Oct. 27, 1953 R. W. STEVENSON 2,656,947

BOTTLE CARTON CARRIER AND UNIT FOR USE THEREIN

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Fig. 1

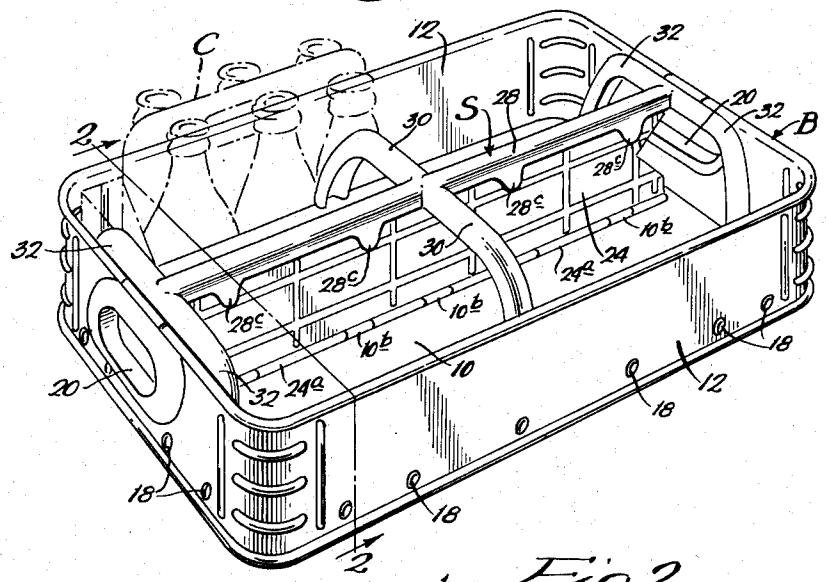


Fig. 2

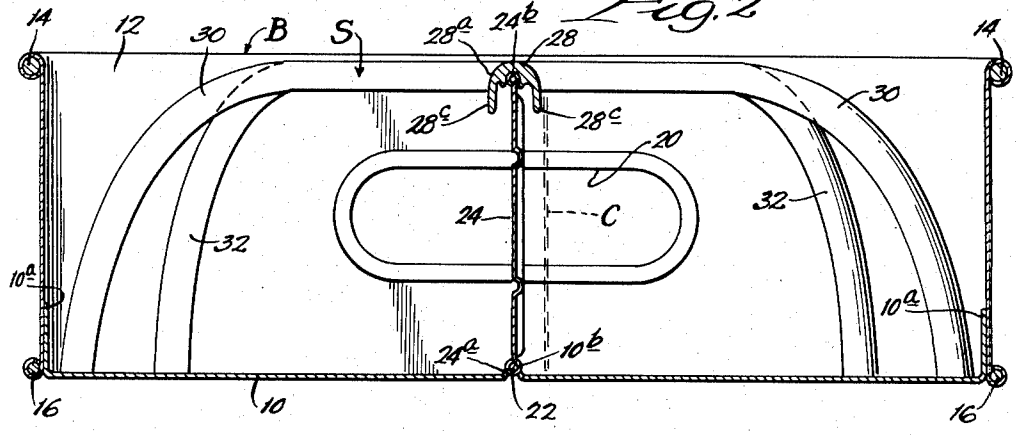


Fig. 5

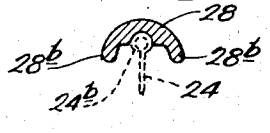
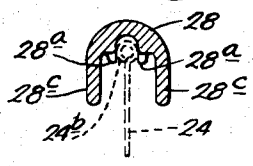


Fig. 6



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BOTTLE CARTON CARRIER AND UNIT FOR USE THEREIN

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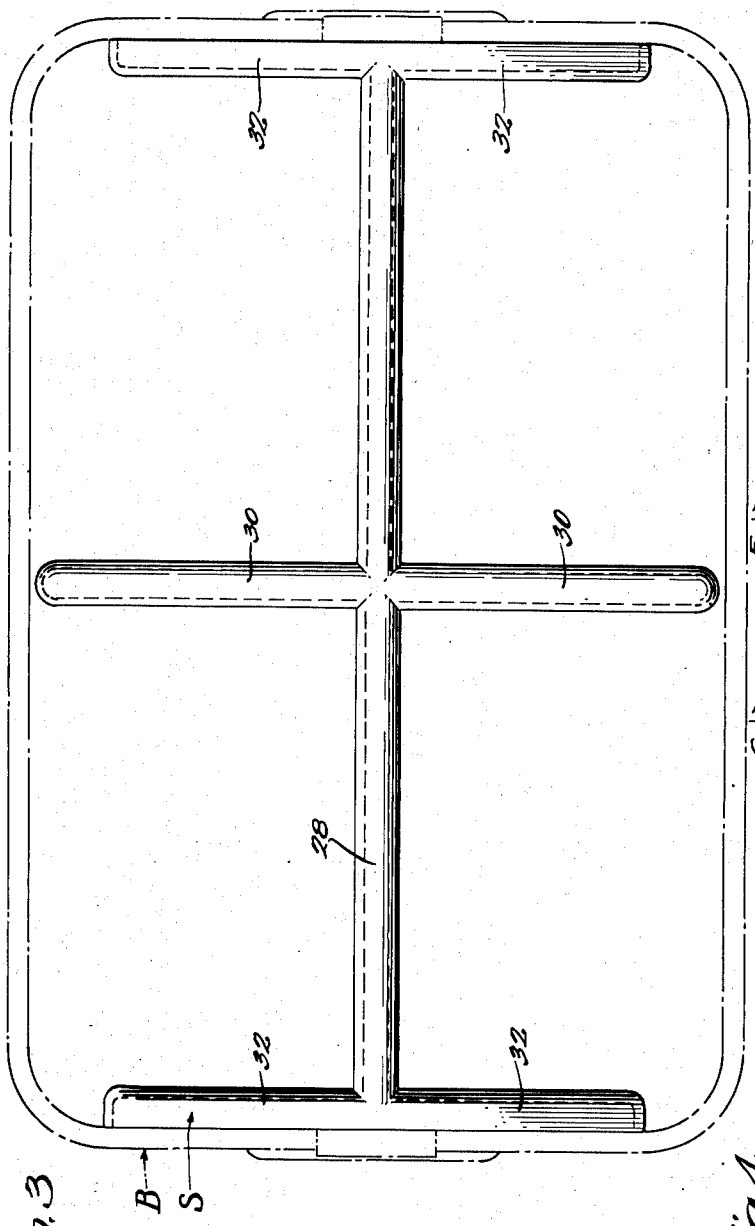


Fig. 3

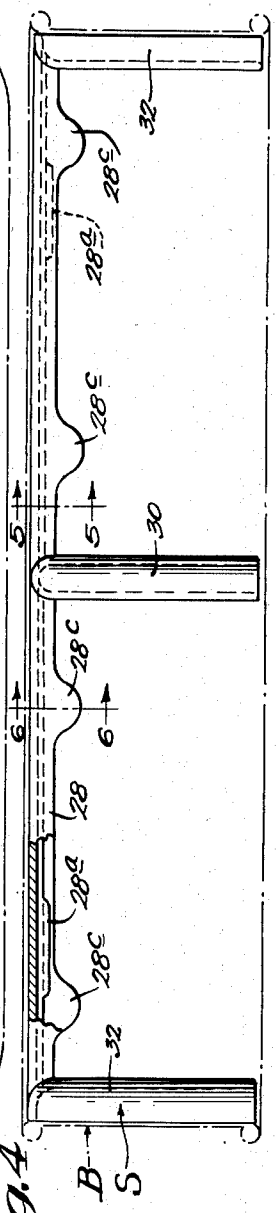


Fig. 4

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BOTTLE CARTON CARRIER AND UNIT FOR USE THEREIN

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Application September 28, 1949, Serial No. 118,234

5 Claims. (Cl. 220—21)

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My invention relates to an improved bottle carton carrier and more particularly to an improved bottle carton carrier that can be made from a bottle carrier with a minimum degree of change and a unit for use therein.

In my copending application U. S. Ser. No. 118,233, filed September 28, 1949, entitled Bottle Carrier, I have described and claimed an improved metal bottle carrier capable of carrying soft drink bottles without damage to the bottles or the carrier. This carrier has a plurality of bottle pockets, each adapted to receive a bottle. However, these pockets will not receive bottle cartons since the cartons are too large to fit into the pockets.

The bottle carrier of the aforesaid application has many advantages. It is of metal and thus does not become unsanitary after use. It is light in weight and easily handled. Nevertheless it is strong and rugged and withstands long periods of operation, and is inexpensive to construct.

In accordance with the present invention, the metal bottle carrier of my prior patent application is converted to a bottle carton carrier capable of carrying a plurality of cartons of cardboard or the like each of which holds a plurality of bottles. This is accomplished by the substitution of a single carton spacer unit that fits in the bottle carrier to define a plurality of bottle carton pockets and snugly holds the bottle cartons in position.

It is therefore a general object of the present invention to provide an improved bottle carton carrier.

Another object of the present invention is to provide an improved bottled carton carrier that can be constructed from the bottle carrier of the aforesaid patent application.

Yet another object of the present invention is to provide an improved unit to convert a bottle carrier to a bottle carton carrier.

Still another object of the present invention is to provide an improved bottle carton carrier that cannot catch the sides of the bottle cartons and thereby tend to tear them as they are removed.

The novel features which I believe to be characteristic of my invention are set forth with particularity in the appended claims. My invention, itself, however, both as to its organization and method of operation will best be understood by reference to the following description taken in connection with the accompanying drawings in which:

Figure 1 is a view in perspective of a bottle carrier constructed in accordance with the principles of the present invention and showing a bottle carton in phantom;

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Figure 2 is a cross-sectional view through the axis 2—2, Figure 1;

Figure 3 is a top plan view of the bottle carton spacers of the present invention;

Figure 4 is a side elevational view of the bottle carton spacer of the present invention; and,

Figures 5 and 6 are fragmentary cross-sectional views through axes 5—5 and 6—6, Figure 4.

Referring now to the drawings there is shown in Figure 1 a bottle basket B of the same type as is shown and claimed in my copending patent application U. S. Ser. No. 118,233, filed September 28, 1949, entitled "Bottle Carrier." This basket is formed by a bottom 10 which is of substantially rectangular shape and the sides 12 surrounding the bottom. As indicated, the sides 12 are wrapped about the reinforcing rod 14 at their upper edge and about the reinforcing rod 16 at their lower edge. The bottom 10 is secured to the sides 12 by the drawholes 18 where the upturned marginal portion 10*a* of the bottom is drawn out through suitable openings in the sides and turned over about the outer edges of the openings to form a snug locking engagement. A pair of hand openings 20 are provided at the opposite ends of the bottle basket to permit lifting of the same.

The bottom 10 of the basket B has a longitudinal upturned segmental groove 10*b* extending along its center. This groove is adapted to receive a locking pin 22, Figure 2. A longitudinal separator 24 has a plurality of hook portions 24*a* along its lower edge adapted to mate with and fit into the spaces between the segments of groove 10*b* and likewise adapted to receive the locking pin 22. The pin 22 thereby defines a rockable support for the separator 24 and holds the same in position relative to the bottom 10.

The foregoing elements are provided in the bottle carrier of the aforesaid patent application. In addition other longitudinal spacers like the separator 24 are provided to define a plurality of bottle receiving rows and the entire group of spacers are held in yieldable upright position by the plurality of struts extending transversely of the carrier and provided with yieldable rubber sleeves against which the separators bottom. These struts define individual bottle pockets in conjunction with the separators.

In the manufacture of the aforesaid bottle carriers, the basket B is first formed without the

central separator **24** or any of the other separators.

Referring now to Figure 2, the separator **24** is provided with a rolled over edge or bead **24***b* along its upper margin. The bottle carton spacer of the present invention is received by this bead and is thereby securely held in the carrier.

The bottle carton spacer is indicated generally at S. It includes a centrally disposed rib or beam **28** which is of cylindrical shape at its upper edge to define a neat and smooth appearance. Throughout most of its length it is of the cross-section shown in Figure 5 and merely overlays the upper margin of the separator **24**. However, at portions **28***a*, Figures 2 and 4, the central rib defines a nearly closed slot that snugly receives the bead of the separator **24**. In these regions the central rib **28** opposes relative movement of the separator **24** and the bottle carton spacer and anchors the bottle carton spacer to the basket B.

In addition to the central longitudinal rib **28**, the bottle carton spacer S has a plurality of transverse legs **30** and **32**. As shown, these legs each extend transversely from the central longitudinal rib **28** and turn down to rest on the bottom **10**. The legs **30** are central legs and act to separate the bottle carton carriers. They define bottle carton pockets in conjunction with the basket B and the outer legs **32**. Legs **30** fit against the bottom of the carrier at points inboard of the sides **12** but very close to the sides, as shown in Figures 2 and 3. The end legs **32** are like the central legs but are made somewhat shorter and fit against the bottom of the carrier at points further inboard of the sides as shown in Figures 2 and 3. These legs act to space the bottle cartons from the ends of the basket B.

As shown in Figure 1, a bottle carton C may be placed in each of the four pockets defined by bottle carton spacer S.

The bottle carton spacer S performs a dual function. First it supports the separator **24** in an upright position. This support is a consequence of the engagement of the legs **30** and **32** with the bottom **10** of the basket B. Since the pin **22** secures the separator **24** to the bottom **10** and the central rib **28** secures the spacer S in fixed relation to the separator **24**, the spacer S is secured against lifting movements from the basket B. Tilting movements of the spacer are prevented by the legs **30** and **32** which each bottom against the bottom of the basket and cannot tilt from the positions shown.

The bottle carton carrier of the present invention embodies only one part not embodied in the production bottle carrier shown in the aforesaid patent application. This part is the bottle carton spacer S which can conveniently be cast of aluminum or like material. Moreover, the bottle carton carrier can readily be manufactured from the structures made during the course of manufacture of the regular bottle carrier. For this purpose it is only necessary to remove the basket portions B (formed during the manufacture of the regular bottle carriers) and affix to them a bottle carton separator **24**.

More specifically, the bottle carton carrier may be manufactured by first assembling the separator **24** to the bottle carton spacer S by sliding the separator into the rib **28** of the spacer to anchor the same therein. The spacer S can then be placed on the basket B with the separator **24** in registry with the segmental groove **10***b* as shown in Figure 2. The pin **22** is then driven through the aligned groove **10***b* and the hook portions **24***a* of the separator **24** to secure the complete unit together.

When carrying out this operation with the structure illustrated in the drawing, it will be convenient to attach spacer S in the manner described to the bottom **10** of basket B prior to the attachment of bottom **10** to sides **12**.

The overhanging edge portions **28***b* of the central rib **28** tend to catch in the side walls of the bottle cartons and thereby tend to rip the cartons when they are removed from the bottle carton carrier. In accordance with the present invention this difficulty is overcome by providing a plurality of spaced depending flanges **28***c* extending downwardly from the overhanging edges **28***b* to a point below the upper margins of the bottle cartons. As shown in the dotted lines of Figure 2, it then becomes impossible for the edges of the bottle cartons to extend underneath the rib **28**. When the bottle cartons are removed it is therefore impossible for the side walls of the bottle cartons to catch when they are removed.

While I have shown and described a specific embodiment of the present invention it will of course be understood that I do not wish to be limited thereto since many alternative embodiments may be made without departing from the spirit and scope of my invention. I therefore intend by the appended claims to cover all such variations and alternative constructions as fall within the true spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. An easily assembled non-tearing bottle carton carrier comprising in combination, a basket having sides and a bottom, said bottom having a longitudinal pin-receiving groove, a separator having an upper marginal bead and a lower pin-receiving hook portion adapted to mate with said groove to define a slot for an anchoring pin, an anchoring pin in said slot, and a carton spacer including a central longitudinal rib having a longitudinal groove in the underside thereof adapted to receive said bead to anchor said spacer relative to said bottom and transversely extending legs extending substantially to the corners of said bottom at a spaced distance thereabove to hold said separator upright, said spacer having depending flanges carried by said rib and extending below the upper margins of the bottle cartons to prevent catching on said rib when said cartons are removed from said basket.

2. An easily assembled non-tearing bottle carton carrier comprising in combination, a basket having sides and a bottom, said bottom having a longitudinal pin-receiving groove, a separator having an upper marginal bead and a lower pin-receiving hook portion adapted to mate with said groove to define a slot for an anchoring pin, an anchoring pin in said slot, and a carton spacer including a central longitudinal rib having a longitudinal groove in the underside thereof adapted to receive said bead to anchor said spacer relative to said bottom and transversely extending legs having the outer end portions thereof fitting against said bottom to hold said separator upright, at least 2 of said legs being positioned intermediate the length of said separator and extending from said rib toward the sides of said basket at a spaced distance above the bottom of said basket to define bottle carton pockets on each side of said separator.

3. An easily assembled bottle carton carrier

comprising in combination, a basket having sides and a bottom, said bottom having a longitudinal pin-receiving groove, a separator having an upper marginal bead and a lower pin-receiving hook adapted to mate with said groove to define a slot for an anchoring pin, an anchoring pin in said slot, and a carton spacer including a central longitudinal rib having a longitudinal groove in the underside thereof adapted to receive said bead to anchor said spacer relative to said bottom and transversely extending legs resting on said bottom to hold said separator upright, at least 2 of said legs extending from intermediate points on said rib toward opposite sides of said basket for a major portion of the distance from said spacer to said sides and at a spaced distance above the bottom of said basket to provide at least 2 carton pockets on each side of said separator.

4. An easily assembled bottle carton carrier comprising in combination, a basket having sides and a bottom, said bottom having a longitudinal pin-receiving groove, a separator having an upper marginal bead and a lower pin-receiving hook portion adapted to mate with said groove to define a slot for an anchoring pin, a pin in said slot, and a carton spacer including a central longitudinal rib having a longitudinal groove in the underside thereof adapted to receive said bead to anchor said spacer relative to said bottom and transversely extending legs extending substantially to the corners of said bottom to hold said separator upright said spacer also having at least 2 legs extending from intermediate points on said rib toward opposite sides of said basket for a major portion of the distance from said spacer to said sides and at a spaced distance above

the bottom of said basket to provide at least 2 carton pockets on each side of said separator.

5. A non-tearing unit to convert to a bottle carton carrier a bottle carrier of the type having sides and a bottom and a separator rockably anchored to said bottom and having an upper marginal bead, said unit comprising a carton spacer including a central longitudinal rib having a longitudinal groove in the underside thereof adapted to receive said bead to anchor said spacer relative to said bottom and longitudinally spaced laterally extending legs for engagement with the bottom of said basket to define bottle pockets and hold said separator upright, at least 2 of said legs extending in opposite directions from an intermediate point on said rib at the level of the top portion of said spacer for the major portion of the distance from said spacer to the sides of said bottle carrier when said unit is pushed therein to provide at least 2 carton pockets on each side of said separator said spacer having depending flanges adjacent said separator and extending below the upper margins of the bottle cartons to prevent catching thereon.

RALPH W. STEVENSON.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,081,674	Klenk	Dec. 16, 1913
1,279,083	Clark	Sept. 17, 1918
1,326,003	Spohr	Dec. 23, 1919
1,470,898	Webb	Oct. 16, 1923
1,711,030	Pifer	Apr. 30, 1929
2,145,106	Anderson	Jan. 24, 1939
2,346,205	Bowman	Apr. 11, 1944