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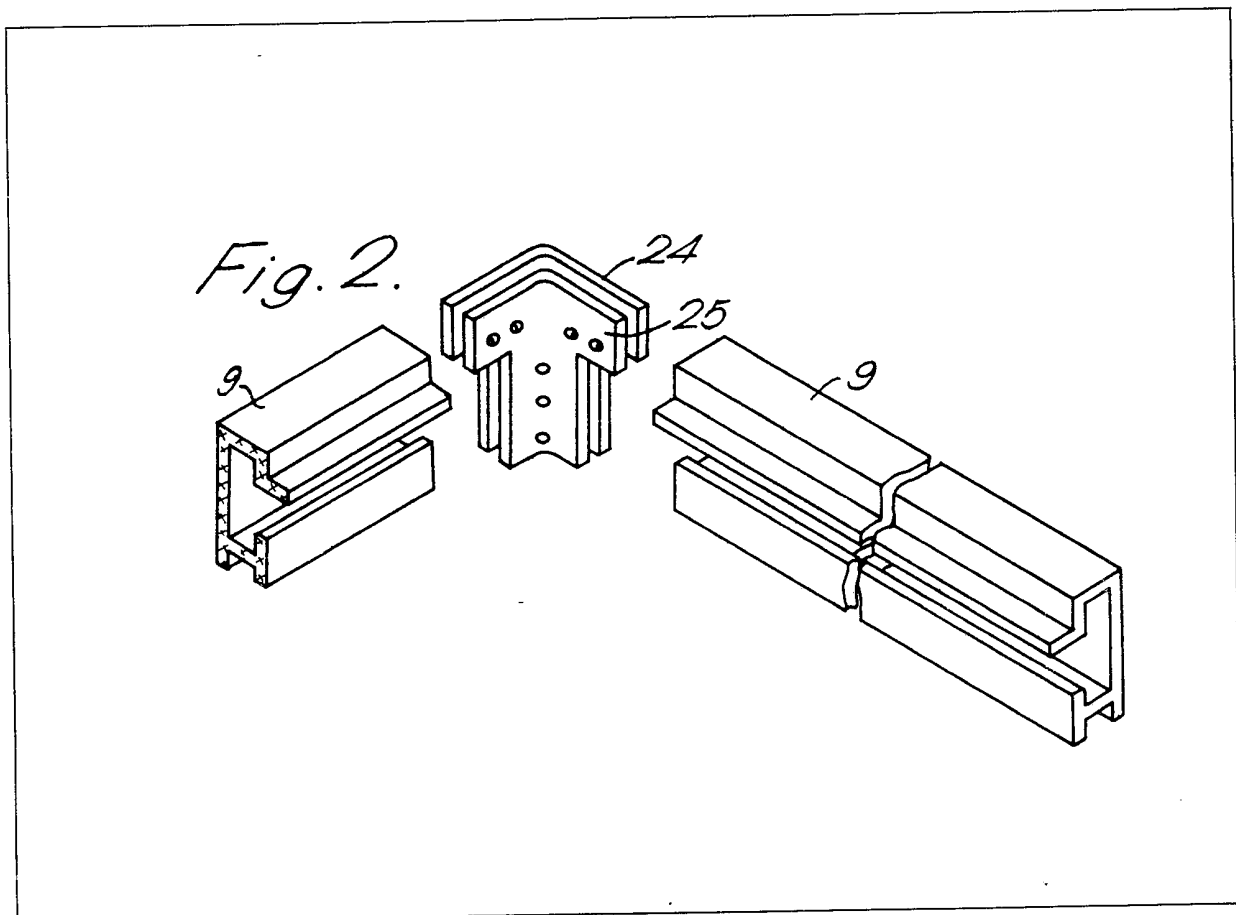
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(54) Improvements in or relating to
show cases

(57) A show case is formed of a plurality of channel section frame members 2, 9, 13, 19 connected together by connecting members comprising two parallel spaced steel plates having registering portions which pass into the channels of the frame members and which are then urged apart by screws engaged in respective threaded holes formed in one plate with their tips abutting the other plate. Panels, shelves etc. are fitted to complete the show case.



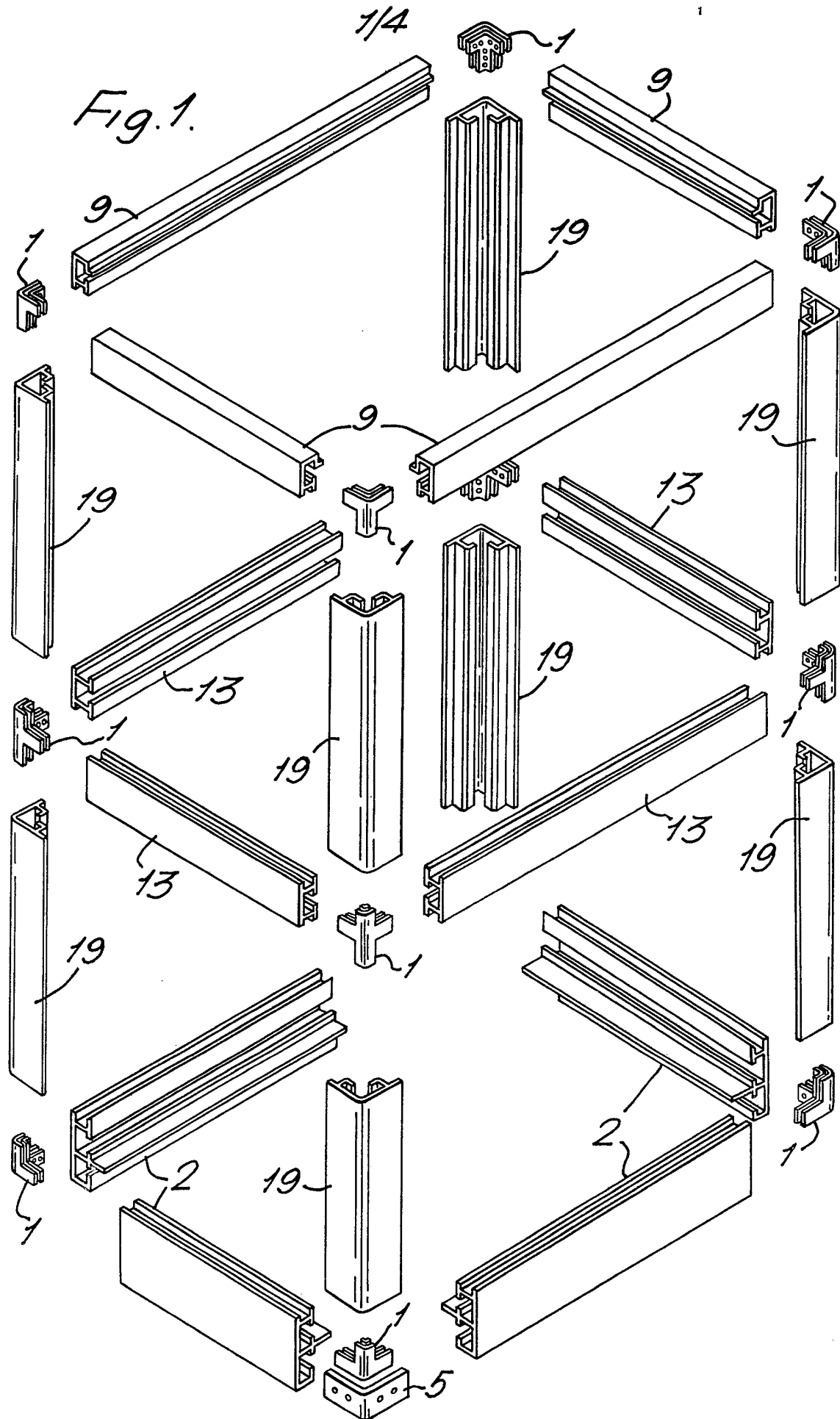


Fig. 2.

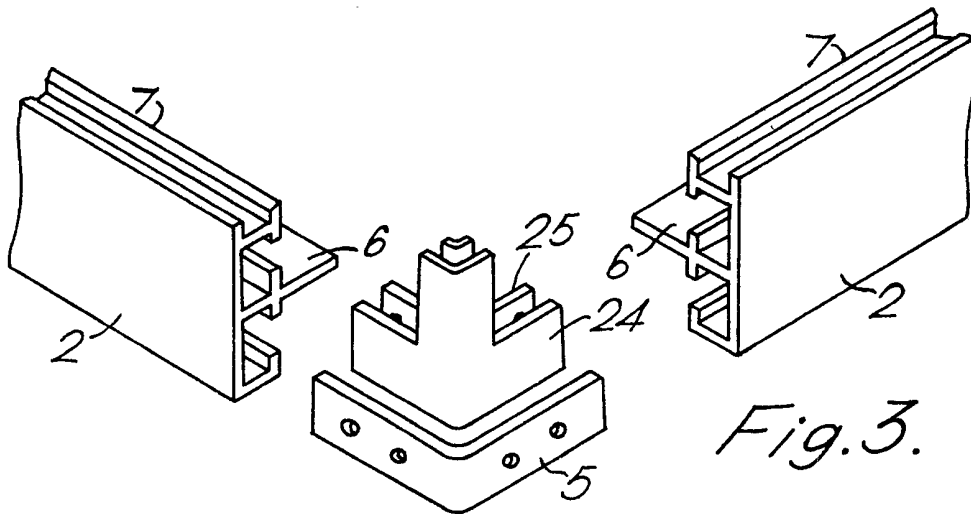
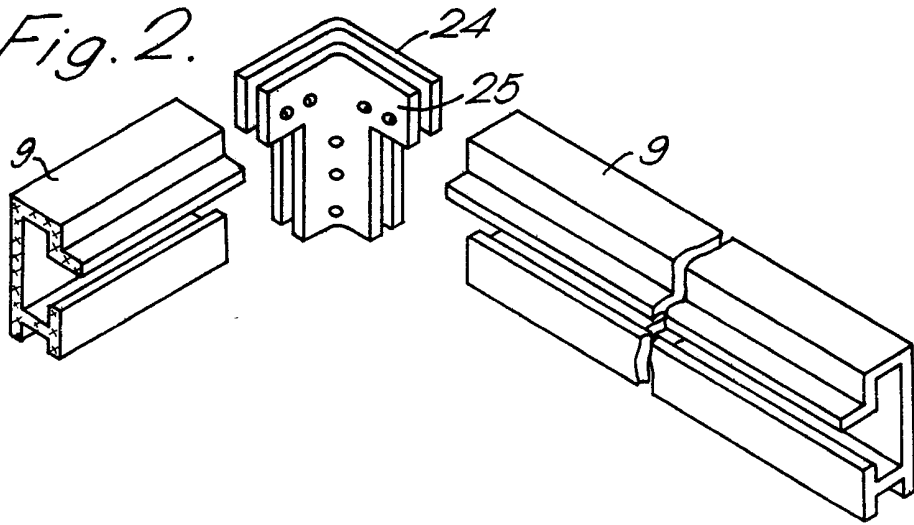
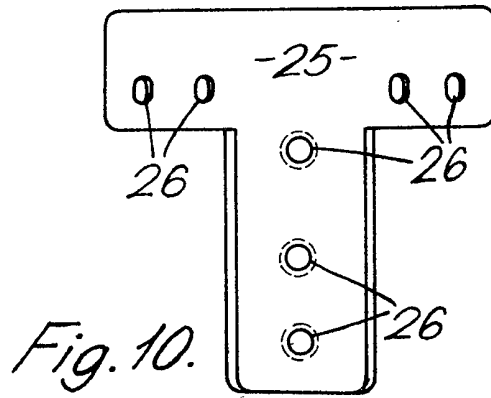
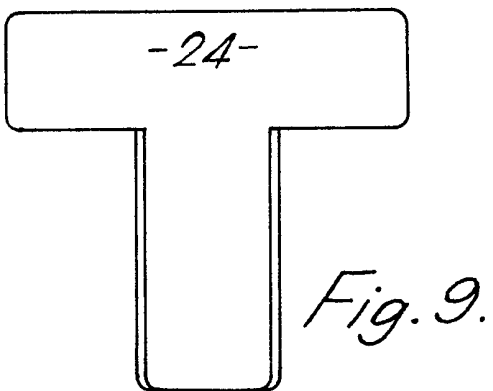
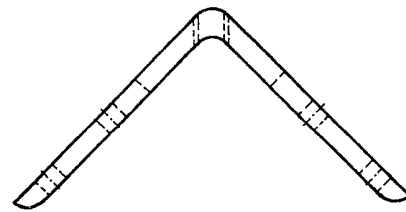
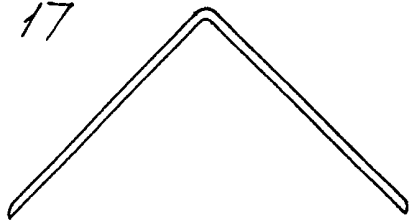
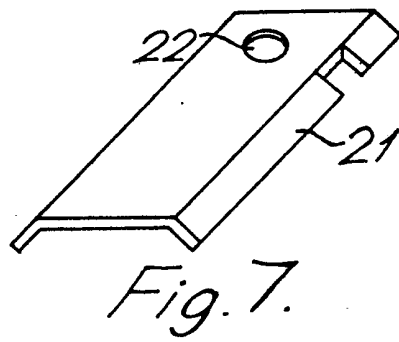
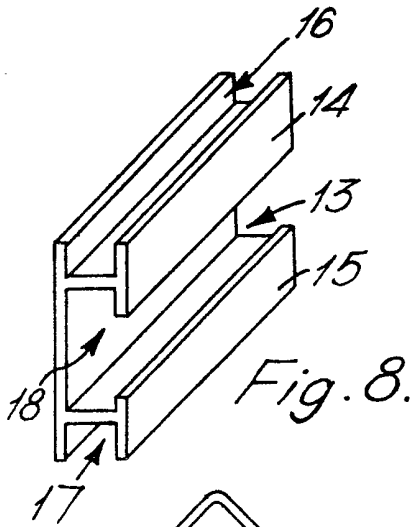
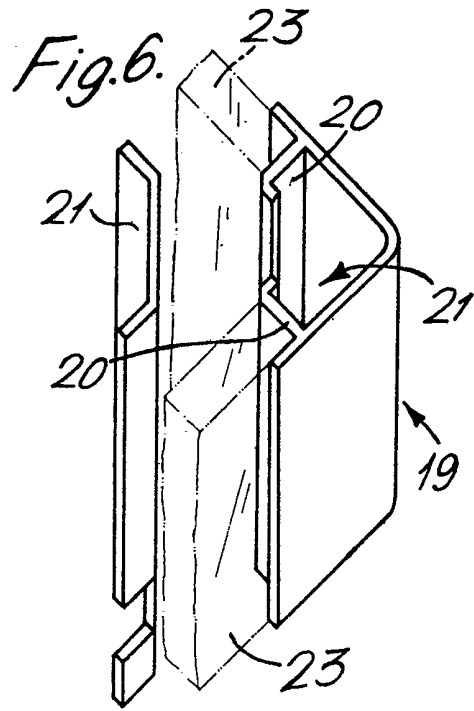
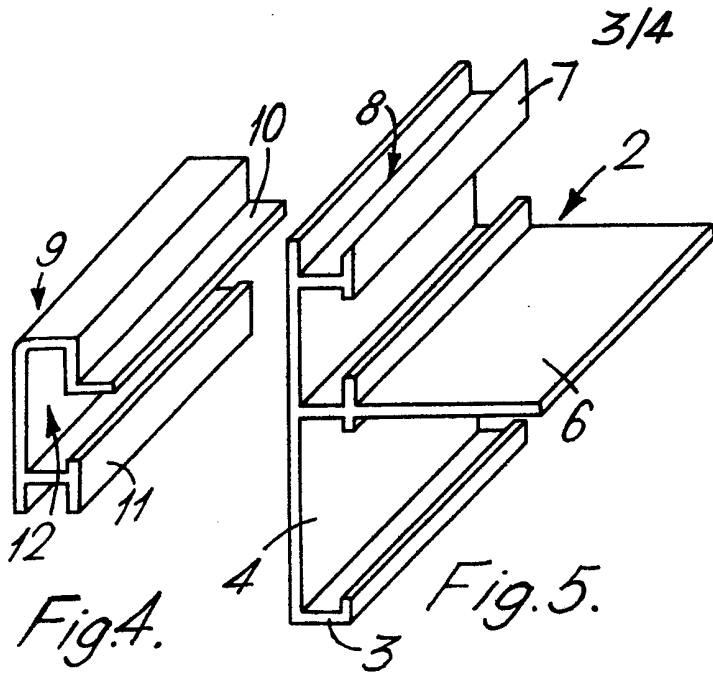


Fig. 3.



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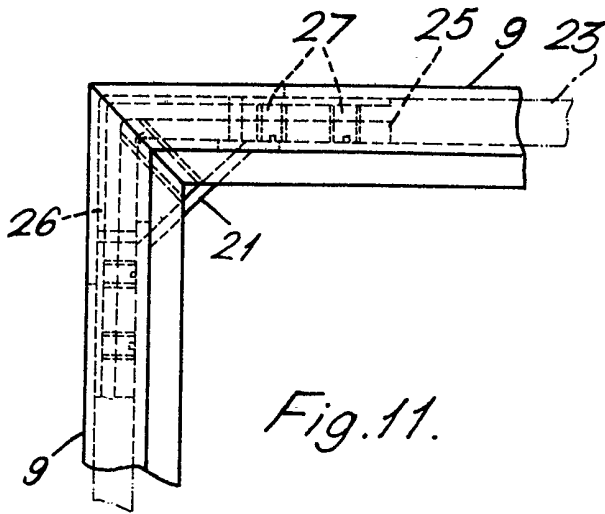


Fig. 11.

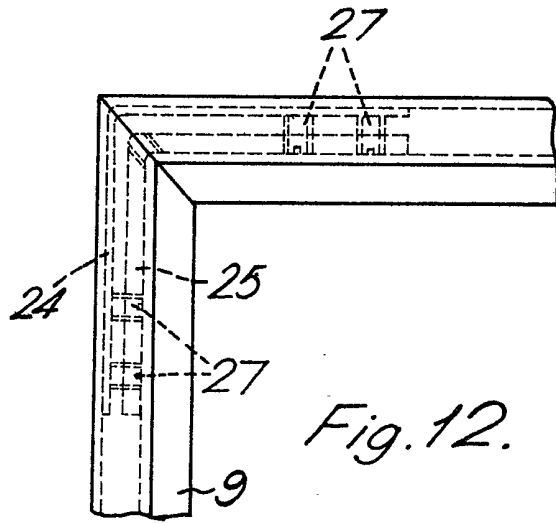


Fig. 12.

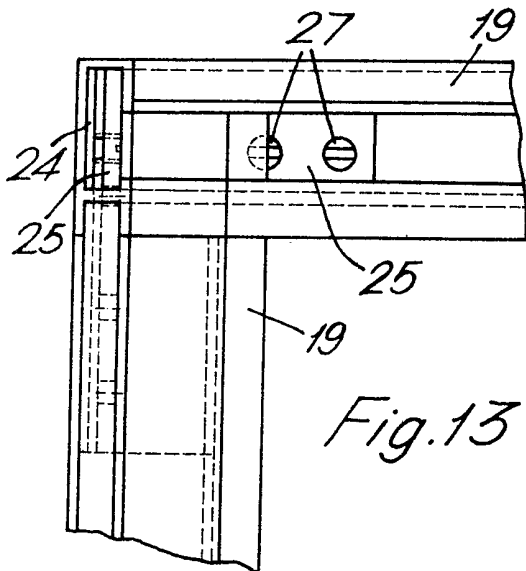


Fig. 13

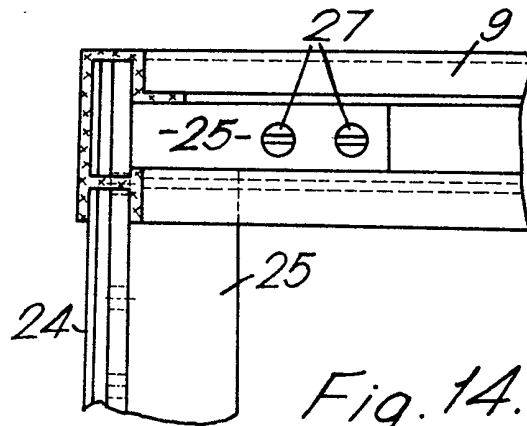


Fig. 14.

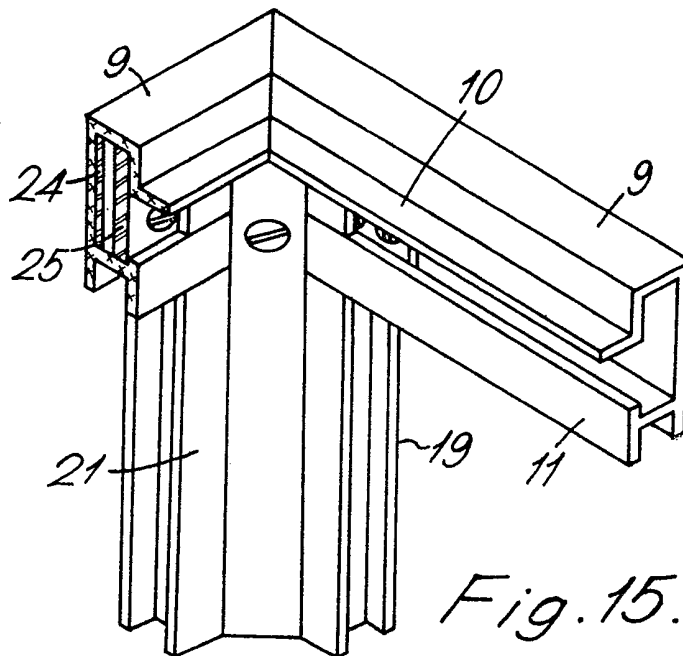


Fig. 15.

SPECIFICATION

Improvements in or relating to show cases

5 This invention relates to show cases of the kind which are commonly used for exhibiting articles, for example pieces in a museum or precious goods for commercial sale. Such a show case will have at least one of its walls made of glass or similar transparent material and may include a plurality of shelves inside whereupon articles may be placed for exhibition.

Such show cases are commonly of framed construction, but hitherto difficulties have been encountered in that it has proved laborious to construct the frame, and when constructed the frame has possessed an insufficient degree of structural stability. It is an object of this invention to provide an improved show case whose frame may be constructed with a minimum of effort yet which is of firm and stable construction and may be disassembled quickly and easily.

According to the invention there is provided a show case comprising a frame formed of a plurality of elongate frame members and defining a plurality of panel carrying apertures, said frame members being provided at at least their ends with a channel-like or tubular longitudinal opening, the frame members being connected together at the corners of the case by respective connecting members each formed from a pair of similarly shaped and substantially parallel plates having registering protruding portions received in the registering openings of the frame members, said plates being urged apart into tight engagement with the respective frame members by one or more screws threadedly engaging one of the plates and abutting the other.

The provision of such connecting members enables strong corner joints to be readily formed. All that is required is that the protruding portions of the connecting member be inserted in the respective openings in the frame members, and the or each screw be turned to urge the plates apart. Dismantling of the joint is correspondingly easy.

The frame members are preferably of channel section throughout their length, and different sections may be used for the base members, top members and side members. The various channel sections will preferably be so shaped as to provide a receiving recess for a sheet of glass or similar transparent sheet material.

The plates of the connecting member will preferably be formed of sheet steel although it will be apparent that other materials could be used. At least one threaded screw hole will generally be provided in each protruding portion of said one plate of each pair. Further such connecting members may be provided joining horizontal frame members intermediate the corners of the case where it is desired, for example, to provide a middle shelf in the show case. In this arrangement the intermediate frame members will preferably be formed with an inwardly extending longitudinal flange for supporting the middle shelf. Equally it can be provided that the horizontal frame members at the top and/or bottom

of the case are formed with inwardly extending longitudinal flanges adapted to support a cover and/or shelf respectively for the case.

In order that the invention may be readily understood, an embodiment thereof will now be described by way of example with reference to the accompanying drawings, in which:-

Figure 1 is an exploded perspective view of the frame of a show case according to the invention,

Figure 2 is an enlarged view of the top far corner of the frame in *Figure 1*,

Figure 3 is an enlarged view of the bottom near corner of the frame in *Figure 1*,

Figure 4 is a view of a section of a top frame member,

Figure 5 is a view of a section of a bottom frame member,

Figure 6 is a view of a section of a side frame member,

Figure 7 is a view of a section of a glass retaining cover plate for the side frame member of *Figure 6*,

Figure 8 is a view of a section of an intermediate frame member,

Figure 9 is a front and plan view of one plate of a connecting member,

Figure 10 is a front and plan view of the other plate of the connecting member,

Figure 11 is a plan view of a corner joint,

Figure 12 is a plan view as *Figure 11* prior to the connection of the side frame member,

Figure 13 is a side view of the joint of *Figure 11*,

Figure 14 is a side view of the joint of *Figure 12*, and

Figure 15 is a perspective view of the joint of *Figure 11*.

The show case is formed of a frame comprising a plurality of frame members connected together at corner joints by connecting members 1. The frame members which are of extruded aluminium section, but may be of other materials, are of four different sections corresponding to their different roles in the frame.

Thus the bottom frame members 2 are formed with a foot flange 3 upon which the frame rests and defining a channel 4 which serves to receive one limb of a strengthening bracket 5. A central longitudinal flange 6 is provided for supporting a shelf (not shown) on which articles may be placed, and an upper T-shaped flange 7 defines a recess 8 for receiving a pane of glass (not shown). It will be noted that the upper edge of flange 7 is bevelled at 45° to facilitate the insertion of the pane of glass. Flanges 6 and 7 themselves define a longitudinal channel for receiving connecting member 1 as hereinafter described.

The top frame members 9 are likewise provided with a longitudinal flange 10 for supporting the top of the show case. Furthermore a lower T-shaped flange 11 serves to define a channel 12 which receives connecting member 1 as hereinafter described.

The intermediate frame members 13 do not support a shelf but are formed with two T-shaped flanges 14, 15 defining glass receiving recesses 16, 17 and connecting member receiving channel 18.

The corner frame members 19 are in the form of an angle section provided with two inwardly directed L-shape flanges 20 defining inwardly a connecting member receiving recess 21. The glass receiving recess is provided by the combination of flanges 20 with a cover member 21 which is screwed to the corner frame member 19 via an aperture 22 into one of the screw holes 26 to be described. This provides recesses on both sides of the frame member for receiving glass panels 23.

Turning to Figures 9 and 10 there is shown the two plates 24, 25 of a corner connecting member 1. These are of bent T-shaped construction having protruding portions as shown. The intermediate joint connecting members are similar, but have one extra protruding portion, i.e. they are X-shaped. The plates 24, 25 are of corresponding shape and are placed together with plate 25 inside plate 24 for insertion in the respective channels of the frame member. Screws 27 are then engaged in the threaded holes 26 provided in plate 25 and it will be seen that turning of the screws will cause their tips to abut unapertured plate 24 whereupon further turning will cause the plates to be urged apart, and tightly engage in the respective channels.

Assembly of the show case is as follows. The four bottom frame members 2 are assembled together using connecting members 1 and strengthening brackets 5 and four corner members 19 are introduced over the connecting members 1 and secured thereto by tightening the screws.

Panels of glass 23 are introduced into the recesses formed and secured therein by cover members 21, and intermediate members 13 held together by connecting members 1 are added by passing the lower protruding portions of the members 1 into the upper ends of members 19.

Further corner members 19 are now added on top, further panels of glass 23 introduced in the recesses formed and the top frame members 9 connected together by connecting members 1 are added. All screws are then given a final tightening and the bottom shelf and top cover may be added. The show case is now ready for use. Disassembly if required is achieved by performing the above steps in reverse order.

CLAIMS

1. A show case comprising a frame formed of a plurality of elongate frame members and defining a plurality of panel carrying apertures, said frame members being provided at at least their ends with a channel-like or tubular longitudinal opening, the frame members being connected together at the corners of the case by respective connecting members each formed from a pair of similarly shaped and substantially parallel plates having registering protruding portions received in the registering openings of the frame members, said plates being urged apart into tight engagement with the respective frame members by one or more screws threadedly engaging one of the plates and abutting the other.

2. A show case according to claim 1 in which the frame members are of channel section throughout

their length.

3. A show case according to claim 1 or 2 in which at least one threaded screw hole is provided in each protruding portion of said one plate of each pair.

4. A show case according to any of the preceding claims including a plurality of further said connecting members joining horizontal frame members intermediate the corners of the case.

5. A show case according to any of the preceding claims in which horizontal frame members at the top and/or bottom of the case are formed with inwardly extending longitudinal flanges adapted to support a cover and/or shelf respectively for the case.

6. A show case according to any of the preceding claims in which sheets of glass or similar transparent material are disposed in said panel carrying apertures.

7. A show case according to any of the preceding claims in which said plates are formed of sheet steel.

8. A show case substantially as hereinbefore described with reference to the accompanying drawings.

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