June 12, 1945. E. E. MORGAN 2,378,026

BOTTLE CARRIER

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Fig. 1.

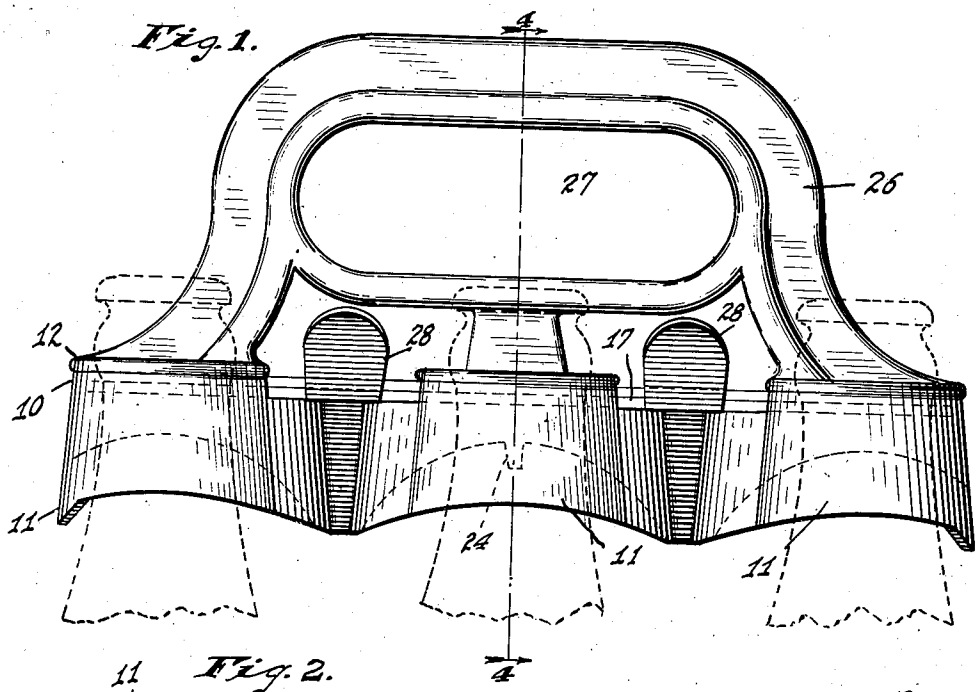


Fig. 2.

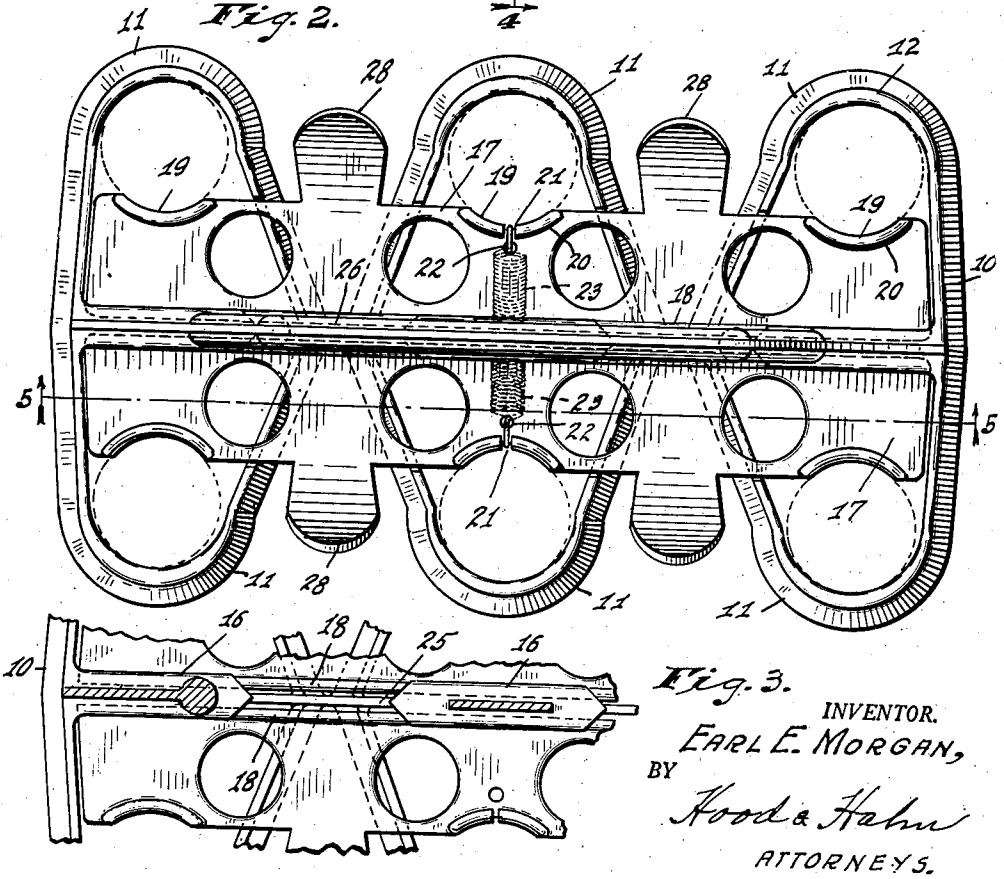


Fig. 3.

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Fig. 4.

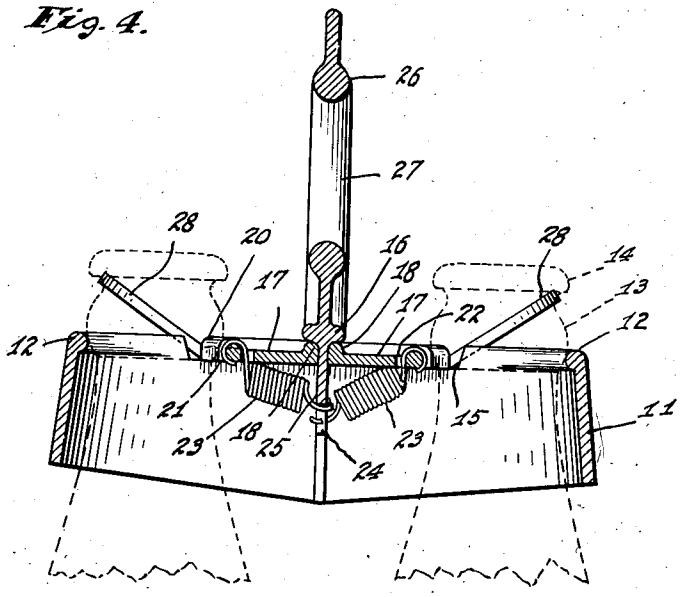


Fig. 5.

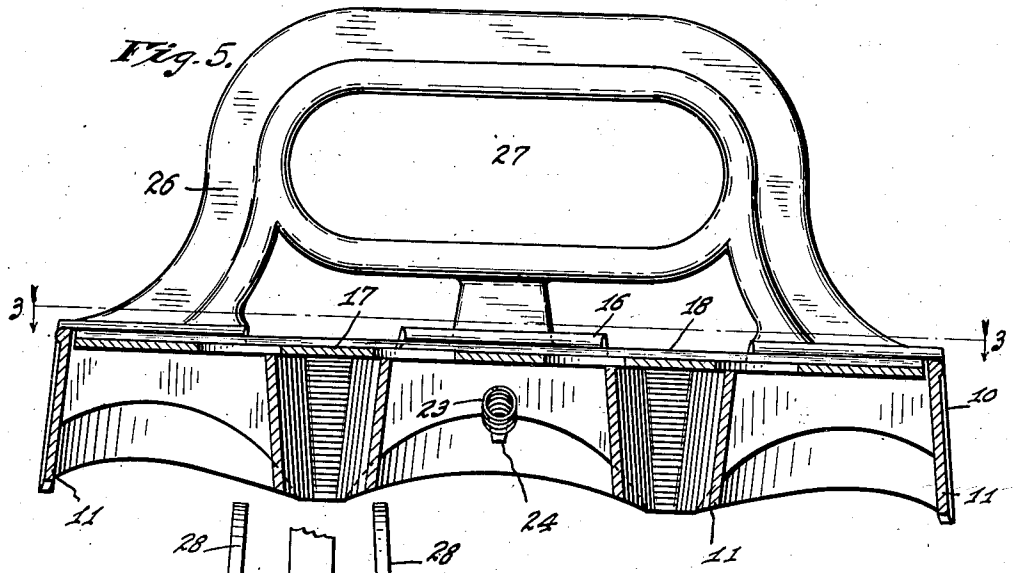
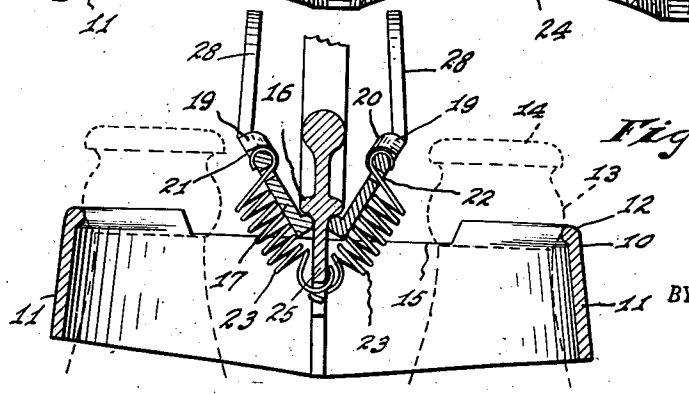


Fig. 6.



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UNITED STATES PATENT OFFICE

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BOTTLE CARRIER

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Application July 24, 1944, Serial No. 546,249

4 Claims. (Cl. 294—87)

The object of my invention is to provide a substantial, but a relatively inexpensive, carrier for bottle groups readily associable with a group of bottles in the usual standard shipping cases.

The accompanying drawings illustrate my invention.

Fig. 1 is a side elevation of an embodiment of my invention designed for use in connection with a common form of beverage bottles such as are used for soft drinks and beer;

Fig. 2 is a plan of the structure shown in Fig. 1;

Fig. 3 is a section on line 3—3 of Fig. 5;

Fig. 4 is a section on line 4—4 of Fig. 1;

Fig. 5 is a section on line 5—5 of Fig. 2; and

Fig. 6 is a fragmentary section similar to Fig. 4 with the bottle retaining elements in withdrawn position.

In the drawings 10 indicates a main body provided with two parallel series of bottle-neck receiving sleeves 11, 11, the bores of which are laterally spaced to conform to the usual spacing of the bottle receptacles of standard shipping cases, each of said sleeves, at its upper end, being provided with a concave arcuate lip 12 adapted to engage a bottle just under the usual bulge 13 which subtends the bottle mouth rim 14.

Paralleling each longitudinal series of sleeves 11, slightly above the upper level 15 of the innermost portions of sleeves 11 is a rib 16. Interposed between the upper edges 15 and each rib 16 is a lock plate 17 provided along one edge with an upstanding rib 18, the upper edge of which is rounded to fit under a rib 16. Each plate 17, at its outer edge, is provided with a series of arcuate notches 19 laterally spaced, longitudinally of plate 17, to supplement the arcuate lips 12 and adapted to engage bulges 13 of bottles 14 in opposition to the arcuate lips 12. Each notch 19 is reinforced by an upstanding arcuate lip 20. The middle lip 20 is medially transversely notched at 21 and, adjacent this notch plate 17, is perforated at 22 for the reception of one end of a spring 23, the other end of which is anchored upon a depending teat 24 carried by a plate 25 depending from ribs 16. Main body 10 also comprises an upstanding handle 26 having a finger hold 27. Each plate 17 is provided at its outer edge with upwardly inclined fingers 28 readily engageable by the thumb of a user whose fingers have been projected through the finger hold 27.

By reason of the construction and relative arrangement of the edges 15, ribs 16 and inner edges 18 of the locking plates 17, said plates may be pivotally associated with the main body 10 without the necessity of any machining operations and main body 10 and plate 17 are so shaped that they may be readily produced by ordinary casting or forming methods from metal or plastics, production costs being thereby reduced to a minimum.

The springs 23 normally serve to hold their plates 17 upon their seats 15 and to urge said plates laterally inwardly to retain their edges 18 under the body of ribs 16, as shown in Fig. 4.

My holder may be readily applied to a group of bottles in an ordinary shipping container by a downward motion of the entire structure, the mouths of the bottles engaging plates 17 and displacing them upwardly as the main body descends, as illustrated in Fig. 6, so that, when the lips 12 are carried sufficiently below the bulges 13, said locking plates 17 will be automatically returned to their normal positions on their seats 15 so that their arcuate lips 19 will underlie the bottle bulges 13 of the selected group, whereupon the main body, together with the selected bottles, may be lifted and carried to any desired point.

In order to release any longitudinal series of bottles from the carrier, the operator, by pressure of the thumb, may raise the selected locking plate 17 to the position shown in Fig. 6, whereupon the carrier may be lifted from the selected bottles.

I claim as my invention:

1. A bottle carrier comprising a main body having a plurality of spaced bottle-neck receiving portions each comprising a concave edge adapted to underlie a bulged portion of a bottle, a locking plate seat flanking said concave edges, a rib flanking said concave edges and vertically spaced from and overlying said seat, a locking plate seatable on said seat and formed along one edge to underlie and pivotally associate with said rib and provided at its other edge with a plurality of concave bottle-engaging notches registrable in opposition with the concave bottle-engaging lips of the main body, and a spring anchored at one end of the locking plate spaced from its pivot edge and anchored at the other end on the main body to yieldingly seat the locking plate upon its seat on the main body and to hold one edge of said plate under the rib of the main body in pivotal association therewith.

2. A bottle carrier comprising a main body having a plurality of spaced bottle-neck receiving portions each comprising a concave edge adapted to underlie a bulged portion of a bottle, a locking plate seat flanking said concave edges, a rib flanking said concave edges and vertically

spaced from and overlying said seat, a locking plate seatable on said seat and formed along one edge to underlie and pivotally associate with said rib and provided at its other edge with a plurality of concave bottle-engaging notches registrable in opposition with the concave bottle-engaging lips of the main body, and a spring underlying said locking plate anchored at one end to the locking plate spaced from its pivot edge and anchored at the other end on the main body to yieldingly seat the locking plate upon its seat on the main body and to hold one edge of said plate under the rib of the main body in pivotal association therewith.

3. In a bottle carrier comprising a main body having a plurality of spaced bottle-neck receiving portions each comprising a concave edge adapted to underlie a bulged portion of a bottle, a locking plate seat flanking said concave edges, a rib flanking said concave edges and vertically spaced from and overlying said seat, a locking plate seatable on said seat and formed along one edge to underlie and pivotally associate with said rib and formed at its other edge to underlyingly engage bulged portions of the bottles in opposition to said concave edges, and a spring anchored at one end of the locking plate spaced from its pivot edge and anchored at the other end on the main body to yieldingly seat the locking plate upon its seat on the main body and to hold one edge of said plate under the rib of the main body in pivotal association therewith.

4. In a bottle carrier, comprising a main body having a series of spaced bottle-neck receiving portions at one side of said body and a second series of spaced bottle-neck receiving portions at the other side of said body, each of said portions comprising a concave edge adapted to underlie a bulged portion of a bottle, a first locking plate seat flanking said concave edges of said first series, a second locking plate seat flanking said concave edges of said second series, a first rib flanking said concave edges of one of said series and vertically spaced from and overlying said first seat, a second rib flanking said concave edges of said second series and vertically spaced from and overlying said second seat, a first locking plate seatable on said first seat and formed along one edge to underlie and pivotally associate with said first rib and formed at its other edge to underlyingly engage bulged portions of bottles in opposition to said first series of concave edges, a second locking plate seatable on said second seat and formed along one edge to underlie and pivotally associate with said second rib and formed at its other edge to underlyingly engage bulged portions of bottles in opposition to said second series of concave edges, spring means operatively associated with said plates and with said body to yieldingly seat the locking plates upon their seats on the body and to hold one edge of each plate under its associated rib in pivotal association therewith.

EARL E. MORGAN.