CARRIER BAG WITH INTEGRALLY FORMED HANDLE

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References Cited
UNITED STATES PATENTS
2,482,399 9/1949 Bullock 229/52 B
2,802,616 8/1957 Caster et al. 229/52 B
2,916,196 12/1959 Kramer et al. 229/52 B
3,112,856 12/1963 Macintosh et al. 229/52 B
3,300,119 1/1967 Chausasdas 229/52 B
3,442,281 11/1970 Field 229/52 B

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1,423,905 11/1965 France 229/52 B

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ABSTRACT
A container of the carrier bag type is provided which has an integrally formed handle in the stiffened panels which are overlapped to close the mouth of the container. The handle is formed from a pair of parallel elongated slits and a pair of U-shaped slits surrounding the ends of said parallel slits in a first of the panels. A pair of openings connected by a slit is provided in the other of the panels. The openings extend transversely and are at least as long as the web of the U-shaped slit. A plurality of score lines are formed in the first panel which extend outwardly from the ends of each of the slits to the legs of the U-shaped slits and inwardly from the ends of the U-shaped slits to the elongated slits. The fold lines and the U-shaped slit enable the strip between the elongated slits to be pulled out of the plane of the first panel to form a handle member. The portion between the U-shaped slit forms a projecting platform for the handle member. The handle member is inserted through the slit in the other panel with the platform extending through the openings in the panel to provide a handle for the container and enables closing of the mouth of the container with the overlapped panels being held together by the platforms at the ends of the handle member.

5 Claims, 9 Drawing Figures
CARRIER BAG WITH INTEGRALLY FORMED HANDLE

This invention relates generally to containers and more particularly to a container of the "bag-box" type. One of the more popular types of containers which are used in the department stores and other retail stores is the "bag-box" container which may be folded or collapsed like a bag but the top is reinforced by two panels of cardboard which are folded and superimposed one over the other and a handle made of string is utilized to maintain the panels together and carry the carrier bag. The bag when folded with the top panels one superimposed over the other resembles a box.

A carrier bag of the aforementioned type is embodied in U.S. Pat. No. 2,836,344 for a carrier bag which issued on May 27, 1958 to H. F. Gathwort. The problems with the carrier bag shown in the aforementioned patent are that the heavy cord or string must be added to the panel to form the handle and the handle formed by the cord is not comfortable when holding the bag. Moreover, the panels have a tendency to be separated as the weight of the material within the bag deforms the straight lines of the carrier bag. The discomfort of the cord is evidenced by U.S. Pat. No. 3,542,281 for a box and handle for same which issued on Nov. 24, 1970 to Alan I. Field. In the latter patent, the specific problem attempted to be overcome by the invention disclosed is the uncomfortable handle in the former patent. The handle is added to the upper panels of the carrier bag and, thus, must be assembled by the salesperson at the time that the bag is being utilized. As in the earlier carrier bag, there is also the tendency in the Field box and handle for same for the panels which overlap to come apart as weight in the bag tends to deform the straight lines of the bag. This, of course, detracts from the attractive look of the carrier bag. In addition, in both the Field and Gathworth carrier bags, there is the added disadvantage that a handle must be added to the panels to enable the use of the carrier bags.

Of course, the solution would be the provision of an integral handle formed as part of the panels of the carrier bag. However, integral handles which have been formed in prior art overlapping panels have either been too complicated, impractical or inoperative. In addition to the usual problems inherent in providing an integral handle between two stiff overlapping panels, there are the additional problems caused by the nature of the carrier bag which does not include stiffened panels other than the uppermost overlapping panels.

U.S. Pat. No. 2,482,399 for a handle for boxes which issued on Sept. 20, 1949 to Bullock shows an integrally formed handle which is formed from a pair of elongated slits surrounded at their ends by a pair of U-shaped slits. The U-shaped slits enable the strip between the elongated slits to be pulled out of the surface of the lower of the overlapping panels. It has been found by experimentation that a box formed in accordance with the teachings shown in Bullock FIGS. 1 to 3 has the following disadvantages. First, when the handle is extended, there is a tendency of the material surrounding the ends of the handle to be easily ripped. The second difficulty is that it is difficult to pull the strip forming the handle through the slot provided in the upper panel of the overlapping panels and finally, the end of the handle cannot be raised as a result of being held down by the upper panel. Thus, as the handle is used to carry an object in a box or carrier bag, utilizing a handle of the type indicated in the Bullock patent, the upper and lower panels in which the handle is formed are caused to separate which causes a very unattractive appearance.

It is, therefore, an object of the invention to overcome the aforementioned disadvantages in the prior art.

Another object of the invention is to provide a new and improved container having an integrally formed handle.

Another object of the invention is to provide a new and improved container of the "bag-box" type which utilizes an integral handle formed in the stiffened upper panels at the mouth of the container.

Another object of the invention is to provide a new and improved handle for a container which utilizes an integral handle which has a built-in platform which causes the locking of the upper panels together when the carrier bag is closed.

Still another object of this invention is to provide a new and improved container of the "bag-box" type which is reusable.

Yet another object of the invention is to provide a new and improved integrally formed handle which is propped upright and is easy to grab when the carrier bag is closed.

These and other objects of the invention are achieved by providing a container which has a pair of stiffened panels which are superimposed or overlapped to close the mouth of the container. The handle is formed integrally of the stiffened panels and is formed from a pair of parallel elongated slits and a pair of U-shaped slits surrounding the ends of the parallel slits in a first of the panels. A pair of openings connected by slits is provided in the other of the panels. The openings extend transversely and are at least as long as the web of the U-shaped slits. The U-shaped slits have in the web thereof a smaller U-shaped portion which acts to form a tab. A plurality of score lines in the first panel are provided which extend transversely to the elongated slits. The score lines extend outwardly from the ends of each of the elongated slits to the legs of the U-shaped slits and inwardly from the ends of the U-shaped slits to the elongated slits. The fold lines and the U-shaped slit enable the strip between the elongated slits to be pulled out of the plane of the first panel to form a handle member. The portion between the U-shaped slits forms protruding platforms for the handle member. The handle member is inserted through the slit in the other panel with the platform extending through the openings in the panel to provide a handle for the container and enables closing of the mouth of the container with the superimposed panels being held together by the platform and the ends of the handle member.

Other objects and many of the attendant advantages of this invention will be readily appreciated as the same becomes better understood by reference to the following detailed description which is considered in connection with the accompanying drawings wherein:

FIG. 1 is a perspective view of a carrier bag with integrally formed handle embodying the invention;
FIG. 2 is a top plan view of the blank utilized to form the carrier bag embodying the invention;
FIG. 3 is an enlarged fragmentary view of the top portion of the carrier bag embodying the invention prior to closing of the upper panels against each other;
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FIG. 4 is an enlarged fragmentary perspective view of the top portion of the carrier bag embodying the invention with the upper of the stiffened panels being superimposed over the other with the handle member being pulled through the slit in the upper panel

FIG. 5 is an enlarged fragmentary perspective view of the top portion of the carrier bag with the handle member drawn through the slit prior to the locking of the panels together

FIG. 6 is an enlarged sectional view taken along the line 6—6 in FIG. 4

FIG. 7 is an enlarged sectional view taken along the line 7—7 in FIG. 5

FIG. 8 is an enlarged sectional view taken along the line 8—8 in FIG. 1 and FIG. 9 is an enlarged fragmentary top plan view taken along the line 9—9 in FIG. 8

Referring now in greater detail to the various figures of the drawing wherein like reference numerals refer to like parts, a carrier bag embodying the invention is shown generally at 20 in FIG. 1

Bag 20 basically comprises a container portion 22 and a handle 24. As best seen in FIG. 2, the carrier bag 20 is formed of a rectangular paper blank 26. A plurality of fold or score lines are provided on blank 26 to enable folding and definition of the panels in order to form the carrier bag 20. The fold lines are shown in dotted line in FIG. 2 for ease of reference and include a longitudinally extending fold line 28, longitudinally extending fold line 30, transversely extending fold lines 32, 34, 36, 38, 40 and 42 and diagonally extending fold lines 44, 46, 48, 50, 52, 54 and 56

The rear wall of the container portion 22 of carrier bag 20 in FIG. 1 is formed by panel 58 of blank 26 which is provided between fold lines 28, 30 and 32 of the periphery of the blank 26. The front wall 60 of the carrier bag 20 is formed of panel 60 which is defined and formed between fold lines 28, 30, 36 and 38. End walls 62 of the carrier bag 20 are formed by the strips defined between fold lines 32, 34 and 36 at one end and fold lines 38, 40 and 42 at the other end. The diagonal fold lines 44 through 56 facilitate the folding of the various panels which are defined between the fold lines to enable the rectangular shape of the carrier bag 20 when it is filled and the flat disposition of the bag when it is not in use

Adhesive strips 64 and 66 are provided on panels 58 and 68, respectively, to enable construction of the bag. A pair of overlapping panels 70 and 72 are formed between fold line 28 and the lateral longitudinally extending edge of blank 20. Panels 70 and 72 are reinforced by cardboard strips 74 and 76, which are secured thereto by a suitable adhesive. The panels formed between fold lines 32, 34 and 36 are folded inwardly of panels 58 and 60 so that an accordian pleat is formed which enables the panels 58 and 60 to be flat against each other when the carrier bag is not in use

Similarly, an accordian pleat is formed between fold lines 38, 40 and 42 which are utilized to form a similar accordian pleat at the other end wall 62 of the carrier bag 20. The endmost panel 78 which is formed between fold line 42 and the right edge of the blank 26, as seen in FIG. 2, is adhesively secured by strip of adhesive 64 to panel 58 to form the end wall 62. Similarly, adhesive strip 66 is utilized to secure panel 68 to panel 80 in order to form the bottom wall of the carrier bag 20.

As best seen in FIG. 3, when carrier bag 20 is assembled and the panels adhesively secured, the uppermost end of the carrier bag 20 is open and panels 70 and 72 extend upwardly and provide an opening or a mouth for the insertion of garments or other products into the carrier bag 20. For ease of reference, the panel 72 is shown in both the upright position in phantom and in full line in the closed position in FIG. 3. As seen therein, panel 72 has formed therein a pair of longitudinally extending slits 82 and 84 which extend parallel to each other

A pair of U-shaped slits 86 which extend about the ends of slits 82 and 84 are also provided. As seen in FIG. 3, slits 86 have webs which extend transversely to the slits 82 and 84 and legs which extend parallel to slits 82 and 84 and which overlap the ends of the same

A first pair of score lines 88 extend transversely from slits 82 and 84 towards the legs of slit 86 at one end of slits 82 and 84 and a second pair of score lines 90 extend from the ends of the legs of the same slit 86 to the slits 82 and 84

Similarly, a pair of score lines 92 are provided which extend from the ends of the legs of the other of the U-shaped slits 86 to the slits 82 and 84 and a pair of score lines 94 are provided which extend from the other end of slits 82 and 84 transversely to the legs of slits 86. Slits 86 each include a U-shaped portion 96 at the centermost portion of the webs thereof which form a notch. The purposes of the notches 98 in each of the panels formed between the slits 86 will hereinafter be seen

A strip provided between slits 82 and 84 is formed which provides the handle member 100 when it is pulled out of the plane of panel 72. As best seen in FIG. 1, when handle 100 is pulled out of the plane of panel 72, the portions of panel 72 between the slits 86 form platforms 102 which project upwardly and provide a locking means between the panels 70 and 72 which will also be seen in greater detail hereinafter

As also seen in FIG. 3, panel 70 includes a pair of transversely extending openings 104 and 106 which are connected together via a longitudinally extending slit 108. As seen therein, slit 108 extends between the openings 104 and 106 adjacent the uppermost end of the openings 104 and 106. As best seen in FIG. 4, the openings 104 and 106 are generally diamond shaped and include V-shaped outer edges 109 and 110 which, as will hereinafter be seen, coact with notches 98 to enable the platforms 102 to lock the panels 70 and 72 together

In use, the carrier bag 20 is filled with the panels 70 and 72 in the upwardly extending position as shown in FIG. 3. The panel 72 is then moved in the direction of arrow 112 as seen in FIG. 3 to the position shown in full line. The strip which forms handle 100 is pulled out of the plane of panel 72 upwardly and is then slid over the strip 114 which is formed between the lines 110 and the short end of openings 104 and 106. As best seen in FIG. 6, the handle member 100, thus, rests on the uppermost surface of panel 70 and strip 116 which is formed from blank 70 between the slit 108 and the larger extent of openings 104 and 106 rests upon the handle member 100. Handle member 100 is then slipped over the strip 116 of panel 70 as seen in FIG. 5 and FIG. 7

As best seen in FIG. 7, the handle 100, thus, rests upon the top of blank 70 above strips 114 and 116. The handle member 100 is then pulled upwardly to the position shown in FIG. 1 whereby the platforms 102 are
3,756,503 parallel through openings 104 and 106 and are formed by the folding about score lines 88, 90, 92 and 94 of the strip or portion of panel 72 within the confines of the slits 86 and 82 and 84. As the platforms are drawn through openings 104 and 106, the bottom edges of the platforms diverge and, thus, prevent the platforms return through the openings 104 and 106.

As best seen in FIGS. 8 and 9, the notches 98 which are formed in the web of the portion between slits 86 of the platform are placed into the crux of the edges 109 and 110 of openings 104 and 106. The corners 120 of the strip formed between slits 86 act to rest on the top surface of the upper panel 70 and are locked in this position to maintain panel 70 tightly against panel 72. It can, therefore, be seen that the platforms 102, thus, not only prop up handle 100 for ease of finding and gripping the handle 100, but also enable the locking of panel 70 against panel 72.

It can, therefore, be seen that a new and improved carrier bag with integral handle has been provided. The handle member 100 is propped in position by the projecting platforms 102 which extend above the top panel 70 which overlaps panel 72. The platforms 102 are folded in place as the handle member 100 is pulled out of the plane of panel 72 thereby causing the automatic propping of the platforms 102 and the notches 98 are then inserted within the V-shaped edges of the openings 104 and 106. This causes the locking of the platforms in position with the panels 70 and 72 being held tightly against each other so that the weight of the contents in the container portion of carrier bag 20 does not cause the opening of the flaps and the consequent degrading of the good looks of the carrier bag. In addition, by removing the notches 98 from the V-shaped edges 109 and 110 of openings 104 and 106, the handle is quickly disassembled and the bags quickly opened. It should be noted that since the structure of the handle remains intact, the carrier bag is reusable.

It should also be noted that since the carrier bag handle is integral, no external handle need be assembled at the time of dispensing by a sales person. The carrier bag 20 has all of the advantages of the prior carrier bags hereinafore cited without any of the aforementioned disadvantages which have been overcome by the novel structure.

Without further elaboration, the foregoing will so fully illustrate my invention that others may, by applying current or future knowledge, readily adapt the same for use under various conditions of service.

What is claimed as the invention is:

1. In a container having a pair of stiffened panels which are overlapped to close the mouth of said container, a handle, said handle being formed integrally of said stiffened panels and comprising a pair of parallel elongated slits and a pair of U-shaped slits surrounding the ends of said parallel slits in a first of said panels and a pair of openings connected by a slit in the other of said panels, said openings extending transversely and being longer than the web of said U-shaped slit, a plurality of score lines in said first panel which extend transversely to said elongated slits within said U-shaped slits, said score lines and said U-shaped slit enabling the strip between said elongated slits to be pulled out of a plane of said first panel to form a handle member, the portion between said U-shaped slits forming protruding platforms with said handle member, said handle member being inserted through said slit in said other panel with said platforms drawn through said openings in said panel to provide a handle for said container, the bottom edges of said platforms diverging as said platforms are drawn through said openings to prevent the return of said platforms through said openings and enable closing of the mouth of said container with said overlapped panels being held together by said platforms at the ends of said handle member.

2. The container of claim 1 wherein said U-shaped slits have in the web thereof a smaller U-shaped portion which acts to form a tab.

3. The container of claim 2 wherein said openings each have a V-shaped edge, said tabs being insertable within the crux of said edges with the ends of said portion between said slits bearing on the top surface of said other panel so that said panels are closely held together.

4. The container of claim 1 wherein said score lines extend outwardly from the ends of each of said elongated slits to the legs of said U-shaped slits and inwardly from the ends of said U-shaped slits to the elongated slits.

5. The container of claim 1 wherein said stiffened panels are formed by reinforcement of said panels with superimposed strips.

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