Jan. 25, 1949. B. COMER 2,459,921

BOTTLE CARRIER

Filed March 31, 1945 2 Sheets-Sheet 1

Fig. 1.

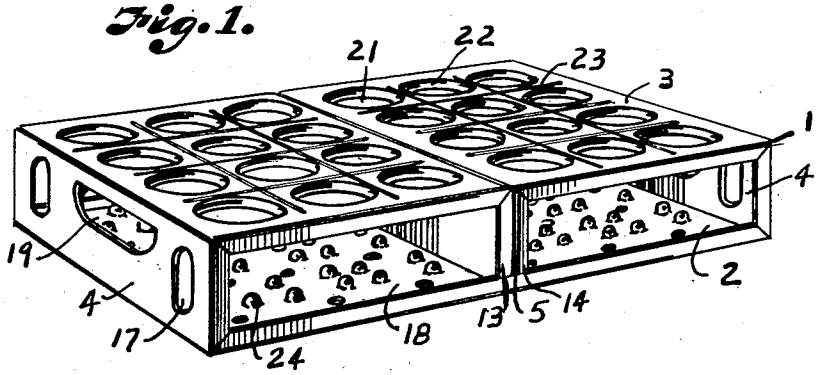


Fig. 2.

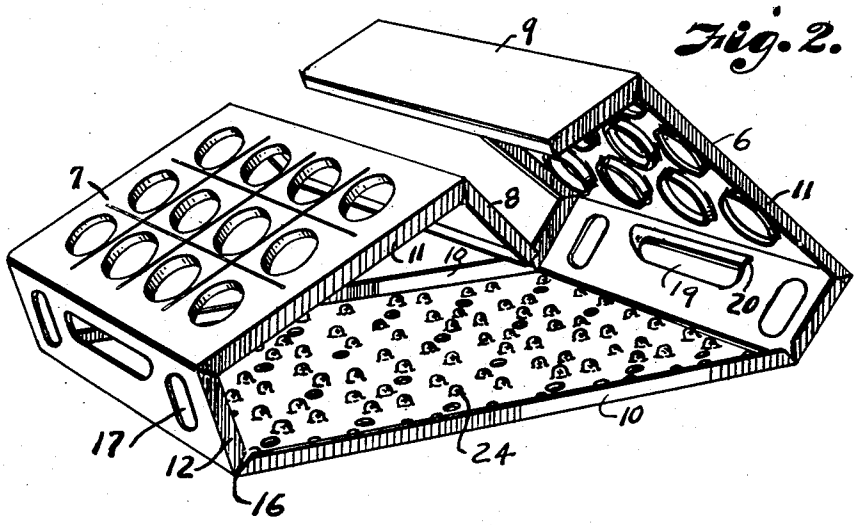


Fig. 3.

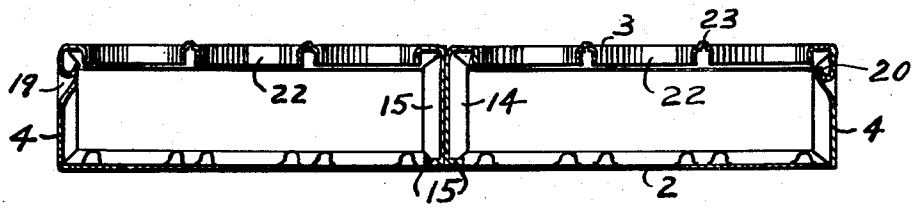
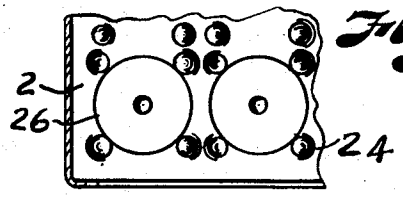


Fig. 4.



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Fig. 5.

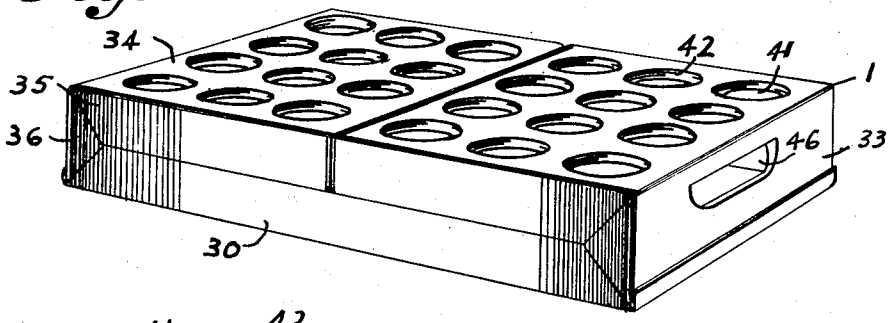


Fig. 6.

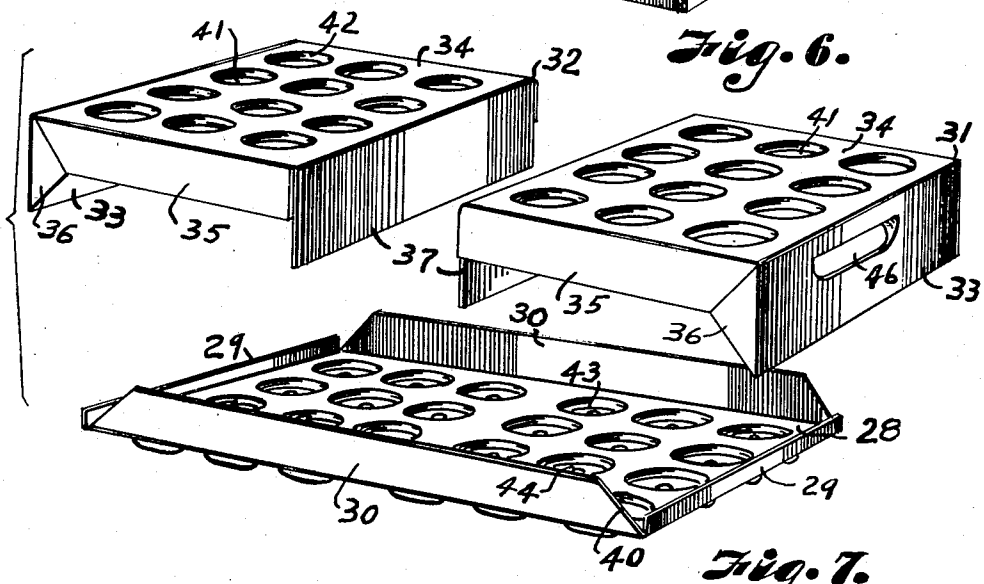


Fig. 7.

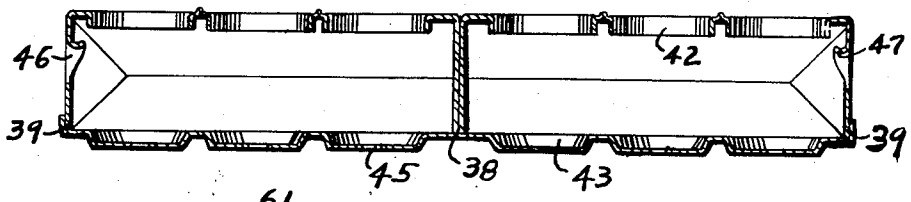
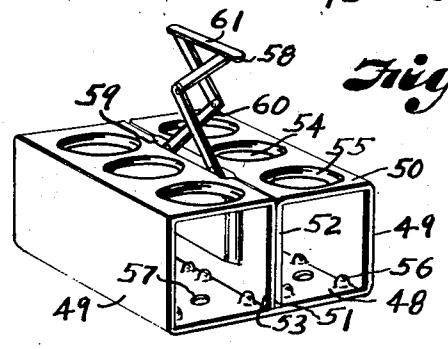


Fig. 8.



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2,459,921

BOTTLE CARRIER

Burt Comer, Wichita, Kans., assignor of one-third to P. F. Comer and one-third to Jerry B. Comer, both of Wichita, Kans.

Application March 31, 1945, Serial No. 585,982

3 Claims. (Cl. 220—21)

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This invention relates to a carrying device, and more particularly to a device for carrying a plurality of bottles for delivery of such bottles usually filled with soft drinks or the like.

The principal object of the invention is to provide a device of this character which may be made from a continuous strip of material, and particularly sheet metal, aluminum or the like, bent to form a bottom, top, and walls and a partition.

Other objects of the invention are to provide a bottle carrier of light weight, yet sufficiently rigid to withstand the usage to which it is subjected; to provide a bottle carrier for carrying a plurality of bottles which may be entered from the top of the carrier and having means in the top and bottom for spacing the bottles one from another to prevent damage to the bottles; to provide means for grasping of the carrier for transporting from place to place; to provide a carrier for a small number of bottles for carrying by an individual from a place of purchase; and to provide a device simple and economical to manufacture and efficient in use.

In accomplishing these and other objects of the invention, I have provided improved details of structure, the preferred forms of which are illustrated in the accompanying drawings, wherein:

Fig. 1 is a perspective view of a carrier embodying the features of my invention.

Fig. 2 is a perspective view of a carrier embodying the features of my invention showing the framework before it is completely in assembled relation.

Fig. 3 is a longitudinal cross-sectional view of the carrier.

Fig. 4 is a top plan view of a section of the bottom of the carrier showing the upwardly extending knobs for holding the bottoms of the bottles in spaced relation.

Fig 5 is a perspective view of a modified form of my invention.

Fig. 6 is a perspective view of the carrier shown in Fig. 5, showing the parts in disassembled relation.

Fig. 7 is a longitudinal cross-sectional view of the modified form of the invention.

Fig. 8 is a further modified form of my invention, particularly adapted for carrying six bottles and illustrating the carrying means.

Referring more in detail to the drawings:

1 designates a bottle carrier embodying the features of my invention formed from a continuous sheet of material, preferably sheet metal,

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aluminum or the like, comprising a bottom 2, top 3, end walls 4, and vertical partition 5.

The framework of the carrier may be formed in any suitable manner, but I preferably stamp the strip of material from sheet metal or the like, and the bottom, ends, top and partition members stamped so that they may be bent to conform to their final shape as shown in Fig. 1, and this procedure is particularly illustrated in Fig. 2, i. e., the bottom may be formed in the middle of the strip and the ends bent upwardly, the top half of the strips 6 and 7 bent to converge towards each other, with the extreme inner ends 8 and 9 turned downwardly to contact each other in substantially the center of the carrier to form the partition 5. The bottom is provided with upwardly turned flanges 10, the top with downwardly turned flanges 11, the ends with laterally turned flanges 12, and the inner ends 8 and 9 forming the partition are provided with lateral flanges 13 and 14 to increase rigidity in the structure. The lower edges of the partition are provided with laterally turned flanges 15 to engage the bottom 2, and may be fastened thereto by soldering, brazing, welding or the like. Each of the flanged edges of the bottom, top, ends and partition portions is cut at an angle, as indicated at 16, Fig. 2, so that they will fit snugly together and may be rigidly secured in any suitable manner, such as welding, brazing or the like. Thus, when the strip of sheet metal is finally in the finished form, as shown in Fig. 1, it will be a compact rigid construction.

The ends of the carrier are provided with openings 17 and the sides are left open, as indicated at 18, to provide a structure of light weight. The ends are also provided with hand holes 19 and are formed by stamping or the like, with the stamped-out portion turned upwardly as at 20, Fig. 3, to provide a smooth surface for the hands of the carrier.

The top of the carrier is provided with a plurality of openings 21 through which the bottles are inserted for carrying, the openings being provided with downturned flanges 22 to prevent marring of the bottles and to also provide strength and rigidity to the top structure. I also preferably stamp in the top portion 3 of the device beads or the like 23 which will also stiffen the top portion and make a more rigid structure.

The bottom 2 is provided with a plurality of knobs 24 which are stamped or otherwise formed in the bottom and so positioned with relation to the openings 21 in the top portion that a group of four of such knobs will engage the bottom 26 of

a bottle, as best illustrated in Fig. 4, to prevent the bottles from contacting each other. It is well known that bottles used for soft drinks and the like are usually subjected to fairly high pressure and slight marring or scratching of the bottles will cause a defect therein which necessitates destroying the bottle. With applicant's arrangement of the apertures in the top of the framework and knobs in the bottom thereof, the bottles will not contact each other during transportation. I also provide a plurality of openings 27 in the bottom 2 to allow moisture or liquids to escape from the bottom of the carrier. This also tends to make a lighter structure of the carrier without detracting from its strength.

With a carrier constructed and assembled as described, the bottles may be inserted through the openings in the top and the bottoms assume their respective places between the knobs in the bottom of the carrier. The height of the carrier is so constructed that the bottles will extend some distance above the top. Preferably, the sides of the openings engage the bottle at the upper part of the body just below the tapered portion forming part of the neck of the bottle. Contact of the top of the carrier with the bottles at this point synchronizes with the knobs in the bottom of the carrier to hold the bottles in substantially vertical position when the carrier is in horizontal position. It will also tend to retain the bottles in spaced position should the carrier be grasped by one end and such end raised above the other end. With the carrier so constructed a considerable number of them may be stacked one on top of the other either with the bottles therein or empty for shipping.

Referring to the form of invention shown in Figs, 5, 6 and 7, the carrier consists of a bottom 28 having upwardly extending end flanges 29 and side flanges 30 formed from a strip of material, such as sheet metal, aluminum or any material suitable for this purpose. The top and end portions are formed in two sections 31 and 32. Each section may be stamped from a single strip of material as stated in connection with the bottom portion 28, having ends 33 and top 34. The tops are provided with downturned flanges 35 of a sufficient width to meet with the upturned flanges 30 on the bottom portion for a purpose later described. The end portions 33 are also provided with laterally turned triangle shaped flanges 36. The inner or mating edges of the top and end sections 31 and 32 are provided with downwardly turned portions 37 to provide a vertical partition 38 for the device when in assembled relation.

In assembling a structure as shown in the modified form just described, the bottom 28 and top and end sections 31 and 32 may be stamped from separate strips of sheet metal and bent to the shapes as shown in Fig. 6. The top and end sections are then placed on the bottom 28 so that the ends 33 will rest on the bottom 28 inside the flange 29, as indicated at 39, Fig. 7, and secured thereto by any suitable method, such as riveting, welding, soldering, brazing or the like. The inner ends 37 forming the partition 38 will contact snugly together forming the vertical partition, also as illustrated in Fig. 7. The upwardly extending side flanges 30 on the bottom 28 will mate with the downturned side flanges 35 on the top sections, the side flanges 30 being cut at an angle as indicated at 40, to mate with the angle of the inturned flanges 36 on the respective ends of the sections 31 and 32, the mating edges of the respective portions being fastened together

by any suitable method, such as welding, soldering, brazing or the like.

The top 34 of the respective sections is provided with a plurality of openings 41 having downwardly turned flanges 42, as in the preferred form of the invention, for receiving the bottles to be carried. The bottom 28 is provided with a plurality of indentations 43 for receiving the bottoms of the bottles and retaining the same in spaced relation, the indentations being in registry with the openings 41 in the top of the carrier. The indentations 43 may be formed by stamping or other suitable method. The indentations 43 are provided at substantially the centers thereof with openings 44 to allow moisture, liquid or the like to escape from the bottom of the carrier. It will thus be seen that the indentations will form nests for the bottoms of the bottles when inserted in the carrier. They will provide embossments 45 on the bottom of the carrier. The ends 33 of the respective top sections are also provided with hand holes 46 which may be made by stamping, as in connection with the form of the invention shown in Figs. 1, 2, 3 and 4, with the edge turned upwardly as indicated at 47, to provide a smooth surface for contact with the hands of the user.

With the carrier formed as shown in this modified structure, the embossments 45 will be in alignment or registry with the openings 41 in the top and keep the bottles in vertical position, as in connection with the forms shown in Figs. 1, 2, 3 and 4, and further, the embossments 45 will tend to nest in the openings 41 when the carriers are stacked one on top of the other for shipment when empty or when merely placed in storage.

The form of invention shown in Fig. 8 is particularly adapted for retail use where preferably six or more bottles of soft drinks are sold and carried out of the place of purchase by the user. With this form of invention the carrier may be formed from a continuous strip of material and shaped to form a bottom 48, sides 49, top 50, and vertical partition 51. The outer ends of the sheet material are bent according to the structure shown in the forms of the invention previously described so that the mating ends 52 and 53 come together and form the partition 51, the bottom edges of the partition being secured to the bottom 48 at substantially the center thereof in any suitable manner, such as welding or the like, thus forming two parallel compartments for reception of the bottles. The top of the carrier is provided with openings 54 having downturned flanges 55 and the bottom is provided with upwardly extending knobs 56 aligning with the openings 54 for holding the bottles in spaced relation, as in connection with the form of the invention shown in Figs. 1 to 4 inclusive. The knobs are formed in the bottom by stamping or other suitable manner. The bottom is also provided with openings 57 to allow fluid to escape from the bottom of the carrier. If desired, the bottom of this form of the invention may be provided with indentations or pockets for retaining the bottoms of the bottles as shown in Figs. 5, 6 and 7.

A collapsible handle member 58 may be attached to the partition of the carrier in any suitable manner, such as by cutting or stamping out a portion of the top member and partition to form a pocket 59 for the reception of the collapsible members 60 so that the members may be attached to the partition by rivets or the like (not shown). The carrying member is formed with telescopic sections and provided with a handle 61 so that when not in use, the carrier

member may be collapsed to lie flat with the top of the carrier so as to not interfere in stacking of the devices in shipment or storage.

It will be obvious from the foregoing that I have provided an improved carrier which may be stamped from a single sheet of material or made in sections, as shown in Figs. 5, 6 and 7, or other suitable sections, and formed together to provide a simple, rigid, light and economical structure for the purpose set forth.

What I claim and desire to secure by Letters Patent is:

1. A bottle carrying device cut from a sheet of relative stiff material and bent to form a bottom, top, end walls and a partition extending parallel with the end walls substantially midway of the device, the bottom being formed at substantially the center of the sheet, the respective edges of said sheet being turned to provide flanges on the respective edges of the bottom, top, end walls and partition, the flanges at the bent points of the sheets being cut away so that the edges of the flanges at the bent points will meet to form a rigid structure, said top having a plurality of openings for spacing the tops of the bottles, and means on said bottom for spacing the bottoms of the bottles.

2. A bottle carrying device cut from a sheet of relative stiff material and bent to form a bottom, top, end walls and a partition extending parallel with the end walls substantially midway of the device, the bottom being formed at substantially the center of the sheet, means for securing the partition to the bottom, the respective edges of said sheet being turned to provide flanges on the respective edges of the bottom, top, end walls and partition, the flanges at the bent points of the sheets being cut away so that the edges of the flanges at the bent points will meet to form a rigid structure, said top having a plurality of openings for spacing the tops of the bottles, and means on said bottom for spacing the bottoms of the bottles.

3. A bottle carrying device cut from a sheet of relative stiff material and bent to form a bottom, top, end walls and a partition extending parallel with the end walls substantially midway of the device, the bottom being formed at substantially the center of the sheet, means for securing the partition to the bottom, the respective edges of said sheet being turned to provide flanges on the respective edges of the bottom, top, end walls and partition, the flanges at the bent points of the sheets being cut away so that the edges of the flanges at the bent points will meet to form a rigid structure, means for securing said meeting edges of the flanges together, said top having a plurality of openings for spacing the tops of the bottles, and means on said bottom for spacing the bottoms of the bottles.

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