Jan. 21, 1947. W. M. BASSICHIS 2,414,708

BOTTLE CARRIER

Filed Oct. 26, 1944

Fig. 1

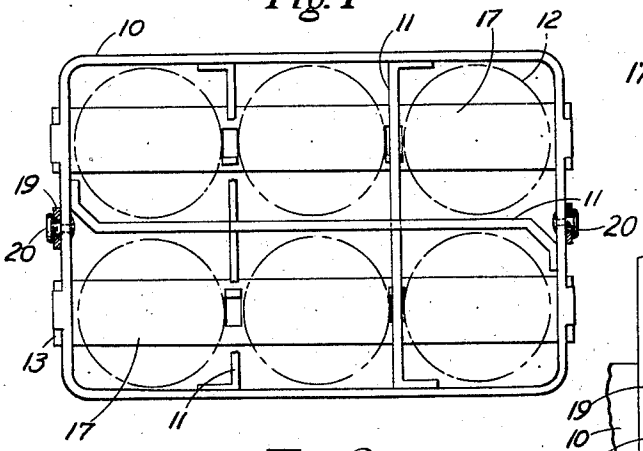


Fig. 4

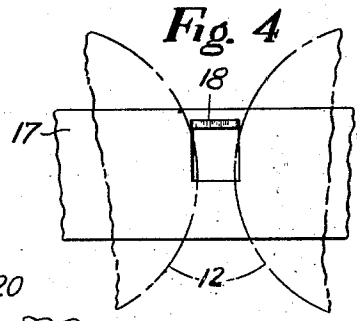


Fig. 5

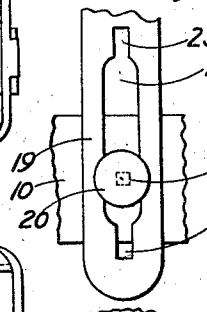
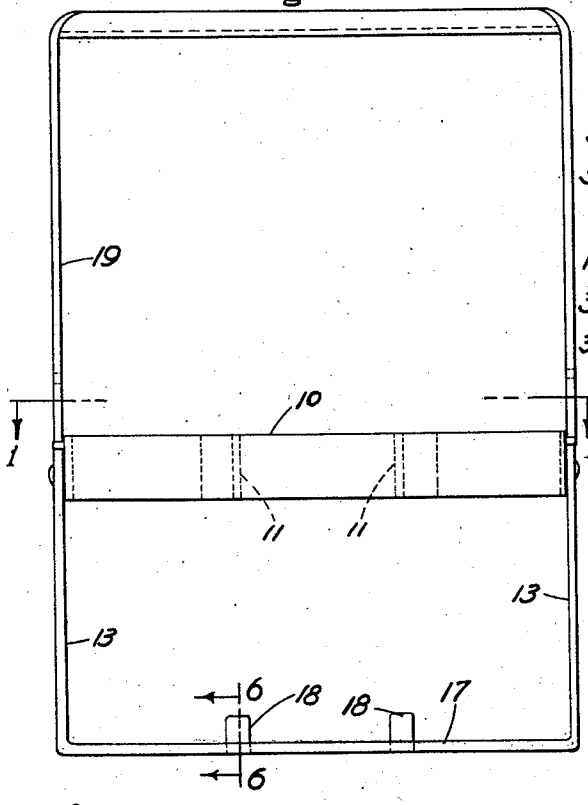


Fig. 2



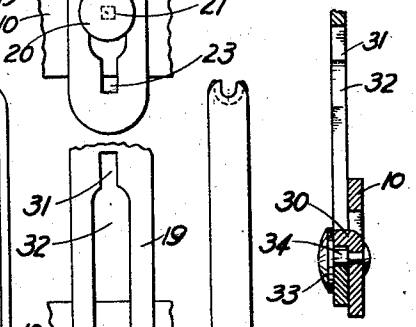


Fig. 8

Fig. 7

Fig. 3

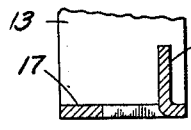


Fig. 6

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BOTTLE CARRIER

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Application October 26, 1944, Serial No. 560,431

2 Claims. (Cl. 224—48)

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This invention relates broadly to bottle carriers and more specifically to improvements in carriers of the type embodying a grill having load supporting cradle arms pivoted thereon.

One of the objects of the invention is to provide a lock for the retention of the cradle arms in their upright position when the bottles are assembled in the carrier.

Another object of the invention is to provide a locking mechanism which performs a secondary function of maintaining the lower portions of the bottles in spaced relation with each other.

Another object of the invention is to provide a supporting structure for the carrier handle which will accommodate adjustments thereof in the plane of the grill or normal thereto and restrain pivoted movement between the parts when the handle is positioned to the limit of its movement in either adjustment.

Further objects of the invention reside in the provision of a bottle holder which may be carried with comfort and ease despite the distribution of the load therein; a structure which will safeguard accidental displacement of the arms and consequent loss of the bottles supported thereby and a carrier which is attractive of appearance, durable of construction, economic of manufacture and susceptible of ready adjustment and ease of manipulation.

Other objects and advantages more or less ancillary to the foregoing and the manner in which all the various objects are realized will appear in the following description, which considered in connection with the accompanying drawing, sets forth the preferred embodiment of the invention.

Referring to the drawing:

Fig. 1 is a plan view of a carrier embodying the present invention;

Fig. 2 is a side elevational view thereof;

Fig. 3 is an end elevational view of the improved carrier;

Fig. 4 is a plan view of a fragmentary portion of one of the arms shown upon an enlarged scale and illustrating in dotted lines the relation of the bottles and one of the locking lugs;

Fig. 5 is a front elevational view shown upon an enlarged scale of a fragmentary portion of the handle and locking mechanism therefor;

Fig. 6 is a vertical sectional view through the base of one of the cradle arms, the section being shown upon an enlarged scale and being taken on a plane indicated by the line 6—6 in Fig. 2;

Fig. 7 is an elevational view of a modified form of the handle lock illustrated in Fig. 5, the rivet head being removed in the interest of clarity and shown in dotted lines; and

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Fig. 8 is a vertical section therethrough including a fragmentary portion of the carrier frame.

Referring first to Fig. 1, the carrier comprises a closed loop or band 10 formed to encompass a plurality of bottles and provided with grill work 11 therein for the support of the bottles 12 in spaced relation with each other. The band is preferably of rectangular form and is constructed with legs or cradle arms 13 pivotally mounted upon opposed end walls thereof, the pivot pins 14 therefor being disposed in planes common to the centers of the aligned bottles in the carrier. The upper ends of the arms are formed with shoulders 15 adapted for engagement with lugs or flanges 16 struck from the upper edge of the body of the band 10 and provided to retain the arms in their vertical position. When the arms are adjusted in perpendicular relation to the band the bottles rest upon the transverse portions 17 of the cradle arms, the sides of the bottles being retained by the side walls of the band and by the grill 11. When the carrier is not in use the arms may be folded outwardly and arranged in the horizontal plane of the band. The transverse portions 17 of the cradle arms are pierced and die struck to form lugs 18 disposed adjacent the inner edges thereof between the walls of contiguous bottles. As will be seen in Fig. 4, the width of the lugs is greater than the center to center distance between the side walls of a pair of contiguous bottles hence outward pivotal movement of the arms will be restrained by the cramping action of the lug upon the bottles, the upper portions of which are retained against lateral movement by the grill work 11.

The bail or handle 19 is mounted on headed pintles 20 to facilitate folded adjustment thereof in the horizontal plane of the band. The pintles are formed with rectangular shanks 21 engaged in slots 22 slightly wider than the maximum dimension across the corners of the shanks. The opposed ends 23 of the slots are substantially equal in width to the dimension across the flat parallel sides of the shanks 21, thus when the handle is adjusted vertically to the limit of the distended or retracted position, pivotal movement thereof will be restrained by the keyed relation of the narrow slots with the rectangular shanks. When the handle is adjusted to an intermediate position, however, the wide slot 22 will permit rotative movement thereof about the shank 21. This construction eliminates the annoying and hazardous side sway or pendulous action of the

holder when carried, accommodates the support of the carrier with greater comfort when the load is unevenly distributed therein, accommodates adjustment of the handle in the plane of the band and grill 11 and the retention thereof in such position accommodates adjustment of the handle below the crowns of the bottles to facilitate stacking the carriers in superposed relation and maintains the handle in a vertical position during the loading operation. The latter advantage is of particular value in the bottling plant where the carriers are placed upon a conveyor belt which travels at too high a rate of speed to permit the operator to hold the handles in an upright position while loading the carrier.

The alternate form of the handle locking mechanism illustrated in Figs. 7 and 8 comprises lugs 30 of rectangular form punched from the body of the band 10 and formed for snug engagement with the narrow slots 31 merged with wider slots 32 in the end portions of the arms. The lugs 30 are disposed in contiguous relation with pintles 33 having cylindrical shanks 34 of a diameter substantially equal to the width of the lugs 30. The width of the slots 32 is slightly greater than the diagonal dimension from a corner of the lug to the outer face of the shank so that the handle may be freely rotated about the lug and pintle but keyed thereto through the medium of the flat face and corners of the lugs when adjusted in either of the slots 31.

Although the foregoing description is necessarily of a detailed character, in order that the invention may be completely set forth, it is to be understood that the specific terminology is not intended to be restrictive or confining, and that various rearrangements of parts and modifications of detail may be resorted to without departing from the scope or spirit of the invention as herein claimed.

I claim:

1. In a bottle carrier of the type embodying a bottle separating grill and a folding cradle arm, mechanism to restrain folding movement of the arm when bottles are in place within the carrier, comprising lugs in the transverse portion of the cradle disposed at one side of the plane common to the centers of the bottles and adjacent the side walls of a pair of contiguous bottles, the sides of said lugs being spaced from the sides of the bottles at substantially the same distance as the clearance between the grill and the bottles.

2. In a bottle carrier embodying a bottle retaining grill and a folding cradle arm, means for holding the cradle normal to the grill when bottles are in place, comprising an upright protrusion on the floor of the cradle arm arranged for clearance with the side walls of a pair of contiguous bottles supported by the grill when the cradle is normal to the grill and for abutting engagement with the side walls of the bottles when the cradle arm is moved oblique to the grill.

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