MULTIMEDIA STORAGE RACK

Inventor: Shahriar L. Dardashti, Beverly Hills, CA (US)

Correspondence Address:
CISLO & THOMAS, LLP
233 WILSHIRE BLVD
SUITE 900
SANTA MONICA, CA 90401-1211 (US)

Appl. No.: 10/943,583
Filed: Sep. 17, 2004

Related U.S. Application Data
Continuation-in-part of application No. 29/205,251, filed on May 11, 2004, now Pat. No. D,497,063.

A multimedia storage rack comprises a plurality of intercoupled panels. The intercoupled panels are adapted to store multimedia, and are frictionally locked and unlocked without the use of tools using shell-like panel interlocking members. Each panel interlocking member includes a top surface being provided with a cutout. The cutout is adapted to freely accommodate a resilient plate having a ramp-like configuration projecting away from the top surface in its natural unperturbed state. The resilient plate deflects in/out of the cutout relative to its base during assembly of the multimedia storage rack.
MULTIMEDIA STORAGE RACK

CROSS-REFERENCE TO RELATED APPLICATIONS

0001. This application is a continuation-in-part application of U.S. patent application No. 29/205,251, filed on May 11, 2004, having the same inventor, which is incorporated hereby in its entirety by reference.

BACKGROUND

0002. The proliferation of CDs (Compact Discs) and DVDs (Digital Video Discs) has spurred manufacturers to produce ever-increasing numbers of multimedia storage-capable racks. A variety of multimedia storage racks is available on the market. Some racks have relatively complex assembly instructions for the average consumer. Other racks are made of relatively expensive materials and are thus unaffordable by the majority of consumers.

0003. Racks of this kind allow for quick selection of a CD case by recognition of the CD cover design. Furthermore, such display racks serve an aesthetic purpose by providing wall ornamentation. However, such racks often utilize complex mechanisms or shelves to hold the disc cases on the rack, or require alteration of the compact disc cases themselves to allow for storage of a disc case within the rack.

0004. One known multimedia storage rack consolidates CDs into tabletop storage indexes the size of card catalogs. CDs and corresponding liner notes are fitted into double-sided sleeves with the sleeves clipping into a customizable index at any point on the base.

0005. Another known rack for the storage and display of CD cases includes a grid of horizontal and vertical bars to form a plurality of cells with each cell being sized to receive a CD case for display. A lip extends laterally from a vertical bar of each cell defining a recess in the cells for receiving edge portions of CD cases. A spring is mounted to the grid within each of the cells for biasing the CD case placed therein against the lip.

0006. None of the known multimedia storage rack designs allows easy assembly/disassembly of the rack components without the use of any tools.

SUMMARY

0007. Exemplary embodiments disclosed herein are generally directed to a multimedia storage rack.

0008. In accordance with one aspect of the invention, a multimedia storage rack comprises a plurality of panels and means for intercoupling the plurality of panels. The intercoupled panels are adapted to store multimedia. The multimedia storage rack also comprises means for frictionally locking and unlocking the intercoupled panels without the use of tools.

0009. In accordance with another aspect of the invention, a multimedia storage rack comprises a plurality of panels, means for intercoupling the plurality of panels with the intercoupled panels being adapted to store multimedia, and means for frictionally locking and unlocking the intercoupled panels without the use of tools. The multimedia storage rack also comprises at least one multimedia divider adapted to slide on at least one of the plurality of panels.

0010. In accordance with yet another aspect of the invention, a multimedia storage rack comprises a plurality of removably coupled panels adapted to store multimedia, and means for frictionally locking and unlocking the removably coupled panels without the use of tools.

0011. These and other aspects of the invention will become apparent from a review of the accompanying drawings and the following detailed description of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

0012. The invention is generally shown by way of reference to the accompanying drawings in which:

0013. FIG. 1 is an exploded perspective view of a plurality of components used in assembly of a multimedia storage rack in accordance with an exemplary embodiment of the present invention;

0014. FIG. 2 is a side perspective view of a multimedia storage rack assembled from the components of FIG. 1;

0015. FIG. 3 is a top plan view of a multimedia storage rack assembled from the components of FIG. 1;

0016. FIG. 4 is a bottom plan view of a multimedia storage rack assembled from the components of FIG. 1;

0017. FIG. 5 is a rear plan view of a multimedia storage rack assembled from the components of FIG. 1;

0018. FIG. 6 is a front plan view of a multimedia storage rack assembled from the components of FIG. 1;

0019. FIG. 7 is an end plan view of a multimedia storage rack assembled from the components of FIG. 1;

0020. FIG. 8 is a side perspective view of two multimedia storage racks stacked on top of each other in accordance with another exemplary embodiment of the present invention; and

0021. FIG. 9 is a top plan view of a panel interlocking member in accordance with yet another exemplary embodiment of the present invention.

DETAILED DESCRIPTION

0022. The detailed description set forth below in connection with the appended drawings is intended as a description of exemplary embodiments and is not intended to represent the only forms in which the exemplary embodiments may be constructed and/or utilized. The description sets forth the functions and the sequence of steps for constructing and operating the exemplary embodiments in connection with the illustrated embodiments. However, it is to be understood that the same or equivalent functions and sequences may be accomplished by different embodiments that are also intended to be encompassed within the spirit and scope of the invention.

0023. Some embodiments of the invention will be described in detail with reference to the related drawings of FIGS. 1-9. Additional embodiments, features and/or advantages of the invention will become apparent from the ensuing description or may be learned by practicing the invention. In the figures, the drawings are not to scale with like numerals referring to like features throughout both the drawings and the description.
FIG. 1 is an exploded perspective view of a plurality of components used in assembly of a multimedia storage rack 10 in accordance with an exemplary embodiment of the present invention. Multimedia storage rack 10 comprises top and base panels 12, 14, each one of a generally rectangular configuration, back panel 16 of a generally elongated configuration, and side panels 18, 20. Each side panel (18, 20) is of a generally polygonal configuration and includes a generally circular central aperture (22, 24) that allows an end view of stored multimedia such as CDs, DVDs, and/or the like. Multimedia storage rack 10 also comprises a multimedia divider 28 adapted to slide on back panel 16, and a plurality of frictional panel interlocking members 26, as generally depicted in FIG. 1.

As generally illustrated in FIG. 1, base panel 14 includes a first pair of slots 30, 32 adapted to mate with a corresponding pair of mounting legs 34, 36 on side panel 18, respectively. Base panel 14 also includes a second pair of slots 42, 44 adapted to mate with a corresponding pair of mounting legs 46, 48 on side panel 20, respectively. Base panel 14 further includes a third pair of slots 54, 56 adapted to mate with a corresponding pair of mounting legs 58, 60 on back panel 16, respectively.

Top panel 12 includes a first slot 13 adapted to mate with a corresponding mounting leg 17 on side panel 18, and a second slot 15 adapted to mate with a corresponding mounting leg 19 on side panel 20, respectively. Each one of mounting legs 17, 19, 34, 36, 46, 48, 54, 60 is provided with a generally rectangular slot 21, 23, 38, 40, 50, 52, 62, 64, respectively. Each mounting leg slot is adapted to frictionally receive a panel interlocking member 26 locking a respective pair of panels during assembly of multimedia storage rack 10 (FIGS. 1-8).

As generally depicted in FIG. 9, each panel interlocking member 26 has a tapered peg-like configuration including a shell-like body 25 (FIG. 2) having a generally smooth top surface 31. Top surface 31 is provided with a cutout 33 adapted to freely accommodate a resilient plate 27 (FIGS. 2, 9). Resilient plate 27 has a ramp-like configuration projecting generally away from top surface 31 in its natural unperturbed state. The base of resilient plate 27 is integrally formed on shell-like body 25. Resilient plate 27 deflects in/out of cutout 33 relative to its base during assembly/disassembly of multimedia storage rack 10.

Specifically, resilient plate 27 is forced to deflect inward (i.e., toward top surface 31) within cutout 33 when panel interlocking member 26 frictionally engages one of slots 21, 23, 38, 40, 50, 52, 62, 64 on mounting legs 17, 19, 34, 36, 46, 48, 54, and 60, respectively, with each mounting leg being fully inserted in a corresponding panel slot (13, 15, 30, 32, 42, 44, 54, 56). Each mounting leg slot (21, 23, 38, 40, 50, 52, 62, 64) is adapted to accommodate shell-like body 25 (FIG. 2) substantially until the tip (generally denoted by reference numeral 29 in FIG. 9) of resilient plate 27 snaps back outward (i.e., away from top surface 31) to its natural unperturbed state behind a respective mounting leg securely locking, for example, side panel 18 to base panel 14 and/or to top panel 12, or side panel 20 to base panel 14 and/or to top panel 12 during panel assembly, as generally shown in FIGS. 2-8.

Proper panel assembly requires inserting each panel interlocking member 26 (in a respective mounting leg slot) such that its hollow body interior is facing a respective panel surface (FIGS. 2-8). Panel disassembly requires pressing down on resilient plate 27 (i.e., toward top surface 31) until the body of panel interlocking member 26 can slide out of a respective mounting leg slot (21, 23, 38, 40, 50, 52, 62, 64).

Back panel 16 includes recessed ends 66, 68 adapted to mate with corresponding slots 70, 72 on side panels 18, 20, respectively. Back panel 16 also includes a generally protruding rail 74 integrally formed on a rear side 76 (FIG. 5). Multimedia divider 28 is of a generally polygonal configuration and includes a central viewing aperture, as generally depicted in FIGS. 1-2, 7-8. Multimedia divider 28 also includes a side cutout (FIG. 1) adapted to engage back panel 16 from either end and slide back and forth on rear rail 74 (FIG. 5), as desired.

Once engaged, as generally shown in FIG. 8, multimedia divider 28 is prevented from sliding out of rear rail 74 during use by the configuration of cutout 31 which generally follows the contours of rear side 76 of back panel 16. Each recessed end (66, 68) of back panel 16 engages cutout 31 before mating with a corresponding mounting slot (70, 72) on side panels 18, 20, respectively, as generally shown in FIG. 1.

FIG. 8 is a side perspective view of two multimedia storage racks stacked on top of each other in accordance with another exemplary embodiment of the present invention. Specifically, multimedia storage rack 10 is stacked on top of a multimedia storage rack 80 being essentially of identical construction. A person skilled in the art would readily appreciate that more than two multimedia storage racks may be stacked on top of each other, as needed.

The multimedia storage rack of the present invention is easy to construct in a short period of time from ready-made components without the use of any tools whatsoever. Other components and/or configurations may be utilized, provided such other components and/or configurations remain within the intended scope of the present invention. The multimedia storage rack of the present invention is also easy to disassemble and/or store away, if desired, as well as relatively inexpensive to manufacture as compared to other known multimedia storage racks. The various components of the multimedia storage rack of the present invention may be made of wood, wood composites, plastic, metal or any combination thereof. Other materials may be used to construct the multimedia storage rack of the present invention, provided such other materials do not deviate from the intended scope and spirit of the present invention. The multimedia storage rack of the present invention has a relatively small footprint, while offering users an attractive and purposeful multimedia storage solution.

A person skilled in the art would appreciate that exemplary embodiments described hereinabove are merely illustrative of the general principles of the present invention. Other modifications or variations may be employed that are within the scope of the invention. For example, other panel interlocking means may be employed to assemble the multimedia storage rack of the present invention. Thus, by way of example, but not of limitation, alternative configurations may be utilized in accordance with the teachings herein. Accordingly, the drawings and description are illustrative and not meant to be a limitation thereof.
[0035] Moreover, all terms should be interpreted in the broadest possible manner consistent with the context. In particular, the terms “comprises” and “comprising” should be interpreted as referring to elements, components, or steps in a non-exclusive manner, indicating that the referenced elements, components, or steps may be present, or utilized, or combined with other elements, components, or steps that are not expressly referenced. Thus, it is intended that the invention cover all embodiments and variations thereof as long as such embodiments and variations come within the scope of the appended claims and their equivalents.

What is claimed is:
1. A multimedia storage rack, comprising:
   a plurality of panels;
   means for intercoupling said plurality of panels, said intercoupled panels being adapted to store multimedia; and
   means for frictionally locking and unlocking said intercoupled panels without the use of tools.
2. The multimedia storage rack of claim 1, wherein said plurality of panels includes at least one top panel, at least one base panel, at least one side panel, and at least one back panel.
3. The multimedia storage rack of claim 2, wherein said panel intercoupling means includes slots on each of said base and top panels and corresponding mounting legs on each of said side panels and said at least one back panel, said mounting legs adapted to mate with respective slots.
4. The multimedia storage rack of claim 3, wherein said frictional panel locking and unlocking means includes at least one panel interlocking member having a shell-like body.
5. The multimedia storage rack of claim 4, wherein said shell-like body includes a top surface provided with a cutout, said cutout being adapted to freely accommodate at least one resilient plate.
6. The multimedia storage rack of claim 5, wherein said at least one resilient plate has a ramp-like configuration projecting away from said top surface in its natural unperturbed state.
7. The multimedia storage rack of claim 6, wherein said at least one resilient plate includes a base being integrally formed on said shell-like body and a tip disposed away from said base.
8. The multimedia storage rack of claim 7, wherein said at least one resilient plate deflects in/out of said cutout relative to said base during assembly of said multimedia storage rack.
9. The multimedia storage rack of claim 7, wherein said at least one resilient plate deflects in/out of said cutout relative to said base during disassembly of said multimedia storage rack.
10. The multimedia storage rack of claim 9, wherein each of said mounting legs is provided with a slot.
11. The multimedia storage rack of claim 10, wherein each mounting leg slot is adapted to accommodate said shell-like body substantially until said tip of said at least one resilient plate snaps back away from said top surface of said shell-like body to said natural unperturbed state behind a respective mounting leg frictionally locking at least two of said intercoupled panels.
12. The multimedia storage rack of claim 11, wherein said locked panels are unlocked by depressing said at least one resilient plate until said shell-like body slides out of a respective mounting leg slot.
13. A multimedia storage rack, comprising:
   a plurality of panels;
   means for intercoupling said plurality of panels, said intercoupled panels being adapted to store multimedia;
   means for frictionally locking and unlocking said intercoupled panels without the use of tools; and
   at least one multimedia divider adapted to slide on at least one of said plurality of panels.
14. The multimedia storage rack of claim 13, wherein said plurality of panels includes a top panel, a base panel, first and second side panels, and a back panel.
15. The multimedia storage rack of claim 14, wherein said panel intercoupling means includes slots on each of said base and top panels and corresponding mounting legs on each of said first and second side panels and said back panel, said mounting legs adapted to mate with respective slots.
16. The multimedia storage rack of claim 15, wherein said back panel includes recessed ends adapted to mate with corresponding slots on said first and second side panels.
17. The multimedia storage rack of claim 15, wherein said back panel includes a protruding rail integrally formed on a rear side.
18. The multimedia storage rack of claim 17, wherein said at least one multimedia divider includes a side cutout adapted to engage said back panel from either end and slide back and forth on said rear rail.
19. The multimedia storage rack of claim 13, wherein said at least one multimedia divider is provided with a viewing aperture.
20. The multimedia storage rack of claim 13, wherein each of said first and second side panels is provided with a viewing aperture.
21. The multimedia storage rack of claim 15, wherein said frictional panel locking and unlocking means includes at least one panel interlocking member having a shell-like body.
22. The multimedia storage rack of claim 21, wherein said shell-like body includes a top surface provided with a cutout, said cutout being adapted to freely accommodate at least one resilient plate.
23. The multimedia storage rack of claim 22, wherein said at least one resilient plate has a ramp-like configuration projecting away from said top surface in its natural unperturbed state.
24. The multimedia storage rack of claim 23, wherein said at least one resilient plate includes a base being integrally formed on said shell-like body and a tip disposed away from said base.
25. The multimedia storage rack of claim 24, wherein said at least one resilient plate deflects in/out of said cutout relative to said base during assembly of said multimedia storage rack.
26. The multimedia storage rack of claim 25, wherein said at least one resilient plate deflects in/out of said cutout relative to said base during disassembly of said multimedia storage rack.
27. The multimedia storage rack of claim 26, wherein each of said mounting legs is provided with a slot.
28. The multimedia storage rack of claim 27, wherein each mounting leg slot is adapted to accommodate said shell-like body substantially until said tip of said at least one resilient plate snaps back away from said top surface of said shell-like body to said natural unperturbed state behind a respective mounting leg frictionally locking at least two of said intercoupled panels.

29. The multimedia storage rack of claim 28, wherein said locked panels are unlocked by depressing said at least one resilient plate until said shell-like body slides out of a respective mounting leg slot.

30. A multimedia storage rack, comprising:
   a plurality of removably coupled panels adapted to store multimedia; and
   means for frictionally locking and unlocking said removably coupled panels without the use of tools.
   * * * * *