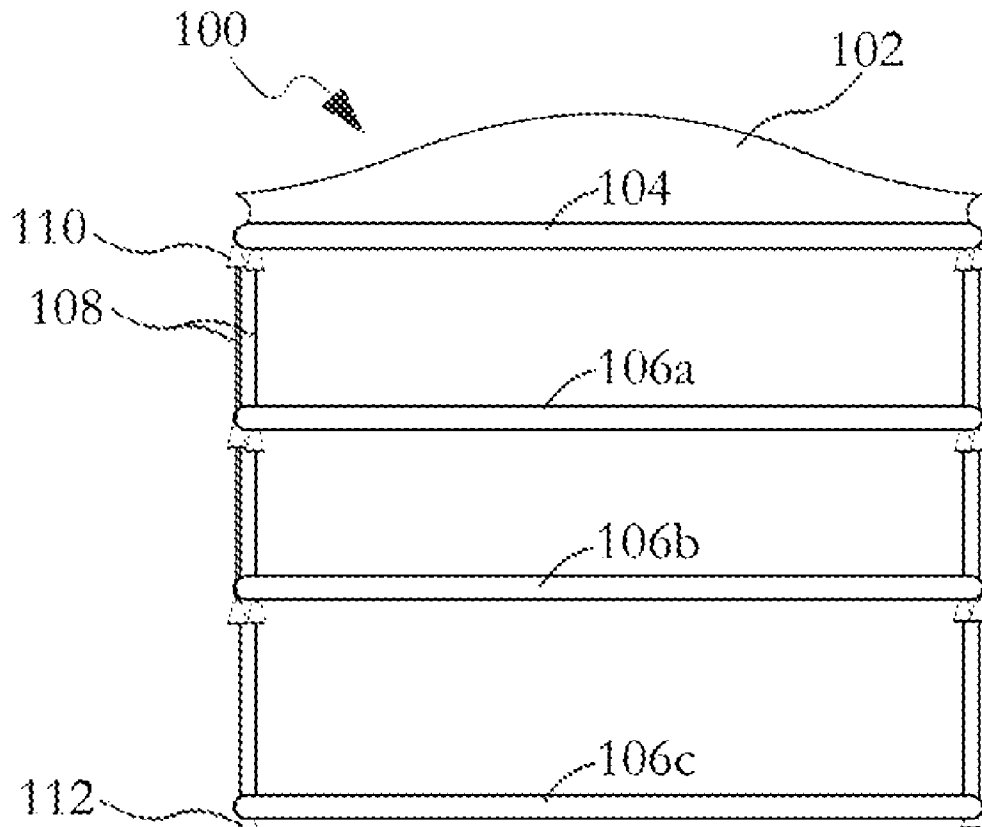




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(19) **United States**(12) **Patent Application Publication**
Hoch(10) **Pub. No.: US 2012/0292276 A1**(43) **Pub. Date: Nov. 22, 2012**(54) **PORTABLE SHELVING UNIT**(76) Inventor: **Timothy Hoch**, Greenville, PA
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A47B 96/02 (2006.01)(52) **U.S. Cl.** **211/90.02; 211/153**(57) **ABSTRACT**

A portable shelving unit comprising a backboard; a top shelf attached to a bottom portion of the backboard, where the top shelf extends perpendicular to the backboard; a set of suspension cords attached to the lateral ends of the top shelf, where the set of suspension cords extend the length of the portable shelving unit; a plurality of shelves positioned beneath the top shelf, where the plurality of shelves are suspended from the set of suspension cords by threading the set of suspension cords through a set of holes positioned at the lateral ends of the plurality of shelves; and a plurality of adjusters attached beneath the plurality of shelves wherein the plurality of adjusters secure the plurality of shelves along the set of suspension cords.



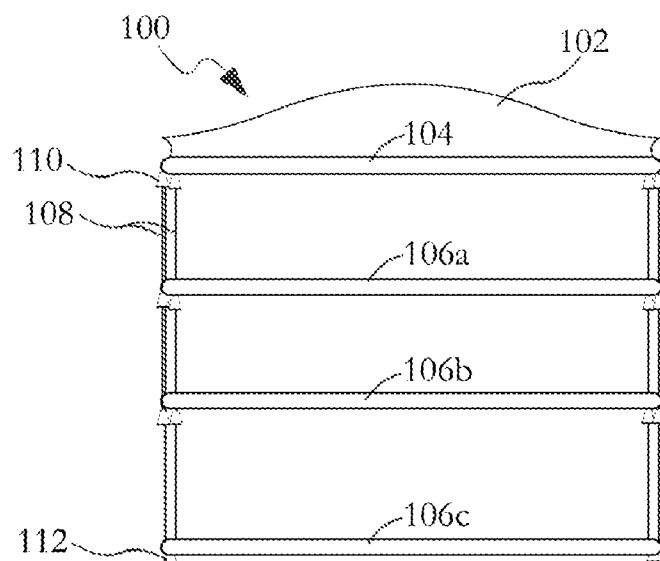


FIG. 1

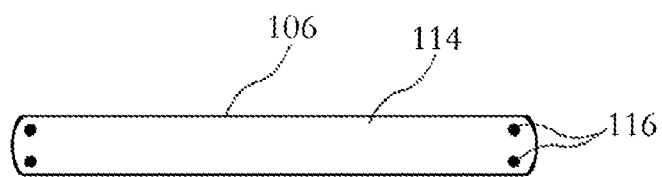


FIG. 2

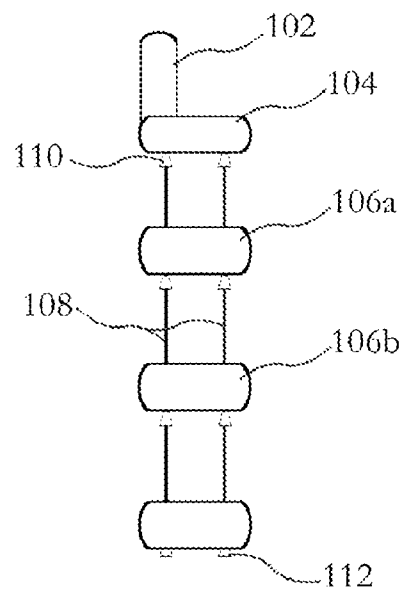


FIG. 3

PORTABLE SHELVING UNIT

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a shelving unit with suspended shelves to enable a user to easily transport and mount the shelving unit and also to customize the spacing of the shelves at will by the user.

[0003] 2. Description of Related Art

[0004] Bookcases and wall shelves offer a person extra storage space where they can place their belongings whether for a utility purpose or a purely decorative purpose. Often the case, wall shelves must be permanently and tightly anchored to the wall so that the heavy weight supported does not cause the shelves to sag or fall. The wall shelves are usually rigid structures not easily transported or disassembled. Commonly, the wall shelves available on the market are prefabricated in standard sized units that are sold in bulk at a variety of household stores. Custom sized wall shelves are available but they are often much more expensive than the standard shelves sold. Even though customization is available, portability always remains a problem.

[0005] Some developments have been made to aid users when transporting wall shelves by making the units more portable and even collapsible. U.S. Pat. No. 4,523,526 by Hugh O'Neill discloses hanging strapped shelves wherein the hanging shelves are connected to each other with loops of shelf straps. The top shelf is supported by securing the looped strap to the wall. These shelves are easily collapsible but the large straps may be interfering with the items placed on the shelves. Also, U.S. Pat. No. 6,637,609 by Michael Dale Stevens discloses a portable storage apparatus wherein the storage apparatus is suspended from above from the wall and the shelves rest against a fabric backing. While both of these devices disclose more easily transportable shelving units they are still both static structures without the option for customization or change.

[0006] It would be beneficial in the art to provide a shelving unit that allows a user to easily transport and mount the shelves. It would also be desirable in the art to provide a shelving unit that enables the user to customize the distance between the shelving.

SUMMARY OF THE INVENTION

[0007] In view of the foregoing disadvantages inherent in the prior art, the general purpose of the present invention is to provide a portable shelving unit, configured to include all of the advantages of the prior art, and to overcome the drawbacks inherent therein.

[0008] Accordingly, an object of the present invention is to provide a portable shelving unit that is collapsible to allow a user to easily transport the shelving from one place to another.

[0009] Another object of the present invention is to provide a portable shelving unit that enables a user to customize the distance between the shelves to accommodate the various items placed on the shelves.

[0010] To achieve the above objects, in an aspect of the present invention, a portable shelving unit is disclosed comprising a backrest, where the backrest is mounted to a wall; a top shelf attached to a bottom portion of the backrest, where the top shelf extends perpendicular to the wall; a set of suspension cords attached to the lateral ends of the top shelf, where the set of suspension cords extend the length of the

portable shelving unit; a plurality of shelves positioned beneath the top shelf, where the plurality of shelves are suspended from the set of suspension cords by threading the set of suspension cords through a set of holes positioned at the lateral ends of the plurality of shelves; and a plurality of adjusters attached beneath the plurality of shelves wherein the plurality of adjusters secure the plurality of shelves along the set of suspension cords.

[0011] These together with other aspects of the present invention, along with the various features of novelty that characterize the present invention, are pointed out with particularity in the claims annexed hereto and form a part of this present invention. For a better understanding of the present invention, its operating advantages, and the specific objects attained by its uses, reference should be made to the accompanying drawings and descriptive matter in which there are illustrated exemplary embodiments of the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The advantages and features of the present invention will become better understood with reference to the following detailed description and claims taken in conjunction with the accompanying drawings, wherein like elements are identified with like symbols, and in which:

[0013] FIG. 1 depicts a perspective view of a portable shelving unit in accordance with an exemplary embodiment of the present invention;

[0014] FIG. 2 depicts a top view of a shelf in accordance with an exemplary embodiment of the present invention; and

[0015] FIG. 3 depicts a side view of a portable shelving unit in accordance with an exemplary embodiment of the present invention.

[0016] Like reference numerals refer to like parts throughout the description of several views of the drawings.

DETAILED DESCRIPTION OF THE DRAWINGS

[0017] The present invention relates to a shelving unit with suspended shelves to enable a user to easily transport and mount the shelving unit and to customize the spacing of the shelves at will by the user. The present invention describes a portable shelving unit to provide a more portable and customizable option to the shelving units currently available on the market. The portable shelving unit comprises multiple shelves suspended from a top backboard by a set of suspension cords. The shelves include a set of adjusters to secure the shelves in place along the set of suspension cords. The set of adjusters allow the user to customize the space between the shelves to accept items of varying height.

[0018] Turning now descriptively to the drawings, referring to FIG. 1, a perspective view of a portable shelving unit (100) is shown in accordance with an exemplary embodiment of the present invention. The portable shelving unit (100) includes a backboard (102) along the top portion of the portable shelving unit (100). The backboard (102) mounts against a wall to secure and anchor the portable shelving unit (100). The backboard (102) may be nailed to the wall or stuck in place with strong adhesive tabs. Extending perpendicularly from the backboard (102) is a top shelf (104) which is attached to a bottom portion of the backboard (102). The top shelf (104) may provide the top most surface upon which to place items.

[0019] Accordingly, a set of suspension cords (108) is attached to the top shelf (104) and extend downwardly along the length of the portable shelving unit (100). The set of

suspension cords (108) may be made from nylon, metal, cotton or the like. The set of suspension cords (108) is arranged with one cord in front of the other, and a pair of cords on each lateral end of the portable shelving unit (100).

[0020] Attached to the set of suspension cords (108) beneath the top shelf (104) are a plurality of shelves (106a, 106b, 106c). The plurality of shelves (106a, 106b, 106c) are held in place along the set of suspension cords (108) with a plurality of adjusters (110) secured against the underside of the plurality of shelves (106a, 106b, 106c). The plurality of adjusters (110) may be rubber stoppers, spring-loaded cord locks or other commonly used locking devices. For additional reinforcement, the suspension cord may be tied into a knot beneath the adjusters (110) to lock the shelf (106) in place and to ensure that the adjuster (110) does not slide along the cord (108).

[0021] The plurality of shelves (106a, 106b, 106c) may be evenly spaced along the set of suspension cords (108). Alternatively, the plurality of shelves (106a, 106b, 106c) may be spaced at varying distances to accommodate object of differing heights set upon the individual shelves (106). For adjustments, the plurality of adjusters (110) slide up and down the set of suspension cords (108) to enable the plurality of shelves (106a, 106b, 106c) to slide up and down as well. Beneath the bottom shelf (106c) may be a set of stoppers (112). The set of stoppers (112) are permanently attached cord locks that ensure that the bottom shelf (106c) does not fall or slide along the set of suspension cords (108).

[0022] Referring to FIG. 2, a top view of a single shelf (106) is shown in accordance with an exemplary embodiment of the present invention. The shelf (106) has a top surface (114) to support the items placed within the portable shelving unit (100). Within the lateral portions or ends of the shelf (106) are a set of holes (116). The set of holes (116) enable the set of suspension cords (108) to thread through the shelf (106) and connect one shelf (106) to another. The shelf (106) may be made of wood, plastic, aluminum or similar materials strong enough to support the above placed items, yet light enough to be supported by the backboard (102).

[0023] Referring to FIG. 3, a side view of the portable shelving unit (100) is shown in accordance with an exemplary embodiment of the present invention. FIG. 3 better illustrates the arrangement of the set of suspension cords (108) wherein one cord is positioned in front of the other. FIG. 3 also illustrates how the set of suspension cords (108) extend downwardly along the length of the portable shelving unit (100). The backboard (102) and the top shelf (104) are positioned in an "L" arrangement wherein the backboard (102) rests against the wall and the top shelf (104) extends from the wall.

[0024] The portable shelving unit is a convenient device able to be used by a wide variety of users. The backrest and shelves may be laminated or painted to match the surrounding furniture in a room or they may be colorful if placed in a child's room or baby nursery. Also, the number of shelves may range from 1-5 shelves attached to the cords beneath the top shelf depending on the needs of the user. Preferably 3 shelves are suspended from the backrest. By utilizing the adjusters the distance between the individual shelves may be

customized thereby accommodating the items and objects placed on the shelves. When not in use, the portable shelving unit is easily stored by compressing the cords, and stacking the plurality of shelves to place the unit in a closet, garage or storage space.

[0025] The foregoing descriptions of specific embodiments of the present invention have been presented for purposes of illustration and description. They are not intended to be exhaustive or to limit the invention to the precise forms disclosed, and obviously many modifications and variations are possible in light of the above teaching. The exemplary embodiment was chosen and described in order to best explain the principles of the invention and its practical application, to thereby enable others skilled in the art to best utilize the invention and various embodiments with various modifications as are suited to the particular use contemplated.

What is claimed is:

1. A portable shelving unit comprising:
 - a backboard;
 - a top shelf attached to a bottom portion of said backboard, where said top shelf extends perpendicular to said backboard;
 - a set of suspension cords attached to the lateral ends of said top shelf, where said set of suspension cords extend the length of said portable shelving unit;
 - a plurality of shelves positioned beneath said top shelf, where said plurality of shelves are suspended from said set of suspension cords by threading said set of suspension cords through a set of holes positioned at the lateral ends of said plurality of shelves; and
 - q a plurality of adjusters attached beneath said plurality of shelves wherein said plurality of adjusters secure said plurality of shelves along said set of suspension cords.
2. The portable shelving unit according to claim 1, wherein said plurality of shelves is arranged evenly along said set of suspension cords.
3. The portable shelving unit according to claim 1, wherein said plurality of shelves is arranged with varying spaces between the individual shelves.
4. The portable shelving unit according to claim 1, wherein beneath a bottom shelf of said plurality of shelves is a set of stoppers attached to said set of suspension cords.
5. The portable shelving unit according to claim 4, wherein said set of stoppers are permanently attached to said set of suspension cords.
6. The portable shelving unit according to claim 1, wherein said set of suspension cords is made from one of at least nylon, metal and cotton.
7. The portable shelving unit according to claim 1, wherein said backrest is nailed to said wall.
8. The portable shelving unit according to claim 1, wherein said backrest is attached to said wall with a plurality of strong adhesive tabs.
9. The portable shelving unit according to claim 1, wherein said plurality of shelves are made from one of at least plastic, wood and aluminum.

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