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MERCHANDISE DISPLAY RACK

3 Sheets-Sheet 1



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S. BELEJACK

3,019,907

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3 Sheets-Sheet 3

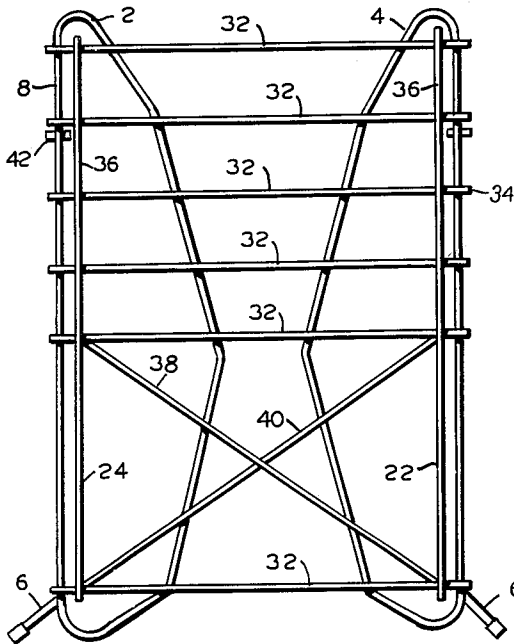


FIG. 5

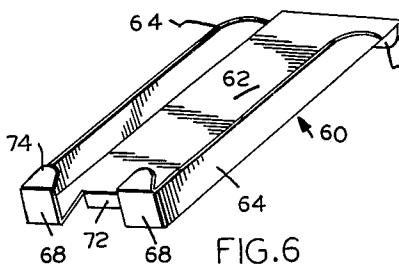


FIG. 6

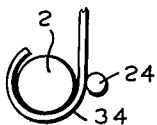


FIG. 4

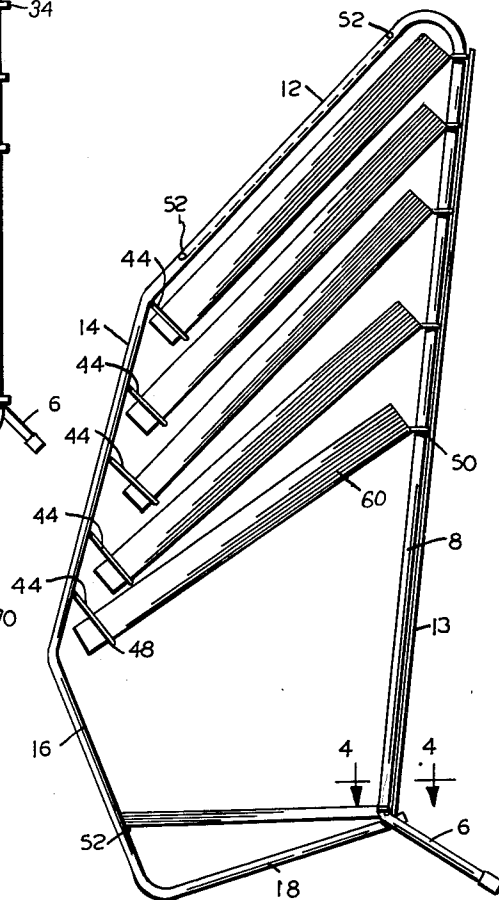


FIG. 3

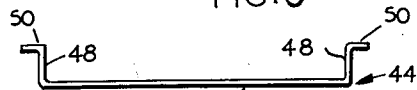


FIG. 7

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MERCHANDISE DISPLAY RACK

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7 Claims. (Cl. 211-49)

The present invention relates to a merchandise display stand and more particularly to the type of display stand wherein the merchandise is continuously available to the self-service customers.

More particularly the invention relates to the type of stand which does not become a permanent fixture and therefore must be self-supporting, readily assembled and disassembled, self-cleaning, and additionally extremely attractive in appearance. In view of this one of the objects of the present invention is to provide a stand incorporating all of the above mentioned features.

Display stands of the above type also represent a substantial money investment and an object herein is to reduce the cost of manufacture by duplicating parts which I use in the construction of the stand and thus the number of different parts which must be manufactured are greatly reduced and also interchangeable.

These and other objects will be readily apparent from the description herein when read in view of the accompanying drawings, wherein

FIG. 1 is an angular front and side view of the stand;

FIG. 2 is an angular side and rear view of the stand;

FIG. 3 is a side view of the stand;

FIG. 4 is a detail taken on the line 4-4 of FIG. 3;

FIG. 5 is a view of the rear frame construction with the side frames pivoted into aligned collapsible position therewith;

FIG. 6 is a perspective view of one of the shelf members, and

FIG. 7 is a detail view of the front holders for the shelves.

Referring to the drawings, the stand comprises substantially similar side frames 2 and 4 each of which is made from a single piece of tubing bent to give the required configuration. As seen in FIG. 3, the tubing is formed to provide a bottom rearwardly extending supporting leg 6, a substantially vertical upright member 8, a top front member 12 which projects downwardly and forwardly from the rear member 8 at an acute angle thereto, an intermediate front member 14 extending downwardly at an obtuse angle to the top member 12 but at an acute angle of approximately 10 degrees to the vertical upright member 8, a bottom front member 16 extending rearwardly from the member 14 and a base member 18 extending rearwardly from the lower member 16 and terminating at the member 6 to which it is spot welded.

The vertical uprights 8 of the end frames 2 and 4 are interconnected by and pivotally mounted in a rear frame member 30 the detailed construction of which is shown in FIG. 5. As therein shown, the frame 30 comprises a plurality of cross members 32 each of which terminates at its outer end in a loop or hook portion 34 which engages the rear upright of the side frame members thus pivotally mounting the side frame members in the rear frame member. The transverse members 32 are arranged in predetermined spaced relation to serve as shelf holding members and are retained in such spaced relation by the verticals 36 which are spot welded to the transverse shelf members 32. The rear frame members may be further strengthened by diagonals 38 and 40. As is apparent, the transverse members 32 are identical in construction as are the verticals 36. It is obvious of course that the transverse members 32 could be mounted in spaced relation on the verticals 8 of the rear side members as for example by a spacer collar 42 indicated in FIG. 5, thus eliminating the necessary for the verticals 36.

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However, the construction shown is preferred because of its ease and simplicity of manufacture.

To support the front end of the shelf members there are provided a plurality of front shelf holders 44 each of which is U-shaped having a transverse member 46 and vertical legs 48 which terminate in outwardly extending pivots 50. The U-shaped shelf members are mounted on the front intermediate member 14 of the side frames 2 and 4, the pivots 50 simply extending into openings provided in such side members. Again it will be seen that these members are all of similar construction thus reducing the number of parts which must be manufactured. Also, as clearly seen, they may be mounted in the side frames in view of the fact that the side frames are pivotally mounted in the rear frame thus permitting them to be spread sufficiently to allow the mounting of the front shelf holders. Thereafter the side frames are interconnected by transverse holding rods 52 which extend through suitable openings in the side frame members and are threaded on their outer ends to receive the holding nuts 54.

As shown herein there are five rear shelf members 32 and an equal number of front shelf members 44 although this number could be varied depending upon the size of the rack, and because of the angular relationship and positioning of the shelf holding members relative to one another the shelves will all be disposed at an angle to cause merchandise fed into the rear end thereof to slide to the front. Herein there are utilized a plurality of shelves 60 (see FIG. 6), each of which is a drawer-like member having a bottom 62, side members 64 and partial front members 68. The rear end of the bottom member 62 is reversed upon itself to provide a hanger 70 for engaging the rear shelf holders 32. The forward end of the bottom member is cut out intermediate of the partial front members 68 and a portion is bent downwardly to provide a holding tab 72. With this construction it will be seen that when the shelf is in position the rear hanger 70 (See FIG. 2) extends over the rear shelf holders 32 and the front tab 72 functions as a stop for the front holder members 44 which because of their pivotal mounting take the position shown in FIG. 3 whereby the shelves all terminate at the front of the stand but do not extend beyond it and form an obstruction for clear passage. Because of the cut away portion in the front of the shelves it is possible to reach under and lift the merchandise in order to withdraw one from the shelf, and to assist in this the front portion 68 of each shelf member is provided with a rearwardly extending angular tab 74 which tends to cam the merchandise upwardly to permit it to be readily grasped.

In the display stand shown the shelves are all of relatively narrow construction for the purpose of receiving packages of cigars of the type wherein five cigars are in each package. However, it is evident that the shelves could extend the entire width of the display stand or be of any desired width. Additionally, as shown in FIG. 1 (lower row), the shelves can be made with only one partial front section 68.

Again it is evident that all of the shelves are of substantially similar construction and may be manufactured in mass quantity. If it is necessary to vary their lengths slightly this is readily accomplished by simply changing the length of the bottom member 62 in order to move the reversed portion which forms the hanger 70 rearwardly or forwardly to obtain the desired length. As best shown in FIGS. 1 and 2 there may also be provided a bottom shelf 80 which is of similar construction to the shelf 60 and extends completely across the device being hung at its rear end on the bottom shelf members 32 of the rear frame and resting at its front end on the lowermost securing rod 50. In order to give the display stand

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a pleasant appearance there is provided a top front panel 90 the forward and rear edges of which are reversed to form channels and overlie the cross connecting rods 52. In addition, side panels 92 may also be provided which are secured in any suitable way such as spot welding to the side frame members. 5

From the description given it can be readily seen that the rack being of a collapsible nature and with the tray or shelf construction shown and the U-type front shelf holders, it has the feature of modular type construction wherein the rack width or height may readily be offered for any variation of width or height necessary to suit a particular given application. It is likewise apparent that the rack may be readily removed, the only parts which must be secured being the three cross rods 52, and herein it only involves the taking up of the end nuts. Although the trays or shelves can be readily loaded from the rear it is equally apparent that because of their ready removal they could be individually carried to a stockroom and reloaded, which might be desirable if one or two shelves are empty, rather than carrying the stock to the display rack. It is likewise apparent that various types of packages could be carried in the shelves, the only variation required being the particular width of the shelf members. 10 15 20 25

Although the preferred embodiment has been disclosed it is apparent that minor variations could be made without departing from the invention herein as defined in the accompanying claims.

I claim:

1. In a display stand; 30
 - a pair of side frames each having a rear upright and a front upright inclined downwardly and forwardly from the rear upright;
 - a plurality of vertically spaced transverse shelf holders connecting the rear uprights above the center thereof; 35
 - a plurality of transverse U-shaped shelf holders equal in number to the rear holders pivotally mounted in said front upright centrally thereof; 40
 - shelf members supported on said shelf holders; and hanging means depending from each end of the shelf members and engaging the shelf holding means.
2. A display stand as defined in claim 1; 45
 - wherein the front upright has an upper, central, and lower section; and the central section is at an acute angle of approximately 10° to the rear upright.
3. A display stand as defined in claim 1; 50
 - wherein a pivotal connection is provided connecting the ends of the transverse shelf holders to the rear uprights of each side frame.

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4. A display stand as defined in claim 1; wherein the shelf members have a bottom member, side walls and a partial front wall, and a portion of the bottom has an opening therein adjacent the partial front wall; and the forward shelf hanging means is disposed rearwardly of the opening.

5. In a display stand;

a pair of side frames each having a rear upright and a front upright inclined downwardly and forwardly from the rear upright;

a rear frame comprising a plurality of transverse shelf holders and a plurality of vertical members secured to the shelf holders and retaining them in spaced position; a pivotal connection between the rear upright of each side frame and the ends of the transverse shelf holders; a plurality of U-shaped shelf holders equal in number to the rear shelf holders and pivotally mounted between the front uprights of the side frames, each front shelf holder being in a plane lower than the corresponding rear shelf holder; shelf members supported on said shelf holders; and hanging means depending from each end of the shelf members and engaging the shelf holding means.

6. A display stand as defined in claim 5;

wherein the pivotal connection between the side frame uprights and the rear frame comprises a hook carried on the end of each transverse shelf holder and substantially surrounds the rear upright.

7. In a display stand;

a pair of side frames each having a rear and front upright interconnecting at their upper ends in an acute angle; a rear shelf holder extending transversely of and connecting the rear upright of each side frame; a front U-shaped shelf holder pivotally mounted transversely between the front uprights of the side frames, the bottom of the U being in a plane lower than the rear shelf holder; a shelf member supported by said shelf members; and hanging means depending from each end of the shelf member and engaging the shelf holders.

References Cited in the file of this patent

UNITED STATES PATENTS

2,315,595	Chappory	Apr. 6, 1943
2,554,232	Young	May 22, 1951
2,633,249	Reed	Mar. 31, 1953
2,905,330	Lilja	Sept. 22, 1959