Aug. 25, 1970 S. KAMINS ET AL 3,525,468

CARRIER BAG AND HANDLE AND CLOSURE MEANS THEREFOR

Filed Sept. 23, 1968

FIG. 1.

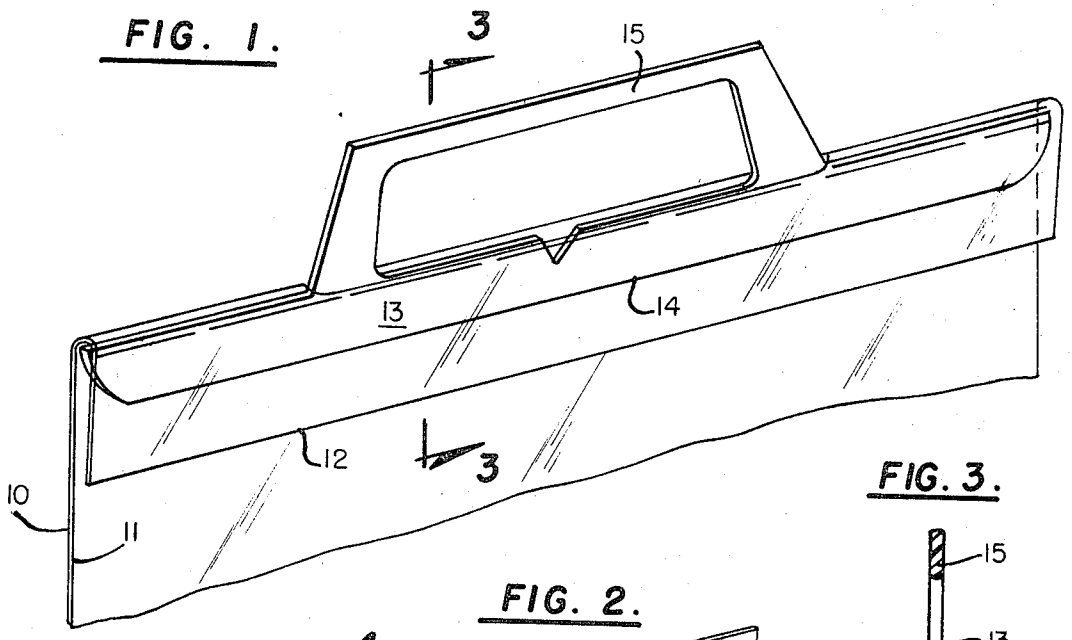


FIG. 2.

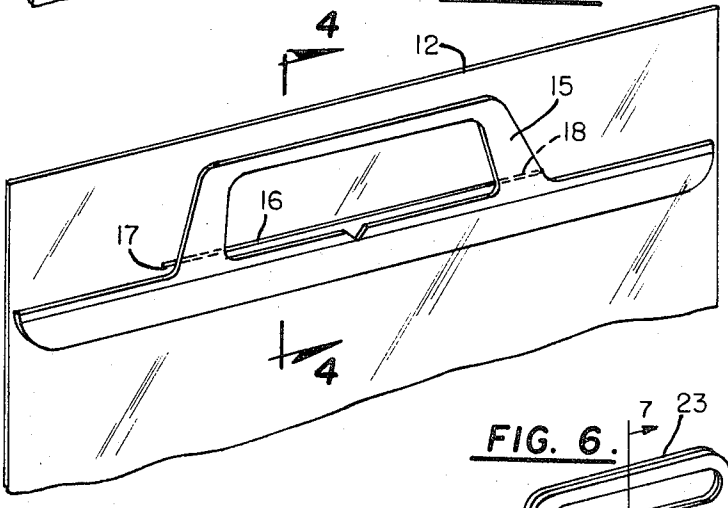


FIG. 3.

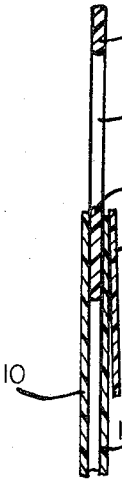


FIG. 4.

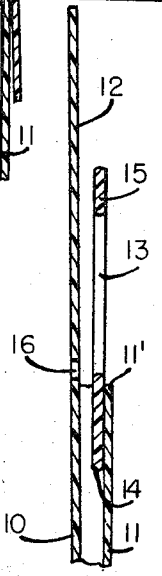


FIG. 6.

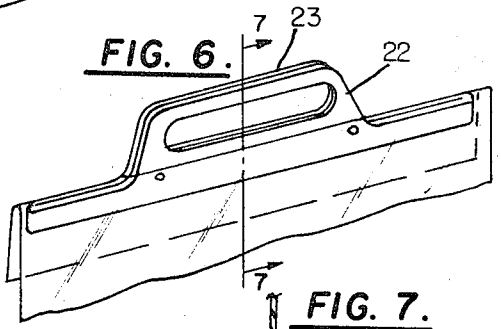


FIG. 5.

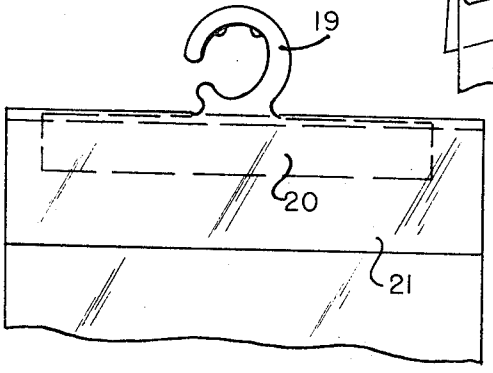
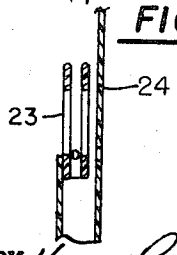


FIG. 7.



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CARRIER BAG AND HANDLE AND CLOSURE MEANS THEREFOR

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U.S. Cl. 229—54 8 Claims

ABSTRACT OF THE DISCLOSURE

A carrier bag having bag walls of a thin-film plastic material, with one of the bag walls having a fold-over flap at the mouth of the bag. A supporting means comprising a longitudinal sealing strip is secured to the inside of the bag wall along the edge which does not bear the overhanging flap. The flap has a slit through which a handle or hook portion of the supporting means may be inserted when the flap is folded over onto the other bag wall.

BACKGROUND OF THE INVENTION

Various types of bags made of thermoplastic material are known in the art. Many such prior art bags include a combination carrying and closure means for the bag which makes it possible to provide a tight closure thereof, so that its contents cannot readily be lost, nor can dirt or moisture readily enter the bag.

It is also well-known in the art to provide bags whose main body portion is formed of a thin-film of thermoplastic material, such as the more common vinyl or polyethylene plastics. The prior art further teaches the use of a combination carrying and closure means for such a thin-film plastic bag, which is heat-sealed or cemented, or otherwise fastened to this thin film. It is also common to fabricate the carrying and closure means from thermoplastic material having a substantially heavier gauge than that of the thin film used for the main portion of the bag, since this provides greater strength and provides a desirable rigidity to the mouth of the bag, thereby making it more convenient to open the bag, and to maintain it open for obtaining access to the bag's interior.

In addition to the foregoing, it is also known in the art to provide a combination carrying and closure means which consists essentially of two generally congruent strips of a semi-rigid material, such as a heavy-gauge plastic, which are heat-welded or heat-sealed to the mouth of the bag. To open the bag, it is then only necessary to grasp the two handle portions with one's right and left hands respectively, and separate the two handle portions. Quite often, a securing or locking means is employed, which tends to hold the two oppositely disposed handle portions together, thereby effectively maintaining a tight closure of the mouth of the bag. In its most practical form, such a fastening means may comprise frictionally engaging studs and recesses as shown, for example, in the patent to Laguerre No. 3,140,038.

Carrier bags of the type disclosed in the above-mentioned Laguerre patent have achieved great commerical success throughout the world. Reusable carrier bags have previously been known, but have generally been of rather substantial cost, thereby making them unattractive for use by a merchandiser, because of the competitive disadvantage which results from attempting to market goods in packaging of high cost. At the same time, inexpensive packaging materials, and particularly plastic bags, have not been indefinitely reusable. Thus, the combination of low cost with reusability in a closable carrier bag capable of being attractively decorated with advertising or the like has resulted in outstanding commercial success of the type bags just described.

There is, of course, a strong economic incentive to provide bags with all of the desirable attributes of the handle bags described above, but with reduced cost of manufacture, if possible. Thus, bags of the type just described employ overlying handle members which may be formed separately, or may be formed in one piece, as disclosed, for example, in Laguerre Pat. No. 3,310,224, issued Mar. 27, 1967. Efforts have been made to provide bags with only a single handle member, thereby resulting in economy of handle cost, and one such type of construction is disclosed, for example, in Teweles Pat. No. 3,128,035. However, the Teweles type bag is not a reusable bag, since the single handle member is heat-sealed to both of the bag walls at the mouth of the bag so that opening of the bag involves tearing of the handle away from the bag walls, thereby rendering the bag unusable thereafter as a carrier bag. It is, therefore, desirable to provide a bag construction which requires the use of only a single handle member, but results in a reusable, closable handle bag, and one in which the opening is capable of being completely closed, so as to prevent the entry of dirt and moisture. It is also desirable to provide such a construction in which the bag can readily be opened and closed many times without damage thereto.

SUMMARY OF THE INVENTION

The improved bag of the present invention comprises bag walls of a thin-film, heat-sealable plastic material, a carrying means for the bag which comprises an elongate sealing strip with centrally disposed hanger or hook portions extending laterally therefrom. At the mouth of the bag, one side wall extends upwardly above the other side wall, so as to form a fold-over flap which is capable of closing the mouth of the bag and preventing the entry of dirt or moisture. The sealing strip of the handle or hook means is heat-sealed or otherwise secured to the inside of the bag wall, but only along the shorter side not having the fold-over flap. The opposing bag wall has a longitudinal slit formed therein which is capable of receiving the handle or hook portion which extends laterally from the sealing strip. Thus, to close the bag mouth, one need only fold over the flap, at the same time inserting the handle or hook portion through the longitudinal slit, so that it will extend exterior of the flap when the flap is closed.

BRIEF DESCRIPTION OF THE DRAWINGS

In describing the invention, reference will be made to the accompanying drawings in which:

FIG. 1 is a perspective view of an embodiment of the invention showing the flap in the folded-over position;

FIG. 2 is a view of the bag of FIG. 1, but showing the flap in the position in which it is not folded over, so that the bag mouth is open;

FIG. 3 is a cross-sectional view taken along the section line 3—3 of FIG. 1;

FIG. 4 is a cross-sectional view taken along the section line 4—4 of FIG. 2;

FIG. 5 is a view of a modified form of the invention employing a hook rather than a handle;

FIG. 6 is a view of another modified form of the invention showing a two-part handle; and

FIG. 7 is a cross-sectional view of the embodiment of FIG. 6 taken along the section line 7—7.

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 illustrates the preferred embodiment of the invention which comprises thin-film, heat sealable plastic bag walls **10** and **11**, with the rear bag wall **10** extending

beyond the edge 11' of the front bag wall 11 so as to form a fold-over flap 12, as particularly shown in FIGS. 3 and 4. Secured to the inside edge of the front bag wall 11 is a single handle member 13 which is formed of a longitudinal sealing strip 14 and a laterally extending, generally U-shaped handle portion 15. Preferably, the longitudinal sealing strip portion 14 extends over substantially the entire length of the bag mouth, but it will be understood that the sealing strip may be shorter than this if desired.

Formed in the opposed bag wall 10, preferably at about the location of the bag mouth, is a longitudinal slit 16 shown particularly in FIGS. 2 and 4. This slit may be formed by a simple cutting operation and may have a length substantially equal to that of the laterally extending handle portion 15.

As clearly shown in both FIGS. 1 and 3, the bag mouth is readily closed by inserting the handle portion 15 through the slit 16, thereby enabling the flap 12 to be folded over onto the shorter bag wall 11. As a result, the handle portion 15 can readily be gripped by one carrying the bag, and at the same time the bag mouth is securely closed, since both bag walls are now effectively supported by the carrying means 13. By reason of the flap 12, moisture or dirt or the like cannot enter the closed bag mouth.

Since a thin film of plastic such as polyethylene will readily tear further along an existing tear line, it is desirable to provide a means for resisting this tendency along the longitudinal slit 16. This is readily accomplished by momentarily placing a heating tool adjacent each end of the slit 16, i.e. at 17 and 18, and with the heating tool being sufficiently hot as to be at least slightly above the melting temperature of the thin-film material. As a result, the bag wall material is slightly deformed at these regions, and it has been found that this greatly reduces the tendency of tearing at these locations.

FIG. 5 illustrates a modification of the invention wherein the carrying means comprises a hook 19 in place of the handle 13 of FIGS. 1–4. As with the above-described embodiment, however, the hook 19 is again preferably formed integrally with a sealing strip portion 20 which is again heat-sealed to the front bag wall, i.e. the wall which does not have the overhanging flap 21. The embodiment of FIG. 5 is, thus, particularly suited for use when the bags are to be displayed from rods or store display fixtures or the like. It will be noted that in this embodiment the sealing strip portion 20 has a length which is less than the width of the bag mouth.

FIGS. 6 and 7 illustrate a still different embodiment of the invention in which a handle and carrying means is employed having two overlying handle portions 22 and 23. This handle construction is, thus, similar to that disclosed in the above-mentioned Laguerre Pat. No. 3,310,224. However, in contrast to the teaching of such Laguerre patent, the two handle portions 22 and 23 of FIG. 6 are not both secured to the bag walls, but only the longitudinal sealing strip 23 is heat-sealed to the shorter, front bag wall. A longitudinal slit is again provided, and the laterally extending handle portions of both the handle portions 22 and 23 can readily be inserted through the slit and with the flap 24 again folded over, as with the previously described embodiments. It will be noted that the two handle portions 22 and 23 are integrally joined at their end portions, so that upon opening of the bag mouth, after the flap 24 has been folded back, any tendency to tear the bag walls at the sides of the bag is resisted upon opening of the bag by separation of the handle portions 22 and 23 by reason of the fact that all of the stress is borne by the handle portions 22 and 23 at their integrally joined ends. It is, of course, not necessary that the two portions 22 and 23 be so joined at their respective ends.

What we claim is:

1. A reusable carrier bag comprising in combination, front and back bag walls joined at sides and bottom and open at the top, one of said walls extending beyond the other at the top to form a flap adapted to be folded over onto the other bag wall to close the mouth of the bag, supporting means for said bag comprising at least one elongate sealing strip portion and a laterally extending portion adapted for supporting said bag, said strip portion being heat-sealed only to the inner surface of said other bag wall, and an elongate slit in said one wall having a length at least equalling that of said laterally extending portion of said carrying means when said flap is folded over to close the mouth of the bag with said laterally extending portion protruding through said slit.

2. The carrier bag of claim 1 in which said laterally extending portion of said supporting means is of generally inverted U-shape whose legs are integrally formed with said longitudinal sealing portion inwardly of the ends thereof.

3. The carrier bag of claim 1 in which said laterally extending portion of said supporting means is in the form of a hook.

4. The carrier bag of claim 1 in which said sealing strip portion has a length substantially equalling that of the mouth of said bag.

5. The carrier bag of claim 1 in which said sealing strip portion has a length less than that of the mouth of the bag.

6. The carrier bag of claim 1 in which said carrying means comprises two overlying members each comprising a sealing strip portion and a laterally extending portion, said two members being coextensive when placed in juxtaposition, only one of said overlying members having one side of its elongate sealing strip portion secured to said inner surface of said other body wall.

7. The carrier bag of claim 6 in which said two overlying portions of said carrying means are integrally joined at the ends of the respective elongate strip portions.

8. The carrier bag of claim 1 in which the ends of said elongate slit are deformed as by heating to a temperature above the melting point of the thermoplastic material of which the bag walls are formed to prevent tearing of said bag walls adjacent the ends of said slit.

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U.S. Cl. X.R.

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