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BOTTLE CARRIER

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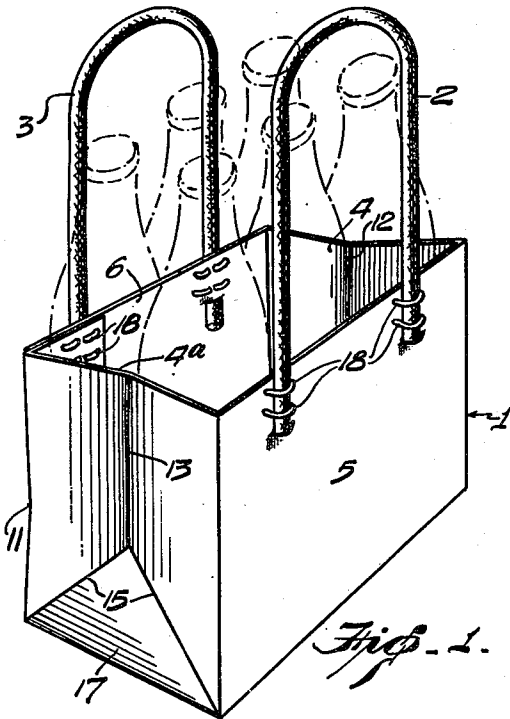


Fig. 1.

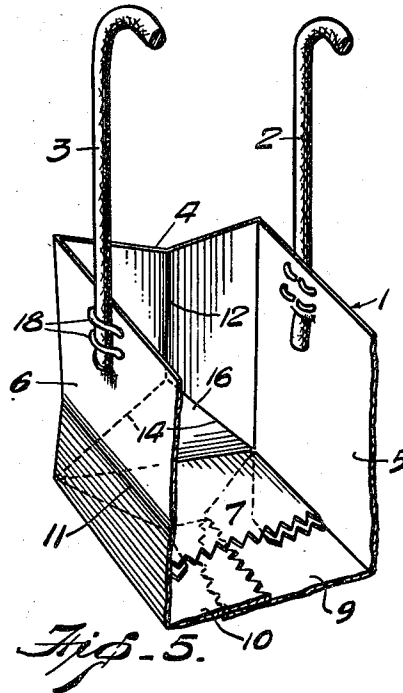


Fig. 5.

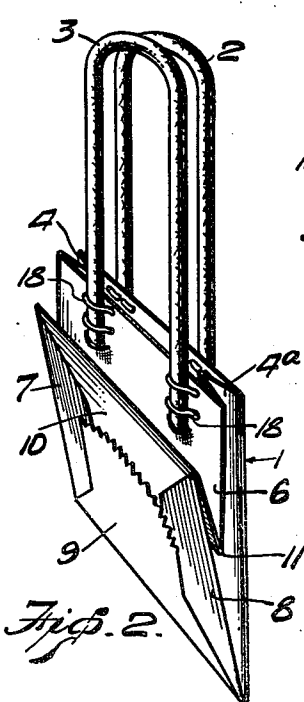


Fig. 2.

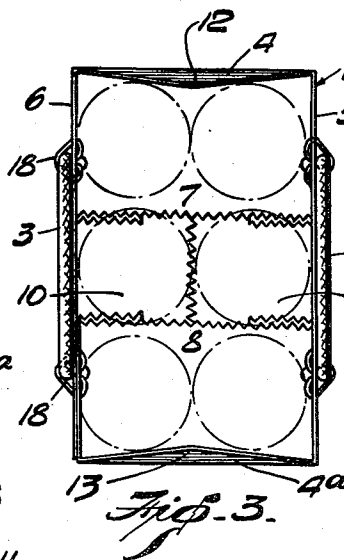


Fig. 3.

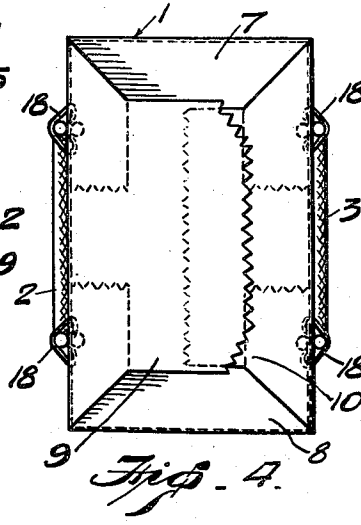


Fig. 4.

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BOTTLE CARRIER

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2 Claims. (Cl. 229—52)

The present invention relates to article carriers, and more especially to those of the class adapted to receive a number of bottles such as those containing soft drinks or other beverages or cans containing canned products and support them in upright position and having handles by which the carrier and the bottles, cans or other articles therein may be carried conveniently by the purchaser.

One of the primary objects of the invention is to provide a carrier of this class which can be manufactured rapidly and inexpensively on ordinary bag machines but is composed of a material which is sufficiently heavy or stiff to render the carrier rigid or substantially so, whereby the carrier will be capable of sustaining the weight of the filled bottles, cans or other articles substantially without distortion.

Another object is to provide a carrier of this character having a bottom of such form that it may be folded flat, or substantially so, against a side of the carrier for compactness in storage or shipment, but which, in conjunction with the substantial rigidity of the carrier, enables the same to be easily and quickly unfolded and opened to receive the bottles, cans or other articles, as by grasping the opposite edges of the bottom between the thumb and fingers of one hand and merely pulling the handle attached to one side of the carrier.

A further object of the invention is to provide a carrier of this type which is composed of a material which is sufficiently heavy and strong to sustain the weight of the articles carried therein and to enable carrying handles to be effectively stapled or otherwise attached to its sides, without the necessity of turning down the top edge of the carrier or inserting cardboard or otherwise reinforcing the top of the carrier for the attachment of the handles.

In the accompanying drawing, which discloses the preferred embodiment of the invention:

Figure 1 is a perspective view of the improved bottle or can carrier, the same being shown in its opened condition to receive the bottles, which are indicated in dotted lines;

Figure 2 is a perspective view of the improved carrier, showing it in its folded condition;

Figure 3 is a top plan view of the carrier, indicating by the dotted lines the manner in which it receives and accommodates the bottles;

Figure 4 is a bottom plan view of the carrier in its open condition; and

Figure 5 is a fragmentary perspective view, illustrating the bottom construction.

Similar parts are designated by the same reference characters in the different figures.

The article carrier as shown comprises a body 1 and a pair of carrying handles 2 and 3. The body is preferably of a structure like that of a so-called "automatic" bag which can be made rapidly and inexpensively on a bag machine of usual and well known type, it being formed from a tube having pleats or tucks 4 and 4^a in its edges and projecting inwardly between its front and back walls 5 and 6, the end of the tube being opened into substantially the usual diamond fold, which folds the pleated edges of the tube inwardly to form a pair of inner bottom closing flaps 7 and 8, and the front and back walls of the tube being folded upon the inner flaps and forming the outer bottom closing flaps 9 and 10 which are folded one upon the other and secured by adhesive. When the bottom is finished, it is rectangular in form and is folded flatwise against the adjacent back wall of the body, along the fold line 11. The pleats 4 and 4^a, when the body is folded, will be folded inwardly along the fold lines 12 and 13 respectively, and along the diagonal lines 14 and 15 which extend at angles of substantially 45 degrees to the respective corners of the bottom and form rigid panels 16 and 17.

According to the present invention, the body of the carrier is formed in the manner described from sheet material which is sufficiently heavy or stiff as to provide a carrier which is substantially rigid although capable of being opened readily on the fold lines described, tag board, cardboard or other relatively thick, heavy and stiff paper being preferable. In consequence, the carrying handles 2 and 3, which are composed preferably of looped cord or twisted paper twine, may be attached directly to the upper edges of the body, as by staples 18, without the waste of material that would be occasioned by folding down the upper edge of the body to reinforce it sufficiently to receive and hold the staples or attaching devices, or the expense of providing special reinforcing strips or the like. Moreover, by constructing the body of such heavy and relatively stiff material, the body will be substantially rigid so that when opened and filled with cans or bottles it will maintain its substantially rectangular form under the weight of such articles, and will not be distorted to a substantial extent although the weight of the body and the articles therein is sustained only at its sides by the handles attached thereto.

Another material advantage obtained by con-

structing the body in the form of an "automatic" bag from such relatively heavy and stiff material is the facility with which the body may be opened from its folded form when it is to be used. The stiffness of the relatively heavy material renders the front wall 5 and the portions of the back wall above and below the fold line 11, the bottom, the panels of the pleats between their fold lines 12 and 13 and the edges of the front and back walls, and the triangular panels 16 and 17 between the diagonal fold lines 14 and 15 and the adjacent edges of the bottom substantially rigid. The formation of the fold lines 11, 12, 13, 14 and 15 during the making of the body, however, weakens the material along these lines so that it is more readily bendable thereon than elsewhere. Consequently, the user, by grasping the handle 3 and either swinging the carrier so that air enters the top of the body thereof, or by grasping the upper and lower edges of the rigid folded bottom between the thumb and fingers and pulling the handle 3, may easily and quickly open the body of the carrier, the pull on the handle 3, in either case, straightening or unfolding the back wall 6 of the body along the fold line 11, thus causing the substantially rigid bottom to swing down into a position at right angles to the side walls of the body, and as the bottom swings toward such position, the substantially rigid panels of the pleats will be drawn outwardly, unfolding along the fold lines 12 and 13 while, at the same time, the substantially rigid triangular panels 16 and 17 between the diagonal fold lines 14 and 15 will be swung outwardly, unfolding along these fold lines and the adjacent side edges of the bottom, until the body assumes the open form shown, in which it is sufficiently rigid to render it self-sustaining, the fold lines defining the lines on which the relatively stiff material bends to ensure proper opening of the body.

Due to the stiffness of the relatively heavy sheet material composing the body, the panels of the side 6 above and below the fold line 11 are substantially rigid, and as the bottom swings downwardly into open position, these panels straighten like the links of a toggle. Similarly, the panels of the pleats at opposite sides of their inner fold lines 12 and 13 are rigid and swing outwardly into substantial alinement like the links of a toggle as the bottom swings downwardly into open position, and at the same time the apices of the rigid triangular panels 16 and 17 below the diagonal lines 14 and 15 swing outwardly as the pleats assume substantially the positions shown in Figs. 1, 3 and 5. As the fold line 11 swings outwardly incident to the opening of the bottom, it passes a dead center position and, due to the rigidity of the panels composing the side 6 and the pleats and the triangular panels 16 and 17, it springs outwardly, thereby retaining the panels of the side 6 above and below the fold line 11 in unfolded relation, thereby retaining the bottom in unfolded position and preventing collapsing of the sides 5 and

6 during the placing of the bottles, cans or other similar articles in the carrier.

After the body of the carrier has been opened, the stiffness of the panels composing the body maintains it in its open shape, and the bottles or cans may be readily placed in upright position in the body of the carrier with their bottoms resting on the bottom thereof, and the carrier is carried by grasping the handles. Due to the substantial rigidity of the body of the carrier, the bottom of the carrier will remain in rectangular substantially flat form to sustain the weight of the bottles or cans resting thereon, and the sides of the carrier will maintain their substantially parallel upright relation. The carrier as shown is of a size to receive six bottles or cans of a similar size, but it is to be understood that it may be made of different sizes to accommodate a larger or smaller number of bottles or cans, or bottles or cans of different sizes, as may be desired.

I claim:

1. An article carrier comprising a bag-like body composed of relatively stiff material having pleats connecting the edges of two opposite sides thereof, the pleats comprising relatively rigid panels connected by inner fold lines, the lower ends of the pleats and said sides being folded to form a substantially flat rectangular bottom which is substantially rigid throughout its area, the bottom being folded against one of said sides along a fold line extending transversely across it approximately midway of the length of said side, and carrying handles connected to said opposite sides of the body, the bottom being unfoldable from the adjacent side of the body on said fold line by a pull on the handle connected to said side of the body in a direction longitudinally of said side.

2. An article carrier comprising a bag-like body composed of relatively stiff material having pleats connecting the edges of two opposite sides thereof, the pleats comprising relatively rigid panels connected by inner fold lines and the sides forming relatively rigid panels, the lower ends of the pleats and said sides having overlapping flaps which form a substantially flat rectangular bottom which is substantially rigid throughout its area, and the pleats having diagonal fold lines extending from their inner fold lines to the respective corners of the bottom and forming substantially rigid triangular panels, the bottom being folded against a side of the body along a fold line extending transversely across it, and carrying handles connected to the opposite sides of the body, the bottom being unfoldable from its respective side of the body on said transverse fold line, and the pleats being unfoldable on their fold lines and said triangular panels being unfoldable outwardly on said diagonal fold lines, to open the body and substantially rigidly support its opposed sides in spaced parallel relation.

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