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R. G. HUMMER

3,229,823

DISPLAY ASSEMBLY

Filed April 6, 1964

FIG. 1.

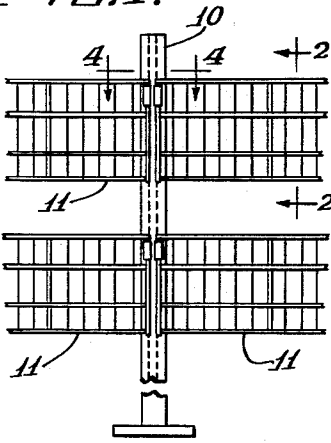


FIG. 2.

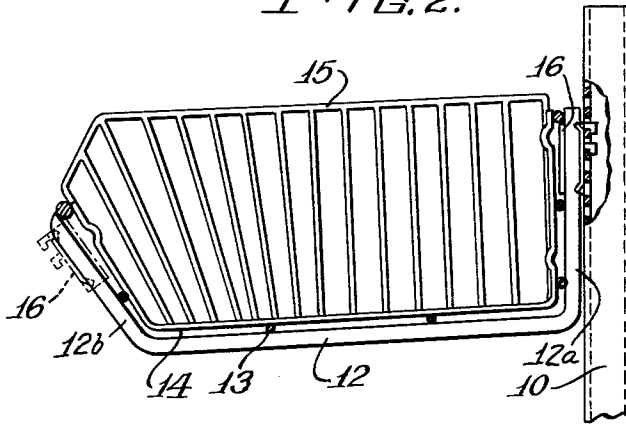


FIG. 3.

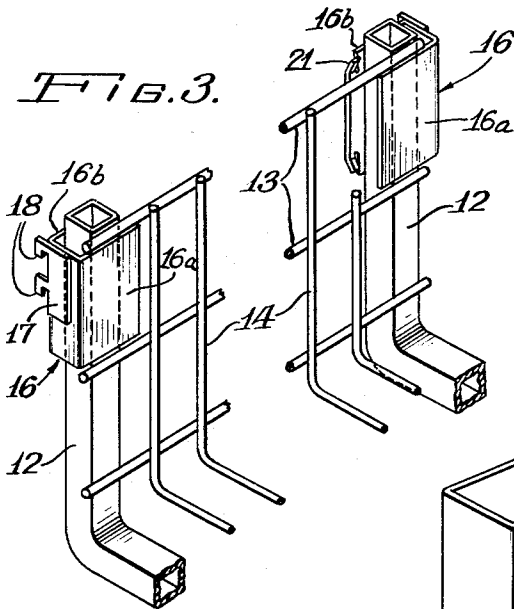


FIG. 4.

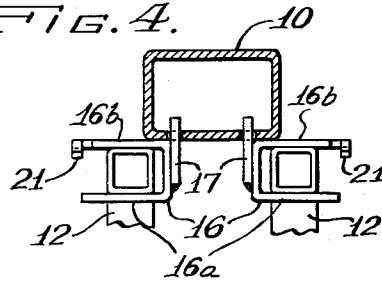


FIG. 6.

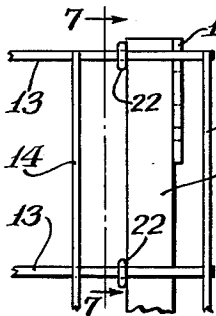


FIG. 7.

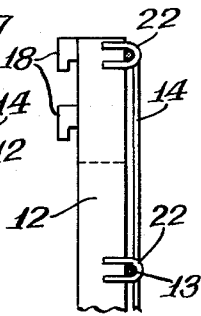
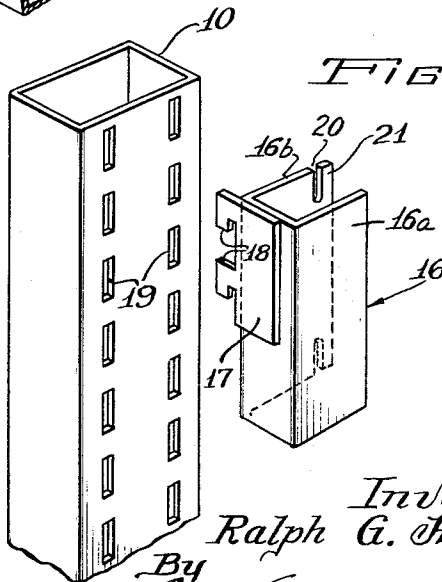


FIG. 5.



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3,229,823

DISPLAY ASSEMBLY

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This invention relates to display assemblies and more particularly to a display shelving structure primarily adapted for use in self service markets and the like.

Shelving structures have heretofore been proposed for use in supermarkets and the like in which elongated trough shaped shelving units are supported on spaced upright posts to span the space between adjacent posts and with dividers being inserted in the trough shaped units to divide them into compartments, as desired. One such construction which has been used extensively is described and claimed in the patent to Brunette, No. 3,122,238.

It has been found in practice that the upright posts as embodied in various types of fixtures or frames are not always uniformly spaced even as between fixtures of identical types. Therefore, even though the shelving units are designed to span the distance between adjacent posts correctly it is sometimes difficult to secure the shelving units to the posts because of inaccurate fit.

It is therefore one of the objects of the present invention to provide a display assembly in which the shelving units are secured to the upright posts through brackets mounted on the shelving units for adjustment lengthwise thereof. By this means the shelving units can be mounted properly on the posts despite slight variations in post spacing or in the length of the shelving units.

According to a feature of the invention, each shelving unit includes a support member adjacent to its ends and brackets are fitted slidably over the end portions of the support members. In a shelving unit having sides at different angles, for example, with one at a right angle and the other at an obtuse angle to the bottom, the shelving unit can be supported with its bottom horizontal or with its bottom sloping downwardly and forwardly, as desired.

According to another feature of the invention, the brackets are formed of open channels which slip over the supporting members between adjacent longitudinally extending wires so that they are easy to install and remove. The brackets are preferably secured against accidental removal by integral tabs at the free edges thereof which may be bent out to engage the supporting members. Alternatively, the supporting members are slidably connected to the shelving units.

The above and other objects and features of the invention will be more readily apparent from the following description when read in connection with the accompanying drawings, in which:

FIG. 1 is a partial elevation of a display assembly embodying the invention;

FIG. 2 is an enlarged section on the line 2-2 of FIG. 1;

FIG. 3 is a perspective view with parts broken away showing a portion of a shelving unit with mounting brackets attached thereto;

FIG. 4 is a partial section on the line 4-4 of FIG. 1;

FIG. 5 is a dis-assembled partial perspective view illustrating the manner of mounting a supporting bracket on a post;

FIG. 6 is a partial elevation of an alternative structure; and

FIG. 7 is a section on the line 7-7 of FIG. 6.

Shelving units according to the present invention and

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as shown in the drawings comprise a series of upright vertical posts 10 which are spaced apart horizontally to have the space between them spanned by separate shelving units. The posts 10 may be permanently secured in a desired location or may be formed as a part of a framework which holds the posts in the desired spaced relationship.

The space between adjacent posts is spanned by shelving units 11 which may be generally constructed as more particularly described and claimed in the Brunette patent referred to above. As shown, each of the shelving units is formed by a generally C-shaped saddle or cradle 12 at each end of the unit and which are connected by spaced longitudinally extending wires 13. The wires 13 are connected by cross wires 14 which conform generally to the C-shape of the brackets 12 to define with the wires 13 a basket structure in which merchandise of various sorts can be displayed. It will be noted particularly from FIG. 2 that the basket at one side 12a shown secured to the post 10 is at approximately right angles to the bottom of the basket while the other side 12b of the basket lies at an obtuse angle to the bottom. The shelving units or baskets may be assembled in end-to-end relationship, as indicated in FIG. 1, and may be divided into compartments by dividers 15 which are dropped between adjacent wires 14 at any desired position.

According to the present invention, the baskets or shelving units are mounted on the post through supporting brackets, indicated generally at 16, which are secured to the shelving units for limited lengthwise movement relative thereto. As shown, each of the brackets 16 is formed by a short channel section strip having its sides 16a and 16b spaced apart a sufficient distance to fit relatively closely over the front and back surfaces of the cradles 12 and of a length to fit relatively closely between adjacent longitudinally extending wires 13. A hook member 17 is secured to the web of each of the brackets as, for example, by welding and is formed with a pair of outwardly extending hooks 18 which hook into openings 19 in the posts 10. In this way, the shelves can easily and quickly be secured to the posts at different elevations and the brackets 16 can slide on the cradle members 12 to accommodate variations in spacing between the posts or variations in the length of the shelving units.

In order to hold the brackets against accidental removal from a shelving unit the edge portions of one of the flanges thereon are split, as best seen at 20 in FIG. 5, to define short tabs or ears 21. These tabs or ears normally lie in the plane of the flange from which they are formed, but after the bracket is installed on a shelving unit they may be bent over, as best seen in FIG. 4, to hold the bracket against accidental sliding off the cradle 12. It will further be seen that the brackets can be secured to either side of a shelving unit, as desired, and as illustrated in dotted lines in FIG. 2. As shown in full lines in FIG. 2, the bracket is at the right angle side 12a of the shelving unit so that the unit is supported with its bottom substantially horizontal and with its forward side sloping outwardly for easy access to the shelving unit. Alternatively, the bracket can be secured to the sloping side 12b of the shelving unit, as shown in dotted lines in FIG. 2, so that when the shelving unit is mounted on the posts its bottom will slope downwardly and outwardly therefrom for an attractive display of various types of articles.

The embodiment illustrated in FIGS. 6 and 7 is generally similar to that of FIGS. 1 to 5 and parts therein corresponding to like parts in FIGS. 1 to 5 are indicated by the same reference numerals.

In this construction, the saddles or cradles 12 are separate from the shelving unit formed by the wires 13

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and 14 and have the mounting plates or hooks members 17 directly secured thereto as by welding. To connect the saddles 12 to the basket structure loops 22 are secured to the saddles and are looped over adjacent longitudinally extending wires 13 in the fabric structure. It will be noted in this construction a cross wire 14 is secured to the end of each shelving unit so that the saddles or brackets 12 will be held against accidental removal while being free to move longitudinally through a limited distance relative to the shelving unit.

This construction can be used in the same manner as that of FIGS. 1 to 5 with the limited longitudinal movement provided between the shelving unit or basket structure and the brackets 12 accommodating minor variations in spacing between adjacent posts 10. When the hooks 18 are hooked into the openings in the posts 10 in the manner shown in FIG. 2, the shelving unit will be securely supported on the posts and can be mounted thereon regardless of minor dimensional variations in the length of the shelving units themselves or in spacing between the posts. The construction of FIGS. 6 and 7 therefore functions in substantially the same manner as that of FIGS. 1 to 5 to accomplish the same desirable results.

While two embodiments of the invention have been shown and described herein, it will be understood that they are illustrative only and are not to be taken as a definition of the scope of the invention, reference being had for this purpose to the appended claims.

What is claimed is:

1. A display assembly comprising a plurality of spaced vertical supporting posts, a shelving unit spanning the distance between adjacent posts, transverse support member extending the full height of the shelving unit at at least one side thereof, means connecting the support members to the shelving unit, connector members formed for connection to the posts to mount the shelving unit thereon, means connecting the connector members to the support members, one of the connecting means providing limited sliding motion lengthwise of the shelving unit whereby the shelving unit can be mounted on the posts despite variations between length of shelving units and spacing of adjacent posts.

2. A display assembly comprising a plurality of spaced vertical supporting posts, a shelving unit spanning the distance between adjacent posts, the shelving unit being formed of wire mesh and generally U-shaped in cross section, generally U-shaped support members underlying the shelving unit adjacent to its ends, means connecting the support members to the shelving unit, connector members formed for connection to the posts to mount the shelving unit thereon, means connecting the connector members to the support members, one of the connecting means providing limited sliding motion lengthwise of the shelving unit.

3. A display assembly comprising a plurality of spaced vertical supporting posts, a shelving unit spanning the distance between adjacent posts and terminating at its ends in transverse support members extending the full height of the shelving unit at at least one side thereof, and means to secure the support members to the posts to support the shelving unit therefrom, said means including at least one bracket slidably receiving one of the support members for relative movement lengthwise of the shelving unit but providing a close sliding fit transversely of the shelving unit, means on the bracket to secure it to a post, and means to limit movement of the bracket lengthwise of the support member it receives.

4. The display assembly of claim 3 in which the support members are generally C-shaped with upwardly extending end portions and the bracket is mounted on one of the end portions to hold it parallel to a post.

5. A display assembly comprising a plurality of spaced vertical supporting posts, a shelving unit spanning the dis-

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tance between adjacent posts and having a substantially flat bottom with one side lying at a right angle to the bottom and the other side at an obtuse angle to the bottom, support members at the ends of the shelving unit extending around and secured to the sides and bottom thereof, and means to secure the ends of the shelving unit to the posts, said means including at least one bracket receiving one of the support members adjacent to one end thereof for relative movement lengthwise of the shelving unit but providing a close sliding fit transversely of the shelving unit, means on the bracket to secure it to a post, and means to limit movement of the bracket lengthwise of the shelving unit.

6. A display assembly comprising a plurality of spaced vertical supporting posts, a shelving unit spanning the distance between adjacent posts and including generally C-shaped support members at its ends and a plurality of longitudinally extending spaced wires secured to the support members, and means to secure the shelving unit to the posts including at least one bracket fitting over one of the support members adjacent to one end thereof, the bracket closely slidably engaging the support member transversely of the shelving unit but providing limited relative movement lengthwise of the shelving unit and fitting between adjacent spaced wires whereby movement of the bracket lengthwise of the support member is limited, and means to secure the bracket to a post.

7. The display assembly of claim 6 in which the bracket is channel shaped in section to slip over the support member and has integral bendable tabs at its free edges to secure it on the support member.

8. The display assembly of claim 6 in which the support members are rectangular in section and the bracket is in the form of a rectangular channel whose sides fit closely against the support member but which is of greater depth than the support member.

9. A display assembly comprising a plurality of spaced vertical supporting posts, a shelving unit spanning the distance between adjacent posts, the shelving unit being formed of wire mesh and generally U-shaped in cross section, generally U-shaped support members underlying the shelving unit adjacent to its ends, means slidably connecting the support members to the shelving unit for limited sliding movement lengthwise thereof, and connector members secured to the support members to mount them on the posts.

10. A display assembly comprising a plurality of spaced vertical supporting posts, a shelving unit spanning the distance between adjacent posts, the shelving unit being formed of wire mesh and generally U-shaped in cross section, generally U-shaped support members underlying the shelving unit adjacent to its ends, loops secured to the support members and slidably encircling longitudinally extending wires in the shelving unit to connect the support members to the shelving unit for limiting sliding movement lengthwise thereof, and connector members secured to the support members to mount them on the posts.

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