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J. D. CRARY

2,603,408

SHOPPING BAG

Original Filed Nov. 3, 1944

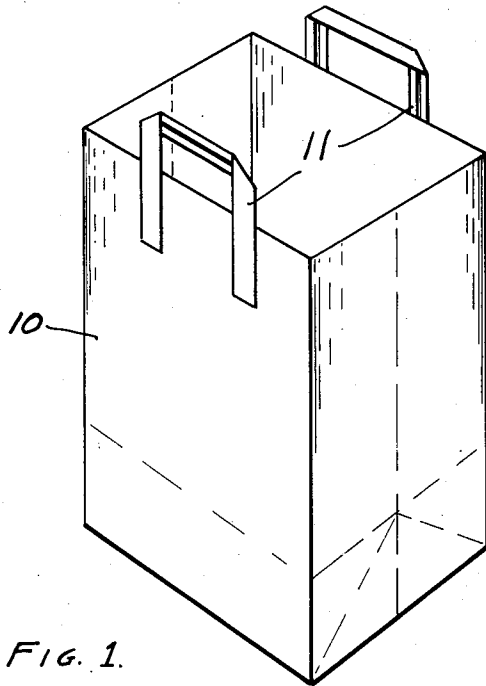
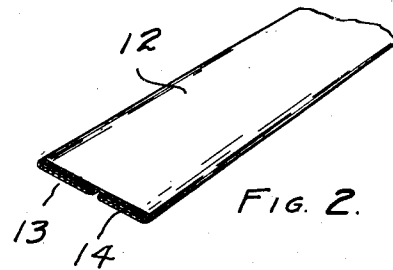
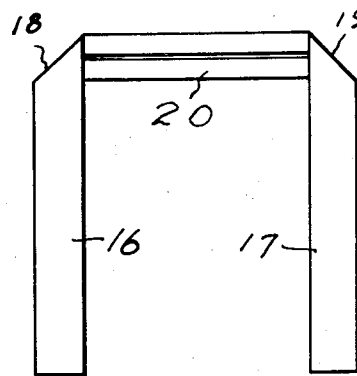
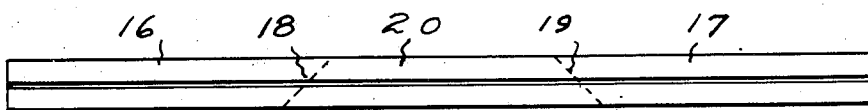
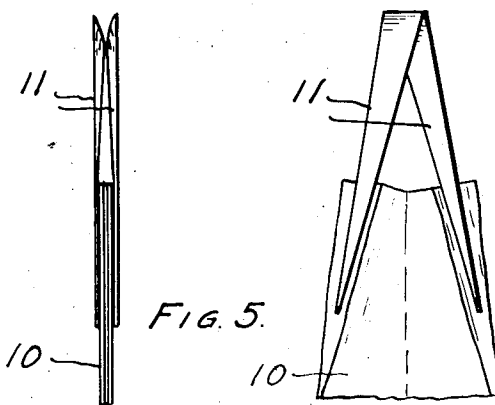


FIG. 6.

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2,603,408

SHOPPING BAG

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3 Claims. (Cl. 229-54)

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This invention relates to handled bags and more particularly to paper bags of the type commonly used in stores for the packaging of goods purchased by customers, or to shopping bags.

The present application is a division of my copending application Serial Number 561,663 filed November 3, 1944, now abandoned, and assigned to Paper Strap, Inc., the assignee of the present application. Certain subject matter of said abandoned application is further disclosed in the continuation-in-part application Serial No. 171,512 filed June 30, 1950.

Frequently it is desirable to provide a bag of the type described with handles for facilitating the carrying of goods therewithin and, while handled bags of many different types have been devised heretofore, they have generally been so costly to manufacture that their usage has been very limited. Not only are the handled bags of the present invention less expensive to manufacture than handled bags as heretofore provided but the handle incorporated provides a grip which is more comfortable to the hand than the handles now in common usage. The common small diameter cord type handles now ordinarily used tend to cut into the fingers, particularly when carrying a heavily loaded bag, whereas the handles of the present invention provide flat grip surfaces so that the weight of the load is distributed over a relatively large area of the hand.

It is an object of the present invention, therefore, to provide a new and improved handled bag which is of relatively simple design and is particularly characterized by its low manufacturing cost.

A still further object of the invention is to provide a new and improved handled bag, the handles providing a relatively flat gripping surface which is comfortable to the hand even when carrying relatively heavy loads.

More specifically, it is an object of the present invention to provide a bag with a U-shaped handle formed of paper strap on each of a pair of opposite side walls thereof, said handles being prefolded in such a manner and so attached to the bag that the bag and handles lie flat when first made whereby the bags may be compactly stacked for packaging and shipment but, when the bags are loaded and the handles grasped for carrying, the central portions of the handles automatically assume horizontally extending positions to provide a comfortable grip.

And a further object of the present invention is to provide a new and improved method for manufacturing handled bags of the type described.

In accordance with the illustrated embodiments, the bags are provided with strap handles produced from a strip of relatively thin and tough paper folded edgewise upon itself a plurality of

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times to form a strong multiple-ply paper strap. Lengths of the strap are first formed by folding in a particular manner into a U-shape and are secured at their opposite ends by a suitable adhesive to the outer surfaces of the paper bag at the uppermost end thereof. Due to the fact that the strap is relatively wide, a good bond may be secured by an adhesive between it and the side wall of the bag over a relatively large area for distributing the stress imposed by the load within the bag over a relatively large section of the bag side wall. Thus even though the bag may be of relatively light weight paper, it is not necessary to provide any reinforcement means at the point of attachment of the handles.

For a consideration of what is believed novel and inventive, attention is directed to the following specification in which additional objects and advantages will be pointed out while the features of novelty characterizing the invention will be set forth with greater particularity in the appended claims.

In the drawings, Fig. 1 is a view in perspective illustrating a bag provided with handles in accordance with one form of the present invention; Fig. 2 is a fragmentary detailed view in perspective illustrating a portion of paper strap suitable for use in the manufacture of handles for bags; Fig. 3 is a plan view illustrating a length of paper strap used in forming handles; Fig. 4 is a view illustrating a handle formed from the strap length illustrated in Fig. 3; Fig. 5 is an edge view of the upper end of a bag shown in a folded condition; Fig. 6 is a fragmentary view illustrating the upper end of the bag in a loaded condition and showing the handles in the position they will assume when grasped in the hand.

Referring now to the drawings, in Fig. 1 is shown a typical paper bag 10 having a pair of U-shaped handles 11 attached to the upper end thereof in accordance with one form of the present invention.

The handles 11 are formed of paper strap consisting of an elongated strip of relatively thin and tough paper, such as light weight kraft paper, folded edgewise upon itself a plurality of times throughout its entire length. The strap thus formed consists of a multiplicity of plies and is of uniform width and thickness throughout the full length thereof. In Fig. 2 is shown a section 12 of paper strap and from which it will be observed that the opposite edge portions 12 and 13 are each folded over a plurality of times and lie flat against one surface of the paper strip.

Paper strap of the form illustrated in Fig. 2 is more fully described and specifically claimed in the separate copending patent application Ser. No. 647,168 filed February 12, 1946, now Patent No. 2,499,463, and which, in turn, is a continuation of the parent application Ser. No. 536,125

filed May 18, 1944, now abandoned, said copending application being assigned to Paper Strap, Inc., the assignee of the present application. Multiple ply paper strap of the form shown and described in said copending application is particularly well adapted for use in the manufacture of handles for paper bags. Such paper strap is strong and possesses sufficient tensile strength to withstand any load which may be carried by the hand in a container such as a paper bag. Furthermore the strap possesses sufficient transverse rigidity so that, when grasped by the hand, it will retain its flat shape and provide a relatively broad gripping surface to distribute the load carried in the bag over a relatively wide area of the hand. The opposite edges of the strap are smoothly rounded, and the strap is also sufficiently flexible so as to provide a grip which is comfortable to the hand. Additional advantages from a manufacturing point of view for the multiple ply paper strap shown is that it may be manufactured readily by automatic machinery in long lengths from which short handle lengths may be severed as required. Moreover, the paper strap possesses sufficient longitudinal stiffness so that it may be fed with comparative ease through automatic handle forming and attaching machinery. Because of the relatively broad, flat surface furnished by the strap, a good firm bond may be accomplished at high speed through the use of ordinary adhesives in the attachment of the handles onto the bags.

While I prefer to use multiple ply paper strap of the type shown in Fig. 2, it is to be understood, of course, that the present invention is not to be necessarily limited thereto since multiple ply paper strap suitable for producing handles in accordance with the present invention may be formed in other ways.

In Fig. 3 is shown a length of paper strap suitable for forming one of the handles incorporated in the handled bag of Fig. 1. The opposite end portions 16 and 17 of the length of paper strap are first folded to a position parallel with each other and in the same direction such as along the fold lines 18 and 19 at right angles to the intermediate portion 20 of the strap length. The handle thus preformed into a U-shape is shown more clearly in the view of Fig. 4. The opposite end portions of the legs 16 and 17 are then coated with adhesive preferably on the folded side of the strap, and the handles are then pressed into engagement with the outer surfaces of the opposite side walls of the bag adjacent the upper end thereof and with the bag in the collapsed or flat, folded condition as illustrated in Fig. 5. With the folded sides of the strap secured against the bag side walls, unfolding of the strap end portions is precluded, and no additional adhesive is required between the folded edge portions 13 and 14 and the intermediate strap portion for accomplishing such purposes. The strap portion 20 forming the handle grip is thus free from adhesive likely to dissolve and become tacky upon contact with a moist hand surface.

It will be observed that, with the handles preformed in the manner shown in Fig. 4, the intermediate portion 20 extends flatwise in substantially coplanar relation with the leg portions 16 and 17. Moreover, with the handles thus formed attached to the opposite outer side walls of the bag, the handles extend flatwise in substantially the same plane as that of the bag so as to facilitate stacking together of a plurality of similar handled bags to occupy a minimum space. This

relation is clearly illustrated in the edge view of Fig. 5.

When the bag is loaded and both handles grasped in the same hand, the intermediate portions 20 of the two handles automatically readjust themselves from the vertical planar relation shown in Figs. 1 and 5 to a more or less horizontal planar relation illustrated in the view of Fig. 6. With the grip portions of the handles thus extending in the horizontal flatwise condition, the weight of the bag contents is distributed over a substantial area of the hand making the loaded bag comfortable to carry. It is not necessary to separately readjust the intermediate handle portions 20 to such a position shown in Fig. 6, but it has been discovered that they will, more or less, automatically readjust themselves into such a relative position as they are grasped in the hand.

Having now described the invention in what is considered to be a preferred embodiment thereof, it is desired that it be understood that the specific details shown are merely illustrative and that the invention may be carried out in other ways.

I claim:

1. An article of commerce consisting of a planar collapsed paper bag having a pair of opposed side walls extending closely adjacent each other, a U-shaped handle secured to the outer surfaces of each of said side walls adjacent the mouth end of said bag, each of said handles consisting of a paper strip folded edgewise upon itself throughout its entire length forming a multiple ply paper strap of uniform width and thickness throughout the full length thereof, the legs of said handles extending at right angles with respect to the intermediate portions thereof and folded along 45° angle lines at the juncture of said leg portions with said intermediate portion whereby said legs are substantially coplanar with said intermediate portions, the lower end portions of said legs being adhesively secured to the outer surfaces of said bag side walls and in a downwardly depending relation with respect thereto, said handles including said leg portions and said intermediate portions extending substantially coplanar with said bag in the collapsed condition thereof whereby a plurality of similar bags may be stacked together, said intermediate portion of said handles when gripped by the hand automatically assuming a position extending substantially horizontally and normal to the plane of the bag side walls and providing substantially flat gripping surfaces for carrying the bag when loaded.

2. An article of commerce consisting of a collapsed paper bag and having opposed side walls extending closely adjacent each other, a handle secured to the outer surfaces of each of said side walls adjacent the mouth end of said bag, each of said handles consisting of a strip of relatively thin and tough paper folded edgewise upon itself a plurality of times throughout the entire length thereof forming a multiple ply strap of uniform width and thickness throughout the full length thereof, the strap lengths defining each of said handles being folded into a U-shape, the end portions of the legs of said handles being adhesively secured to said bag side walls, the legs and intermediate portions of said handles extending flatwise in a substantially common plane and coplanar with the plane of the collapsed bag whereby said bag may be stacked flat with a plurality of other similar articles, the intermediate portion of each of said handles automatically assuming

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a substantially horizontal position when gripped by the hand to provide relatively flat gripping surfaces for carrying the bag when loaded.

3. A carrier bag comprising a body having opposite flat sides and a mouth at the upper edges thereof, and a handle secured to each of said sides, each of said handles comprising a single flat strip of flexible paper having its ends on the same face of the strip pasted to the respective side of the bag in spaced relation and extending beyond the upper edge of said side, the intermediate portion of said strip being folded flatwise downwardly on diagonal lines and across the sides of the end portions substantially at

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right angles thereto and being unfoldable on said diagonal fold lines to form a grip portion conformable to the hand.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,075,672	Stark -----	Mar. 30, 1937
2,192,131	Fishwick -----	Feb. 27, 1940