device for beverage cases, boxes and cartons, having finger slots or handles on the ends or sides for use in lifting the container.

In loading, delivering and unloading beverage cases, boxes, cartons and the like, the delivery or service man normally uses finger slots or attached handles for lifting and carrying the containers. These are not only often inconvenient to use and require the use of both hands for each container, but the number of containers which can be conveniently lifted and carried is usually limited to a single container. Various types of detachable handles which permit lifting and carrying of a container in each hand have been employed, but these are usually inconvenient, bulky and awkward to carry on the person when not in use. It is therefore one of the principal objects of the present invention to provide a one-handed carrying device for beverage cases, boxes, crates and cartons normally carried by the use of a hand at each end, which permits the container to be easily carried with one hand and which can be readily attached to and detached from the container.

Another object of the present invention is to provide a relatively simple and compact carrying device for containers, such as beer and soft drink cases, canned goods cartons and the like, which will fit containers of various lengths and widths and which can readily be folded into a compact unit for carrying on the person, either in the coat or pants pocket or attached to the belt.

Still another object is to provide a container carrying device which can easily be fabricated with standard tools and equipment and which folds into a unit sufficiently small that it can be placed and sealed in the conventional containers for beer and soft drinks and made readily available for use when the container is opened.

A further object is to provide an easily used and relatively inexpensive carrier for a container, which is of such construction and shape that one or more areas of substantial size are available for advertising material, slogans, trademarks and names.

Additional objects and advantages will become apparent from the following description and accompanying drawings, wherein:

Figure 1 is a perspective view of a beverage case having finger slots in the end in which my container carrier has been inserted for lifting and carrying the case;

Figure 2 is a side elevational view of a slightly modified form of my container carrier shown in its extended container engaging position;

Figure 3 is another side elevational view of my container carrier shown in its folded position for inserting in the service man's coat or pants pocket;

Figure 4 is an end view of my container carrier;

Figure 5 is a fragmentary elevational view of one of the end members of the carrier; and

Figure 6 is a fragmentary side elevational view of the end member shown in Figure 5.

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Referring more specifically to the drawings, my container carrier 10 is shown mounted in lifting and carrying position on a beverage container 12, such as a beer case, having a finger slot 14 in each end panel 16 of the container. The carrier is provided with two arms 18 and 20 each having an inturned end portion 22 forming a hook 23 for slipping into the finger slots of the container and grasping the upper edge thereof when the carrier is lifted upwardly to move the container. In order to prevent the container from rocking or slipping sidewise the arms are made of flat, relatively broad material so that a substantial portion of the upper edge of the finger slots is in contact with the hook. This broad construction of the arms not only assists centering of the hooks in the finger slots but also eliminates the need for placing the hook exactly in the center of the slot to avoid sidewise tilting of the container while it is being carried. The arms are constructed of metal, preferably of relatively heavy gauge sheet metal.

The upper part 24 of each arm 18 and 20 is turned inwardly toward the center at a substantial angle and is connected with the other arm by a flexible cable, rope, chain or flexible metal band 26 secured firmly at its ends to part 24. The height of the arm between hook 23 and part 24 is preferably greater than the distance between the top of the finger slot and the top of the container. A suitable means of securing the flexible member 26 to the arms is shown in the drawings consisting of two closely spaced holes 28 and 30 vertically arranged in part 24. Hole 28 is round and the metal removed to form the hole is completely severed from material surrounding the hole, whereas hole 30 is crescent shaped and a tongue 32 of metal formed from the material partially severed from the material surrounding the hole extends downwardly beside and under the hole. The end of flexible member 26 is threaded through the holes, starting first from the under side of part 24, through hole 28, thence along the top of part 24, and then downwardly through hole 30 until a substantial tail is provided below hole 30. While the end of flexible member 26 is in this position in the holes, tongue 32 is pressed inwardly toward hole 30 until it firmly engages member 26 and grips said member with sufficient force to prevent it from slipping from the holes when the carrier is used to lift a container. By threading the flexible member 26 through the two holes, a large portion of the force tending to pull the member from the holes is applied at hole 28 rather than on tongue 32 or at hole 30, thus not only making a firm connection between the flexible member and arms 18 and 20 but also preventing concentration of forces at any single point which might cut or otherwise damage the flexible member. It is noted that the free end of the tongue points in the direction opposite from the forces applied to the flexible member tending to pull it from the holes when the container is lifted. This position of the tongue forms a distinct edge for engaging the flexible member and causes the tongue to be urged toward hole 30 to increase its gripping action on member 26 with an increase of weight on the carrier.

A handle 36 is assembled on flexible member 26 at the center to provide a convenient hand grip for the one carrying the container. This handle which may be constructed of wood, metal, rubber or plastic is provided with a longitudinal center hole 38 for receiving the flexible member and is secured in place at the center of said member by cementing the member in the hole or by grommets or lugs on the flexible member at each end of the handle. Instead of using a continuous flexible member between arms 18 and 20, two sections 40 and 42 of the member may be separate, the outer end of each section being connected to the arms in the manner described above for the continuous member and the inner end of each section being connected to the handle by

looping it through holes in the respective ends of the handle.

One of the special advantages of the present container carrier is its ability to fold into a small unit which can easily be placed in a coat or pants pocket or carried on the delivery man's belt. The manner in which the carrier is folded into this compact unit is illustrated in Figure 3. The shape of the arms is such that they nestle together or intermesh and the handle lies in or assumes a position along the curved portion of the arms with the flexible member folded, so that all of the members comprising the carrier occupy little more space than that occupied by one of the arms. Also, with the arms intermeshed they can be easily hooked over the belt and easily carried by the delivery man without any interference from protruding parts of the carrier. When the carrier is to be used it is unfolded and the hooks on each arm slipped in the finger slots of the container where they will remain firmly grasping the container as long as the container is being lifted and carried. By the use of the present carrier a container can be carried in each hand and each carrier released from the container by a one handed operation. When the container is set down and the carrier relaxed, hooks 23 will automatically disengage themselves by their own weight from the container, and the carrier can be lifted from the container with merely the use of one hand.

The present container carrying device can be folded into its compact position and placed in the container for delivery to the wholesaler or retailer where it can be removed and used or can be used by the ultimate consumer for transporting the container. Due to its simplicity the carrier can be fabricated at a low cost and distributed along with the container as an advertising medium. The relatively large flat section of each arm forms suitable surfaces for advertisement, slogans and trademarks.

As a modification of the previously described structure, a coil spring, rubber band or other type resilient member 44 is attached at each end to arms 18 and 20, preferably to part 24 of each arm, in order to hold the arms in place on a container with hooks 23 in the finger slots, when flexible cable 26 is released by the one carrying the container. The resilient connecting member 44 shown in Figure 2 consists of a rubber band attached to tongues 32 and is sufficiently strong that it will pull arms 18 and 20 against the top of the container. In its non-extended condition it is somewhat shorter than the length of the container, though it will readily stretch to permit the arms to be inserted in and removed from the finger slots of the container. This member prevents the arms from dropping down to the point where the hooks will become disengaged. It does not, however, interfere with the intentional removal of the arms from the finger slots and folding of the carrier into a compact unit for carrying.

In the dependent claims when the term slot or finger slot is used or referred to, it embraces both the slots in the ends of the container and/or the handles attached to the ends. While a few variations have been mentioned herein, various other changes and modification may be made without departing from the scope of the present invention.

I claim:

1. A detachable and foldable carrier for containers

having opposed finger slots on the opposite sides thereof for lifting the containers, comprising two arms for nesting with each other when the carrier is in folded position, each consisting of flat broad metal material and having an inwardly extending hook-like lower portion for engaging the portion of the container defining the finger slots and inwardly slanting upper portion with upper and lower longitudinally spaced holes therethrough, a tongue attached integrally to said upper portion adjacent the upper side of said lower hole and extending under said lower hole, a flexible member each end of which is threaded through said holes in one of said arms and secured therein by said tongues, and a substantially cylindrical handle with a longitudinal hole therethrough for receiving said member being secured to said member and spaced equally from said arms, said handle being shorter than said arms and said flexible member on either side of said handle being longer than the handle.

2. A detachable and foldable carrier for containers having opposed finger slots for lifting the containers, comprising two arms for nesting with each other when the carrier is in folded position, each having an inwardly extending hook-like lower portion for engaging the portion of the container defining the finger slots and inwardly extending upper portion with upper and lower longitudinally spaced holes therethrough, highly flexible resilient means connecting said arms, a tongue attached integrally to said upper portion adjacent the upper side of said lower hole and extending under said lower hole, a flexible foldable member each end of which is threaded through said holes in one of said arms and gripped by said tongues, and a handle on said flexible member secured to said member at the center thereof, said handle being shorter than said arms and said flexible member on either side of said handle being longer than the handle.

3. A detachable and foldable carrier for containers having opposed finger slots on the opposite sides thereof for lifting the containers, comprising two arms for nesting with each other when the carrier is in folded position, each consisting of flat broad metal material and having an inwardly extending hook-like lower portion for engaging the portion of the container defining the finger slots and inwardly slanting upper portion with upper and lower longitudinally spaced holes therethrough, a tongue attached integrally to said upper portion adjacent the upper side of said lower hole and extending under said lower hole, a foldable rubber band attached to and connecting the upper portion of said arms and being shorter in length than the container to be carried, a flexible foldable member each end of which is threaded through said holes in one of said arms and secured therein by said tongues, and a substantially cylindrical handle with a longitudinal hole therethrough for receiving said member being secured to said member and spaced equally from said arms.

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