



US 20090145711A1

(19) **United States**

(12) **Patent Application Publication**  
**Panosian et al.**

(10) **Pub. No.: US 2009/0145711 A1**

(43) **Pub. Date: Jun. 11, 2009**

(54) **SOFT STORAGE BAGS WITH RIGIDIFYING WALL PANELS**

**Publication Classification**

- (51) **Int. Cl.**  
*A45C 7/00* (2006.01)  
*B65D 33/16* (2006.01)  
*B65D 33/02* (2006.01)
- (52) **U.S. Cl.** ..... **190/107; 383/42; 383/119**
- (57) **ABSTRACT**

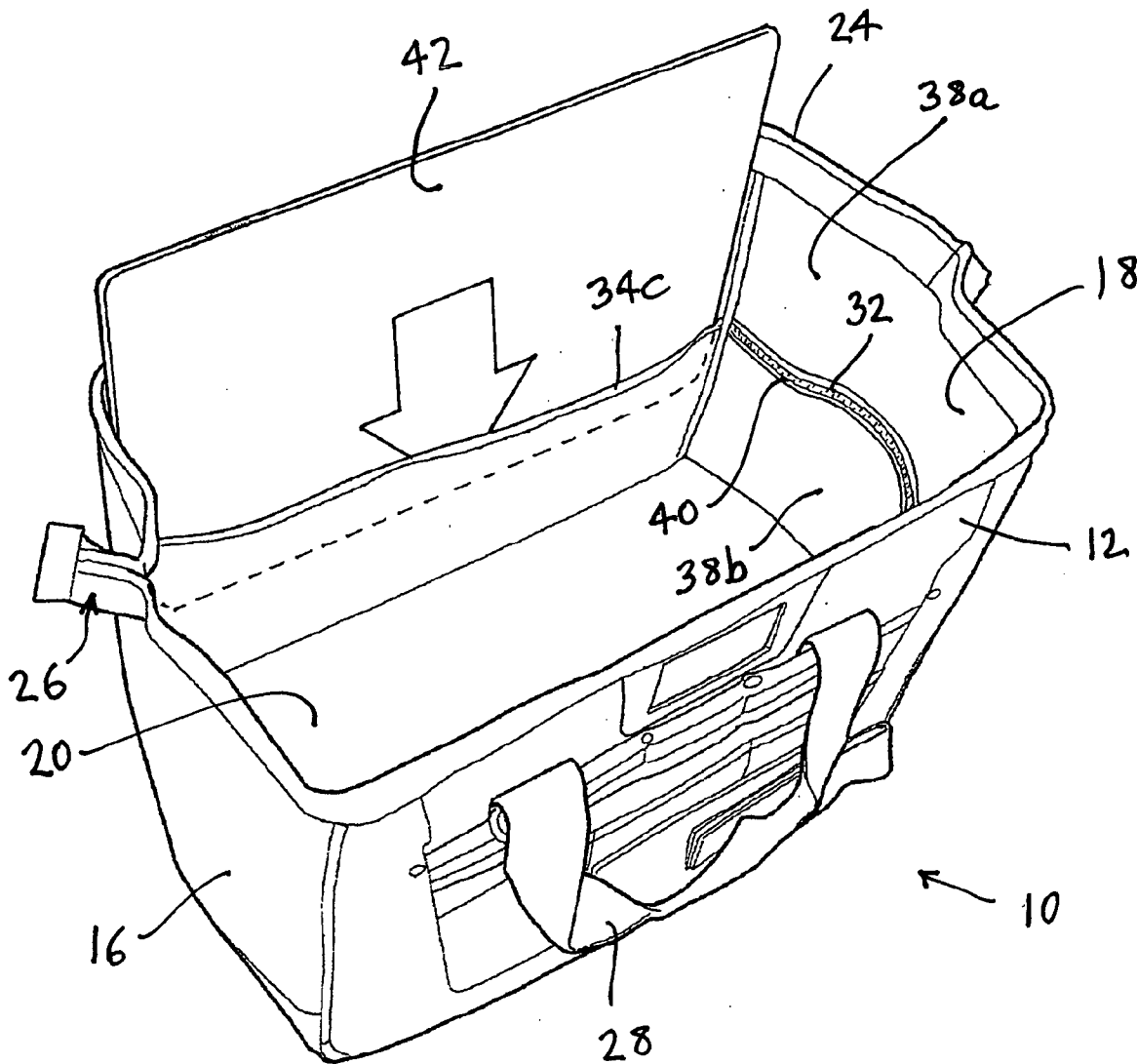
(76) **Inventors:** **Michael Harmik Panosian,**  
Glendale, CA (US); **Joshua Keeler,**  
Glendale, CA (US); **James Stobar,**  
Glendale, CA (US)

Correspondence Address:  
**Michael H. Panosian**  
**2425 Canada Blvd. (#102)**  
**Glendale, CA 91208 (US)**

(21) **Appl. No.: 12/001,420**

(22) **Filed: Dec. 10, 2007**

A soft storage bag includes a bottom, end and side walls made of generally soft panels and a top or upper end that can be selectively closed or opened to respectively close the bag or provide access to the interior of the bag and any contents placed into the bag. At least one rigidifying panel is positioned proximate to at least one of the panels. Securing members are provided for selectively securing the rigidifying panels to the soft panels to rigidify or stiffen the soft panels secured to an associated rigidifying panel. Thus, one or more of the soft panels can be stiffened when used to receive tools or the like within the bag while the soft panels can be rendered deformable when not in use by detaching the rigidifying panels to allow the bag to be collapsed for storage.



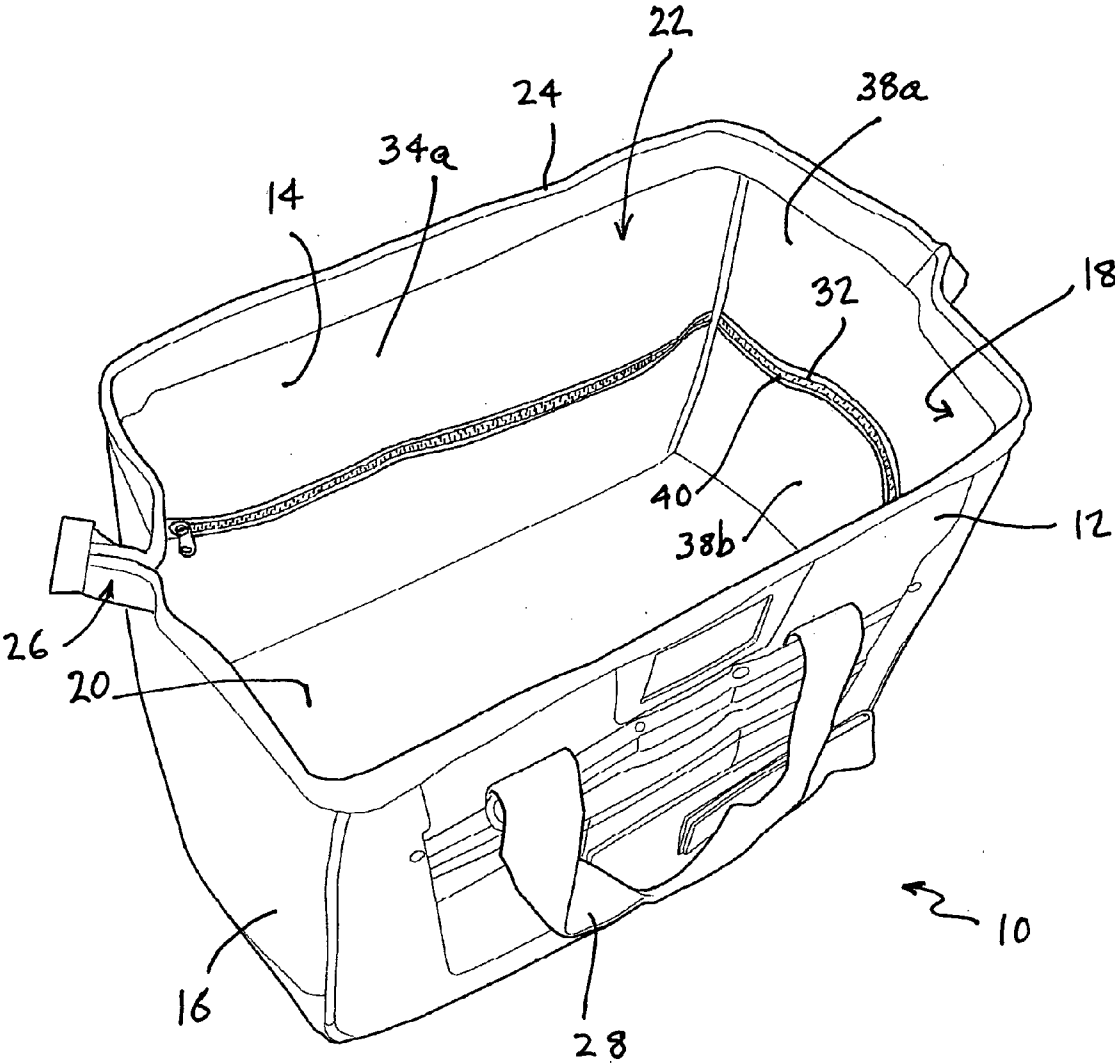


FIG. 1

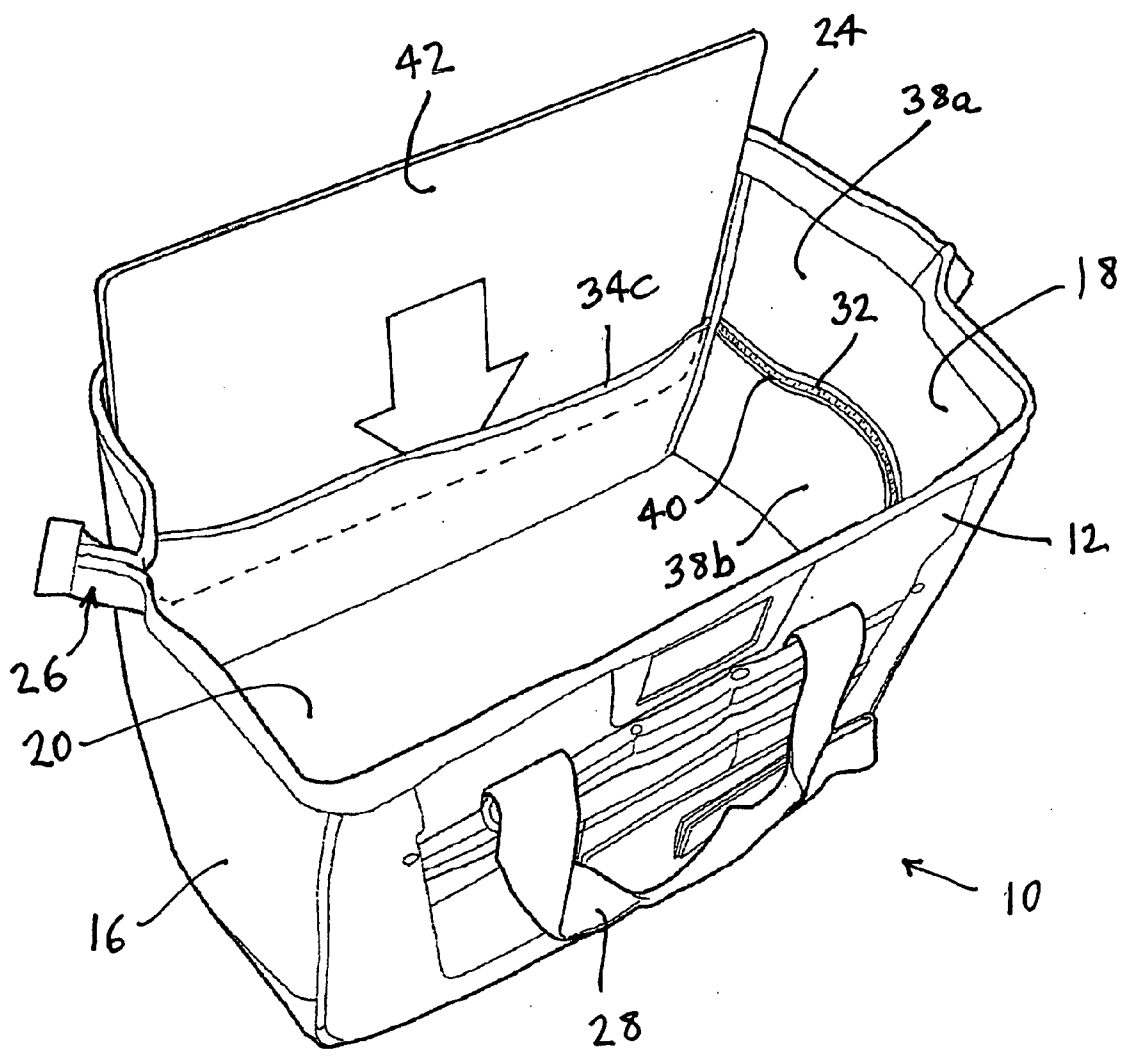


FIG. 2

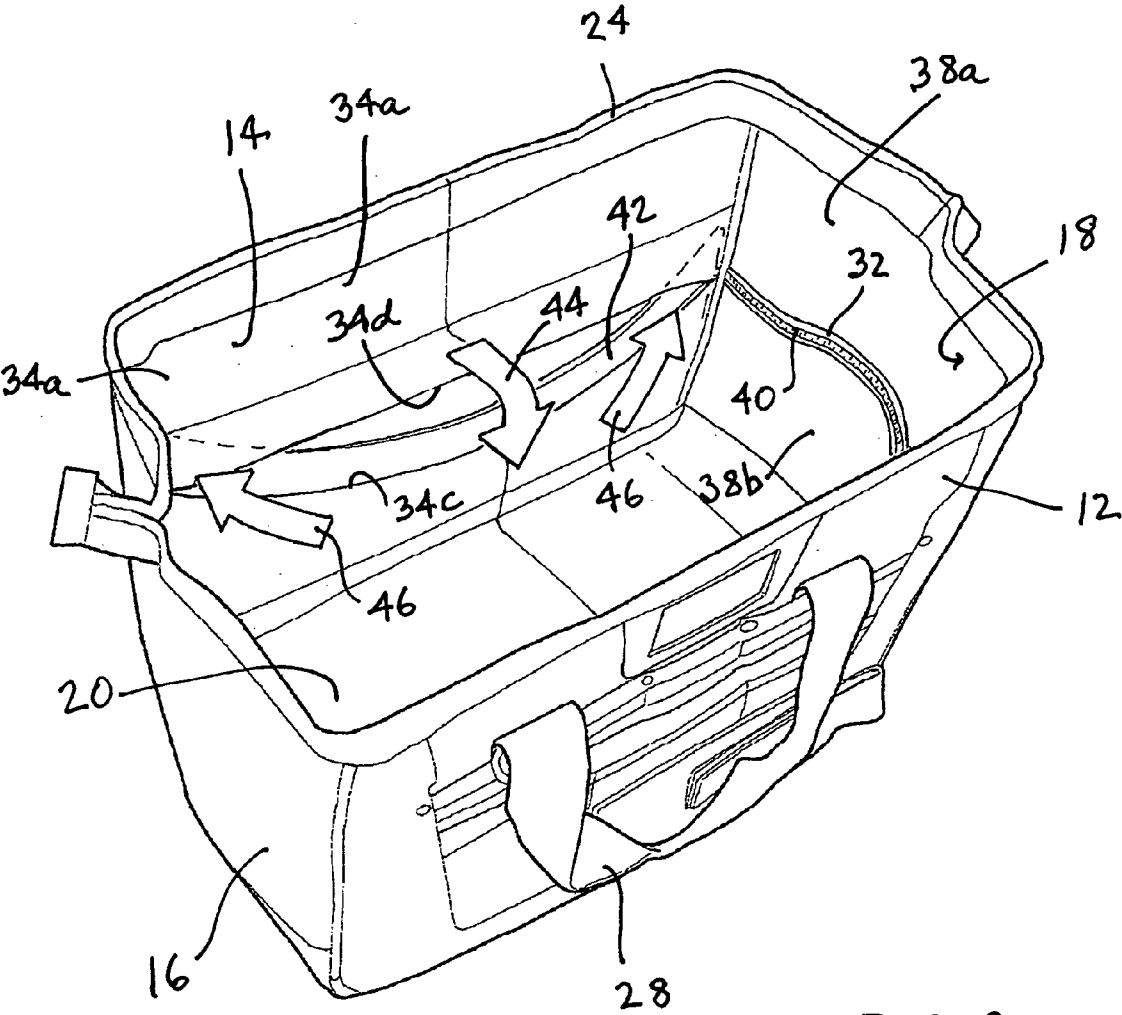


FIG. 3

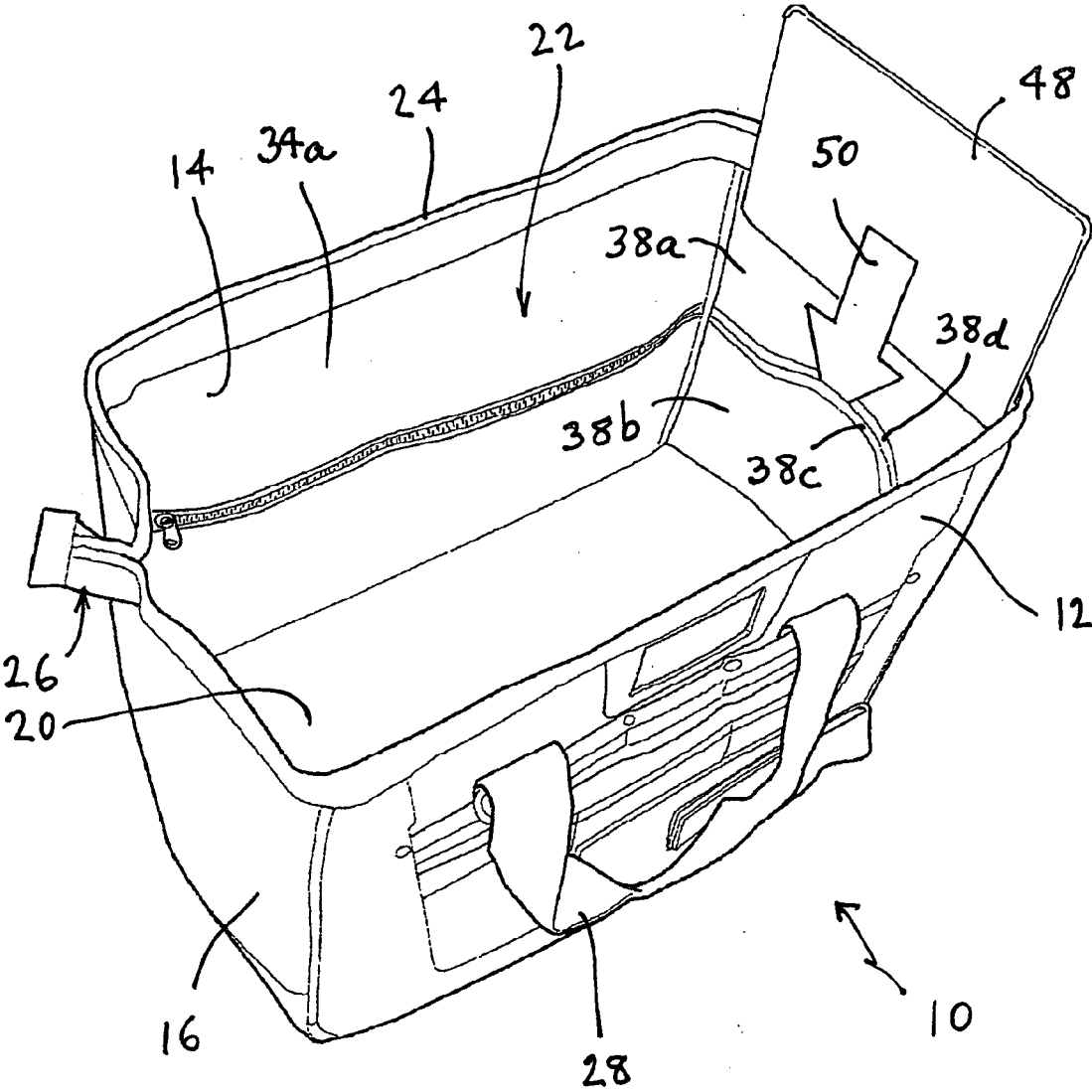


FIG. 4

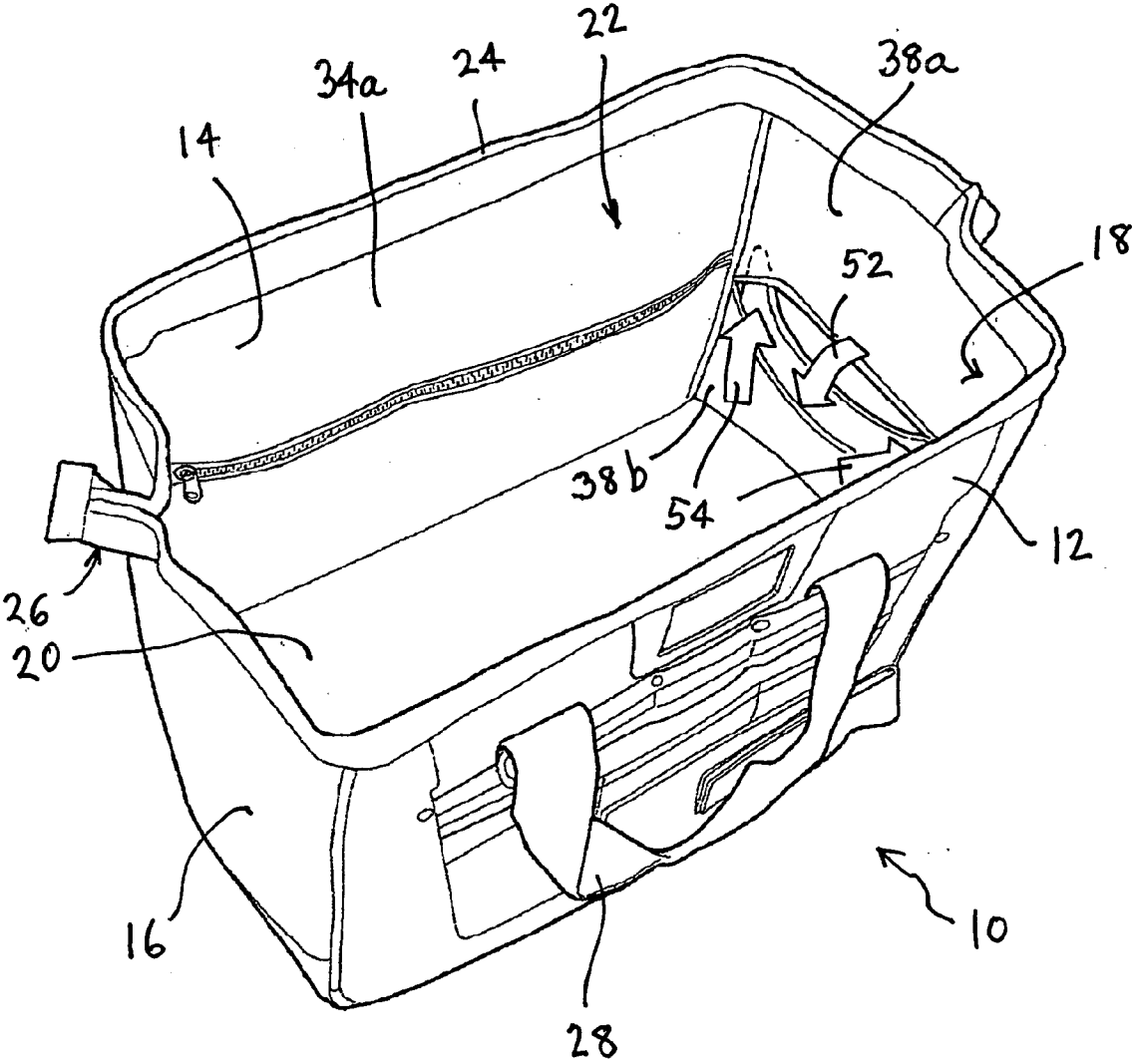


FIG. 5

## SOFT STORAGE BAGS WITH RIGIDIFYING WALL PANELS

### BACKGROUND OF THE INVENTION

**[0001]** 1. Field of the Invention

**[0002]** The present invention generally relates to storage and carrying bags and, more specifically, to soft bags with rigidifying wall panels.

**[0003]** 2. Description of the Prior Art

**[0004]** Storage bags or carrying bags are made in essentially to forms. Some bags are made out of soft fabrics or plastic materials, such as a duffel bags, soft luggage bags, etc. Other bags are formed of stiff or rigid materials, such as hard luggage suitcases. Each type has its own advantages and disadvantages. The soft bags can be collapsed when not in use and require less space for storage. Because the walls of such bags are soft, they can sometimes accommodate larger or irregular objects by deforming the walls of the bag. The hard bags, on the other hand, sometimes provide greater protection for the contents. However, when the hard cases or bags are not in use they require more room to be stored and are more bulky and, therefore, more expensive to ship. Also, with soft bags, the walls are soft and limp and cannot support loads on the exterior of the walls. Any weight or forces applied to the walls of such soft bags causes the walls the collapse, particularly if the bag is empty or near empty. In short, the walls of soft bags do not have the inherent stiffness to provide the walls with any body or load-bearing capacity.

### SUMMARY OF THE INVENTION

**[0005]** Accordingly, it is an object of the invention to provide soft-walled bags that do not have the disadvantages inherent in prior known bags.

**[0006]** It is another object of the invention to provide soft-walled bags to have some of the characteristics or properties of hard-walled bags.

**[0007]** It is still another object of the invention to provide soft-walled bags, whose walls can be stiffened or rigidified especially for use in certain applications.

**[0008]** It is yet another object of the invention to provide soft-walled bags of the type under discussion, which impart to the inherently soft walls weight-bearing capacity on the outside of the bags.

**[0009]** It is a further object of the invention to provide soft-walled bags, as in the previous objects, that can be quickly and conveniently modified to selectively stiffen or rigidify at least one soft wall of the bag.

**[0010]** It is still a further object of the invention to provide a soft-walled bag that is simple in construction and economical to manufacture.

### BRIEF DESCRIPTION OF THE DRAWINGS

**[0011]** These and other objects will become apparent when the drawings of the present invention are considered in detail along with the specification, taken with the drawings as follows:

**[0012]** FIG. 1 is a perspective view of a soft walled bag in accordance with the present invention, shown in an open condition to expose the separate compartments for accepting rigidifying panels.

**[0013]** FIG. 2 is similar to FIG. 1, showing one of the separating compartments for one of the soft walls for receiving the rigid panel.

**[0014]** FIG. 3, similar to FIG. 2, showing the rigid panel fully inserted within the compartment in the soft wall and the manner in which the compartment can be closed.

**[0015]** FIG. 4 is similar to FIG. 2, but showing a rigid panel inserted into one of the compartments of the bag.

**[0016]** FIG. 5 is similar to FIG. 3, but showing the closure of the small compartment.

### DESCRIPTION OF THE PREFERRED EMBODIMENT

**[0017]** Referring now specifically to the drawings, in which identical or similar parts are designated by the same reference numerals throughout, and first referring to FIG. 1, a soft bag in accordance with the present invention is generally designated by the reference 10.

**[0018]** The bag 10 may be considered to be a convertible bag, as it can be converted from a bank having soft walls to a bag in which at least one of the walls, preferably all of the exterior walls, can be stiffened or rigidified.

**[0019]** The bag 10 has a front wall 12, a rear wall 14, sidewalls 16, 18 and a bottom wall 20. The top of the bag has an opening 22 defined by an upper rim or edge at 24 and a zipper 26, that can be used to close the bag. Conventional handles 28 can be provided on each of the larger walls, 12, 14 for gripping and transporting the bag.

**[0020]** At least one of the walls, 12, 14, 16, 18 is formed as a double wall including an outside or exterior protective wall and an inside lining wall together forming pouches or compartments 30, 32. Each of the linings is formed of upper and lower panels. Thus, for example, the rear wall 14 has an upper liner panel 34a and a lower liner panel 34b that can be selectively joined along their mutual juxtaposed edges by means of a zipper 36. Similarly, the liners of the smaller sidewall 18 is formed of upper panels 38a and lower panels 38b that can be selectively joined or separated by a zipper 40.

**[0021]** Referring to FIG. 2, a rigid panel 42 is shown being inserted into the pouch 30 formed in the rear wall 14. To do this, the zipper 36 is opened to free the juxtaposed edges from each other. The upper edge at 34c of the lower panel 34b, may be deflected inwardly towards the inside of the bag to provide an opening for the lower edge of the rigid panel 42. Once the rigid panel 42 has been inserted behind the edge at 34c it can be urged downwardly until the bottom edge of the panel is substantially coextensive with the plane forming the bottom wall 20. Referring to FIG. 3, the rigid panel 42 has been fully inserted into the compartment formed in the rear wall 14. The lower edge at 34d of the upper panel 34a can be pulled over the upper edge of the panel 42. As suggested by the arrow 44, where the size of the panel 42 has a width substantially corresponding to the width of the rear panel 14, it may be necessary to bend the lateral edges of the panel 42 outwardly, as suggested by the arrows 46, in order to facilitate insertion of the panel 42 into the compartment. In this way, once the panel is fully inserted, it can be permitted to restore itself to the flat condition, ensuring that the rear wall 14 is biased outwardly at its lateral ends to thereby stiffen the wall along its entire width.

**[0022]** Referring to FIGS. 4 and 5, a rigid panel 48 is inserted into the end or sidewall 18 by lowering it in direction 50 by separating coextensive or juxtaposed edges at 38c, 38d formed a by upper and lower liner panels 38a, 38b. The upper edge at 38d is pulled over the upper edge of the rigid panel 48, as suggested by arrow 52. As with the rear wall 14, the rigid panel 48 may also be flexed as shown and as suggested by

arrow **54**, in order to initially fit the panel into the liner compartment. The liner is then allowed to expand and revert to a flat condition once inserted into that compartment. This ensures that sidewall **18** will remain rigid until the panel **48** is removed.

[0023] It will be appreciated that the present invention allows a soft walled carrying or storage bag to be quickly and easily and conveniently converted into a bag having rigid walls that are capable of protecting objects inside the bag. Equally importantly, the rigidifying walls can now support objects on the outsides of the walls, as disclosed or suggested in co-pending application serial number. Such rigidifying walls can now bear or support accessories, tool bags or modules, power tools, or the like, **20** on the outside surfaces of the walls.

[0024] While the preferred embodiments have been shown and described, it will be understood that there is no intention to limit the invention by such disclosure, but rather, it is the intention to cover all modifications and alternate constructions falling within the spirit and scope of the appended claims.

1. Soft storage bag comprising bottom, end and side walls made of generally soft panels and a top or upper end that can be selectively closed or opened to respectively close the bag

or provide access to the interior of the bag and any contents placed into the bag; at least one rigidifying panel positionable proximate to at least one of said panels; and securing means for selectively securing said at least one of said rigidifying panels to said at least one of said soft panels to rigidify or stiffen said at least one of said soft panels secured to an associated rigidifying panel, whereby one or more of said soft panels can be stiffened when used to receive tools or the like within the bag while said soft panels can be rendered deformable when not in use by detaching said rigidifying panels to allow the bag to be collapsed for storage.

2. Soft storage bag as defined in claim 1, wherein said securing means comprise interior soft sheets attached to soft panels to form pockets, and said rigidifying panels comprise stiff planar panels receivable within said pockets.

3. Soft storage bag as defined in claim 1, wherein pockets and planar panels are provided for side walls.

4. Soft storage bag as defined in claim 1, wherein pockets and planar panels are provided for end walls.

5. Soft storage bag as defined in claim 2, including closure means for closing said pockets after said stiff planar panels are placed therein.

\* \* \* \* \*