ABSTRACT

An improved panel support for use in partitioning display shelves which is positionable at any location along the length of the shelf without the necessity of having a supporting structure at the front edge of the shelf comprising a slotted L-shaped holder employing a bifurcated cam-shaped protrusion which is grasped by a correspondingly profiled clamping strip mounted on the shelf along which the holder may be moved.

7 Claims, 6 Drawing Figures
SEPARATOR PANEL HOLDER FOR DISPLAY SHELVES

BACKGROUND OF THE INVENTION

Partitioned shelves are conveniently employed in the display of various kinds of merchandise particularly when the separation of these items according to type, size, price, etc. is important. Very frequently such displays must be reorganized as certain items are closed out, replaced by other items or the seasonal fluctuations in demand prompt such reorganizations. Further, displays will be altered periodically to renew buyer's attention and interest.

One known method of partitioning shelves employs flat separator panels supported by slotted front and rear panels which may become warped or worn in which case the separator panels are no longer held securely in place and may be easily pushed aside or knocked over. Furthermore, the number of slots in the rear panel is limited so that only discrete locations of the separator panels are possible. The poorly supported dividers resting askew or completely dislodged from the slotted end panels detract from the orderliness and attractiveness of the display and require constant attention. Another disadvantage of this prior art is that the front panel support tends to obscure the merchandise being displayed.

Merchandising people are becoming increasingly aware of the importance of maintaining attractive displays while at the same time reducing the labor involved in organizing and reorganizing such displays. For this reason, there is a need for an improved means for mounting the separator panels of a shelving display. It is also desirable to be able to mount such panels at any position along the length of the shelf so that optimum use may be made of the total available space.

SUMMARY OF THE INVENTION

It is therefore an object of this invention to provide an improved partition panel holder for display shelves.

Another object of this invention is to provide a unique clamping device which securely holds a panel for partitioning a desired shelf in an upright position.

Still further object of this invention is to provide a support for a panel for partitioning a shelf which may be adjustably positioned along the length of the shelf.

A still further object of this invention is to provide an improved separator panel holder that does not require a panel supporting member along the front of the shelf.

A still further object of this invention is to provide a clamp for supporting a shelf partition which is attractive in appearance and economical to produce.

The foregoing objects are achieved in this invention by providing a novel panel partition holder which grasps the partition along its two parallel sides while fitting with a bifurcated cam-shaped protrusion into a correspondingly profiled clamping strip. The clamping strip is positioned over the top rear edge of the shelf and is held there between the shelf and the adjacent wall.

Other objects and advantages of this invention will become apparent from the following description when taken in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention may be more readily described by reference to the accompanying drawings in which:

FIG. 1 is a perspective view of a separator panel mounting on a shelf and secured by a profiled clamping strip and embodying the invention.

FIG. 2 is a side view of the separator panel shown in FIG. 1 taken along the line 2—2.

FIG. 3 is an end view of FIG. 1 taken along the line 3—3 and showing only the clamping strip.

FIG. 4 is an end view of the separator panel shown in FIG. 1 and taken along the line 4—4.

FIG. 5 is a perspective view of the separator panel shown in FIGS. 1 and 2.

FIG. 6 is a top view of the separator panel shown in FIGS. 1, 2, 4, 5 and 6.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring more particularly to the drawings by characters of reference, FIGS. 1-6 disclose an L-shaped panel clamping and supporting means 10 for receiving and holding a panel 11 in an upright or vertical position on a shelf 12. The L-shaped panel clamping and supporting means 10 comprises a bifurcated structure milled to form a pair of spaced L-shaped leg members 10A and 10B which define between them a groove or slot 13 for receiving panel 11. This groove or slot may be formed to wedgily receive between leg members 10A and 10B a partition panel.

As noted from the drawings, the longest leg of the L-shaped panel clamping and supporting means 10 extends laterally across the surface of shelf 12 and is aided in maintaining its upright vertical position by a pair of ears 14A and 14B spaced laterally from the L-shaped leg members one positioned on each side thereof at the shelf supporting edge of the panel clamping and supporting means 10.

Further, slot 13 is milled to extend into the clamping and supporting means 10 substantially its full depth but is closed adjacent its bottom and wall positioned edges by strips 15 and 16 which aid in supporting the spaced L-shaped leg members 10A and 10B and maintain them apart a predetermined distance in parallel arrangement.

As noted in FIG. 1, the outside corner of the interlocking legs of the L-shaped panel clamping and supporting means 10 is cut away and a bifurcated cam-shaped clamping means 18 is formed thereon. This clamping means comprises two cam-shaped fingers, arms or heads 19A and 19B which are yieldly distorted to move toward each other when they are pressed into a clamping strip 20 as shown in FIG. 1. Clamping means 18 further comprises a rectangular slide member 21 which is parallelly arranged with the flat surfaces of ears 14A and 14B for sliding on clamping strip 20. This slide member is around the vertically positioned edge of the short leg of the L-shaped panel clamping and supporting means 10 and forms a plate for ease in sliding along the clamping strip 20 so as to position the panel clamping and supporting means 10 at any position along the slide.

Clamping strip 20 as shown in FIGS. 1 and 3 comprises an elongated channel 22 the edges of which are provided with protrusions 22A and 22B which protrude inwardly of the channel for engaging with the cam-shaped arms or heads 19A and 19B of the clamping means 18 arranged on the L-shaped clamping and supporting means 10. This profiled clamping strip is intended to form a seat into which the head 19A and 19B
of the clamping means 18 may be seated to form a firm interlocking connection between the panel supporting means 10 and the clamping strip 20.

The clamping strip 20 is further provided with a leg 23 which extends laterally from channel 22 to form a right angle with the bottom 24 thereof. This angular form permits the placement of the clamping strip on the top back edge of shelf 12 where it may rest in frictional engagement therewith or secured thereto by adhesive or some similar form of fastening means. It should be recognized that the most suitable arrangement is simply to rest the clamping strip on the edge of the shelf since in this arrangement, it may be readily removed and used in other places.

The functions of the individual parts of the panel clamping and supporting means and associated clamping strip may be best described by reference to FIG. 1 which shows the complete assembly in which the panel clamping and supporting means 10 is holding a panel 11 and is mounted on the clamping strip 20. Clamping strip 20 is in turn supported by shelf 12 which is shown perpendicularly arranged adjacent to the flat surface of a wall 25.

Retainer tab or leg 23 of clamping strip 20 extends downwardly between the rear edge of shelf 12 and the flat juxtapositioned surface of wall 25. The inner surface of channel 22 formed by clamping strip 20 is appropriately contoured to match the outer mating surfaces 19A and 19B of the bifurcated cam-shaped projection of clamping means 18 but the relative dimensions of channel 22 are such that the individual heads 19A and 19B must be forced together as clamping means 18 is pressed into channel 22. The outer surfaces of heads 19A and 19B remain in interference with the inner surfaces of channel 22 after installation thereby affording a firm and secure gripping action between the panel clamping and supporting means 10 and clamping strip 20.

Triangular projections or ears 14A and 14B rest flat against the top surface of shelf 12 thereby insuring the upright position of the panel clamping and supporting means. Corresponding edges of ears 14A and 14B rest against the front edge of the clamping strip 20 and any tendency for a departure from a perpendicular relationship between the panel clamping and supporting means 10 and strip 20 is restrained by interference between the front edge of strip 20 and the adjacent surfaces of ears 14A and 14B. In a similar fashion, the rear surface of slide member 21 is in contact with flat surface of the wall 25 and maintains a perpendicular relationship between wall 25 and the panel clamping and supporting means 10.

The design of the cam-shaped arms or heads 19A and 19B of the clamping means 18 may be varied to accommodate different materials and methods of fabrication. Heads 19A and 19B may be of any suitable configuration such as of a spherical configuration in lieu of that shown in FIGS. 1, 2 and 5. It should be noted that the clamping means 18 and its arms or heads 19A and 19B may extend the full length of slide plate or member 21 or only a part thereof and still provide the firm interlocking function necessary for rigid support of panel 11.

A variety of materials may be suitable for the fabrication of the panel clamping and supporting means 10 and the associated clamping strip 20 but synthetic plastic materials are the best suited for the inexpensive mass production of these parts. Clamping strip 20 may be readily extruded from metal or plastic while the panel clamping and supporting means may be attractively fabricated from metal, plastic or rubber at low cost.

It has therefore been demonstrated that the present invention provides an improved panel clamping and supporting device which securely holds the panel such as a partition in a desired upright position without the need of supporting the panel along the front edge of the shelf. The position of the holder is continuously adjustable along the length of the shelf and its position may be quickly and easily changed by sliding the clamping and supporting device along the clamping strip member.

Although but one embodiment of the present invention has been illustrated and described, it will be apparent to those skilled in the art that various changes and modifications may be made therein without departing from the spirit of the invention or from the scope of the appended claims.

What is claimed is:
1. A clamping means for detachably mounting and holding partition panels on a shelf comprising:
an L-shaped clamping member grooved along its length to provide a pair of parallelly arranged spaced legs for receiving therebetween a partition panel,
a clamping means arranged at the outside peripheral corner of the intersection of the legs for detachably fitting into a clamping strip, and
a clamping strip comprising an elongated channel for positioning laterally of the longitudinal axis of said L-shaped clamping member,
said clamping means being insertable into said channel for detachable connection therewith,
said clamping strip comprising a right angular configuration presenting its channel along the outer surface along one edge thereof and a flat planar surface along the other edge,
said right angular configuration fitting over the top edge of the shelf being partitioned.
2. The clamping means set forth in claim 1 wherein:
said clamping means comprises a pair of spaced fingers yieldingly distortable when detachably fitted into said channel for firmly gripping the inside walls of said channel.
3. The clamping means set forth in claim 1 wherein:
said clamping means comprises a pair of spaced cam surfaces protruding from the periphery of said L-shaped clamping member which yieldingly distort when they are pushed into said channel to frictionally engage the inner walls of said channel to hold said L-shaped member in a given position on said clamping means.
4. The clamping means set forth in claim 3 wherein:
the side walls of the cavity of said channel have a profile similar to the profile of said cam surfaces of said clamping means.
5. The clamping means set forth in claim 1 wherein:
said clamping means is formed of a resilient material.
6. The clamping means set forth in claim 1 wherein:
said clamping means is formed of a resilient plastic.
7. The clamping means set forth in claim 1 wherein:
the groove between said spaced leg members of said L-shaped clamping member is formed to wedgingly receive the partition panel therebetween for firmly holding it in place.