July 16, 1946. J. N. ICE 2,404,133

BOTTLE CARRIER

Filed March 23, 1945

Fig. 1.

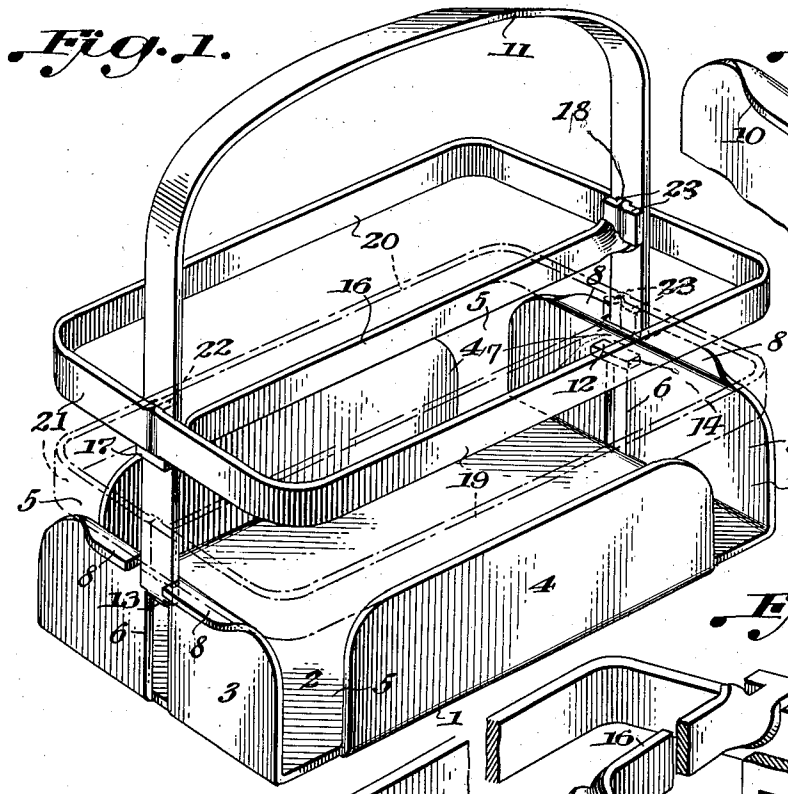


Fig. 4.

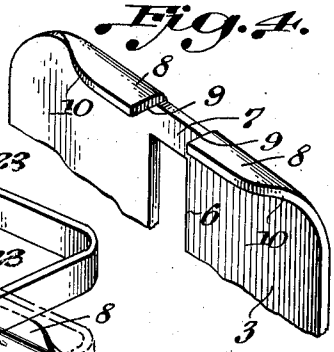


Fig. 3.

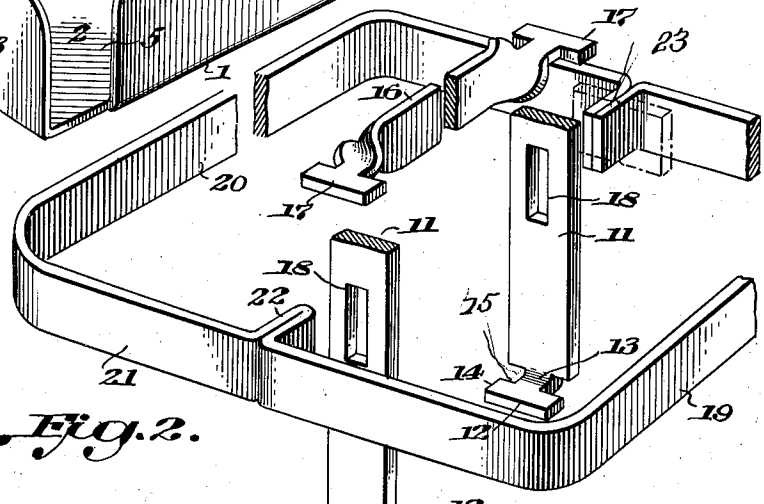


Fig. 2.

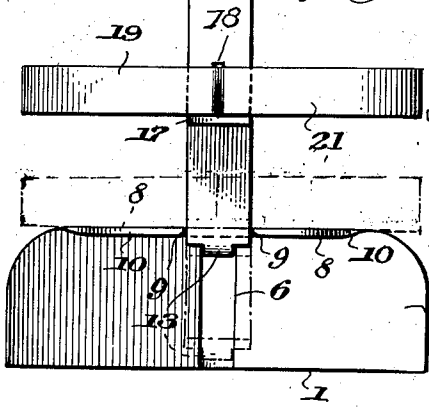
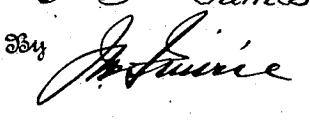


Fig. 5.



Fig. 6.



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Patented July 16, 1946 2,404,133

UNITED STATES PATENT OFFICE

2,404,133

BOTTLE CARRIER

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Application March 23, 1945, Serial No. 584,438

9 Claims. (Cl. 224—48)

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This invention is directed to an improvement in bottle carriers and is directed more particularly to a carrier in which a predetermined number of bottles may be accurately supported in mutual contact with the carrier and with each other to prevent their independent movement.

Carriers of this type have been heretofore provided but usually constructed of cardboard or like material and having their primary service in enabling a customer buying a number of bottles to receive such a container for conveniently carrying the bottles as a unit. Such carriers however, have proved of little real value as they are easily broken or damaged, cannot be housed in a refrigerator with any certainty of their remaining intact, and ordinarily are of value only in transporting a selected number of bottles from the store by the purchaser, and are neither designed nor contemplated for continued reuse.

The primary object of the present invention is the provision of a carrier of this type designed primarily for a definite number of bottles, say six, constructed wholly of metal to provide for continuous and indefinite reuse, involving but three parts conveniently and easily constructed for interlocking cooperation when in use or disassemblage when not desired for use to permit arrangement in a compact package; to effectively and properly support the contained bottles in a refrigerator or the like and to provide a handle which in operative use of the carrier projects above the tops of the bottles for convenient portage, with the handle movable to avoid projection above or beyond the bottles when in a refrigerator or the like to reduce carrier occupied space.

The invention is illustrated in the accompanying drawing in which:

Figure 1 is a perspective view of the carrier;

Figure 2 is an end view showing the handle elevated;

Figure 3 is a perspective view of the handle and its braces detached;

Figure 4 is a detail perspective view of one end of the carrier; and

Figures 5 and 6 are views of the handle brace.

The improved carrier comprises a body 1 preferably of metal and made up of a gauge to provide requisite rigidity. The body comprises a solid bottom 2, end walls 3 of the full width of the bottom, and side walls 4 of less length than that of the bottom with the ends of the side walls spaced from the end walls to provide openings 5 for convenient cleaning of the interior of the carrier and provide for the convenient discharge

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of any accumulated refuse or the like within the carrier.

Each end wall is centrally provided with a slot 6 leading from the bottom 2 at the lower end and terminating short of the upper edge of the end wall to provide transverse bars 7 bridging each slot at the upper end. The upper edges of the end walls 3 of the body are formed with spaced lips 8 preferably integral projections of the end walls, which lips are turned outwardly relative to the interior of the carrier and present relatively inner or adjacent square edges 9, with the spacing between such edges 9 slightly in excess of the width of the slot. The lips 8 are arranged one on each side of each slot 6 and the outer edges 10 of the lips slope gradually inwardly from the outer ends of the edges 9 into mergence with the upper edge proper of the end walls 3.

The parts so far described constitute what may be termed an integral body portion of the carrier as none of the parts referred to are relatively movable and obviously, may be readily and conveniently formed by conventional metal operation, as for example, by stamping.

The second separable part of the carrier is the handle portion 11 comprising a substantially semi-circular length of metal, preferably, but not necessarily, of spring metal, the body engaging ends of which are formed with teeth-formed locking lugs 12, the neck 13 of which is bent at right angles to the adjacent length of the handle with the T-head 14 disposed inwardly of the handle and presenting with the neck abrupt shoulders 15, all as more particularly shown in Figure 3. The neck 13 of the locking head is of slightly less width than that of the slots 6 while the head 14 is of greater width than that of the slots.

The handle is applied to the body by holding the handle substantially in parallelism with the body with the locking ends of the handle disposed below the lips 8. In this position the locking head 14 is in parallel relation to the wall slots 6 and the heads 14 may be readily passed through the slots to arrange the neck 13 between the walls of the slots. The handle is then turned vertically of the body, that is, to an operative position above the body and as the ends of the handle ride over the portions 10 of one or the other of the lips 8, the ends of the handle are slightly deflected outwardly without separating the locking head from the end wall and the movement of the handle is continued until the side edges of the handle proper ride between the shoulders 9 formed by the lips. As thus applied, the handle is locked against swinging movement relative to the body by the

shoulders 9 and held against separation from the body in any other direction by cooperation of the locking lugs 12 with the inner surface of the end walls. This position of the handle is probably best illustrated in Figure 1.

To prevent relative lateral movement of the handle ends with respect to the body when the handle is in operative position, a brace bar 16 having terminal locking ends 17 corresponding to the locking means 12 of the handle is arranged between the opposite ends of the handle in parallelism with the body by passing the locking means appropriately through slots 18 in the handle ends. In order to avoid the brace bar taking up unnecessary space between the bottles that length of the brace substantially between the handle parts is twisted so that the brace 16 is finally disposed on edge when in operative position. This result is obtained by forming the locking ends of the brace and then giving the brace a half turn immediately adjacent the locking ends as illustrated in Figure 1. The brace 16 is applied by arranging its locking means in the plane of the slots 18 to prevent entrance of such locking means through the slots when the brace 16 is turned with its width in parallelism with the bottom of the body or transverse the handle ends to provide an effective brace.

In order to effectively brace the parts and maintain them in substantially rigid relation when such parts are in operative positions, a tie member 19 is provided comprising a relatively narrow strip shaped to present sides 20 and ends 21 which are in vertical alignment with the upper edges of the end and side walls 2 and 4 of the body when in position. This strip is bent intermediate its ends to form an inwardly projection 22 by appropriately bending the material while the ends of the strip diametrically opposite the projection 22 terminate in inwardly extending lips 23. The tie member 19 is applied after the application of the bracing strip 16 by passing the projection 22 through the slot 18 in one section of the handle immediately overlying and bearing upon the locking member 17 the brace bar 16. The lips 22 and 23 are passed inwardly through the slot 18 in the opposite section of the handle 11 and the inner ends of the lips are spread apart and flattened to secure the tie member in position.

It will be noted that the vertical lengths of the slot 18 are such as to substantially fit in and fill the slots above the locking member 17 of the brace 16 thereby fixing the brace against movement and obviously tieing the handle parts in more rigid relation.

The carrier as a whole is here shown as designed to receive six bottles which through their mutual contact with each other and with the side and end walls of the body are sufficiently braced to prevent any relative movement tending to slippage or breakage. The length of the handle is such that the rounded upper portion will, when the carrier parts are in operative position, project sufficiently above the bottles in the carrier as to provide a convenient hand hold for handling the carrier and its contents. In this connection, it will be noted that the carrier is in line with the medium longitudinal plant of the body to balance the load and provide for convenient handling.

The tie member 19 acts to effectively insure the rigidity and freedom from relative movement of the parts, it being understood that the tie member also serves as a guard of the upper ends of the bottles in the carrier to prevent any possibility of their lateral displacement even under tipping of the carrier.

The carrier as a whole is designed to form a convenient package of a plurality of bottles which may be readily transported from place to place or, for example, stored in a refrigerator for the cooling of the bottles' contents when such bottles are not in immediate use. As stated, the handle in its carrying capacity projects in part above the upper end of the bottles and thus when in a refrigerator or the like would occupy space beyond that actually necessary for the cooling of the bottles.

In order to overcome this objection the handle is readily and conveniently moved longitudinally of the end walls in the slots 6 until the locking heads 12 are in contact with the bottom 2 of the carrier. In this movement the brace 16 passes between the upper ends of the bottles and terminates adjacent and preferably between the ends 9 of the projections 8 so that the tie member 19 will rest more or less squarely upon the upper edges of the end walls 3 and side walls 4 of the body as shown in Figure 1. The carrier as a whole is preferably constructed of metal or other appropriate material which will facilitate continued reuse of the carrier and will not be affected in any way by the storage of the carrier and contained bottles in a refrigerating container. But three parts are employed in the carrier and it is understood that the sides and end walls of the body are merely of sufficient height to maintain stability of the bottles when in the carrier which, while insuring that the bottles may be safely carried in the carrier also facilitate the withdrawal or removal of any bottle from the carrier.

What is claimed as new is:

1. A bottle carrier comprising a body, a separable handle for the body, means for assembling the handle and body and simultaneously locking the handle and body to prevent other than relative sliding movement of the handle while in one vertical plane relative to the body, said means providing for unlocking the handle and permitting free separation of the handle from the body when the handle is in parallel relation to the body.

2. A bottle carrier comprising a body including a bottom, side and end walls, the end walls being formed with slots normal to the bottom, and a handle of rounded length having its ends formed with interlocking heads capable of being passed through the slots when the handle is in a position substantially parallel to the body, the locking heads being of a length to prevent separating movement of the handle and body when the handle is normal to the bottom of the body, and means on the body to prevent other than an interlocking relation of the slots and heads except in a predetermined positon of the handle relative to the bottom of the body.

3. A construction as defined in claim 2 wherein lips are formed on the body on opposite sides of each of said slots to receive and hold the handle against movement relative to the body other than in a plane normal to the body.

4. A construction as defined in claim 2 wherein the ends of the body are formed with outstanding lips extending outwardly from the body and defining the margin of each wall of a slot to receive the handle between them and prevent swinging movement of the handle relative to the body when the handle is in a position normal to the bottom of the body, the lips being of a thick-

ness to permit the handle to be moved beneath them to free the handle for swinging into a plane parallel to the bottom of the body for release of the handle.

5. A bottle carrier including a body integrally constructed of metal and including a bottom, end walls rising from the bottom and of the full length of the width of the bottom and side walls rising from the bottom and having a length less than the length of the bottom, a handle having ends overlying the outer surfaces of the end walls and bridging slots in said end walls, each such handle end having a neck extending through its underlying slot and a head at the end of the neck to bridge the slot on the inner side of the end wall when the handle is in operative position, the handle in an inoperative position at right angles to its operative position, turning the heads to permit their free movement through the slots in the end walls to free the handle, and means projecting from the upper edges of the end walls to provide shoulders on opposite sides of and wholly free of any connection with the handle to prevent swinging movement of the handle relative to the body when the handle is in operative position, said means permitting swinging movement of the handle to an inoperative position under limited movement of the handle ends relatively outward from the end walls.

6. A bottle carrier including a body having a bottom, end walls of the full width of the bottom and side walls of less length than the length of the bottom, the end walls being formed with slots extending at right angles to the bottom and terminating near the upper and lower edges of the end walls, the upper edges of the end walls being formed with outstanding lips having curved outer margins and inner abrupt shoulders on the respective sides of the slots, a curved handle having the ends formed with a narrowed neck bent intermediate its ends at right angles and having a width substantially that of the slots in the end walls of the body and a head at the end of the neck having a dimension transverse the neck, exceeding the widths of the slots in the end walls, the handle member being inserted in the slots by

arranging such handle in substantial parallelism with the bottom of the body and with the heads at the ends of the handle in parallelism with the walls of the slots, inserting the heads through the slots and turning the handle up at right angles to the bottom of the body, the handle in such movement riding over the curved edges of the lips and into a position between the shoulders formed by said lips, whereby to lock the handle by the head bridging the slots and the handle portion adjacent the head held between the shoulders of the lips, and a reinforcing bar removably engaging the opposed portions of the handle at such distance above the upper edges of the end walls of the body as to permit the handle to move freely lengthwise the slots without permitting any disconnection of the means for holding the handle in predetermined relation to the end walls of the body.

7. A bottle carrier comprising a body, a separable handle for the body, means for assembling the handle and body for simultaneously locking the handle and body to prevent other than relative sliding movement of the handle in one vertical plane relative to the body, a brace member removably interlockably interfitting in slots formed in the middle portions, and a tie member engaging the slots receiving the brace member and overlying and fixing the brace member in position, the tie member presenting an outlying shape corresponding to that of the body.

8. A construction as defined in claim 7 wherein the handle portions are formed with slots to provide for the connection of the brace member and wherein the tie member is connected in said slots above the connections of the brace member.

9. A construction as defined in claim 7 wherein the handle above its connection to the body is formed with slots to permit the connection of the brace member, and wherein the tie member is formed with an integral projection to seat in one of said slots and at the opposite end with lips to be passed through the other of said slots and upset inwardly of the handle member to secure the tie member in position.

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