

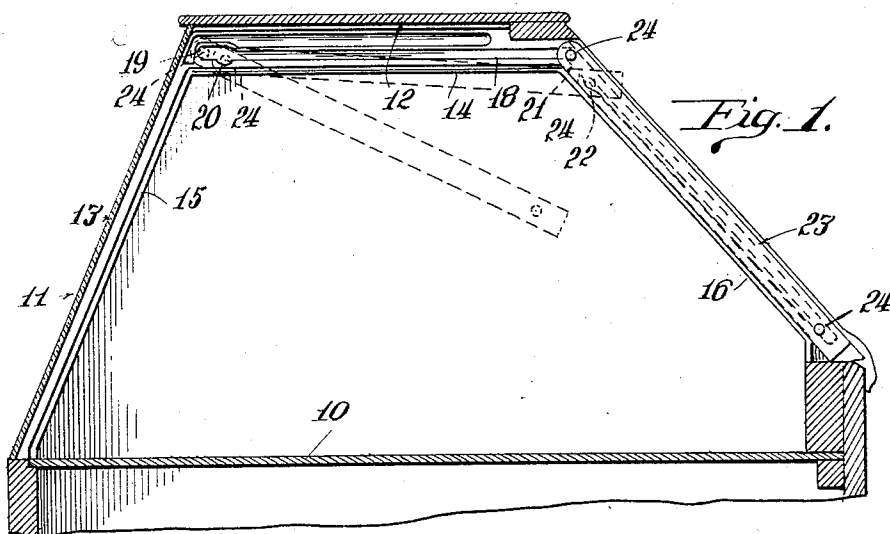
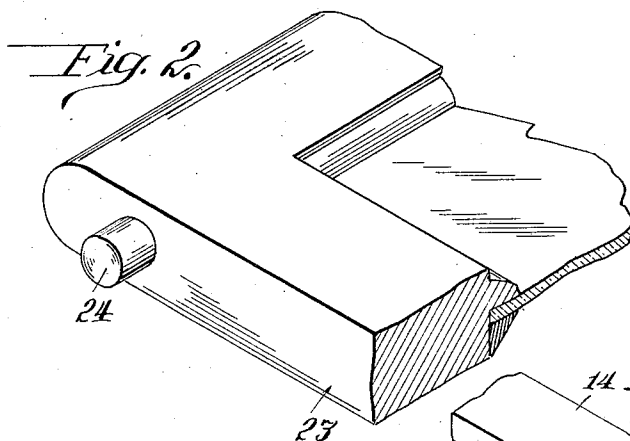
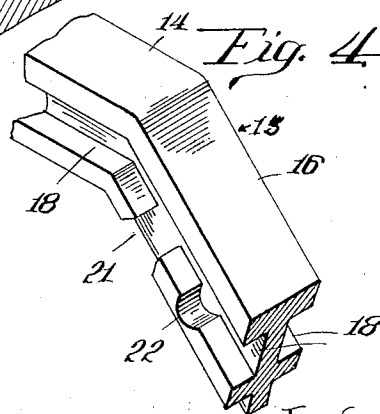
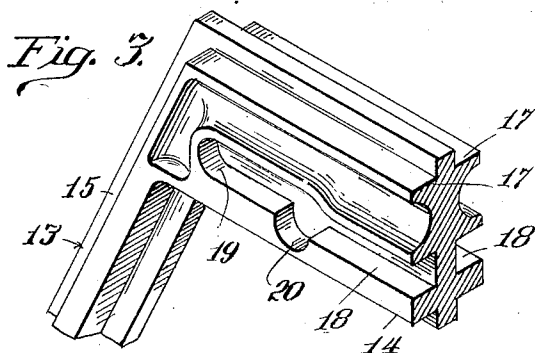
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DISPLAY CASE

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DISPLAY CASE

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My invention relates to a counter or display case more particularly intended for perishable food articles, such as meat and the like, and especially of the refrigerator type provided at the rear side with suitable closure members or panels arranged to permit easy access to the various articles in the case.

The invention has for its object the provision of a construction whereby the closure members or door-panels are arranged to easily slide in a vertical direction, while at the same time being held in more or less non-air admitting relation, while at the same time arranging or mounting the sliding panels to permit the same to be easily removed for purposes of cleaning or when occasions should require, and also enable the respective panels to be readily inserted in place.

The objects and advantages of my invention will be readily comprehended from the following detailed description of the accompanying drawings, wherein:

Figure 1 is a transverse sectional view of a display case with my invention.

Figure 2 is a perspective view of a portion of the sliding panel or closure member.

Figure 3 is a detail perspective view of the upper forward portion of the case frame.

Figure 4 is a detail perspective view of a portion of the rear upper portion of the frame.

My invention involves the method of mounting the upwardly sliding closure members or panels of a display case, usually mounted on a suitable counter or supporting structure. Cases of this type are usually of an elongated construction provided with a suitable bottom 10; a rearwardly inclining front wall 11 and top wall 12.

These walls consist of glass panels mounted in metallic frames 13, involving transversely arranged portions located at the ends and at suitable intermediate points throughout the length of the case, especially when the case is of such length as to require a number of doors or closure panels.

The frame members may be of any suitable material, preferably metal, formed to provide the intermediate top portion 14 and the two downwardly sloping front and rear por-

tions 15 and 16, with the rear portion 16 arranged at a greater inclination than the front portion 15.

The frame members consisting of the top and two side portions are usually cast integral and kerfed, as at 17, to provide suitable ledges for the glass top and front side.

The intermediate top portion 14 and the rear side portion 16, on the side faces thereof, are formed with a channel or groove 18 extending from the forward end of the top member 14 and thence downwardly to the bottom of the rear portion 16.

This continuous groove 18 terminates in the top portion 14 at the forward end in an arcuate closed end 19; and at a prearranged distance from this closed end is provided with a socket 20, see Figure 3; while the downwardly sloping rear end at a predetermined distance from the upper horizontally disposed portion of the channel or groove 18 is provided with a cut away portion or slot 21 and at a prearranged distance therefrom with a socket 22, see Figure 4.

The frames of the sliding closure members or panels 23 are arranged to fit between the opposing faces of two spaced apart transverse frame members 13 so as to practically close the space or opening therebetween and at the same time permitting free sliding movement of the panel 23. The sides of the panel frame 23, adjacent to the upper and lower ends, are provided with projecting pins or rollers, one of which is shown at 24 in Figure 2, which are arranged at a prearranged distance from the upper and lower ends of the panel in keeping with the prearranged location and distance between the sockets 20 and 22.

That is to say, the distance between the pins or rollers 24 at the upper and lower ends of the doors or sliding panels 23 and between the sockets 20 and 22 is such that when the panel is slid upwardly into complete open position, the pin 24 at the upper end of the panel will rest in socket 20 while the pin 24 at the lower end of the panel 23 will seat itself in the socket 22 and thus hold the panel in open position, as shown in dotted lines in Figure 1. When the panel is lowered in closed

position, the pin or roller 24 at the upper end of the panel will be disposed above the cut-out portion 21, namely adjacent to the horizontal part of groove 18, as shown in Figure 1, while the pin or roller 24, at the lower end of the panel, is located at the bottom closed end of the grooves 18, as shown in full lines in Figure 1.

The distance between the closed end 19 at the upper forward end of the groove 18 and the cut-out portion or slot 21 at least equals the distance between the pins or rollers 24 at the upper and lower ends of the panel 23, in order to permit insertion and removal of the panel. That is to say, the distance between the end 19 of the groove and the socket 20 is greater than the distance between the socket 22 and the cut-out portion 21 and also greater than the distance between the immediate upper end of the panel or door and the upper pins or rollers 24, thus permitting the pins or rollers adjacent the lower end of the panel or door to be positioned in alignment with the cut-out 21 when the upper rollers 24 are moved forward of the socket 20, and the lower end of the panel allowed to swing into the lower dotted line position, Figure 1.

In order to insert the panel 23 in place, the pins or rollers 24, adjacent to the upper ends of the panels, are first inserted into the grooves 18 through the cut-out portions or slots 21 and the panel then slid or moved upwardly along the horizontal part of groove 18 to the extreme closed end 19; at which time the pins or rollers 24, at the lower end of the panel, will be positioned for passage through the cut-out portion or slot 21 into grooves 18.

After the lower pins have been inserted into the grooves 18, as above described, the panel is then slid rearwardly and downwardly into closed position.

To remove the sliding panel 23, the operation above described is reversed by sliding the panel upwardly and forwardly until the upper pins or rollers 24 are disposed at the forward ends 19 of the grooves 18, at which time the lower pins 24 will be positioned at the cut-out or slot 21 and permit the lower pins to pass through the cut-out 21 out of the grooves 18. The panel or door is then slid rearwardly so as to position the upper pins or rollers 24 opposite the cut-out or slot 21, permitting the entire panel to be removed.

As is apparent from the drawing, the pins 24, during normal operation of the panel or door, are at no time opposite to the cut-out or slot 21, as the upper pins or rollers 24 will be in the sockets 20 and the lower pins 24 in the sockets 22 when the panel is completely open; while the upper pins or rollers 24 will be at the juncture between the horizontal and downwardly sloping portions of the grooves 18 with the lower pins or rollers 24 at the closed lower ends of the grooves 18

when the panel or door is in closed position, as shown in full lines in Figure 1.

These sliding panels must not only be mounted so as to be easily moved and so they will automatically ride to full closed position after being partially drawn down, but they must be arranged so they can be easily removed in order to clean the interior of the cases and particularly the inside of the glass top, which, as can be seen, is inaccessible when the panels are in open position.

With my improved structure the panels or doors are more easily removed and put into place than with structures as heretofore employed; and I realize that upwardly sliding panels in themselves have been employed, but the arrangement of the slideways are not of the simple type disclosed in the drawings and described herein.

What I claim is:

1. In a display case of the character described, transverse frame members each having a horizontal portion and a downwardly disposed portion, both portions having a continuous groove having closed ends extending from the bottom of the downwardly disposed portion to the opposite end of the horizontal portion, said groove in the downwardly disposed portion of the frame having a pin-admitting slot open at the side of the frame, and a closure panel provided with laterally extending pins adapted to seat in the groove and slidably hold the panel in place.

2. In a display case of the character described, transversely arranged frame members each including a top horizontal portion and a downwardly sloping rear portion, both portions of each frame member on the side faces being provided with a continuous groove having closed ends; and a closure panel provided on its side edges, adjacent to the top and bottom ends of the panel, with laterally extending pins adapted to extend into said grooves to slidably hold the panel in place; the groove in the downwardly sloping frame portion having a pin-admitting slot open at one side of the frame member and disposed at a distance from the closed end of the groove in the top portion substantially equal to the distance between the pin adjacent to the top and the pin adjacent to the bottom of the panel.

3. A display case of the character described provided with spaced apart parallelly arranged frame members each having a horizontal top portion and a downwardly extending portion, the side faces of the frame members having continuous grooves with closed ends; and closure panels provided on opposite sides, adjacent to the tops and bottoms thereof, with laterally extending pins adapted to slide in said grooves; the grooves in the horizontal and downwardly extending parts thereof having sockets spaced apart a distance equal to the distance between the

pins adjacent to the upper end and the pins adjacent to the lower end of the panel whereby the panel is held in raised position, while the groove in the downwardly extending portion of each frame member is provided with a slot open on one side of the frame member for passage of a pin therethrough, said slot being spaced from the closed end of the groove in the horizontal portion of the frame member substantially equal to the spacing between the pins adjacent to the upper and lower ends of the panel.

4. In a display case of the character described, transversely arranged and spaced apart frame members each having a top horizontal portion and a downwardly sloping portion, a continuous groove having closed ends in the sides of each frame member and disposed lengthwise of said portions; and a panel adapted to fit between the opposing faces of two frame members and having laterally disposed pins adjacent to the upper and the lower ends thereof adapted to extend into said grooves and slidingly hold the panel in place; said grooves in the downwardly sloping portions, in proximity to the juncture between the horizontal and downwardly sloping portions, having slots opening on one of the sides of the frame members for passage of the pins therethrough, said groove in each of said portions, at a point removed from the closed end in the horizontal portion and at a point beneath the slot in the downwardly disposed portion, having a pin-receiving socket whereby the panel is held in raised position.

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