May 9, 1944. G. S. BESKIN 2,348,187

BOTTLE CARRIER

Filed May 29, 1941 2 Sheets-Sheet 1

Fig. 1.

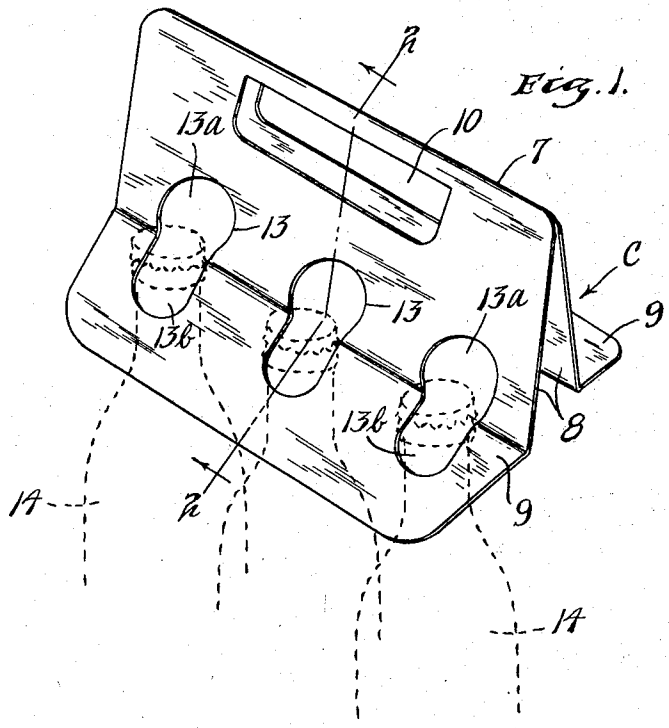


Fig. 2.

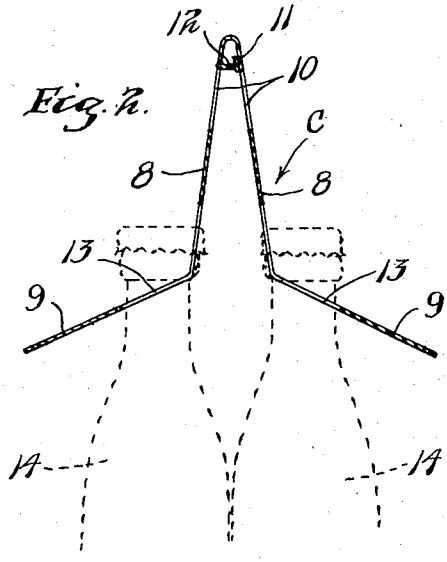
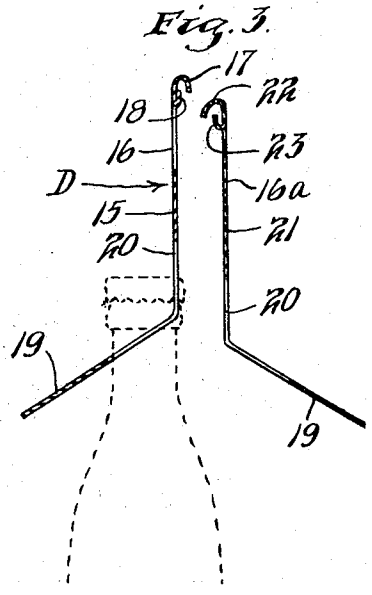


Fig. 3.



INVENTOR.
GERALD S. BESKIN.
BY HIS ATTORNEYS.
Williamson & Williamson

May 9, 1944. G. S. BESKIN 2,348,187

BOTTLE CARRIER

Filed May 29, 1941 2 Sheets-Sheet 2

Fig. 4.

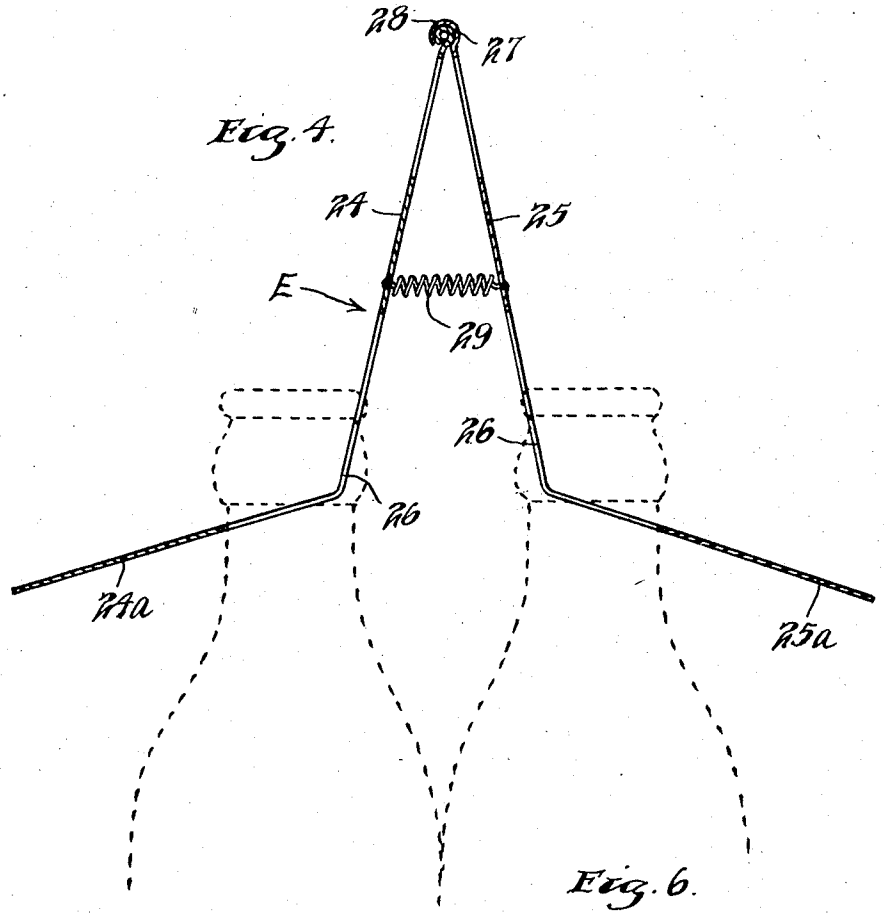


Fig. 5.

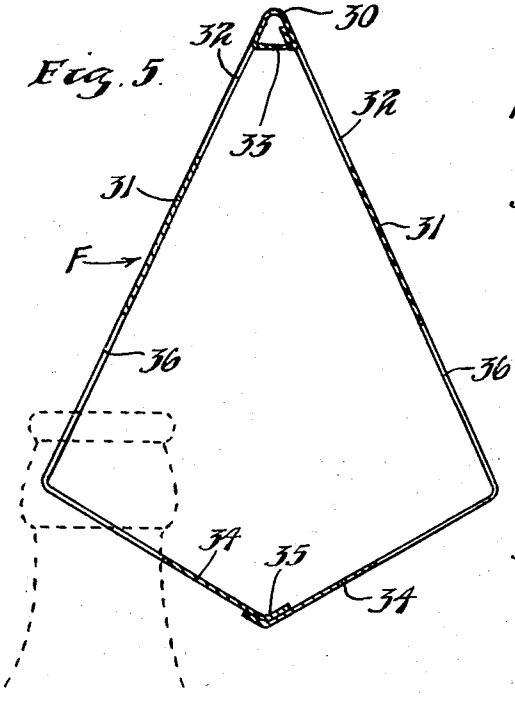
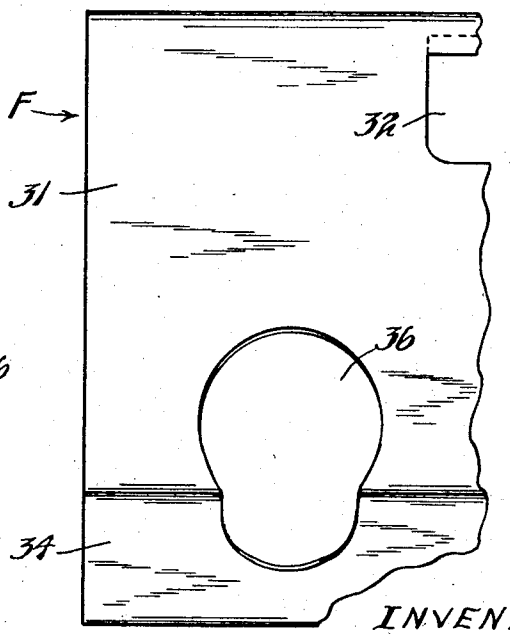


Fig. 6.



INVENTOR.
GERALD S. BESKIN.
BY HIS ATTORNEYS.
Williamson & Williamson

Patented May 9, 1944 2,348,187

UNITED STATES PATENT OFFICE

2,348,187

BOTTLE CARRIER

Gerald S. Beskin, Minneapolis, Minn., assignor of one-half to Frank O. Kuehn, Sr., St. Paul, Minn.

Application May 29, 1941, Serial No. 395,805

4 Claims. (Cl. 294—87)

This invention relates to article handling devices and more particularly to devices for carrying bottled goods such as carbonated beverages.

It is an object of my invention to provide a bottle carrier which is adapted to receive a plurality of bottles suspended at their upper ends in such a way that the bottles are safely held by the carrier and wherein they can be quickly secured to or removed from said carrier.

Another object of the invention is to provide a carrier formed of sheet material which is relatively stiff and which is provided with an improved type of bottle receiving opening for detachably securing the bottles thereto.

A further object of the invention is to provide a bottle carrier which can be conveniently used to be attached to a plurality of bottles positioned in a case for said bottles.

Still another object of the invention is to provide a bottle carrier made up of a pair of sections wherein the bottles in one section are kept in engagement with the bottles in the other section and wherein such engagement safely retains all the bottles in the carrier against accidental displacement.

Still another object of the invention is to provide a bottle carrier which is adapted to hold a plurality of bottles and which can be separated into parts to permit use of a portion of the carrier for transporting a smaller number of bottles.

Still a further object of the invention is to provide a bottle carrier made up of a sheet material, the sheet including a substantially vertical upper portion and an obliquely angular lower portion with bottle receiving openings in the sheet adjacent the point where the upper and lower portions meet and wherein a portion of each bottle receiving opening lies in the obliquely angular lower portion to resist accidental displacement of a bottle therefrom.

These and other objects and advantages of the invention will more fully appear from the following description made in connection with the accompanying drawings, wherein like reference characters refer to the same parts throughout the views, and, in which:

Fig. 1 is a perspective view of a form of bottle carrier with portions of bottles shown in dotted lines.

Fig. 2 is a section taken approximately on the line 2—2 of Fig. 1;

Fig. 3 is a transverse vertical section through another type of carrier;

Fig. 4 is a transverse section through another form of the invention;

Fig. 5 is a transverse sectional view through another embodiment; and

Fig. 6 is a fragmentary detail of the structure shown in Fig. 5.

In Figs. 1 and 2 there is shown a carrier C made up of a single sheet of relatively thin strong metal which is folded at 7. The bent sheet or holder C includes a pair of upstanding downwardly divergent panel sections 8 and extending downwardly and outwardly from each of the divergent sections 8 are lower sections 9 which diverge to a considerably greater degree. The upper sections 8 are provided with cut-outs 10 and a portion of the right-hand upper section, as viewed in Fig. 2, is folded upon itself as at 11. The left-hand upper section 8 has a portion thereof at the upper side of its opening 10 extended inwardly substantially horizontally to form a bridge 12. This bridge provides a relatively blunt handle portion so that when the carrier is held in the fingers the thin metal will not be uncomfortable to the user.

In each of the side sections 8, 9 is formed a plurality of openings 13 made up of an enlarged upper portion 13*a* and a smaller lower portion 13*b*. The upper portion 13*a* of the opening 13 is shown rounded but it may be of other shapes if desired. The smaller lower portion of each opening is preferably elongated with parallel sides. It should also be noted that the narrower width of the lower portion of the opening 13*b* is extended partially into the lower portion of the upper section 8.

The bottles 14 are inserted in the carrier C by first moving them upwardly beneath the carrier adjacent the center thereof and passing the enlarged upper end of the bottle neck through the enlarged portion 13*a* of the opening 13. The bottle neck is then moved outwardly with the neck in the smaller lower portion 13*b* of said opening 13 which is of such width that it will retain the bottle against movement through said smaller portion 13*b*. The downward and outward slant of the lower sheet section 9 and because of the natural gravitational pull causes the bottle to remain lodged in the smaller portion of the opening 13.

It should be understood that when a series of bottles is positioned in the carrier C the natural resilience of said carrier will tend to pull the two groups of bottles toward each other so that bottles in opposite portions of the two halves of the carrier will remain in contact and further tend to keep the bottle necks in the reduced opening portions 13*b*. Furthermore, the fact

that the smaller portions 13b of the openings 13 extend to the more nearly vertical sections 8 of the carrier prevents dislodgment of the enlarged portions of the bottle necks from said openings.

The carrier C can be loaded with bottles directly from a case. When bottles are in a case they are, of course, separated to some extent and not in contact as shown in Fig. 2. In order to load the carrier it is spread slightly and the tops of the bottle necks positioned in the openings 13 by a slight manipulation of the carrier. Then the carrier is lifted to remove the bottles from the case. Due to the slanting sheet sections 9 bottles can be picked up from a case by pressing the carrier down upon the tops of six bottles (that being the number of bottle receiving apertures shown) and downward pressure will cause the carrier to spread slightly and the bottles will slip into the openings 13a. Then as the carrier is lifted it will contract to its normal position causing the bottle necks to slip into the locking slots 13b. Of course, the carrier can also be made rigid if desired.

Fig. 3 shows a modification of the structure shown in Figs. 1 and 2. It shows a carrier D having a substantially vertical sheet metal section 15 with a finger opening 16 formed therein. The upper edge of the section 15 is bent over as at 17. A portion of the section 15 along the upper edge of the opening 16 is bent upon itself as at 18 to eliminate the sharp edge of the metal where it rests upon the fingers of the person using the carrier. The sheet 15 has a downwardly and outwardly slanting section 19 associated therewith and the two sheet sections have a series of openings 20 which are arranged and shaped as the openings 13 shown in Figs. 1 and 2. The carrier D has a cooperating sheet 21 provided therewith whose medial and lower portions are shaped similarly to the sheet sections 15 and 19. The upper edge of the sheet 21 is bent over as at 22 and along the upper edge of the cooperating finger opening 16a is a bent longitudinal tongue 23. The bent upper edge 22 is adapted to slidably fit over the bent upper edge 17 of the sheet section 15, and the upwardly turned portion 23 slidably fits beneath the overturned edge 17. Thus the two separable elements can be connected to provide a carrier of different capacities.

It should be noted that this form of the carrier can be used to load bottles therein from a case of bottles by pressing the carrier down upon two parallel rows of bottles in the case and the outwardly flared bottom portions of the two carrier sections will spread so that the openings in the sections will receive the upper ends of the bottles. Then when the carrier is raised the two sections will come together slightly to properly seat the bottle necks in the more restricted portions of the openings 20.

In Fig. 4 there is shown a carrier E made up of a pair of sections 24 and 25 each of which has outwardly and downwardly extending portions 24a and 25a and each of which is provided with a series of openings 26 corresponding to the openings 13 in Figs. 1 and 2. The section 24 is rolled upon itself as at 27 along its upper edge and the upper edge of section 25 is partially rolled about the roll 27 as shown at 28. This provides a hinged connection between the sections 24 and 25. A tension spring 29 is connected between the two sections 24 and 25 to urge them toward each other.

Bottles are inserted in the carrier E in the same general manner as the insertion of bottles of the carrier C in Figs. 1 and 2. The tension spring 29 tends to draw the hinged sections 24 and 25 toward each other so that the bottles in the two sections will be maintained in contact as they are by the natural resilience of the metal in the semi-rigid carrier C. This carrier can obviously be loaded automatically in the same manner as described above in connection with the carrier C. When the carrier is spread down upon bottles in a case the slanting sections 24a and 25a will, because of the downward pressure, cause the two sections to expand and after the bottles have slipped into the openings 26 and the carrier is lifted spring 29 will bring the two sections together and lock the bottles in place.

In Figs. 5 and 6 there is shown a carrier F which is made of a single sheet of metal having a bend 30 across its upper central portion. This bend provides a pair of downwardly diverging panel sections 31 having finger openings 32 and being provided with a bridging member 33 similar to the element 12 in Fig. 2.

This carrier has lower panel sections 34 which converge downwardly from the lower portions of the upper panel sections 31 and which are suitably joined together as at 35. Each of the panel sections 31, 34 is provided with bottle neck receiving openings 36 similar to the openings 13 in Figs. 1 and 2. The shape of these openings is also illustrated in Fig. 6. In the embodiment shown in Figs. 5 and 6 the bottles are inserted from the outside into the openings 36 rather than being inserted outwardly from beneath the carrier as in embodiments shown in Figs. 1 through 4. The carrier F can also be loaded by either manually inserting the bottles in openings 36 or it can be done automatically in a manner somewhat differently than in the case of carriers C and E. The carrier F is pushed downwardly between two rows of bottles and the slanting portions 34 will tend to spread the two rows of bottles slightly until the carrier has passed downwardly between them a sufficient distance to permit the upper ends of the bottles to slip into the neck receiving openings 36. Thereupon the bottles will tend to return to their normal position before spreading and will be automatically retained by the carrier as it is lifted from the case.

From the foregoing description it will be seen that I have provided a bottle carrier which is preferably made of sheet metal so that it can be placed in a cooler without deteriorating, and which because of its metallic construction makes it satisfactory for receiving ample lithograph advertising material thereon which is relatively permanent. The provision of carrier sections each having angularly disposed face portions in combination with the particular type of opening for receiving the upper ends of the bottles provides a carrier construction which is simple and at the same time can be quickly loaded with the bottles retained therein securely against accidental displacement. As stated above with the constructions shown in Figs. 1 through 4 the carrier can be loaded with bottles while they are still in the case and the group of loaded bottles can then be lifted from the case. The construction shown in Figs. 5 and 6 is one in which bottles can be inserted from the outside of the carrier quickly and easily. The constructions shown in Figs. 1, 2 and 4 are such that the groups of bottles on the two sides of the carrier are drawn together in contact to prevent their displacement and in the con-

struction of Fig. 3 the weight of the bottles plus the gripping action of the fingers at the handle portion also cause the bottles to draw together into contact. Furthermore, in the construction of Fig. 3 the two sections can be used separately where a lesser number of bottles is being carried and the relative angular disposition of the two portions of each section causes the bottle, due to its own weight, to remain firmly seated in the lower more restricted portion of the bottle receiving opening **20**.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the various parts without departing from the scope of my invention.

What is claimed is:

1. A bottle lifting and carrying device comprising a pair of relatively stiff sheets of material having their upper portions interconnected and shaped to form a handle, said sheets extending downwardly and divergently with their lower edges separated to form a space for the reception of the heads of two parallel rows of upstanding bottles, each sheet having a horizontal row of keyhole-shaped slots arranged so that the wider parts of the slots are above the narrower parts and so that each slot in its entirety slants outwardly and downwardly with respect to the said handle, whereby the device may be pressed downwardly upon two rows of bottles to cause relative sliding action between the bottle heads and the narrower parts of the slots and thus produce alignment of the bottle heads with the wider parts of the slots.

2. In a bottle carrier and the like, a pair of sheets of relatively stiff material having their upper edges hingedly interconnected to form a handle portion, said sheets being bent longitudinally to provide pairs of upper and lower portions that are inclined downwardly and outwardly from the line of interconnection, the lower portion of each sheet being slanted outwardly to a greater extent than its upper portion, said sheets having a plurality of substantially horizontally aligned openings therein below said handle portion, the upper portions of said openings being enlarged and lying in the upper angular portions of said sheets, the lower portions of said openings being smaller and lying substantially within the lower angular portions of said sheets, and said smaller lower portions of said openings extending slightly into the upper angular portions of said sheets.

3. In a bottle carrier and the like, a pair of sheets of relatively stiff material having their upper edges bent over and having hand receiving openings disposed longitudinally adjacent said bent-over upper edges, one of said sheets having a portion thereof along the upper side of its hand receiving opening bent inwardly and upwardly toward said bent-over upper edge, the bent-over edges of said sheets and the additionally bent portion of said one sheet adjacent said handle opening providing a sliding interlock between said sheets, and said sheets each having a plurality of bottle receiving openings therein in substantially horizontal alignment beneath its hand receiving opening.

4. In a bottle carrier and the like, a sheet of relatively stiff material having a rolled upper edge and having a plurality of bottle receiving openings therethrough below said rolled upper edge, a second sheet having its upper edge partially rolled over the rolled upper edge of said first mentioned sheet to provide a hinged connection between said sheets, and said second mentioned sheet having a plurality of bottle receiving openings therein below its partially rolled upper edge, said sheets having handle means incorporated therewith above said bottle receiving openings and adjacent the hingedly connected upper edges thereof, and a tension spring connected between said sheets and normally urging said sheets toward each other.

GERALD S. BESKIN.