April 3, 1962 J. GIALANELLA 3,028,189

CARRIER FOR GROUPS OF CONTAINERS

Filed Sept. 12, 1958 2 Sheets-Sheet 1

Fig. 1.

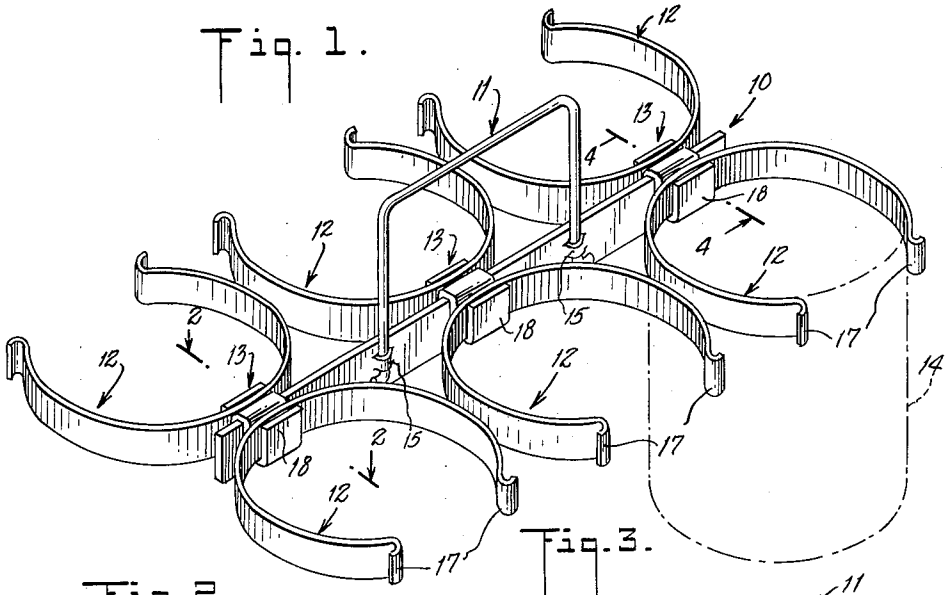


Fig. 2.

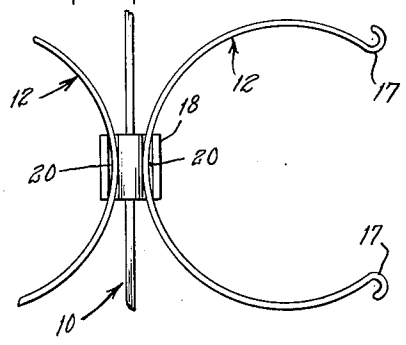


Fig. 3.

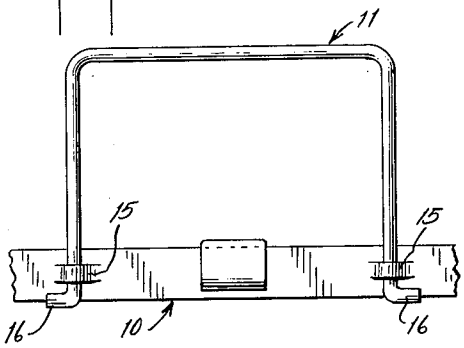


Fig. 4.

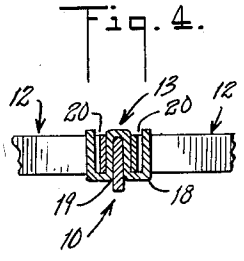
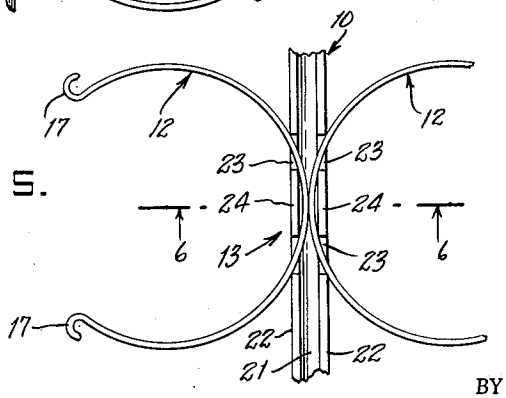


Fig. 5.



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Fig. 6.

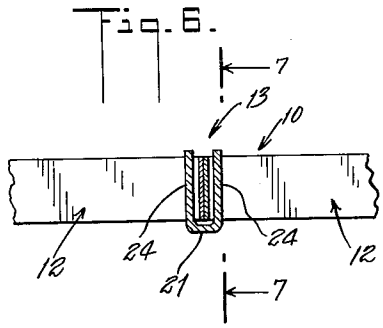


Fig. 7.

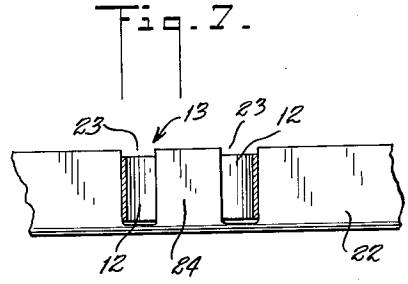


Fig. 8.

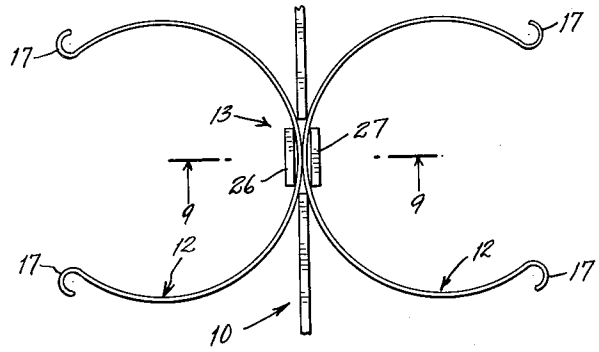


Fig. 9.

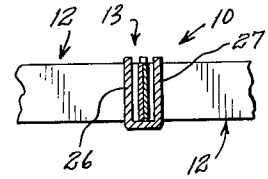


Fig. 10.

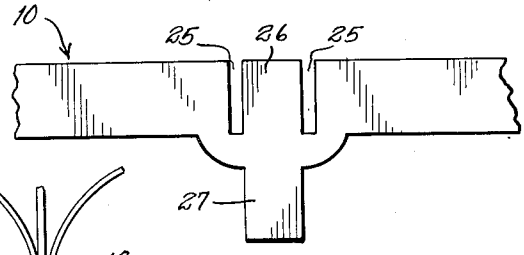


Fig. 12.

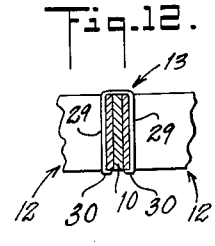
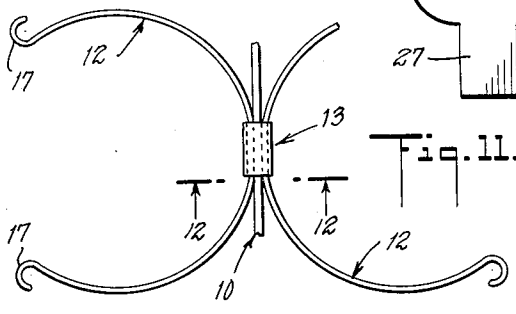


Fig. 11.



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CARRIER FOR GROUPS OF CONTAINERS

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8 Claims. (Cl. 294—87.2)

The present invention relates to carriers for groups of containers and, more particularly, to an improved carrier of the type for carrying beverage cans and the like.

In recent years, a popular method of promoting the sale of beverages has been to provide a carrier adapted to hold six cans, for example, and to sell the cans in such groups at a small reduction in price without deposit for the carrier which is considered as being expendible. Such expendible carriers in use today are small cardboard cartons formed with a carrying handle.

The difficulty with such cartons is that they are frequently damaged in shipment and handling before they reach the ultimate consumer, whereby it is not an uncommon occurrence that the carton breaks or the handle tears while carrying the containers from the store to the home.

In my prior patent, No. 2,637,475, dated May 5, 1953, there are shown carriers for beverage cans which are sturdily constructed and are not subject to the aforementioned difficulties. These carriers are well suited for repeated use, but are too costly to be treated as an expendible item because of the larob costs involved in assembling the same.

Accordingly, an object of the present invention is to provide a sturdy carrier which is not subject to the foregoing difficulties and can be manufactured and assembled at such low cost that it can be expended.

Another object is to provide such a carrier which is constructed of a minimum of machine made parts capable of assembly without special tools or machines or skilled labor.

A further object is to provide such a carrier having parts so arranged that they can be secured by a simple clamping operation which can be performed with a pair of pliers by unskilled labor.

Other and further objects will be obvious upon an understanding of the illustrative embodiment about to be described, or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

In accordance with the present invention, the foregoing objects are accomplished by providing a carrier which comprises an elongate bar having upwardly facing and lengthwise spaced deformable recess means at the upper edge thereof, and a pair of arcuate container engaging clips for each of the recess means, each formed with a gap, and each having its portion opposite the gap seated and supported by the recess means with the gaps of each pair facing outwardly at opposite sides of the bar, the recess means being deformed to secure the clips into the bar.

In the drawings:

FIG. 1 is a perspective view of a container carrier in accordance with the present invention, one container being shown in broken lines.

FIG. 2 is a fragmentary plan view of the carrier shown in FIG. 1.

FIG. 3 is a fragmentary side elevational view of the carrier shown in FIG. 1.

FIG. 4 is a sectional view taken along the line 4—4 on FIG. 1.

FIG. 5 is a fragmentary plan view of a modified carrier.

FIG. 6 is a sectional view taken along the line 6—6 on FIG. 5.

FIG. 7 is a sectional view taken along the line 7—7 on FIG. 6.

FIG. 8 is a fragmentary plan view of another modified carrier.

FIG. 9 is a sectional view taken along the line 9—9 on FIG. 8.

FIG. 10 is a fragmentary plan view of the clip supporting bar prior to completion.

FIG. 11 is a fragmentary plan view of still another modified carrier.

FIG. 12 is a sectional view taken along the line 12—12 on FIG. 11.

Referring to the drawings in detail and, more particularly to FIGS. 1 to 4 thereof, a carrier is shown which generally comprises a bar **10**, a handle **11** attached to the bar, container engaging clips **12** arranged in pairs and recess means **13** for securing the clips onto the bar.

In this embodiment of the invention the bar is a flat member having sufficient rigidity to support at least six cans **14** without being distorted. For example, the bar could be a thin strip of metal having a pair of loops **15** formed therein for receiving a bail-like carrying handle having offset ends **16** which cooperate with the loops **15** to attach the handle **11** to the bar **10** (FIG. 3).

The clips **12** are identical in all of the embodiments of the invention illustrated herein. These clips are formed of springy metal and are arcuate and almost circular in shape except for having a gap or opening to facilitate attachment and removal of the containers. The spaced apart ends **17** providing the gaps are curled outwardly to enable the containers to be pushed through the gaps.

In FIGS. 1 to 4 the recess means are deformable strips **18** formed with a downwardly facing middle opening **19** into which the bar extends and two upwardly facing side openings **20**, one for each clip of a pair of clips. The clips are assembled by placing the strips **18** in lengthwise spaced relation on the upper edge of the bar to straddle the same, inserting the clip portions opposite the gaps in the side openings, and pressing the strips together by applying pressure on the sides thereof inwardly towards the bar, whereby the openings are narrowed and the strips are clamped onto the bar and the clips.

In FIGS. 5 to 7, the bar **10** is in the form of a channel member having its web **21** at the lower edge and having upwardly extending closely spaced flanges **22**. The recess means in this embodiment comprise the upwardly facing opening between the flanges and adjacently spaced pairs of upwardly facing slits **23** in the flanges. Preferably, corresponding pairs of slits in the flanges are opposite each other to provide a tab portion **24** between each pair of slits. The clips are assembled by inserting the same in the slits **23** (FIG. 5) and then pressing the flanges together, whereby the tab portions **24** clamp the clips securely onto the bar.

In FIGS. 8 to 9, the bar is in the form of a flat member formed with a pair of slits **25**, defining a tab **26**, and a tab **27** connected to the lower edge of the bar (FIG. 10) and folded upwardly (FIGS. 8 and 9) to face and cooperate with the tab **26** and thereby provide recess means. As shown best in FIGS. 8 and 9, the tabs **26** and **27** are parallel to the bar but offset sidewardly therefrom. The clips are assembled by inserting the same between the tabs and pressing the tabs together, whereby the clips are secured to the bar.

The tab portions (FIGS. 5 to 7) and the tabs (FIGS. 8 to 10) extend slightly above the upper edges of the clips to enable the opposite tabs and tab portions to be

pressed into contact with each other and overlie the upper edges of the clips, whereby the clips are locked in.

In FIGS. 11 and 12 a simplified arrangement is shown for securing pairs of clips **12** to opposite sides of the bar **10** by an inverted U-shaped element or recess means **13** having a recess or opening between its legs **29** for receiving the clips and the bar. The legs **29** of the element **13** extend slightly below the lower edges of the clips and the bar to enable their free ends **30** to be deformed and folded under the lower edges of the clips and thereby secure the clips to the bar.

From the foregoing description, it will be seen that the present invention provides a carrier which can withstand such rough usage to which it normally may be subjected but yet can be manufactured and assembled so cheaply that it can be expended.

As various changes may be made in the form, construction, and arrangement of the parts herein, without departing from the spirit and scope of the invention and without sacrificing any of its advantages, it is to be understood that all matters are to be interpreted as illustrative and not in any limiting sense.

What is claimed is:

1. A carrier for a group of containers comprising an elongate bar, a pair of arcuate container gripping clips positioned at opposite sides of said bar, each of said clips being adapted to carry a single container, and recess means for receiving said clips and said bar, said recess means having deformed portions for securing said clips to said bar.

2. A carrier for a group of containers comprising an elongate bar having lengthwise spaced, deformable recess means at the upper edge thereof, and a pair of arcuate container gripping clips for each of said recess means, each of said clips being formed with a gap for carrying a single container and each of said clips having its portion opposite said gap seated and supported by said recess means with the gaps of each pair of said clips facing outwardly at opposite sides of said bar, said recess means being deformed to secure said clips onto said bar.

3. A carrier according to claim 2, wherein said recess means for each pair of clips is a strip formed with a downwardly facing middle opening into which said bar extends and two upwardly facing side openings one for each clip of a pair of clips, said strip being pressed together to narrow said openings and thereby secure said strip to said clips and said bar.

4. A carrier according to claim 2, wherein said recess means for each pair of clips is a strip formed with a downwardly facing opening, a pair of depending legs on said recess means forming said opening, said bar and clips being disposed within said opening with said clips in abutment with said legs, said legs extending beyond said clips and being turned inwardly and around said clips to form a transverse flange at the bottom of each leg in embracing engagement with each of said clips, said legs being pressed together to narrow said opening and thereby secure said strip to said clips and said bar.

5. A carrier according to claim 2, wherein said bar is formed with recess means for said clips.

6. A carrier according to claim 5, wherein said bar is a channel member having its web at the lower edge and said recess means constitute a pair of adjacently spaced upwardly facing slits in each flange for receiving portions of said clips.

7. A carrier according to claim 6, wherein the pairs of slits in one flange are opposite the slits in the other flange and the portions of said flanges between each pair of slits constitute clamping tabs.

8. A carrier according to claim 5, wherein said bar is a flat member formed with upwardly extending tabs at the side thereof providing recess means for seating and supporting said clips and said flat member is formed with a pair of adjacently spaced, upwardly facing slits opposite each tab for receiving portions of a clip and providing a tab portion adapted to cooperate with said tabs for clamping a pair of clips to secure the same to said bar.

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