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TILTABLE SHELF CONSTRUCTION FOR MERCHANDISE DISPLAY CASES

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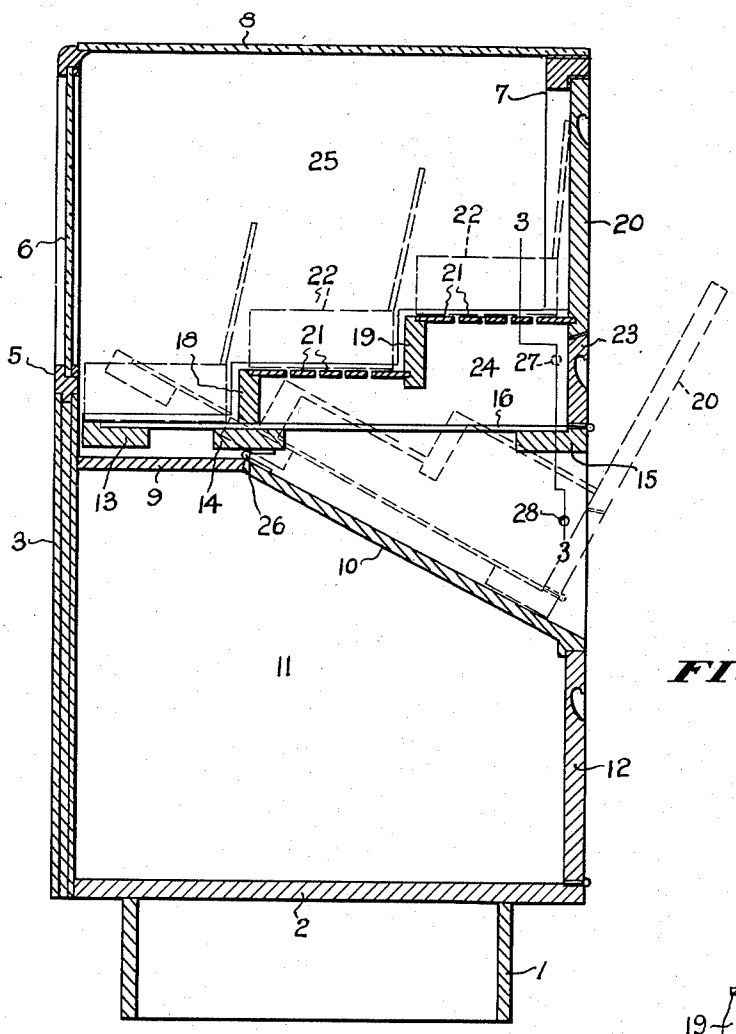


FIG. 1

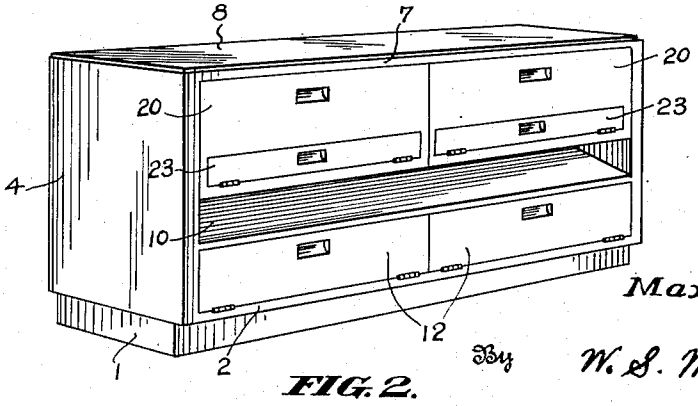


FIG. 2.

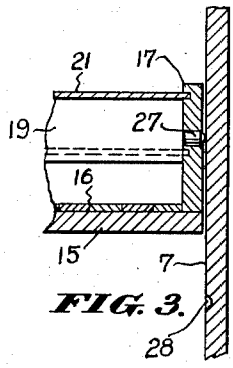


FIG. 3.

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TILTABLE SHELF CONSTRUCTION FOR MERCHANDISE DISPLAY CASES

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3 Claims. (Cl. 312—129)

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This invention relates to improvements in merchandise display cases, and has particular reference to an improved tiltable shelf structure for use in such cases and on which merchandise is supported for display and vending purposes.

In display or show case construction, it is common to provide sliding or hinged doors at the rear thereof which, when opened, enable a store attendant to reach within the interior of the case and remove therefrom particular articles of merchandise which a patron may desire to inspect or purchase. It is often difficult for the store attendant to reach into the case and remove therefrom merchandise placed or displayed at the front of the case.

Accordingly, it is an object of the present invention to provide in a display case a tiltable shelf structure on which the articles of merchandise are arranged, so that the store attendant, by depressing the shelf structure at the rear of the case, will cause said structure to turn about a hinged or pivotal axis disposed toward the front of the case, so that all the articles of merchandise disposed on the shelf structure will be conveniently accessible to the attendant.

It is another object of the invention to form the shelf structure with a rear wall, which constitutes the back closure of the case in which the shelf structure is mounted.

It is another object of the invention to pivotally mount and counterweight such a shelf structure so that the same may swing about its pivotal axis when loaded with merchandise with but small expenditure of effort on the part of the store attendant.

A further object of the invention is to provide an improved shelf structure for show cases adapted for the display and vending of boxed cigars.

With these and other objects in view which will appear as the description proceeds, the invention consists in the novel features of construction, combinations of elements and arrangements of parts, hereinafter more fully described and pointed out in the appended claims.

In the accompanying drawing,

Fig. 1 is a vertical transverse sectional view taken through a merchandise display case having a shelf structure formed in accordance with the present invention;

Fig. 2 is a perspective view of the display case when looking toward the rear thereof;

Fig. 3 is a fragmentary vertical sectional view taken along the line 3—3 of Fig. 1.

Referring more particularly to the drawing, in which is disclosed a single preferred embodiment of the invention, there is illustrated a display case comprising a floor-engaging base frame 1, a horizontal bottom wall 2, a vertical front wall 3 and vertical end walls 4. The front wall includes a vertically superposed frame 5 in which is mounted a glass panel 6. The end walls 4, at the back of the case, carry a stationary frame 7, the upper edges of which in conjunction with the front frame 5 support the glass top panel 8 of the case. Interiorly of the case, the end walls effect the support of partition panels 9 and 10, the panel 9 being arranged in a substantially horizontal plane toward the front of the case, while the panel 10 occupies an inclined position with respect to the horizontal and extends from the rear edge of the front panel 9 to the rear of the display case. Below the panels 9 and 10, a compartment 11 is formed for the storage of boxes or undisplayed reserve merchandise. This compartment is rendered accessible by means of a hinged door or doors 12 arranged at the rear of the case.

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In connection with the case, constructed as above described, I employ a tiltable, internally situated, merchandise-receiving shelf structure. This structure in one of its preferred embodiments comprises a frame composed of a plurality of spaced longitudinally extending parallel front, intermediate and rear bars 13, 14 and 15 respectively, which have their upper surfaces suitably secured to spaced transversely extending cleat strips 16. At their ends, the bars 14 and 15 carry stepped vertical end walls 17 to which are fastened the ends of vertically positioned longitudinally extending bars 18 and 19 arranged in different horizontal elevations.

Secured to and forming a stationary part of the frame construction of the shelf structure is a vertical rear panel member 20. The bars 18 and 19 and the panel member 20 receive perforate base panels 21 for the support of articles of merchandise, such as the cigar boxes indicated at 22. The front row of boxes rest directly on the forward ends of the cleat strips 16. Below the panel member 20, the frame of the shelf structure is provided with a small hinged door 23, which provides access to a compartment 24 which, in the event the display case is used to merchandise cigars, is adapted to receive a moisture-releasing humidifier or the like. The perforate construction of the base panels 21 permits water vapor released from such a humidifier to ascend into the top merchandise-displaying compartment 25 of the display case.

The frame of the shelf structure may be of wood or of a lightweight metal such as alumi-

num, and the intermediate bar 14 of this frame is hinged, as at 26, at or adjacent to the meeting edges of the panels 9 and 10. Preferably, the front bar 13 is composed of a relatively heavy material, or is connected with counterweights, in order to compensate for the relative forward placement of the hinge or hinges 26. These hinges are forwardly placed for the reason that when the shelf structure is rocked about the axis of said hinges to assume the dotted line position illustrated in Fig. 1, the weight of the merchandise on the shelf structure to the rear of its hinged axis would offset the weight of the merchandise arranged at the front of said axis. However, by counterweighting the front of the shelf structure, the latter will be so balanced that when the shelf structure is released, it will swing automatically to its normal elevated position, as illustrated in full lines in Fig. 1.

In the use of the case, the store attendant by applying downwardly directed finger pressure to the panel member 20, will cause the entire shelf structure to swing about its hinged axis, thus enabling the attendant to reach readily any of the boxes or other merchandise positioned on the shelf structure. If desired, ball-shaped, spring-pressed friction elements 27 may be carried by the side edges of the shelf frame at the rear thereof, and which elements are projected into sockets 28 provided in the sides of the back frame 7 when the shelf structure is fully depressed. This relieves the attendant of the necessity for holding the shelf structure down in overcoming the action of its counterweighted front end, and permits the attendant to use both hands in removing articles from the shelf structure. By applying mild upward pressure to the back panel 20, the gripping elements will be released from the sockets 28, thus allowing the shelf structure to respond to the counteraction of its front end and return easily to its normally elevated display position. The edges of the panel member 20 may be felt-coated, if desired, to minimize noise and insure tight-fitting engagement with the stationary frame members of the case.

In view of the foregoing, it will be seen that the present invention provides a useful and efficient type of display and merchandising case which is characterized by its accessibility and ready accommodation of articles of merchandise. While a present preferred embodiment of the invention has been disclosed in detail, it will be manifest that various modifications as to details of construction and design may be had without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. In a merchandise display case, a stationary longitudinally extending panel comprising a forward portion disposed along a substantially horizontal plane and a back portion disposed along a downwardly inclined plane extending from the forward portion of said panel, and a longitudinally disposed merchandise-supporting shelf hingedly secured to said panel for limited vertical tilting movement between a substantially horizontal plane and a plane parallel to the downwardly inclined portion of said panel, said shelf being provided with an upwardly and perpendicularly disposed back wall which when said shelf occupies a substantially horizontal position forms a back closure wall for said case.

2. A merchandise display case comprising bottom, top, end and front side walls, a panel extending longitudinally of said case between the end walls thereof and dividing said case into upper and lower compartments, said panel comprising a substantially horizontally disposed forward section and a downwardly and rearwardly inclined back section, a longitudinally disposed merchandise-supporting shelf hingedly mounted upon said panel for tilting movement in a vertical transverse plane within the upper compartment of said case, said shelf being tiltable between substantially horizontal and downwardly inclined positions with respect to the rear of said case, and a perpendicularly disposed back wall carried by said shelf, the back wall of said shelf, when the latter occupies a substantially horizontal position, forming a back closure wall for said case, said shelf being accessible from the rear of said case when occupying a downwardly inclined position.

3. A merchandise display case comprising bottom, top, end and front side walls, an intermediate panel extending longitudinally of said case and dividing the latter into upper and lower compartments, said panel comprising a substantially horizontal forward section and a downwardly inclined rearward section, a merchandise-supporting shelf extending longitudinally of said casing and pivotally connected with said intermediate panel for tilting movement in a vertical plane within the upper compartment of said case, said shelf being formed with a plurality of vertically stepped tiers and being arranged for tilting movement between a substantially horizontal position and a downwardly inclined position with respect to the rear of said case, and a flat back wall carried on said shelf in perpendicular relation thereto and arranged to provide a back closure wall for said case when said shelf occupies its substantially horizontal position, the tiers of said shelf being accessible from the rear of said case when said shelf occupies its downwardly inclined position.

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