

UNITED STATES PATENT OFFICE.

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SHOW-CASE.

SPECIFICATION forming part of Letters Patent No. 584,584, dated June 15, 1897.

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To all whom it may concern:

Be it known that I, FRANCIS X. GANTER, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Show-Cases, of which the following is a specification.

The object of this invention is to provide a so-called "all-glass" show-case of improved construction—one which shall be devoid of either a wood or metal frame for confining the glass plates in position. By my improved construction the show-case will have no obstructions to a view of the articles in the case and will be much improved in appearance.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical cross-section of a show-case embodying my improvements. Fig. 2 is a sectional view of one of the dust-proof tubes and the bolt employed in the mitered corners. Fig. 3 shows a horizontal section at a mitered corner of two glass plates and the dust-proof tube and bolt in said miter. Fig. 4 shows a vertical section of one of the side plates and the top plate and shows the manner of attaching said parts. Figs. 5 and 6 show a modification in the means for fastening the parts at the vertical front corners. Fig. 7 shows another modification.

The bottom A is preferably made of wood. The front and end base-rail B may be made of wood or wood sheathed with metal, and the bottom and top rails C C' of the sliding doors are preferably made of metal. All the remaining parts of the case are to be made of glass plate.

The metal door-frames have a bottom rail C, with two slide-grooves d , of V shape or other equivalent shape, and a downward flange e , extending as a facing along the edge of the bottom A. The top rail C' has on its under side two slide-grooves d' , also of V shape or other suitable shape, and on its upper side has a V-shaped longitudinal ridge f , a longitudinal flange extending upward and also curving inward and forming an incurved hook g to engage the top plate, and a flat channel h between said ridge f and hook-flange g . The vertical outer side portion g' , including the hook-flange g of the top rail, constitutes the exposed surface of said rail. Vertical bars

I connect the said bottom and top rails of the door-frame. The two doors J, of glass plate, are without frames and have bottom V-shaped edges k and top V-shaped edges k' to fit the grooves in the rails, and said glass edges slide horizontally in contact with the metal grooves d d' . Of course the edges and grooves may vary from a V shape.

The front vertical glass side L and ends L' likewise have their lower edge seated in a rabbet m , formed in the base-rail B. The vertical corners of said side plate and end plate are mitered, as at n , and thus make a close fit. (See Fig. 3.) The face of each miter has a groove o cut in it, and when the miters of these two plates are brought together to form the corner the groove in one plate coincides in position with the groove in the other plate, and the two grooves thus coming together form a passage which extends up and down the mitered corner. A small tube p of suitable material is then inserted along the entire length of this passage in the miter, and said tube serves to make a dust-proof miter-joint. The tubes being incased in the glass miter are not noticeable to the casual view.

The upper edge of the front glass side plate L (and upper edge of end plate also) is V-shaped or equivalent shape, as at q , and the top plate R has on its lower surface a V groove q' , which sets down upon said V-shaped edge. This groove on the lower surface of the top plate extends all around near the four edges of said plate. That part of the groove near the back edge is designated by the letter q^2 . The top plate R at the front corners is drilled to receive a bolt s , which passes down through the said dust-proof tube p in the miter and through the base-rail B, and the lower end of the bolt is secured by a nut p' below said rail. Thus the top plate is firmly held down at the front corners.

The back part of the top plate R, which connects with the top rail C', has on its under side the groove q^2 , before referred to, which takes down on the ridge f on the upper side of said rail, and said top plate has on its upper edge a rabbet g^2 , which receives the inward hook-flange g on said rail. A flat surface h' on the under side of said top plate rests in the flat channel h on the rail. This construc-

tion of the hook-flange *g* and ridge *f* of top rail, combined with the rabbet *g*² and groove *g*² of the top plate, insures that said top plate R cannot shift either backward or forward or

5 lift up after the top rail C' has been secured.
 At suitable intervals the top plate may be bored and have small screws *t* in said bored holes extending down into the top edge of the front side plates L, (or end plates L'), as seen in Fig. 4.

10 I may dispense with the bolts *s* as a means for holding down the top plate at the front corners and substitute the modification shown in Figs. 5 and 6 or that in Fig. 7.

15 The vertical side and end plates L L' in the modifications will be mitered, as already described. Instead of the bolt an angle-bar *s'* will fit in the vertical corners. At its upper end this corner-bar has a metal corner-cap attached. This corner-cap has a bottom part

20 *u*, which passes from the bar over the top edge of the two vertical plates L L', then an upward part *u'*, which takes up the edge of the top plate, and then a top part *u*², which

25 hooks over onto the upper surface of the top plate. The lower end of the angle-bar *s'* may be secured in any suitable way to the base-rail or bottom, and thus the top plate be firmly held down at the front corners.

30 Instead of a corner-cap having a top part *u*² which takes over the top of the top plate the edge of said plate may have a groove at the corner and the corner-cap have a flange *v* to take into said groove, as seen in Fig. 7.

35 Having thus described my invention, what I claim is—

1. In a glass show-case, the combination of a metal top door-rail, C', having on its upper side a longitudinal ridge, *f*, and a flange extending upward and forming an inturned hook, *g*; and a top plate having on its under side a groove, *f'*, to take on said ridge and a rabbet which receives the said inward hook-flange, whereby said top plate can shift

40 neither backward nor forward nor lift directly upward.

2. In a glass show-case the combination of vertical glass side plates and end plates, both of which are mitered to fit together and form

50 vertical corners, and the face of each miter

having a groove, *o*, and the grooves on the two plates coinciding and forming a vertical passage in the miter-joint; a tube occupying said passage and aiding to produce a dust-proof joint; and means to confine the top

55 plate down on said side and end plates.

3. In a glass show-case the combination of vertical glass side plate and end plates, both of which are mitered to fit together and form vertical corners, and the face of each miter

60 having a groove, *o*, and the grooves on the two plates coinciding and forming a vertical passage in the miter-joint; a tube through said passage and aiding to produce a dust-proof joint; and a bolt passing down through

65 the top plate, through the said tube in the miter, and its lower end secured to the base, as set forth.

4. In a glass show-case, the combination of a metal top door-rail, C', having on its upper side a longitudinal ridge, *f*, and a flange extending upward and forming an inturned hook, *g*; a top plate having on its under side a groove, *g*², to take on said ridge and a rabbet which receives the said inward hook-flange; and means at the front corners to

70 confine the top plate down on the side and end plates, as set forth.

5. In a glass show-case the combination of vertical glass side plate and end plates, both of which are mitered to fit together and form vertical mitered corners and have V-shape or equivalent shape top edges; a top back rail over the doors having on its upper side a longitudinal ridge; and a flange extending up-

85 ward and forming an inturned hook *g*; a top glass plate having on its lower surface a groove extending all around near its four edges, said groove sitting down over the top edges of the three vertical plates, L, L', L',

90 and also over the ridge on the top back rail and the back edge of said top plate taking under said inturned hook; and means at the front corners of the top plate to hold it down.

In testimony whereof I affix my signature

95 in the presence of two witnesses.

FRANCIS X. GANTER.

Witnesses:

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