A sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag includes at least two elongated panels connected together at a fold line so that one of the at least two elongated panels rotate to open the collapsible bag, an edge of the collapsible bag being folded over a top edge of the two elongated panels and a clip having arms to hold the edge of the collapsible bag over the top edge of one the two elongated panels.
TRASH BAG HOLDER

FIELD OF THE INVENTION

[0001] This invention relates generally to devices and methods for making same and for supporting trash bags.

BACKGROUND OF THE INVENTION

[0002] A problem known to anyone of collapsible bags is to keep the bag open while filling the bag. One such apparatus is described in U.S. Pat. No. 4,890,652 to Hoerner. One solution is to have one user hold the open bag while another user fills the bag. However, this solution is inefficient in requiring two users. A typical bag as flexible sides so that a great number of a bags can be stored in a one relatively small package. However, these flexible sides create problems in that the bag will not remain upright without additional support. This support can take many forms, but should solve several problems. First, the support should be lightweight so that it can be easily carried by the user. The support should maintain a firm attachment to the bag so that the support does not allow the bag to collapse as debris is being placed in the bag. Additionally, the support should easily be movable so that the bag can be moved from place to place.

SUMMARY OF THE INVENTION

[0003] The structure of the present invention provides an apparatus for maintaining a collapsible bag in a fully open condition and for holding the top edges of the bag during the filling process. The edges are easily released from the bag, and the apparatus is easily removed from the bag, leaving the debris in the bag. The apparatus includes a sleeve of several interconnected panels, which are adapted to fold upon each other to form a flat rectangular structure in the stored condition. The panels are arranged to be positioned substantially parallel to some but not all of the sides of the bag. As a result of this feature, the sleeve will accommodate differing sized bags. Grips are used to releasable secure the panel to the bag. After the debris has been collected and placed in the bag, the grips are released or removed from the panel and the bag so that the sleeve can be removed from the bag and reused with another bag. When the debris being is to be removed, the user grasps handles in the panel to aid in the removal of the sleeve. The sleeve is coated with moisture resistant agent such as wax or other suitable material to prevent moisture from degrading the material of the sleeve.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] FIG. 1 illustrates a front view of the sleeve of the present invention;

[0005] FIG. 2 illustrates a side view of the clip of the present invention;

[0006] FIG. 3 illustrates a perspective view of the sleeve being inserted into a bag;

[0007] FIG. 4 illustrates a perspective view of the bag being folded over the sleeve;

[0008] FIG. 5 illustrates a perspective view of clips being inserted over the sleeve and bag;

[0009] FIG. 6 illustrates a front view of the sleeve with U-shaped handles;

[0010] FIG. 7 illustrates a perspective view of the U-shaped handles.

DETAILED DESCRIPTION

[0011] As shown in FIG. 1, the sleeve 100 is formed of substantially rigid material of lightweight and sufficient thickness. The sleeve could be made from corrugated board material for example the ones used to manufacture packaging boxes or any other suitable material including REDIID material. The sleeve 100 may be reusable or disposable, and a material may be untreated or may be coated with a moisture resistant agent such as wax, plastic or any other suitable material to assist in making the sleeve 100 waterproof to make it more long-lasting or more slippery.

[0012] In one embodiment of the present invention, only one side of the sleeve is coated with a moisture resistant agent such as wax, plastic or any other suitable material. This allows the sleeve 100 to be waterproof, yet saving manufacturing costs in that coating with wax on a single side saves wax and a manufacturing step.

[0013] FIG. 1 shows sleeve 100 to include elongated panels 104, 106 and 108. Additional or fewer panels are within the scope of the invention. Using panel 104 as an example, the longitudinal edges of panel 104 are substantially parallel to the longitudinal sides of the bag, and the traverse edge of panel 104 is adjacent to the bottom of the bag.

[0014] The sleeve may be formed with hand-hold cut outs 102. FIG. 1 shows a single hand-hold cut out 102 in each panel. The sleeve could be manufactured without the hand-hold cut outs in each panel, or multiple hand-hole cut outs could be formed in a single panel. The sleeve is formed with the hand-hold cut outs 102 being typically cut on the arc and folded across the straight-line. The hand held cut out 102 could be manufactured so that the hand held cut out 102 opens toward the side of the sleeve 100 with the wax coating.

[0015] Continuing with FIG. 1, panel 104 is at one end of sleeve 100; and panel 108 is at another end of sleeve 100 while panel 106 is positioned between panel 104 and panel 108.

[0016] FIG. 1 additionally illustrates fold lines 110, 112 to define panel 104, panel 106 and panel 108. These fold lines 110, 112 should be sufficiently wide to allow the folding of panel 104 upon panel 106 and panel 108 upon either panel 106 or folded panel 104 to permit the panels 104, 106 and 108 to be stored and the panels to lie flat. In this manner, it is contemplated that the panels in the folded condition could be packaged by shrink-wrapping or stretch wrapping or any other suitable type of packaging.

[0017] FIG. 2 illustrates a clip 200 to hold the bag to the sleeve 100. FIG. 1 shows that the clip 200 is substantially U-shaped and that the clip 200 is used on each of the panels 104, 106 and 108. The use of the clip 200 on each panel allows the bag to be securely held to the sleeve 100. However, more or fewer clips 200 could be used to hold the bag in place. Continuing now with FIG. 2, the clip 200 includes two arms 202 to hold the bag to the sleeve 100. The two arms 202 are attached to a base 204. The clip 200 could be made from a flexible material such as a plastic material or any other suitable material. This flexible material allows
the arms 202 to be expanded so that the arms 202 can be easily placed around the bag and screen 100, and then when the arms 202 are released to return to their original positions, the arms 202 firmly grasps the bag and holds the bag against the panel 100. The distance between arms 202 should correspond approximately to the thickness of the sleeve 100 so that the bag is firmly grasped.

[0018] When the user is ready to use the sleeve 100, the user takes the sleeve 100 out of the packaging and keeps panels 104, 106 and 108 folded upon each other. The trash bag is selected to be filled with trash. The sleeve 100 with the panels 104, 106 and 108 being fold upon each other is inserted into the trash bag to be filled with trash. The panels 104, 106 and 108 are rotated along the fold lines 110 and 112 respectively as shown in FIG. 3 to open the bag. The trash bag being longer than the longitudinal dimension of panels 104, 106 and 108 has a top edge of the trash bag folded over the panels 104, 106 and 108 as shown in FIG. 4. After the top edges of a bag area folded over the panels 104, 106 and 108, the clips 200 are placed over the edges of the trash bag and the panels 104, 106, and 108 as shown in FIG. 5.

[0019] FIG. 6 shows a sleeve 600 with U-shaped handles. More particularly, handles 602 include in panel 604 a U-shaped cut out portion 612 shown in phantom line and a fold line 610. In panel 604, the handle 602 has been cut out and folded along the fold line 610 leaving a hole 614. The handle 602 extends beyond the top of panel 604 to allow the handle 602 to be easily grasped.

[0020] FIG. 7 shows a perspective view of the handle 602.

[0021] While the present invention has been described in terms of specific embodiments, modifications to the above-described features are considered to be within the scope of the present invention as defined by the claims.

1. A sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag, comprising:

   - at least two elongated panels connected together at a fold line so that one of said at least two elongated panels rotate to open the collapsible bag;
   - an edge of said collapsible bag being folded over a top edge of said two elongated panels;
   - a clip having arms to hold said edge of said collapsible bag over said top edge of one of said two elongated panels.

2. A sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 1, wherein one of said panels is coated with a moisture resistant agent on only one side.

3. A sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 2, wherein one of said panels includes a hand hold cut out having a folded portion being folded towards said moisture resistant agent side.

4. A sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 3, wherein said hand held cut out includes a cutout portion from said panel.

5. A sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 1, wherein said clip is substantially U-shaped.

6. A sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 1, wherein said clip includes an arm for holding said collapsible bag.

7. A method for forming a sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag, comprising the steps of:

   - forming at least two elongated panels connected together at a fold line so that one of said at least two elongated panels rotate to open the collapsible bag;
   - folding an edge of said collapsible bag over a top edge of said two elongated panels;
   - forming a clip having arms to hold said edge of said collapsible bag over said top edge of one of said two elongated panels.

8. A method for forming a sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 7, wherein the method includes the step of coating one of said panels with a moisture resistant agent on only one side.

9. A method for forming a sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 8, wherein the method includes forming one of said panels to include a hand hold cut out having a folded portion towards said moisture resistant agent side.

10. A method for forming a sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 9, wherein the method includes forming said handheld cut out with a cutout portion from said panel.

11. A method for forming a sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 7, wherein the method includes forming said clip substantially U-shaped.

12. A method for forming a sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 7, wherein the method includes forming said clip with an arm for holding said collapsible bag.

13. A sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 2, wherein one of said panels includes a hand hold cut out having a cut out portion and a folded portion, said cut out portion being U-shaped.

14. A sleeve for supporting the inside surface of a collapsible bag during the process of filling the collapsible bag as in claim 13, wherein said cut out portion extends beyond the top of said panel when folded along said fold line.