A display stand displays an object at an elevation above a supporting surface, but is easily disassembled for storage and transport in a compact configuration. The stand includes two upright panels which are engaged crosswise at aligned vertical slots in the panels, and an inclined upper panel that rests on the upper edges of the upright panels and supports the object. One of the upright panels has a tab that projects through the inclined panel. A pin extends through the tab and over the inclined panel to prevent the three panels from separating. The pin may also serve as a stop to prevent the displayed object from sliding off the inclined panel.
KNOCKDOWN DISPLAY STAND

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] Not Applicable.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH

[0002] Not Applicable.

BACKGROUND OF THE INVENTION

[0003] This invention relates in general to the display objects and more particularly to a knockdown display stand for displaying merchandise or other objects.

[0004] Stands, often one foot or less tall, are used to present objects, such as goods for sale, above a supporting surface where other objects may be presented. The stand elevates the objects that are presented on it, making them more pronounced and perhaps distinguishing them from the objects on the lower supporting surface. Such stands can be heavy and bulky, and thus are not easily stored or transported.

[0005] For example, footwear that is offered for sale in shoe stores and departments often appears on display stands called shoe risers. These devices elevate the footwear above a supporting surface, such as a tabletop or counter on which the device rests, and make the footwear more visible to customers. At least the elevated footwear stands apart from other objects, which may include more footwear, on the supporting surface. The typical riser can take the form of a simple cube, whether formed from paperboard or wood. Then again, it may be a metal stand formed perhaps as a weldment, or it may be formed from wood or a polymer with a sculpted configuration.

[0006] Salesmen for shoe companies that manufacture or acquire footwear from other sources also rely on shoe risers for displaying footwear to potential buyers of such footwear. Typically, a salesman will set up a display in a hotel room or conference center or perhaps at a convention site, and that display, like displays in conventional shoe stores, will have footwear presented on a horizontal supporting surface and more footwear presented somewhat higher on shoe risers. The display, however, is temporary, and accordingly, the salesman must transport not only the footwear to the display site, but the risers as well. Often the salesman will use a large bag for this purpose. The footwear transports with relative ease but the risers, often being heavy and bulky, do not.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

[0007] FIG. 1 is a perspective view of a shoe riser constructed in accordance with and embodying the present invention, with the riser displaying a pair of shoes;

[0008] FIG. 2 is a perspective view of the assembled shoe riser;

[0009] FIG. 3 is a sectional view taken along line 3-3 of FIG. 2;

[0010] FIG. 4 is an exploded perspective view of the riser; and

[0011] FIG. 5 is a perspective view of the riser in a knocked down configuration.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0012] Referring now to the drawings, a display stand in the form of a shoe riser A (FIGS. 1 & 2) displays footwear, such as shoes B, in an elevated position above a supporting surface 2, which may be a table or countertop or a simple display ledge or shelf. Moreover, the shoes B are presented at an angle so that their features are better observed. The riser A, while providing more than adequate surface area to support the shoes B, is easily disassembled and converted into a highly compact configuration suitable for transport and storage (FIG. 5).

[0013] The shoe riser A supports footwear of a wide variety of configurations, but is best suited for the type of footwear that has a pronounced heel 4 (FIG. 1) and a sole 6 leading away from the heel 4. In this type of footwear, the heel 4 has a generally vertical breast 8 along the front of the heel 4. Most dress shoes and many casual shoes have these features. But the shoe riser A can also display other types of footwear, such as sandals, moccasins, slippers and sneakers, that have less pronounced heels. Indeed, the typical sneaker has its heel integrated into its sole to form a so-called outsole, and the same holds true for many casual shoes as well.

[0014] The shoe riser A basically includes (FIG. 2) a pair of upright panels 12 and 14, the former being oriented longitudinally and the latter transversely; and an inclined upper panel 16 supported on the upright panels 12 and 14. In addition, the riser A has a retaining element in the form of a pin 18 which holds the three panels 12, 14 and 16 together and further prevents the shoes B from sliding down and off the inclined panel 16. Yet the pin 18 may be easily removed to allow separation of the panels 12, 14 and 16, so that they may be stored one over the other (FIG. 5) and thus occupy considerably less space. All three panels 12, 14 and 16 are preferably formed from a transparent polymer, such as acrylic, that is about 3/16 or ¼ inches thick, although the thickness is not critical.

[0015] The longitudinal upright panel 12 has (FIGS. 3 & 4) a horizontal bottom edge 22 and an inclined upper edge 24, with the inclination of the upper edge 24 relative to the bottom edge 22 being between about 45° and 90° and preferably 60°. The panel 12 also has front and rear end edges 26 and 28 that rise upwardly from the bottom edge 22 and are preferably parallel, all such that the panel 12 possesses a generally trapezoidal configuration. The inclined upper edge 24 leads down to the front end edge 26 where the two edges 24 and 26 intersect. At its upper end, the inclined edge intersects a locking tab 30 that extends out to the rear end edge 28. The locking tab 30 contains an aperture 32. Generally midway between its front and rear edges 26 and 28 the panel 12 has a vertical slot 34 that opens out of the inclined upper edge 24, yet is perpendicular to the bottom edge 22. The slot 34 is slightly wider than the thickness of transverse upright panel 14. Finally, between its slot 34 and the front end edge 26, the panel 12 has a locating projection 36 that interrupts the inclined upper edge 24, projecting upwardly from it no higher than the thickness of the inclined panel 16.

[0016] While the longitudinal upright panel 12 is generally trapezoidal, the transverse upright panel 14 is rectangular. It
has (FIG. 4) a horizontal bottom edge 40 and an upper edge 42 that lies parallel to the bottom edge 40 and is thus likewise horizontal. The bottom and top edges 40 and 42 lead out to side edges 44 that are preferably parallel, but need not be. The panel 14 contains a vertical slot 46 that opens out of the bottom edge 40 and lies perpendicular to it. The slot 46 is slightly wider than the thickness of the longitudinal panel 42.

[0017] The two upright panels 12 and 14 fit together perpendicular to each other with the transverse upright panel 14 received in the slot 34 of the longitudinal upright panel 12, and with the longitudinal upright panel 12 received in the slot 46 of the transverse upright panel 14 (FIGS. 2 & 4). The slots 34 and 46 are long enough to enable the bottom edge 40 of the transverse upright 14 to reach the bottom edge 22 of the longitudinal upright panel 12, so that the two bottom edges 22 and 40 lie in the same plane. That plane is the supporting surface 2 on which the two upright panels 12 and 14 rest, and the panels 12 and 14 project upwardly perpendicular to it. With the two panels 12 and 14 so disposed, the upper edge 42 of the transverse panel 14 intersects the inclined top edge 24 of the longitudinal panel 12, that is to say, the upper edges 24 and 42 lie in essentially the same inclined plane.

[0018] The inclined upper panel 16 rests on and is supported by the two upright panels 12 and 14 (FIGS. 2 & 4). Preferably it possesses a rectangular configuration, having parallel front and rear edges 50 and 52 and parallel side edges 54. The spacing between the side edges 54 equals the spacing between the side edges 44 of the transverse panel 14, although it may be greater. The spacing between the front and rear edges 50 and 52 exceeds the spacing between the front and rear edges 26 and 28 of the longitudinal upright panels 12 measured along the inclined upper edge 24. Midway between its side edges 54, the inclined panel 16 contains an opening 56 in the form of a slot that is closed at both ends and is large enough to receive the tab 30 on the longitudinal upright panel 12. Also located midway between the side edges 54 is a locating socket 58 that is large enough to receive the locating projection 36 on the longitudinal upright panel 12. Indeed, the spacing between the opening 56 and the socket 58 in the inclined panel 16 corresponds to the spacing between the tab 30 and locating projection 36 along the inclined upper edge 24 of the longitudinal upright panel 12.

[0019] The inclined panel 16 rests on the inclined upper edge 24 of the longitudinal upright panel 12 and in the horizontal upper edge 42 of the transverse upright panel 14, with its opening 56 receiving the tab 30 on the longitudinal panel 12 and its socket 58 receiving the projection 36 likewise on the panel 12. The opening 56 and socket 58 allow the inclined upper panel 16 to rest against the inclined upper edge 24 of the longitudinal upright panel 12. With the upper inclined panel 16 so disposed, the aperture 32 in the tab 30 of the longitudinal upright panel 12 lies slightly above or at least no lower than the upper surface of the inclined upper panel 16.

[0020] The pin 18 fits through the aperture 32 in the tab 30 of the longitudinal upright panel 12 and lies slightly over or against the upper surface of the inclined upper panel 16, projecting equidistantly from each side of the tab 30 (FIG. 2). Here it prevents the inclined upper panel 16 from separating from the two upright panels 22 and 14, which in turn, prevents the upright panels 12 and 14 from separating. It also provides a stop against which the heels 4 of the shoes B at their breasts 8 may bear to prevent the shoes B from sliding downwardly off the inclined panel 16 (FIG. 1).

[0021] The shoe riser A is stored and transported in a knocked down condition in which its three panels 12, 14 and 16 are stacked one over the other and with its pin 18 nearby (FIG. 5). To erect the shoe riser A (FIG. 4), one places the longitudinal panel 12 in an upright position, preferably with its bottom edge 22 resting on the supporting surface 2. Thereupon, the slot 46 of the transverse panel 14 is aligned with the slot 34 in longitudinal panel 12, and the two panels 12 and 14 are brought together and engaged, all such that the slot 46 in the transverse panel 14 receives the longitudinal panel 12 and the slot 34 in the longitudinal panel 12 receives the transverse panel 14. When fully engaged, the two panels 12 and 14 are oriented crosswise with respect to each other—indeed, perpendicular—and have their bottom edges 22 and 40 coplanar. The upper edges 24 and 42 are likewise coplanar, occupying a plane that is inclined with respect to the supporting surface 2.

[0022] Thereupon, the inclined panel 16 is lowered toward the upper edges 24 and 42 on the upright panels 12 and 14 such that the opening 56 on the inclined panel 16 receives the tab 30 on the upright panel 12 and the socket 58 receives the projection 36. The inclined panel 16 comes to rest on the upper edges 24 and 42 of the upright panel 12 and 14. The tab 30 of the longitudinal upright panel 12 projects through the inclined panel 16 with its aperture 32 exposed above the inclined panel 24. The pin 18 is inserted through the aperture 32, and it locks all three panels 12, 14 and 16 together.

[0023] The shoes B are then placed on the inclined upper panel 16 with the heels 4 of the shoes B resting on the panel 16 above the transversely extending pin 18 and the soles 6 of the shoes B resting against the panel 16 below the pin 18 (FIG. 1). The breasts 8 along the fronts of the heels 4 bear against the pin 18. In that manner the pin 18 prevents the shoes B from sliding down and off the inclined panel 16. If a shoe, such as a sneaker, does not have a pronounced heel, a push pin may be inserted into the extended outsole of such a shoe to provide a downwardly directed projection that engages the transversely directed pin 18.

[0024] The shoe riser A is disassembled in the reverse of the foregoing sequence. To free the pin 18 for easy removal, the inclined panel 16 may be raised upwardly at its front edge 50 such that the panel 16 pivots on the upper edge 24 of the longitudinal upright panel 12 immediately ahead of the tab 30. This causes the area of the panel 16 at and behind the tab 30 to swing downwardly and provides greater clearance between the tab aperture 32 and the inclined panel 16.

[0025] The shoe riser A, which is actually a display stand, may support other merchandise that is offered for sale. Indeed, it may be used to support a wide variety of objects irrespective of whether they are goods that are offered for sale. For example, it could be used to display objects at a museum. The upper panel 16 may be inclined at a lesser angle, or for that matter may be horizontal. Where the pin 18 is not required to retain an object on the upper panel 16, it may take the form of a retaining element of diminished size.

1. A display stand comprising:
   a first upright panel;
   a second upright panel engaged with the first panel so that the upper edges of the first and second panels are
presented upwardly and generally crosswise, the second panel being easily detachable from the first panel; a third panel engaged with the first panel and supported on the upper edges of the first and second panels to provide a surface that is presented upwardly for supporting an object, the third panel being easily detachable from the first panel.

2. A display stand according to claim 1 wherein the first panel in part projects above the third panel; and further comprising a retaining element extended through the first panel and over the third panel.

3. A display stand according to claim 2 wherein the third panel is inclined with respect to the horizontal.

4. A display stand according to claim 1 wherein the first panel has a tab that projects beyond its upper edge and through the third panel; and further comprising a pin that projects through the tab and over the third panel to prevent the third panel from being separated from the first and second panels, the pin being easily removable from the tab.

5. A display stand according to claim 4 wherein the first panel has a projection that is directed upwardly from its upper surface and the third panel has a socket that receives the projection.

6. A display stand according to claim 5 wherein the upper edges of the first and second panels are generally coplanar.

7. A display stand according to claim 6 wherein the upper edge of the first panel is inclined and the upper edge of the second panel is horizontal.

8. A display stand according to claim 5 wherein the first panel has a vertical slot that opens upwardly and the second panel has a vertical slot that opens downwardly; and wherein the slot of the first panel receives the second panel and the slot of the second panel receives the first panel.

9. A display stand according to claim 8 wherein the first and second panels have lower edges that are horizontal and coplanar.

10. The display stand according to claim 3 in combination with a shoe that rests on the third panel and is retained on the third panel by the pin.

11. The combination according to claim 10 wherein the shoe has a heel provided with a breast, and the heel bears against the pin at the breast of the heel.

12. A combination for erecting a display stand, said combination comprising:
   a longitudinal upright panel having a horizontal bottom edge and an inclined upper edge, the longitudinal panel also having a tab that projects upwardly beyond its upper edge and a slot that opens upwardly;
   a transverse upright panel having a horizontal bottom edge and a horizontal upper edge and also a slot that opens downwardly;
   the slot of the longitudinal panel being capable of receiving the transverse panel and the slot of the transverse panel being capable of receiving the longitudinal panel, all when the upright panels are oriented crosswise with respect to each other,
   an upper panel having an opening that is capable of receiving the tab on the longitudinal upright panel so that the upper panel can rest on the upper edges of the upright panel with the tab projecting through the inclined panel; and
   a retaining element capable of engaging the tab on the longitudinal upright panel to prevent the panels from separating.

13. The combination according to claim 12 wherein the longitudinal upright panel has a projection directed upwardly from its upper edge and the inclined panel has a socket capable of receiving the projection.

14. A shoe riser comprising:
   a longitudinal upright panel having a horizontal bottom edge and an inclined upper edge, the longitudinal panel also having a vertical slot that opens out of its upper edge and a tab that projects upwardly beyond its upper edge;
   a transverse upright panel oriented crosswise with respect to the longitudinal panel and having a horizontal bottom edge and a horizontal upper edge, and also a vertical slot that opens out of its bottom edge, the transverse panel being engaged with the longitudinal panel, with the slot in the transverse panel receiving the longitudinal panel and the slot in the longitudinal panel receiving the transverse panel and the bottom edges of the upright panels lying in a common horizontal plane and the upper edges lying in a common inclined plane;
   an inclined upper panel resting in the upper edges of the upright panels and having an opening that receives the tab of the longitudinal upright panels; and
   a retaining element that extends through the tab of the longitudinal upright panel and over the inclined upper panel to prevent the panels from separating.

15. A shoe riser according to claim 14 wherein the longitudinal upright panel has a projection directed upwardly from its upper surface and the inclined panel has a socket that receives the projection.

16. A shoe riser according to claim 14 wherein the retaining element projects transversely beyond both sides of the tab to provide a stop that is capable of underlaying a shoe and preventing the shoe from sliding off the inclined panel.

17. The shoe riser according to claim 16 in combination with a shoe that rests on the inclined panel and engages the retaining element.

18. The combination according to claim 17 wherein the shoe has a heel and a sole, with the heel having a breast that is presented toward the sole; and wherein the heel rests on the inclined panel with its breast at the retaining element and the sole rests on the inclined panel below the retaining element.

* * * *