A hanging system comprised of a flexible spine made of a hook and loop material and substantially one dimensional hangers suspended from the flexible spine with complementary hook and loop material. Flexible clothing, such as shirts, pants, and skirts can be suspended from the hangers and attached to the spine for easy viewing and efficient organization and use of space. The spine, with clothing attached, can be rolled or draped to facilitate wrinkle-free and secure transport.
RACK, STORAGE & DISPLAY SYSTEM FOR CLOTHING

FIELD OF THE INVENTION

[0001] This invention relates to the design and construction of a novel system for the improved handling of clothing, especially self-launched apparel.

BACKGROUND OF THE INVENTION

[0002] Hanging systems and storage systems for clothing exist in various forms and are well known in the prior art. Conventionally and ubiquitously, hanging systems have used a fixed dimension hanger with a hook to hold shirts, dresses, pants and similar items of clothing. While systems have been developed to combine one or more hangers for purposes of collecting articles of clothing for transport, these systems generally utilize the aforementioned conventional hanger elements. All of the existing systems are 2-dimensional, having both a width to accommodate the shoulders of a shirt or other top hanging garment or to accommodate folded pant legs, and further having height for purposes of attaching a hook to the hanger portion while continuing to accommodate the function of hanging articles of clothing. For example, the horizontally disposed bar of a conventional hanger system may be used to drape pants thereon. To accommodate this function while simultaneously providing for a structure to support a hook from which the hanger may be suspended, the conventional hanger is displaced in two dimensions.

SUMMARY OF THE INVENTION

[0003] There have been a number of garment hangers and hanging and transport systems in the prior art. The inventive structure presents a number of advantages over the prior art. First, the invention is simple to form. A rod or hanger, optionally telescoping or expandable in width, is suspended from a strip consisting of hook and loop material, also known as the vertical linear docking strap, using complementary hook and loop tabs. This strip may be hung in the conventional manner using a hook or other similar device, well known to practitioners in the art. This strip may also utilize a locking pad, comprising complementary hook and loop material, to secure the strip to a hook or other similar device. The locking pad may prevent the application of weight to one half of the strip from causing the strip to disengage from the hook or other similar device while suspended. The locking pad may also be utilized to adjust the length of strip suspended from the hook or other similar device to accommodate different storage facilities and situations. The expandable rod may be adapted as necessary for top garments to stretch from shoulder seam to shoulder seam with enough tension to eliminate wrinkles and preclude the necessity of ironing or folding. The dowel rod with attaching clip may be adapted as necessary to accommodate the draping of pants and other garments.

[0004] This hanging system is unique in that it is rigid in only one dimension. The expandable rod or hanger occupies a rigid horizontal dimension, with both the hook and loop tab and hook and loop strip each comprising a flexible vertical axis or spine. The hangers of this system have width but not height as they are attached to the spine via the tab comprising hook and loop material. As a consequence, and unlike conventional and prior art rods and hangers and their systems, the present invention has many advantages. Articles of clothing may be placed in ascending or descending fashion upon both sides of the vertical linear docking strap allowing for better allocation of space, a balanced hanging system and better visibility of the clothing articles by virtue of the vertical offset of each succeeding article of clothing. The one dimensional rigidity allows the combination of strip and multiple rods or hangers, with their articles of clothing, to be draped or rolled in a continuous fashion, resulting in a compact and secure clothing “roll”, which may then be easily transported using a transport bar or system, draped over a shoulder, or loaded into a duffel bag or other transport system capable of holding a cylindrical package. An additional advantage of this racking, storage and transport system is the avoidance of wrinkling in the articles of clothing, induced by conventional hanging and folding methods.

[0005] The proposed invention is extremely versatile. It can be suspended in a closet, hung over a door, or suspended anywhere it can be hung via a hook. It can also be affixed to another hook & loop surface that may be anchored in strategic locations. The invention may incorporate a transport bar or strap, comprising the core of a rolled or draped strip with clothing, and to which an integral or separate strap may be attached to allow transport of the system on a person’s shoulder. It may be adapted for conventional travel in a garment bag, taking advantage of the improved distribution of clothing along its length to reduce bulk and provide for an improved distribution of weight and balance.

[0006] The proposed invention provides for a more efficient use of closet or storage space while providing improved visibility for all suspended garments and reduced opportunity for garment wrinkling. The vertical disposition of clothing along the docking strip results in a more judicious use of the horizontal displacement of the closet bar, such that a great deal more clothing may fit into the closet space. Moreover, the storage of garments in this manner avoids the wrinkling and creases attendant from the conventional folding and storage of clothing articles due to sharp folds in the clothing or layering of clothing articles within a drawer. Finally, the use of expandable hanging rods enables the system to be adapted to a variety of clothing sizes and dimensions, resulting in better support of the clothing at appropriate contact points and reducing furl or pleating of the clothing articles.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. 1 is a view of an expandable rod with hook and loop tab according to the embodiments described herein.

[0008] FIG. 2 is a view of another embodiment of the rod and tab, particularly suited to hanging, storing and transporting pants or other similar articles of clothing.

[0009] FIG. 3 is a view of the strip, also known as the vertical linear docking strap, with an S shaped hook for supporting the strip on a conventional closet rod or over a door.

[0010] FIG. 4 is a view of the vertical linear docking strip securely positioned on a hook with the locking pad. The three displayed elements are also separately displayed.

[0011] FIG. 5 is a view of the strip suspended from a closet rod using an S shaped hook, with garments hung on expandable rods attached to the strip by hook and loop tabs.
FIG. 6 is a view of the FIG. 2 rod and tab being used to secure pants.

FIG. 7 is a view of the transport bar and transport strap supporting the invention populated with clothing articles.

FIG. 8 is a view of the rolled strip with clothing supported by the transport bar and transport strap for travel.

DETAILED DESCRIPTION OF THE INVENTION

Shown in FIG. 1 is an expandable rod (1) comprising an inner and outer rod interposed to facilitate extension and contraction as necessary to fit varying widths of clothing. The distal ends of the rod may be designed to facilitate a user’s grip on the inner and outer rod by gripping means formed integral or otherwise placed integral with the distal ends such as the example rubber tips (2). A material (3) encircles or otherwise slidably attaches to the rod and incorporates hook and loop material in the form of a tab or projection for purposes of suspending the combination from a strip (4) comprising complementary hook and loop material as shown in FIG. 5.

Shown in FIG. 3 is the strip of hook and loop material (4), also known as the vertical linear docking strap. This strip may be hung in the conventional manner using a hook (5) or other similar suspending device or means. When used to suspend, store or otherwise display articles of clothing, the rod (1), material (3) and strip (4) may be rolled or draped about a transport bar (6), as shown in FIG. 7 and transported using the transport bar strap (8).

Shown in FIG. 4 is the strip (4) folded about the locking pad (7) securely positioning the strip (4) on the hook (5).

Although the invention has been described with regard to certain preferred embodiments which constitute the best mode presently known to the inventor, it should be understood that changes and modifications that would be obvious to one having the ordinary skill in this art may be made without deviating from the scope of the invention.

What is claimed is:

1. A hanging system comprising a hanging surface with an attached tab comprised of hook and loop material wherein the hanging surface and attached tab are suspended from a strip consisting of complementary hook and loop material.

2. The system according to claim 1 wherein the strip is in the form of a flexible strap and wherein the hanging surface and attached tab may be suspended from either side of the strap.

3. The system according to claim 1 wherein the strip is in the form of a flexible strap, and uses a locking pad comprised of complementary hook and loop material to secure the strip in position on a suspending surface.

4. The system according to claim 1 wherein the strip is in the form of a flexible strap, and uses a locking pad comprised of complementary hook and loop material to secure the strip in position on a suspending surface and wherein the hanging surface and attached tab may be suspended from either side of the strap.

5. The system according to claim 1 wherein the hanging surface is comprised of telescoping rods, so as to be manually adjustable in length.

6. The system according to claim 1 wherein the hanging surface is comprised of two parallel rods, releasably attached at an end, between which articles of clothing may be secured.

7. The system according to claim 1 wherein the strap is suspended vertically by a hook or other suspending means.

8. The system according to claim 1 wherein the system is either draped or rolled concentrically over a rod, tube or equivalent structure placed substantially perpendicular to the system’s vertical axis, for temporary storage or transportation.

9. The system according to claim 1 wherein the rolled combination of system and clothing may be stored in a hollow cylinder or container for safe storage or transportation.

10. A method of hanging clothing using:

i) a hanging apparatus comprising a hanging surface for clothing;

ii) a tab attached to the hanging surface comprised of hook and loop material;

iii) a separate suspending strip comprising complementary hook and loop material;

iv) suspending means to suspend the suspending strip, and wherein the hanging surface is suspended from the suspending strip by contact between the tab and strip.

11. The system according to claim 10 where the suspending strip is disposed in the form of a strap.

12. The system according to claim 10 where a locking pad comprised of complementary hook and loop material is placed on the suspending strip to secure the strip in position on the suspending means.

13. The system according to claim 10 wherein the hanging apparatus comprises a rigid rod.

14. The system according to claim 10 wherein the hanging apparatus is a telescoping rod.

15. The system according to claim 10 wherein the hanging apparatus comprises a first dowel rod for draping clothing with a parallel second clamping dowel connected to one end of the first dowel rod and with the distal ends of each of first and second dowel rods releasably connected by a wire clip wherein, when first and second dowel rods are connected at each of both ends, clothing is frictionally secured between said first and second dowel rods.

16. A system of suspending, storing or displaying clothing comprised of a substantially one dimensional hanging apparatus, defining a horizontal axis, and a flexible hanging strap defining a vertical axis, such that clothing may be mounted on the hanging apparatus while said hanging apparatus is suspended from the flexible hanging strap.

17. The system according to claim 16 wherein the mounted clothing may be rolled perpendicular to and about the vertical axis, while said clothing and hanging apparatus are attached to or suspended from the flexible hanging strap.

18. The system according to claim 16 wherein the system and mounted clothing may be rolled or draped about a bar or spool.

19. A kit for hanging clothing consisting of:

i) a combination of rigid telescoping rods for a hanging surface for clothing;

ii) a tab attached to each hanging surface comprised of hook and loop material;
iii) a separate suspending strip comprising complementary hook and loop material;

iv) suspending means to suspend the suspending strip,

v) a locking pad comprised of complementary hook and loop material to secure the suspending strip in position on the suspending means and

wherein the hanging surface is suspended from the suspending strip by contact between the tab and strip.

20. The kit according to claim 19 wherein the kit also includes a hanging apparatus comprising a first dowel rod for draping clothing with a parallel second clamping dowel connected to one end of the first dowel rod and with the distal ends of each of first and second dowel rods releasably connected by a wire clip wherein, when first and second dowel rods are connected at each of both ends, clothing is frictionally secured between said first and second dowel rods.