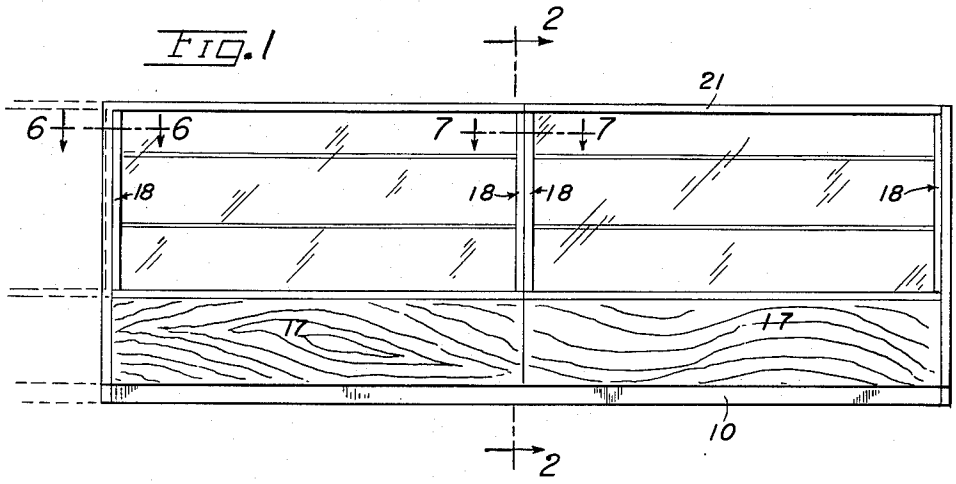
Nov. 15, 1955 W. A. GROSS 2,723,893

SHOW-CASE CONSTRUCTION

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Fig. 1



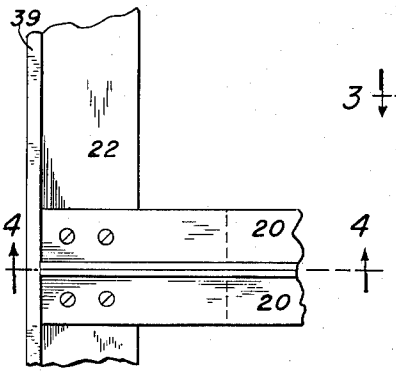
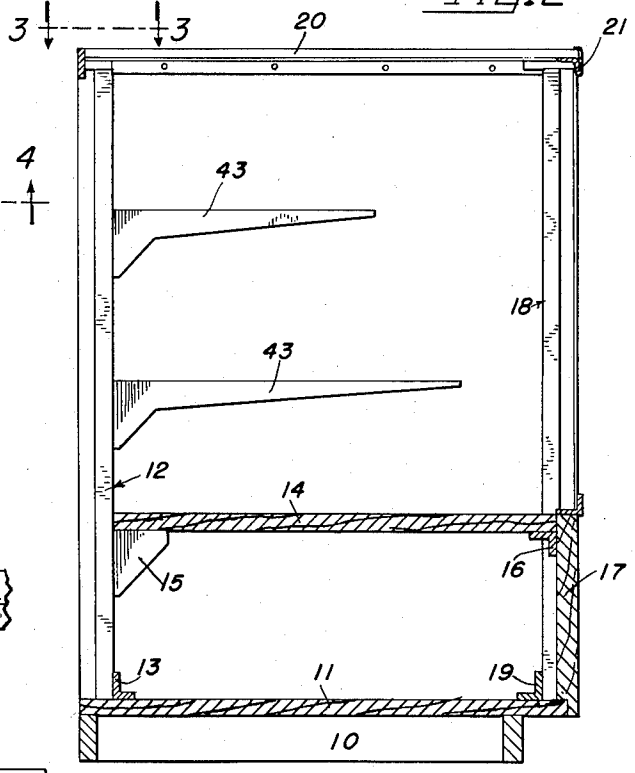


Fig. 3

Fig. 2



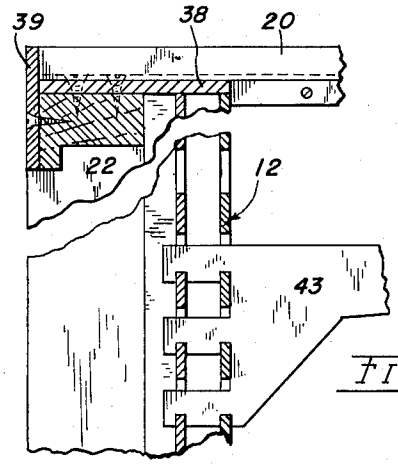


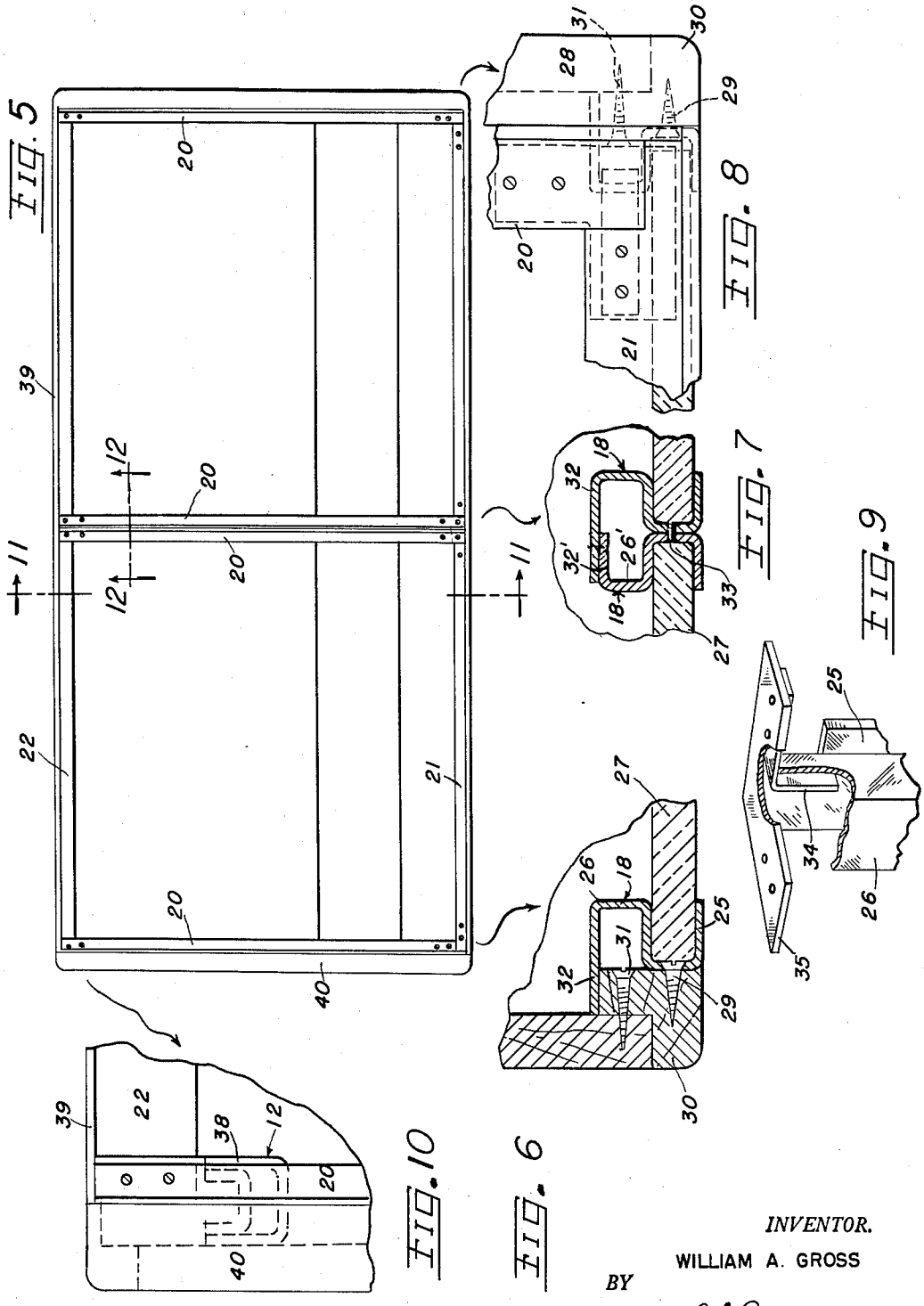
Fig. 4

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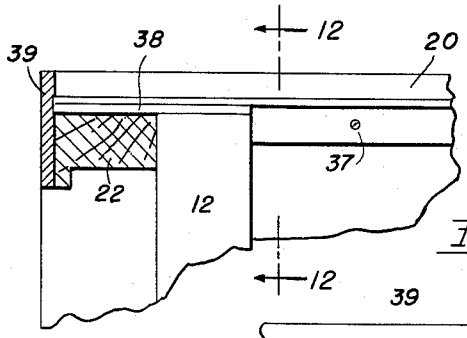
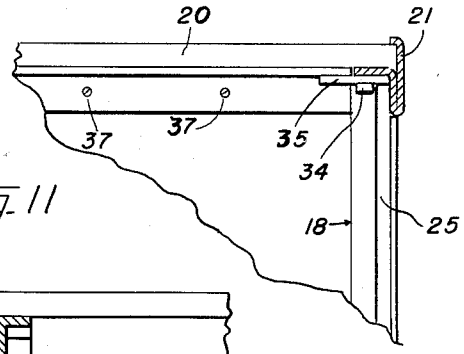


Fig. 11



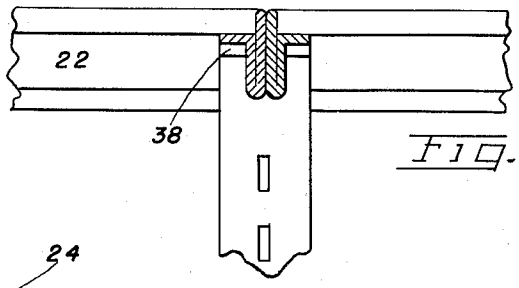


Fig. 12

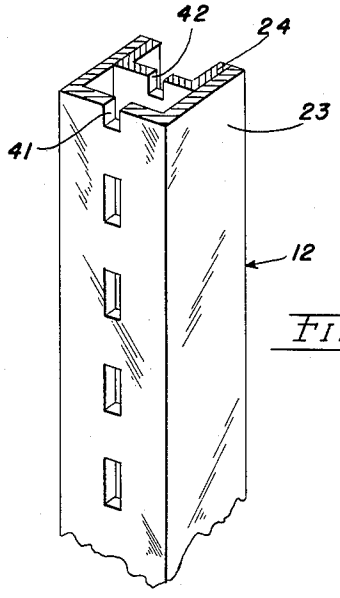


Fig. 14

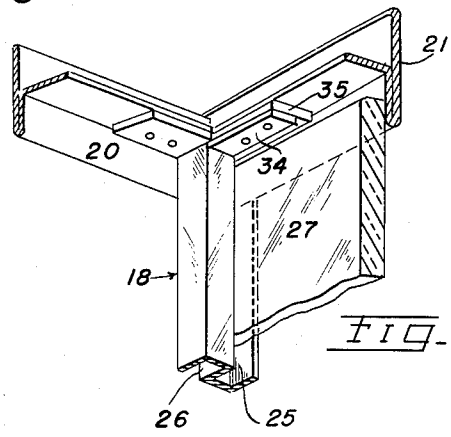


Fig. 13

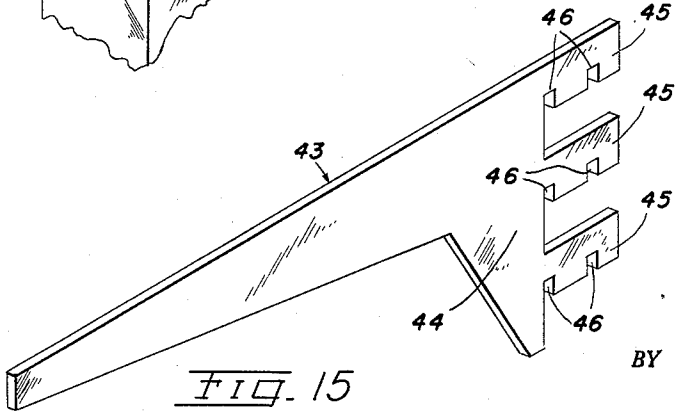


Fig. 15

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United States Patent Office

2,723,893

Patented Nov. 15, 1955

2,723,893

SHOW-CASE CONSTRUCTION

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Application July 3, 1953, Serial No. 365,960

2 Claims. (Cl. 312—128)

This invention relates in general to show-cases and display cases, and, more particularly, to such show-cases as counter show-cases and the like adapted for installation in retail stores.

An object of this invention is to provide an improved show-case of simplified construction which can be set up in place or taken down and removed with a minimum amount of expense and labor.

Another object of the invention is to provide a show-case comprising a plurality of similar sections adapted to be arranged together in series so that any desired number of sections may be employed to form a show-case and the length of the show-case determined by the number of sections used.

A related object of the invention is to provide a show-case which can easily be lengthened or shortened as desired to meet changed conditions, by adding further sections at the ends or removing sections from the ends.

A further object of the invention is to provide an improved show-case having only a minimum amount of structural members, which members will be relatively inconspicuous, and which will enable the show-case to provide maximum visibility of the contents of the show-case.

An important object of the invention is to provide a show-case construction which will include an improved adjustable bracket assembly for the mounting of adjustable shelves within the showcase whereby varied arrangements of shelves can be made with the shelves adjustably but rigidly supported.

An additional object of the invention is to provide an improved show-case construction which will be simple and practical, and which will be composed of individual members or parts which will be inexpensive to manufacture and which can be readily mounted and de-mounted whenever required.

The manner in which these objects and other incidental advantages are attained, the general details of construction, and the manner in which the individual elements are formed and employed in my improved show-case construction will be readily understood from the following brief description with reference to the accompanying drawings.

In the drawings:

Figure 1 is a front elevation of a show-case formed in accordance with my invention and comprising two similar sections or portions, the broken lines indicating how a show-case may be enlarged by the addition of a further similar section or portion;

Figure 2 is an enlarged transverse sectional view on line 2—2 of Figure 1;

Figure 3 is a fragmentary plan view taken above one of the rear posts and taken on line 3—3 of Figure 2, but drawn to an enlarged scale, the top glass panel of the show-case being omitted from the figure;

Figure 4 is a fragmentary sectional elevation of one of the rear posts corresponding to line 4—4 of Figure 3;

Figure 5 is a top plan view of the show-case of Figures 1 and 2 with the top glass panels omitted;

Figure 6 is an enlarged fragmentary plan section of the left hand front corner of the show-case of Figure 5, and thus corresponds to an enlarged fragmentary section taken on line 6—6 of Figure 1;

Figure 7 is a similar enlarged fragmentary plan section of the center front post of the show-case of Figure 5, and thus corresponds to an enlarged fragmentary section taken along line 7—7 of Figure 1;

Figure 8 is a fragmentary plan view taken from above the right hand front corner of the show case of Figure 5;

Figure 9 is a perspective view of the top end of one of the front posts of the show-case showing the angle bracket and the angle plate attached thereto;

Figure 10 is an enlarged fragmentary plan view of the rear left corner of the show-case of Figure 5;

Figure 11 is an enlarged fragmentary sectional elevation taken on line 11—11 of Figure 5;

Figure 12 is a fragmentary enlarged sectional elevation taken on line 12—12 of Figure 5 and a section on line 12—12 of Figure 11;

Figure 13 is a fragmentary perspective view taken from the inside of the show-case showing the upper right hand front corner of the show-case of Figure 5;

Figure 14 is a fragmentary perspective view of one of the rear posts of the show-case; and

Figure 15 is a perspective view of one of the shelf brackets adapted to be removably mounted in any of the rear posts.

Referring first to Figures 1 and 2, the show-case is mounted on a suitable base, indicated in general by the reference character 10, which base is made of the length desired for the show-case and which includes a platform 11 (Figure 2) supported on suitable legs or floor members and having a wall or base boards on all four sides. A plurality of rear posts 12, of special construction to be described later, are secured in the base or mounted on the platform 11, and may be secured thereto in any suitable manner, as for example by the foot members 13. One of these rear posts is located at each end of the show-case while others are mounted at spaced intervals, depending upon the length of the show-case and corresponding to the sections or portions which comprise the show-case. In the show-case illustrated in Figures 1 and 5, which comprises only two portions or sections, only one additional rear post is used and is positioned midway between the end rear posts since the two show-case sections are of equal length.

A front post 18 is mounted at each front corner of each of the sections comprising the show-case, the bottom of the front posts being attached to the base or to the bottom platform 11 in any suitable manner, as, for example, by a foot angle 19 (Figure 2).

A floor panel 14 (Figure 2), forming the floor of the show-case display, is positioned at any desired height above the bottom platform 11. The floor display panel 14 is secured at the rear to brackets 15 which in turn are supported by the rear posts 12 and at the front the floor panel 14 is secured to longitudinally-extending angle iron strip 16 which is fastened to the rear face of a front base panel board 17. There is a separate front base panel board 17 for each section or portion of the show-case and similarly a separate floor panel 14 for each section. In the two sections which comprise the show-case illustrated in Figure 1 the two front base panel boards 17, 17 have the same height, and the two floor panels 14 would thus extend in the same horizontal plane, but one of the base panel boards can be made higher or lower than the other and the corresponding floor panels positioned correspondingly at different levels for variation in the composite show-case if desired.

A top transverse rail **20**, later described, connects the top of each front post **18** to a rear post **12**, and a longitudinal top front rail **21** connects successive front posts at the top. The rear posts are also connected at the top by a wooden rear rail **22** (Figures 3 and 4) which extends the full length of the show-case.

The rear posts **12**, which constitute a novel and important feature of the invention, are each formed from a pair of U-shaped members or channel irons, one inside the other, as shown most clearly in Figure 14. The outside channel iron **23** and the inside channel iron **24** are secured to each other, preferably by welding, in the relative position shown in Figure 14 so that the center or front vertical walls will be in spaced parallel arrangement. The front walls of the two channel irons **23** and **24** each have a row of identical, spaced, vertical slots **41** and **42** respectively. The vertical spacing between these slots is exactly equal to the length of the slots and the slots in the corresponding channel irons **23** and **24** are in horizontal alignment respectively.

Each rear post is adapted for adjustably supporting shelf brackets. One of these brackets **43** is shown fully in Figure 15. Each bracket **43** has an enlarged rear portion **44** from which three identical spaced fingers **45** extend horizontally and rearwardly. The height of each of these fingers **45** is the same as the length of the slots **41** or **42**, and the spacing between the fingers **45** is also the same as the length of the slots and the spacing between the slots. The thickness of the fingers corresponds to the width of the slots. The bottom edge of each finger **45** has a pair of notches **46**. The two notches in each finger are spaced apart the same distance as the front walls of the two channel irons **23** and **24** of the post, and the width of the notches **46** corresponds to the thickness of the front walls of the two channel members **23** and **24**. The corresponding notches in all three fingers **45** of the bracket are in vertical alignment. Consequently when the three fingers **45** are inserted in the three pairs of slots **41** and **42** in the post, and the bracket is moved slightly downwardly the notches of the three fingers will engage the two channel members **23** and **24** of the post **12** and hold the bracket **43** firmly in place.

The fact that there are a plurality of identical fingers **45** and the fact that each finger **45** has two notches which respectively engage the spaced walls of the two channel members will cause the mounted bracket to be held firmly against any side sway even through the bracket itself is not wide, and will also cause the bracket to be held against any attempt to tip the bracket either up or down. Thus the shelf brackets **43** are rigidly mounted in the rear posts **12** but can be easily removed from their posts or set either in higher or lower position. Also, of course, the brackets can be made of different lengths if so desired (as illustrated in Figure 2 where the lower bracket is longer than the upper bracket to enable the lower bracket to carry a wider shelf than the upper bracket).

Each front post **18** is substantially S-shaped in cross section, or, more exactly, is formed into two reversed U-shaped channels **25** and **26** (see Figure 6). The outer or front U-shaped channel **25** serves as a frame for the inserted vertical edge of the adjacent front glass panel **27**. The inner or rear U-shaped channel **26** serves the double purpose of providing strength and rigidity for the post and of providing a passageway for electric wires (not shown) for interior lighting of the show-case as desired. Holes are drilled at intervals in the channel **25** to accommodate screws **29** (Figure 6) by which the corner wooden member **30** at the end of the show-case may be attached to a front post. An end wall panel **28** in turn is secured in front to the wooden corner member **30**, for example by screws **31**.

Preferably, but not necessarily, the outer wall of the rear U-shaped channel **26** is extended, as illustrated at **32** in Figure 6, for front posts at a corresponding front corner (for example in each left hand front corner) of each show-case section, while a corresponding rear wall **32'** of the post in the other corner (Figure 7) of each show-case section is not extended and the rear U-shaped channel **26'** in such case is made narrower. Then when one show-case section is joined to another at the front the two posts will be arranged as shown in Figure 7, the rear wall **32** of the front post of one section extending over the rear face of the corresponding wall **32'** of the adjacent front portion, and these walls are then secured to each other by spot welding or by screws. The front channels of the two adjacent posts (Figure 7) are also secured together by rivets or screws **33**.

An angle bracket **34** (Figures 9 and 13) has its vertical leg welded or otherwise secured at the top of the rear U-shaped channel **26** of each front post and the horizontal leg of this bracket extends outwardly from the top of the post parallel to the front of the show-case. An angle plate **35** has one arm secured on the horizontal leg of the bracket **34** and the other arm extending rearwardly in the same horizontal plane. The longitudinal top front metal rail **21** of the show-case (see Figures 1, 2, 5, 8, 11 and 13) rests upon and is removably secured to the angle plate **35** above each front post. The front end of a top transverse rail **20** also rests on and is removably secured to each angle plate **35**. As shown in Figure 8, a portion of the horizontal flange of the front rail **21** is cut away to accommodate a portion of the horizontal flange of the transverse rail **20** so that the horizontal flanges of both rails will be in the same horizontal plane. The horizontal flanges of these rails support the corresponding edges of the glass top panels of the show-case.

The shape of the top front metal rail **21** is shown most clearly in Figures 11 and 13. The rail is made from a strip of suitable metal and so formed as to provide a main vertical wall with the metal strip turned back on itself at the bottom of the vertical wall and extending part way back up the rear face of the front wall and then turned outwardly or rearwardly at right angles to form a horizontal flange extending along between the top and bottom of the front vertical wall. When the top front rail **21** is in place this front wall of the rail extends down over the top edge of a front glass panel **27** of the show-case as shown in Figure 13, and thus, in combination with the front wall of the front U-shaped channel **25** of the front post at each end of a show-case section, provides a frame for the front glass panel. The outside walls of the channels **25** of the front posts are cut away at the top sufficiently to provide clearance for the front wall of the top front rail **21** as shown in Figure 11. The top edge of the front wall of the rail is curved inwardly slightly so as to extend over the front edge of the top glass panel of the show-case section.

Each transverse top rail **20** is shaped as shown in Figure 13 and is thus formed similar to the top front rail **21**, and the horizontal flange of each transverse rail **20** provides support for the adjacent side edge of the top glass panel just as the horizontal flange of the top front rail **21** supports the front edge of the top glass panel. A single transverse rail **20** extends from the front corner post to the rear corner post at each end of the entire show-case. In between the ends of the show-case, where the sections of the show-case come together, a pair of transverse top rails extend from the adjacent front posts to a rear post, and in such case the two adjacent transverse rails are fastened together by screws or bolts **37** (Figure 11) extending through their vertical walls below their horizontal flanges.

A horizontal plate **38** (Figures 4, 11 and 12) is welded or otherwise secured on the top of each rear post **12** and extends for a short distance rearwardly beyond the post. The top rear wooden rail **22** passes under the plate **38**, and the rear end of each transverse rail **20** extends over the plate **38**. Screws pass down through the horizontal flanges of the transverse rails **20** through holes in the plates **38** and into the underlying wooden rail **22**. The wooden rail

22 is recessed below each plate 38 so that the top face of the rail 22 will be flush with the top faces of the horizontal flanges of the transverse rails 20. The vertical walls of the transverse rails 20 are cut away below the horizontal flanges where these transverse rails extend over the plates 38 and over the top of the rear posts 12. A rear top finish strip 39 is secured to the rear face of the wooden rail 22 and extends up as far as the top of the vertical walls of the transverse rails 20 and thus provides a border strip for the rear edge of the top glass panels of the show-case.

Sliding doors (not shown) of any suitable construction are provided for the rear of the show-case, the tops of these doors passing along under the rear wooden rail 22. A top wooden strip 40 (Figures 5 and 10) provides the top finish on the top of the outside end walls 28 of the show-case.

Thus, apart from the foundation platform structure, the end walls of the show-case, the wooden panels at the bottom of the front of each show-case section, the rear doors, and minor members, the show-case structural members consist principally of the rear posts, which adjustably support the brackets for the shelves in each show-case section, the front posts, which are doubled where two show-case sections are joined together, the transverse top rails 20, having their ends removably connected to the front and rear posts respectively, and the top front rail. The glass panels at the front and on the top of each show-case section complete the show-case.

Due to the fact that the principal metal structural members can be easily and quickly joined together, the setting up of the show-case sections is accomplished with a minimum of time and labor, and similarly the demounting of the show-case, either for re-designing, size changing, or removal to another locality, is accomplished without difficulty. By varying the top longitudinal front rails 21 and the longitudinal spacing of the front posts 18 and correspondingly of the rear posts 12, and using glass panels of different length, variations in the length of the individual show-case sections can readily be made. While in Figures 1 and 5 I have shown the two sections of the illustrated show-case as identical in size, it will be understood that one section can be made of different length from the other, and also, as indicated by the broken lines in Figure 1, the completed show-case can be made longer by removing an end wall and adding a further section. Further variation is possible by having the front wooden panels 17 at the bottom of the front of each section extend up to different heights and thus making the display portion of a particular section of greater or less height.

Many minor modifications in my show-case construction would be possible without departing from the principle of my invention and without changing the form and manner of use of the principal metal structural members described.

I claim:

1. In a show-case construction, a post, said post having an outer channel member and an inner channel member secured together with their center front walls in spaced parallel arrangement, identical spaced vertical slots in each of said vertical front walls, the slots in one wall being in registration respectively with those in the other wall, and a shelf bracket adjustably mounted on said post, said bracket having a vertically enlarged rear portion and a plurality of identical spaced fingers extending horizontally and rearwardly from said rear portion, the height of each finger corresponding to the length of a slot in said post and the spacing between the fingers corresponding to the spacing between consecutive slots, a pair of notches on the bottom edge of each finger, said notches spaced apart a distance corresponding to the spacing between said vertical front walls in said post, the width of said notches corresponding to the thickness of said walls respectively, and the thickness of said fingers corresponding to the width of said slots, whereby said bracket will be held firmly against side movement and at right angles to the front wall of said post.

2. In a show-case construction of the character described, a plurality of identical, spaced rear posts, each of said posts including an outer channel member and an inner channel member secured together with their center front walls in spaced parallel arrangement, identical spaced vertical slots in each of said vertical front walls, the slots in one wall being in registration respectively with those in the other wall, the vertical spacing between the slots in each wall being equal to the length of said slots, and shelf brackets adjustably mounted on said rear posts, each bracket having a rear portion and a plurality of identical spaced fingers extending horizontally and rearwardly from said rear portion, the height of each finger corresponding to the length of a slot in said rear posts and the spacing between the fingers corresponding to the spacing between consecutive slots, a pair of notches on the bottom edge of each finger, said notches spaced apart a distance corresponding to the spacing between said vertical front walls in said posts, the width of said notches corresponding to the thickness of said walls respectively, and the thickness of said fingers corresponding to the width of said slots, whereby said brackets will be held firmly against side movement and at right angles to the front walls of the posts on which they are mounted.

References Cited in the file of this patent

UNITED STATES PATENTS

606,911	Biele	July 5, 1898
1,247,036	Tourtellot	Nov. 20, 1917
2,127,280	Zimbalist	Aug. 16, 1938
2,534,952	Comer	Dec. 19, 1950
2,580,334	Vanderveld	Dec. 25, 1951
2,644,591	McMahan	July 7, 1953