May 14, 1940. O. Y. WARREN 2,200,813

CONTAINER

Filed April 15, 1937

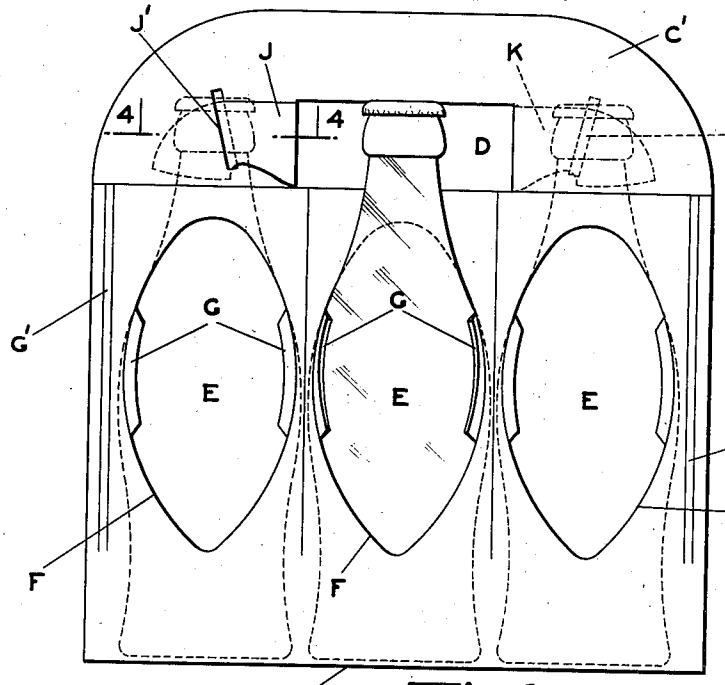


Fig. 1.

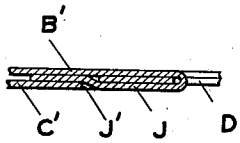


Fig. 4.

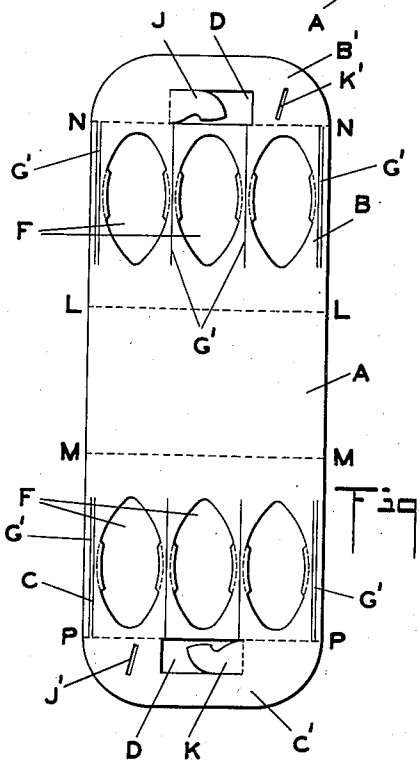


Fig. 3.

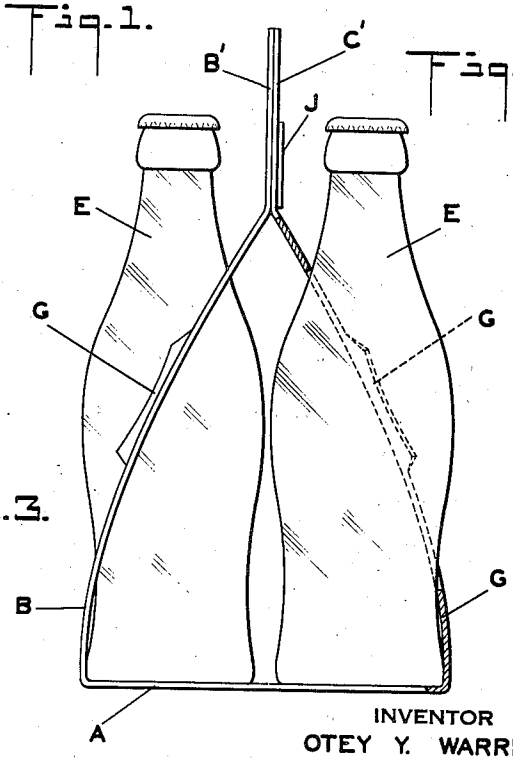


Fig. 2.

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CONTAINER

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2 Claims. (Cl. 224—45)

This invention relates to containers and has more particular reference to bottle carriers for conveniently carrying a plurality of bottles.

The object of the invention is to provide a more generally simplified and efficient carrier which exposes the major portion of the bottle and more particularly its identifying matter to view.

Comprehensively stated, the invention is directed to a carrier adapted to receive a plurality of bottles, the carrier comprising a pair of converging side walls with bottle receiving openings formed in the converging walls adapted to hold the bottles securely in place while exposing them to view.

More specifically stated, the invention comprises a structure including a base to afford a footing for a plurality of bottles arranged in groups with converging side walls rising from the opposite edges of the bottom, the plane of the walls intersecting the bottles and having bottle receiving openings preferably with auxiliary bottle engaging flaps normally projecting into the openings and adapted to be pressed outwardly to afford an additional grip on the bottles, the converging walls terminating at their upper ends in upstanding handhold flaps with locking means to lock the terminal flaps together and maintain the shape of the structure.

In the drawing accompanying this specification several embodiments of the invention are illustrated although it is to be understood that such embodiments are merely for the purpose of affording a clear understanding of the underlying principles of the invention so that those skilled in the art may readily understand it without, however, limiting the invention to the specific details shown therein.

In said drawing:

Fig. 1 is a side elevation of the invention.

Fig. 2 is an end elevation partly in section.

Fig. 3 is a plane view of the blank, and

Fig. 4 is a section on the line 4—4 of Fig. 1.

Continuing now by way of a more detailed description and referring more particularly to the assembled container as shown in Figs. 1 and 2, a base A has upstanding converging side walls B and C preferably rising from its opposite edges and terminating at their upper end in vertically disposed juxtaposed flaps B′ and C′, the latter having registering openings D to afford a handhold for the carrier. The carrier as illustrated supports a plurality of bottles arranged in groups although the invention is not restricted to the particular number or arrangement of the bottles shown. The planes of the converging side walls B and C intersect the positioned bottles E and have bottle receiving openings F conforming in shape substantially to the intersected bottle sections so as to restrict movement of each bottle in all directions. The openings F are in practice slightly larger than the bottle section and in order to ensure a tight grip on the bottle while providing a slight tolerance, a plurality of auxiliary flaps G are formed with the side walls B and C and normally project into the bottle opening from the opposite sides thereof, the flaps being pushed forward when the bottle is inserted from the back. These flaps are preferably arcuate in form and comparatively narrow in width as shown, although the invention is not limited to any particular size or shape, the principal objective being not to obstruct the body portion of the bottle on which conventionally the identifying marks of the product are placed. The flaps G, being formed with and normally retaining the flexibility of the material of the container, grip the sides of the bottle while the front and back of the bottles are stopped by the top and bottom of the openings when the side walls are straightened as will be more fully explained hereinafter. If the stock used for the device is not inherently flexible enough to permit free insertion of the bottle, the junction of the flap with the side wall may be scored as will be readily understood and in order to stiffen the material, the side walls may be scored between the openings as at G′. Vertical upstanding flaps B′ and C′ rise from the upper edges of the side walls B and C and are locked together by latch members J and K formed with the upstanding flaps B′ and C′ respectively. When the flaps B′ and C′ are placed face to face with openings D in registry, the free end of the latch members J and K are free to swing around a vertical axis through the handhold openings D, so that the ends may be inserted in their respective keeper openings J′ and K′, the latch member overlapping the edge of the adjacent opening D so as to afford a secure lock, thereby maintaining the upstanding flaps B′ and C′ and the walls B and C in proper position. It will be noted that the height of the latch members J and K is substantially equal to the height of opening D so that when the former are pulled through the opening and latched in place, the top and bottom of the latch member is in frictional contact against the top and lower edge of the opening D, thereby securing the parts against relative movement. The foregoing assembled structure is quickly and conveniently formed

from a single blank as shown in Fig. 3 by punching or otherwise shaping the blank and openings therein.

While the illustrated embodiment of the invention shows the openings E as being vertically positioned and located at substantially the same elevation, and while this arrangement is extremely satisfactory when used with bottles of the type shown in the drawing, nevertheless, when the straight side bottle is used, it has been found desirable to arrange the end openings at a slightly lower level than the center opening, and to tilt the openings so that their longitudinal axes converge toward each other and intersect above the device. The purpose of the eccentrically disposed end openings is to create an additional wedging of the bottle when the bottle is inserted in the opening and brought to a vertical position as will be readily understood.

By reason of the comparatively large openings E, the bottles may be inserted expeditiously, the lower end of the bottles being stopped against the lower end of the openings F. When the tops of the side walls are drawn together and locked in position, the side walls are slightly arced as shown in Fig. 2. When the carrier with its bottles in place is suspended by grasping the handhold opening D, the side walls B and C tend to straighten out so as to also bring the upper end of the opening E into engagement with the neck of the bottle thereby affording a stop against movement of the top of the bottle. The sides of the bottle are also frictionally gripped by being wedged into the opening F and are thereby held positively in position.

In assembling the structure shown in Figs. 1 and 2 from the blank shown in Fig. 3, the blank is preferably bent along the scored lines L—L and M—M to form the base and the upstanding converging walls B and C. The bottles are preferably placed in the openings F before the upstanding flaps B′ and C′ are locked together. When the carrier is loaded the handhold flaps B′ and C′ are brought together thereby drawing the sides across the bottle and slightly arcing the side walls as heretofore explained. When the carrier is lifted by the handhold, the sides tend to straighten and wedge the bottle in the opening.

It is claimed:

1. A portable carrier for bottles which are bulged below the tops thereof, consisting of a strip of sheet material foldable transversely thereof into a plurality of sections, comprising a bottom on which bottles may be supported in upright position, and two walls which project upward from opposite sides of the bottom in the closed state of the carrier, one of said walls being hinged at the lower edge line for swinging across the bottle supporting area of the bottom to move the upper end of such wall to and from the upper end of the opposite wall, in closing and opening the carrier; said hinged wall, from said lower hinge line thereof to its point of contact with the opposite wall being of length sufficient to reach across the bottle shoulders when the carrier is closed and comprising a part, commencing below the bottle bulge, which part, when the carrier is closed, is a continuous, transversely-uncreased resilient reach of sheet material, curved arcuately, and having in said arcuately curved part thereof one or more openings therein into and through which, when the carrier is open and said walls spread apart, the upper ends of bottles may be inserted from the interior of the carrier and brought to seat against the edges of the openings at the inside face of the wall; the size, shape and location of the openings being such that when the bottles are so seated in the openings and are properly uprighted on the carrier bottom, said continuous resilient reach of wall is flexed by the bottles into arcuate form across the bottles and by its tendency to straighten out exerts a spring grip on the bottles.

2. A portable carrier for bottles which are bulged below the tops thereof, comprising a bottom serving as a base support for bottles set upright within the carrier, and two walls which when the carrier is closed project upward at opposite sides of the carrier for confinement therebetween of bottles seated on the bottom, one of said walls being hinged at its lower end to one edge of the carrier bottom for swing thereof to permit its upper end to be moved to and from the other wall to close and open the carrier, and having therein an opening into and through which when the carrier is open and the walls spread apart the neck and a limited part of the bulge of a bottle may be inserted from the interior of the carrier; the hinged wall being an unbroken reach of flexible material having a lower part below the opening which, when the carrier is loaded and closed, is a front guard for the lower part of the bottle, the upper part of said hinged wall being arcuately flexed upward and rearward over and across the bottle bulge below the bottle top to a point of engagement with the other wall, and means for holding together the free ends of the walls and for providing a hand grip from which the bottle load on the bottom may be suspended by said walls, whereby when the loaded carrier is lifted by the hand grip the load falling on the arcuate wall tends to straighten and rock the same over the bottle bulge to lock the bottle to the bottom.

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