SHELF LEDGE APPARATUS AND METHOD

Inventors: Douglas R. Dean, Snellville, GA (US); Steven M. Kessell, Loganville, GA (US)

Correspondence Address:
MICHAEL BEST & FRIEDRICH LLP
Two Prudential Plaza
180 North Stetson Avenue, Suite 2000
CHICAGO, IL 60601 (US)

Assignee: L&P Property Management Company, South Gate, CA

Filed: Jun. 21, 2006

Related U.S. Application Data

(60) Provisional application No. 60/692,539, filed on Jun. 21, 2005.

Publication Classification

(51) Int. Cl.
A47F 5/00 (2006.01)

(52) U.S. Cl. .................................................. 211/183

ABSTRACT

A product storage and display structure includes uprights, at least one shelf, and at least one shelf ledge. The shelf ledge includes first and second opposite ends, each end adapted to be removable coupled to an upright of the product storage and display structure. A barrier portion extends upward from the base portion, wherein when the base portion is coupled to the uprights, the barrier portion extends to a location proximate and at a higher elevation than the shelf of the product storage and display structure.
SHELF LEDGE APPARATUS AND METHOD

CROSS REFERENCE TO RELATED APPLICATION

[0001] This application claims priority from U.S. Provisional Patent Application No. 60/692,539, entitled "Shelf Ledge Apparatus and Method", filed Jun. 21, 2005 by Douglas R. Dean and Steven M. Kessell.

BACKGROUND

[0002] In many shelving applications, it is desirable to provide one or more devices that prevent products from falling off rack shelves, shelving assemblies, and the like (hereinafter referred to as product storage and display structures). A number of devices exist for performing this function, and can be mounted to product storage and display structures in a variety of different manners. In some cases, such devices can be mounted in a limited number of positions and arrangements. [0003] Some shelf barriers for product storage and display structures are designed for installation and use on particular types of product storage and display structures, but are not well-suited for many other types of product storage and display structures. Also, some shelf barriers provide only limited protection against products falling from shelves. In addition, in many cases, the manner in which some shelf barriers attach to shelves can cause damage to the shelves.

SUMMARY

[0004] In one embodiment, the invention provides a shelf ledge for a product storage and display structure having uprights and at least one shelf. The shelf ledge includes first and second opposite ends, each end adapted to be removably coupled to the respective upright of the product storage and display structure. A barrier portion extends upwardly from the base portion, wherein when the base portion is coupled to the uprights, the barrier portion extends to a location proximate and at a higher elevation than the shelf of the product storage and display structure.

[0005] In another embodiment, the invention provides a shelf ledge for a product storage and display structure having uprights and at least one shelf. The shelf ledge includes a frame member including an uppermost edge, a lowermost edge, a first side edge, and a second side edge. Each side edge includes first and second end portions configured for removably coupling to an upright, wherein the first and second end portions are spaced apart a distance sufficient to receive an upright therebetween.

[0006] In yet another embodiment, the invention provides a shelf ledge for a product storage and display structure having uprights and at least one shelf. The shelf ledge includes a frame member having an uppermost edge, a lowermost edge, a first side edge, and a second side edge, wherein the first side edge includes an outwardly extending end portion and the second side edge includes an outwardly extending end portion. A plurality of upright members extend between the uppermost edge and the lowermost edge. A first connecting member is positioned proximate the lowermost edge of the frame member, the first connecting member including an end portion spaced apart from the end portion of the first side edge a distance sufficient to receive the respective upright therebetween. A second connecting member is positioned proximate the lowermost edge of the frame member, the second connecting member including an end portion spaced apart from the end portion of the second side edge a distance sufficient to receive the respective upright therebetween. Each of the first and second connecting members are coupled to a portion of the plurality of uprights.

[0007] Other aspects of the invention will become apparent by consideration of the detailed description and accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. 1 is a perspective view of a product storage and display structure according to one embodiment of the invention, including a plurality of shelf ledges.

[0009] FIG. 2 is a perspective view of another product storage and display structure according to another embodiment of the invention, including a plurality of shelf ledges.

[0010] FIG. 3 is a perspective view of a shelf ledge illustrated in FIGS. 1 and 2.

[0011] FIG. 4 is an enlarged top view of a portion of the shelf ledge illustrated in FIG. 3.

[0012] FIG. 5 is an enlarged top view of another portion of the shelf ledge illustrated in FIG. 3.

[0013] FIG. 6 is a rear elevational view of the shelf ledge illustrated in FIG. 3 shown installed on two uprights of a product storage and display structure adjacent two other shelf ledges, one of which is shown pivoted away from a fully installed position.

[0014] FIG. 7 is an enlarged view of a portion of the shelf ledge and product display structure illustrated in FIG. 6.

[0015] Before any embodiments of the invention are explained in detail, it is to be understood that the invention is not limited in its application to the details of construction and the arrangement of components set forth in the following description or illustrated in the following drawings. The invention is capable of other embodiments and of being practiced or of being carried out in various ways. Also, it is to be understood that the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting.

DETAILED DESCRIPTION

[0016] FIGS. 1 and 2 illustrate shelf ledges 8 according to one embodiment of the invention installed on a product storage and display structure (indicated generally at 10 and 10'). The product storage and display structure 10 includes four uprights 12 for supporting any number of shelves 14, although fewer or more uprights may be used. In some types of product storage and display structures 10, one or more of the shelves 14 are adjustable to different heights. For example, the shelves 14 illustrated in FIGS. 1 and 2 are adjustable to different positions along the uprights 12, and may be secured to the uprights 12 in any conventional manner. In other embodiments, none of the shelves 14 are adjustable to different positions in the product storage and display structure 10.
An example of another product storage and display structure in which the shelf ledges 8 according to the present invention can be installed is disclosed in U.S. Pat. No. 4,852,501 issued to Olson et al., the disclosure of which is incorporated herein by reference insofar as it relates to product storage and display structures, adjustable shelves in such structures, and manners in which shelves can be secured in such structures.

In the illustrated embodiment, each upright 12 has a hollow cylindrical shape, although solid uprights 12 may be used in other embodiments. The ends of the uprights 12 are open (whether for connection to other elements or otherwise), or may be closed. The uprights 12 may have any cross-sectional shape desired, including without limitation round (FIG. 1), oval, elliptical, square (FIG. 2), rectangular, triangular, or other polygonal cross sectional shapes, including irregular or unusual cross-sectional shapes. For example, in the illustrated embodiment of FIG. 1, the uprights 12 each have a generally round cross-sectional shape. As another example, the uprights 12 in the illustrated embodiment of FIG. 2 each have a square cross-sectional shape. Although the cross-sectional size and shape of each upright 12 can be constant along its length as shown in the embodiments of FIGS. 1 and 2, this need not necessarily be the case.

In a further embodiment, the uprights 12 include a plurality of external circumferential recesses or grooves 16 (FIGS. 6 and 7). As is well known to those skilled in the art, the grooves 16 are used to secure shelves to the uprights 12. Multiple grooves 16 enable the attachment of multiple shelves 14 to the uprights 12 and/or permit the shelves 14 to be secured at a variety of points along the uprights 12. The manner in which shelves 14 are connected to grooved uprights 12 is well known to those skilled in the art and is not therefore described further herein. In other embodiments, the uprights 12 are provided with other features and elements enabling connection of shelves 14 to the uprights 12. Such features and elements include without limitation a plurality of apertures along the uprights 12, ribs, studs, bosses, flanges, lips, pins, or other protrusions extending from the uprights 12, and the like. In still other embodiments, the surfaces of the uprights 12 are relatively featureless (such as when clamps, set screws, or other fasteners are used to clamp the shelves 14 in place on the uprights 12).

A shelf ledge 8 according to one embodiment of the invention is illustrated in FIG. 3. The shelf ledge 8 is generally elongated and includes first and second opposite ends 18, 20 which are adapted for connection to different uprights 12 of a product storage and display structure 10. For this purpose, each end 18, 20 of the shelf ledge 8 includes a first portion 22, 24 sufficiently spaced from a second portion 26, 28 to receive an upright 12 therebetween. The first and second portions 22, 24, 26, 28 define forked ends 18, 20 of the shelf ledge 8 to receive the uprights 12.

In one embodiment, the first and second portions 22, 26 and 24, 28 of the shelf ledge ends 18, 20 are substantially the same length (i.e., extending substantially the same distance from the rest of the shelf ledge 8). However, in some embodiments, one of the first and second portions 22, 26 on the first end 18 is longer than the other, and/or one of the first and second portions 24, 28 of the second end 20 is longer than the other. For example, referring to FIGS. 3-5, the first portion 22 of the first end 18 is longer than the second portion 26 of the first end 18, and the first portion 24 of the second end 20 is shorter than the second portion 28 of the second end 20. In other embodiments, the first portion 22 of the first end 18 is shorter than the second portion 26 of the first end 18, and/or the first portion 24 of the second end 20 is longer than the second portion 28 of the second end 20. In other embodiments, the first portion 22 of the first end 18 is longer than the second portion 26 of the first end 18, and the first portion 24 of the second end 20 is longer than the second portion 28 of the second end 20. In still other embodiments, the first portion 22 of the first end 18 is shorter than the second portion 26 of the first end 18, and the first portion 24 of the second end 20 is longer than the second portion 28 of the second end 20.

First and second end portions 22, 26 and 24, 28 having different lengths are used in some embodiments to ease installation of the shelf ledge 8 on uprights 12 of a product storage and display structure 10 or to achieve a desired relationship between ends 18, 20 of adjacent shelf ledges 8 on a product storage and display structure 10, as will be described in greater detail below.

Referring to FIGS. 3, 6 and 7, the first portion 22 of the first end 18 of the shelf ledge 8 is narrower (e.g., having a smaller vertical dimension as viewed in FIGS. 6 and 7) than the first portion 24 of the second end 22, although the opposite may be true in further embodiments. In one embodiment, the second portion 28 of the second end 20 is narrower or wider than the second portion 26 of the first end 18. Also, in one embodiment, both portions 22, 26 of the first end 18 are narrower or wider than both portions 24, 28 of the second end 20. In still another embodiment, the first and second portions 22, 26, 24, 28 of both ends 18, 20 of the shelf ledge 8 are substantially the same width. First and second end portions 22, 26 and 24, 28 having different widths are used to achieve a desired relationship between ends 18, 20 of adjacent shelf ledges 8 on a product storage and display structure 10 as will be described in greater detail below.

To install the shelf ledge 8 on a product storage and display structure 10 having uprights 12 as described above, an installer moves one of the forked ends 18, 20 of the shelf ledge 8 to a position in which an upright 12 is received between the first and second portions 22, 26 or 24, 28 of the respective end. The shelf ledge 8 is then flexed to a bowed state such that the first and second portions of the opposite forked end fit around another upright 12. In one embodiment, the free end 18, 20 of the shelf ledge 8 is pressed against an adjacent upright 12 until the free end 18, 20 snaps into place upon the upright 12. Installation of the shelf ledge 8 may be enabled by flexure of the shelf ledge 8 and/or, either, or both, uprights 12 to which the shelf ledge 8 is coupled. It should be readily apparent to those of skill in the art that the first and second portions 22, 26 and 24, 28 have lengths selected for the snap-fitting action between the shelf ledge 8 and the uprights 12. In another manner of installing the shelf ledge 8, the shelf ledge 8 is tilted such that one end 18, 20 of the shelf ledge 8 is at a higher elevation than the opposite end 18, 20, thereby permitting a free end 18, 20 of the shelf ledge 8 to be dropped into an installed position, that is the adjacent upright 12 is received between the first and second portions 22, 26 or 24, 28.

In the illustrated embodiment, the first end portions 22, 24 of each end 18, 20 of the shelf ledge 8 have different
lengths than the respective second end portions 26, 28. The length difference between the first and second end portions enables the ends 18, 20 of the shelf ledge 8 to be more easily snapped into place upon the uprights 12. For example, in some embodiments, a shorter end portion 22, 24 is fit around an upright 12 (e.g., snapped into place upon an upright 12, coupled to an upright 12 by flexing the shelf ledge 8, or tilted into place upon an upright 12 as described above) more readily than if the portions 22, 26 and 24, 28 were the same length.

[0026] Referring to FIGS. 4-5, and 7, the first and second portions 22, 26 and 24, 28 of each shelf ledge end 18, 20 are spaced a distance apart to snugly receive the uprights 12. In a further embodiment, a length of the shelf ledge 8 is selected to provide a snug fit of the shelf ledge 8 between the uprights 12. Using either installation, the shelf ledge 8 is retained in place upon the uprights 12. In another embodiment, the first and/or second portions may include a friction material to increase the amount of frictional engagement between the uprights 12 and the shelf ledge ends 18, 20. Examples of the friction material includes a plastic, urethane, rubber, or other coating on one or more of the end portions, pads of such material attached to one or more of the end portions, or the like. Alternatively or in addition, other more screws, bolts, nails, pins, clamps, clips, or other conventional fasteners or inter-engaging elements further secure the end portions 22, 24, 26, 28 in place upon the uprights 12.

[0027] As described above, each end 18, 20 of the shelf ledge 8 includes first and second portions 22, 26 and 24, 28 between which the uprights 12 of the product storage and display structure 10 are received. It should be readily apparent to those of skill in the art that the shelf ledge 8 may be attached to the uprights 12 in other manners. For example, in one embodiment the ends 18, 20 of the shelf ledge 8 are attached to the uprights 12 by one or more pins, posts, fingers, or other projections on the ends 18, 20 of the shelf ledge 8, which are received within one or more apertures in the uprights 12 (and vice versa). Other examples include collars on the ends of the shelf ledge 8 received upon the uprights 12, one or more screws, bolts, nails, clamps, clips, or other conventional fasteners or inter-engaging elements securing the ends 18, 20 of the shelf ledge 8 to the uprights 12, any of the manners described above for connecting the shelves 14 to the uprights 12, or the like. Still other manners of coupling the ends 18, 20 of the shelf ledge 8 to the uprights 12 are possible, and fall within the spirit and scope of the present invention.

[0028] In the illustrated embodiment, the shelf ledge is generally rectangular, although other shapes are possible. Referring to FIG. 3, the shelf ledge 8 includes a base portion 30 and a barrier portion 32. The base and barrier portions 30, 32 are positioned relative to one another such that the base portion 30 defines the end portions 18, 20 coupled to the uprights 12 and the barrier portion 32 prevents product from falling off of an adjacent shelf 14 located at a higher elevation than the base portion 30. Depending at least in part upon the type of product storage and display structure 10 and the positional relationship between the uprights 12 and shelves 14, the base and barrier portions 30, 32 lie in the same plane (e.g., in cases where substantially the entire shelf ledge 8 is substantially planar) or lie in different planes.

In the illustrated embodiment, the barrier portion 32 of the shelf ledge 8 lies in a different plane from the base portion 30. Accordingly, the relationship between the base and barrier portions 30, 32 in the illustrated embodiment enables the end portions 22, 26 and 24, 28 to be coupled to the uprights 12 at a lower elevation (e.g., at least partially beneath) the shelf 14, while the barrier portion 32 extends upwardly to a location proximate product upon the shelf 14.

[0029] An intermediate portion 34 of the shelf ledge 8 extends between and connects the base portion 30 and barrier portion 32. The intermediate portion 34 defines a ledge, angled (FIG. 3) or curved, or can take any other form desired. In one embodiment, the intermediate portion 34 is defined entirely or in part by the base portion 30 and/or the barrier portion 32. Referring to FIGS. 1 and 2, the intermediate portion 34 defines a ledge located beneath an edge of the shelf 14 when the shelf ledge 8 is installed on the product storage and display structure 10.

[0030] With reference to the discussion above regarding the width of the shelf ledge end portions 22, 24, 26, 28, in some embodiments one or both end portions 22, 26 of the first end 18 is narrower or wider than one or both end portions 24, 28 of the second end 20. Such a relationship between the end portions 22, 24, 26, 28 enables adjacent shelf ledges 8 to be installed at a common height on the uprights 12 of the product storage and display structure 10. With reference to FIGS. 3-5 for example, the first portion 24 of the second end 20 of the shelf ledge 8 is wider than the first portion 22 of the first end 18. When two such shelf ledges 8 are installed adjacent one another at the same location along the upright 12, the first portion 24 on the second end 20 of one shelf ledge 8 can receive the first portion 22 on the first end 18 of the other shelf ledge 8, as shown in FIGS. 6 and 7. When shelf ledges are mounted adjacent each other on one upright 12, in some embodiments, end portions 22, 24 of the adjacent shelf ledges 8 are nested together by virtue of their shape and relative size. In another embodiment, the end portions 22, 24 of the adjacent shelf ledges 8 are offset from one another (e.g., the end portion 22 of one shelf ledge 8 is located at a higher or lower elevation than the end portion 24 of an adjacent shelf ledge 8 installed at the same height on an upright 12). Such a relationship may be achieved, for example, by using shelf ledges 8 having end portions 22, 24 located at different heights on the shelf ledge 8 (as viewed from the perspective of FIG. 6).

[0031] The nesting relationship between adjacent shelf ledge end portions 22, 24 enables adjacent shelf ledges 8 to be coupled to one upright 12 at substantially the same height. Accordingly, any number of shelf ledges 8 may be installed on the product storage and display structure 10 at a common height. For example, the shelf ledges 8 may be installed at a common height along all sides of the shelf 14 in the product storage and display structure 10 or along any number of sides or the shelf 14. The nesting ability of adjacent shelf ledge end portions 22, 24 may be improved by using shelf ledge end portions 22, 26, and/or 24, 28 on each end 18, 20 of the shelf ledge 8 that have unequal lengths, as described above.

[0032] In one embodiment, the shelf ledge 8 is adjusted to and installed in any location along the length of the uprights 12, such as at locations proximate edges of shelves 14, at locations above, below, and/or between shelves 14, or the like. Because the shelf ledge 8 is coupled to the uprights 12, rather than to the shelf 14, the shelf ledge 8 may be adjusted to and installed in different locations independent of the shelf location. In the illustrated embodiment, the shelf ledge 8 is coupled to the uprights 12 at locations below the shelf 14 and extends upwardly such that the barrier portion 32 prevents product from falling off of the shelf 14. This
relationship between the shelf ledge 8, the uprights 12, and the shelves 14 enables the shelf ledge 8 to be installed adjacent the uppermost shelf 14 where no uprights 12 extending thereover.

[0033] The shelf ledge 8 is manufactured from any number of different elements. The shelf ledge 8 in the illustrated embodiment is an assembly of wire elements welded together. The wire elements include a frame 36 (FIG. 8), first and second upright connecting portions 38 and 40 (FIGS. 9 and 10), and brace portions 42 (FIG. 11). The frame 36 defines an outer periphery of the shelf ledge 8, as well as the second end portions 26, 28. The first and second upright connecting portions 38, 40 define the base portion 30 of the shelf ledge 8, as well as the first end portions 22, 24, respectively. The uprights 42 couple the frame 36 to the connecting portions 38, 40, as well as extension members 44 (FIG. 3). The uprights 42 also define the intermediate portion 34 of the shelf ledge 8.

[0034] In another embodiment, the shelf ledge 8 is an assembly of bars, rods, tubes, plates, or other elements coupled in any manner, including without limitation by welding or brazing, by adhesive or cohesive bonding material, by screws, bolts, nuts, rivets, pins, clamps, clips, and other conventional fasteners, by inter-engaging elements, snap or press fits, threaded connections, or the like. Also, the shelf ledge 8 may be molded, cast, stamped, pressed, extruded, or otherwise formed as one element or as two or more elements coupled together in any manner. In the illustrated embodiment, the shelf ledge 8 has a relatively open framework of elements, defined by the wire elements, although the ledge may be partially or substantially entirely solid, if desired. The shelf ledge 8 is constructed of carbon steel. In a further embodiment, the shelf ledge 8 is constructed of any material or combination of materials, including without limitation steel, stainless steel, aluminum, brass, iron, or other metals, plastic, glass, ceramic, fiberglass, wood, composite materials, or the like. Any part or all of the shelf ledge 8 may also be covered with one or more layers of material (e.g., rubber or plastic) to protect the shelf ledge 8, the product storage and display structure 10, or product thereon against damage.

[0035] The embodiments described above and illustrated in the Figures are presented by way of example only and are not intended as a limitation upon the concepts and principles of the present invention. As such, it will be appreciated by one having ordinary skill in the art that various changes in the elements and their configuration and arrangement are possible without departing from the spirit and scope of the present invention as set forth in the appended claims.

[0036] For example, the shelf ledge 8 disclosed herein may have any length desired and provided in multiple lengths for installation between uprights 12 spaced varying distances apart. The length of the shelf ledge 8 is between 10 inches and 15 inches, although shelf ledges of greater or lesser length may be used. As another example, the shelf ledges 8 have any height desired, such as relatively tall shelf ledges 8 for preventing larger and/or taller products from falling off of shelves 14, and relatively short shelf ledges 8 for preventing smaller and/or shorter products from falling off of shelves 14. The height of the shelf ledge 8 is about 6.2 inches, although shelf ledges of greater or lesser height may be used.

[0037] In the embodiments illustrated herein, each shelf ledge 8 is installed in the product storage and display structure 10 by being coupled to two uprights 12 (one at each end of the shelf ledge 8). In another embodiment, the shelf ledge 8 is coupled to only one upright 12, in which case the other end of the shelf ledge 8 is free, or connected to the shelf 14 or another part of the product storage and display structure 10 in any suitable manner. In still another embodiment, the shelf ledge 8 is coupled to and extends between three or more uprights 12.

What is claimed is:
1. A shelf ledge for a product storage and display structure having uprights and at least one shelf, the shelf ledge comprising:
   a base portion including first and second opposite ends, each end adapted to be removably coupled to the respective upright of the product storage and display structure; and
   a barrier portion extending upwardly from the base portion, wherein when the base portion is coupled to the uprights, the barrier portion extends to a location proximate and at a higher elevation than the shelf of the product storage and display structure.
2. The shelf ledge of claim 1 wherein the first end includes a first end portion and a second end portion, the first and second end portions being spaced apart a distance sufficient to receive the respective upright therebetween.
3. The shelf ledge of claim 2 wherein the first end portion has a greater length than the second end portion.
4. The shelf ledge of claim 2 wherein the second end includes a first end portion and a second end portion, the first and second end portions being spaced apart a distance sufficient to receive the respective upright therebetween.
5. The shelf ledge of claim 4 wherein the second end portion of the second end has a greater length than the first end portion of the second end.
6. The shelf ledge of claim 4 wherein the first end portion of the second end has a greater height than the first end portion of the first end.
7. The shelf ledge of claim 6 wherein when the first end is coupled to an upright, the first end portion of the first end nests within the first end portion of the second end of an adjacent shelf ledge coupled to the same upright.
8. The shelf ledge of claim 1 wherein the base portion and the barrier portion are formed from carbon steel wire.
9. The shelf ledge of claim 1, and further comprising:
   a frame member that defines an uppermost portion of the barrier portion, a lowermost portion of the base portion, and a portion of the first and second ends;
   a first connecting member that defines a portion of the first end;
   a second connecting member that defines a portion of the second end; and
   a plurality of upright members that couple the frame member to the first connecting member and the second connecting member.
10. A shelf ledge for a product storage and display structure having uprights and at least one shelf, the shelf ledge comprising:
    a frame member including an uppermost edge, a lowermost edge, a first side edge, and a second side edge, each side edge including first and second end portions configured for removably coupling to an upright,
wherein the first and second end portions are spaced apart a distance sufficient to receive an upright therebetweent.

11. The shelf ledge of claim 10 wherein the frame member comprises:

a base portion that defines the first and second end portions; and

a barrier portion extending upwardly from the base portion.

12. The shelf ledge of claim 10 wherein when the base portion is coupled to the uprights, the barrier portion extends to a location proximate and at a higher elevation than the shelf of the product storage and display structure.

13. The shelf ledge of claim 10 wherein the first end portion of the first end has a greater length than the second end portion of the first end.

14. The shelf ledge of claim 10 wherein the second end portion of the second end has a greater length than the first end portion of the second end.

15. The shelf ledge of claim 10 wherein the first end portion of the second end has a greater height than the first end portion of the first end.

16. The shelf ledge of claim 14 wherein when the first end is coupled to an upright, the first end portion of the first end nests within the first end portion of the second end of an adjacent shelf ledge coupled to the same upright.

17. The shelf ledge of claim 10 wherein the base portion is laterally offset from a plane defined by the barrier portion.

18. The shelf ledge of claim 10, and further comprising:

a frame member that defines an uppermost portion of the barrier portion, a lowestmost portion of the base portion, and a portion of the first and second ends;

a first connecting member that defines a portion of the first end;

a second connecting member that defines a portion of the second end; and

a plurality of upright members that couple the frame member to the first connecting member and the second connecting member.

19. A shelf ledge for a product storage and display structure having uprights and at least one shelf, the shelf ledge comprising:

a frame member including an uppermost edge, a lowestmost edge, a first side edge, and a second side edge, wherein the first side edge includes an outwardly extending end portion and the second side edge includes an outwardly extending end portion;

a plurality of upright members extending between the uppermost edge and the lowestmost edge;

a first connecting member positioned proximate the lowestmost edge of the frame member, the first connecting member including an end portion spaced apart from the end portion of the first side edge a distance sufficient to receive an upright therebetweent; and

a second connecting member positioned proximate the lowestmost edge of the frame member, the second connecting member including an end portion spaced apart from the end portion of the second side edge a distance sufficient to receive an upright therebetweent, wherein each of the first and second connecting members are coupled to a portion of the plurality of uprights.

20. The shelf ledge of claim 19 wherein the frame member, the first and second connecting members, and the uprights are formed from carbon steel wire.